Proposed Commercial Development
1761 Wonderland Road North,
City of London

Traffic Impact Assessment Addendum
May 2012

12–6167

Submitted by

Dillon Consulting Limited

May 18, 2012

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Attention: Mr. Iyman Meddoui
Vice-President

Proposed Commercial Development
1761 Wonderland Road North, City of London
Traffic Impact Assessment Addendum

Dear Mr. Meddoui:

Please find enclosed our final addendum report assessing the traffic impact of the above-noted proposed commercial development, located near the northwest corner of Wonderland Road and Fanshawe Park Road in the City of London.

This report is an addendum to a prior traffic impact assessment prepared by Dillon for the subject development in October 2010. The addendum addresses comments provided by City of London staff on the original submission, and also incorporates changes that have subsequently been made to the site plan.

If you have any questions or wish to discuss our findings, please do not hesitate to contact me at (416) 229-4647, extension 2373, or at *bhooton@dillon.ca.*

Yours sincerely,

DILLON CONSULTING LIMITED

Brent Hooton, Dipl.T.
Project Manager

BJH/bjh
Encl.
Our File: 12-6167

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1.0 Introduction

1.1 Background

This letter has been prepared as an addendum to a transportation impact assessment (TIA) prepared by Dillon in October 2010, in support of a proposed commercial development at 1761 Wonderland Road North in the City of London.

The site is located on the west side of Wonderland Road, north of Fanshawe Park Road. The property is currently undeveloped; the landowner proposes to construct a grocery store with a gross floor area (GFA) of 34,445 sq. ft. (3,200 m²). Access is proposed via two driveways to Wonderland Road. In addition, shared access to Fanshawe Park Road has been negotiated through the adjoining properties to the south and west. Additional details on the revised site plan and access configuration are provided in ***Section 4.2***.

The site location is illustrated in ***Figure 1***; the proposed site plan is presented in ***Appendix A***.

1.2 Scope of Addendum

The addendum has been prepared to address comments on the previous TIA from City of London staff, and to assess the impact of changes that have been made to the site plan in response to City comments. The following key changes have been made:

- The site has been reoriented, with the store on the east side of the property, and with the parking field on the west side of the property.
- The gross floor area (GFA) for the store has been reduced from 38,000 sq. ft. to 34,445 sq. ft. (3,200 m²).
- The southerly site access to Wonderland Road has been relocated to the south property line as a right-in, right-out access shared with the adjoining site, so that left turns will be restricted by the existing median island rather than by a channelizing ("pork chop") island.
- The northerly site access to Wonderland Road has been reconfigured as a one-way outbound (eastbound) driveway. As a result, all traffic approaching from the south will access the site via Fanshawe Park Road.
- Queues on Wonderland Road have been assessed in more detail (notwithstanding that queue interaction is less critical to site development now that northbound left turn access to the site from Wonderland Road will be prohibited).

- Analyses have been updated to account for recent road modifications in the study area (both for existing conditions and for baseline future conditions).
- Mitigation thresholds have been updated to correspond to the City's revised TIA Guidelines.

The study area consists of the same intersections and accesses assessed in the 2010 TIA (with adjustments as necessary to reflect the revised driveway configurations):

- Fanshawe Park Road at Wonderland Road
- Wonderland Road at Aldersbrook Road
- Wonderland Road at North Driveway (site access)
- Wonderland Road at Shoppers Drug Mart / No Frills access
- Wonderland Road at South Driveway (shared site access)
- Fanshawe Park Road at West Driveway (site access)
- Fanshawe Park Road at East Driveway (adjacent site access)

As in the 2010 TIA, the weekday AM and PM peak hours, and the Saturday mid-day peak hour, have been assessed. Two analysis horizons have been assessed (reflecting build-out and five years following build-out), although they have been shifted by two years into the future (now 2014 and 2019).

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Proposed Commercial Development
1761 Wonderland Road North
Transportation Impact Assessment Addendum, May 2012
Figure 1:
Site Location

2.0 Changes to Existing Conditions

This section documents changes that have occurred to existing conditions since the 2010 TIA was completed.

2.1 Existing Road Network

Wonderland Road has been widened south of Fanshawe Park Road. It now has a basic four-lane cross-section, plus a dedicated northbound right turn lane at Fanshawe Park Road, as well as a third southbound lane extending from Fanshawe Park Road to Aldersbrook Road (where it becomes a southbound right turn lane).

North of the site, the City is planning to reconstruct Wonderland Road in 2012. The proposed design will urbanize the cross-section (construction of curb/gutter and sidewalks), provide a third lane for left turns, and extend the existing bicycle lanes northerly beyond their current terminus near the subject site.

There have also been some modifications to the driveways on the properties immediately south of the subject site.

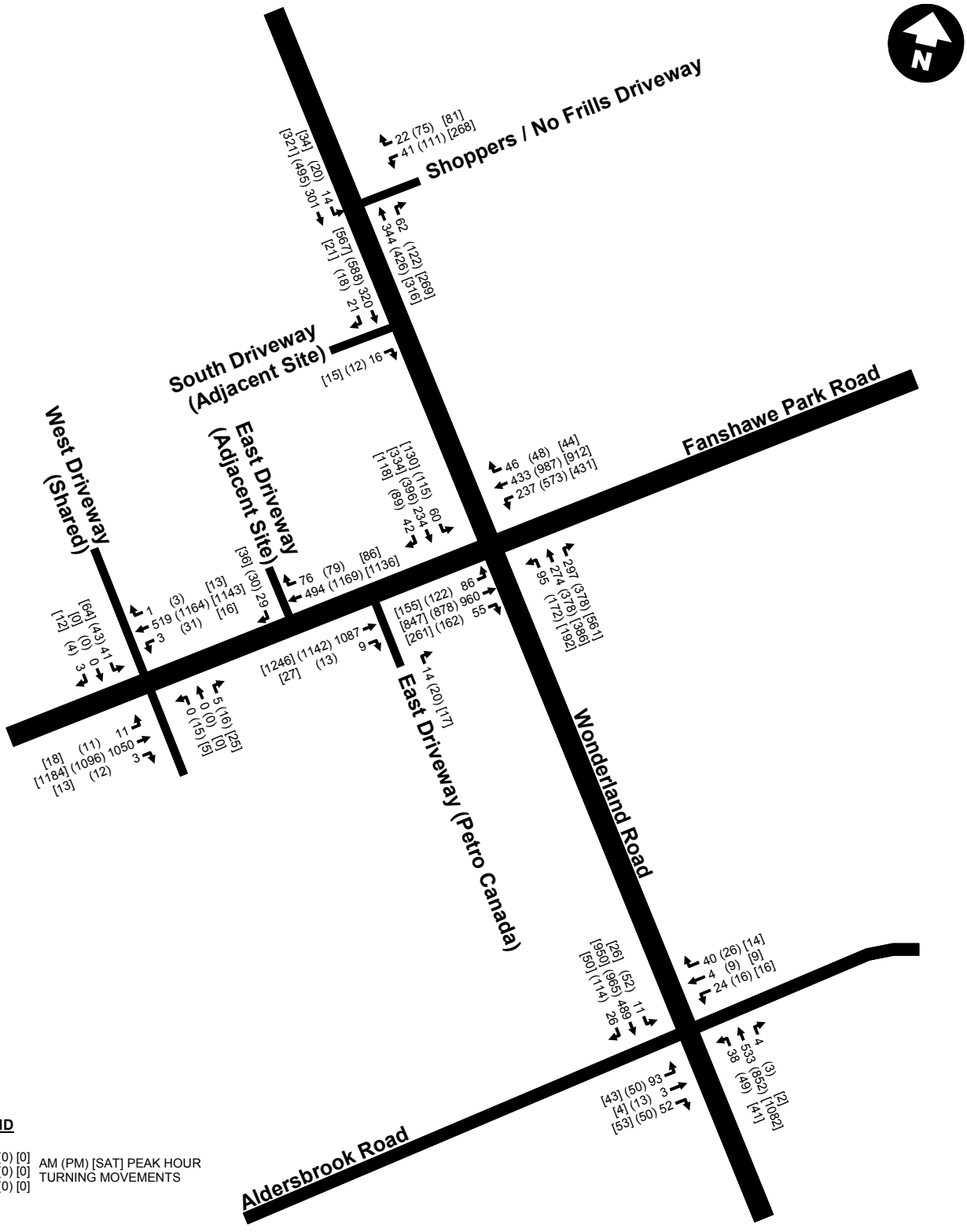
- On Fanshawe Park Road, the first three driveways west of Wonderland Road (655 through 675 Fanshawe Park Road West) have been consolidated into a single shared right-in, right-out driveway, and a further interconnection has been provided to the Mastermind Toys driveway to the west (685 Fanshawe Park Road West).
- On Wonderland Road, the single driveway for 655 Fanshawe Park Road West has been relocated to the north property limits.

2.2 Existing Traffic Volumes

The traffic volumes used as a basis for the 2010 analyses were surveyed in 2009 and 2010, prior to (or during) the widening of Wonderland Road south of Fanshawe Park Road. For the current analyses, updated turning movement counts were obtained at the intersection of Wonderland Road and Fanshawe Park Road, to determine whether traffic volumes on the main arterial roads have changed substantially since that time. Weekday peak hour volumes were provided by the City of London (date of survey Monday, March 21, 2011). Saturday peak hour volumes were surveyed for Dillon on March 31, 2012 (between 11:00 AM and 2:00 PM).

Traffic volumes at the other lower-volume intersections and driveways were carried forward from the previous analyses, with adjustments to account for development on the adjacent site (using the trip generation forecasts from the 2010 analyses). Through volumes on Fanshawe Park Road and Highbury Avenue were balanced based on the 2011 and 2012 data.

The updated existing traffic volumes are illustrated in ***Figure 2***.



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Proposed Commercial Development
1761 Wonderland Road North
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Figure 2:
Existing Peak Hour Traffic Volumes

3.0 Background Traffic Volumes

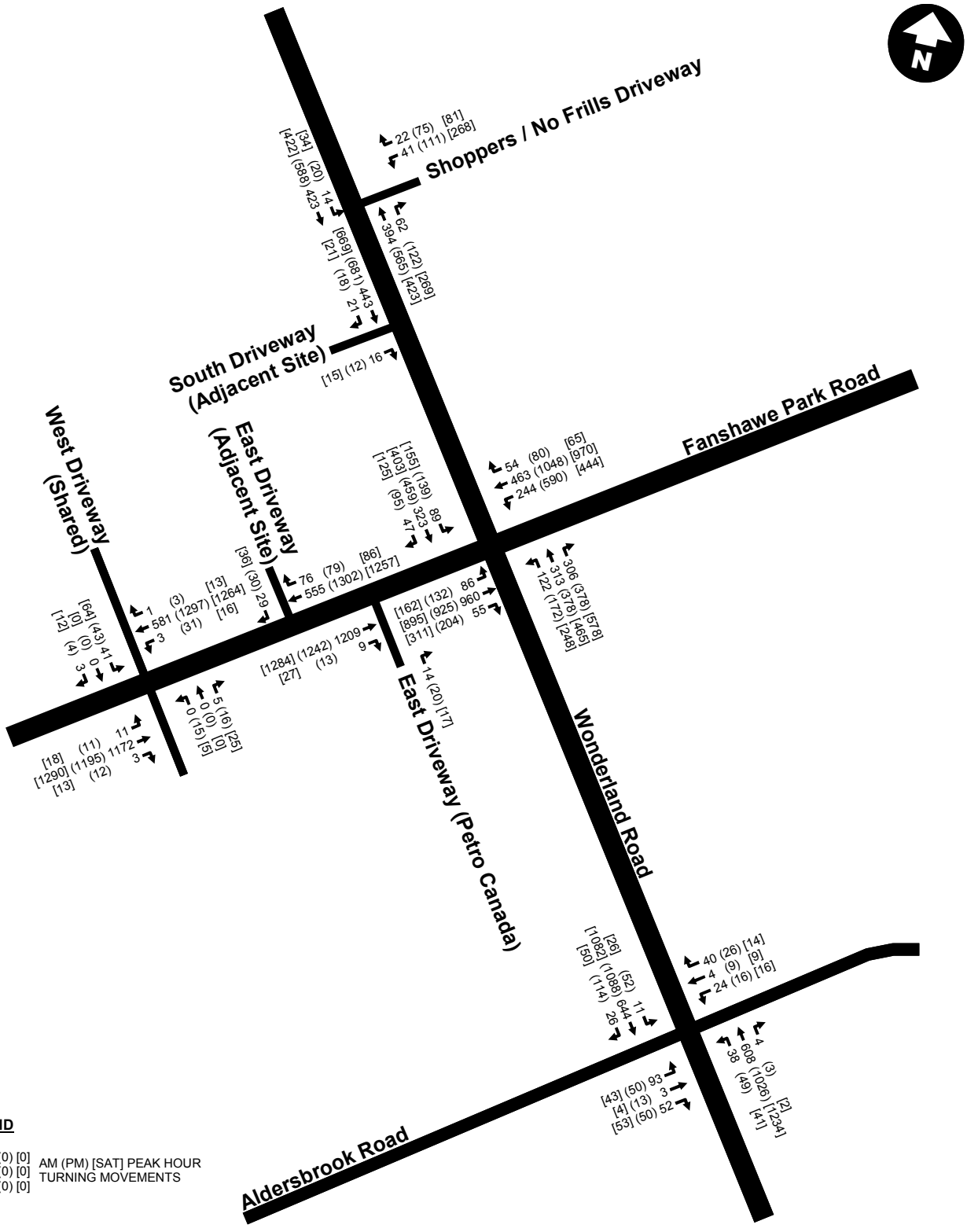
Background traffic growth is comprised of two components: traffic generated by planned future development in the study area, plus the application of a general growth rate to account for development outside the study area.

The prior analyses accounted for the following developments:

- ***Vacant buildings south of site*** (4,700 sq. ft. office plus 14,800 sq. ft. restaurant): These sites are now operational and have been accounted for in the existing traffic volumes.
- ***Fox Hollow, Vista Wood Estates, Sunningdale West subdivisions*** (1,788 residential units and 22,000 sq. ft. retail): The prior analyses assumed 34% built out by 2012, and 94% built out by 2017 (i.e., approximately 12% of the development built out per year). Based on a review of air photo data, approximately 18% of the units in these developments were built out by 2011. For the updated 2014 horizon analyses, an additional 34% (on top of currently built-out units) was assumed to be built out; this growth is equivalent to the interim development traffic applied in the 2010 TIA, and roughly equivalent to three years at the 12% annual build-out rate. For the 2019 horizon, it was assumed that these developments would be fully built out.

The prior analyses applied a general growth rate of 1% per year. This assumption was carried forward for the updated analyses. A review of historical traffic volumes at Wonderland Road and Fanshawe Park Road (2007, 2009, and 2011 City counts; 2010 and 2012 Dillon counts) indicated that traffic volumes entering and exiting the intersection are predominantly stable or declining slightly, and therefore a 1% annual growth rate (in addition to background development traffic) can be considered to be conservative.

The projected future background traffic volumes are illustrated in ***Figure 3*** (2014 horizon) and ***Figure 4*** (2019 horizon).



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Proposed Commercial Development
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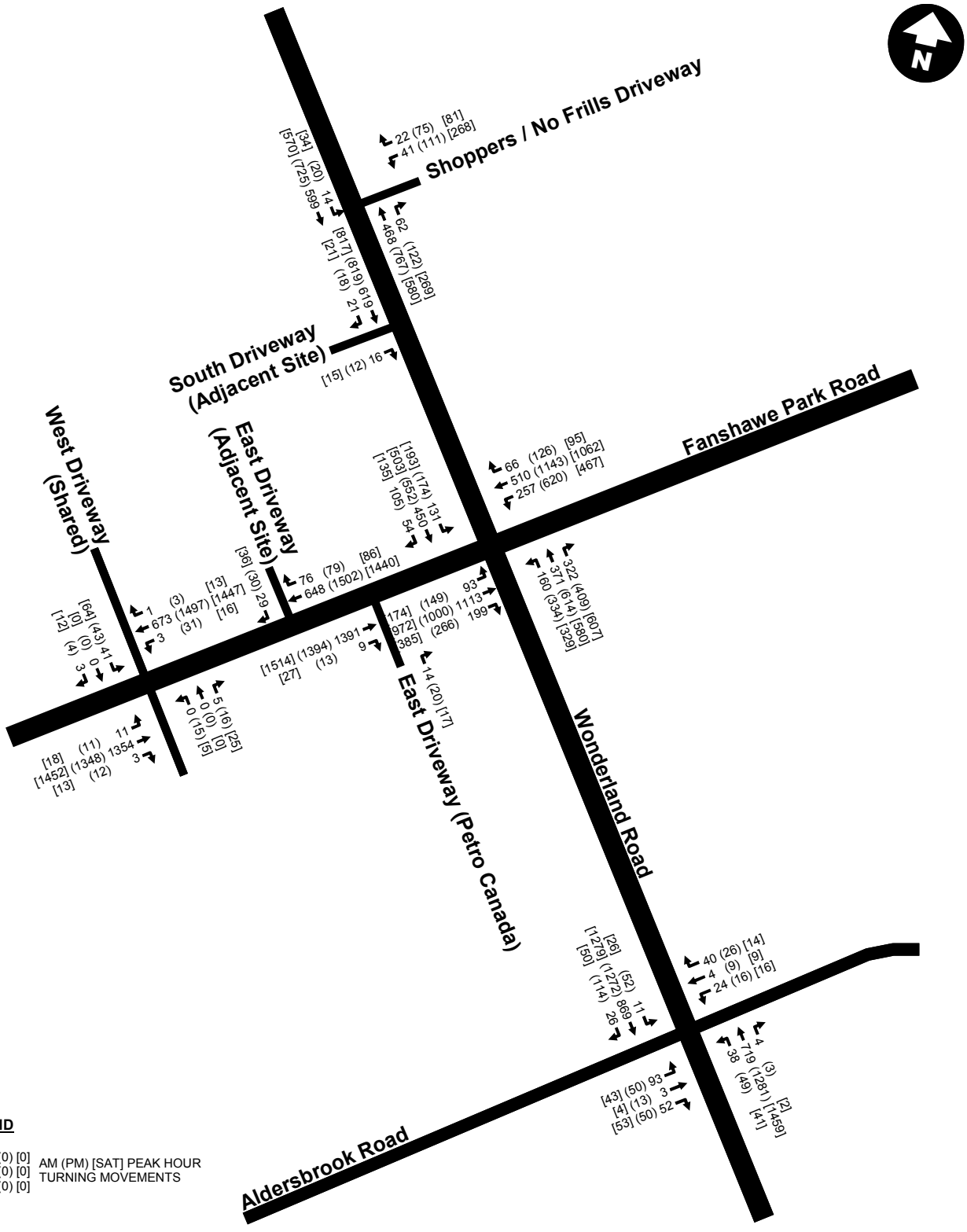
Figure 3:
Future Background (2014) Traffic Volumes



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Proposed Commercial Development
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Figure 4:
Future Background (2019) Traffic Volumes

4.0 Site Traffic

4.1 Trip Generation

The trip generation calculation for the site was updated to reflect the currently proposed gross floor area (GFA) for the development (34,445 sq. ft., compared to 38,000 sq. ft. in the original TIA analyses). The same trip generation rates, pass-by rates, and modal split assumptions contained in the 2010 TIA were maintained for the updated analyses:

- Trip generation rates for supermarkets as published by the Institute of Transportation Engineers (ITE) in *Trip Generation.*
- A pass-by rate of 36%, based on data contained in the ITE *Trip Generation Handbook*.
- No trip reduction for non-auto uses, recognizing the low level of transit service in the study area.

Table 1 summarizes the updated trip generation forecast for the site.

Table 1 — Trip Generation

Land Use	Peak Hour	Type of Trip	Saturday Mid-day Peak Hour			
			Rate	***In***	***Out***	***Total***
Supermarket 34.4 × 1,000 sq. ft. GFA ITE Land Use Code 850	AM	Total Trips	3.59	75	48	124
		Pass-by Trips	*36%*	*22*	*22*	*44*
		Primary Trips	*64%*	*53*	*26*	*79*
	PM	Total Trips	10.50	184	177	362
		Pass-by Trips	*36%*	*65*	*65*	*130*
		Primary Trips	*64%*	*119*	*112*	*231*
	Saturday	Total Trips	10.85	191	183	374
		Pass-by Trips	*36%*	*67*	*67*	*134*
		Primary Trips	*64%*	*123*	*116*	*239*

There is also a No Frills supermarket located in the shopping centre across the street, on the northeast corner of Wonderland Road and Fanshawe Park Road. From a Supermarket Demand and Impact Evaluation prepared for the subject site by Robin Dee & Associates in April 2012, we understand that the No Frills currently experiences substantially higher sales than other similar stores in the broader study area, and also likely generates more traffic than other similar stores. This study also estimated that, even after accounting for population growth in the area, the addition of a competing facility in the study area would result in the No Frills store experiencing a decrease in sales of up to 23.5%. We would logically assume that this would be accompanied by a reduction in the volume of traffic currently generated by the No Frills site. In

other words, it can be reasonably expected that the net volume of trips generated by the proposed development will be lower than Table 1, because some of these trips will be vehicles that are currently traveling through the study area to shop at the existing No Frills store.

Notwithstanding this likely effect, we have not adjusted the existing traffic volumes on the No Frills driveway, or on the arterial network, to account for the proposed development attracting customers already traveling in the study area. As a result, the background traffic projections can be considered to be highly conservative.

4.2 Site Configuration

The site plan has been revised such that the building is adjacent to Wonderland Road, with the main parking field and the building entrance on the west side of the site.

Access to Wonderland Road will be via two restricted-movement driveways.

- The driveway adjacent to the north property line will serve outbound (eastbound) traffic only, and will accommodate left and right turns exiting the site. It has been designed to discourage inbound traffic through the following measures:
    - Only a single lane is provided (4.25 metres wide), over a length of approximately 50 metres (i.e., the driveway has been designed to be self-enforcing, rather than relying on signage).
    - A minimum corner radius has been provided on the north side of the driveway, to further discourage southbound right turns inadvertently entering the site. (A corner radius is not required to accommodate outbound left turns.)
    - A median island is proposed along Wonderland Road south of this driveway, and is recommended to be located as far north as possible, as an additional measure to discourage northbound left turns entering the site. (A median island cannot be provided north of the driveway without impacting an existing truck access on the opposite side of Wonderland Road.)
- An additional driveway will be located at the south limits of the site. It is proposed that the adjacent property's existing right-in, right-out driveway be relocated approximately 11 metres to the north, such that it is centred along the boundary between the two sites. This driveway will continue to serve right turns only; left turns will continue to be restricted by an existing median island on Wonderland Road.

Access to Fanshawe Park Road will be via the existing driveway to 685 Fanshawe Park Road West (Mastermind Toys), 155 metres west of Wonderland Road. It is our understanding that an agreement has been reached for shared access across this adjacent property, and that an application for consent for an easement / right-of-way over the existing driveway at 685 Fanshawe Park Road West has been approved by the London Consent Authority. The Fanshawe Park Road driveway will serve site traffic from the south, west and east, which will be unable to enter from Wonderland Road due to the proposed northbound left turn prohibition. The Fanshawe Park Road driveway will also provide truck access to and from the site.

4.3 Trip Distribution and Assignment

The proposed trip distribution for the site is the same as in the 2010 assessment, except that the distribution to and from the north has been increased from 5% to 10% as per City of London comments. This is offset by a decrease of 2.5 percentage points for south- and east-oriented trips. As such, the distribution applied to the site trips is as follows:

- 10% – to/from the north
- 32.5% – to/from the south
- 42.5% – to/from the west
- 15% – to/from the east

Pass-by trips have been distributed in proportion with future background turning movements at the Fanshawe Park Road and Wonderland Road intersection.

The trip assignment was revised to reflect the revised site layout and access configuration. The primary change from previous analyses is that northbound left turns into the site from Wonderland Road are now proposed to be prohibited; this movement will instead be accommodated at the west Fanshawe Park Road driveway. ***Figure 5*** illustrates the revised site traffic assignment.

Total future traffic volumes were calculated by adding the assigned site traffic to the projected background traffic. ***Figure 6*** and ***Figure 7*** illustrate the projected total future traffic volumes at the 2014 and 2019 horizons, respectively.

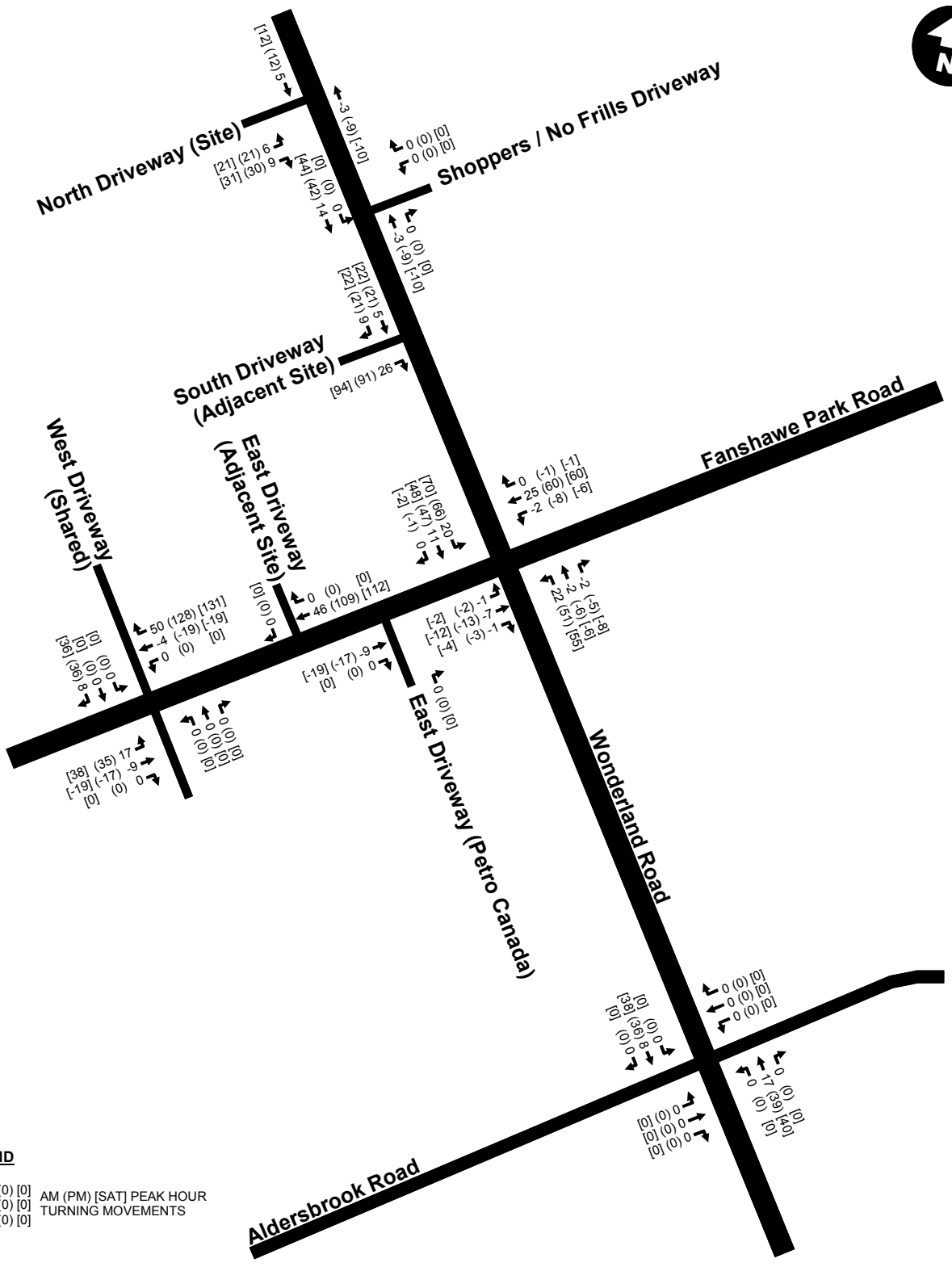

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Figure 5:
Site Traffic Volumes

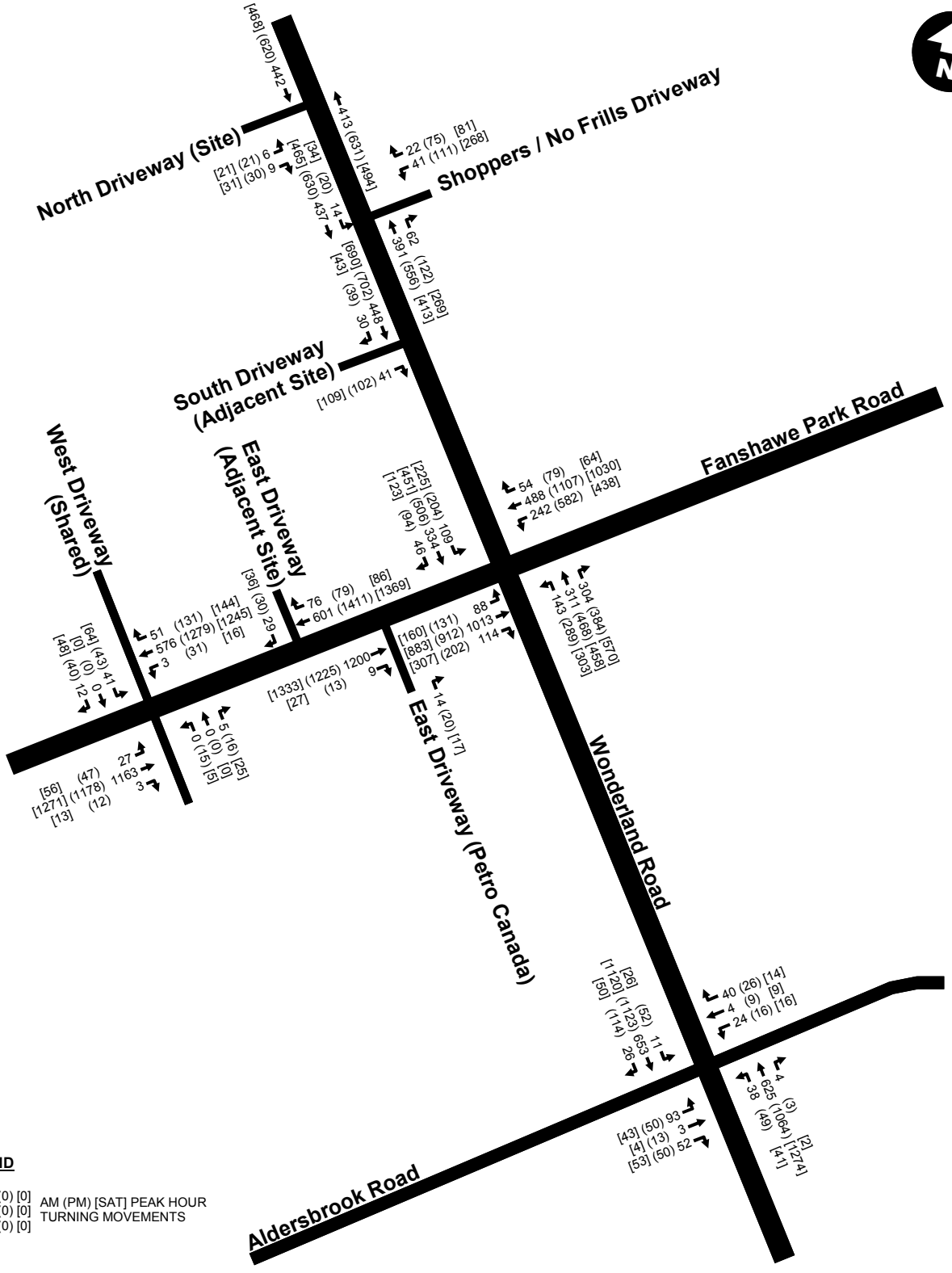

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Figure 6:
Total Future (2014) Traffic Volumes

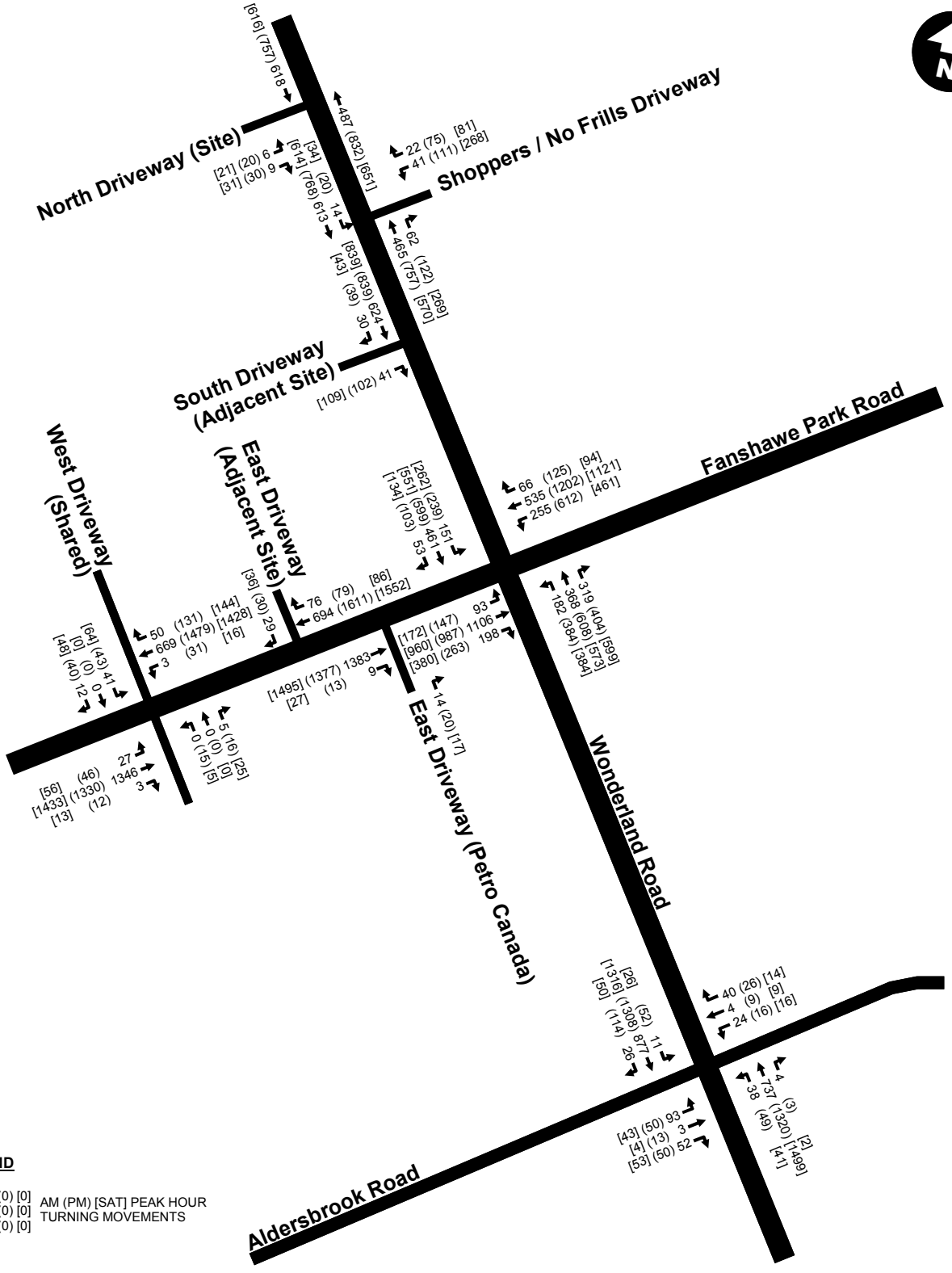

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Figure 7:
Total Future (2019) Traffic Volumes

5.0 Intersection Analyses

Traffic operations at the study area intersections were analyzed based on the methodology outlined in the *Highway Capacity Manual* (HCM), 2000 edition, using the Synchro (version 6) software package. For the signalized intersection analyses, the overall intersection level of service (LOS),[1] average vehicular delay, and volume-to-capacity (v/c) ratio were noted. In addition, the LOS, delay, and v/c ratio for any critical movements[2] were identified. For the unsignalized intersections, the LOS, delay, and v/c ratio were identified for the stop-controlled movement(s). Analysis worksheets are provided in ***Appendix C***.

Unless noted, signalized intersection operations are based on current signal timings obtained from the City of London.

5.1 Wonderland Road at Fanshawe Park Road

5.1.1 Current Configuration

The existing and projected intersection operations at Wonderland Road and Fanshawe Park Road are summarized in ***Table 2***. These conditions are based on the existing roadway geometry and current traffic signal phasing and timing plans.

[1] Level of Service (LOS), applied to an intersection, is a measure qualifying the amount of delay experienced by motorists, expressed either for specific turning movements or for the intersection as a whole. A more detailed explanation of LOS is provided in ***Appendix B***.

[2] Critical movements are defined by the City of London as

- any through or turning movement with a v/c greater than 0.90, or operating at LOS E or worse; and
- any movement where the 95th percentile queue exceeds the available storage length.

Table 2 — Intersection Operations, Wonderland Road at Fanshawe Park Road

Peak Hour	Scenario	Overall Intersection			Critical Movements				
		LOS	Delay *(s/veh)*	v/c	Movement	LOS	Delay *(s/veh)*	v/c	Queue > Storage
AM	Existing	C	22.4	0.55	N/A	—	—	—	—
	2014 Future Background	C	24.1	0.65	N/A	—	—	—	—
	2014 Total Future	C	24.6	0.68	N/A	—	—	—	—
	2019 Future Background	C	28.0	0.80	NB Left	E	76.8	0.92	—
	2019 Total Future	C	29.9	0.88	NB Left	F	96.7	1.01	—
PM	Existing	C	34.3	0.85	WB Left NB Left	E F	66.2 87.6	0.91 0.94	— —
	2014 Future Background	D	46.4	1.07	WB Left NB Left SB Left	E F E	68.6 >200 55.8	0.93 1.48 0.72	NBL = 135
	2014 Total Future	E	64.5	1.26	WB Left NB Left SB Left	E F F	67.6 >200 112	0.92 2.01 1.03	NBL = 172 SBL = 103
	2019 Future Background	F	90.1	1.62	EB Left WB Left NB Left SB Left	F E F F	89.3 76.1 >200 195	0.98 0.97 2.71 1.26	NBL = 199 SBL = 100
	2019 Total Future	F	131	1.96	EB Left WB Left NB Left SB Left	F E F F	114 73.4 >200 >200	1.05 0.96 3.56 1.70	NBL = 232 SBL = 140
Sat.	Existing	C	26.6	0.74	NB Left	E	61.4	0.86	—
	2014 Future Background	D	36.4	1.01	EB Left NB Left	E F	69.9 175	0.97 1.25	—
	2014 Total Future	D	49.6	1.08	NB Left SB Left	F F	>200 89.2	1.70 0.98	NBL = 136 SBL = 92
	2019 Future Background	E	64.4	1.31	NB Left SB Left	F F	>200 129	2.15 1.10	NBL = 125 SBL = 92
	2019 Total Future	F	96.7	1.58	EB Left NB Left SB Left	E F F	72.3 >200 >200	0.93 2.83 1.47	NBL = 166 SBL = 121

This intersection is currently operating at an acceptable overall level of service (LOS C); the northbound left turn is approaching capacity during the PM and Saturday peak hours, and the westbound left turn is approaching capacity during the PM peak hour.

Additional background development northwest of the study area will place substantial traffic demands on this intersection. In particular, residential development is projected to add up to 180 trips to the northbound left turn movement during the PM peak hour; other key movements include the eastbound right turn and the northbound / southbound through movements.

At the 2014 horizon, only part of this background development is assumed to be built out and occupied, and the main impact to the intersection will be on the northbound left turn movement, which will exceed capacity; the westbound and eastbound left turns will also be near capacity during the PM and/or Saturday peak hour.

By the 2019 horizon, the majority of background development is expected to be occupied, resulting in all left turn movements operating at or above capacity during the Saturday peak hour, with a substantial capacity deficiency on the northbound left turn.

Addition of site trips will further impact intersection operations at both the 2014 and 2019 horizons. However, the primary factor influencing future traffic conditions will be background traffic growth.

