



Mayfield Station Developments Inc.

# TRANSPORTATION IMPACT STUDY

Draft Plan of Subdivision

Part of Lot 18, Concession 2, W.H.S.  
TOWN OF CALEDON

October 2021

17064

## Disclaimer

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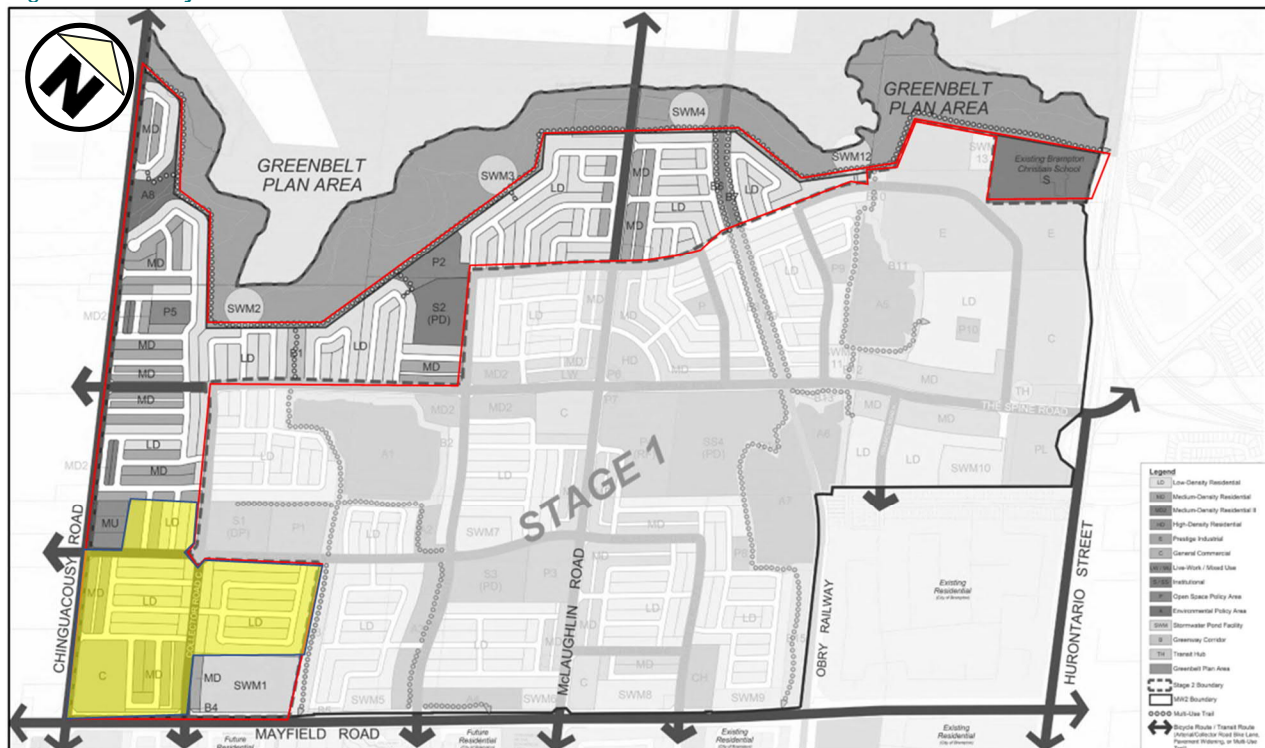
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## 1 INTRODUCTION

LEA Consulting Ltd. (LEA) has been retained to undertake a Transportation Impact Study (TIS) in support of a Draft Plan of Subdivision application for the property municipally known as part of Lot 18, Concession 2, W.H.S. located in the Town of Caledon, owned by Mayfield Station Developments Inc. (herein referred to as the “subject site”). The property is within Stage 2 of the Mayfield West Phase 2 (MW2) Secondary Plan area.

Figure 1-1 illustrates the location of the subject site (highlighted in yellow) within the approved Stage 2 area of the MW2 Secondary Plan. The remainder of the property will be developed in a future phase as part of future Draft Plan Application processes.