5.1.2 Mitigated Conditions

Recognizing the clear need to mitigate background conditions, sensitivity analyses were undertaken to assess conditions with modifications in place. New advance left turn phases were modeled for the northbound and southbound left turn movements. (Only the westbound and eastbound approaches currently have left turn phases.) This phasing change was accompanied by phase length adjustments, as well as a 10-second increase to the cycle length during the Saturday peak period. The analysis results are summarized in ***Table 3***.

Table 3 — Intersection Operations, Wonderland Road at Fanshawe Park Road (With Northbound / Southbound Advance Left Turn Phases)

Peak Hour	Scenario	Overall Intersection			Critical Movements				
		LOS	Delay *(s/veh)*	v/c	Movement	LOS	Delay *(s/veh)*	v/c	Queue > Storage
AM	2014 Future Background	C	22.4	0.55	N/A	—	—	—	—
	2014 Total Future	C	26.3	0.69	N/A	—	—	—	—
	2019 Future Background	C	29.1	0.81	N/A	—	—	—	—
	2019 Total Future	C	29.8	0.82	N/A	—	—	—	—
PM	2014 Future Background	D	49.2	0.88	WB Left	F	139	1.17	—
	2014 Total Future	D	54.7	1.01	EB Left WB Left	E F	79.4 159	0.92 1.22	—
	2019 Future Background	E	64.3	1.07	EB Left EB Thru WB Left WB Thru NB Left	F E F D F	93.2 65.6 161 48.7 127	0.98 0.99 1.23 0.95 1.13	NBL = 140
	2019 Total Future	E	76.2	1.18	EB Left EB Thru WB Left WB Thru NB Left	F E F E F	118 75.0 182 67.4 160	1.06 1.02 1.28 1.03 1.22	NBL = 169
Sat.	2014 Future Background	D	38.1	0.82	EB Left WB Left	E F	57.9 85.8	0.85 0.99	NBR = 121
	2014 Total Future	D	42.2	0.95	EB Left WB Left	E F	71.5 106	0.91 1.06	NBR = 129
	2019 Future Background	D	47.6	0.98	EB Left EB Thru WB Left WB Thru NB Left	E E F D F	72.6 55.6 98.2 47.8 86.2	0.92 0.95 1.04 0.94 1.02	NBL = 109
	2019 Total Future	E	57.1	1.13	EB Left EB Thru WB Left WB Thru NB Left	F E F E F	92.6 55.0 122 59.0 142	0.99 0.94 1.11 0.99 1.19	NBL = 142

The addition of the northbound and southbound left turn phases will provide a substantial amount of additional capacity for the northbound left turn movement. The northbound left turn lane is still projected to operate over capacity by 2019, but the magnitude of the expected capacity deficiency is greatly reduced (in the order of 20% above capacity, rather than 200% to 300%). The left turn phase requires that some green time be reallocated from other movements, and as a result the eastbound and westbound through movements are expected to reach capacity by 2019; the westbound left turn movement is also expected to reach or exceed capacity by this

time. Notwithstanding, the average delay for the intersection as a whole is expected to decrease as a result of the phasing and timing plan changes.

Additional capacity could be provided for the northbound left turn movement by providing a second left turn lane (e.g., by moving the median island one lane to the west). This would also provide additional capacity for the westbound left turn movement through reallocating green time. This measure was originally under consideration by the City and was recommended in Dillon's 2010 analyses. However, since that time the intersection has been reconstructed with a single northbound left turn lane, and there is not sufficient room within the right-of-way to construct an additional lane. In practice, the projected deficiency may be mitigated in part through diversion of traffic to alternate routes (e.g., some motorists may choose to continue farther north and turn at Sunningdale Road).

5.1.3 Queue Analysis

The tables in the preceding sections specify movements where the anticipated queue exceeds the available storage. Queues were reviewed in more detail for the southbound and eastbound approaches, to determine the potential for queues to block site driveways.

The calculated 95th percentile queues are listed in ***Table 4***. These represent the maximum extent of the queue that develops on the traffic signal cycle with 95th-percentile traffic volumes (i.e., the busiest or second-busiest cycle during the peak hour). Where the movement exceeds capacity, the extent of queue is calculated after two traffic signal cycles of demand.

Table 4 — Projected Queues, Wonderland Road at Fanshawe Park Road

Analysis Horizon	Southbound 95th Percentile Queues (m)						Eastbound 95th Percentile Queues (m)					
	AM		PM		Saturday		AM		PM		Saturday	
	Left	Thru	Left	Thru	Left	Thru	Left	Thru	Left	Thru	Left	Thru
Available storage:	*55 metres to south (shared) driveway* *85 metres to Shoppers Drug Mart driveway* *135 metres to north driveway (subject site)*						*30 metres to east driveway (gas station)* *130 metres to west driveway (subject site)*					
Existing	20	31	42	64	40	45	13	113	21	125	23	99
2014 Future Background	22	44	35	82	36	65	17	142	56	164	48	123
2014 Total Future	26	46	48	90	47	72	17	141	58	164	61	133
2019 Future Background	29	59	43	100	41	82	19	175	66	185	65	156
2019 Total Future	33	60	61	109	62	89	19	174	69	185	68	152

Note: Queues based on current signal timings for existing volumes, and mitigated signal phasing for 2014 / 2019 volumes.

The 95th percentile queues on both the southbound and eastbound approaches are generally longest during the PM peak period. Currently the southbound through queue on Wonderland Road extends past the south driveway and nearly reaches the Shoppers Drug Mart driveway, and the eastbound through queue on Fanshawe Park Road nearly reaches the west driveway. The left turn queues are shorter and can be accommodated within the first block.

Under future conditions, and with the recommended traffic signal phasing and timing adjustments in place, the southbound through queue is expected to pass the Shoppers Drug Mart driveway during the PM peak hour (by approximately one vehicle in 2014, and approximately three to four vehicles in 2019). Queues are shorter during the AM and Saturday peak hours. The proposed development does not substantially impact the queues on this movement (increasing by approximately one vehicle).

With the recommended mitigation in place, the southbound left turn queue is expected to reach approximately 60 metres under 2019 total future conditions. This queue accounts for the impact of developing the subject site (an increase of approximately two to three vehicles compared to background conditions), and can be accommodated in the available storage.

Eastbound through queues on Fanshawe Park Road are expected to reach the west driveway during the AM and Saturday peak hours in 2014, and exceed the available storage by four to five vehicles during the PM peak hour. With additional background growth to 2019, these queues are projected to increase to 155 to 185 metres, exceeding the available storage by three to seven vehicles. This will result in the site driveway being blocked during part of the busiest cycles during the peak hours. The new site driveway to Wonderland Road and interconnection between

sites will provide some flexibility for motorists to choose an alternate driveway when exiting the site.

The queues on most of these movements are not impacted by the development of the subject site. The only queue to increase substantially is the southbound left turn queue; this queue is projected to increase by approximately two to three vehicles compared to background conditions, but will still be accommodated in the available storage.

5.2 Wonderland Road at North Driveway

The projected intersection operations at Wonderland Road and the north driveway (i.e., serving the subject site) are summarized in ***Table 5***. This driveway will serve outbound left and right turns only; inbound movements will not be permitted. Outbound traffic has been assessed with a single lane, and with a right turn flare (based on our review of the proposed driveway geometry).[3]

Table 5 — Intersection Operations, Wonderland Road at North Driveway

Peak Hour	Scenario	Turning Movement	Eastbound		
			LOS	Delay *(s/veh)*	v/c
AM	2014 Total Future	Left and Right Turn	B	13.7	0.02
	2019 Total Future	Left and Right Turn	C	16.1	0.03
PM	2014 Total Future	Left and Right Turn	C	18.4	0.11
	2019 Total Future	Left and Right Turn	C	24.0	0.16
Sat.	2014 Total Future	Left and Right Turn	B	14.6	0.08
	2019 Total Future	Left and Right Turn	C	17.8	0.11

The site access is projected to operate at a reasonable level of service (LOS C during most analysis periods); the single outbound lane will have sufficient capacity to accommodate projected volumes. Queues are expected not expected to exceed one to two vehicles, which can be accommodated within the proposed driveway throat length.

[3] The Synchro worksheets show two outbound lanes, with a short (10-metre) right turn lane, since this is how Synchro models the effect of a short right turn flare, for stop-controlled approaches that operate as a single lane but with sufficient room for a right-turning vehicle to manoeuvre around a vehicle waiting to turn left.

5.3 Wonderland Road at Shoppers Drug Mart Access

The existing and projected intersection operations at Wonderland Road and the Shoppers Drug Mart driveway are summarized in ***Table 6***.

Table 6 — Intersection Operations, Wonderland Road at Shoppers Drug Mart Access

Peak Hour	Scenario	Approach Direction	Westbound		
			LOS	Delay *(s/veh)*	v/c
AM	Existing	Left Turns	C	15.0	0.11
		Right Turns	B	11.0	0.04
	2014 Future Background	Left Turns	C	17.4	0.14
		Right Turns	B	12.4	0.05
	2014 Total Future	Left Turns	C	16.2	0.12
		Right Turns	B	11.6	0.04
	2019 Future Background	Left Turns	C	18.3	0.14
		Right Turns	B	12.6	0.05
	2019 Total Future	Left Turns	C	18.4	0.14
		Right Turns	B	12.6	0.05
PM	Existing	Left Turns	C	21.6	0.36
		Right Turns	B	12.9	0.15
	2014 Future Background	Left Turns	D	29.5	0.46
		Right Turns	C	16.0	0.20
	2014 Total Future	Left Turns	D	29.4	0.45
		Right Turns	C	15.9	0.20
	2019 Future Background	Left Turns	F	55.7	0.66
		Right Turns	D	25.3	0.32
	2019 Total Future	Left Turns	F	56.6	0.66
		Right Turns	D	25.1	0.31
Sat.	Existing	Left Turns	D	30.5	0.68
		Right Turns	A	9.7	0.10
	2014 Future Background	Left Turns	E	40.5	0.77
		Right Turns	A	9.8	0.10
	2014 Total Future	Left Turns	E	49.6	0.82
		Right Turns	B	12.5	0.15
	2019 Future Background	Left Turns	F	69.9	0.92
		Right Turns	A	9.9	0.10
	2019 Total Future	Left Turns	F	122	1.08
		Right Turns	C	15.9	0.21

The Shoppers Drug Mart driveway currently experiences a substantial volume of outbound (westbound) left turns (268 vehicles during the Saturday peak hour). Notwithstanding the high left turn demand, the driveway currently operates at a reasonable level of service (LOS C to D for left turns) due to comparatively low volumes on Wonderland Road. Increased through

volumes under background conditions are projected to decrease capacity such that the driveway will be operating at LOS F and at capacity during the Saturday peak hour; with the addition of site traffic, the left turn movement is projected to operate slightly above capacity. However, this can be considered to be a conservative assessment, for the following reasons:

- No adjustment has been made to traffic volumes exiting the existing plaza, even though it is anticipated that customer activity (and therefore traffic volumes) at the No Frills store will be reduced due to the increased competition in the study area.
- Motorists may elect to use other driveways to exit the shopping centre (via a right turn) should delays at the Wonderland Road driveway increase to unacceptable levels.

5.4 Wonderland Road at South Driveway

The existing and projected intersection operations at Wonderland Road and the south driveway (i.e., shared with the adjacent site) are summarized in ***Table 7***.

Table 7 — Intersection Operations, Wonderland Road at South Driveway

Peak Hour	Scenario	Turning Movement	Eastbound		
			LOS	Delay *(s/veh)*	v/c
AM	Existing	Right Turns	A	9.1	0.02
	2014 Future Background	Right Turns	A	9.4	0.02
	2014 Total Future	Right Turns	A	9.6	0.05
	2019 Future Background	Right Turns	A	9.8	0.02
	2019 Total Future	Right Turns	B	10.0	0.06
PM	Existing	Right Turns	A	9.7	0.02
	2014 Future Background	Right Turns	A	9.9	0.02
	2014 Total Future	Right Turns	B	10.9	0.15
	2019 Future Background	Right Turns	B	10.3	0.02
	2019 Total Future	Right Turns	B	11.4	0.17
Sat.	Existing	Right Turns	A	9.6	0.02
	2014 Future Background	Right Turns	A	9.9	0.02
	2014 Total Future	Right Turns	B	10.8	0.16
	2019 Future Background	Right Turns	B	10.3	0.02
	2019 Total Future	Right Turns	B	11.3	0.17

The south driveway to Wonderland Road is projected to operate at a good level of service (LOS A or B), and well under capacity.

5.5 Wonderland Road at Aldersbrook Road

The existing and projected intersection operations at Wonderland Road and Aldersbrook Road are summarized in ***Table 8***.

Table 8 — Intersection Operations, Wonderland Road at Aldersbrook Road

Peak Hour	Scenario	Overall Intersection			Critical Movements				
		LOS	Delay *(s/veh)*	v/c	Movement	LOS	Delay *(s/veh)*	v/c	Queue > Storage
AM	Existing	A	7.1	0.29	N/A	—	—	—	—
	2014 Future Background	A	6.6	0.31	N/A	—	—	—	—
	2014 Total Future	A	6.5	0.32	N/A	—	—	—	—
	2019 Future Background	A	6.2	0.40	N/A	—	—	—	—
	2019 Total Future	A	6.0	0.40	N/A	—	—	—	—
PM	Existing	A	4.3	0.38	EB Left	E	58.5	0.46	—
	2014 Future Background	A	4.4	0.42	EB Left	E	58.9	0.47	—
	2014 Total Future	A	4.4	0.43	EB Left	E	58.5	0.46	—
	2019 Future Background	A	4.7	0.48	EB Left	E	58.5	0.46	—
	2019 Total Future	A	4.6	0.50	EB Left	E	58.5	0.46	—
Sat.	Existing	A	6.2	0.40	N/A	—	—	—	—
	2014 Future Background	A	6.1	0.44	N/A	—	—	—	—
	2014 Total Future	A	4.7	0.46	N/A	—	—	—	—
	2019 Future Background	A	6.1	0.52	N/A	—	—	—	—
	2019 Total Future	A	4.2	0.53	N/A	—	—	—	—

The intersection currently operates at a very good level of service with no critical movements identified due to capacity deficiencies. (The eastbound left turn movement is identified as critical during the PM peak hour due to operating at LOS E, which is a result of delays caused by the long cycle length.) Intersection operations are not expected to change substantially under the future background or total future scenarios.

5.6 Fanshawe Park Road at West Driveway

The projected intersection operations at Fanshawe Park Road and the west driveway (i.e., serving the subject site via a driveway interconnection) are summarized in ***Table 9***. The results are based on two outbound (southbound) lanes on the north driveway, recognizing the existing driveway throat width of 10.5 metres.

Table 9 — Intersection Operations, Fanshawe Park Road at West Driveway

Peak Hour	Scenario	Turning Movement	Northbound			Southbound		
			LOS	Delay *(s/veh)*	v/c	LOS	Delay *(s/veh)*	v/c
AM	Existing	Left Turns	—	—	—	C	22.7	0.18
		Right Turns	B	10.9	0.01	A	9.8	0.00
	2014 Future Background	Left Turns	—	—	—	D	25.1	0.20
		Right Turns	B	11.3	0.01	A	9.9	0.01
	2014 Total Future	Left Turns	—	—	—	D	26.4	0.21
		Right Turns	B	11.3	0.01	B	10.0	0.02
	2019 Future Background	Left Turns	—	—	—	D	29.3	0.23
		Right Turns	B	12.0	0.01	B	10.1	0.00
	2019 Total Future	Left Turns	—	—	—	D	31.1	0.25
		Right Turns	B	11.9	0.01	B	10.2	0.02
PM	Existing	Left Turns	E	48.8	0.17	F	81.3	0.52
		Right Turns	B	11.2	0.03	B	11.3	0.01
	2014 Future Background	Left Turns	F	58.5	0.20	F	133	0.70
		Right Turns	B	11.6	0.03	B	11.7	0.01
	2014 Total Future	Left Turns	F	73.2	0.24	F	167	0.77
		Right Turns	B	11.5	0.03	B	11.7	0.08
	2019 Future Background	Left Turns	F	77.6	0.25	F	>200	1.03
		Right Turns	B	12.2	0.03	B	12.4	0.01
	2019 Total Future	Left Turns	F	106	0.32	F	>200	1.25
		Right Turns	B	12.1	0.03	B	12.6	0.08
Sat.	Existing	Left Turns	E	46.2	0.06	F	87.7	0.65
		Right Turns	B	11.5	0.05	B	11.3	0.02
	2014 Future Background	Left Turns	F	57.1	0.07	F	141	0.83
		Right Turns	B	12.0	0.05	B	11.7	0.02
	2014 Total Future	Left Turns	F	65.2	0.08	F	178	0.91
		Right Turns	B	11.8	0.05	B	11.9	0.09
	2019 Future Background	Left Turns	F	69.4	0.09	F	>200	1.12
		Right Turns	B	12.5	0.05	B	12.4	0.03
	2019 Total Future	Left Turns	F	88.3	0.11	F	>200	1.33
		Right Turns	B	12.4	0.05	B	12.6	0.10

The west driveway to Fanshawe Park Road currently operates at a good level of service during the AM peak hour, and at a poor level of service (LOS E to F) during the PM and Saturday peak hours. The southbound approach will operate with sufficient capacity through the 2014 horizon; however, with additional background traffic growth on Fanshawe Park Road, the driveway is calculated to operate above capacity by 2019 during the PM and Saturday peak hours. It is possible that driveway conditions will be better than projected, due to higher than assessed capacity (due to the effect of upstream signals to the east) and lower than assessed demand (since motorists will have alternate driveways available, including the new Wonderland Road driveway

facilitating egress to the north, in the event that delays at the west driveway are perceived to be excessive).

The northbound approach (i.e., exiting the commercial site on the south side of Wonderland Road) is expected to operate well under capacity, albeit at a poor level of service (due to approach delays), through the 2019 horizon.

5.7 Fanshawe Park Road at East Driveway

The existing and projected intersection operations at Fanshawe Park Road and the east driveway[4] are summarized in ***Table 10***.

Table 10 — Intersection Operations, Fanshawe Park Road at East Driveway

Peak Hour	Scenario	Turning Movement	Northbound			Southbound		
			LOS	Delay *(s/veh)*	v/c	LOS	Delay *(s/veh)*	v/c
AM	Existing	Right Turns	B	10.3	0.02	A	10.0	0.04
	2014 Future Background	Right Turns	B	10.6	0.02	B	10.2	0.04
	2014 Total Future	Right Turns	B	10.5	0.02	B	10.2	0.04
	2019 Future Background	Right Turns	B	11.0	0.02	B	10.4	0.04
	2019 Total Future	Right Turns	B	11.0	0.02	B	10.4	0.05
PM	Existing	Right Turns	B	10.5	0.03	B	12.1	0.06
	2014 Future Background	Right Turns	B	10.7	0.04	B	12.7	0.07
	2014 Total Future	Right Turns	B	10.7	0.03	B	12.2	0.06
	2019 Future Background	Right Turns	B	11.1	0.04	B	13.6	0.07
	2019 Total Future	Right Turns	B	11.1	0.04	B	13.2	0.07
Sat.	Existing	Right Turns	B	10.6	0.03	B	11.9	0.07
	2014 Future Background	Right Turns	B	11.0	0.03	B	12.4	0.07
	2014 Total Future	Right Turns	B	10.8	0.03	B	12.1	0.07
	2019 Future Background	Right Turns	B	11.3	0.03	B	13.3	0.08
	2019 Total Future	Right Turns	B	11.2	0.03	B	12.9	0.08

The east Fanshawe Park Road driveway currently operates at a good level of service (generally LOS B), and well under capacity. Intersection operations are not expected to change significantly under future background or total future conditions.

[4] While the driveways on the north and south sides of Fanshawe Park Road are actually offset by approximately 40 metres, they have been assessed as being opposite each other for convenience. Since they are both right-in, right-out only driveways separated by a continuous median island on Fanshawe Park Road, there is no interaction between traffic generated by the two driveways, and the assessed configuration does not affect the analysis findings.

6.0 Summary

This report has been prepared in support of a proposed commercial development near the northwest corner of Wonderland Road and Fanshawe Park Road in the City of London. It serves as an addendum to a previous report prepared by Dillon in August 2010, and assesses the impact of subsequent changes to the site plan, in addition to addressing comments from City of London staff.

While the proposed land use (grocery store) and general magnitude of development is comparable to the 2010 proposal, the site plan has changed substantially:

- The gross floor area (GFA) of the proposed store has been decreased by 9%, to 34,445 sq. ft.
- The orientation of the store has changed, such that the store is located along the east property line, with the parking field and building entrance on the west side.
- Access to Wonderland Road is now proposed to be limited to an outbound-only driveway at the north property line, and a shared right-in, right-out driveway at the south property line, shared with the adjacent property. Inbound traffic is proposed to be prohibited at the north driveway through a combination of driveway design (providing only a single 4.25-metre lane), a median island on Wonderland Road south of the driveway, and minimal corner radius on the north side of the driveway.
- Access to Fanshawe Park Road has been arranged through the adjacent property (Mastermind Toys) at an existing full-movement driveway. This driveway will also serve to provide truck access to the site.

The following summarize the study findings:

Trip Generation

- The site is expected to generate 124 trips during the AM peak hour, 362 trips during the PM peak hour, and 374 trips during the Saturday peak hour.

- After accounting for pass-by trips, the site is projected to add 79 AM peak hour trips, 231 PM peak hour trips, and 239 Saturday peak hour trips to the road network.

- In practice, the net increase in traffic on the surrounding road network is likely to be lower than assessed, since it is expected that the proposed store will draw customers that are already traveling in the area to shop at the existing No Frills store. This expectation is supported by a market analysis undertaken for the subject site. Notwithstanding, for a conservative assessment, it has been assumed that there will be no decrease in traffic at the adjacent shopping centre.

Fanshawe Park Road at Wonderland Road

- The intersection of Fanshawe Park Road and Wonderland Road currently operates at an acceptable level of service; the northbound left turn and westbound left turn movements operate near capacity during the PM and/or Saturday peak hours.

- As background traffic volumes increase due to development to the northwest of the study area, all left turn movements are expected to operate at or above capacity; the northbound left turn in particular is expected to exceed capacity substantially.

- Addition of site trips will further impact intersection operations. However, the primary factor influencing future traffic conditions will be background traffic growth related to residential development northwest of the intersection.

- To mitigate background traffic congestion on the northbound left turn movement (short-term) and southbound left turn (longer-term), it is recommended that the intersection and traffic signals be adjusted to accommodate northbound and southbound left turn phases.

- The proposed left turn phases will result in a net benefit to overall intersection operations. Notwithstanding, the westbound left turn movement will exceed capacity by 2014 under PM peak hour background volumes due to green time reallocation. However, this movement is not expected to be substantially impacted by the proposed development. The remaining movements are expected to operate within the available capacity in 2014, both under background conditions and with development on the subject site.

- By 2019, additional background development northwest of the study area will result in the westbound and northbound left turn movements exceeding capacity during the PM peak hour. Other movements are expected to operate at or near capacity during the PM and Saturday peak hours. Notwithstanding, the introduction of northbound and southbound left turn phases in 2014 will continue to improve overall intersection operations compared to the existing configuration. Since the background traffic

assignment is based on unconstrained operations, it is likely that traffic demand will be mitigated to some extent through diversion of traffic (e.g., northbound left turn demand diverting to Sunningdale Road).

- Queues in the eastbound and southbound through lanes are expected to pass the shared Fanshawe Park Road driveway and the Shoppers Drug Mart driveway during the PM peak hour. The 95th percentile queues are expected to exceed the available storage by approximately four to eight vehicles. This represents the extent of the queue that is projected to have developed by the end of the red phase during the peak hour's busiest one or two traffic signal cycles; the extent of queuing will be lower during other cycles and at other points of the cycle.

Wonderland Road at Aldersbrook Road

The intersection of Wonderland Road and Aldersbrook Road is expected to operate at a good overall level of service (LOS A) during all peak hours, at both the 2014 and 2019 horizons. No significant operational issues are identified at this intersection.

Unsignalized Driveways

- The proposed northerly site driveway to Wonderland Road is expected to operate at a reasonable overall level of service (LOS B to D) during the peak hours. A single outbound lane is expected to provide sufficient capacity for the projected demand. Queues are not expected to exceed one to two vehicles, which can be accommodated within the proposed driveway throat length.

- Two driveways are projected to exceed capacity by 2019:

    - The Shoppers Drug Mart driveway currently experiences a substantial volume of outbound (westbound) left turns (268 vehicles during the Saturday peak hour). Notwithstanding the high left turn demand, the driveway currently operates at a reasonable level of service (LOS C to D for left turns) due to comparatively low volumes on Wonderland Road. Increased through volumes under background conditions are projected to decrease capacity such that the driveway will be operating at LOS F and near capacity during the Saturday peak hour; with added site traffic, the left turn movement is projected to operate slightly above capacity.

- The shared Fanshawe Park Road driveway currently operates at a poor level of service during the PM and Saturday peak hours (LOS E to F), and is expected to exceed capacity by 2019 future background conditions.

However, operations at both of these driveways are likely to be better than projected, because traffic operations have been assessed based on a number of conservative assumptions:

- A conservative background growth rate (1% per year, in addition to background development traffic; traffic volumes have generally been stable over the past five years).
- No reduction has been made to driveway volumes at the existing No Frills store, to account for a reduction in customer activity due to the introduction of an additional competing facility in the study area.
- No change to driveway assignment for existing land uses; at the sites on the northwest and northeast corners of Fanshawe Park Road and Wonderland Road, there are opportunities for motorists to divert to other driveways should delays become too extensive at one location.

- The existing right-in, right-out driveways to Fanshawe Park Road and to Wonderland Road will continue to operate at a very good level of service (LOS B) and well under capacity through the 2019 horizon.

7.0 Recommendations

Based on the study findings, we recommend the following measures:

- Implementation of northbound and southbound left turn phases at the intersection of Wonderland Road and Fanshawe Park Road, by the 2014 horizon, to accommodate background traffic growth.
- Restriction of the northernmost site access to Wonderland, such that only outbound traffic is accommodated. The driveway should be designed such that the one-way travel restriction is self-enforcing to the extent possible. Measures recommended to this effect and shown on the site plan include the following:
    - Providing a single lane on the north driveway along the north side of the store (shown at 4.25 metres);
    - Providing a minimal corner radius on the north side of the driveway (as an additional measure to discourage southbound right turns); and
    - Constructing a median island on Wonderland Road, south of the north driveway (as an additional measure to discourage northbound left turns).

  Regulatory signage should also be provided (one way; do not enter) to advise motorists of the movement restrictions.

Appendix A
Proposed Site Plan

VACANT LAND
BELL CANADA

EXISTING DRIVEWAY

EXISTING BELL BUILDING

PROPERTY LINE 117.00 M

PART 33R-145

EXISTING PARKING

PLAYPARK FOR TOY STORE

EXISTING PARKING

PROPERTY LINE 91.10 M

PARKING = 176

LANDSCAPE OPEN SPACE

ENTRANCE

PROPOSED RETAIL
34,444.5 SQ.FT.
(3,200m²)

PROPERTY LINE 91.42 M

RIGHT - OUT
LEFT-OUT
ONLY

WONDERLAND RD N

151.989

EXISTING MOTEL

MASTERMIND TOYS

EXISTING PARKING

DELUX PAINTS

ALLSTATE INSURANCE

POSTNET

REACTIVE PHYSIOTHERAPHY

NORTH LONDON DENTAL

SUNNINGDALE OPTOMETRY

LIME BLUE SPA

MAIN STREET RESTAURANT

EXISTING PARKING

PROPERTY LINE 117.02 M

SIDE WALK

RELOCATING SHARED ACCESS

RIGHT -IN
RIGHT OUT
ONLY

FULL ACCESS

CONCRETE SIDEWALK (TYP)

EXISTING RAISED CONCRETE TRAFFIC ISLANDS

Fanshawe Park Road West

SITE DATA

LOT AREA _____ 114,934.84 SQ.FT. (10,667.8 SQ.M.) 2.64 ACRES

BUILDING (A) AREA _____ 34,444.5 SQ.FT. (3,200 SQ.M.)

TOTAL BUILDING
COVERAGE ON PROPERTY _____ 29.9%

LANDSCAPE AREA _____ 7.6%

PARKING REQUIRED
1/20 SQ.M _____ 160 - 10% BONUS= 144

BICYCLE PARKING SPACE _____ 2 RACK

H.C PARKING _____ 7 SPACES

PARKING _____ 169 SPACES

TOTAL PARKING PROVIDED _____ 176
12 BICYCLE (10% BONUS)

STANDARD PARKING SPACE: 2.70m X 5.52m (9' x 18.10')
H.C. PARKING SPACE: 4.11m X 5.52m (13.5' x 18.10')

FIRE ROUTE

York DEVELOPMENT GROUP

DRAWN BY : S.M	DATE : May 15, 2012
SCALE : 1/6" = 1'-0"	DRAWING TITLE : 53' Truck Turning
JOB TITLE : Wonderland-Fanshawe Park Rd	DWG NUMBER : OPT 11

Appendix B
Level of Service Definitions

LEVEL OF SERVICE[1]

Level of Service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. This concept was introduced in the 1965 *Highway Capacity Manual* as a criteria for interrupted flow conditions. The 2000 *Highway Capacity Manual* changed the basis for measuring Level of Service at intersections to control delay[2].

Six Levels of Service are defined with LOS A representing the best operating conditions, and LOS F the worst (briefly described below). It should be noted that there is often significant variability in the amount of delay experienced by individual drivers.

LOS A: This Level of Service describes the highest quality of traffic flow and is referred to as free flow. The approach appears open, turning movements are easily made and drivers have freedom of operation. Control delay is less than 10 seconds/vehicle.

LOS B: This Level of Service is referred to as a stable flow. Drivers feel somewhat restricted and occasionally may have to wait to complete the minor movement. Control delay is 10-15 seconds/vehicle for unsignalized intersections and 10-20 seconds/vehicle for signalized intersections.

LOS C: At this level, the operation is stable. Drivers feel more restricted and may have to wait, with queues developing for short periods. Control delay is 15-25 seconds/vehicle at unsignalized intersections and 20-35 seconds/vehicle at signalized intersections.

LOS D: At this level, traffic is approaching unstable flow. The motorist experiences increasing restriction and instability of flow. There are substantial delays to approaching vehicles during short peaks within the peak period, but there are enough gaps to lower demand to permit occasional clearance of developing queues and prevent excessive back-ups. Control delay is 25-35 seconds/vehicle at unsignalized intersections and 35-55 seconds/vehicle at signalized intersections.

LOS E: At this level capacity occurs. Long queues of vehicles exist and delays to vehicles may extend. Control delay is 35-50 seconds/vehicle at unsignalized intersections and 55-80 seconds/vehicle at signalized intersections.

LOS F: At this Level of Service, the intersection has failed. Capacity of the intersection has been exceeded. Control delay exceeds 50 seconds/vehicle at unsignalized intersections and exceeds 80 seconds/vehicle at signalized intersections.

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[1] *Transportation Research Board: Highway Capacity Manual 1965, 2000*

[2] *Control delay is defined as the component of delay that results when a control signal causes a lane group to reduce speed or to stop; it is measured by comparison with the uncontrolled condition.*

Appendix C
Synchro Analysis Worksheets

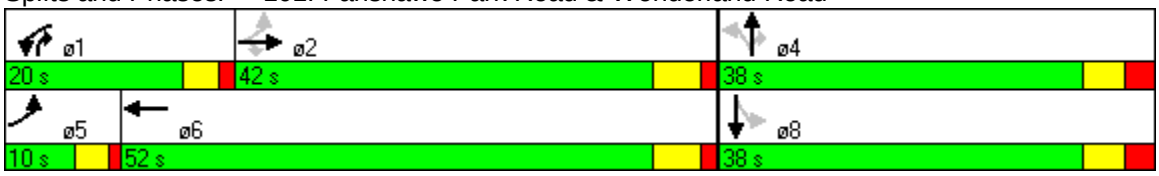
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.986				0.850		0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3312	0	1684	3433	1536	1700	3288	0
Flt Permitted	0.459			0.950			0.530			0.531		
Satd. Flow (perm)	821	3466	1493	3362	3312	0	939	3433	1536	950	3288	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			60		15				26		22	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	86	960	55	237	433	46	95	274	297	60	234	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	93	1043	60	258	471	50	103	298	323	65	254	46
Lane Group Flow (vph)	93	1043	60	258	521	0	103	298	323	65	300	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	42.0	42.0	20.0	52.0	0.0	38.0	38.0	20.0	38.0	38.0	0.0
Total Split (%)	10.0%	42.0%	42.0%	20.0%	52.0%	0.0%	38.0%	38.0%	20.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	36.3	36.3	15.5	46.3		31.6	31.6	15.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	56.5	50.5	50.5	13.1	59.6		24.4	24.4	41.5	24.4	24.4	
Actuated g/C Ratio	0.56	0.50	0.50	0.13	0.60		0.24	0.24	0.42	0.24	0.24	
v/c Ratio	0.18	0.60	0.08	0.59	0.26		0.45	0.36	0.50	0.28	0.37	
Control Delay	8.5	20.9	5.2	46.2	11.2		31.6	26.8	18.3	31.9	29.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	8.5	20.9	5.2	46.2	11.2		31.6	26.8	18.3	31.9	29.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	C	A	D	B		C	C	B	C	C	
Approach Delay		19.2			22.8			23.7			29.7	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	5.5	71.6	0.0	24.2	24.0		13.6	20.6	29.6	10.1	23.1	
Queue Length 95th (m)	13.4	112.8	7.3	35.3	39.7		22.0	26.3	36.2	19.6	31.1	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	517	1752	784	538	1981		319	1167	657	323	1132	
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	0.18	0.60	0.08	0.48	0.26		0.32	0.26	0.49	0.20	0.27	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 22.4 Intersection LOS: C
Intersection Capacity Utilization 60.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3310		1684	3433	1536	1700	3288	
Flt Permitted	0.46	1.00	1.00	0.95	1.00		0.49	1.00	1.00	0.49	1.00	
Satd. Flow (perm)	822	3466	1493	3362	3310		873	3433	1536	885	3288	
Volume (vph)	86	960	55	237	433	46	95	274	297	60	234	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	1043	60	258	471	50	103	298	323	65	254	46
RTOR Reduction (vph)	0	0	30	0	6	0	0	0	16	0	17	0
Lane Group Flow (vph)	93	1043	30	258	515	0	103	298	307	65	283	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	53.6	48.8	48.8	12.6	57.1		22.0	22.0	34.6	22.0	22.0	
Effective Green, g (s)	55.3	50.5	50.5	13.1	58.8		24.4	24.4	37.5	24.4	24.4	
Actuated g/C Ratio	0.55	0.50	0.50	0.13	0.59		0.24	0.24	0.38	0.24	0.24	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	497	1750	754	440	1946		213	838	637	216	802	
v/s Ratio Prot	0.01	c0.30		c0.08	0.16			0.09	c0.06		0.09	
v/s Ratio Perm	0.09		0.02				0.12		0.14	0.07		
v/c Ratio	0.19	0.60	0.04	0.59	0.26		0.48	0.36	0.48	0.30	0.35	
Uniform Delay, d1	10.6	17.5	12.5	40.9	10.1		32.4	31.3	23.8	30.8	31.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.83	0.84	0.84	1.00	1.00	
Incremental Delay, d2	0.2	1.5	0.1	2.0	0.3		1.7	0.3	0.6	0.8	0.3	
Delay (s)	10.8	19.0	12.6	42.9	10.4		28.5	26.7	20.7	31.6	31.5	
Level of Service	B	B	B	D	B		C	C	C	C	C	
Approach Delay (s)		18.1			21.2			24.3			31.6	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.999				0.850
Flt Protected		0.954			0.958		0.950			0.950		
Satd. Flow (prot)	0	1560	1337	0	1679	1566	1750	3365	0	1750	3400	1566
Flt Permitted		0.727			0.790		0.427			0.400		
Satd. Flow (perm)	0	1189	1337	0	1385	1566	787	3365	0	737	3400	1566
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57			43		1				28
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	93	3	52	24	4	40	38	533	4	11	489	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	101	3	57	26	4	43	41	579	4	12	532	28
Lane Group Flow (vph)	0	104	57	0	30	43	41	583	0	12	532	28
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		15.7	15.7		15.7	15.7	79.8	79.8		79.8	79.8	79.8
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.80	0.80		0.80	0.80	0.80
v/c Ratio		0.56	0.22		0.14	0.15	0.07	0.22		0.02	0.20	0.02
Control Delay		49.2	11.3		35.4	11.4	4.2	3.8		1.2	0.9	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		49.2	11.3		35.4	11.4	4.2	3.8		1.2	0.9	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D	B		D	B	A	A		A	A	A
Approach Delay		35.7			21.3			3.8			0.9	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		18.6	0.0		5.0	0.0	1.6	13.6		0.0	1.4	0.0
Queue Length 95th (m)		32.9	9.8		12.1	8.4	5.3	24.8		m0.4	5.4	m0.3
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		392	479		457	546	628	2684		588	2712	1255
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.27	0.12		0.07	0.08	0.07	0.22		0.02	0.20	0.02

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 7.1 Intersection LOS: A
Intersection Capacity Utilization 42.7% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 102: Aldersbrook Road & Wonderland Road

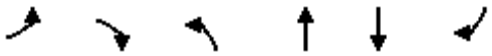
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1559	1337		1680	1566	1750	3365		1750	3400	1566
Flt Permitted		0.71	1.00		0.72	1.00	0.45	1.00		0.43	1.00	1.00
Satd. Flow (perm)		1161	1337		1269	1566	836	3365		790	3400	1566
Volume (vph)	93	3	52	24	4	40	38	533	4	11	489	26
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	3	57	26	4	43	41	579	4	12	532	28
RTOR Reduction (vph)	0	0	49	0	0	37	0	0	0	0	0	6
Lane Group Flow (vph)	0	104	8	0	30	6	41	583	0	12	532	22
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		11.8	11.8		11.8	11.8	75.9	75.9		75.9	75.9	75.9
Effective Green, g (s)		14.3	14.3		14.3	14.3	77.7	77.7		77.7	77.7	77.7
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.78	0.78		0.78	0.78	0.78
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		166	191		181	224	650	2615		614	2642	1217
v/s Ratio Prot								c0.17			0.16	
v/s Ratio Perm		c0.09	0.01		0.02	0.00	0.05			0.02		0.01
v/c Ratio		0.63	0.04		0.17	0.03	0.06	0.22		0.02	0.20	0.02
Uniform Delay, d1		40.3	36.9		37.6	36.9	2.6	3.0		2.5	2.9	2.5
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.28	0.22	0.04
Incremental Delay, d2		7.2	0.1		0.4	0.0	0.2	0.2		0.1	0.2	0.0
Delay (s)		47.5	37.0		38.0	36.9	2.8	3.2		0.8	0.8	0.1
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		43.8			37.4			3.2			0.8	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	41	22	344	62	14	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	24	374	67	15	327
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.91	0.91			0.91	
vC, conflicting volume	513	374			441	
vC1, stage 1 conf vol	374					
vC2, stage 2 conf vol	139					
vCu, unblocked vol	464	310			385	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	96			99	
cM capacity (veh/h)	404	622			1063	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	45	24	374	67	81	131	131
Volume Left	45	0	0	0	15	0	0
Volume Right	0	24	0	67	0	0	0
cSH	404	622	1700	1700	1063	1700	1700
Volume to Capacity	0.11	0.04	0.22	0.04	0.01	0.08	0.08
Queue Length 95th (m)	2.8	0.9	0.0	0.0	0.3	0.0	0.0
Control Delay (s)	15.0	11.0	0.0	0.0	1.7	0.0	0.0
Lane LOS	C	B			A		
Approach Delay (s)	13.6		0.0		0.4		
Approach LOS	B						

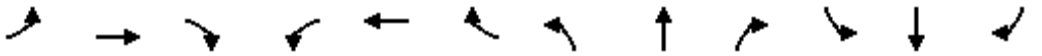
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	16	0	406	320	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	0	441	348	23
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.94					
vC, conflicting volume	580	127	371			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	481	127	371			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	480	899	1184			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	17	221	221	139	139	92
Volume Left	0	0	0	0	0	0
Volume Right	17	0	0	0	0	23
cSH	899	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.13	0.13	0.08	0.08	0.05
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.1	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.1	0.0		0.0		
Approach LOS	A					

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	16.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1087	9	0	494	76	0	0	14	0	0	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1182	10	0	537	83	0	0	15	0	0	32
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.94						0.94	0.94		0.94	0.94	0.94
vC, conflicting volume	620			1191			1486	1806	300	889	1770	310
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	536			1191			1455	1794	300	821	1756	207
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	96
cM capacity (veh/h)	969			582			82	75	696	246	79	753

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	338	338	338	179	358	262	15	32
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	10	0	83	15	32
cSH	1700	1700	1700	1700	1700	1700	696	753
Volume to Capacity	0.20	0.20	0.20	0.11	0.21	0.15	0.02	0.04
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.3	10.0
Lane LOS							B	A
Approach Delay (s)	0.0				0.0		10.3	10.0
Approach LOS							B	A

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	26.1%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	1050	3	3	519	1	0	0	5	41	0	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1141	3	3	564	1	0	0	5	45	0	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.97						0.97	0.97		0.97	0.97	0.97
vC, conflicting volume	565			1145			1459	1739	382	981	1740	283
vC1, stage 1 conf vol							1167	1167		571	571	
vC2, stage 2 conf vol							292	572		410	1168	
vCu, unblocked vol	514			1145			1439	1729	382	945	1730	221
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	100	99	82	100	100
cM capacity (veh/h)	1012			606			126	142	616	248	141	755

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	297	571	289	285	283	0	5	45	3
Volume Left	12	0	0	3	0	0	0	45	0
Volume Right	0	0	3	0	1	0	5	0	3
cSH	1012	1700	1700	606	1700	1700	616	248	755
Volume to Capacity	0.01	0.34	0.17	0.01	0.17	0.00	0.01	0.18	0.00
Queue Length 95th (m)	0.3	0.0	0.0	0.1	0.0	0.0	0.2	4.8	0.1
Control Delay (s)	0.5	0.0	0.0	0.2	0.0	0.0	10.9	22.7	9.8
Lane LOS	A			A		A	B	C	A
Approach Delay (s)	0.1			0.1		10.9		21.8	
Approach LOS						B		C	

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	43.6%	ICU Level of Service		A
Analysis Period (min)	15			

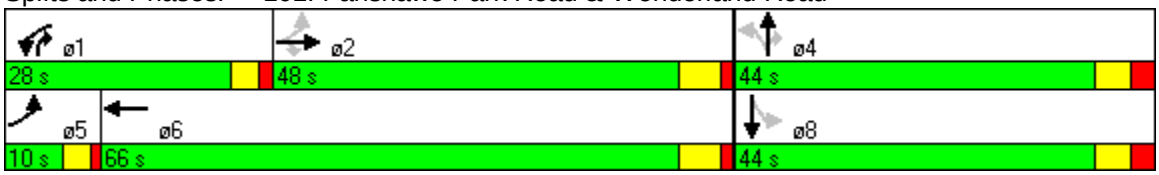
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.993				0.850		0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3511	0	1750	3535	1566	1750	3436	0
Flt Permitted	0.216			0.950			0.336			0.422		
Satd. Flow (perm)	394	3500	1536	3463	3511	0	619	3535	1566	777	3436	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			138		6				32		24	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	122	878	162	573	987	48	172	378	378	115	396	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	133	954	176	623	1073	52	187	411	411	125	430	97
Lane Group Flow (vph)	133	954	176	623	1125	0	187	411	411	125	527	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	48.0	48.0	28.0	66.0	0.0	44.0	44.0	28.0	44.0	44.0	0.0
Total Split (%)	8.3%	40.0%	40.0%	23.3%	55.0%	0.0%	36.7%	36.7%	23.3%	36.7%	36.7%	0.0%
Maximum Green (s)	6.0	42.3	42.3	23.5	60.3		37.6	37.6	23.5	37.6	37.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	52.0	46.0	46.0	23.6	63.7		38.3	38.3	66.0	38.3	38.3	
Actuated g/C Ratio	0.43	0.38	0.38	0.20	0.53		0.32	0.32	0.55	0.32	0.32	
v/c Ratio	0.56	0.71	0.26	0.91	0.60		0.94	0.36	0.47	0.50	0.47	
Control Delay	23.7	35.5	8.2	66.2	21.4		87.6	29.4	14.2	40.7	32.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	23.7	35.5	8.2	66.2	21.4		87.6	29.4	14.2	40.7	32.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	D	A	E	C		F	C	B	D	C	
Approach Delay		30.5			37.4			34.0			34.0	
Approach LOS		C			D			C			C	
Queue Length 50th (m)	12.6	100.6	5.7	73.4	93.9		41.6	32.9	31.7	23.0	48.0	
Queue Length 95th (m)	21.3	124.6	20.5	#103.8	114.8		#85.4	43.3	46.0	42.4	63.8	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	238	1343	675	693	1865		206	1178	875	259	1161	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.56	0.71	0.26	0.90	0.60		0.91	0.35	0.47	0.48	0.45	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 34.3 Intersection LOS: C
Intersection Capacity Utilization 77.3% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

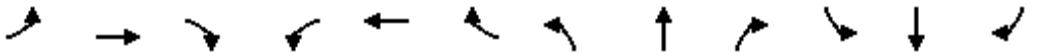
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3512		1750	3535	1566	1750	3437	
Flt Permitted	0.22	1.00	1.00	0.95	1.00		0.33	1.00	1.00	0.42	1.00	
Satd. Flow (perm)	401	3500	1536	3463	3512		602	3535	1566	765	3437	
Volume (vph)	122	878	162	573	987	48	172	378	378	115	396	89
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	954	176	623	1073	52	187	411	411	125	430	97
RTOR Reduction (vph)	0	0	85	0	3	0	0	0	15	0	16	0
Lane Group Flow (vph)	133	954	91	623	1122	0	187	411	396	125	511	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	50.4	44.4	44.4	23.1	62.0		35.9	35.9	59.0	35.9	35.9	
Effective Green, g (s)	52.1	46.1	46.1	23.6	63.7		38.3	38.3	61.9	38.3	38.3	
Actuated g/C Ratio	0.43	0.38	0.38	0.20	0.53		0.32	0.32	0.52	0.32	0.32	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	241	1345	590	681	1864		192	1128	860	244	1097	
v/s Ratio Prot	0.03	c0.27		c0.18	0.32			0.12	0.09		0.15	
v/s Ratio Perm	0.21		0.06				c0.31		0.16	0.16		
v/c Ratio	0.55	0.71	0.15	0.91	0.60		0.97	0.36	0.46	0.51	0.47	
Uniform Delay, d1	21.0	31.3	24.2	47.2	19.4		40.4	31.5	18.4	33.2	32.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.91	0.84	1.00	1.00	
Incremental Delay, d2	2.7	3.2	0.6	16.9	1.4		55.9	0.2	0.4	1.8	0.3	
Delay (s)	23.7	34.5	24.7	64.1	20.9		92.3	29.0	15.9	35.1	33.0	
Level of Service	C	C	C	E	C		F	C	B	D	C	
Approach Delay (s)		32.0			36.3			35.4			33.4	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM Average Control Delay	34.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



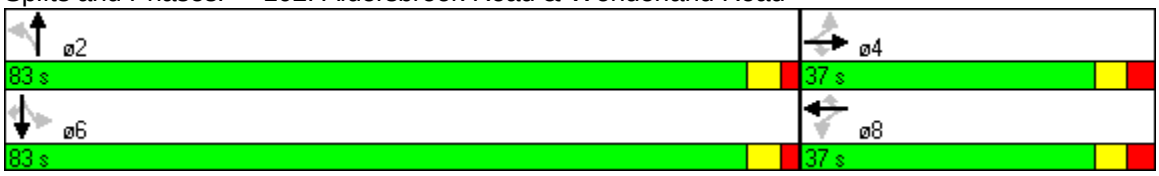
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.962			0.969		0.950			0.950		
Satd. Flow (prot)	0	1572	1363	0	1821	1536	1785	3535	0	1785	3500	1597
Flt Permitted		0.788			0.858		0.224			0.264		
Satd. Flow (perm)	0	1288	1363	0	1612	1536	421	3535	0	496	3500	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54			28		1				124
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	50	13	50	16	9	26	49	852	3	52	965	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	54	14	54	17	10	28	53	926	3	57	1049	124
Lane Group Flow (vph)	0	68	54	0	27	28	53	929	0	57	1049	124
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	83.0	83.0	0.0	83.0	83.0	83.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	69.2%	69.2%	0.0%	69.2%	69.2%	69.2%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	77.2	77.2		77.2	77.2	77.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		13.8	13.8		13.8	13.8	101.7	101.7		101.7	101.7	101.7
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.85	0.85		0.85	0.85	0.85
v/c Ratio		0.46	0.26		0.15	0.14	0.15	0.31		0.14	0.35	0.09
Control Delay		58.5	15.2		47.7	16.9	3.9	3.0		0.9	0.6	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		58.5	15.2		47.7	16.9	3.9	3.0		0.9	0.6	0.1

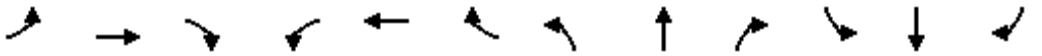
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	B		D	B	A	A		A	A	A
Approach Delay		39.4			32.0			3.0			0.5	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		15.0	0.0		5.8	0.0	2.0	21.5		0.3	3.0	0.0
Queue Length 95th (m)		28.2	11.2		13.9	8.1	6.2	35.6		m0.7	m4.7	m0.0
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		354	414		443	443	357	2995		420	2965	1372
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.19	0.13		0.06	0.06	0.15	0.31		0.14	0.35	0.09

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 4.3 Intersection LOS: A
Intersection Capacity Utilization 52.6% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

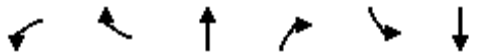
Splits and Phases: 102: Aldersbrook Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1572	1363		1822	1536	1785	3533		1785	3500	1597
Flt Permitted		0.75	1.00		0.79	1.00	0.26	1.00		0.30	1.00	1.00
Satd. Flow (perm)		1229	1363		1494	1536	487	3533		557	3500	1597
Volume (vph)	50	13	50	16	9	26	49	852	3	52	965	114
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	14	54	17	10	28	53	926	3	57	1049	124
RTOR Reduction (vph)	0	0	48	0	0	25	0	0	0	0	0	21
Lane Group Flow (vph)	0	68	6	0	27	3	53	929	0	57	1049	103
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		9.9	9.9		9.9	9.9	97.8	97.8		97.8	97.8	97.8
Effective Green, g (s)		12.4	12.4		12.4	12.4	99.6	99.6		99.6	99.6	99.6
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.83	0.83		0.83	0.83	0.83
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		127	141		154	159	404	2932		462	2905	1326
v/s Ratio Prot								0.26			c0.30	
v/s Ratio Perm		c0.06	0.00		0.02	0.00	0.11			0.10		0.06
v/c Ratio		0.54	0.04		0.18	0.02	0.13	0.32		0.12	0.36	0.08
Uniform Delay, d1		51.1	48.4		49.1	48.3	1.9	2.4		1.9	2.5	1.9
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.14	0.12	0.00
Incremental Delay, d2		4.3	0.1		0.5	0.0	0.7	0.3		0.4	0.3	0.1
Delay (s)		55.4	48.6		49.7	48.4	2.6	2.6		0.7	0.5	0.1
Level of Service		E	D		D	D	A	A		A	A	A
Approach Delay (s)		52.3			49.0			2.6			0.5	
Approach LOS		D			D			A			A	

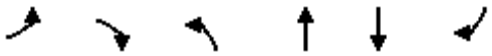
Intersection Summary			
HCM Average Control Delay	5.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	111	75	426	122	20	495
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	82	463	133	22	538
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.87	0.87			0.87	
vC, conflicting volume	686	463			596	
vC1, stage 1 conf vol	463					
vC2, stage 2 conf vol	223					
vCu, unblocked vol	638	380			533	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	64	85			98	
cM capacity (veh/h)	336	535			893	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	121	82	463	133	129	215	215
Volume Left	121	0	0	0	22	0	0
Volume Right	0	82	0	133	0	0	0
cSH	336	535	1700	1700	893	1700	1700
Volume to Capacity	0.36	0.15	0.27	0.08	0.02	0.13	0.13
Queue Length 95th (m)	11.9	4.0	0.0	0.0	0.6	0.0	0.0
Control Delay (s)	21.6	12.9	0.0	0.0	1.7	0.0	0.0
Lane LOS	C	B			A		
Approach Delay (s)	18.1		0.0		0.4		
Approach LOS	C						

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	37.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	12	0	548	588	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	13	0	596	639	20
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.91					
vC, conflicting volume	947	223	659			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	847	223	659			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	275	781	925			

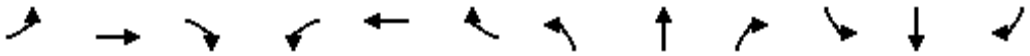
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	13	298	298	256	256	147
Volume Left	0	0	0	0	0	0
Volume Right	13	0	0	0	0	20
cSH	781	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.18	0.18	0.15	0.15	0.09
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.7	0.0		0.0		
Approach LOS	A					

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	21.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1142	13	0	1169	79	0	0	20	0	0	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1241	14	0	1271	86	0	0	22	0	0	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.78						0.78	0.78		0.78	0.78	0.78
vC, conflicting volume	1357			1255			1916	2605	317	1646	2569	678
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1174			1255			1893	2776	317	1545	2730	303
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	94
cM capacity (veh/h)	460			550			31	15	678	59	16	540

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	355	355	355	191	847	509	22	33
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	14	0	86	22	33
cSH	1700	1700	1700	1700	1700	1700	678	540
Volume to Capacity	0.21	0.21	0.21	0.11	0.50	0.30	0.03	0.06
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.5	12.1
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.5	12.1
Approach LOS							B	B

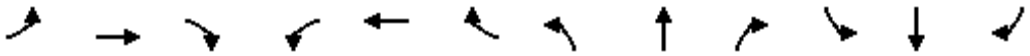
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	44.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	1096	12	31	1164	3	15	0	16	43	0	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1191	13	34	1265	3	16	0	17	47	0	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.79						0.79	0.79		0.79	0.79	0.79
vC, conflicting volume	1268			1204			1926	2558	404	1773	2562	634
vC1, stage 1 conf vol							1222	1222		1334	1334	
vC2, stage 2 conf vol							704	1336		438	1228	
vCu, unblocked vol	1069			1204			1906	2709	404	1711	2716	262
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			94			83	100	97	48	100	99
cM capacity (veh/h)	509			575			98	77	596	90	75	579

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	310	596	311	666	636	16	17	47	4
Volume Left	12	0	0	34	0	16	0	47	0
Volume Right	0	0	13	0	3	0	17	0	4
cSH	509	1700	1700	575	1700	98	596	90	579
Volume to Capacity	0.02	0.35	0.18	0.06	0.37	0.17	0.03	0.52	0.01
Queue Length 95th (m)	0.5	0.0	0.0	1.4	0.0	4.2	0.7	17.0	0.2
Control Delay (s)	0.8	0.0	0.0	1.6	0.0	48.8	11.2	81.3	11.3
Lane LOS	A			A		E	B	F	B
Approach Delay (s)	0.2			0.8		29.4		75.3	
Approach LOS						D		F	

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		



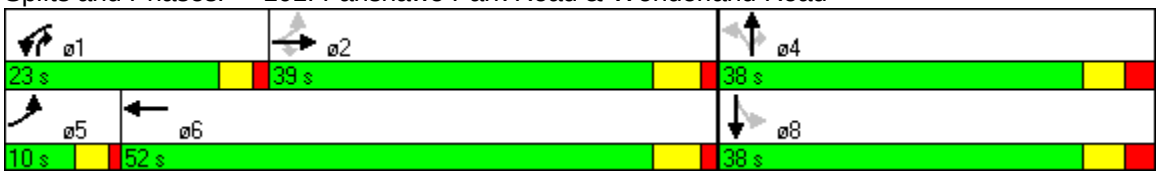
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.993				0.850		0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3510	0	1767	3535	1581	1767	3397	0
Flt Permitted	0.247			0.950			0.386			0.440		
Satd. Flow (perm)	459	3535	1581	3429	3510	0	718	3535	1581	819	3397	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			209		7				35		53	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	155	847	261	431	912	44	192	386	561	130	334	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	163	892	275	454	960	46	202	406	591	137	352	124
Lane Group Flow (vph)	163	892	275	454	1006	0	202	406	591	137	476	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	39.0	39.0	23.0	52.0	0.0	38.0	38.0	23.0	38.0	38.0	0.0
Total Split (%)	10.0%	39.0%	39.0%	23.0%	52.0%	0.0%	38.0%	38.0%	23.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	33.3	33.3	18.5	46.3		31.6	31.6	18.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	43.9	37.9	37.9	17.5	49.4		32.6	32.6	54.1	32.6	32.6	
Actuated g/C Ratio	0.44	0.38	0.38	0.18	0.49		0.33	0.33	0.54	0.33	0.33	
v/c Ratio	0.58	0.67	0.38	0.76	0.58		0.86	0.35	0.68	0.51	0.42	
Control Delay	21.7	29.6	8.2	47.9	19.8		61.4	23.6	17.6	34.7	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	21.7	29.6	8.2	47.9	19.8		61.4	23.6	17.6	34.7	24.1	
LOS	C	C	A	D	B		E	C	B	C	C	

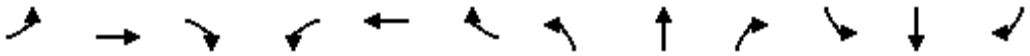
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		24.2			28.6			27.0			26.5	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	13.5	76.9	8.4	42.2	70.5		35.6	30.7	71.0	20.6	31.9	
Queue Length 95th (m)	22.9	99.0	27.0	58.3	90.0		#58.2	34.4	88.1	39.5	45.4	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	280	1340	729	652	1737		244	1202	859	278	1190	
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	0.58	0.67	0.38	0.70	0.58		0.83	0.34	0.69	0.49	0.40	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 26.6 Intersection LOS: C
Intersection Capacity Utilization 75.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

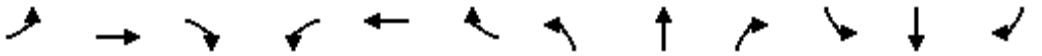
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3510		1767	3535	1581	1767	3396	
Flt Permitted	0.24	1.00	1.00	0.95	1.00		0.38	1.00	1.00	0.43	1.00	
Satd. Flow (perm)	452	3535	1581	3429	3510		704	3535	1581	806	3396	
Volume (vph)	155	847	261	431	912	44	192	386	561	130	334	118
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	163	892	275	454	960	46	202	406	591	137	352	124
RTOR Reduction (vph)	0	0	130	0	4	0	0	0	17	0	36	0
Lane Group Flow (vph)	163	892	145	454	1002	0	202	406	574	137	440	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	42.2	36.2	36.2	17.0	47.7		30.2	30.2	47.2	30.2	30.2	
Effective Green, g (s)	43.9	37.9	37.9	17.5	49.4		32.6	32.6	50.1	32.6	32.6	
Actuated g/C Ratio	0.44	0.38	0.38	0.18	0.49		0.33	0.33	0.50	0.33	0.33	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	277	1340	599	600	1734		230	1152	855	263	1107	
v/s Ratio Prot	0.04	c0.25		c0.13	0.29			0.11	c0.12		0.13	
v/s Ratio Perm	0.22		0.09				c0.29		0.25	0.17		
v/c Ratio	0.59	0.67	0.24	0.76	0.58		0.88	0.35	0.67	0.52	0.40	
Uniform Delay, d1	17.6	25.8	21.2	39.2	17.9		31.8	25.7	18.8	27.4	26.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.92	0.89	0.88	1.00	1.00	
Incremental Delay, d2	3.2	2.6	1.0	5.4	1.4		27.9	0.2	2.0	1.9	0.2	
Delay (s)	20.7	28.4	22.2	44.6	19.3		57.1	23.1	18.4	29.2	26.3	
Level of Service	C	C	C	D	B		E	C	B	C	C	
Approach Delay (s)		26.2			27.2			26.5			27.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

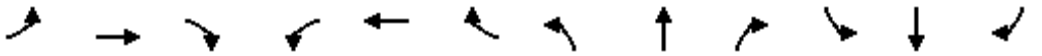


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.956			0.968		0.950			0.950		
Satd. Flow (prot)	0	1579	1404	0	1801	1581	1767	3535	0	1767	3535	1581
Flt Permitted		0.786			0.868		0.224			0.179		
Satd. Flow (perm)	0	1298	1404	0	1615	1581	417	3535	0	333	3535	1581
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			56			15						53
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	43	4	53	16	9	14	41	1082	2	26	950	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1139	2	27	1000	53
Lane Group Flow (vph)	0	49	56	0	26	15	43	1141	0	27	1000	53
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		11.6	11.6		11.6	11.6	83.9	83.9		83.9	83.9	83.9
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.84	0.84		0.84	0.84	0.84
v/c Ratio		0.32	0.26		0.14	0.08	0.12	0.38		0.10	0.34	0.04
Control Delay		45.8	14.1		40.3	18.1	3.4	3.1		6.9	6.5	3.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		45.8	14.1		40.3	18.1	3.4	3.1		6.9	6.5	3.6
LOS		D	B		D	B	A	A		A	A	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		28.9			32.2			3.1			6.4	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		8.8	0.0		4.6	0.0	1.3	24.4		1.8	40.9	0.6
Queue Length 95th (m)		19.0	10.5		11.7	5.6	4.5	39.6		m4.4	60.0	m3.7
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		428	501		533	532	350	2965		279	2965	1335
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.11	0.11		0.05	0.03	0.12	0.38		0.10	0.34	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 24 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay: 6.2		Intersection LOS: A	
Intersection Capacity Utilization 51.6%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 102: Aldersbrook Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1579	1404		1801	1581	1767	3534		1767	3535	1581
Flt Permitted		0.72	1.00		0.78	1.00	0.27	1.00		0.23	1.00	1.00
Satd. Flow (perm)		1196	1404		1459	1581	510	3534		434	3535	1581
Volume (vph)	43	4	53	16	9	14	41	1082	2	26	950	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1139	2	27	1000	53
RTOR Reduction (vph)	0	0	50	0	0	13	0	0	0	0	0	10
Lane Group Flow (vph)	0	49	6	0	26	2	43	1141	0	27	1000	43
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		7.7	7.7		7.7	7.7	80.0	80.0		80.0	80.0	80.0
Effective Green, g (s)		10.2	10.2		10.2	10.2	81.8	81.8		81.8	81.8	81.8
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.82	0.82		0.82	0.82	0.82
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		122	143		149	161	417	2891		355	2892	1293
v/s Ratio Prot								c0.32			0.28	
v/s Ratio Perm		c0.04	0.00		0.02	0.00	0.08			0.06		0.03
v/c Ratio		0.40	0.04		0.17	0.01	0.10	0.39		0.08	0.35	0.03
Uniform Delay, d1		42.0	40.5		41.1	40.4	1.8	2.4		1.8	2.3	1.7
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		2.35	2.41	4.68
Incremental Delay, d2		2.2	0.1		0.6	0.0	0.5	0.4		0.4	0.3	0.0
Delay (s)		44.2	40.6		41.6	40.4	2.3	2.9		4.5	5.8	8.0
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		42.3			41.2			2.8			5.9	
Approach LOS		D			D			A			A	

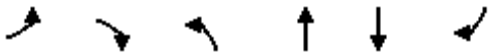
Intersection Summary			
HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	268	81	316	269	34	321
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	282	85	333	283	36	338
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked						
vC, conflicting volume	517	166			616	
vC1, stage 1 conf vol	333					
vC2, stage 2 conf vol	184					
vCu, unblocked vol	517	166			616	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	32	90			96	
cM capacity (veh/h)	413	852			967	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	282	85	166	166	283	103	135	135
Volume Left	282	0	0	0	0	36	0	0
Volume Right	0	85	0	0	283	0	0	0
cSH	413	852	1700	1700	1700	967	1700	1700
Volume to Capacity	0.68	0.10	0.10	0.10	0.17	0.04	0.08	0.08
Queue Length 95th (m)	37.2	2.5	0.0	0.0	0.0	0.9	0.0	0.0
Control Delay (s)	30.5	9.7	0.0	0.0	0.0	3.3	0.0	0.0
Lane LOS	D	A				A		
Approach Delay (s)	25.7		0.0			0.9		
Approach LOS	D							

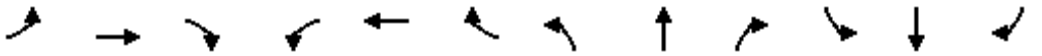
Intersection Summary			
Average Delay	7.2		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	15	0	585	567	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	16	0	616	597	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.92					
vC, conflicting volume	916	210	619			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	817	210	619			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	290	799	964			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	16	308	308	239	239	141
Volume Left	0	0	0	0	0	0
Volume Right	16	0	0	0	0	22
cSH	799	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.18	0.18	0.14	0.14	0.08
Queue Length 95th (m)	0.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.6	0.0		0.0		
Approach LOS	A					

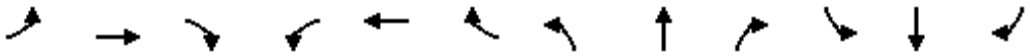
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	21.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1243	27	0	1136	86	0	0	17	0	0	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1308	28	0	1196	91	0	0	18	0	0	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.80						0.80	0.80		0.80	0.80	0.80
vC, conflicting volume	1286			1337			1958	2609	341	1586	2578	643
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1107			1337			1948	2762	341	1482	2723	302
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	93
cM capacity (veh/h)	505			517			29	16	658	68	16	557

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	374	374	374	215	797	489	18	38
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	28	0	91	18	38
cSH	1700	1700	1700	1700	1700	1700	658	557
Volume to Capacity	0.22	0.22	0.22	0.13	0.47	0.29	0.03	0.07
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.6	11.9
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.6	11.9
Approach LOS							B	B

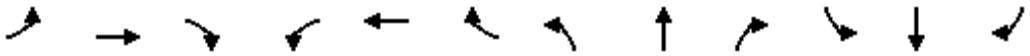
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	44.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	18	1184	13	16	1143	13	5	0	25	64	0	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	19	1246	14	17	1203	14	5	0	26	67	0	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.81						0.81	0.81		0.81	0.81	0.81
vC, conflicting volume	1217			1260			1939	2542	422	1723	2542	608
vC1, stage 1 conf vol							1291	1291		1244	1244	
vC2, stage 2 conf vol							648	1251		480	1298	
vCu, unblocked vol	1031			1260			1924	2670	422	1658	2670	277
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			97			94	100	95	35	100	98
cM capacity (veh/h)	546			553			93	80	583	104	81	584

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	331	623	325	618	615	5	26	67	13
Volume Left	19	0	0	17	0	5	0	67	0
Volume Right	0	0	14	0	14	0	26	0	13
cSH	546	1700	1700	553	1700	93	583	104	584
Volume to Capacity	0.03	0.37	0.19	0.03	0.36	0.06	0.05	0.65	0.02
Queue Length 95th (m)	0.8	0.0	0.0	0.7	0.0	1.3	1.1	24.1	0.5
Control Delay (s)	1.2	0.0	0.0	0.9	0.0	46.2	11.5	87.7	11.3
Lane LOS	A			A		E	B	F	B
Approach Delay (s)	0.3			0.4		17.3		75.6	
Approach LOS						C		F	

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	60.2%	ICU Level of Service		B
Analysis Period (min)	15			



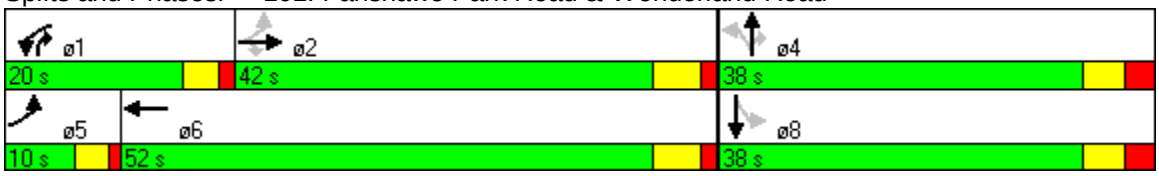
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.984				0.850		0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3304	0	1684	3433	1536	1700	3307	0
Flt Permitted	0.441			0.950			0.443			0.494		
Satd. Flow (perm)	789	3466	1493	3362	3304	0	785	3433	1536	884	3307	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124		17				21		17	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	89	1020	114	244	463	54	122	313	306	89	323	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	97	1109	124	265	503	59	133	340	333	97	351	51
Lane Group Flow (vph)	97	1109	124	265	562	0	133	340	333	97	402	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	42.0	42.0	20.0	52.0	0.0	38.0	38.0	20.0	38.0	38.0	0.0
Total Split (%)	10.0%	42.0%	42.0%	20.0%	52.0%	0.0%	38.0%	38.0%	20.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	36.3	36.3	15.5	46.3		31.6	31.6	15.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	55.4	49.4	49.4	13.3	58.7		25.3	25.3	42.6	25.3	25.3	
Actuated g/C Ratio	0.55	0.49	0.49	0.13	0.59		0.25	0.25	0.43	0.25	0.25	
v/c Ratio	0.20	0.65	0.15	0.59	0.29		0.67	0.39	0.50	0.43	0.47	
Control Delay	9.2	22.9	4.1	46.3	12.0		43.7	26.7	18.0	35.9	31.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	9.2	22.9	4.1	46.3	12.0		43.7	26.7	18.0	35.9	31.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	C	A	D	B		D	C	B	D	C	
Approach Delay		20.2			23.0			25.9			32.1	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	5.8	79.4	0.0	24.9	26.5		18.6	23.1	30.2	15.7	33.0	
Queue Length 95th (m)	14.6	126.9	10.8	36.1	44.9		25.7	28.1	35.0	27.3	40.9	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	492	1714	801	538	1947		267	1167	674	301	1136	
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	0.20	0.65	0.15	0.49	0.29		0.50	0.29	0.49	0.32	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 23.9 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3305		1684	3433	1536	1700	3307	
Flt Permitted	0.44	1.00	1.00	0.95	1.00		0.39	1.00	1.00	0.46	1.00	
Satd. Flow (perm)	789	3466	1493	3362	3305		699	3433	1536	815	3307	
Volume (vph)	89	1020	114	244	463	54	122	313	306	89	323	47
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	1109	124	265	503	59	133	340	333	97	351	51
RTOR Reduction (vph)	0	0	63	0	7	0	0	0	13	0	13	0
Lane Group Flow (vph)	97	1109	61	265	555	0	133	340	320	97	389	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	52.5	47.7	47.7	12.8	56.2		22.9	22.9	35.7	22.9	22.9	
Effective Green, g (s)	54.2	49.4	49.4	13.3	57.9		25.3	25.3	38.6	25.3	25.3	
Actuated g/C Ratio	0.54	0.49	0.49	0.13	0.58		0.25	0.25	0.39	0.25	0.25	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	471	1712	738	447	1914		177	869	654	206	837	
v/s Ratio Prot	0.01	c0.32		c0.08	0.17			0.10	c0.07		0.12	
v/s Ratio Perm	0.10		0.04				c0.19		0.14	0.12		
v/c Ratio	0.21	0.65	0.08	0.59	0.29		0.75	0.39	0.49	0.47	0.47	
Uniform Delay, d1	11.1	18.8	13.3	40.8	10.6		34.4	31.0	23.2	31.7	31.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.84	0.85	0.84	1.00	1.00	
Incremental Delay, d2	0.2	1.9	0.2	2.1	0.4		16.0	0.3	0.6	1.7	0.4	
Delay (s)	11.3	20.7	13.6	42.9	11.0		45.0	26.6	20.1	33.4	32.0	
Level of Service	B	C	B	D	B		D	C	C	C	C	
Approach Delay (s)		19.4			21.2			26.9			32.3	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

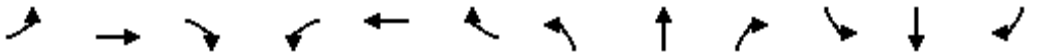
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.999				0.850
Flt Protected		0.954			0.958		0.950			0.950		
Satd. Flow (prot)	0	1560	1337	0	1679	1566	1750	3365	0	1750	3400	1566
Flt Permitted		0.727			0.790		0.343			0.359		
Satd. Flow (perm)	0	1189	1337	0	1385	1566	632	3365	0	661	3400	1566
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57			43		1				28
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	93	3	52	24	4	40	38	608	4	11	644	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	101	3	57	26	4	43	41	661	4	12	700	28
Lane Group Flow (vph)	0	104	57	0	30	43	41	665	0	12	700	28
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		15.7	15.7		15.7	15.7	79.8	79.8		79.8	79.8	79.8
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.80	0.80		0.80	0.80	0.80
v/c Ratio		0.56	0.22		0.14	0.15	0.08	0.25		0.02	0.26	0.02
Control Delay		49.2	11.3		35.4	11.4	4.4	4.0		1.5	1.2	0.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		49.2	11.3		35.4	11.4	4.4	4.0		1.5	1.2	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D	B		D	B	A	A		A	A	A
Approach Delay		35.7			21.3			4.0			1.2	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		18.6	0.0		5.0	0.0	1.6	16.0		0.1	2.6	0.0
Queue Length 95th (m)		32.9	9.8		12.1	8.4	5.5	28.8		m0.5	9.6	m0.0
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		392	479		457	546	504	2684		527	2712	1255
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.27	0.12		0.07	0.08	0.08	0.25		0.02	0.26	0.02

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 6.6 Intersection LOS: A
Intersection Capacity Utilization 45.6% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 102: Aldersbrook Road & Wonderland Road



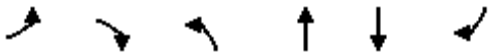
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1559	1337		1680	1566	1750	3366		1750	3400	1566
Flt Permitted		0.71	1.00		0.72	1.00	0.38	1.00		0.39	1.00	1.00
Satd. Flow (perm)		1161	1337		1269	1566	694	3366		722	3400	1566
Volume (vph)	93	3	52	24	4	40	38	608	4	11	644	26
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	3	57	26	4	43	41	661	4	12	700	28
RTOR Reduction (vph)	0	0	49	0	0	37	0	0	0	0	0	6
Lane Group Flow (vph)	0	104	8	0	30	6	41	665	0	12	700	22
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		11.8	11.8		11.8	11.8	75.9	75.9		75.9	75.9	75.9
Effective Green, g (s)		14.3	14.3		14.3	14.3	77.7	77.7		77.7	77.7	77.7
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.78	0.78		0.78	0.78	0.78
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		166	191		181	224	539	2615		561	2642	1217
v/s Ratio Prot								0.20			c0.21	
v/s Ratio Perm		c0.09	0.01		0.02	0.00	0.06			0.02		0.01
v/c Ratio		0.63	0.04		0.17	0.03	0.08	0.25		0.02	0.26	0.02
Uniform Delay, d1		40.3	36.9		37.6	36.9	2.6	3.1		2.5	3.1	2.5
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.36	0.27	0.10
Incremental Delay, d2		7.2	0.1		0.4	0.0	0.3	0.2		0.1	0.2	0.0
Delay (s)		47.5	37.0		38.0	36.9	2.9	3.3		1.0	1.1	0.3
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		43.8			37.4			3.3			1.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	41	22	394	62	14	311
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	24	428	67	15	338
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.89	0.89			0.89	
vC, conflicting volume	571	428			496	
vC1, stage 1 conf vol	428					
vC2, stage 2 conf vol	143					
vCu, unblocked vol	521	361			436	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	96			98	
cM capacity (veh/h)	376	569			1002	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	45	24	428	67	83	135	135
Volume Left	45	0	0	0	15	0	0
Volume Right	0	24	0	67	0	0	0
cSH	376	569	1700	1700	1002	1700	1700
Volume to Capacity	0.12	0.04	0.25	0.04	0.02	0.08	0.08
Queue Length 95th (m)	3.0	1.0	0.0	0.0	0.3	0.0	0.0
Control Delay (s)	15.9	11.6	0.0	0.0	1.7	0.0	0.0
Lane LOS	C	B			A		
Approach Delay (s)	14.4		0.0		0.4		
Approach LOS	B						

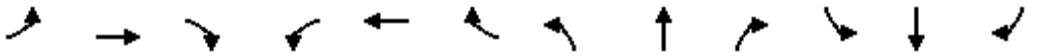
Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	16	0	456	443	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	0	496	482	23
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.92					
vC, conflicting volume	741	172	504			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	638	172	504			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	378	842	1056			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	17	248	248	193	193	119
Volume Left	0	0	0	0	0	0
Volume Right	17	0	0	0	0	23
cSH	842	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.15	0.15	0.11	0.11	0.07
Queue Length 95th (m)	0.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.4	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.4	0.0		0.0		
Approach LOS	A					

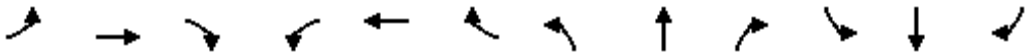
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1209	9	0	555	76	0	0	14	0	0	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1314	10	0	603	83	0	0	15	0	0	32
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.93						0.93	0.93		0.93	0.93	0.93
vC, conflicting volume	686			1324			1652	2005	333	988	1968	343
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	593			1324			1628	2005	333	917	1966	225
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	96
cM capacity (veh/h)	914			518			60	55	662	207	58	726

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	375	375	375	198	402	284	15	32
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	10	0	83	15	32
cSH	1700	1700	1700	1700	1700	1700	662	726
Volume to Capacity	0.22	0.22	0.22	0.12	0.24	0.17	0.02	0.04
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.6	10.2
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.6	10.2
Approach LOS							B	B

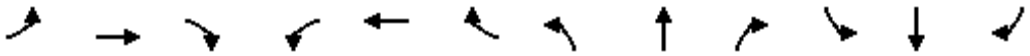
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	27.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	1172	3	3	581	1	0	0	5	41	0	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1274	3	3	632	1	0	0	5	45	0	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.95						0.95	0.95		0.95	0.95	0.95
vC, conflicting volume	633			1277			1625	1939	426	1093	1940	316
vC1, stage 1 conf vol							1299	1299		639	639	
vC2, stage 2 conf vol							326	639		454	1301	
vCu, unblocked vol	568			1277			1607	1936	426	1049	1937	236
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	100	99	80	100	100
cM capacity (veh/h)	955			539			105	121	577	223	121	730

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	330	637	322	319	317	0	5	45	3
Volume Left	12	0	0	3	0	0	0	45	0
Volume Right	0	0	3	0	1	0	5	0	3
cSH	955	1700	1700	539	1700	1700	577	223	730
Volume to Capacity	0.01	0.37	0.19	0.01	0.19	0.00	0.01	0.20	0.00
Queue Length 95th (m)	0.3	0.0	0.0	0.1	0.0	0.0	0.2	5.4	0.1
Control Delay (s)	0.4	0.0	0.0	0.2	0.0	0.0	11.3	25.1	10.0
Lane LOS	A			A		A	B	D	A
Approach Delay (s)	0.1			0.1		11.3		24.1	
Approach LOS						B		C	

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	45.9%	ICU Level of Service		A
Analysis Period (min)	15			



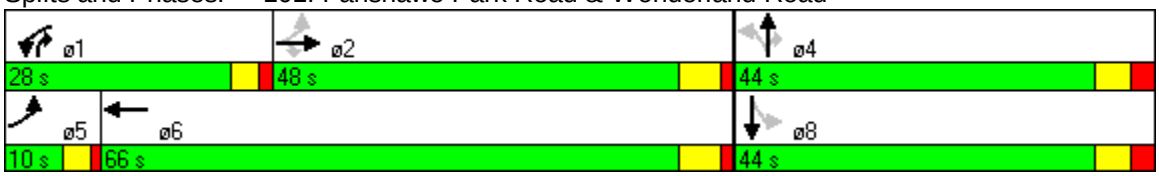
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.989				0.850		0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3498	0	1750	3535	1566	1750	3443	0
Flt Permitted	0.175			0.950			0.285			0.344		
Satd. Flow (perm)	319	3500	1536	3463	3498	0	525	3535	1566	634	3443	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			105		10				27		22	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	132	925	204	590	1048	80	238	474	389	139	459	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	143	1005	222	641	1139	87	259	515	423	151	499	103
Lane Group Flow (vph)	143	1005	222	641	1226	0	259	515	423	151	602	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	48.0	48.0	28.0	66.0	0.0	44.0	44.0	28.0	44.0	44.0	0.0
Total Split (%)	8.3%	40.0%	40.0%	23.3%	55.0%	0.0%	36.7%	36.7%	23.3%	36.7%	36.7%	0.0%
Maximum Green (s)	6.0	42.3	42.3	23.5	60.3		37.6	37.6	23.5	37.6	37.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.2	44.2	44.2	23.8	62.0		40.0	40.0	67.8	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.56	0.33	0.33	
v/c Ratio	0.70	0.78	0.35	0.93	0.68		1.48	0.44	0.47	0.72	0.52	
Control Delay	34.8	38.8	15.8	68.6	23.7		272.7	29.8	13.9	55.8	32.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	34.8	38.8	15.8	68.6	23.7		272.7	29.8	13.9	55.8	32.9	