Figure 1-1: Subject Site

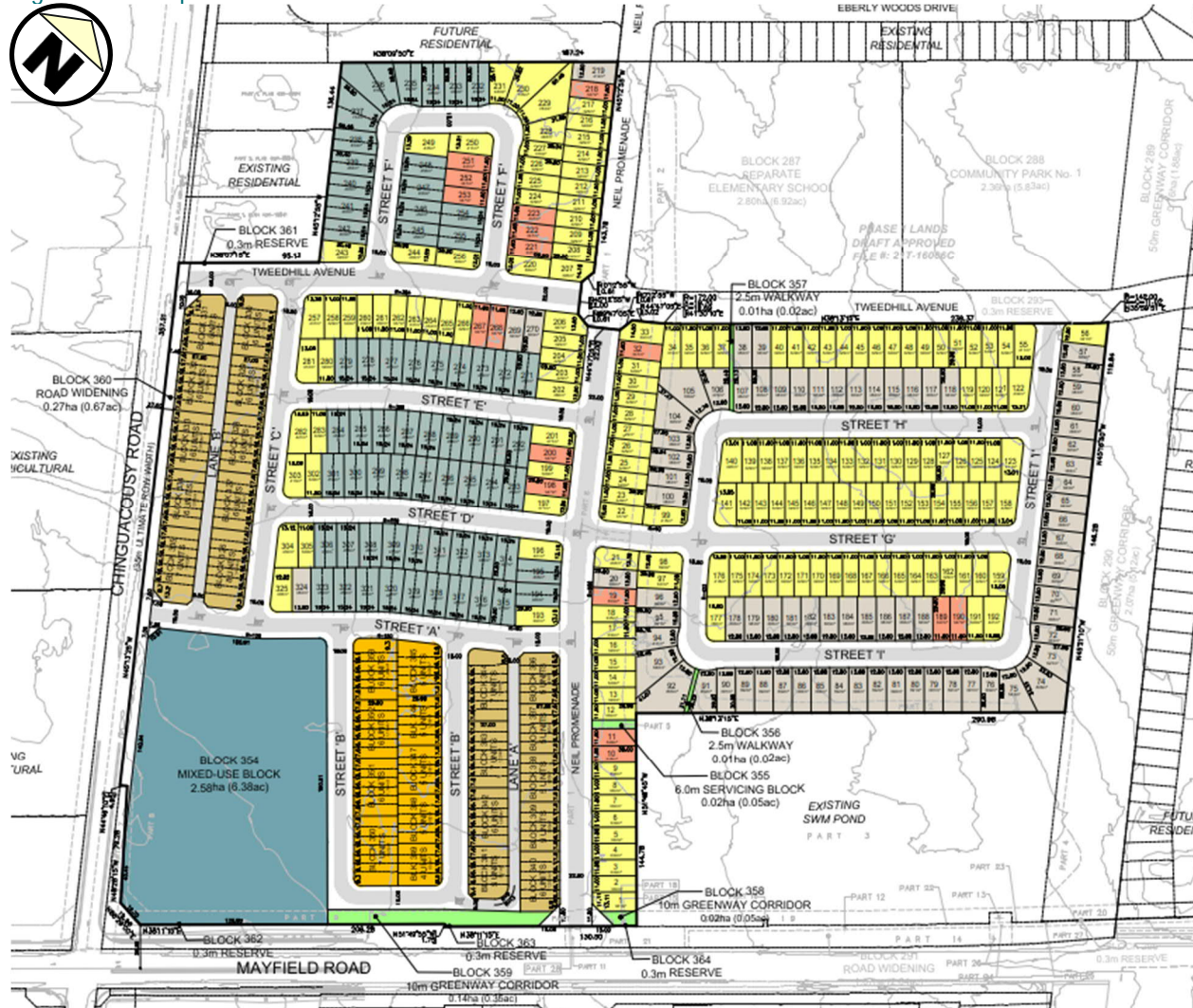


In November 2018, Paradigm Transportation Solutions Limited (Paradigm) completed the Mayfield West Phase 2 Stage 2 Transportation Assessment (herein referred to as the “2018 TMP”). There has been some minor changes to the subdivision lands. As such, this Transportation Impact Study aims to reassess the transportation demands on the network and confirm if the conclusions found in the 2018 TMP still hold true.

The proposed development, as illustrated in Figure 1-2 will include a total of 551 units, comprised of 389 single-detached/semi-detached houses and 162 townhouses, and a mixed-use 2.58 ha (6.38 acre) block planned for a 5,600 ft<sup>2</sup> shopping centre. The changes between the 2018 TMP and the current Updated Draft Plan are summarized in Table 1-1.



Figure 1-2: Proposed Draft Plan



Source: Glen Schnarr & Associates Inc., September 2021

Table 1-1: Change in Subject Site Density

Plans	Number of Single-Family Detached/Semi-Detached Houses	Number of Townhouses	Total Number of Units	Shopping Centre
2018 TMP	349 units	313 units	662 units	5,600 ft <sup>2</sup>
2021 Updated Draft Plan	389 units	162 units	551 units	6,500 ft <sup>2</sup>
Net Changes	+40 units	-151 units	-111 units	+900 ft <sup>2</sup>

Overall, the Updated Draft Plan would result in 111 less residential units and 900 ft<sup>2</sup> more of shopping centre space when compared to the 2018 TMP. It is anticipated that the overall trip generation for the development will be lower than what was previously assessed in the 2018 TMP. However, to be conservative, the trip generation from the 2018 TMP will be maintained for the analysis in this TIS.