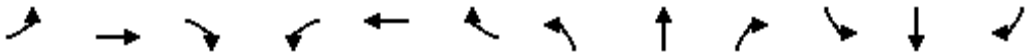
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	D	B	E	C		F	C	B	E	C	
Approach Delay		34.7			39.1			76.7			37.5	
Approach LOS		C			D			E			D	
Queue Length 50th (m)	13.7	108.2	18.5	76.0	106.7		~83.8	41.2	33.9	30.6	56.8	
Queue Length 95th (m)	#28.4	133.5	38.0	#108.6	130.1		#135.6	52.0	47.4	#63.0	74.1	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	204	1288	632	693	1812		175	1178	897	211	1162	
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	0.70	0.78	0.35	0.92	0.68		1.48	0.44	0.47	0.72	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.48
Intersection Signal Delay: 46.4 Intersection LOS: D
Intersection Capacity Utilization 84.6% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road

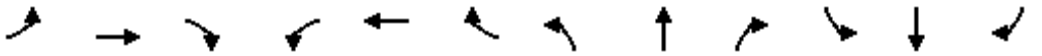




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3499		1750	3535	1566	1750	3444	
Flt Permitted	0.17	1.00	1.00	0.95	1.00		0.29	1.00	1.00	0.34	1.00	
Satd. Flow (perm)	317	3500	1536	3463	3499		526	3535	1566	634	3444	
Volume (vph)	132	925	204	590	1048	80	238	474	389	139	459	95
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	143	1005	222	641	1139	87	259	515	423	151	499	103
RTOR Reduction (vph)	0	0	66	0	5	0	0	0	13	0	15	0
Lane Group Flow (vph)	143	1005	156	641	1221	0	259	515	410	151	587	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	48.5	42.5	42.5	23.3	60.3		37.6	37.6	60.9	37.6	37.6	
Effective Green, g (s)	50.2	44.2	44.2	23.8	62.0		40.0	40.0	63.8	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.53	0.33	0.33	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	203	1289	566	687	1808		175	1178	885	211	1148	
v/s Ratio Prot	0.04	c0.29		c0.19	0.35			0.15	0.09		0.17	
v/s Ratio Perm	0.26		0.10				c0.49		0.17	0.24		
v/c Ratio	0.70	0.78	0.28	0.93	0.68		1.48	0.44	0.46	0.72	0.51	
Uniform Delay, d1	23.3	33.6	26.6	47.3	21.5		40.0	31.2	17.5	35.0	32.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.91	0.91	0.83	1.00	1.00	
Incremental Delay, d2	10.6	4.7	1.2	19.6	2.0		242.7	0.2	0.4	11.0	0.4	
Delay (s)	33.8	38.3	27.8	66.9	23.6		279.3	28.7	14.9	46.0	32.5	
Level of Service	C	D	C	E	C		F	C	B	D	C	
Approach Delay (s)		36.1			38.5			78.0			35.2	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM Average Control Delay	46.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



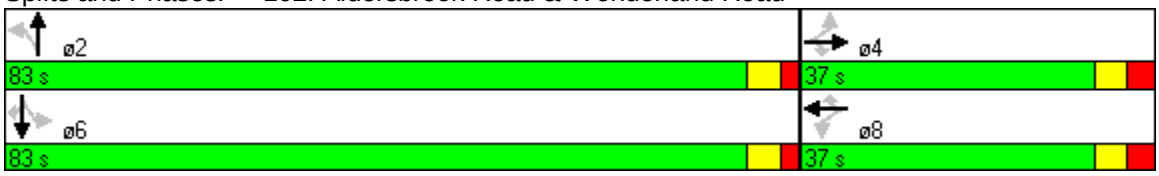
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.962			0.969		0.950			0.950		
Satd. Flow (prot)	0	1572	1363	0	1821	1536	1785	3535	0	1785	3500	1597
Flt Permitted		0.788			0.858		0.185			0.203		
Satd. Flow (perm)	0	1288	1363	0	1612	1536	348	3535	0	381	3500	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54			28						124
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	50	13	50	16	9	26	49	1026	3	52	1088	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	54	14	54	17	10	28	53	1115	3	57	1183	124
Lane Group Flow (vph)	0	68	54	0	27	28	53	1118	0	57	1183	124
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	83.0	83.0	0.0	83.0	83.0	83.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	69.2%	69.2%	0.0%	69.2%	69.2%	69.2%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	77.2	77.2		77.2	77.2	77.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		13.8	13.8		13.8	13.8	101.7	101.7		101.7	101.7	101.7
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.85	0.85		0.85	0.85	0.85
v/c Ratio		0.46	0.26		0.15	0.14	0.18	0.37		0.18	0.40	0.09
Control Delay		58.5	15.2		47.7	16.9	4.5	3.3		1.7	0.9	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		58.5	15.2		47.7	16.9	4.5	3.3		1.7	0.9	0.1

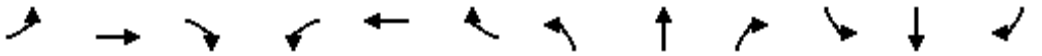
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	B		D	B	A	A		A	A	A
Approach Delay		39.4			32.0			3.3			0.9	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		15.0	0.0		5.8	0.0	2.1	28.0		0.3	3.8	0.0
Queue Length 95th (m)		28.2	11.2		13.9	8.1	6.7	45.7		m1.4	m11.5	m0.1
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		354	414		443	443	295	2995		323	2965	1372
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.19	0.13		0.06	0.06	0.18	0.37		0.18	0.40	0.09

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 4.3 Intersection LOS: A
Intersection Capacity Utilization 56.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 102: Aldersbrook Road & Wonderland Road





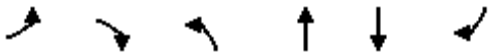
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1572	1363		1822	1536	1785	3533		1785	3500	1597
Flt Permitted		0.75	1.00		0.79	1.00	0.22	1.00		0.24	1.00	1.00
Satd. Flow (perm)		1229	1363		1494	1536	418	3533		450	3500	1597
Volume (vph)	50	13	50	16	9	26	49	1026	3	52	1088	114
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	14	54	17	10	28	53	1115	3	57	1183	124
RTOR Reduction (vph)	0	0	48	0	0	25	0	0	0	0	0	21
Lane Group Flow (vph)	0	68	6	0	27	3	53	1118	0	57	1183	103
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		9.9	9.9		9.9	9.9	97.8	97.8		97.8	97.8	97.8
Effective Green, g (s)		12.4	12.4		12.4	12.4	99.6	99.6		99.6	99.6	99.6
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.83	0.83		0.83	0.83	0.83
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		127	141		154	159	347	2932		374	2905	1326
v/s Ratio Prot								0.32			c0.34	
v/s Ratio Perm		c0.06	0.00		0.02	0.00	0.13			0.13		0.06
v/c Ratio		0.54	0.04		0.18	0.02	0.15	0.38		0.15	0.41	0.08
Uniform Delay, d1		51.1	48.4		49.1	48.3	2.0	2.5		2.0	2.6	1.9
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.27	0.21	0.03
Incremental Delay, d2		4.3	0.1		0.5	0.0	0.9	0.4		0.6	0.3	0.1
Delay (s)		55.4	48.6		49.7	48.4	2.9	2.9		1.2	0.9	0.1
Level of Service		E	D		D	D	A	A		A	A	A
Approach Delay (s)		52.3			49.0			2.9			0.8	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.0%	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		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	111	75	565	122	20	588
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	82	614	133	22	639
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.83	0.83			0.83	
vC, conflicting volume	871	614			747	
vC1, stage 1 conf vol	614					
vC2, stage 2 conf vol	257					
vCu, unblocked vol	844	533			694	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	55	80			97	
cM capacity (veh/h)	267	406			742	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	121	82	614	133	150	256	256
Volume Left	121	0	0	0	22	0	0
Volume Right	0	82	0	133	0	0	0
cSH	267	406	1700	1700	742	1700	1700
Volume to Capacity	0.45	0.20	0.36	0.08	0.03	0.15	0.15
Queue Length 95th (m)	16.6	5.6	0.0	0.0	0.7	0.0	0.0
Control Delay (s)	29.2	16.1	0.0	0.0	1.7	0.0	0.0
Lane LOS	D	C			A		
Approach Delay (s)	23.9		0.0		0.4		
Approach LOS	C						

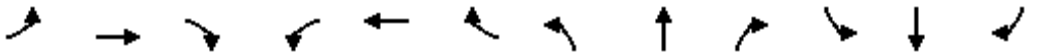
Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	12	0	687	681	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	13	0	747	740	20
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.89					
vC, conflicting volume	1123	257	760			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1014	257	760			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	209	743	848			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	13	373	373	296	296	168
Volume Left	0	0	0	0	0	0
Volume Right	13	0	0	0	0	20
cSH	743	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.22	0.22	0.17	0.17	0.10
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.9	0.0		0.0		
Approach LOS	A					

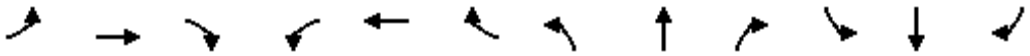
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1242	13	0	1302	79	0	0	20	0	0	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1350	14	0	1415	86	0	0	22	0	0	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.74						0.74	0.74		0.74	0.74	0.74
vC, conflicting volume	1501			1364			2097	2858	345	1817	2822	751
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1326			1364			2131	3159	345	1753	3110	313
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	94
cM capacity (veh/h)	383			500			19	8	651	39	8	506

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	386	386	386	207	943	558	22	33
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	14	0	86	22	33
cSH	1700	1700	1700	1700	1700	1700	651	506
Volume to Capacity	0.23	0.23	0.23	0.12	0.55	0.33	0.03	0.06
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.7	12.6
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.7	12.6
Approach LOS							B	B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	48.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	1195	12	31	1297	3	15	0	16	43	0	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1299	13	34	1410	3	16	0	17	47	0	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.75						0.75	0.75		0.75	0.75	0.75
vC, conflicting volume	1413			1312			2106	2810	439	1953	2815	707
vC1, stage 1 conf vol							1329	1329		1479	1479	
vC2, stage 2 conf vol							777	1480		474	1336	
vCu, unblocked vol	1215			1312			2142	3084	439	1937	3090	269
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			94			80	100	97	33	100	99
cM capacity (veh/h)	426			523			84	62	565	70	60	545

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	337	649	338	739	708	16	17	47	4
Volume Left	12	0	0	34	0	16	0	47	0
Volume Right	0	0	13	0	3	0	17	0	4
cSH	426	1700	1700	523	1700	84	565	70	545
Volume to Capacity	0.03	0.38	0.20	0.06	0.42	0.20	0.03	0.67	0.01
Queue Length 95th (m)	0.6	0.0	0.0	1.5	0.0	5.1	0.7	22.3	0.2
Control Delay (s)	0.9	0.0	0.0	1.9	0.0	58.2	11.6	126.7	11.7
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	0.2			1.0		34.2		116.9	
Approach LOS						D		F	

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

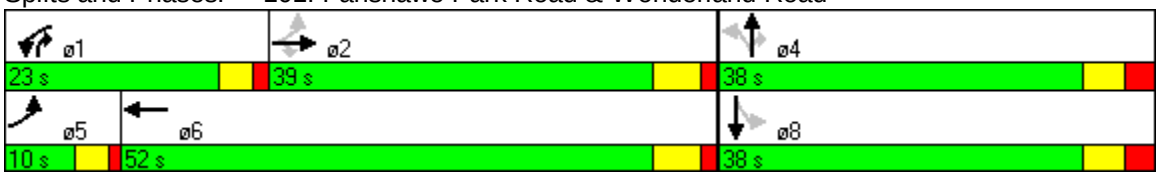
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.991				0.850		0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3503	0	1767	3535	1581	1767	3407	0
Flt Permitted	0.208			0.950			0.329			0.376		
Satd. Flow (perm)	387	3535	1581	3429	3503	0	612	3535	1581	699	3407	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			159		9				29		45	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	162	895	311	444	970	65	248	465	578	155	403	125
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	942	327	467	1021	68	261	489	608	163	424	132
Lane Group Flow (vph)	171	942	327	467	1089	0	261	489	608	163	556	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	39.0	39.0	23.0	52.0	0.0	38.0	38.0	23.0	38.0	38.0	0.0
Total Split (%)	10.0%	39.0%	39.0%	23.0%	52.0%	0.0%	38.0%	38.0%	23.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	33.3	33.3	18.5	46.3		31.6	31.6	18.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	42.3	36.3	36.3	17.7	48.0		34.0	34.0	55.7	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.56	0.34	0.34	
v/c Ratio	0.70	0.73	0.48	0.77	0.65		1.25	0.41	0.68	0.68	0.47	
Control Delay	29.9	32.1	15.2	48.4	21.6		175.3	23.6	17.0	45.4	25.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	29.9	32.1	15.2	48.4	21.6		175.3	23.6	17.0	45.4	25.2	
LOS	C	C	B	D	C		F	C	B	D	C	

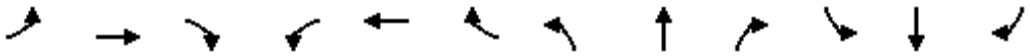
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		28.0			29.7			49.8			29.8	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	14.3	83.2	23.6	43.5	78.9		~58.6	37.9	74.7	26.6	39.8	
Queue Length 95th (m)	#30.0	106.1	48.3	60.0	100.2		#92.0	41.7	29.7	#56.5	54.8	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	246	1284	676	652	1686		208	1202	893	238	1188	
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	0.70	0.73	0.48	0.72	0.65		1.25	0.41	0.68	0.68	0.47	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.25
Intersection Signal Delay: 34.6 Intersection LOS: C
Intersection Capacity Utilization 80.1% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3501		1767	3535	1581	1767	3409	
Flt Permitted	0.20	1.00	1.00	0.95	1.00		0.33	1.00	1.00	0.38	1.00	
Satd. Flow (perm)	372	3535	1581	3429	3501		612	3535	1581	699	3409	
Volume (vph)	162	895	311	444	970	65	248	465	578	155	403	125
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	942	327	467	1021	68	261	489	608	163	424	132
RTOR Reduction (vph)	0	0	101	0	5	0	0	0	14	0	30	0
Lane Group Flow (vph)	171	942	226	467	1084	0	261	489	594	163	526	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	40.6	34.6	34.6	17.2	46.3		31.6	31.6	48.8	31.6	31.6	
Effective Green, g (s)	42.3	36.3	36.3	17.7	48.0		34.0	34.0	51.7	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.52	0.34	0.34	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	241	1283	574	607	1680		208	1202	881	238	1159	
v/s Ratio Prot	0.04	c0.27		c0.14	0.31			0.14	c0.12		0.15	
v/s Ratio Perm	0.26		0.14				c0.43		0.26	0.23		
v/c Ratio	0.71	0.73	0.39	0.77	0.65		1.25	0.41	0.67	0.68	0.45	
Uniform Delay, d1	19.2	27.7	23.7	39.2	19.6		33.0	25.3	17.9	28.4	25.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.92	0.89	0.86	1.00	1.00	
Incremental Delay, d2	9.2	3.8	2.0	5.8	1.9		145.5	0.2	1.9	7.9	0.3	
Delay (s)	28.4	31.4	25.7	45.0	21.5		175.8	22.6	17.2	36.3	26.0	
Level of Service	C	C	C	D	C		F	C	B	D	C	
Approach Delay (s)		29.8			28.6			49.7			28.4	
Approach LOS		C			C			D			C	

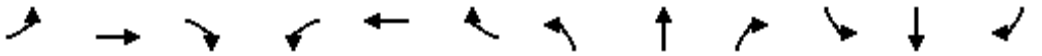
Intersection Summary			
HCM Average Control Delay	34.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.956			0.968		0.950			0.950		
Satd. Flow (prot)	0	1579	1404	0	1801	1581	1767	3535	0	1767	3535	1581
Flt Permitted		0.786			0.868		0.180			0.136		
Satd. Flow (perm)	0	1298	1404	0	1615	1581	335	3535	0	253	3535	1581
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			56			15						53
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	43	4	53	16	9	14	41	1234	2	26	1082	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1299	2	27	1139	53
Lane Group Flow (vph)	0	49	56	0	26	15	43	1301	0	27	1139	53
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		11.6	11.6		11.6	11.6	83.9	83.9		83.9	83.9	83.9
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.84	0.84		0.84	0.84	0.84
v/c Ratio		0.32	0.26		0.14	0.08	0.15	0.44		0.13	0.38	0.04
Control Delay		45.8	14.1		40.3	18.1	4.0	3.4		7.0	6.3	3.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		45.8	14.1		40.3	18.1	4.0	3.4		7.0	6.3	3.0
LOS		D	B		D	B	A	A		A	A	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		28.9			32.2			3.4			6.2	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		8.8	0.0		4.6	0.0	1.4	29.8		1.6	47.0	0.5
Queue Length 95th (m)		19.0	10.5		11.7	5.6	4.9	48.1		m3.6	66.3	m2.8
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		428	501		533	532	281	2965		212	2965	1335
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.11	0.11		0.05	0.03	0.15	0.44		0.13	0.38	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 24 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 102: Aldersbrook Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1579	1404		1801	1581	1767	3534		1767	3535	1581
Flt Permitted		0.72	1.00		0.78	1.00	0.23	1.00		0.19	1.00	1.00
Satd. Flow (perm)		1196	1404		1459	1581	435	3534		360	3535	1581
Volume (vph)	43	4	53	16	9	14	41	1234	2	26	1082	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1299	2	27	1139	53
RTOR Reduction (vph)	0	0	50	0	0	13	0	0	0	0	0	10
Lane Group Flow (vph)	0	49	6	0	26	2	43	1301	0	27	1139	43
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		7.7	7.7		7.7	7.7	80.0	80.0		80.0	80.0	80.0
Effective Green, g (s)		10.2	10.2		10.2	10.2	81.8	81.8		81.8	81.8	81.8
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.82	0.82		0.82	0.82	0.82
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		122	143		149	161	356	2891		294	2892	1293
v/s Ratio Prot								c0.37			0.32	
v/s Ratio Perm		c0.04	0.00		0.02	0.00	0.10			0.08		0.03
v/c Ratio		0.40	0.04		0.17	0.01	0.12	0.45		0.09	0.39	0.03
Uniform Delay, d1		42.0	40.5		41.1	40.4	1.8	2.6		1.8	2.4	1.7
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		2.09	2.18	3.94
Incremental Delay, d2		2.2	0.1		0.6	0.0	0.7	0.5		0.5	0.3	0.0
Delay (s)		44.2	40.6		41.6	40.4	2.5	3.1		4.2	5.7	6.7
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		42.3			41.2			3.1			5.7	
Approach LOS		D			D			A			A	

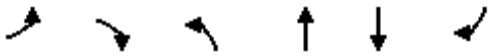
Intersection Summary			
HCM Average Control Delay	6.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	268	81	423	269	34	422
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	282	85	445	283	36	444
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.96	0.96			0.96	
vC, conflicting volume	665	223			728	
vC1, stage 1 conf vol	445					
vC2, stage 2 conf vol	220					
vCu, unblocked vol	610	149			676	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	23	90			96	
cM capacity (veh/h)	368	839			882	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	282	85	223	223	283	125	178	178
Volume Left	282	0	0	0	0	36	0	0
Volume Right	0	85	0	0	283	0	0	0
cSH	368	839	1700	1700	1700	882	1700	1700
Volume to Capacity	0.77	0.10	0.13	0.13	0.17	0.04	0.10	0.10
Queue Length 95th (m)	46.7	2.5	0.0	0.0	0.0	1.0	0.0	0.0
Control Delay (s)	40.5	9.8	0.0	0.0	0.0	2.9	0.0	0.0
Lane LOS	E	A				A		
Approach Delay (s)	33.4		0.0			0.8		
Approach LOS	D							

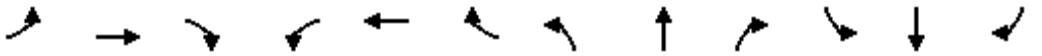
Intersection Summary			
Average Delay	8.0		
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	15	0	692	669	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	16	0	728	704	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.90					
vC, conflicting volume	1079	246	726			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	974	246	726			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	225	758	879			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	16	364	364	282	282	163
Volume Left	0	0	0	0	0	0
Volume Right	16	0	0	0	0	22
cSH	758	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.21	0.21	0.17	0.17	0.10
Queue Length 95th (m)	0.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.9	0.0		0.0		
Approach LOS	A					

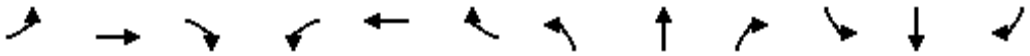
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1352	27	0	1257	86	0	0	17	0	0	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1423	28	0	1323	91	0	0	18	0	0	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.77						0.77	0.77		0.77	0.77	0.77
vC, conflicting volume	1414			1452			2137	2851	370	1742	2820	707
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1237			1452			2178	3108	370	1664	3067	317
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	93
cM capacity (veh/h)	434			467			19	9	630	48	9	524

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	407	407	407	232	882	532	18	38
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	28	0	91	18	38
cSH	1700	1700	1700	1700	1700	1700	630	524
Volume to Capacity	0.24	0.24	0.24	0.14	0.52	0.31	0.03	0.07
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.7
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.9	12.4
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.9	12.4
Approach LOS							B	B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	47.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	18	1290	13	16	1264	13	5	0	25	64	0	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	19	1358	14	17	1331	14	5	0	26	67	0	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.78						0.78	0.78		0.78	0.78	0.78
vC, conflicting volume	1344			1372			2114	2781	459	1888	2781	672
vC1, stage 1 conf vol							1403	1403		1371	1371	
vC2, stage 2 conf vol							712	1378		517	1409	
vCu, unblocked vol	1156			1372			2147	3005	459	1856	3005	291
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			97			93	100	95	20	100	98
cM capacity (veh/h)	471			502			79	67	551	85	67	551

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	358	679	353	682	679	5	26	67	13
Volume Left	19	0	0	17	0	5	0	67	0
Volume Right	0	0	14	0	14	0	26	0	13
cSH	471	1700	1700	502	1700	79	551	85	551
Volume to Capacity	0.04	0.40	0.21	0.03	0.40	0.07	0.05	0.80	0.02
Queue Length 95th (m)	0.9	0.0	0.0	0.8	0.0	1.6	1.1	30.4	0.5
Control Delay (s)	1.3	0.0	0.0	1.0	0.0	54.1	11.9	133.1	11.7
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	0.3			0.5		18.9		114.0	
Approach LOS						C		F	

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

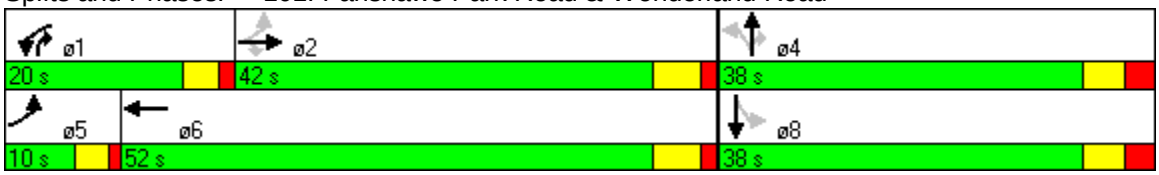
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.983				0.850		0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3300	0	1684	3433	1536	1700	3322	0
Flt Permitted	0.414			0.950			0.334			0.442		
Satd. Flow (perm)	741	3466	1493	3362	3300	0	592	3433	1536	791	3322	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			150		19				14		14	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	93	1113	199	257	510	66	160	371	322	131	450	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	101	1210	216	279	554	72	174	403	350	142	489	59
Lane Group Flow (vph)	101	1210	216	279	626	0	174	403	350	142	548	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	42.0	42.0	20.0	52.0	0.0	38.0	38.0	20.0	38.0	38.0	0.0
Total Split (%)	10.0%	42.0%	42.0%	20.0%	52.0%	0.0%	38.0%	38.0%	20.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	36.3	36.3	15.5	46.3		31.6	31.6	15.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	48.4	42.5	42.5	13.5	52.0		32.0	32.0	49.5	32.0	32.0	
Actuated g/C Ratio	0.48	0.42	0.42	0.14	0.52		0.32	0.32	0.50	0.32	0.32	
v/c Ratio	0.24	0.82	0.30	0.61	0.36		0.92	0.37	0.46	0.56	0.51	
Control Delay	11.7	32.6	8.3	46.5	15.6		76.8	22.8	14.3	37.2	28.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	11.7	32.6	8.3	46.5	15.6		76.8	22.8	14.3	37.2	28.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	C	A	D	B		E	C	B	D	C	
Approach Delay		27.8			25.1			29.7			30.2	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	8.0	109.6	7.7	26.2	37.6		31.6	23.5	25.9	21.7	42.0	
Queue Length 95th (m)	15.1	#155.7	23.7	38.0	50.6		#70.1	31.8	35.6	41.6	57.1	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	417	1472	720	538	1725		201	1167	768	269	1139	
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	0.24	0.82	0.30	0.52	0.36		0.87	0.35	0.46	0.53	0.48	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 28.0 Intersection LOS: C
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3299		1684	3433	1536	1700	3321	
Flt Permitted	0.41	1.00	1.00	0.95	1.00		0.32	1.00	1.00	0.43	1.00	
Satd. Flow (perm)	742	3466	1493	3362	3299		570	3433	1536	775	3321	
Volume (vph)	93	1113	199	257	510	66	160	371	322	131	450	54
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	1210	216	279	554	72	174	403	350	142	489	59
RTOR Reduction (vph)	0	0	86	0	9	0	0	0	8	0	10	0
Lane Group Flow (vph)	101	1210	130	279	617	0	174	403	342	142	538	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	45.6	40.8	40.8	13.0	49.5		29.6	29.6	42.6	29.6	29.6	
Effective Green, g (s)	47.3	42.5	42.5	13.5	51.2		32.0	32.0	45.5	32.0	32.0	
Actuated g/C Ratio	0.47	0.42	0.42	0.14	0.51		0.32	0.32	0.46	0.32	0.32	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	397	1473	635	454	1689		182	1099	760	248	1063	
v/s Ratio Prot	0.01	c0.35		c0.08	0.19			0.12	c0.06		0.16	
v/s Ratio Perm	0.11		0.09				c0.31		0.16	0.18		
v/c Ratio	0.25	0.82	0.20	0.61	0.37		0.96	0.37	0.45	0.57	0.51	
Uniform Delay, d1	14.8	25.4	18.1	40.8	14.6		33.3	26.2	18.7	28.3	27.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.86	0.85	0.82	1.00	1.00	
Incremental Delay, d2	0.3	5.3	0.7	2.5	0.6		52.4	0.2	0.4	3.2	0.4	
Delay (s)	15.1	30.7	18.8	43.3	15.3		81.1	22.4	15.7	31.5	28.0	
Level of Service	B	C	B	D	B		F	C	B	C	C	
Approach Delay (s)		28.0			23.9			30.9			28.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

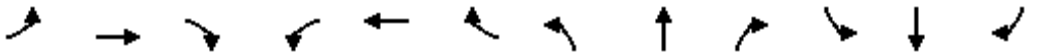
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.999				0.850
Flt Protected		0.954			0.958		0.950			0.950		
Satd. Flow (prot)	0	1560	1337	0	1679	1566	1750	3365	0	1750	3400	1566
Flt Permitted		0.727			0.790		0.243			0.305		
Satd. Flow (perm)	0	1189	1337	0	1385	1566	448	3365	0	562	3400	1566
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57			43		1				28
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	93	3	52	24	4	40	38	719	4	11	869	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	101	3	57	26	4	43	41	782	4	12	945	28
Lane Group Flow (vph)	0	104	57	0	30	43	41	786	0	12	945	28
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		15.7	15.7		15.7	15.7	79.8	79.8		79.8	79.8	79.8
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.80	0.80		0.80	0.80	0.80
v/c Ratio		0.56	0.22		0.14	0.15	0.11	0.29		0.03	0.35	0.02
Control Delay		49.2	11.3		35.4	11.4	5.0	4.2		2.1	1.9	0.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		49.2	11.3		35.4	11.4	5.0	4.2		2.1	1.9	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D	B		D	B	A	A		A	A	A
Approach Delay		35.7			21.3			4.2			1.9	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		18.6	0.0		5.0	0.0	1.7	19.9		0.2	9.1	0.1
Queue Length 95th (m)		32.9	9.8		12.1	8.4	6.0	35.2		m0.8	17.5	m0.2
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		392	479		457	546	357	2684		448	2712	1255
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.27	0.12		0.07	0.08	0.11	0.29		0.03	0.35	0.02

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 6.2 Intersection LOS: A
Intersection Capacity Utilization 50.2% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 102: Aldersbrook Road & Wonderland Road



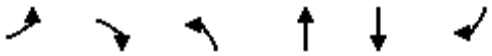
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1559	1337		1680	1566	1750	3366		1750	3400	1566
Flt Permitted		0.71	1.00		0.72	1.00	0.29	1.00		0.34	1.00	1.00
Satd. Flow (perm)		1161	1337		1269	1566	525	3366		630	3400	1566
Volume (vph)	93	3	52	24	4	40	38	719	4	11	869	26
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	3	57	26	4	43	41	782	4	12	945	28
RTOR Reduction (vph)	0	0	49	0	0	37	0	0	0	0	0	6
Lane Group Flow (vph)	0	104	8	0	30	6	41	786	0	12	945	22
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		11.8	11.8		11.8	11.8	75.9	75.9		75.9	75.9	75.9
Effective Green, g (s)		14.3	14.3		14.3	14.3	77.7	77.7		77.7	77.7	77.7
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.78	0.78		0.78	0.78	0.78
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		166	191		181	224	408	2615		490	2642	1217
v/s Ratio Prot								0.23			c0.28	
v/s Ratio Perm		c0.09	0.01		0.02	0.00	0.08			0.02		0.01
v/c Ratio		0.63	0.04		0.17	0.03	0.10	0.30		0.02	0.36	0.02
Uniform Delay, d1		40.3	36.9		37.6	36.9	2.7	3.2		2.5	3.4	2.5
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.50	0.39	0.29
Incremental Delay, d2		7.2	0.1		0.4	0.0	0.5	0.3		0.1	0.3	0.0
Delay (s)		47.5	37.0		38.0	36.9	3.2	3.5		1.3	1.7	0.8
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		43.8			37.4			3.5			1.7	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	41	22	468	62	14	599
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	24	509	67	15	651
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.87	0.87			0.87	
vC, conflicting volume	756	509			576	
vC1, stage 1 conf vol	509					
vC2, stage 2 conf vol	247					
vCu, unblocked vol	721	437			514	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	86	95			98	
cM capacity (veh/h)	314	495			914	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	45	24	509	67	145	260	260
Volume Left	45	0	0	0	15	0	0
Volume Right	0	24	0	67	0	0	0
cSH	314	495	1700	1700	914	1700	1700
Volume to Capacity	0.14	0.05	0.30	0.04	0.02	0.15	0.15
Queue Length 95th (m)	3.7	1.1	0.0	0.0	0.4	0.0	0.0
Control Delay (s)	18.3	12.6	0.0	0.0	1.1	0.0	0.0
Lane LOS	C	B			A		
Approach Delay (s)	16.3		0.0		0.2		
Approach LOS	C						

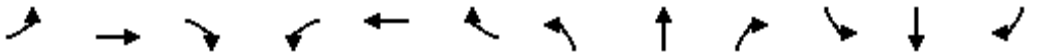
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	16	0	530	619	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	0	576	673	23
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.92					
vC, conflicting volume	972	236	696			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	877	236	696			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	263	766	896			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	17	288	288	269	269	157
Volume Left	0	0	0	0	0	0
Volume Right	17	0	0	0	0	23
cSH	766	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.17	0.17	0.16	0.16	0.09
Queue Length 95th (m)	0.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.8	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.8	0.0		0.0		
Approach LOS	A					

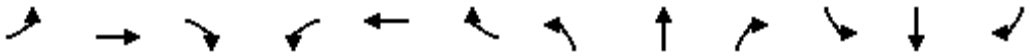
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	22.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1391	9	0	648	76	0	0	14	0	0	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1512	10	0	704	83	0	0	15	0	0	32
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.91						0.91	0.91		0.91	0.91	0.91
vC, conflicting volume	787			1522			1901	2304	383	1139	2267	393
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	660			1522			1890	2336	383	1049	2295	226
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	96
cM capacity (veh/h)	836			434			37	33	615	160	35	704

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	432	432	432	226	470	317	15	32
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	10	0	83	15	32
cSH	1700	1700	1700	1700	1700	1700	615	704
Volume to Capacity	0.25	0.25	0.25	0.13	0.28	0.19	0.02	0.04
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.0	10.4
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		11.0	10.4
Approach LOS							B	B

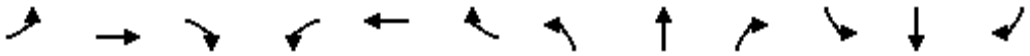
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	30.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	1354	3	3	673	1	0	0	5	41	0	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1472	3	3	732	1	0	0	5	45	0	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.92						0.92	0.92		0.92	0.92	0.92
vC, conflicting volume	733			1475			1873	2236	492	1259	2238	366
vC1, stage 1 conf vol							1497	1497		739	739	
vC2, stage 2 conf vol							376	739		520	1499	
vCu, unblocked vol	628			1475			1862	2256	492	1197	2257	231
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	100	99	77	100	100
cM capacity (veh/h)	878			453			79	96	522	192	96	712

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	380	736	371	369	367	0	5	45	3
Volume Left	12	0	0	3	0	0	0	45	0
Volume Right	0	0	3	0	1	0	5	0	3
cSH	878	1700	1700	453	1700	1700	522	192	712
Volume to Capacity	0.01	0.43	0.22	0.01	0.22	0.00	0.01	0.23	0.00
Queue Length 95th (m)	0.3	0.0	0.0	0.2	0.0	0.0	0.2	6.5	0.1
Control Delay (s)	0.4	0.0	0.0	0.2	0.0	0.0	12.0	29.3	10.1
Lane LOS	A			A		A	B	D	B
Approach Delay (s)	0.1			0.1		12.0		28.0	
Approach LOS						B		D	

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	49.4%	ICU Level of Service		A
Analysis Period (min)	15			



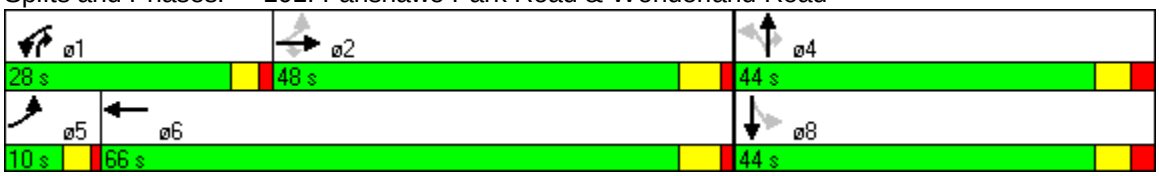
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.985				0.850		0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3485	0	1750	3535	1566	1750	3450	0
Flt Permitted	0.119			0.950			0.218			0.245		
Satd. Flow (perm)	217	3500	1536	3463	3485	0	402	3535	1566	451	3450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70		14				19		20	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	149	1000	266	620	1143	126	334	614	409	174	552	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	162	1087	289	674	1242	137	363	667	445	189	600	114
Lane Group Flow (vph)	162	1087	289	674	1379	0	363	667	445	189	714	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	48.0	48.0	28.0	66.0	0.0	44.0	44.0	28.0	44.0	44.0	0.0
Total Split (%)	8.3%	40.0%	40.0%	23.3%	55.0%	0.0%	36.7%	36.7%	23.3%	36.7%	36.7%	0.0%
Maximum Green (s)	6.0	42.3	42.3	23.5	60.3		37.6	37.6	23.5	37.6	37.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.0	44.0	44.0	24.0	62.0		40.0	40.0	68.0	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.57	0.33	0.33	
v/c Ratio	0.98	0.85	0.48	0.97	0.76		2.71	0.57	0.50	1.26	0.61	
Control Delay	89.3	42.4	24.7	76.1	26.4		806.8	31.9	14.4	195.1	35.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	89.3	42.4	24.7	76.1	26.4		806.8	31.9	14.4	195.1	35.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	D	C	E	C		F	C	B	F	D	
Approach Delay		44.0			42.7			217.3			68.7	
Approach LOS		D			D			F			E	
Queue Length 50th (m)	18.0	121.0	38.3	80.8	128.6		~145.0	53.1	37.2	~55.1	70.8	
Queue Length 95th (m)	#61.0	148.5	63.4	#117.3	156.3		#199.4	65.7	50.5	#100.0	90.6	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	166	1283	608	693	1807		134	1178	896	150	1163	
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	0.98	0.85	0.48	0.97	0.76		2.71	0.57	0.50	1.26	0.61	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.71
Intersection Signal Delay: 90.1 Intersection LOS: F
Intersection Capacity Utilization 95.8% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3485		1750	3535	1566	1750	3450	
Flt Permitted	0.12	1.00	1.00	0.95	1.00		0.22	1.00	1.00	0.25	1.00	
Satd. Flow (perm)	218	3500	1536	3463	3485		401	3535	1566	451	3450	
Volume (vph)	149	1000	266	620	1143	126	334	614	409	174	552	105
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	162	1087	289	674	1242	137	363	667	445	189	600	114
RTOR Reduction (vph)	0	0	44	0	7	0	0	0	9	0	13	0
Lane Group Flow (vph)	162	1087	245	674	1372	0	363	667	436	189	701	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	48.3	42.3	42.3	23.5	60.3		37.6	37.6	61.1	37.6	37.6	
Effective Green, g (s)	50.0	44.0	44.0	24.0	62.0		40.0	40.0	64.0	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.53	0.33	0.33	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	167	1283	563	693	1801		134	1178	887	150	1150	
v/s Ratio Prot	0.05	0.31		c0.19	0.39			0.19	0.10		0.20	
v/s Ratio Perm	c0.36		0.16				c0.91		0.18	0.42		
v/c Ratio	0.97	0.85	0.43	0.97	0.76		2.71	0.57	0.49	1.26	0.61	
Uniform Delay, d1	28.3	34.9	28.6	47.7	23.1		40.0	32.9	17.7	40.0	33.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.91	0.91	0.83	1.00	1.00	
Incremental Delay, d2	60.5	7.1	2.4	27.3	3.1		787.8	0.6	0.4	159.6	0.9	
Delay (s)	88.8	42.0	31.1	75.0	26.2		824.4	30.4	15.0	199.6	34.4	
Level of Service	F	D	C	E	C		F	C	B	F	C	
Approach Delay (s)		44.9			42.2			221.1			69.0	
Approach LOS		D			D			F			E	

Intersection Summary			
HCM Average Control Delay	91.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

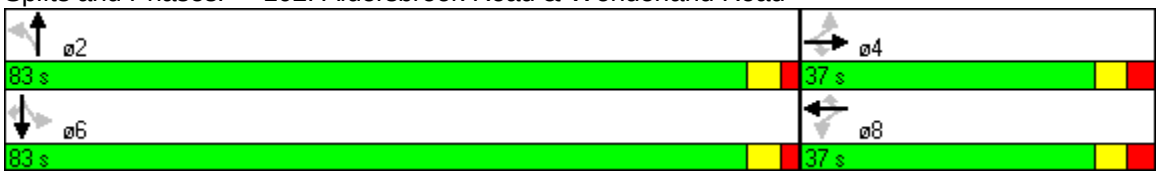
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.962			0.969		0.950			0.950		
Satd. Flow (prot)	0	1572	1363	0	1821	1536	1785	3535	0	1785	3500	1597
Flt Permitted		0.788			0.858		0.136			0.134		
Satd. Flow (perm)	0	1288	1363	0	1612	1536	256	3535	0	252	3500	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54			28						124
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	50	13	50	16	9	26	49	1281	3	52	1272	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	54	14	54	17	10	28	53	1392	3	57	1383	124
Lane Group Flow (vph)	0	68	54	0	27	28	53	1395	0	57	1383	124
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	83.0	83.0	0.0	83.0	83.0	83.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	69.2%	69.2%	0.0%	69.2%	69.2%	69.2%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	77.2	77.2		77.2	77.2	77.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		13.8	13.8		13.8	13.8	101.7	101.7		101.7	101.7	101.7
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.85	0.85		0.85	0.85	0.85
v/c Ratio		0.46	0.26		0.15	0.14	0.24	0.47		0.27	0.47	0.09
Control Delay		58.5	15.2		47.7	16.9	6.3	3.8		3.6	1.7	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.1	0.0
Total Delay		58.5	15.2		47.7	16.9	6.3	3.8		3.6	1.8	0.1

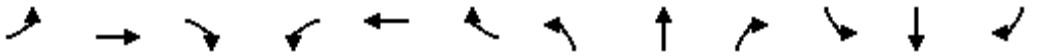
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	B		D	B	A	A		A	A	A
Approach Delay		39.4			32.0			3.9			1.7	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		15.0	0.0		5.8	0.0	2.2	39.5		1.0	12.6	0.0
Queue Length 95th (m)		28.2	11.2		13.9	8.1	8.0	63.6		m2.2	m21.1	m0.0
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		354	414		443	443	217	2995		214	2965	1372
Starvation Cap Reductn		0	0		0	0	0	0		0	499	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.19	0.13		0.06	0.06	0.24	0.47		0.27	0.56	0.09

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 4.7 Intersection LOS: A
Intersection Capacity Utilization 60.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 102: Aldersbrook Road & Wonderland Road





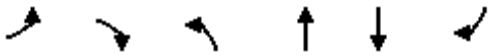
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1572	1363		1822	1536	1785	3533		1785	3500	1597
Flt Permitted		0.75	1.00		0.79	1.00	0.18	1.00		0.17	1.00	1.00
Satd. Flow (perm)		1229	1363		1494	1536	330	3533		326	3500	1597
Volume (vph)	50	13	50	16	9	26	49	1281	3	52	1272	114
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	14	54	17	10	28	53	1392	3	57	1383	124
RTOR Reduction (vph)	0	0	48	0	0	25	0	0	0	0	0	21
Lane Group Flow (vph)	0	68	6	0	27	3	53	1395	0	57	1383	103
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		9.9	9.9		9.9	9.9	97.8	97.8		97.8	97.8	97.8
Effective Green, g (s)		12.4	12.4		12.4	12.4	99.6	99.6		99.6	99.6	99.6
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.83	0.83		0.83	0.83	0.83
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		127	141		154	159	274	2932		271	2905	1326
v/s Ratio Prot								0.39			c0.40	
v/s Ratio Perm		c0.06	0.00		0.02	0.00	0.16			0.17		0.06
v/c Ratio		0.54	0.04		0.18	0.02	0.19	0.48		0.21	0.48	0.08
Uniform Delay, d1		51.1	48.4		49.1	48.3	2.1	2.9		2.1	2.9	1.9
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.43	0.39	0.08
Incremental Delay, d2		4.3	0.1		0.5	0.0	1.6	0.6		1.1	0.4	0.1
Delay (s)		55.4	48.6		49.7	48.4	3.6	3.4		2.1	1.5	0.2
Level of Service		E	D		D	D	A	A		A	A	A
Approach Delay (s)		52.3			49.0			3.4			1.4	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	5.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.0%	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		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	111	75	767	122	20	725
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	82	834	133	22	788
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.77	0.77			0.77	
vC, conflicting volume	1140	834			966	
vC1, stage 1 conf vol	834					
vC2, stage 2 conf vol	306					
vCu, unblocked vol	1183	783			956	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	34	68			96	
cM capacity (veh/h)	184	258			547	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	121	82	834	133	179	315	315
Volume Left	121	0	0	0	22	0	0
Volume Right	0	82	0	133	0	0	0
cSH	184	258	1700	1700	547	1700	1700
Volume to Capacity	0.66	0.32	0.49	0.08	0.04	0.19	0.19
Queue Length 95th (m)	28.9	9.8	0.0	0.0	0.9	0.0	0.0
Control Delay (s)	55.7	25.3	0.0	0.0	1.9	0.0	0.0
Lane LOS	F	D			A		
Approach Delay (s)	43.4		0.0		0.4		
Approach LOS	E						

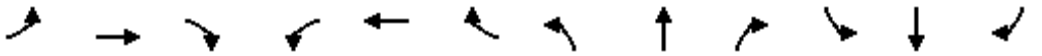
Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	12	0	889	819	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	13	0	966	890	20
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.85					
vC, conflicting volume	1383	307	910			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1271	307	910			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	135	689	744			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	13	483	483	356	356	198
Volume Left	0	0	0	0	0	0
Volume Right	13	0	0	0	0	20
cSH	689	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.28	0.28	0.21	0.21	0.12
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	10.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	10.3	0.0		0.0		
Approach LOS	B					

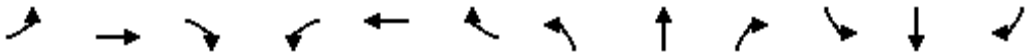
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	27.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1394	13	0	1502	79	0	0	20	0	0	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1515	14	0	1633	86	0	0	22	0	0	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.69						0.69	0.69		0.69	0.69	0.69
vC, conflicting volume	1718			1529			2371	3241	386	2076	3205	859
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1590			1529			2541	3809	386	2111	3757	337
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	96	100	100	93
cM capacity (veh/h)	280			431			9	3	612	19	3	452

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	433	433	433	231	1088	630	22	33
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	14	0	86	22	33
cSH	1700	1700	1700	1700	1700	1700	612	452
Volume to Capacity	0.25	0.25	0.25	0.14	0.64	0.37	0.04	0.07
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.7
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.1	13.6
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		11.1	13.6
Approach LOS							B	B

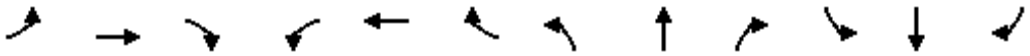
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	54.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	1348	12	31	1497	3	15	0	16	43	0	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1465	13	34	1627	3	16	0	17	47	0	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.69						0.69	0.69		0.69	0.69	0.69
vC, conflicting volume	1630			1478			2381	3193	495	2226	3198	815
vC1, stage 1 conf vol							1496	1496		1696	1696	
vC2, stage 2 conf vol							885	1698		530	1502	
vCu, unblocked vol	1466			1478			2550	3723	495	2326	3730	289
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			93			75	100	97	0	100	99
cM capacity (veh/h)	316			452			65	44	520	45	43	490

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	378	733	379	847	817	16	17	47	4
Volume Left	12	0	0	34	0	16	0	47	0
Volume Right	0	0	13	0	3	0	17	0	4
cSH	316	1700	1700	452	1700	65	520	45	490
Volume to Capacity	0.04	0.43	0.22	0.07	0.48	0.25	0.03	1.03	0.01
Queue Length 95th (m)	0.9	0.0	0.0	1.8	0.0	6.6	0.8	32.0	0.2
Control Delay (s)	1.3	0.0	0.0	2.4	0.0	77.6	12.2	282.5	12.4
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	0.3			1.2		43.8		259.5	
Approach LOS						E		F	

Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	79.3%	ICU Level of Service		D
Analysis Period (min)	15			



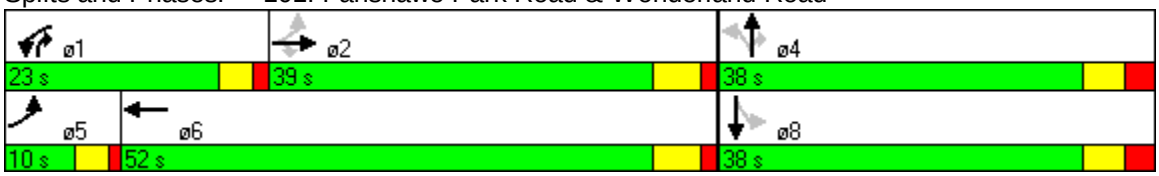
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.988				0.850		0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3492	0	1767	3535	1581	1767	3421	0
Flt Permitted	0.153			0.950			0.255			0.292		
Satd. Flow (perm)	285	3535	1581	3429	3492	0	474	3535	1581	543	3421	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			107		13				20		37	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	174	972	385	467	1062	95	329	580	607	193	503	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	183	1023	405	492	1118	100	346	611	639	203	529	142
Lane Group Flow (vph)	183	1023	405	492	1218	0	346	611	639	203	671	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	39.0	39.0	23.0	52.0	0.0	38.0	38.0	23.0	38.0	38.0	0.0
Total Split (%)	10.0%	39.0%	39.0%	23.0%	52.0%	0.0%	38.0%	38.0%	23.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	33.3	33.3	18.5	46.3		31.6	31.6	18.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	42.1	36.1	36.1	17.9	48.0		34.0	34.0	55.9	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.56	0.34	0.34	
v/c Ratio	0.88	0.80	0.63	0.80	0.72		2.15	0.51	0.72	1.10	0.56	
Control Delay	56.5	35.0	24.7	49.9	23.6		556.2	24.7	17.7	128.8	27.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	56.5	35.0	24.7	49.9	23.6		556.2	24.7	17.7	128.8	27.6	
LOS	E	C	C	D	C		F	C	B	F	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.8			31.1			137.1			51.1	
Approach LOS		C			C			F			D	
Queue Length 50th (m)	15.3	93.1	47.5	46.2	93.2		~100.3	48.4	24.0	~44.3	51.6	
Queue Length 95th (m)	#52.8	118.3	79.9	63.3	117.5		#140.0	52.4	31.0	#87.1	69.0	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	209	1275	639	652	1683		161	1202	893	185	1188	
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	0.88	0.80	0.63	0.75	0.72		2.15	0.51	0.72	1.10	0.56	

Intersection Summary

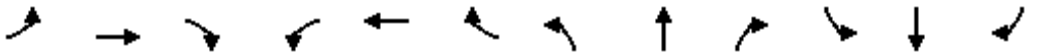
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.15
Intersection Signal Delay: 64.4 Intersection LOS: E
Intersection Capacity Utilization 91.8% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3491		1767	3535	1581	1767	3422	
Flt Permitted	0.15	1.00	1.00	0.95	1.00		0.26	1.00	1.00	0.29	1.00	
Satd. Flow (perm)	276	3535	1581	3429	3491		475	3535	1581	544	3422	
Volume (vph)	174	972	385	467	1062	95	329	580	607	193	503	135
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	183	1023	405	492	1118	100	346	611	639	203	529	142
RTOR Reduction (vph)	0	0	68	0	7	0	0	0	10	0	24	0
Lane Group Flow (vph)	183	1023	337	492	1211	0	346	611	629	203	647	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	40.4	34.4	34.4	17.4	46.3		31.6	31.6	49.0	31.6	31.6	
Effective Green, g (s)	42.1	36.1	36.1	17.9	48.0		34.0	34.0	51.9	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.52	0.34	0.34	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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	1276	571	614	1676		162	1202	884	185	1163	
v/s Ratio Prot	0.05	0.29		c0.14	0.35			0.17	c0.13		0.19	
v/s Ratio Perm	c0.32		0.21				c0.73		0.27	0.37		
v/c Ratio	0.89	0.80	0.59	0.80	0.72		2.14	0.51	0.71	1.10	0.56	
Uniform Delay, d1	21.6	28.7	25.9	39.3	20.7		33.0	26.3	18.3	33.0	26.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.91	0.88	0.83	1.00	1.00	
Incremental Delay, d2	33.6	5.4	4.4	7.4	2.7		528.7	0.3	2.4	94.6	0.6	
Delay (s)	55.2	34.1	30.4	46.8	23.4		558.9	23.4	17.7	127.6	27.4	
Level of Service	E	C	C	D	C		F	C	B	F	C	
Approach Delay (s)		35.6			30.2			137.2			50.7	
Approach LOS		D			C			F			D	

Intersection Summary			
HCM Average Control Delay	64.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

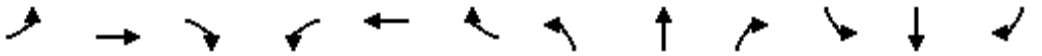


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.956			0.968		0.950			0.950		
Satd. Flow (prot)	0	1579	1404	0	1801	1581	1767	3535	0	1767	3535	1581
Flt Permitted		0.786			0.868		0.125			0.083		
Satd. Flow (perm)	0	1298	1404	0	1615	1581	233	3535	0	154	3535	1581
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			15						53
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	43	4	53	16	9	14	41	1459	2	26	1279	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1536	2	27	1346	53
Lane Group Flow (vph)	0	49	56	0	26	15	43	1538	0	27	1346	53
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		11.6	11.6		11.6	11.6	83.9	83.9		83.9	83.9	83.9
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.84	0.84		0.84	0.84	0.84
v/c Ratio		0.32	0.27		0.14	0.08	0.22	0.52		0.21	0.45	0.04
Control Delay		45.8	16.3		40.3	18.1	5.9	4.0		8.8	5.9	2.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		45.8	16.3		40.3	18.1	5.9	4.0		8.8	5.9	2.5
LOS		D	B		D	B	A	A		A	A	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		30.1			32.2			4.0			5.8	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		8.8	0.9		4.6	0.0	1.5	39.3		1.5	50.4	0.5
Queue Length 95th (m)		19.0	11.4		11.7	5.6	5.9	63.5		m3.0	68.8	m1.9
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		428	497		533	532	195	2965		129	2965	1335
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.11	0.11		0.05	0.03	0.22	0.52		0.21	0.45	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 24 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 62.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 102: Aldersbrook Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1579	1404		1801	1581	1767	3534		1767	3535	1581
Flt Permitted		0.72	1.00		0.78	1.00	0.18	1.00		0.14	1.00	1.00
Satd. Flow (perm)		1196	1404		1459	1581	341	3534		269	3535	1581
Volume (vph)	43	4	53	16	9	14	41	1459	2	26	1279	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1536	2	27	1346	53
RTOR Reduction (vph)	0	0	46	0	0	13	0	0	0	0	0	10
Lane Group Flow (vph)	0	49	10	0	26	2	43	1538	0	27	1346	43
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		7.7	7.7		7.7	7.7	80.0	80.0		80.0	80.0	80.0
Effective Green, g (s)		10.2	10.2		10.2	10.2	81.8	81.8		81.8	81.8	81.8
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.82	0.82		0.82	0.82	0.82
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		122	143		149	161	279	2891		220	2892	1293
v/s Ratio Prot								c0.44			0.38	
v/s Ratio Perm		c0.04	0.01		0.02	0.00	0.13			0.10		0.03
v/c Ratio		0.40	0.07		0.17	0.01	0.15	0.53		0.12	0.47	0.03
Uniform Delay, d1		42.0	40.6		41.1	40.4	1.9	2.9		1.8	2.7	1.7
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.75	1.84	3.19
Incremental Delay, d2		2.2	0.2		0.6	0.0	1.2	0.7		0.8	0.4	0.0
Delay (s)		44.2	40.8		41.6	40.4	3.1	3.6		4.1	5.3	5.5
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		42.4			41.2			3.6			5.3	
Approach LOS		D			D			A			A	

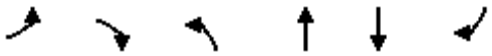
Intersection Summary			
HCM Average Control Delay	6.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	268	81	580	269	34	570
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	282	85	611	283	36	600
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.90	0.90			0.90	
vC, conflicting volume	882	305			894	
vC1, stage 1 conf vol	611					
vC2, stage 2 conf vol	272					
vCu, unblocked vol	761	122			774	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	8	90			95	
cM capacity (veh/h)	308	821			762	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	282	85	305	305	283	156	240	240
Volume Left	282	0	0	0	0	36	0	0
Volume Right	0	85	0	0	283	0	0	0
cSH	308	821	1700	1700	1700	762	1700	1700
Volume to Capacity	0.92	0.10	0.18	0.18	0.17	0.05	0.14	0.14
Queue Length 95th (m)	66.0	2.6	0.0	0.0	0.0	1.1	0.0	0.0
Control Delay (s)	69.9	9.9	0.0	0.0	0.0	2.7	0.0	0.0
Lane LOS	F	A				A		
Approach Delay (s)	56.0		0.0			0.7		
Approach LOS	F							

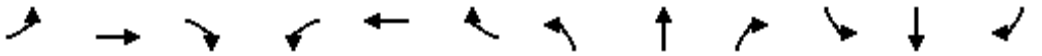
Intersection Summary			
Average Delay	11.1		
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	15	0	849	817	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	16	0	894	860	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.86					
vC, conflicting volume	1318	298	882			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1211	298	882			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	152	701	769			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	16	447	447	344	344	194
Volume Left	0	0	0	0	0	0
Volume Right	16	0	0	0	0	22
cSH	701	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.26	0.26	0.20	0.20	0.11
Queue Length 95th (m)	0.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	10.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	10.3	0.0		0.0		
Approach LOS	B					

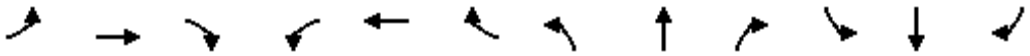
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1514	27	0	1440	86	0	0	17	0	0	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1594	28	0	1516	91	0	0	18	0	0	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.72						0.72	0.72		0.72	0.72	0.72
vC, conflicting volume	1606			1622			2404	3214	413	1977	3183	803
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1457			1622			2557	3675	413	1969	3632	349
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	92
cM capacity (veh/h)	337			402			9	3	591	27	4	471

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	455	455	455	256	1011	596	18	38
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	28	0	91	18	38
cSH	1700	1700	1700	1700	1700	1700	591	471
Volume to Capacity	0.27	0.27	0.27	0.15	0.59	0.35	0.03	0.08
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.3	13.3
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		11.3	13.3
Approach LOS							B	B

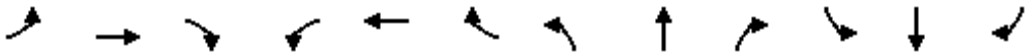
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	52.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	18	1452	13	16	1447	13	5	0	25	64	0	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	19	1528	14	17	1523	14	5	0	26	67	0	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.73						0.73	0.73		0.73	0.73	0.73
vC, conflicting volume	1537			1542			2381	3144	516	2137	3144	768
vC1, stage 1 conf vol							1573	1573		1564	1564	
vC2, stage 2 conf vol							808	1571		574	1580	
vCu, unblocked vol	1368			1542			2520	3560	516	2187	3560	320
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			96			91	100	95	0	100	97
cM capacity (veh/h)	369			431			61	49	506	60	50	498

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	401	764	396	778	775	5	26	67	13
Volume Left	19	0	0	17	0	5	0	67	0
Volume Right	0	0	14	0	14	0	26	0	13
cSH	369	1700	1700	431	1700	61	506	60	498
Volume to Capacity	0.05	0.45	0.23	0.04	0.46	0.09	0.05	1.12	0.03
Queue Length 95th (m)	1.2	0.0	0.0	0.9	0.0	2.0	1.2	41.3	0.6
Control Delay (s)	1.7	0.0	0.0	1.2	0.0	69.4	12.5	268.9	12.4
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	0.4			0.6		22.0		228.4	
Approach LOS						C		F	

Intersection Summary				
Average Delay	6.4			
Intersection Capacity Utilization	68.6%	ICU Level of Service	C	
Analysis Period (min)	15			



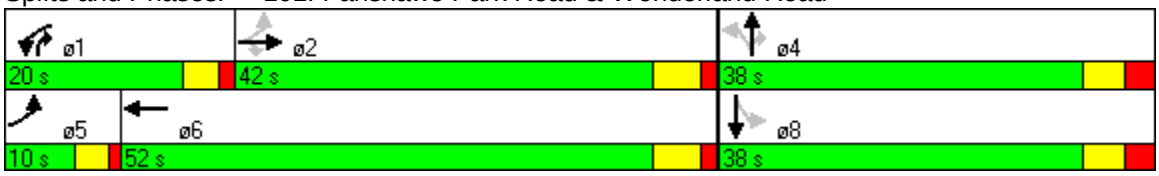
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.985				0.850		0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3308	0	1684	3433	1536	1700	3312	0
Flt Permitted	0.430			0.950			0.434			0.496		
Satd. Flow (perm)	769	3466	1493	3362	3308	0	769	3433	1536	888	3312	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124		16				21		16	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	88	1013	114	242	488	54	143	311	304	109	334	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	96	1101	124	263	530	59	155	338	330	118	363	50
Lane Group Flow (vph)	96	1101	124	263	589	0	155	338	330	118	413	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	42.0	42.0	20.0	52.0	0.0	38.0	38.0	20.0	38.0	38.0	0.0
Total Split (%)	10.0%	42.0%	42.0%	20.0%	52.0%	0.0%	38.0%	38.0%	20.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	36.3	36.3	15.5	46.3		31.6	31.6	15.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	54.1	48.2	48.2	13.2	57.3		26.7	26.7	43.8	26.7	26.7	
Actuated g/C Ratio	0.54	0.48	0.48	0.13	0.57		0.27	0.27	0.44	0.27	0.27	
v/c Ratio	0.20	0.66	0.16	0.59	0.31		0.76	0.37	0.48	0.50	0.46	
Control Delay	10.0	24.2	4.3	46.3	13.0		50.1	25.5	16.8	36.8	30.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	10.0	24.2	4.3	46.3	13.0		50.1	25.5	16.8	36.8	30.1	

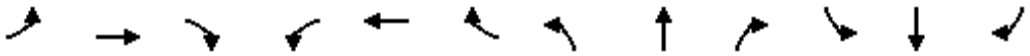
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	C	A	D	B		D	C	B	D	C	
Approach Delay		21.3			23.3			26.7			31.6	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	6.2	82.0	0.0	24.7	29.7		27.8	22.3	28.6	19.0	33.1	
Queue Length 95th (m)	14.5	125.4	10.8	35.9	47.4		47.5	27.7	34.2	32.9	42.3	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	472	1669	783	538	1904		261	1167	695	302	1137	
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	0.20	0.66	0.16	0.49	0.31		0.59	0.29	0.47	0.39	0.36	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 24.6 Intersection LOS: C
Intersection Capacity Utilization 66.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3308		1684	3433	1536	1700	3311	
Flt Permitted	0.43	1.00	1.00	0.95	1.00		0.39	1.00	1.00	0.47	1.00	
Satd. Flow (perm)	769	3466	1493	3362	3308		698	3433	1536	833	3311	
Volume (vph)	88	1013	114	242	488	54	143	311	304	109	334	46
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	96	1101	124	263	530	59	155	338	330	118	363	50
RTOR Reduction (vph)	0	0	64	0	7	0	0	0	13	0	12	0
Lane Group Flow (vph)	96	1101	60	263	582	0	155	338	317	118	401	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	51.2	46.4	46.4	12.7	54.8		24.3	24.3	37.0	24.3	24.3	
Effective Green, g (s)	52.9	48.1	48.1	13.2	56.5		26.7	26.7	39.9	26.7	26.7	
Actuated g/C Ratio	0.53	0.48	0.48	0.13	0.56		0.27	0.27	0.40	0.27	0.27	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	451	1667	718	444	1869		186	917	674	222	884	
v/s Ratio Prot	0.01	c0.32		c0.08	0.18			0.10	c0.06		0.12	
v/s Ratio Perm	0.10		0.04				c0.22		0.14	0.14		
v/c Ratio	0.21	0.66	0.08	0.59	0.31		0.83	0.37	0.47	0.53	0.45	
Uniform Delay, d1	11.8	19.7	14.0	40.9	11.5		34.6	29.8	22.2	31.3	30.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.85	0.85	0.83	1.00	1.00	
Incremental Delay, d2	0.2	2.1	0.2	2.1	0.4		25.6	0.2	0.5	2.4	0.4	
Delay (s)	12.0	21.8	14.3	43.0	11.9		55.0	25.6	19.0	33.7	30.9	
Level of Service	B	C	B	D	B		E	C	B	C	C	
Approach Delay (s)		20.4			21.5			28.5			31.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

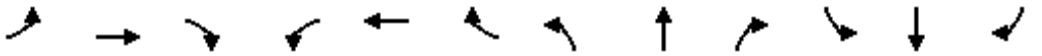
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.999				0.850
Flt Protected		0.954			0.958		0.950			0.950		
Satd. Flow (prot)	0	1560	1337	0	1679	1566	1750	3365	0	1750	3400	1566
Flt Permitted		0.727			0.790		0.338			0.351		
Satd. Flow (perm)	0	1189	1337	0	1385	1566	623	3365	0	647	3400	1566
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57			43		1				28
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	93	3	52	24	4	40	38	625	4	11	653	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	101	3	57	26	4	43	41	679	4	12	710	28
Lane Group Flow (vph)	0	104	57	0	30	43	41	683	0	12	710	28
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		15.7	15.7		15.7	15.7	79.8	79.8		79.8	79.8	79.8
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.80	0.80		0.80	0.80	0.80
v/c Ratio		0.56	0.22		0.14	0.15	0.08	0.25		0.02	0.26	0.02
Control Delay		49.2	11.3		35.4	11.4	4.4	4.0		1.5	1.3	0.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		49.2	11.3		35.4	11.4	4.4	4.0		1.5	1.3	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D	B		D	B	A	A		A	A	A
Approach Delay		35.7			21.3			4.0			1.2	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		18.6	0.0		5.0	0.0	1.6	16.6		0.1	2.6	0.0
Queue Length 95th (m)		32.9	9.8		12.1	8.4	5.5	29.7		m0.5	9.5	m0.0
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		392	479		457	546	497	2684		516	2712	1255
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.27	0.12		0.07	0.08	0.08	0.25		0.02	0.26	0.02

Intersection Summary

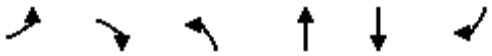
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 6.5 Intersection LOS: A
Intersection Capacity Utilization 45.9% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 102: Aldersbrook Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1559	1337		1680	1566	1750	3366		1750	3400	1566
Flt Permitted		0.71	1.00		0.72	1.00	0.37	1.00		0.38	1.00	1.00
Satd. Flow (perm)		1161	1337		1269	1566	686	3366		707	3400	1566
Volume (vph)	93	3	52	24	4	40	38	625	4	11	653	26
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	3	57	26	4	43	41	679	4	12	710	28
RTOR Reduction (vph)	0	0	49	0	0	37	0	0	0	0	0	6
Lane Group Flow (vph)	0	104	8	0	30	6	41	683	0	12	710	22
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		11.8	11.8		11.8	11.8	75.9	75.9		75.9	75.9	75.9
Effective Green, g (s)		14.3	14.3		14.3	14.3	77.7	77.7		77.7	77.7	77.7
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.78	0.78		0.78	0.78	0.78
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		166	191		181	224	533	2615		549	2642	1217
v/s Ratio Prot								0.20			c0.21	
v/s Ratio Perm		c0.09	0.01		0.02	0.00	0.06			0.02		0.01
v/c Ratio		0.63	0.04		0.17	0.03	0.08	0.26		0.02	0.27	0.02
Uniform Delay, d1		40.3	36.9		37.6	36.9	2.6	3.1		2.5	3.1	2.5
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.37	0.28	0.09
Incremental Delay, d2		7.2	0.1		0.4	0.0	0.3	0.2		0.1	0.2	0.0
Delay (s)		47.5	37.0		38.0	36.9	2.9	3.4		1.0	1.1	0.2
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		43.8			37.4			3.3			1.1	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	6	9	0	413	442	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	10	0	449	480	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)				156		
pX, platoon unblocked	0.89					
vC, conflicting volume	929	480	480			
vC1, stage 1 conf vol	480					
vC2, stage 2 conf vol	449					
vCu, unblocked vol	921	480	480			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	98	100			
cM capacity (veh/h)	301	586	1082			

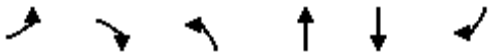
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	16	449	480
Volume Left	7	0	0
Volume Right	10	0	0
cSH	753	1700	1700
Volume to Capacity	0.02	0.26	0.28
Queue Length 95th (m)	0.5	0.0	0.0
Control Delay (s)	13.6	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.6	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		33.3%	ICU Level of Service A
Analysis Period (min)		15	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	41	22	391	62	14	437
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	24	425	67	15	475
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.90	0.90			0.90	
vC, conflicting volume	614	425			492	
vC1, stage 1 conf vol	425					
vC2, stage 2 conf vol	189					
vCu, unblocked vol	569	358			433	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	96			98	
cM capacity (veh/h)	366	572			1006	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	45	24	425	67	110	190	190
Volume Left	45	0	0	0	15	0	0
Volume Right	0	24	0	67	0	0	0
cSH	366	572	1700	1700	1006	1700	1700
Volume to Capacity	0.12	0.04	0.25	0.04	0.02	0.11	0.11
Queue Length 95th (m)	3.1	1.0	0.0	0.0	0.3	0.0	0.0
Control Delay (s)	16.2	11.6	0.0	0.0	1.3	0.0	0.0
Lane LOS	C	B			A		
Approach Delay (s)	14.6		0.0		0.3		
Approach LOS	B						

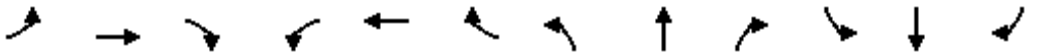
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	41	0	453	448	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	0	492	487	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.93					
vC, conflicting volume	749	179	520			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	650	179	520			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	95	100			
cM capacity (veh/h)	372	833	1043			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	45	246	246	195	195	130
Volume Left	0	0	0	0	0	0
Volume Right	45	0	0	0	0	33
cSH	833	1700	1700	1700	1700	1700
Volume to Capacity	0.05	0.14	0.14	0.11	0.11	0.08
Queue Length 95th (m)	1.3	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.6	0.0		0.0		
Approach LOS	A					

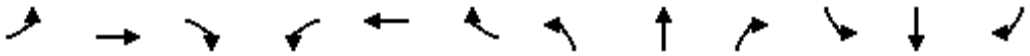
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1200	9	0	601	76	0	0	14	0	0	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1304	10	0	653	83	0	0	15	0	0	32
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.92						0.92	0.92		0.92	0.92	0.92
vC, conflicting volume	736			1314			1667	2045	331	1036	2009	368
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	633			1314			1640	2049	331	957	2009	235
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	96
cM capacity (veh/h)	875			522			58	51	665	192	54	709

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	373	373	373	196	436	300	15	32
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	10	0	83	15	32
cSH	1700	1700	1700	1700	1700	1700	665	709
Volume to Capacity	0.22	0.22	0.22	0.12	0.26	0.18	0.02	0.04
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.5	10.3
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.5	10.3
Approach LOS							B	B

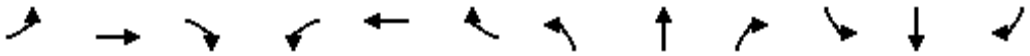
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	29.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	27	1163	3	3	576	51	0	0	5	41	0	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	1264	3	3	626	55	0	0	5	45	0	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.94						0.94	0.94		0.94	0.94	0.94
vC, conflicting volume	682			1267			1657	2012	423	1146	1986	341
vC1, stage 1 conf vol							1324	1324		660	660	
vC2, stage 2 conf vol							333	688		486	1326	
vCu, unblocked vol	603			1267			1637	2013	423	1095	1986	242
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			100	100	99	79	100	98
cM capacity (veh/h)	916			544			99	113	579	211	115	716

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	345	632	319	316	368	0	5	45	13
Volume Left	29	0	0	3	0	0	0	45	0
Volume Right	0	0	3	0	55	0	5	0	13
cSH	916	1700	1700	544	1700	1700	579	211	716
Volume to Capacity	0.03	0.37	0.19	0.01	0.22	0.00	0.01	0.21	0.02
Queue Length 95th (m)	0.7	0.0	0.0	0.1	0.0	0.0	0.2	5.8	0.4
Control Delay (s)	1.1	0.0	0.0	0.2	0.0	0.0	11.3	26.5	10.1
Lane LOS	A			A		A	B	D	B
Approach Delay (s)	0.3			0.1		11.3		22.8	
Approach LOS						B		C	

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	57.4%	ICU Level of Service		B
Analysis Period (min)	15			



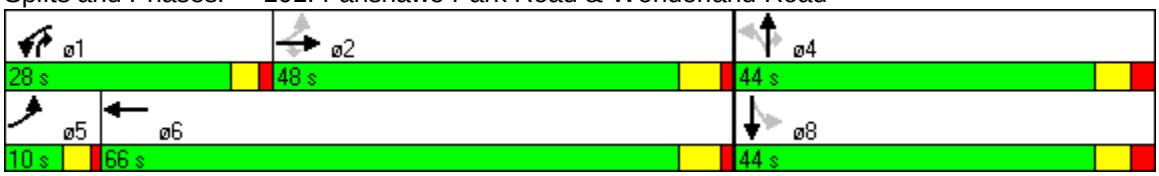
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.990				0.850		0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3502	0	1750	3535	1566	1750	3453	0
Flt Permitted	0.151			0.950			0.254			0.349		
Satd. Flow (perm)	275	3500	1536	3463	3502	0	468	3535	1566	643	3453	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			86		9				28		19	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	131	912	202	582	1107	79	289	468	384	204	506	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	142	991	220	633	1203	86	314	509	417	222	550	102
Lane Group Flow (vph)	142	991	220	633	1289	0	314	509	417	222	652	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	48.0	48.0	28.0	66.0	0.0	44.0	44.0	28.0	44.0	44.0	0.0
Total Split (%)	8.3%	40.0%	40.0%	23.3%	55.0%	0.0%	36.7%	36.7%	23.3%	36.7%	36.7%	0.0%
Maximum Green (s)	6.0	42.3	42.3	23.5	60.3		37.6	37.6	23.5	37.6	37.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.3	44.3	44.3	23.7	62.0		40.0	40.0	67.7	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.56	0.33	0.33	
v/c Ratio	0.76	0.77	0.35	0.92	0.71		2.01	0.43	0.46	1.04	0.56	
Control Delay	42.4	38.3	18.2	67.6	24.7		500.4	29.7	13.8	111.9	34.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	42.4	38.3	18.2	67.6	24.7		500.4	29.7	13.8	111.9	34.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D	B	E	C		F	C	B	F	C	
Approach Delay		35.4			38.8			143.6			53.8	
Approach LOS		D			D			F			D	
Queue Length 50th (m)	13.5	106.2	21.6	74.8	115.4		~115.3	40.7	33.1	~55.5	63.1	
Queue Length 95th (m)	#31.7	131.1	41.5	#106.5	140.3		#171.6	51.4	46.5	#102.9	81.5	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	188	1291	621	693	1814		156	1178	897	214	1164	
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	0.76	0.77	0.35	0.91	0.71		2.01	0.43	0.46	1.04	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.01
Intersection Signal Delay: 64.5 Intersection LOS: E
Intersection Capacity Utilization 88.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

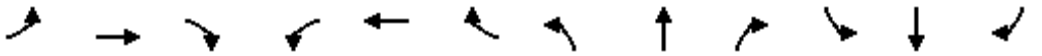
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3501		1750	3535	1566	1750	3452	
Flt Permitted	0.15	1.00	1.00	0.95	1.00		0.25	1.00	1.00	0.35	1.00	
Satd. Flow (perm)	273	3500	1536	3463	3501		468	3535	1566	642	3452	
Volume (vph)	131	912	202	582	1107	79	289	468	384	204	506	94
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	142	991	220	633	1203	86	314	509	417	222	550	102
RTOR Reduction (vph)	0	0	54	0	4	0	0	0	13	0	13	0
Lane Group Flow (vph)	142	991	166	633	1285	0	314	509	404	222	639	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	48.6	42.6	42.6	23.2	60.3		37.6	37.6	60.8	37.6	37.6	
Effective Green, g (s)	50.3	44.3	44.3	23.7	62.0		40.0	40.0	63.7	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.53	0.33	0.33	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	187	1292	567	684	1809		156	1178	883	214	1151	
v/s Ratio Prot	0.04	c0.28		c0.18	0.37			0.14	0.09		0.19	
v/s Ratio Perm	0.28		0.11				c0.67		0.17	0.35		
v/c Ratio	0.76	0.77	0.29	0.93	0.71		2.01	0.43	0.46	1.04	0.56	
Uniform Delay, d1	23.7	33.3	26.8	47.3	22.1		40.0	31.2	17.4	40.0	32.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.91	0.91	0.84	1.00	1.00	
Incremental Delay, d2	16.1	4.4	1.3	18.4	2.4		476.4	0.2	0.4	71.6	0.6	
Delay (s)	39.8	37.7	28.1	65.7	24.5		513.0	28.7	14.9	111.6	33.3	
Level of Service	D	D	C	E	C		F	C	B	F	C	
Approach Delay (s)		36.4			38.1			146.7			53.2	
Approach LOS		D			D			F			D	

Intersection Summary			
HCM Average Control Delay	65.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



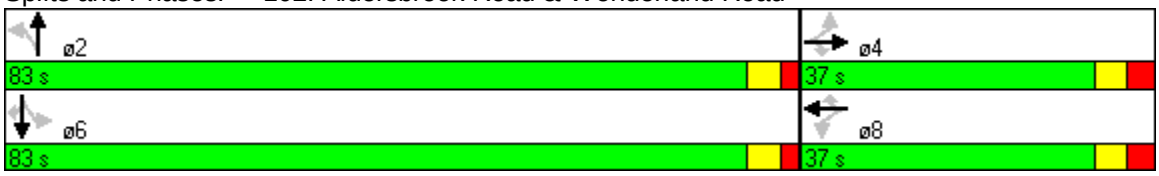
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.962			0.969		0.950			0.950		
Satd. Flow (prot)	0	1572	1363	0	1821	1536	1785	3535	0	1785	3500	1597
Flt Permitted		0.788			0.858		0.175			0.191		
Satd. Flow (perm)	0	1288	1363	0	1612	1536	329	3535	0	359	3500	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54			28						124
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	50	13	50	16	9	26	49	1065	3	52	1124	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	54	14	54	17	10	28	53	1158	3	57	1222	124
Lane Group Flow (vph)	0	68	54	0	27	28	53	1161	0	57	1222	124
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	83.0	83.0	0.0	83.0	83.0	83.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	69.2%	69.2%	0.0%	69.2%	69.2%	69.2%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	77.2	77.2		77.2	77.2	77.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		13.8	13.8		13.8	13.8	101.7	101.7		101.7	101.7	101.7
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.85	0.85		0.85	0.85	0.85
v/c Ratio		0.46	0.26		0.15	0.14	0.19	0.39		0.19	0.41	0.09
Control Delay		58.5	15.2		47.7	16.9	4.7	3.4		1.9	1.0	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.1	0.0
Total Delay		58.5	15.2		47.7	16.9	4.7	3.4		1.9	1.1	0.1

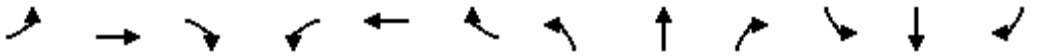
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	B		D	B	A	A		A	A	A
Approach Delay		39.4			32.0			3.4			1.0	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		15.0	0.0		5.8	0.0	2.1	29.5		0.4	4.0	0.0
Queue Length 95th (m)		28.2	11.2		13.9	8.1	6.9	48.0		m1.5	m12.3	m0.1
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		354	414		443	443	279	2995		304	2965	1372
Starvation Cap Reductn		0	0		0	0	0	0		0	532	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.19	0.13		0.06	0.06	0.19	0.39		0.19	0.50	0.09

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 4.3 Intersection LOS: A
Intersection Capacity Utilization 57.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