## 2 EXISTING TRANSPORTATION CONDITIONS

This section identifies and assesses the existing transportation conditions within the study area. The study area includes the following intersections:

- ▶ Chinguacousy Road at Mayfield Road (Signalized); and
- ▶ Mayfield Road at Edenbrook Hill Drive (Unsignalized).

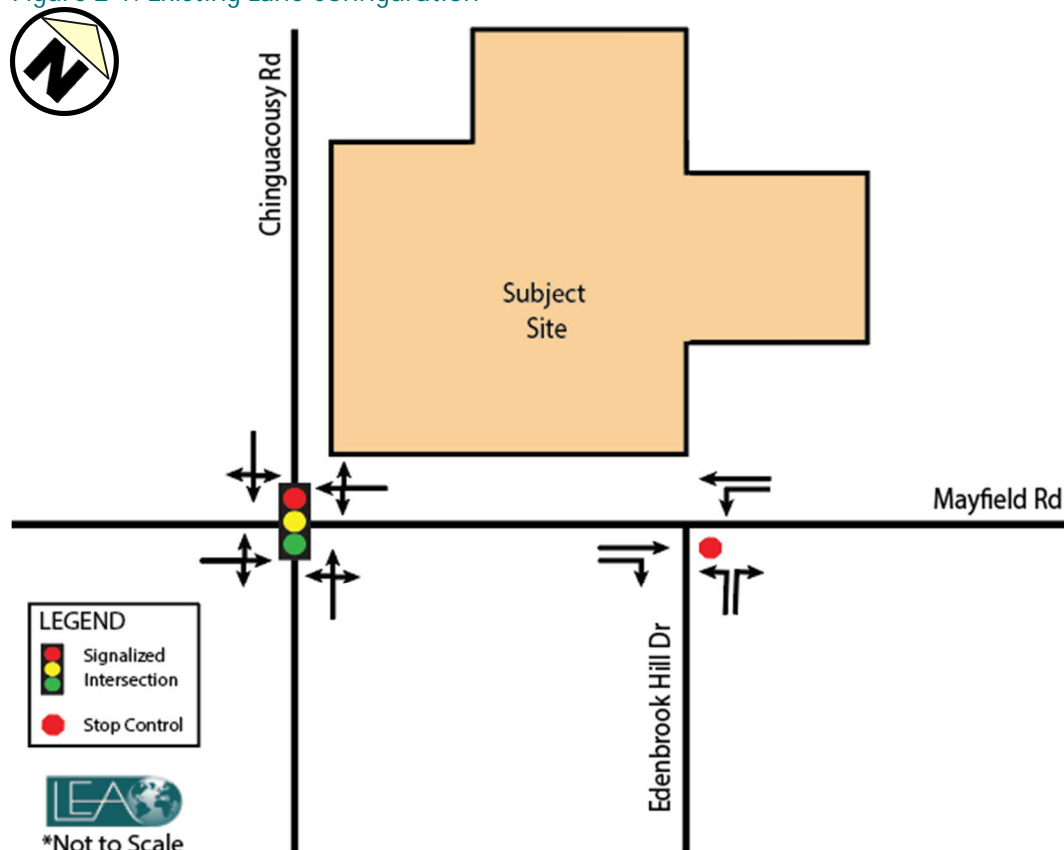
### 2.1 EXISTING ROAD NETWORK

West of Chinguacousy Road is currently comprised of undeveloped lands/farmlands. On the east side of Chinguacousy Road, where the subject site is located, construction is commencing in Stage 1 of Mayfield West Phase 2. However, the adjacent properties along Chinguacousy Road remain undeveloped as they are part of Stage 2. To the south of the subject site, the lands are primarily comprised of single use detached housing in subdivisions.

Chinguacousy Road is currently a two-lane road (one lane per direction) with a rural cross-section but will be urbanized by the Town in the future. In the study area, Mayfield Road is a two-lane road (one lane per direction) with a rural cross-section. However, Mayfield Road is expected to be widened by 2023.

Figure 2-1 illustrates the existing lane configuration of the study area.