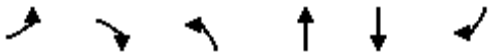
Splits and Phases: 102: Aldersbrook Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1572	1363		1822	1536	1785	3533		1785	3500	1597
Flt Permitted		0.75	1.00		0.79	1.00	0.21	1.00		0.23	1.00	1.00
Satd. Flow (perm)		1229	1363		1494	1536	400	3533		429	3500	1597
Volume (vph)	50	13	50	16	9	26	49	1065	3	52	1124	114
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	14	54	17	10	28	53	1158	3	57	1222	124
RTOR Reduction (vph)	0	0	48	0	0	25	0	0	0	0	0	21
Lane Group Flow (vph)	0	68	6	0	27	3	53	1161	0	57	1222	103
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		9.9	9.9		9.9	9.9	97.8	97.8		97.8	97.8	97.8
Effective Green, g (s)		12.4	12.4		12.4	12.4	99.6	99.6		99.6	99.6	99.6
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.83	0.83		0.83	0.83	0.83
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		127	141		154	159	332	2932		356	2905	1326
v/s Ratio Prot								0.33			c0.35	
v/s Ratio Perm		c0.06	0.00		0.02	0.00	0.13			0.13		0.06
v/c Ratio		0.54	0.04		0.18	0.02	0.16	0.40		0.16	0.42	0.08
Uniform Delay, d1		51.1	48.4		49.1	48.3	2.0	2.6		2.0	2.7	1.9
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.28	0.22	0.03
Incremental Delay, d2		4.3	0.1		0.5	0.0	1.0	0.4		0.7	0.3	0.1
Delay (s)		55.4	48.6		49.7	48.4	3.0	3.0		1.3	0.9	0.1
Level of Service		E	D		D	D	A	A		A	A	A
Approach Delay (s)		52.3			49.0			3.0			0.8	
Approach LOS		D			D			A			A	

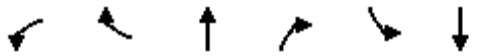
Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	21	30	0	631	620	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	33	0	686	674	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)				156		
pX, platoon unblocked	0.83					
vC, conflicting volume	1360	674	674			
vC1, stage 1 conf vol	674					
vC2, stage 2 conf vol	686					
vCu, unblocked vol	1432	674	674			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	93	100			
cM capacity (veh/h)	203	455	917			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	55	686	674
Volume Left	23	0	0
Volume Right	33	0	0
cSH	492	1700	1700
Volume to Capacity	0.11	0.40	0.40
Queue Length 95th (m)	2.8	0.0	0.0
Control Delay (s)	18.3	0.0	0.0
Lane LOS	C		
Approach Delay (s)	18.3	0.0	0.0
Approach LOS	C		

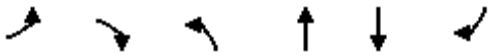
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	111	75	556	122	20	630
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	82	604	133	22	685
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.83	0.83			0.83	
vC, conflicting volume	876	604			737	
vC1, stage 1 conf vol	604					
vC2, stage 2 conf vol	272					
vCu, unblocked vol	851	523			683	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	55	80			97	
cM capacity (veh/h)	268	414			751	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	121	82	604	133	159	274	274
Volume Left	121	0	0	0	22	0	0
Volume Right	0	82	0	133	0	0	0
cSH	268	414	1700	1700	751	1700	1700
Volume to Capacity	0.45	0.20	0.36	0.08	0.03	0.16	0.16
Queue Length 95th (m)	16.5	5.4	0.0	0.0	0.7	0.0	0.0
Control Delay (s)	29.0	15.8	0.0	0.0	1.6	0.0	0.0
Lane LOS	D	C			A		
Approach Delay (s)	23.7		0.0		0.4		
Approach LOS	C						

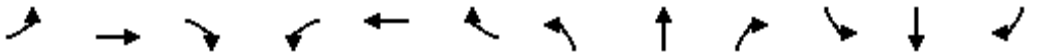
Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	102	0	678	702	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	111	0	737	763	42
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.89					
vC, conflicting volume	1153	276	805			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1048	276	805			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	85	100			
cM capacity (veh/h)	199	722	815			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	111	368	368	305	305	195
Volume Left	0	0	0	0	0	0
Volume Right	111	0	0	0	0	42
cSH	722	1700	1700	1700	1700	1700
Volume to Capacity	0.15	0.22	0.22	0.18	0.18	0.11
Queue Length 95th (m)	4.1	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	10.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	10.9	0.0		0.0		
Approach LOS	B					

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1225	13	0	1411	79	0	0	20	0	0	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1332	14	0	1534	86	0	0	22	0	0	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.72						0.72	0.72		0.72	0.72	0.72
vC, conflicting volume	1620			1346			2138	2958	340	1931	2922	810
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1470			1346			2192	3334	340	1904	3284	343
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	93
cM capacity (veh/h)	327			508			17	6	656	29	6	469

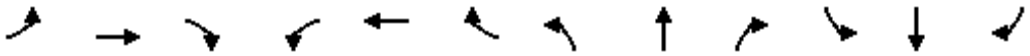
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	380	380	380	204	1022	597	22	33
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	14	0	86	22	33
cSH	1700	1700	1700	1700	1700	1700	656	469
Volume to Capacity	0.22	0.22	0.22	0.12	0.60	0.35	0.03	0.07
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.7
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.7	13.2
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.7	13.2
Approach LOS							B	B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	51.5%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	47	1178	12	31	1279	131	15	0	16	43	0	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	1280	13	34	1390	142	16	0	17	47	0	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.72						0.72	0.72		0.72	0.72	0.72
vC, conflicting volume	1533			1293			2195	2989	433	2075	2924	766
vC1, stage 1 conf vol							1389	1389		1529	1529	
vC2, stage 2 conf vol							806	1600		546	1396	
vCu, unblocked vol	1355			1293			2269	3365	433	2104	3276	297
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			94			76	100	97	23	100	91
cM capacity (veh/h)	365			532			67	39	571	61	51	506

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	371	640	333	729	838	16	17	47	43
Volume Left	51	0	0	34	0	16	0	47	0
Volume Right	0	0	13	0	142	0	17	0	43
cSH	365	1700	1700	532	1700	67	571	61	506
Volume to Capacity	0.14	0.38	0.20	0.06	0.49	0.24	0.03	0.77	0.09
Queue Length 95th (m)	3.6	0.0	0.0	1.5	0.0	6.4	0.7	25.5	2.1
Control Delay (s)	4.7	0.0	0.0	1.8	0.0	75.1	11.5	164.2	12.8
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	1.3			0.8		42.3		91.2	
Approach LOS						E		F	

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		



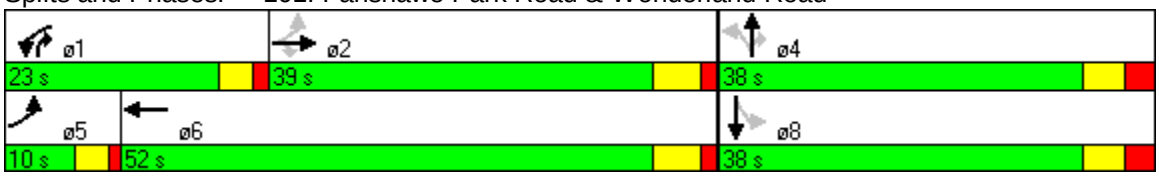
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.991				0.850		0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3503	0	1767	3535	1581	1767	3421	0
Flt Permitted	0.180			0.950			0.297			0.381		
Satd. Flow (perm)	335	3535	1581	3429	3503	0	553	3535	1581	709	3421	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133		9				30		37	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	160	883	307	438	1030	64	303	458	570	225	451	123
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	929	323	461	1084	67	319	482	600	237	475	129
Lane Group Flow (vph)	168	929	323	461	1151	0	319	482	600	237	604	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	39.0	39.0	23.0	52.0	0.0	38.0	38.0	23.0	38.0	38.0	0.0
Total Split (%)	10.0%	39.0%	39.0%	23.0%	52.0%	0.0%	38.0%	38.0%	23.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	33.3	33.3	18.5	46.3		31.6	31.6	18.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	42.4	36.4	36.4	17.6	48.0		34.0	34.0	55.6	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.56	0.34	0.34	
v/c Ratio	0.74	0.72	0.49	0.76	0.68		1.70	0.40	0.67	0.98	0.51	
Control Delay	34.6	31.7	17.3	48.1	22.5		358.7	23.4	16.6	89.2	26.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	34.6	31.7	17.3	48.1	22.5		358.7	23.4	16.6	89.2	26.4	
LOS	C	C	B	D	C		F	C	B	F	C	

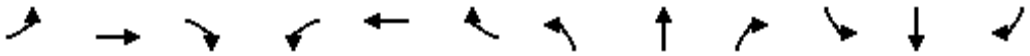
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		28.7			29.9			96.8			44.1	
Approach LOS		C			C			F			D	
Queue Length 50th (m)	13.9	81.5	27.3	42.8	85.7		~86.0	36.4	72.8	44.5	45.0	
Queue Length 95th (m)	#32.5	104.3	52.2	59.2	108.3		#124.7	40.3	29.1	#91.8	61.0	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	228	1287	661	652	1686		188	1202	892	241	1188	
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	0.74	0.72	0.49	0.71	0.68		1.70	0.40	0.67	0.98	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.70
Intersection Signal Delay: 49.6 Intersection LOS: D
Intersection Capacity Utilization 85.9% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

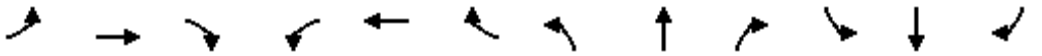
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3504		1767	3535	1581	1767	3421	
Flt Permitted	0.17	1.00	1.00	0.95	1.00		0.30	1.00	1.00	0.38	1.00	
Satd. Flow (perm)	323	3535	1581	3429	3504		552	3535	1581	709	3421	
Volume (vph)	160	883	307	438	1030	64	303	458	570	225	451	123
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	929	323	461	1084	67	319	482	600	237	475	129
RTOR Reduction (vph)	0	0	85	0	5	0	0	0	15	0	24	0
Lane Group Flow (vph)	168	929	238	461	1146	0	319	482	585	237	580	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	40.7	34.7	34.7	17.1	46.3		31.6	31.6	48.7	31.6	31.6	
Effective Green, g (s)	42.4	36.4	36.4	17.6	48.0		34.0	34.0	51.6	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.52	0.34	0.34	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	224	1287	575	604	1682		188	1202	879	241	1163	
v/s Ratio Prot	0.05	0.26		c0.13	0.33			0.14	c0.12		0.17	
v/s Ratio Perm	c0.27		0.15				c0.58		0.25	0.33		
v/c Ratio	0.75	0.72	0.41	0.76	0.68		1.70	0.40	0.67	0.98	0.50	
Uniform Delay, d1	19.3	27.4	23.8	39.2	20.1		33.0	25.2	17.8	32.7	26.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.92	0.88	0.85	1.00	1.00	
Incremental Delay, d2	13.2	3.5	2.2	5.7	2.3		333.5	0.2	1.8	53.0	0.3	
Delay (s)	32.5	31.0	26.0	44.9	22.3		364.0	22.5	16.9	85.7	26.6	
Level of Service	C	C	C	D	C		F	C	B	F	C	
Approach Delay (s)		30.0			28.8			97.8			43.2	
Approach LOS		C			C			F			D	

Intersection Summary			
HCM Average Control Delay	49.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

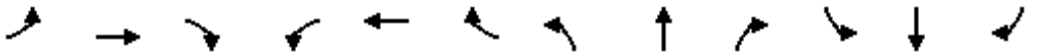


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.956			0.968		0.950			0.950		
Satd. Flow (prot)	0	1579	1404	0	1801	1581	1767	3535	0	1767	3535	1581
Flt Permitted		0.786			0.868		0.168			0.126		
Satd. Flow (perm)	0	1298	1404	0	1615	1581	313	3535	0	234	3535	1581
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			56			15						53
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	43	4	53	16	9	14	41	1274	2	26	1120	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1341	2	27	1179	53
Lane Group Flow (vph)	0	49	56	0	26	15	43	1343	0	27	1179	53
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		11.6	11.6		11.6	11.6	83.9	83.9		83.9	83.9	83.9
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.84	0.84		0.84	0.84	0.84
v/c Ratio		0.32	0.26		0.14	0.08	0.16	0.45		0.14	0.40	0.04
Control Delay		45.8	14.1		40.3	18.1	4.3	3.5		6.8	6.0	2.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		45.8	14.1		40.3	18.1	4.3	3.5		6.8	6.0	2.8
LOS		D	B		D	B	A	A		A	A	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		28.9			32.2			3.5			5.8	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		8.8	0.0		4.6	0.0	1.4	31.4		1.5	44.7	0.4
Queue Length 95th (m)		19.0	10.5		11.7	5.6	5.0	50.7		m3.3	64.1	m2.4
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		428	501		533	532	263	2965		196	2965	1335
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.11	0.11		0.05	0.03	0.16	0.45		0.14	0.40	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 24 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 5.9		Intersection LOS: A	
Intersection Capacity Utilization 56.9%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

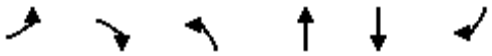
Splits and Phases: 102: Aldersbrook Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1579	1404		1801	1581	1767	3534		1767	3535	1581
Flt Permitted		0.72	1.00		0.78	1.00	0.22	1.00		0.18	1.00	1.00
Satd. Flow (perm)		1196	1404		1459	1581	416	3534		342	3535	1581
Volume (vph)	43	4	53	16	9	14	41	1274	2	26	1120	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1341	2	27	1179	53
RTOR Reduction (vph)	0	0	50	0	0	13	0	0	0	0	0	10
Lane Group Flow (vph)	0	49	6	0	26	2	43	1343	0	27	1179	43
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		7.7	7.7		7.7	7.7	80.0	80.0		80.0	80.0	80.0
Effective Green, g (s)		10.2	10.2		10.2	10.2	81.8	81.8		81.8	81.8	81.8
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.82	0.82		0.82	0.82	0.82
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		122	143		149	161	340	2891		280	2892	1293
v/s Ratio Prot								c0.38			0.33	
v/s Ratio Perm		c0.04	0.00		0.02	0.00	0.10			0.08		0.03
v/c Ratio		0.40	0.04		0.17	0.01	0.13	0.46		0.10	0.41	0.03
Uniform Delay, d1		42.0	40.5		41.1	40.4	1.8	2.7		1.8	2.5	1.7
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.93	2.02	3.62
Incremental Delay, d2		2.2	0.1		0.6	0.0	0.8	0.5		0.6	0.3	0.0
Delay (s)		44.2	40.6		41.6	40.4	2.6	3.2		4.0	5.4	6.2
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		42.3			41.2			3.2			5.4	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	6.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	21	31	0	494	468	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	22	33	0	520	493	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)				156		
pX, platoon unblocked	0.89					
vC, conflicting volume	1013	493	493			
vC1, stage 1 conf vol	493					
vC2, stage 2 conf vol	520					
vCu, unblocked vol	1014	493	493			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	94	100			
cM capacity (veh/h)	280	578	1076			

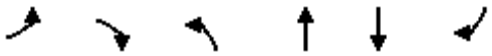
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	55	520	493
Volume Left	22	0	0
Volume Right	33	0	0
cSH	694	1700	1700
Volume to Capacity	0.08	0.31	0.29
Queue Length 95th (m)	1.9	0.0	0.0
Control Delay (s)	14.6	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.6	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	268	81	413	269	34	465
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	282	85	435	283	36	489
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.89	0.89			0.89	
vC, conflicting volume	669	435			718	
vC1, stage 1 conf vol	435					
vC2, stage 2 conf vol	235					
vCu, unblocked vol	628	363			682	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	18	85			96	
cM capacity (veh/h)	344	565			811	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	282	85	435	283	134	196	196
Volume Left	282	0	0	0	36	0	0
Volume Right	0	85	0	283	0	0	0
cSH	344	565	1700	1700	811	1700	1700
Volume to Capacity	0.82	0.15	0.26	0.17	0.04	0.12	0.12
Queue Length 95th (m)	53.3	4.0	0.0	0.0	1.0	0.0	0.0
Control Delay (s)	49.0	12.5	0.0	0.0	2.9	0.0	0.0
Lane LOS	E	B			A		
Approach Delay (s)	40.5		0.0		0.7		
Approach LOS	E						

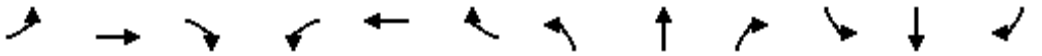
Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	109	0	682	690	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	115	0	718	726	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.90					
vC, conflicting volume	1108	265	772			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1008	265	772			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	84	100			
cM capacity (veh/h)	215	737	846			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	115	359	359	291	291	191
Volume Left	0	0	0	0	0	0
Volume Right	115	0	0	0	0	45
cSH	737	1700	1700	1700	1700	1700
Volume to Capacity	0.16	0.21	0.21	0.17	0.17	0.11
Queue Length 95th (m)	4.1	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	10.8	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	10.8	0.0		0.0		
Approach LOS	B					

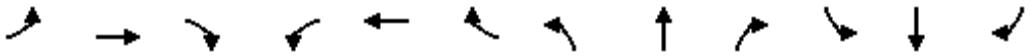
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	27.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1333	27	0	1369	86	0	0	17	0	0	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1403	28	0	1441	91	0	0	18	0	0	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.75						0.75	0.75		0.75	0.75	0.75
vC, conflicting volume	1532			1432			2176	2949	365	1855	2918	766
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1373			1432			2235	3270	365	1806	3229	348
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	92
cM capacity (veh/h)	374			476			16	7	635	36	7	487

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	401	401	401	229	961	571	18	38
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	28	0	91	18	38
cSH	1700	1700	1700	1700	1700	1700	635	487
Volume to Capacity	0.24	0.24	0.24	0.13	0.57	0.34	0.03	0.08
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.8	13.0
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		10.8	13.0
Approach LOS							B	B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	50.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	56	1271	13	16	1245	144	5	0	25	64	0	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	59	1338	14	17	1311	152	5	0	26	67	0	51
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.75						0.75	0.75		0.75	0.75	0.75
vC, conflicting volume	1462			1352			2202	2958	453	2010	2889	731
vC1, stage 1 conf vol							1463	1463		1420	1420	
vC2, stage 2 conf vol							739	1496		590	1469	
vCu, unblocked vol	1287			1352			2268	3270	453	2013	3178	319
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			97			92	100	95	9	100	90
cM capacity (veh/h)	408			510			64	45	557	74	58	513

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	393	669	348	672	807	5	26	67	51
Volume Left	59	0	0	17	0	5	0	67	0
Volume Right	0	0	14	0	152	0	26	0	51
cSH	408	1700	1700	510	1700	64	557	74	513
Volume to Capacity	0.14	0.39	0.20	0.03	0.47	0.08	0.05	0.91	0.10
Queue Length 95th (m)	3.8	0.0	0.0	0.8	0.0	2.0	1.1	34.8	2.4
Control Delay (s)	4.6	0.0	0.0	1.0	0.0	66.6	11.8	177.4	12.8
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	1.3			0.4		20.9		106.9	
Approach LOS						C		F	

Intersection Summary				
Average Delay	5.2			
Intersection Capacity Utilization	83.6%	ICU Level of Service	E	
Analysis Period (min)	15			

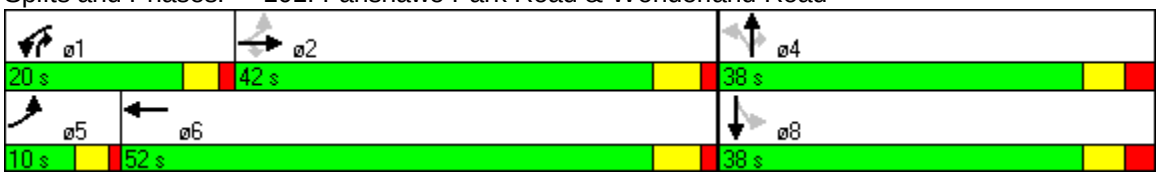
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.983				0.850		0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3300	0	1684	3433	1536	1700	3323	0
Flt Permitted	0.403			0.950			0.327			0.444		
Satd. Flow (perm)	721	3466	1493	3362	3300	0	580	3433	1536	795	3323	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145		18				14		13	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	93	1106	198	255	535	66	182	368	319	151	461	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	101	1202	215	277	582	72	198	400	347	164	501	58
Lane Group Flow (vph)	101	1202	215	277	654	0	198	400	347	164	559	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	42.0	42.0	20.0	52.0	0.0	38.0	38.0	20.0	38.0	38.0	0.0
Total Split (%)	10.0%	42.0%	42.0%	20.0%	52.0%	0.0%	38.0%	38.0%	20.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	36.3	36.3	15.5	46.3		31.6	31.6	15.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	46.5	40.5	40.5	13.5	50.0		34.0	34.0	51.5	34.0	34.0	
Actuated g/C Ratio	0.46	0.40	0.40	0.14	0.50		0.34	0.34	0.52	0.34	0.34	
v/c Ratio	0.26	0.86	0.31	0.61	0.39		1.01	0.34	0.43	0.61	0.49	
Control Delay	12.1	35.1	8.8	46.5	16.5		96.7	21.8	13.3	38.7	27.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	12.1	35.1	8.8	46.5	16.5		96.7	21.8	13.3	38.7	27.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	D	A	D	B		F	C	B	D	C	
Approach Delay		29.9			25.4			34.4			29.9	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	8.0	108.6	8.2	26.0	39.7		~38.3	23.3	25.6	25.8	43.1	
Queue Length 95th (m)	15.1	#154.1	24.4	37.7	53.2		#82.8	31.4	35.0	48.6	58.5	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	394	1404	691	538	1659		197	1167	798	270	1138	
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	0.31	0.51	0.39		1.01	0.34	0.43	0.61	0.49	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 29.9 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3302		1684	3433	1536	1700	3324	
Flt Permitted	0.40	1.00	1.00	0.95	1.00		0.33	1.00	1.00	0.44	1.00	
Satd. Flow (perm)	722	3466	1493	3362	3302		579	3433	1536	795	3324	
Volume (vph)	93	1106	198	255	535	66	182	368	319	151	461	53
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	1202	215	277	582	72	198	400	347	164	501	58
RTOR Reduction (vph)	0	0	86	0	9	0	0	0	7	0	9	0
Lane Group Flow (vph)	101	1202	129	277	645	0	198	400	340	164	550	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	43.6	38.8	38.8	13.0	47.5		31.6	31.6	44.6	31.6	31.6	
Effective Green, g (s)	45.3	40.5	40.5	13.5	49.2		34.0	34.0	47.5	34.0	34.0	
Actuated g/C Ratio	0.45	0.40	0.40	0.14	0.49		0.34	0.34	0.48	0.34	0.34	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	374	1404	605	454	1625		197	1167	791	270	1130	
v/s Ratio Prot	0.01	c0.35		c0.08	0.20			0.12	0.06		0.17	
v/s Ratio Perm	0.11		0.09				c0.34		0.16	0.21		
v/c Ratio	0.27	0.86	0.21	0.61	0.40		1.01	0.34	0.43	0.61	0.49	
Uniform Delay, d1	15.9	27.1	19.4	40.8	16.0		33.0	24.7	17.3	27.4	26.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.87	0.85	0.81	1.00	1.00	
Incremental Delay, d2	0.4	6.9	0.8	2.4	0.7		64.2	0.2	0.4	3.8	0.3	
Delay (s)	16.3	34.0	20.2	43.2	16.8		93.0	21.0	14.4	31.3	26.4	
Level of Service	B	C	C	D	B		F	C	B	C	C	
Approach Delay (s)		30.9			24.6			33.7			27.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

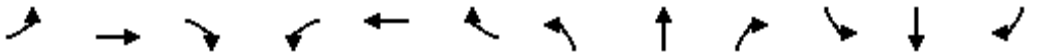
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.999				0.850
Flt Protected		0.954			0.958		0.950			0.950		
Satd. Flow (prot)	0	1560	1337	0	1679	1566	1750	3365	0	1750	3400	1566
Flt Permitted		0.727			0.790		0.240			0.297		
Satd. Flow (perm)	0	1189	1337	0	1385	1566	442	3365	0	547	3400	1566
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57			43		1				28
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	93	3	52	24	4	40	38	737	4	11	877	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	101	3	57	26	4	43	41	801	4	12	953	28
Lane Group Flow (vph)	0	104	57	0	30	43	41	805	0	12	953	28
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		15.7	15.7		15.7	15.7	79.8	79.8		79.8	79.8	79.8
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.80	0.80		0.80	0.80	0.80
v/c Ratio		0.56	0.22		0.14	0.15	0.12	0.30		0.03	0.35	0.02
Control Delay		49.2	11.3		35.4	11.4	5.0	4.2		2.1	2.0	0.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		49.2	11.3		35.4	11.4	5.0	4.2		2.1	2.0	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D	B		D	B	A	A		A	A	A
Approach Delay		35.7			21.3			4.3			1.9	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		18.6	0.0		5.0	0.0	1.7	20.5		0.2	9.3	0.1
Queue Length 95th (m)		32.9	9.8		12.1	8.4	6.0	36.2		m0.7	17.5	m0.3
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		392	479		457	546	352	2684		436	2712	1255
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.27	0.12		0.07	0.08	0.12	0.30		0.03	0.35	0.02

Intersection Summary

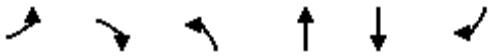
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 6.2 Intersection LOS: A
Intersection Capacity Utilization 50.2% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 102: Aldersbrook Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1559	1337		1680	1566	1750	3366		1750	3400	1566
Flt Permitted		0.71	1.00		0.72	1.00	0.28	1.00		0.33	1.00	1.00
Satd. Flow (perm)		1161	1337		1269	1566	520	3366		617	3400	1566
Volume (vph)	93	3	52	24	4	40	38	737	4	11	877	26
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	3	57	26	4	43	41	801	4	12	953	28
RTOR Reduction (vph)	0	0	49	0	0	37	0	0	0	0	0	6
Lane Group Flow (vph)	0	104	8	0	30	6	41	805	0	12	953	22
Heavy Vehicles (%)	2%	2%	6%	8%	2%	2%	2%	6%	2%	2%	5%	2%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		11.8	11.8		11.8	11.8	75.9	75.9		75.9	75.9	75.9
Effective Green, g (s)		14.3	14.3		14.3	14.3	77.7	77.7		77.7	77.7	77.7
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.78	0.78		0.78	0.78	0.78
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		166	191		181	224	404	2615		479	2642	1217
v/s Ratio Prot								0.24			c0.28	
v/s Ratio Perm		c0.09	0.01		0.02	0.00	0.08			0.02		0.01
v/c Ratio		0.63	0.04		0.17	0.03	0.10	0.31		0.03	0.36	0.02
Uniform Delay, d1		40.3	36.9		37.6	36.9	2.7	3.3		2.5	3.5	2.5
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.48	0.39	0.28
Incremental Delay, d2		7.2	0.1		0.4	0.0	0.5	0.3		0.1	0.3	0.0
Delay (s)		47.5	37.0		38.0	36.9	3.2	3.6		1.3	1.7	0.7
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		43.8			37.4			3.6			1.7	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	6	9	0	487	618	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	10	0	529	672	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)				156		
pX, platoon unblocked	0.88					
vC, conflicting volume	1201	672	672			
vC1, stage 1 conf vol	672					
vC2, stage 2 conf vol	529					
vCu, unblocked vol	1229	672	672			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	100			
cM capacity (veh/h)	239	456	919			

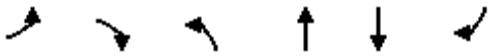
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	16	529	672
Volume Left	7	0	0
Volume Right	10	0	0
cSH	598	1700	1700
Volume to Capacity	0.03	0.31	0.40
Queue Length 95th (m)	0.6	0.0	0.0
Control Delay (s)	16.0	0.0	0.0
Lane LOS	C		
Approach Delay (s)	16.0	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	41	22	465	62	14	613
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	24	505	67	15	666
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.87	0.87			0.87	
vC, conflicting volume	758	505			573	
vC1, stage 1 conf vol	505					
vC2, stage 2 conf vol	253					
vCu, unblocked vol	723	435			512	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	86	95			98	
cM capacity (veh/h)	315	498			918	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	45	24	505	67	148	267	267
Volume Left	45	0	0	0	15	0	0
Volume Right	0	24	0	67	0	0	0
cSH	315	498	1700	1700	918	1700	1700
Volume to Capacity	0.14	0.05	0.30	0.04	0.02	0.16	0.16
Queue Length 95th (m)	3.7	1.1	0.0	0.0	0.4	0.0	0.0
Control Delay (s)	18.3	12.6	0.0	0.0	1.1	0.0	0.0
Lane LOS	C	B			A		
Approach Delay (s)	16.3		0.0		0.2		
Approach LOS	C						

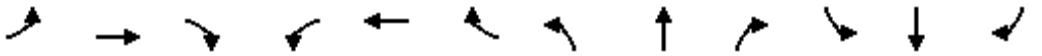
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	41	0	527	624	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	0	573	678	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.92					
vC, conflicting volume	981	242	711			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	891	242	711			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	259	758	884			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	45	286	286	271	271	168
Volume Left	0	0	0	0	0	0
Volume Right	45	0	0	0	0	33
cSH	758	1700	1700	1700	1700	1700
Volume to Capacity	0.06	0.17	0.17	0.16	0.16	0.10
Queue Length 95th (m)	1.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	10.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	10.0	0.0		0.0		
Approach LOS	B					

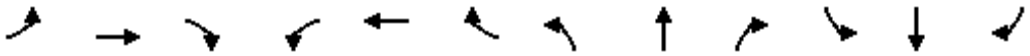
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	22.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1383	9	0	694	76	0	0	14	0	0	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1503	10	0	754	83	0	0	15	0	0	32
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.89						0.89	0.89		0.89	0.89	0.89
vC, conflicting volume	837			1513			1917	2345	381	1187	2309	418
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	698			1513			1907	2386	381	1090	2346	230
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	95
cM capacity (veh/h)	799			438			35	30	617	148	32	690

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	430	430	430	225	503	334	15	32
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	10	0	83	15	32
cSH	1700	1700	1700	1700	1700	1700	617	690
Volume to Capacity	0.25	0.25	0.25	0.13	0.30	0.20	0.02	0.05
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.0	10.5
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		11.0	10.5
Approach LOS							B	B

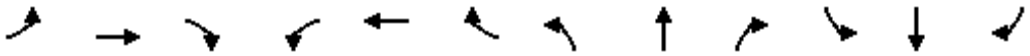
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	31.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	27	1346	3	3	669	51	0	0	5	41	0	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	1463	3	3	727	55	0	0	5	45	0	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.91						0.91	0.91		0.91	0.91	0.91
vC, conflicting volume	783			1466			1907	2312	489	1313	2286	391
vC1, stage 1 conf vol							1523	1523		761	761	
vC2, stage 2 conf vol							383	789		552	1525	
vCu, unblocked vol	663			1466			1897	2343	489	1246	2315	233
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			100	100	99	75	100	98
cM capacity (veh/h)	839			456			74	90	525	182	91	700

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	395	732	369	367	419	0	5	45	13
Volume Left	29	0	0	3	0	0	0	45	0
Volume Right	0	0	3	0	55	0	5	0	13
cSH	839	1700	1700	456	1700	1700	525	182	700
Volume to Capacity	0.03	0.43	0.22	0.01	0.25	0.00	0.01	0.25	0.02
Queue Length 95th (m)	0.8	0.0	0.0	0.2	0.0	0.0	0.2	6.9	0.4
Control Delay (s)	1.1	0.0	0.0	0.2	0.0	0.0	11.9	31.1	10.2
Lane LOS	A			A		A	B	D	B
Approach Delay (s)	0.3			0.1		11.9		26.4	
Approach LOS						B		D	

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	60.8%	ICU Level of Service		B
Analysis Period (min)	15			



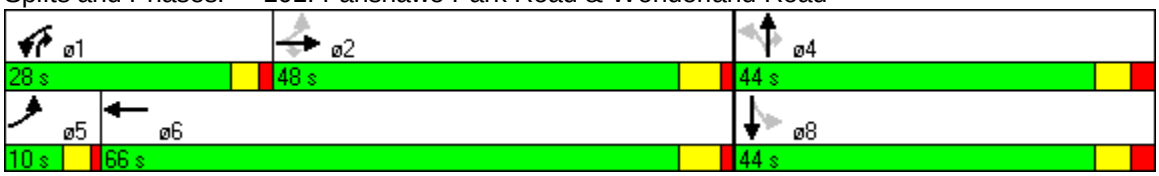
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.986				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3488	0	1750	3535	1566	1750	3457	0
Flt Permitted	0.099			0.950			0.190			0.249		
Satd. Flow (perm)	181	3500	1536	3463	3488	0	350	3535	1566	459	3457	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57		14				20		17	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	147	987	263	612	1202	125	384	608	404	239	599	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	160	1073	286	665	1307	136	417	661	439	260	651	112
Lane Group Flow (vph)	160	1073	286	665	1443	0	417	661	439	260	763	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	48.0	48.0	28.0	66.0	0.0	44.0	44.0	28.0	44.0	44.0	0.0
Total Split (%)	8.3%	40.0%	40.0%	23.3%	55.0%	0.0%	36.7%	36.7%	23.3%	36.7%	36.7%	0.0%
Maximum Green (s)	6.0	42.3	42.3	23.5	60.3		37.6	37.6	23.5	37.6	37.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.0	44.0	44.0	24.0	62.0		40.0	40.0	68.0	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.57	0.33	0.33	
v/c Ratio	1.05	0.84	0.48	0.96	0.80		3.56	0.56	0.49	1.70	0.66	
Control Delay	113.5	41.8	26.1	73.4	27.8		1187.7	32.1	14.3	369.5	36.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	113.5	41.8	26.1	73.4	27.8		1187.7	32.1	14.3	369.5	36.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	D	C	E	C		F	C	B	F	D	
Approach Delay		46.4			42.2			344.6			121.1	
Approach LOS		D			D			F			F	
Queue Length 50th (m)	~23.3	118.8	40.2	79.5	138.8		~176.0	52.5	36.6	~88.8	77.5	
Queue Length 95th (m)	#66.6	145.8	65.2	#114.8	168.5		#232.4	66.3	49.6	#139.5	98.3	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	153	1283	599	693	1809		117	1178	896	153	1164	
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	1.05	0.84	0.48	0.96	0.80		3.56	0.56	0.49	1.70	0.66	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.56
Intersection Signal Delay: 130.7 Intersection LOS: F
Intersection Capacity Utilization 99.8% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

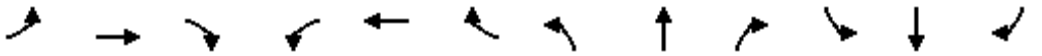
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3488		1750	3535	1566	1750	3457	
Flt Permitted	0.10	1.00	1.00	0.95	1.00		0.19	1.00	1.00	0.25	1.00	
Satd. Flow (perm)	180	3500	1536	3463	3488		351	3535	1566	458	3457	
Volume (vph)	147	987	263	612	1202	125	384	608	404	239	599	103
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	160	1073	286	665	1307	136	417	661	439	260	651	112
RTOR Reduction (vph)	0	0	36	0	7	0	0	0	9	0	11	0
Lane Group Flow (vph)	160	1073	250	665	1436	0	417	661	430	260	752	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	48.3	42.3	42.3	23.5	60.3		37.6	37.6	61.1	37.6	37.6	
Effective Green, g (s)	50.0	44.0	44.0	24.0	62.0		40.0	40.0	64.0	40.0	40.0	
Actuated g/C Ratio	0.42	0.37	0.37	0.20	0.52		0.33	0.33	0.53	0.33	0.33	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	153	1283	563	693	1802		117	1178	887	153	1152	
v/s Ratio Prot	0.05	0.31		c0.19	0.41			0.19	0.10		0.22	
v/s Ratio Perm	c0.38		0.16				c1.19		0.18	0.57		
v/c Ratio	1.05	0.84	0.44	0.96	0.80		3.56	0.56	0.48	1.70	0.65	
Uniform Delay, d1	28.3	34.7	28.7	47.5	23.8		40.0	32.8	17.6	40.0	34.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.92	0.92	0.83	1.00	1.00	
Incremental Delay, d2	85.4	6.6	2.5	24.3	3.8		1172.7	0.6	0.4	341.1	1.3	
Delay (s)	113.7	41.3	31.3	71.8	27.6		1209.5	30.6	14.9	381.1	35.4	
Level of Service	F	D	C	E	C		F	C	B	F	D	
Approach Delay (s)		47.0			41.5			350.1			123.3	
Approach LOS		D			D			F			F	

Intersection Summary			
HCM Average Control Delay	132.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.96		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



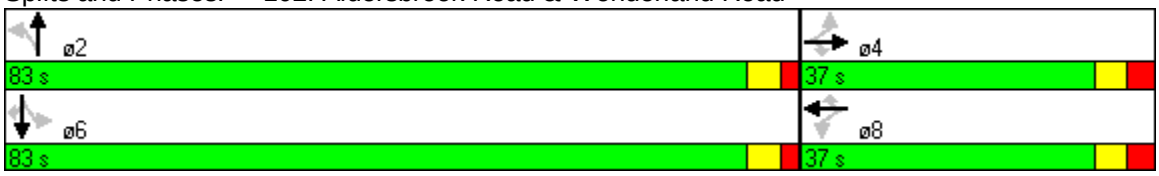
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.962			0.969		0.950			0.950		
Satd. Flow (prot)	0	1572	1363	0	1821	1536	1785	3535	0	1785	3500	1597
Flt Permitted		0.788			0.858		0.128			0.124		
Satd. Flow (perm)	0	1288	1363	0	1612	1536	240	3535	0	233	3500	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54			28						124
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	50	13	50	16	9	26	49	1320	3	52	1308	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	54	14	54	17	10	28	53	1435	3	57	1422	124
Lane Group Flow (vph)	0	68	54	0	27	28	53	1438	0	57	1422	124
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	83.0	83.0	0.0	83.0	83.0	83.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	69.2%	69.2%	0.0%	69.2%	69.2%	69.2%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	77.2	77.2		77.2	77.2	77.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		13.8	13.8		13.8	13.8	101.7	101.7		101.7	101.7	101.7
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.85	0.85		0.85	0.85	0.85
v/c Ratio		0.46	0.26		0.15	0.14	0.26	0.48		0.29	0.48	0.09
Control Delay		58.5	15.2		47.7	16.9	6.8	3.9		4.0	1.7	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.1	0.0
Total Delay		58.5	15.2		47.7	16.9	6.8	3.9		4.0	1.8	0.1

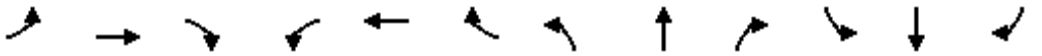
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	B		D	B	A	A		A	A	A
Approach Delay		39.4			32.0			4.0			1.7	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		15.0	0.0		5.8	0.0	2.2	41.5		1.0	13.3	0.0
Queue Length 95th (m)		28.2	11.2		13.9	8.1	8.4	67.0		m2.1	m21.7	m0.0
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		354	414		443	443	203	2995		197	2965	1372
Starvation Cap Reductn		0	0		0	0	0	0		0	499	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.19	0.13		0.06	0.06	0.26	0.48		0.29	0.58	0.09

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 4.7 Intersection LOS: A
Intersection Capacity Utilization 60.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

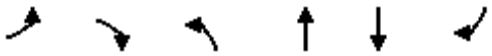
Splits and Phases: 102: Aldersbrook Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1572	1363		1822	1536	1785	3534		1785	3500	1597
Flt Permitted		0.75	1.00		0.79	1.00	0.17	1.00		0.16	1.00	1.00
Satd. Flow (perm)		1229	1363		1494	1536	315	3534		309	3500	1597
Volume (vph)	50	13	50	16	9	26	49	1320	3	52	1308	114
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	14	54	17	10	28	53	1435	3	57	1422	124
RTOR Reduction (vph)	0	0	48	0	0	25	0	0	0	0	0	21
Lane Group Flow (vph)	0	68	6	0	27	3	53	1438	0	57	1422	103
Heavy Vehicles (%)	0%	10%	4%	0%	0%	4%	0%	1%	0%	0%	2%	0%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		9.9	9.9		9.9	9.9	97.8	97.8		97.8	97.8	97.8
Effective Green, g (s)		12.4	12.4		12.4	12.4	99.6	99.6		99.6	99.6	99.6
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.83	0.83		0.83	0.83	0.83
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		127	141		154	159	261	2933		256	2905	1326
v/s Ratio Prot								c0.41			0.41	
v/s Ratio Perm		c0.06	0.00		0.02	0.00	0.17			0.18		0.06
v/c Ratio		0.54	0.04		0.18	0.02	0.20	0.49		0.22	0.49	0.08
Uniform Delay, d1		51.1	48.4		49.1	48.3	2.1	2.9		2.1	2.9	1.9
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.42	0.38	0.06
Incremental Delay, d2		4.3	0.1		0.5	0.0	1.7	0.6		1.3	0.4	0.1
Delay (s)		55.4	48.6		49.7	48.4	3.8	3.5		2.2	1.5	0.2
Level of Service		E	D		D	D	A	A		A	A	A
Approach Delay (s)		52.3			49.0			3.5			1.4	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	5.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	21	30	0	832	757	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	33	0	904	823	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)				156		
pX, platoon unblocked	0.77					
vC, conflicting volume	1727	823	823			
vC1, stage 1 conf vol	823					
vC2, stage 2 conf vol	904					
vCu, unblocked vol	1949	823	823			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	84	91	100			
cM capacity (veh/h)	141	374	807			