Figure 2-1: Existing Lane Configuration



## 2.2 TRAFFIC DATA COLLECTION

Turning movement counts (TMCs) were used as the source of traffic data for the intersection capacity analysis. Signal timing plans (STPs) were received from the Regional Municipality of Peel. A summary of the turning movement count data collected is provided in Table 2-1, with detailed traffic counts and signal timing plans obtained from Spectrum and the Regional Municipality of Peel, and are attached in Appendix B.

Table 2-1: Turning Movement Count (TMC) Data

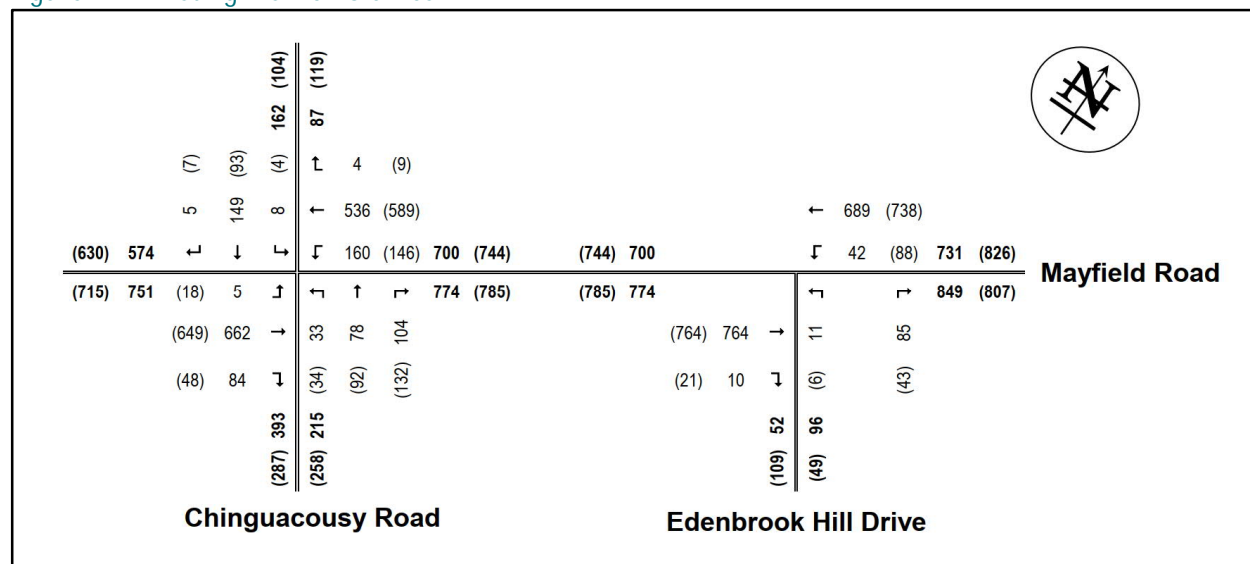
Intersection	TMC Date	TMC Source
Chinguacousy Road at Mayfield Road	Thursday, September 26, 2019	Spectrum
Mayfield Road at Edenbrook Hill Drive	Tuesday, October 1, 2019	

## 2.3 EXISTING INTERSECTION CAPACITY ANALYSIS

Existing traffic operations were assessed to provide a baseline for future traffic operations. The capacity analysis for the study area was undertaken using Synchro version 11.0 software, which is based on the Highway Capacity Manual 2000 methodology. The Peak Hour Factors (PHFs) have been calculated based on turning movement count data.

The existing traffic volumes in the study area during the weekday AM and PM peak hours are illustrated in Figure 2-2.

Figure 2-2: Existing Traffic Volumes



The intersection capacity analysis was conducted under existing conditions during the weekday AM and PM peak hours. The results of the analysis are summarized in Table 2-2 for existing signalized capacity analysis and Table 2-3 for existing unsignalized capacity analysis. Detailed capacity results are provided in Appendix C.

Critical movements, defined as movements with a volume-to-capacity (V/C) ratio of greater than 0.85 or level of service (LOS) worse than D have been highlighted in the tables below.



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

Intersection	AM Peak Hour								
	Overall			Movement of Interest					
	V/C	Delay (s)	LOS	Movement	V/C	Delay (s)	LOS	Queue (m)	
								50th	95th
Chinguacousy Road & Mayfield Road	0.93	30.4	C	EBLTR	0.67	12.1	B	85.5	164.9
				WBLTR	0.97	41.1	D	132.2	254.4
				NBLTR	0.76	51.7	D	38.5	61.1
				SBLTR	0.55	40.2	D	34.0	51.0
Intersection	PM Peak Hour								
	Overall			Movement of Interest					
	V/C	Delay (s)	LOS	Movement	V/C	Delay (s)	LOS	Queue (m)	
								50th	95th
Chinguacousy Road & Mayfield Road	0.81	22.0	C	EBLTR	0.61	11.3	B	74.2	140.1
				WBLTR	0.83	21.0	C	104.9	230.3
				NBLTR	0.74	48.6	D	43.3	66.1
				SBLTR	0.30	36.4	D	18.8	31.3

Under existing traffic conditions, the intersection of Chinguacousy Road at Mayfield Road operates at an acceptable LOS, with the exception of the westbound movement during the AM peak hour, which operates with a V/C of 0.97, indicating that it is approaching capacity. It is noted that the intersection is anticipated to be widened with dedicated left-turn lanes in the future, which is expected to address the capacity constraints.