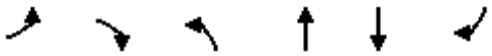
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	55	904	823
Volume Left	23	0	0
Volume Right	33	0	0
cSH	343	1700	1700
Volume to Capacity	0.16	0.53	0.48
Queue Length 95th (m)	4.3	0.0	0.0
Control Delay (s)	23.7	0.0	0.0
Lane LOS	C		
Approach Delay (s)	23.7	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	111	75	757	122	20	768
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	82	823	133	22	835
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.77	0.77			0.77	
vC, conflicting volume	1145	823			955	
vC1, stage 1 conf vol	823					
vC2, stage 2 conf vol	322					
vCu, unblocked vol	1188	770			942	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	35	69			96	
cM capacity (veh/h)	186	264			556	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	121	82	823	133	189	334	334
Volume Left	121	0	0	0	22	0	0
Volume Right	0	82	0	133	0	0	0
cSH	186	264	1700	1700	556	1700	1700
Volume to Capacity	0.65	0.31	0.48	0.08	0.04	0.20	0.20
Queue Length 95th (m)	28.4	9.5	0.0	0.0	0.9	0.0	0.0
Control Delay (s)	54.5	24.6	0.0	0.0	1.8	0.0	0.0
Lane LOS	F	C			A		
Approach Delay (s)	42.5		0.0		0.4		
Approach LOS	E						

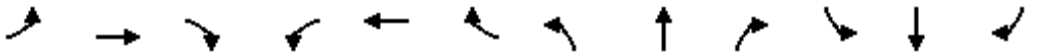
Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	102	0	879	839	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	111	0	955	912	42
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.85					
vC, conflicting volume	1411	325	954			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1305	325	954			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	83	100			
cM capacity (veh/h)	129	671	716			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	111	478	478	365	365	225
Volume Left	0	0	0	0	0	0
Volume Right	111	0	0	0	0	42
cSH	671	1700	1700	1700	1700	1700
Volume to Capacity	0.17	0.28	0.28	0.21	0.21	0.13
Queue Length 95th (m)	4.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	11.4	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	11.4	0.0		0.0		
Approach LOS	B					

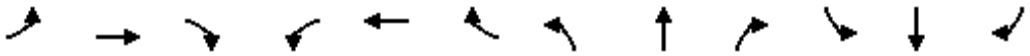
Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	30.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1377	13	0	1611	79	0	0	20	0	0	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1497	14	0	1751	86	0	0	22	0	0	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.66						0.66	0.66		0.66	0.66	0.66
vC, conflicting volume	1837			1511			2412	3341	381	2190	3305	918
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1753			1511			2625	4033	381	2288	3979	360
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	96	100	100	92
cM capacity (veh/h)	233			439			7	2	617	14	2	420

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	428	428	428	228	1167	670	22	33
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	14	0	86	22	33
cSH	1700	1700	1700	1700	1700	1700	617	420
Volume to Capacity	0.25	0.25	0.25	0.13	0.69	0.39	0.04	0.08
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.1	14.3
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		11.1	14.3
Approach LOS							B	B

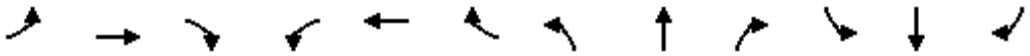
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	57.0%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	47	1330	12	31	1479	131	15	0	16	43	0	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	1446	13	34	1608	142	16	0	17	47	0	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.67						0.67	0.67		0.67	0.67	0.67
vC, conflicting volume	1750			1459			2469	3372	488	2348	3307	875
vC1, stage 1 conf vol							1554	1554		1746	1746	
vC2, stage 2 conf vol							915	1817		601	1561	
vCu, unblocked vol	1624			1459			2705	4061	488	2522	3964	310
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	81			93			68	100	97	0	100	90
cM capacity (veh/h)	264			459			50	20	525	39	35	457

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	412	723	374	838	946	16	17	47	43
Volume Left	51	0	0	34	0	16	0	47	0
Volume Right	0	0	13	0	142	0	17	0	43
cSH	264	1700	1700	459	1700	50	525	39	457
Volume to Capacity	0.19	0.43	0.22	0.07	0.56	0.32	0.03	1.21	0.10
Queue Length 95th (m)	5.3	0.0	0.0	1.8	0.0	8.5	0.8	35.4	2.4
Control Delay (s)	7.4	0.0	0.0	2.3	0.0	107.9	12.1	373.7	13.7
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	2.0			1.1		58.4		200.2	
Approach LOS						F		F	

Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		



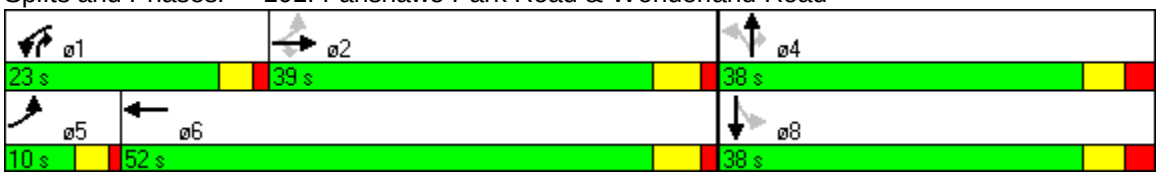
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.988				0.850		0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3492	0	1767	3535	1581	1767	3432	0
Flt Permitted	0.130			0.950			0.226			0.298		
Satd. Flow (perm)	242	3535	1581	3429	3492	0	420	3535	1581	554	3432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89		12				21		32	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	172	960	380	461	1121	94	384	573	599	262	551	134
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	181	1011	400	485	1180	99	404	603	631	276	580	141
Lane Group Flow (vph)	181	1011	400	485	1279	0	404	603	631	276	721	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		4	4	4	8	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		7.0	7.0	5.0	7.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		36.4	36.4	9.5	36.4	36.4	
Total Split (s)	10.0	39.0	39.0	23.0	52.0	0.0	38.0	38.0	23.0	38.0	38.0	0.0
Total Split (%)	10.0%	39.0%	39.0%	23.0%	52.0%	0.0%	38.0%	38.0%	23.0%	38.0%	38.0%	0.0%
Maximum Green (s)	6.0	33.3	33.3	18.5	46.3		31.6	31.6	18.5	31.6	31.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.7	3.7	3.0	3.7	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		2.7	2.7	1.5	2.7	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		23.0	23.0		23.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	42.1	36.1	36.1	17.9	48.0		34.0	34.0	55.9	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.56	0.34	0.34	
v/c Ratio	0.93	0.79	0.64	0.79	0.76		2.83	0.50	0.71	1.47	0.61	
Control Delay	72.3	34.4	26.1	49.4	24.8		855.3	24.5	17.2	265.9	28.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	72.3	34.4	26.1	49.4	24.8		855.3	24.5	17.2	265.9	28.8	
LOS	E	C	C	D	C		F	C	B	F	C	

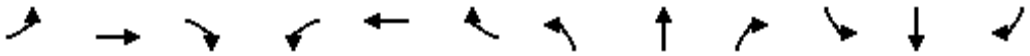
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		36.6			31.5			226.6			94.4	
Approach LOS		D			C			F			F	
Queue Length 50th (m)	17.0	91.6	49.7	45.5	100.7		~128.2	46.3	23.5	~72.8	57.1	
Queue Length 95th (m)	#58.2	116.6	81.7	62.4	126.7		#165.6	50.6	30.3	#120.8	75.5	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	194	1277	628	652	1682		143	1202	892	188	1188	
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	0.93	0.79	0.64	0.74	0.76		2.83	0.50	0.71	1.47	0.61	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.83
Intersection Signal Delay: 96.7 Intersection LOS: F
Intersection Capacity Utilization 97.6% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

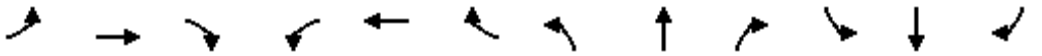
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3494		1767	3535	1581	1767	3431	
Flt Permitted	0.13	1.00	1.00	0.95	1.00		0.23	1.00	1.00	0.30	1.00	
Satd. Flow (perm)	234	3535	1581	3429	3494		421	3535	1581	554	3431	
Volume (vph)	172	960	380	461	1121	94	384	573	599	262	551	134
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	181	1011	400	485	1180	99	404	603	631	276	580	141
RTOR Reduction (vph)	0	0	57	0	6	0	0	0	10	0	21	0
Lane Group Flow (vph)	181	1011	343	485	1273	0	404	603	621	276	700	0
Turn Type	pm+pt		Perm	Prot			Perm		pm+ov	Perm		
Protected Phases	5	2		1	6			4	1		8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	40.4	34.4	34.4	17.4	46.3		31.6	31.6	49.0	31.6	31.6	
Effective Green, g (s)	42.1	36.1	36.1	17.9	48.0		34.0	34.0	51.9	34.0	34.0	
Actuated g/C Ratio	0.42	0.36	0.36	0.18	0.48		0.34	0.34	0.52	0.34	0.34	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		6.4	6.4	4.5	6.4	6.4	
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)	190	1276	571	614	1677		143	1202	884	188	1167	
v/s Ratio Prot	0.06	0.29		c0.14	0.36			0.17	c0.13		0.20	
v/s Ratio Perm	c0.34		0.22				c0.96		0.27	0.50		
v/c Ratio	0.95	0.79	0.60	0.79	0.76		2.83	0.50	0.70	1.47	0.60	
Uniform Delay, d1	22.3	28.6	26.1	39.3	21.3		33.0	26.3	18.2	33.0	27.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.91	0.87	0.82	1.00	1.00	
Incremental Delay, d2	51.4	5.1	4.6	6.7	3.3		837.8	0.3	2.2	237.3	0.8	
Delay (s)	73.7	33.7	30.7	46.0	24.5		867.9	23.3	17.2	270.3	28.2	
Level of Service	E	C	C	D	C		F	C	B	F	C	
Approach Delay (s)		37.5			30.4			229.2			95.2	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM Average Control Delay	97.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

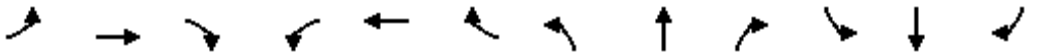


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0		10.0	0.0		10.0	45.0		0.0	30.0		200.0
Storage Lanes	0		1	0		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected		0.956			0.968		0.950			0.950		
Satd. Flow (prot)	0	1579	1404	0	1801	1581	1767	3535	0	1767	3535	1581
Flt Permitted		0.786			0.868		0.116			0.075		
Satd. Flow (perm)	0	1298	1404	0	1615	1581	216	3535	0	140	3535	1581
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47			15						53
Headway Factor	1.01	1.18	1.18	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		199.9			199.8			785.3			215.5	
Travel Time (s)		14.4			14.4			56.5			15.5	
Volume (vph)	43	4	53	16	9	14	41	1499	2	26	1316	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1578	2	27	1385	53
Lane Group Flow (vph)	0	49	56	0	26	15	43	1580	0	27	1385	53
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.5	35.5	35.5	35.5	35.5	35.5	25.8	25.8		25.8	25.8	25.8
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	63.0%	63.0%	0.0%	63.0%	63.0%	63.0%
Maximum Green (s)	30.5	30.5	30.5	30.5	30.5	30.5	57.2	57.2		57.2	57.2	57.2
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1		2.1	2.1	2.1
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	22.0	22.0	22.0	22.0	22.0	22.0	13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		11.6	11.6		11.6	11.6	83.9	83.9		83.9	83.9	83.9
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.84	0.84		0.84	0.84	0.84
v/c Ratio		0.32	0.27		0.14	0.08	0.24	0.53		0.23	0.47	0.04
Control Delay		45.8	18.1		40.3	18.1	6.5	4.1		9.3	5.6	2.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		45.8	18.1		40.3	18.1	6.5	4.1		9.3	5.6	2.3
LOS		D	B		D	B	A	A		A	A	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		31.0			32.2			4.2			5.5	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		8.8	1.6		4.6	0.0	1.5	41.4		1.3	48.3	0.5
Queue Length 95th (m)		19.0	12.1		11.7	5.6	6.2	66.4		m2.8	67.3	m1.7
Internal Link Dist (m)		175.9			175.8			761.3			191.5	
Turn Bay Length (m)			10.0			10.0	45.0			30.0		200.0
Base Capacity (vph)		428	495		533	532	181	2965		117	2965	1335
Starvation Cap Reductn		0	0		0	0	0	0		0	0	0
Spillback Cap Reductn		0	0		0	0	0	0		0	0	0
Storage Cap Reductn		0	0		0	0	0	0		0	0	0
Reduced v/c Ratio		0.11	0.11		0.05	0.03	0.24	0.53		0.23	0.47	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 24 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 63.2%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

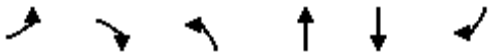
Splits and Phases: 102: Aldersbrook Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1579	1404		1801	1581	1767	3534		1767	3535	1581
Flt Permitted		0.72	1.00		0.78	1.00	0.17	1.00		0.14	1.00	1.00
Satd. Flow (perm)		1196	1404		1459	1581	325	3534		255	3535	1581
Volume (vph)	43	4	53	16	9	14	41	1499	2	26	1316	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	4	56	17	9	15	43	1578	2	27	1385	53
RTOR Reduction (vph)	0	0	42	0	0	13	0	0	0	0	0	10
Lane Group Flow (vph)	0	49	14	0	26	2	43	1580	0	27	1385	43
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)		7.7	7.7		7.7	7.7	80.0	80.0		80.0	80.0	80.0
Effective Green, g (s)		10.2	10.2		10.2	10.2	81.8	81.8		81.8	81.8	81.8
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.82	0.82		0.82	0.82	0.82
Clearance Time (s)		6.5	6.5		6.5	6.5	5.8	5.8		5.8	5.8	5.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		122	143		149	161	266	2891		209	2892	1293
v/s Ratio Prot								c0.45			0.39	
v/s Ratio Perm		c0.04	0.01		0.02	0.00	0.13			0.11		0.03
v/c Ratio		0.40	0.10		0.17	0.01	0.16	0.55		0.13	0.48	0.03
Uniform Delay, d1		42.0	40.7		41.1	40.4	1.9	3.0		1.9	2.7	1.7
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.60	1.70	2.93
Incremental Delay, d2		2.2	0.3		0.6	0.0	1.3	0.7		0.9	0.4	0.0
Delay (s)		44.2	41.0		41.6	40.4	3.2	3.7		3.9	5.0	5.0
Level of Service		D	D		D	D	A	A		A	A	A
Approach Delay (s)		42.5			41.2			3.7			5.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	6.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	21	31	0	651	616	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	22	33	0	685	648	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)				156		
pX, platoon unblocked	0.83					
vC, conflicting volume	1334	648	648			
vC1, stage 1 conf vol	648					
vC2, stage 2 conf vol	685					
vCu, unblocked vol	1401	648	648			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	93	100			
cM capacity (veh/h)	207	472	942			

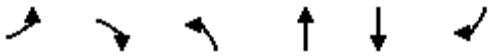
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	55	685	648
Volume Left	22	0	0
Volume Right	33	0	0
cSH	513	1700	1700
Volume to Capacity	0.11	0.40	0.38
Queue Length 95th (m)	2.7	0.0	0.0
Control Delay (s)	17.7	0.0	0.0
Lane LOS	C		
Approach Delay (s)	17.7	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	268	81	570	269	34	614
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	282	85	600	283	36	646
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh)	0					
Upstream signal (m)			116			
pX, platoon unblocked	0.82	0.82			0.82	
vC, conflicting volume	887	600			883	
vC1, stage 1 conf vol	600					
vC2, stage 2 conf vol	287					
vCu, unblocked vol	862	510			857	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	80			94	
cM capacity (veh/h)	263	417			642	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	282	85	600	283	165	259	259
Volume Left	282	0	0	0	36	0	0
Volume Right	0	85	0	283	0	0	0
cSH	263	417	1700	1700	642	1700	1700
Volume to Capacity	1.07	0.20	0.35	0.17	0.06	0.15	0.15
Queue Length 95th (m)	86.8	5.7	0.0	0.0	1.3	0.0	0.0
Control Delay (s)	118.4	15.8	0.0	0.0	2.9	0.0	0.0
Lane LOS	F	C			A		
Approach Delay (s)	94.6		0.0		0.7		
Approach LOS	F						

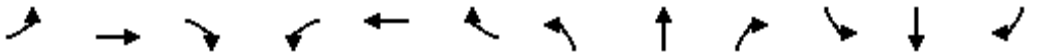
Intersection Summary			
Average Delay	18.2		
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	109	0	839	839	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	115	0	883	883	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (m)				75		
pX, platoon unblocked	0.87					
vC, conflicting volume	1347	317	928			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1247	317	928			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	83	100			
cM capacity (veh/h)	145	682	739			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	115	442	442	353	353	222
Volume Left	0	0	0	0	0	0
Volume Right	115	0	0	0	0	45
cSH	682	1700	1700	1700	1700	1700
Volume to Capacity	0.17	0.26	0.26	0.21	0.21	0.13
Queue Length 95th (m)	4.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	11.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	11.3	0.0		0.0		
Approach LOS	B					

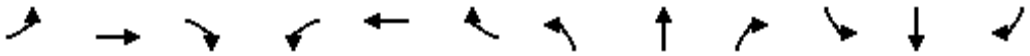
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1495	27	0	1552	86	0	0	17	0	0	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1574	28	0	1634	91	0	0	18	0	0	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)					99							
pX, platoon unblocked	0.70						0.70	0.70		0.70	0.70	0.70
vC, conflicting volume	1724			1602			2443	3312	408	2090	3281	862
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1607			1602			2631	3871	408	2129	3827	377
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	91
cM capacity (veh/h)	286			409			7	2	596	19	3	437

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	450	450	450	253	1089	635	18	38
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	28	0	91	18	38
cSH	1700	1700	1700	1700	1700	1700	596	437
Volume to Capacity	0.26	0.26	0.26	0.15	0.64	0.37	0.03	0.09
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.1
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.2	14.0
Lane LOS							B	B
Approach Delay (s)	0.0				0.0		11.2	14.0
Approach LOS							B	B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	55.6%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	56	1433	13	16	1428	144	5	0	25	64	0	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	59	1508	14	17	1503	152	5	0	26	67	0	51
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								0			0	
Upstream signal (m)					150							
pX, platoon unblocked	0.71						0.71	0.71		0.71	0.71	0.71
vC, conflicting volume	1655			1522			2469	3322	510	2260	3253	827
vC1, stage 1 conf vol							1633	1633		1613	1613	
vC2, stage 2 conf vol							836	1688		647	1640	
vCu, unblocked vol	1513			1522			2662	3865	510	2366	3767	345
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	81			96			89	100	95	0	100	89
cM capacity (veh/h)	314			439			48	28	511	52	42	463

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	436	754	391	768	903	5	26	67	51
Volume Left	59	0	0	17	0	5	0	67	0
Volume Right	0	0	14	0	152	0	26	0	51
cSH	314	1700	1700	439	1700	48	511	52	463
Volume to Capacity	0.19	0.44	0.23	0.04	0.53	0.11	0.05	1.30	0.11
Queue Length 95th (m)	5.1	0.0	0.0	0.9	0.0	2.6	1.2	45.8	2.7
Control Delay (s)	6.6	0.0	0.0	1.2	0.0	89.4	12.4	356.7	13.7
Lane LOS	A			A		F	B	F	B
Approach Delay (s)	1.8			0.6		25.3		209.7	
Approach LOS						D		F	

Intersection Summary				
Average Delay	8.6			
Intersection Capacity Utilization	86.3%	ICU Level of Service	E	
Analysis Period (min)	15			

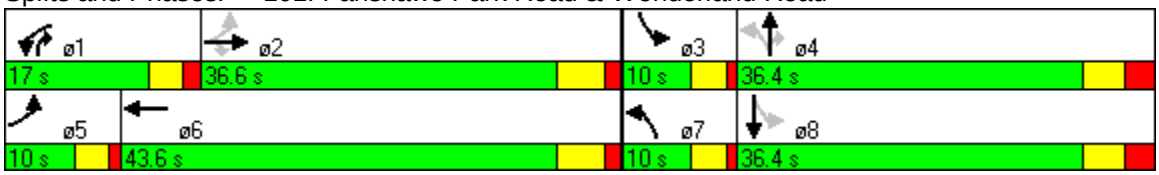
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.984				0.850		0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3304	0	1684	3433	1536	1700	3307	0
Flt Permitted	0.429			0.950			0.436			0.489		
Satd. Flow (perm)	768	3466	1493	3362	3304	0	773	3433	1536	875	3307	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124		15				111		17	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	89	1020	114	244	463	54	122	313	306	89	323	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	97	1109	124	265	503	59	133	340	333	97	351	51
Lane Group Flow (vph)	97	1109	124	265	562	0	133	340	333	97	402	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	10.0	36.6	36.6	17.0	43.6	0.0	10.0	36.4	17.0	10.0	36.4	0.0
Total Split (%)	10.0%	36.6%	36.6%	17.0%	43.6%	0.0%	10.0%	36.4%	17.0%	10.0%	36.4%	0.0%
Maximum Green (s)	6.0	30.9	30.9	12.5	37.9		6.0	30.0	12.5	6.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	50.7	44.7	44.7	12.2	52.9		27.9	23.1	39.3	27.1	21.1	
Actuated g/C Ratio	0.51	0.45	0.45	0.12	0.53		0.28	0.23	0.39	0.27	0.21	
v/c Ratio	0.22	0.72	0.17	0.65	0.32		0.49	0.43	0.50	0.34	0.56	
Control Delay	11.5	27.4	4.6	49.5	15.2		27.0	29.3	13.8	27.0	36.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	11.5	27.4	4.6	49.5	15.2		27.0	29.3	13.8	27.0	36.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	C	A	D	B		C	C	B	C	D	
Approach Delay		24.1			26.2			22.5			34.3	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	7.0	88.5	0.0	25.0	30.6		16.8	24.6	27.1	13.6	35.2	
Queue Length 95th (m)	16.8	#141.8	11.2	37.5	50.1		23.8	28.6	27.9	22.3	44.2	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	445	1548	736	437	1754		271	1112	669	287	1083	
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	0.22	0.72	0.17	0.61	0.32		0.49	0.31	0.50	0.34	0.37	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

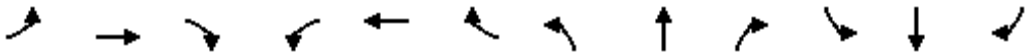
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3305		1684	3433	1536	1700	3307	
Flt Permitted	0.44	1.00	1.00	0.95	1.00		0.35	1.00	1.00	0.47	1.00	
Satd. Flow (perm)	789	3466	1493	3362	3305		613	3433	1536	832	3307	
Volume (vph)	89	1020	114	244	463	54	122	313	306	89	323	47
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	1109	124	265	503	59	133	340	333	97	351	51
RTOR Reduction (vph)	0	0	70	0	7	0	0	0	72	0	13	0
Lane Group Flow (vph)	97	1109	54	265	555	0	133	340	261	97	389	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	47.0	42.2	42.2	11.7	49.6		26.7	20.7	32.4	24.3	19.5	
Effective Green, g (s)	48.7	43.9	43.9	12.2	51.3		29.1	23.1	35.3	26.7	21.9	
Actuated g/C Ratio	0.49	0.44	0.44	0.12	0.51		0.29	0.23	0.35	0.27	0.22	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	428	1522	655	410	1695		243	793	604	264	724	
v/s Ratio Prot	0.01	c0.32		c0.08	0.17		c0.03	0.10	0.05	0.02	0.12	
v/s Ratio Perm	0.10		0.04				c0.13		0.12	0.08		
v/c Ratio	0.23	0.73	0.08	0.65	0.33		0.55	0.43	0.43	0.37	0.54	
Uniform Delay, d1	14.0	23.1	16.3	41.8	14.3		27.7	32.8	24.7	28.6	34.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.83	0.85	0.79	1.00	1.00	
Incremental Delay, d2	0.3	3.1	0.2	3.5	0.5		2.4	0.4	0.5	0.9	0.8	
Delay (s)	14.2	26.2	16.6	45.3	14.8		25.4	28.3	19.9	29.4	35.3	
Level of Service	B	C	B	D	B		C	C	B	C	D	
Approach Delay (s)		24.5			24.6			24.4			34.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



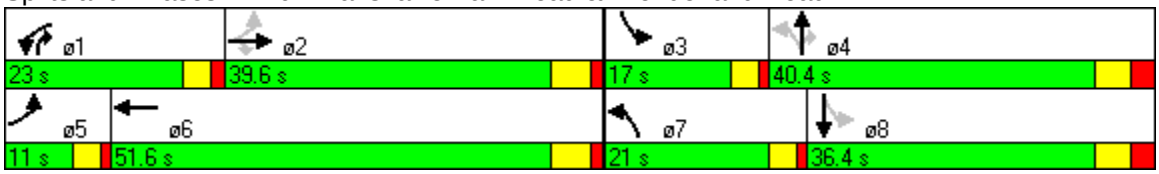
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.989				0.850		0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3498	0	1750	3535	1566	1750	3443	0
Flt Permitted	0.112			0.950			0.206			0.365		
Satd. Flow (perm)	204	3500	1536	3463	3498	0	379	3535	1566	672	3443	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197		8				128		20	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	132	925	204	590	1048	80	238	474	389	139	459	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	143	1005	222	641	1139	87	259	515	423	151	499	103
Lane Group Flow (vph)	143	1005	222	641	1226	0	259	515	423	151	602	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	11.0	39.6	39.6	23.0	51.6	0.0	21.0	40.4	23.0	17.0	36.4	0.0
Total Split (%)	9.2%	33.0%	33.0%	19.2%	43.0%	0.0%	17.5%	33.7%	19.2%	14.2%	30.3%	0.0%
Maximum Green (s)	7.0	33.9	33.9	18.5	45.9		17.0	34.0	18.5	13.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	48.6	41.6	41.6	19.0	53.6		47.4	31.9	54.9	38.8	27.3	
Actuated g/C Ratio	0.40	0.35	0.35	0.16	0.45		0.40	0.27	0.46	0.32	0.23	
v/c Ratio	0.83	0.83	0.34	1.17	0.78		0.78	0.55	0.54	0.47	0.75	
Control Delay	60.2	44.0	7.7	139.0	33.5		48.5	36.0	15.1	28.3	47.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	60.2	44.0	7.7	139.0	33.5		48.5	36.0	15.1	28.3	47.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	D	A	F	C		D	D	B	C	D	
Approach Delay		39.8			69.7			31.3			43.9	
Approach LOS		D			E			C			D	
Queue Length 50th (m)	16.4	113.4	3.9	~91.4	126.2		40.7	42.6	29.6	22.6	66.7	
Queue Length 95th (m)	#55.6	#163.6	22.3	#126.5	166.2		#68.7	48.9	38.5	34.5	82.0	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	172	1212	661	548	1566		344	1072	781	343	944	
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	0.83	0.83	0.34	1.17	0.78		0.75	0.48	0.54	0.44	0.64	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 49.2 Intersection LOS: D
Intersection Capacity Utilization 84.6% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

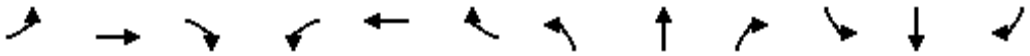
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3499		1750	3535	1566	1750	3444	
Flt Permitted	0.11	1.00	1.00	0.95	1.00		0.16	1.00	1.00	0.34	1.00	
Satd. Flow (perm)	206	3500	1536	3463	3499		287	3535	1566	632	3444	
Volume (vph)	132	925	204	590	1048	80	238	474	389	139	459	95
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	143	1005	222	641	1139	87	259	515	423	151	499	103
RTOR Reduction (vph)	0	0	129	0	4	0	0	0	74	0	15	0
Lane Group Flow (vph)	143	1005	93	641	1222	0	259	515	349	151	587	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	46.9	39.9	39.9	18.5	51.9		45.0	29.5	48.0	36.4	24.9	
Effective Green, g (s)	48.6	41.6	41.6	19.0	53.6		47.4	31.9	50.9	38.8	27.3	
Actuated g/C Ratio	0.41	0.35	0.35	0.16	0.45		0.39	0.27	0.42	0.32	0.23	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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	1213	532	548	1563		310	940	716	311	784	
v/s Ratio Prot	0.05	0.29		c0.19	0.35		c0.11	0.15	0.08	0.05	0.17	
v/s Ratio Perm	c0.29		0.06				c0.22		0.15	0.11		
v/c Ratio	0.83	0.83	0.18	1.17	0.78		0.84	0.55	0.49	0.49	0.75	
Uniform Delay, d1	26.0	35.9	27.3	50.5	28.2		28.2	37.9	25.1	30.3	43.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.32	0.90	0.82	1.00	1.00	
Incremental Delay, d2	26.4	6.6	0.7	94.6	4.0		16.6	0.6	0.5	1.2	3.9	
Delay (s)	52.4	42.5	28.0	145.1	32.2		53.7	34.8	21.0	31.5	47.1	
Level of Service	D	D	C	F	C		D	C	C	C	D	
Approach Delay (s)		41.2			71.0			34.0			44.0	
Approach LOS		D			E			C			D	

Intersection Summary			
HCM Average Control Delay	50.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



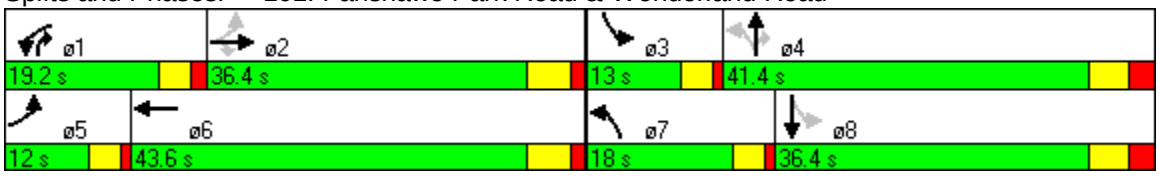
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.991				0.850		0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3503	0	1767	3535	1581	1767	3407	0
Flt Permitted	0.123			0.950			0.260			0.428		
Satd. Flow (perm)	229	3535	1581	3429	3503	0	484	3535	1581	796	3407	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			315		7				103		38	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	162	895	311	444	970	65	248	465	578	155	403	125
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	942	327	467	1021	68	261	489	608	163	424	132
Lane Group Flow (vph)	171	942	327	467	1089	0	261	489	608	163	556	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	12.0	36.4	36.4	19.2	43.6	0.0	18.0	41.4	19.2	13.0	36.4	0.0
Total Split (%)	10.9%	33.1%	33.1%	17.5%	39.6%	0.0%	16.4%	37.6%	17.5%	11.8%	33.1%	0.0%
Maximum Green (s)	8.0	30.7	30.7	14.7	37.9		14.0	35.0	14.7	9.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	43.1	35.1	35.1	15.2	42.3		47.6	34.8	54.0	39.1	30.2	
Actuated g/C Ratio	0.39	0.32	0.32	0.14	0.38		0.43	0.32	0.49	0.36	0.27	
v/c Ratio	0.85	0.84	0.45	0.99	0.81		0.71	0.44	0.73	0.45	0.58	
Control Delay	57.9	43.4	6.2	85.8	36.5		31.8	30.7	23.9	23.7	34.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	57.9	43.4	6.2	85.8	36.5		31.8	30.7	23.9	23.7	34.2	
LOS	E	D	A	F	D		C	C	C	C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		36.7			51.3			27.9			31.8	
Approach LOS		D			D			C			C	
Queue Length 50th (m)	20.8	100.8	1.8	51.5	110.8		34.2	41.4	79.1	20.1	48.2	
Queue Length 95th (m)	#58.9	#136.6	22.1	#83.4	138.2		52.7	55.6	121.2	33.4	65.1	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	202	1127	719	474	1350		373	1202	827	363	1030	
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	0.85	0.84	0.45	0.99	0.81		0.70	0.41	0.74	0.45	0.54	

Intersection Summary

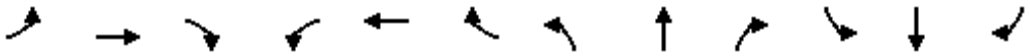
Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 86 (78%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 38.1 Intersection LOS: D
Intersection Capacity Utilization 80.1% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3501		1767	3535	1581	1767	3409	
Flt Permitted	0.11	1.00	1.00	0.95	1.00		0.24	1.00	1.00	0.41	1.00	
Satd. Flow (perm)	212	3535	1581	3429	3501		452	3535	1581	766	3409	
Volume (vph)	162	895	311	444	970	65	248	465	578	155	403	125
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	942	327	467	1021	68	261	489	608	163	424	132
RTOR Reduction (vph)	0	0	214	0	4	0	0	0	56	0	28	0
Lane Group Flow (vph)	171	942	113	467	1085	0	261	489	552	163	528	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	41.4	33.4	33.4	14.7	40.6		45.3	32.4	47.1	36.7	27.8	
Effective Green, g (s)	43.1	35.1	35.1	15.2	42.3		47.7	34.8	50.0	39.1	30.2	
Actuated g/C Ratio	0.39	0.32	0.32	0.14	0.38		0.43	0.32	0.45	0.36	0.27	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	196	1128	504	474	1346		357	1118	776	353	936	
v/s Ratio Prot	0.06	0.27		c0.14	0.31		c0.09	0.14	c0.10	0.04	0.16	
v/s Ratio Perm	c0.28		0.07				0.23		0.25	0.13		
v/c Ratio	0.87	0.84	0.22	0.99	0.81		0.73	0.44	0.71	0.46	0.56	
Uniform Delay, d1	25.4	34.8	27.5	47.3	30.2		22.3	29.8	24.2	25.3	34.3	
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	32.0	7.4	1.0	37.2	5.2		7.5	0.3	3.1	1.0	0.8	
Delay (s)	57.3	42.1	28.5	84.5	35.4		29.8	30.1	27.3	26.2	35.0	
Level of Service	E	D	C	F	D		C	C	C	C	D	
Approach Delay (s)		40.8			50.1			28.8			33.0	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	39.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



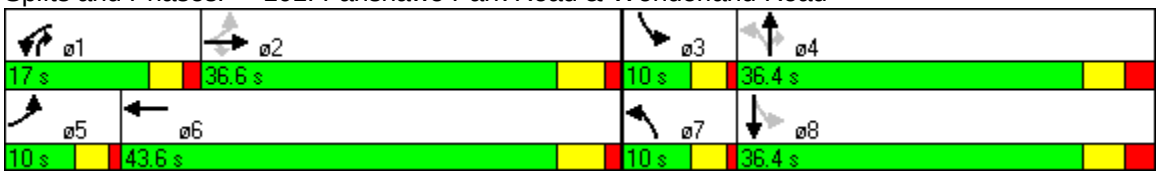
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.983				0.850		0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3300	0	1684	3433	1536	1700	3322	0
Flt Permitted	0.382			0.950			0.324			0.435		
Satd. Flow (perm)	684	3466	1493	3362	3300	0	574	3433	1536	778	3322	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			199		17				79		14	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	93	1113	199	257	510	66	160	371	322	131	450	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	101	1210	216	279	554	72	174	403	350	142	489	59
Lane Group Flow (vph)	101	1210	216	279	626	0	174	403	350	142	548	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	10.0	36.6	36.6	17.0	43.6	0.0	10.0	36.4	17.0	10.0	36.4	0.0
Total Split (%)	10.0%	36.6%	36.6%	17.0%	43.6%	0.0%	10.0%	36.4%	17.0%	10.0%	36.4%	0.0%
Maximum Green (s)	6.0	30.9	30.9	12.5	37.9		6.0	30.0	12.5	6.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	47.3	41.3	41.3	12.3	49.6		30.4	24.4	40.7	30.4	24.4	
Actuated g/C Ratio	0.47	0.41	0.41	0.12	0.50		0.30	0.24	0.41	0.30	0.24	
v/c Ratio	0.26	0.85	0.29	0.67	0.38		0.72	0.48	0.52	0.49	0.67	
Control Delay	13.6	35.0	5.6	50.5	17.7		37.3	28.8	15.3	28.8	36.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	13.6	35.0	5.6	50.5	17.7		37.3	28.8	15.3	28.8	36.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	D	A	D	B		D	C	B	C	D	
Approach Delay		29.5			27.8			25.3			35.1	
Approach LOS		C			C			C			D	
Queue Length 50th (m)	7.9	106.8	1.9	26.4	37.3		21.2	27.5	25.1	19.6	49.4	
Queue Length 95th (m)	18.6	#175.4	17.6	39.4	60.1		28.2	32.4	32.1	29.2	58.7	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	384	1431	733	437	1645		241	1112	674	292	1086	
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	0.85	0.29	0.64	0.38		0.72	0.36	0.52	0.49	0.50	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 29.1 Intersection LOS: C
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

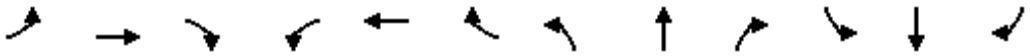
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3299		1684	3433	1536	1700	3321	
Flt Permitted	0.41	1.00	1.00	0.95	1.00		0.26	1.00	1.00	0.39	1.00	
Satd. Flow (perm)	742	3466	1493	3362	3299		454	3433	1536	691	3321	
Volume (vph)	93	1113	199	257	510	66	160	371	322	131	450	54
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	1210	216	279	554	72	174	403	350	142	489	59
RTOR Reduction (vph)	0	0	117	0	9	0	0	0	50	0	11	0
Lane Group Flow (vph)	101	1210	99	279	617	0	174	403	300	142	537	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	44.4	39.6	39.6	11.8	47.1		28.0	22.0	33.8	28.0	22.0	
Effective Green, g (s)	46.1	41.3	41.3	12.3	48.8		30.4	24.4	36.7	30.4	24.4	
Actuated g/C Ratio	0.46	0.41	0.41	0.12	0.49		0.30	0.24	0.37	0.30	0.24	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	388	1431	617	414	1610		212	838	625	271	810	
v/s Ratio Prot	0.01	c0.35		c0.08	0.19		c0.05	0.12	0.06	0.03	0.16	
v/s Ratio Perm	0.11		0.07				c0.20		0.14	0.13		
v/c Ratio	0.26	0.85	0.16	0.67	0.38		0.82	0.48	0.48	0.52	0.66	
Uniform Delay, d1	15.4	26.5	18.5	41.9	16.1		30.3	32.4	24.3	26.9	34.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.82	0.85	0.79	1.00	1.00	
Incremental Delay, d2	0.4	6.3	0.6	4.3	0.7		21.2	0.4	0.6	1.8	2.1	
Delay (s)	15.8	32.8	19.0	46.2	16.8		45.9	28.0	19.7	28.8	36.2	
Level of Service	B	C	B	D	B		D	C	B	C	D	
Approach Delay (s)		29.7			25.9			28.2			34.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



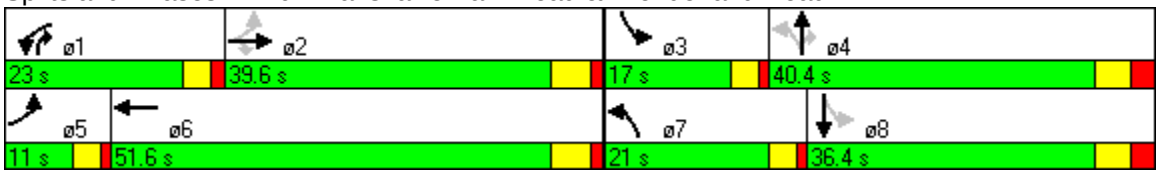
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.985				0.850		0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3485	0	1750	3535	1566	1750	3450	0
Flt Permitted	0.112			0.950			0.139			0.248		
Satd. Flow (perm)	204	3500	1536	3463	3485	0	256	3535	1566	457	3450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			237		12				81		18	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	149	1000	266	620	1143	126	334	614	409	174	552	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	162	1087	289	674	1242	137	363	667	445	189	600	114
Lane Group Flow (vph)	162	1087	289	674	1379	0	363	667	445	189	714	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	11.0	39.6	39.6	23.0	51.6	0.0	21.0	40.4	23.0	17.0	36.4	0.0
Total Split (%)	9.2%	33.0%	33.0%	19.2%	43.0%	0.0%	17.5%	33.7%	19.2%	14.2%	30.3%	0.0%
Maximum Green (s)	7.0	33.9	33.9	18.5	45.9		17.0	34.0	18.5	13.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	44.8	37.8	37.8	19.0	49.8		51.2	35.1	58.1	42.3	30.2	
Actuated g/C Ratio	0.37	0.32	0.32	0.16	0.42		0.43	0.29	0.48	0.35	0.25	
v/c Ratio	0.98	0.99	0.45	1.23	0.95		1.13	0.65	0.56	0.65	0.81	
Control Delay	93.2	65.6	9.7	161.3	48.7		127.3	36.1	16.9	33.1	48.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	93.2	65.6	9.7	161.3	48.7		127.3	36.1	16.9	33.1	48.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	E	A	F	D		F	D	B	C	D	
Approach Delay		58.0			85.7			52.8			45.6	
Approach LOS		E			F			D			D	
Queue Length 50th (m)	~23.0	~144.5	8.8	~99.6	164.5		~80.5	60.5	30.8	26.8	78.4	
Queue Length 95th (m)	#66.9	#185.0	31.5	#135.3	#215.5		#139.6	64.3	45.6	42.5	100.1	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	166	1102	646	548	1453		321	1072	796	305	945	
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	0.98	0.99	0.45	1.23	0.95		1.13	0.62	0.56	0.62	0.76	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 64.3 Intersection LOS: E
Intersection Capacity Utilization 95.8% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

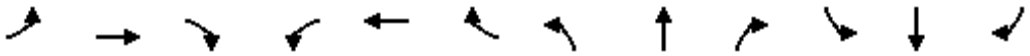
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3485		1750	3535	1566	1750	3450	
Flt Permitted	0.11	1.00	1.00	0.95	1.00		0.12	1.00	1.00	0.24	1.00	
Satd. Flow (perm)	193	3500	1536	3463	3485		215	3535	1566	450	3450	
Volume (vph)	149	1000	266	620	1143	126	334	614	409	174	552	105
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	162	1087	289	674	1242	137	363	667	445	189	600	114
RTOR Reduction (vph)	0	0	162	0	7	0	0	0	44	0	13	0
Lane Group Flow (vph)	162	1087	127	674	1372	0	363	667	401	189	701	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	43.1	36.1	36.1	18.5	48.1		48.8	32.7	51.2	39.9	27.8	
Effective Green, g (s)	44.8	37.8	37.8	19.0	49.8		51.2	35.1	54.1	42.3	30.2	
Actuated g/C Ratio	0.37	0.31	0.31	0.16	0.41		0.43	0.29	0.45	0.35	0.25	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	162	1103	484	548	1446		309	1034	758	290	868	
v/s Ratio Prot	0.06	0.31		c0.19	c0.39		c0.17	0.19	0.08	0.07	0.20	
v/s Ratio Perm	0.32		0.08				c0.33		0.17	0.16		
v/c Ratio	1.00	0.99	0.26	1.23	0.95		1.17	0.65	0.53	0.65	0.81	
Uniform Delay, d1	33.0	40.8	30.7	50.5	33.9		35.1	37.0	23.8	29.0	42.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.44	0.90	0.82	1.00	1.00	
Incremental Delay, d2	70.7	23.8	1.3	118.8	14.3		105.1	1.3	0.6	5.2	5.5	
Delay (s)	103.7	64.7	32.0	169.3	48.1		155.6	34.5	20.1	34.1	47.7	
Level of Service	F	E	C	F	D		F	C	C	C	D	
Approach Delay (s)		62.6			87.9			60.0			44.9	
Approach LOS		E			F			E			D	

Intersection Summary			
HCM Average Control Delay	68.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

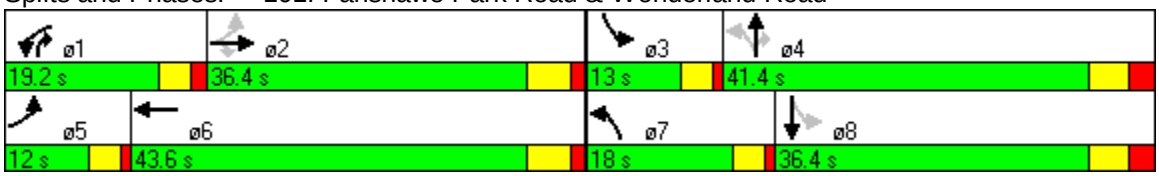


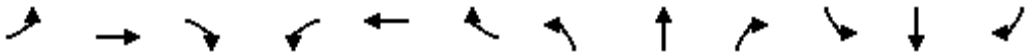
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.988				0.850		0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3492	0	1767	3535	1581	1767	3421	0
Flt Permitted	0.123			0.950			0.190			0.332		
Satd. Flow (perm)	229	3535	1581	3429	3492	0	353	3535	1581	618	3421	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			277		9				66		31	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	174	972	385	467	1062	95	329	580	607	193	503	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	183	1023	405	492	1118	100	346	611	639	203	529	142
Lane Group Flow (vph)	183	1023	405	492	1218	0	346	611	639	203	671	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	12.0	36.4	36.4	19.2	43.6	0.0	18.0	41.4	19.2	13.0	36.4	0.0
Total Split (%)	10.9%	33.1%	33.1%	17.5%	39.6%	0.0%	16.4%	37.6%	17.5%	11.8%	33.1%	0.0%
Maximum Green (s)	8.0	30.7	30.7	14.7	37.9		14.0	35.0	14.7	9.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	41.6	33.6	33.6	15.2	40.8		49.2	36.2	55.4	40.2	31.2	
Actuated g/C Ratio	0.38	0.31	0.31	0.14	0.37		0.45	0.33	0.50	0.37	0.28	
v/c Ratio	0.92	0.95	0.60	1.04	0.94		1.02	0.53	0.77	0.63	0.68	
Control Delay	72.6	55.6	14.5	98.2	47.8		86.2	28.5	23.2	30.0	36.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	72.6	55.6	14.5	98.2	47.8		86.2	28.5	23.2	30.0	36.9	
LOS	E	E	B	F	D		F	C	C	C	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		47.2			62.3			38.9			35.3	
Approach LOS		D			E			D			D	
Queue Length 50th (m)	23.5	113.1	21.1	~58.0	131.0		~57.3	41.1	50.9	25.6	62.3	
Queue Length 95th (m)	#65.2	#156.1	53.0	#89.7	#176.5		#108.6	51.1	64.5	40.9	81.7	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	198	1080	675	474	1301		338	1202	829	320	1030	
Starvation Cap Reductn	0	0	0	0	0		0	0	3	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	0.92	0.95	0.60	1.04	0.94		1.02	0.51	0.77	0.63	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 86 (78%), Referenced to phase 2:EBTL and 6:WBT, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 47.6		Intersection LOS: D	
Intersection Capacity Utilization 91.8%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

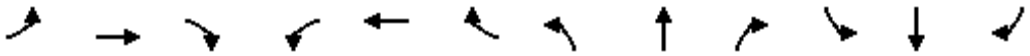
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3491		1767	3535	1581	1767	3422	
Flt Permitted	0.12	1.00	1.00	0.95	1.00		0.18	1.00	1.00	0.33	1.00	
Satd. Flow (perm)	221	3535	1581	3429	3491		335	3535	1581	606	3422	
Volume (vph)	174	972	385	467	1062	95	329	580	607	193	503	135
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	183	1023	405	492	1118	100	346	611	639	203	529	142
RTOR Reduction (vph)	0	0	192	0	6	0	0	0	35	0	22	0
Lane Group Flow (vph)	183	1023	213	492	1212	0	346	611	604	203	649	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	39.9	31.9	31.9	14.7	39.1		46.8	33.8	48.5	37.8	28.8	
Effective Green, g (s)	41.6	33.6	33.6	15.2	40.8		49.2	36.2	51.4	40.2	31.2	
Actuated g/C Ratio	0.38	0.31	0.31	0.14	0.37		0.45	0.33	0.47	0.37	0.28	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	196	1080	483	474	1295		332	1163	796	316	971	
v/s Ratio Prot	0.07	0.29		c0.14	c0.35		c0.13	0.17	0.10	0.05	0.19	
v/s Ratio Perm	0.28		0.13				c0.33		0.28	0.18		
v/c Ratio	0.93	0.95	0.44	1.04	0.94		1.04	0.53	0.76	0.64	0.67	
Uniform Delay, d1	27.7	37.3	30.7	47.4	33.3		23.8	29.9	24.2	25.4	34.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.56	0.90	0.85	1.00	1.00	
Incremental Delay, d2	45.5	17.3	2.9	51.5	13.8		57.6	0.4	3.7	4.4	1.8	
Delay (s)	73.2	54.6	33.6	98.9	47.1		94.7	27.4	24.3	29.8	36.6	
Level of Service	E	D	C	F	D		F	C	C	C	D	
Approach Delay (s)		51.4			62.0			40.7			35.0	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM Average Control Delay	49.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



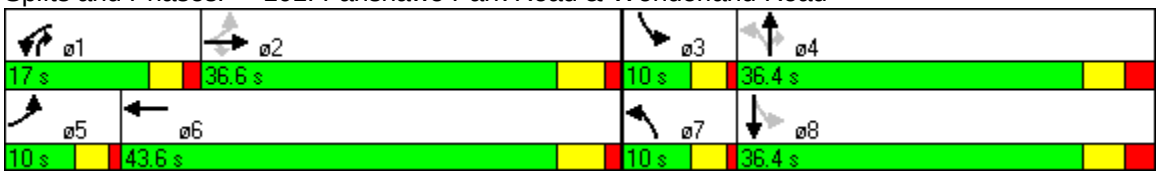
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.985				0.850		0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3308	0	1684	3433	1536	1700	3312	0
Flt Permitted	0.409			0.950			0.427			0.491		
Satd. Flow (perm)	732	3466	1493	3362	3308	0	757	3433	1536	879	3312	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124		14				100		16	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	88	1013	114	242	488	54	143	311	304	109	334	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	96	1101	124	263	530	59	155	338	330	118	363	50
Lane Group Flow (vph)	96	1101	124	263	589	0	155	338	330	118	413	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	10.0	36.6	36.6	17.0	43.6	0.0	10.0	36.4	17.0	10.0	36.4	0.0
Total Split (%)	10.0%	36.6%	36.6%	17.0%	43.6%	0.0%	10.0%	36.4%	17.0%	10.0%	36.4%	0.0%
Maximum Green (s)	6.0	30.9	30.9	12.5	37.9		6.0	30.0	12.5	6.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	50.4	44.4	44.4	12.2	52.6		27.4	21.4	37.6	27.4	21.4	
Actuated g/C Ratio	0.50	0.44	0.44	0.12	0.53		0.27	0.21	0.38	0.27	0.21	
v/c Ratio	0.22	0.72	0.17	0.64	0.34		0.59	0.46	0.52	0.41	0.57	
Control Delay	11.7	27.6	4.6	49.5	15.6		30.5	30.5	15.2	28.5	36.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	11.7	27.6	4.6	49.5	15.6		30.5	30.5	15.2	28.5	36.1	

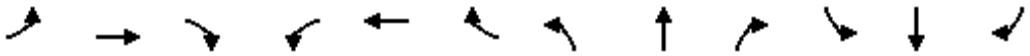
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	C	A	D	B		C	C	B	C	D	
Approach Delay		24.3			26.1			24.3			34.4	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	7.0	88.3	0.0	24.7	32.7		19.5	24.4	30.5	16.7	36.2	
Queue Length 95th (m)	16.7	#140.7	11.2	37.3	53.1		27.1	28.2	28.2	26.2	45.5	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	427	1539	732	437	1745		263	1112	649	291	1084	
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	0.22	0.72	0.17	0.60	0.34		0.59	0.30	0.51	0.41	0.38	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 26.3 Intersection LOS: C
Intersection Capacity Utilization 66.9% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road

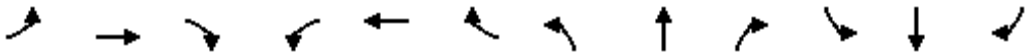




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3308		1684	3433	1536	1700	3311	
Flt Permitted	0.43	1.00	1.00	0.95	1.00		0.35	1.00	1.00	0.43	1.00	
Satd. Flow (perm)	769	3466	1493	3362	3308		617	3433	1536	769	3311	
Volume (vph)	88	1013	114	242	488	54	143	311	304	109	334	46
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	96	1101	124	263	530	59	155	338	330	118	363	50
RTOR Reduction (vph)	0	0	69	0	7	0	0	0	66	0	13	0
Lane Group Flow (vph)	96	1101	55	263	582	0	155	338	264	118	400	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	47.5	42.7	42.7	11.7	50.1		25.0	19.0	30.7	25.0	19.0	
Effective Green, g (s)	49.2	44.4	44.4	12.2	51.8		27.4	21.4	33.6	27.4	21.4	
Actuated g/C Ratio	0.49	0.44	0.44	0.12	0.52		0.27	0.21	0.34	0.27	0.21	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	423	1539	663	410	1714		233	735	578	267	709	
v/s Ratio Prot	0.01	c0.32		c0.08	0.18		c0.04	0.10	0.06	0.03	0.12	
v/s Ratio Perm	0.10		0.04				c0.14		0.12	0.09		
v/c Ratio	0.23	0.72	0.08	0.64	0.34		0.67	0.46	0.46	0.44	0.56	
Uniform Delay, d1	13.7	22.7	16.0	41.8	14.1		30.5	34.3	26.0	28.4	35.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.82	0.86	0.80	1.00	1.00	
Incremental Delay, d2	0.3	2.9	0.2	3.4	0.5		6.8	0.4	0.6	1.2	1.0	
Delay (s)	14.0	25.5	16.3	45.2	14.6		31.8	29.8	21.5	29.6	36.2	
Level of Service	B	C	B	D	B		C	C	C	C	D	
Approach Delay (s)		23.8			24.1			26.8			34.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



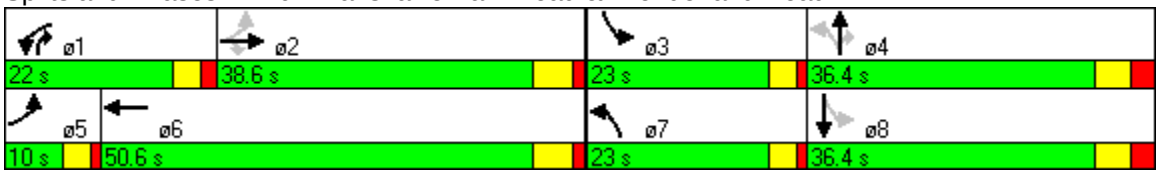
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.990				0.850		0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3502	0	1750	3535	1566	1750	3453	0
Flt Permitted	0.116			0.950			0.197			0.302		
Satd. Flow (perm)	212	3500	1536	3463	3502	0	363	3535	1566	556	3453	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			195		7				129		17	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	131	912	202	582	1107	79	289	468	384	204	506	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	142	991	220	633	1203	86	314	509	417	222	550	102
Lane Group Flow (vph)	142	991	220	633	1289	0	314	509	417	222	652	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	10.0	38.6	38.6	22.0	50.6	0.0	23.0	36.4	22.0	23.0	36.4	0.0
Total Split (%)	8.3%	32.2%	32.2%	18.3%	42.2%	0.0%	19.2%	30.3%	18.3%	19.2%	30.3%	0.0%
Maximum Green (s)	6.0	32.9	32.9	17.5	44.9		19.0	30.0	17.5	19.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	44.5	38.5	38.5	18.0	50.5		50.3	32.4	54.4	43.9	28.8	
Actuated g/C Ratio	0.37	0.32	0.32	0.15	0.42		0.42	0.27	0.45	0.37	0.24	
v/c Ratio	0.92	0.88	0.35	1.22	0.87		0.85	0.53	0.53	0.63	0.77	
Control Delay	79.4	49.8	8.1	158.5	40.2		56.2	35.8	15.5	30.4	48.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	79.4	49.8	8.1	158.5	40.2		56.2	35.8	15.5	30.4	48.0	

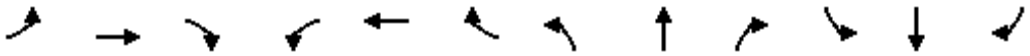
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	D	A	F	D		E	D	B	C	D	
Approach Delay		46.2			79.2			34.2			43.5	
Approach LOS		D			E			C			D	
Queue Length 50th (m)	17.7	116.5	4.1	~93.0	144.1		53.7	43.9	27.3	32.4	72.1	
Queue Length 95th (m)	#57.9	#163.7	22.8	#128.1	#195.4		#95.4	55.4	37.5	47.8	90.1	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	155	1123	625	519	1478		372	973	769	410	945	
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	0.92	0.88	0.35	1.22	0.87		0.84	0.52	0.54	0.54	0.69	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 54.7 Intersection LOS: D
Intersection Capacity Utilization 88.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road

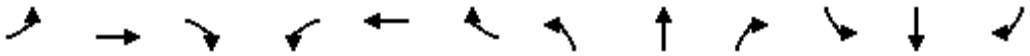




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3501		1750	3535	1566	1750	3452	
Flt Permitted	0.10	1.00	1.00	0.95	1.00		0.14	1.00	1.00	0.34	1.00	
Satd. Flow (perm)	190	3500	1536	3463	3501		260	3535	1566	626	3452	
Volume (vph)	131	912	202	582	1107	79	289	468	384	204	506	94
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	142	991	220	633	1203	86	314	509	417	222	550	102
RTOR Reduction (vph)	0	0	132	0	4	0	0	0	75	0	13	0
Lane Group Flow (vph)	142	991	88	633	1285	0	314	509	342	222	639	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	42.8	36.8	36.8	17.5	48.8		48.7	30.0	47.5	41.5	26.4	
Effective Green, g (s)	44.5	38.5	38.5	18.0	50.5		51.1	32.4	50.4	43.9	28.8	
Actuated g/C Ratio	0.37	0.32	0.32	0.15	0.42		0.43	0.27	0.42	0.37	0.24	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	148	1123	493	519	1473		343	954	710	370	828	
v/s Ratio Prot	0.05	0.28		c0.18	0.37		c0.14	0.14	0.07	0.08	0.19	
v/s Ratio Perm	c0.31		0.06				c0.25		0.15	0.14		
v/c Ratio	0.96	0.88	0.18	1.22	0.87		0.92	0.53	0.48	0.60	0.77	
Uniform Delay, d1	32.0	38.6	29.3	51.0	31.8		31.1	37.4	25.3	28.0	42.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.40	0.90	0.82	1.00	1.00	
Incremental Delay, d2	61.0	10.1	0.8	115.3	7.4		26.8	0.5	0.5	2.6	4.5	
Delay (s)	93.0	48.7	30.1	166.3	39.2		70.4	34.3	21.3	30.6	47.0	
Level of Service	F	D	C	F	D		E	C	C	C	D	
Approach Delay (s)		50.3			81.1			39.1			42.9	
Approach LOS		D			F			D			D	

Intersection Summary			
HCM Average Control Delay	57.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

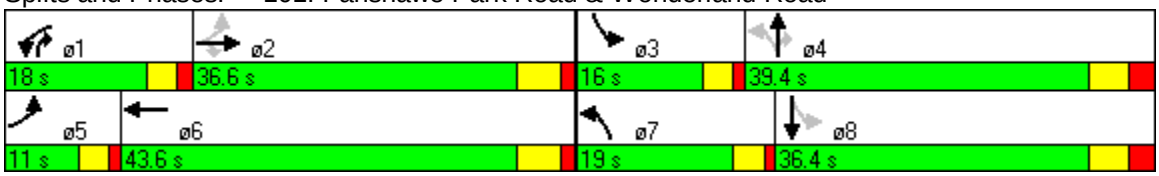


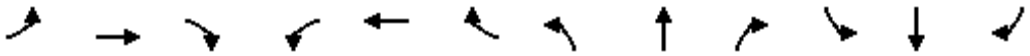
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.991				0.850		0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3503	0	1767	3535	1581	1767	3421	0
Flt Permitted	0.123			0.950			0.236			0.400		
Satd. Flow (perm)	229	3535	1581	3429	3503	0	439	3535	1581	744	3421	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			323		6				92		32	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	160	883	307	438	1030	64	303	458	570	225	451	123
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	929	323	461	1084	67	319	482	600	237	475	129
Lane Group Flow (vph)	168	929	323	461	1151	0	319	482	600	237	604	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		4.0	7.0	5.0	4.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	11.0	36.6	36.6	18.0	43.6	0.0	19.0	39.4	18.0	16.0	36.4	0.0
Total Split (%)	10.0%	33.3%	33.3%	16.4%	39.6%	0.0%	17.3%	35.8%	16.4%	14.5%	33.1%	0.0%
Maximum Green (s)	7.0	30.9	30.9	13.5	37.9		15.0	33.0	13.5	12.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	41.6	34.6	34.6	14.0	41.6		48.6	33.7	51.7	42.2	30.5	
Actuated g/C Ratio	0.38	0.31	0.31	0.13	0.38		0.44	0.31	0.47	0.38	0.28	
v/c Ratio	0.91	0.84	0.45	1.06	0.87		0.85	0.45	0.76	0.60	0.62	
Control Delay	71.5	43.7	5.5	105.5	40.4		42.9	31.8	27.0	26.4	35.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	71.5	43.7	5.5	105.5	40.4		42.9	31.8	27.0	26.4	35.6	
LOS	E	D	A	F	D		D	C	C	C	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		38.3			59.0			32.3			33.0	
Approach LOS		D			E			C			C	
Queue Length 50th (m)	20.7	98.6	0.0	~55.3	120.3		42.7	42.0	84.6	30.0	54.2	
Queue Length 95th (m)	#60.6	#132.6	19.3	#86.2	#160.3		#76.4	56.5	129.2	46.8	72.2	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	184	1111	718	436	1327		375	1138	784	399	1030	
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	0.91	0.84	0.45	1.06	0.87		0.85	0.42	0.77	0.59	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 86 (78%), Referenced to phase 2:EBTL and 6:WBT, Start of Green			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 42.2		Intersection LOS: D	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

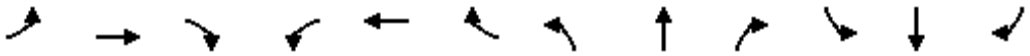
Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3504		1767	3535	1581	1767	3421	
Flt Permitted	0.12	1.00	1.00	0.95	1.00		0.22	1.00	1.00	0.39	1.00	
Satd. Flow (perm)	216	3535	1581	3429	3504		408	3535	1581	733	3421	
Volume (vph)	160	883	307	438	1030	64	303	458	570	225	451	123
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	929	323	461	1084	67	319	482	600	237	475	129
RTOR Reduction (vph)	0	0	222	0	4	0	0	0	52	0	23	0
Lane Group Flow (vph)	168	929	101	461	1147	0	319	482	548	237	581	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	39.8	32.8	32.8	13.5	39.8		46.3	31.3	44.8	39.9	28.1	
Effective Green, g (s)	41.5	34.5	34.5	14.0	41.5		48.7	33.7	47.7	42.3	30.5	
Actuated g/C Ratio	0.38	0.31	0.31	0.13	0.38		0.44	0.31	0.43	0.38	0.28	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	180	1109	496	436	1322		366	1083	743	393	949	
v/s Ratio Prot	0.06	0.26		c0.13	0.33		c0.12	0.14	0.09	0.06	0.17	
v/s Ratio Perm	c0.29		0.06				c0.27		0.25	0.17		
v/c Ratio	0.93	0.84	0.20	1.06	0.87		0.87	0.45	0.74	0.60	0.61	
Uniform Delay, d1	27.5	35.1	27.7	48.0	31.7		22.9	30.6	25.9	24.2	34.6	
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	47.9	7.6	0.9	59.1	7.9		19.7	0.3	3.8	2.6	1.2	
Delay (s)	75.4	42.7	28.6	107.1	39.6		42.6	30.9	29.8	26.8	35.8	
Level of Service	E	D	C	F	D		D	C	C	C	D	
Approach Delay (s)		43.4			58.9			33.1			33.3	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM Average Control Delay	43.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



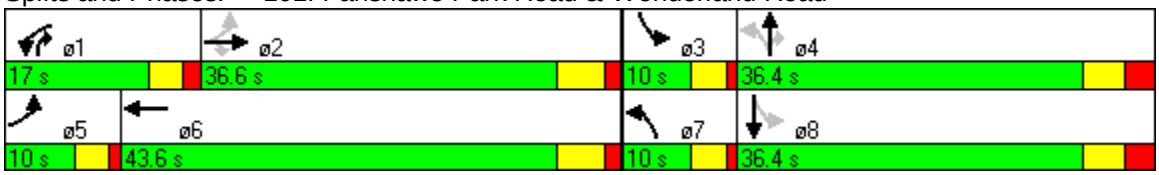
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.983				0.850		0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1700	3466	1493	3362	3300	0	1684	3433	1536	1700	3323	0
Flt Permitted	0.363			0.950			0.317			0.437		
Satd. Flow (perm)	650	3466	1493	3362	3300	0	562	3433	1536	782	3323	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			200		16				70		13	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	93	1106	198	255	535	66	182	368	319	151	461	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Adj. Flow (vph)	101	1202	215	277	582	72	198	400	347	164	501	58
Lane Group Flow (vph)	101	1202	215	277	654	0	198	400	347	164	559	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	10.0	36.6	36.6	17.0	43.6	0.0	10.0	36.4	17.0	10.0	36.4	0.0
Total Split (%)	10.0%	36.6%	36.6%	17.0%	43.6%	0.0%	10.0%	36.4%	17.0%	10.0%	36.4%	0.0%
Maximum Green (s)	6.0	30.9	30.9	12.5	37.9		6.0	30.0	12.5	6.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	47.1	41.1	41.1	12.3	49.4		30.6	24.6	40.9	30.6	24.6	
Actuated g/C Ratio	0.47	0.41	0.41	0.12	0.49		0.31	0.25	0.41	0.31	0.25	
v/c Ratio	0.27	0.84	0.29	0.67	0.40		0.83	0.47	0.52	0.56	0.68	
Control Delay	13.8	35.1	5.5	50.4	18.1		48.4	28.6	15.7	31.3	36.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	13.8	35.1	5.5	50.4	18.1		48.4	28.6	15.7	31.3	36.9	

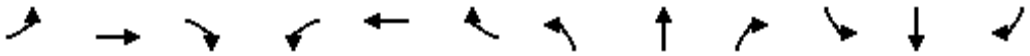
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	D	A	D	B		D	C	B	C	D	
Approach Delay		29.5			27.7			28.0			35.7	
Approach LOS		C			C			C			D	
Queue Length 50th (m)	8.0	106.3	1.7	26.2	39.6		24.6	27.1	25.7	22.8	50.5	
Queue Length 95th (m)	18.6	#173.7	17.3	39.1	63.2		#36.2	32.0	32.4	33.2	60.1	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	369	1424	731	437	1637		239	1112	671	294	1085	
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	0.84	0.29	0.63	0.40		0.83	0.36	0.52	0.56	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 29.8 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1700	3466	1493	3362	3302		1684	3433	1536	1700	3324	
Flt Permitted	0.40	1.00	1.00	0.95	1.00		0.25	1.00	1.00	0.39	1.00	
Satd. Flow (perm)	710	3466	1493	3362	3302		442	3433	1536	699	3324	
Volume (vph)	93	1106	198	255	535	66	182	368	319	151	461	53
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	1202	215	277	582	72	198	400	347	164	501	58
RTOR Reduction (vph)	0	0	118	0	8	0	0	0	44	0	10	0
Lane Group Flow (vph)	101	1202	97	277	646	0	198	400	303	164	549	0
Heavy Vehicles (%)	5%	3%	7%	3%	6%	9%	6%	4%	4%	5%	5%	12%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	44.2	39.4	39.4	11.8	46.9		28.2	22.2	34.0	28.2	22.2	
Effective Green, g (s)	45.9	41.1	41.1	12.3	48.6		30.6	24.6	36.9	30.6	24.6	
Actuated g/C Ratio	0.46	0.41	0.41	0.12	0.49		0.31	0.25	0.37	0.31	0.25	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	373	1425	614	414	1605		210	845	628	274	818	
v/s Ratio Prot	0.01	c0.35		c0.08	0.20		c0.06	0.12	c0.06	0.04	0.17	
v/s Ratio Perm	0.11		0.07				c0.23		0.14	0.15		
v/c Ratio	0.27	0.84	0.16	0.67	0.40		0.94	0.47	0.48	0.60	0.67	
Uniform Delay, d1	15.6	26.6	18.6	41.9	16.4		32.2	32.2	24.2	27.9	34.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.81	0.85	0.79	1.00	1.00	
Incremental Delay, d2	0.4	6.3	0.6	4.1	0.8		44.9	0.4	0.6	3.5	2.2	
Delay (s)	16.0	32.8	19.1	46.0	17.2		71.0	27.9	19.7	31.4	36.2	
Level of Service	B	C	B	D	B		E	C	B	C	D	
Approach Delay (s)		29.7			25.7			33.9			35.1	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	30.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

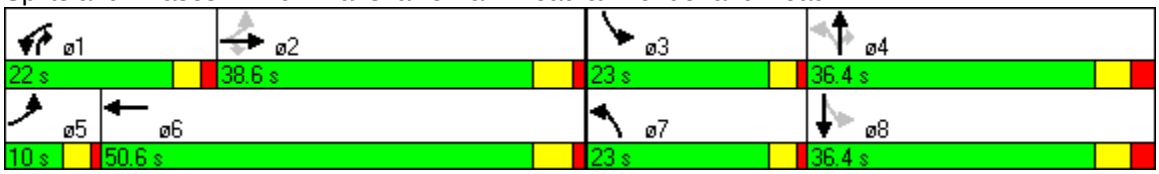
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.986				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1733	3500	1536	3463	3488	0	1750	3535	1566	1750	3457	0
Flt Permitted	0.116			0.950			0.126			0.191		
Satd. Flow (perm)	212	3500	1536	3463	3488	0	232	3535	1566	352	3457	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			235		11				85		16	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	147	987	263	612	1202	125	384	608	404	239	599	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Adj. Flow (vph)	160	1073	286	665	1307	136	417	661	439	260	651	112
Lane Group Flow (vph)	160	1073	286	665	1443	0	417	661	439	260	763	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	10.0	38.6	38.6	22.0	50.6	0.0	23.0	36.4	22.0	23.0	36.4	0.0
Total Split (%)	8.3%	32.2%	32.2%	18.3%	42.2%	0.0%	19.2%	30.3%	18.3%	19.2%	30.3%	0.0%
Maximum Green (s)	6.0	32.9	32.9	17.5	44.9		19.0	30.0	17.5	19.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	42.0	36.0	36.0	18.0	48.0		52.0	33.7	55.7	47.2	31.0	
Actuated g/C Ratio	0.35	0.30	0.30	0.15	0.40		0.43	0.28	0.46	0.39	0.26	
v/c Ratio	1.06	1.02	0.46	1.28	1.03		1.22	0.67	0.57	0.79	0.84	
Control Delay	118.3	75.0	10.0	182.1	67.4		159.5	37.9	18.4	41.0	50.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	118.3	75.0	10.0	182.1	67.4		159.5	37.9	18.4	41.0	50.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	E	B	F	E		F	D	B	D	D	
Approach Delay		67.3			103.6			65.7			48.4	
Approach LOS		E			F			E			D	
Queue Length 50th (m)	~26.2	~144.6	8.7	~101.0	~193.5		~105.4	62.1	31.4	37.3	85.5	
Queue Length 95th (m)	#69.2	#184.8	31.5	#136.3	#235.9		#168.9	73.9	46.2	61.2	108.5	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	151	1051	626	519	1403		341	993	772	368	945	
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	1.06	1.02	0.46	1.28	1.03		1.22	0.67	0.57	0.71	0.81	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.28
Intersection Signal Delay: 76.2 Intersection LOS: E
Intersection Capacity Utilization 99.8% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1733	3500	1536	3463	3488		1750	3535	1566	1750	3457	
Flt Permitted	0.11	1.00	1.00	0.95	1.00		0.12	1.00	1.00	0.22	1.00	
Satd. Flow (perm)	203	3500	1536	3463	3488		219	3535	1566	405	3457	
Volume (vph)	147	987	263	612	1202	125	384	608	404	239	599	103
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	160	1073	286	665	1307	136	417	661	439	260	651	112
RTOR Reduction (vph)	0	0	165	0	7	0	0	0	48	0	12	0
Lane Group Flow (vph)	160	1073	122	665	1436	0	417	661	391	260	751	0
Heavy Vehicles (%)	3%	2%	4%	0%	1%	0%	2%	1%	2%	2%	1%	1%
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	40.3	34.3	34.3	17.5	46.3		50.3	31.3	48.8	44.9	28.6	
Effective Green, g (s)	42.0	36.0	36.0	18.0	48.0		52.7	33.7	51.7	47.3	31.0	
Actuated g/C Ratio	0.35	0.30	0.30	0.15	0.40		0.44	0.28	0.43	0.39	0.26	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	148	1050	461	519	1395		339	993	727	342	893	
v/s Ratio Prot	0.05	0.31		c0.19	c0.41		c0.20	0.19	0.08	0.10	0.22	
v/s Ratio Perm	0.33		0.08				c0.35		0.17	0.20		
v/c Ratio	1.08	1.02	0.26	1.28	1.03		1.23	0.67	0.54	0.76	0.84	
Uniform Delay, d1	59.2	42.0	31.9	51.0	36.0		35.7	38.2	25.3	27.1	42.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.32	0.90	0.83	1.00	1.00	
Incremental Delay, d2	97.3	33.4	1.4	140.8	32.0		124.7	1.5	0.7	9.6	7.2	
Delay (s)	156.5	75.4	33.3	191.8	68.0		171.7	35.8	21.6	36.7	49.4	
Level of Service	F	E	C	F	E		F	D	C	D	D	
Approach Delay (s)		76.0			107.1			69.1			46.2	
Approach LOS		E			F			E			D	

Intersection Summary			
HCM Average Control Delay	80.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		

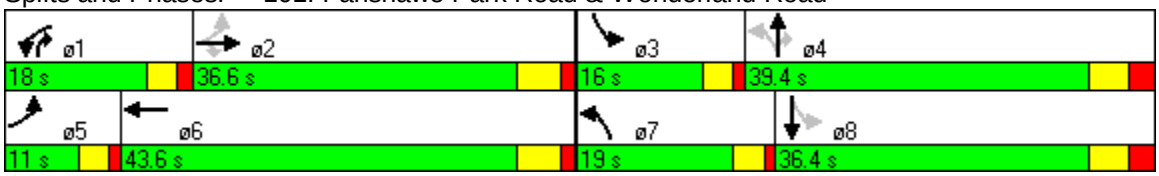
c Critical Lane Group

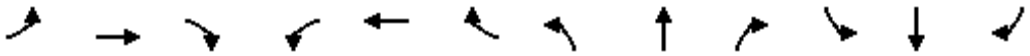
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	190.0		0.0	105.0		105.0	0.0		0.0
Storage Lanes	1		1	2		0	1		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0	15.0	15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.988				0.850		0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1767	3535	1581	3429	3492	0	1767	3535	1581	1767	3432	0
Flt Permitted	0.123			0.950			0.167			0.307		
Satd. Flow (perm)	229	3535	1581	3429	3492	0	311	3535	1581	571	3432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			301		9				59		27	
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		99.5			999.6			215.5			75.0	
Travel Time (s)		7.2			72.0			15.5			5.4	
Volume (vph)	172	960	380	461	1121	94	384	573	599	262	551	134
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	181	1011	400	485	1180	99	404	603	631	276	580	141
Lane Group Flow (vph)	181	1011	400	485	1279	0	404	603	631	276	721	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Detector Phases	5	2	2	1	6		7	4	4	3	8	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	35.7	35.7	9.5	35.7		10.0	36.4	9.5	10.0	36.4	
Total Split (s)	11.0	36.6	36.6	18.0	43.6	0.0	19.0	39.4	18.0	16.0	36.4	0.0
Total Split (%)	10.0%	33.3%	33.3%	16.4%	39.6%	0.0%	17.3%	35.8%	16.4%	14.5%	33.1%	0.0%
Maximum Green (s)	7.0	30.9	30.9	13.5	37.9		15.0	33.0	13.5	12.0	30.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2		3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.0	2.7	1.5	1.0	2.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		23.0	23.0		23.0			23.0			23.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	40.3	33.3	33.3	14.0	40.3		49.7	34.7	52.7	43.7	31.7	
Actuated g/C Ratio	0.37	0.30	0.30	0.13	0.37		0.45	0.32	0.48	0.40	0.29	
v/c Ratio	0.99	0.94	0.58	1.11	0.99		1.19	0.54	0.80	0.77	0.72	
Control Delay	92.6	55.0	12.2	121.8	59.0		141.6	30.1	26.8	36.5	38.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	92.6	55.0	12.2	121.8	59.0		141.6	30.1	26.8	36.5	38.3	
LOS	F	E	B	F	E		F	C	C	D	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		48.5			76.3			56.4			37.8	
Approach LOS		D			E			E			D	
Queue Length 50th (m)	~23.5	110.8	15.7	~60.7	~144.6		~84.0	41.6	54.2	35.9	68.7	
Queue Length 95th (m)	#67.8	#152.3	45.3	#92.2	#191.4		#142.3	53.2	68.8	#62.1	89.4	
Internal Link Dist (m)		75.5			975.6			191.5			51.0	
Turn Bay Length (m)				190.0			105.0		105.0			
Base Capacity (vph)	182	1072	689	436	1286		339	1138	787	357	1030	
Starvation Cap Reductn	0	0	0	0	0		0	0	2	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	0.99	0.94	0.58	1.11	0.99		1.19	0.53	0.80	0.77	0.70	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 86 (78%), Referenced to phase 2:EBTL and 6:WBT, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 57.1		Intersection LOS: E	
Intersection Capacity Utilization 97.6%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 101: Fanshawe Park Road & Wonderland Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1767	3535	1581	3429	3494		1767	3535	1581	1767	3431	
Flt Permitted	0.12	1.00	1.00	0.95	1.00		0.16	1.00	1.00	0.30	1.00	
Satd. Flow (perm)	223	3535	1581	3429	3494		299	3535	1581	562	3431	
Volume (vph)	172	960	380	461	1121	94	384	573	599	262	551	134
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	181	1011	400	485	1180	99	404	603	631	276	580	141
RTOR Reduction (vph)	0	0	210	0	6	0	0	0	33	0	19	0
Lane Group Flow (vph)	181	1011	190	485	1273	0	404	603	598	276	702	0
Turn Type	pm+pt		Perm	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2		1	6		7	4	1	3	8	
Permitted Phases	2		2				4		4	8		
Actuated Green, G (s)	38.6	31.6	31.6	13.5	38.6		47.3	32.3	45.8	41.3	29.3	
Effective Green, g (s)	40.3	33.3	33.3	14.0	40.3		49.7	34.7	48.7	43.7	31.7	
Actuated g/C Ratio	0.37	0.30	0.30	0.13	0.37		0.45	0.32	0.44	0.40	0.29	
Clearance Time (s)	4.0	5.7	5.7	4.5	5.7		4.0	6.4	4.5	4.0	6.4	
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)	180	1070	479	436	1280		335	1115	757	355	989	
v/s Ratio Prot	0.06	0.29		c0.14	c0.36		c0.16	0.17	0.10	0.08	0.20	
v/s Ratio Perm	0.30		0.12				c0.38		0.28	0.22		
v/c Ratio	1.01	0.94	0.40	1.11	0.99		1.21	0.54	0.79	0.78	0.71	
Uniform Delay, d1	31.5	37.5	30.4	48.0	34.7		26.3	31.1	26.3	24.4	35.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.50	0.91	0.86	1.00	1.00	
Incremental Delay, d2	68.5	17.1	2.5	77.3	23.9		114.7	0.5	4.9	10.3	2.4	
Delay (s)	100.0	54.5	32.8	125.3	58.7		154.2	28.8	27.5	34.7	37.4	
Level of Service	F	D	C	F	E		F	C	C	C	D	
Approach Delay (s)		54.3			77.0			59.2			36.6	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM Average Control Delay	59.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			