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

Intersection	Movement of Interest	AM Peak Hour					
		Flow Rate (vph)	Capacity (vph)	Control Delay (s)	95 <sup>th</sup> Queue (m)	V/C	LOS
Edenbrook Hill Drive & Mayfield Road	WBL	46	667	10.8	1.8	0.07	B
	NBL	12	61	77.4	5.3	0.20	F
	NBR	93	364	18.2	8.0	0.26	C
Intersection	Movement of Interest	PM Peak Hour					
		Flow Rate (vph)	Capacity (vph)	Control Delay (s)	95 <sup>th</sup> Queue (m)	V/C	LOS
Edenbrook Hill Drive & Mayfield Road	WBL	95	728	10.7	3.6	0.13	B
	NBL	6	53	81.3	2.9	0.11	F
	NBR	46	359	16.5	3.5	0.13	C

The intersection of Edenbrook Hill Drive and Mayfield Road currently operates with acceptable LOS, with the exception of the northbound left-turn. The movement operates at a LOS of F during the studied peak hours. However, there is ample capacity, with a V/C of up to 0.20. It is noted that Synchro is overly conservative when assessing LOS at unsignalized one-leg stop-controlled intersections. Factors such as platooning and gap opportunities are not considered in the analysis, as those parameters do not appear in the Synchro inputs for stop-controlled analysis. Additionally, the future widening of Mayfield Road and the signalization of the intersection is anticipated to relieve the delay constraints at this intersection.

### 3 SITE-GENERATED TRAFFIC VOLUMES

The proposed development consists of 551 residential units (389 single-family detached/semi-detached units and 162 townhouses) and a 6,500 ft<sup>2</sup> shopping centre. The sections below discuss the comparison of the site-generated traffic volumes forecasted in the 2018 TMP and the 2021 Updated Draft Plan.

#### 3.1 TRIP GENERATION

Trip generation for the development was based on the ITE Trip Generation Manual 10<sup>th</sup> Edition. Given the proposed uses, Land Use Code (LUC) 210 (Single Family Detached, LUC 220 (Multifamily Housing (Low-Rise) and LUC 820 (Shopping Centre) were used.

Table 3-1 summarizes a comparison of the trip generation of the subject site. A 5% modal split reduction was applied to the trip generation, consistent with the 2018 TMP.

Table 3-1: Trip Generation Comparison

Land Use			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
2018 TMP								
Single Family Detached (Low Density Residential)	Trip Rate (per unit)	349 Units	0.20	0.56	0.76	0.64	0.36	1.00
	Modal Split		5%					
	Trips Generated		66	186	252	213	119	332
Multifamily Housing (Low-Rise)	Trip Rate (per unit)	313 Units	0.16	0.40	0.56	0.39	0.27	0.67
	Modal Split		5%					
	Trips Generated		48	119	167	119	80	199
Shopping Centre	Trip Rate (per 1,000 ft²)	5,600 ft² GFA	6.25	3.93	10.18	32.14	34.64	66.79
	Modal Split		5%					
	Trips Generated		33	21	54	171	184	355
Total Trips			148	326	473	502	383	886
2021 Draft Plan								
Single Family Detached (Low Density Residential)	Trip Rate (per unit)	389 Units	0.20	0.56	0.76	0.64	0.36	1.00
	Modal Split		5%					
	Trips Generated		74	207	281	237	133	370
Multifamily Housing (Low-Rise)	Trip Rate (per unit)	162 Units	0.16	0.40	0.56	0.39	0.27	0.67
	Modal Split		5%					
	Trips Generated		25	62	86	60	42	103
Shopping Centre	Trip Rate (per 1,000 ft²)	6,500 ft² GFA	6.25	3.93	10.18	32.14	34.64	66.79
	Modal Split		5%					
	Trips Generated		39	24	63	198	214	412
Total Trips			138	293	430	495	389	885
Net Trips			-9	-33	-43	-7	6	-1

The proposed development is expected to generate a maximum of 885 two-way trips during the studied peak hours. Compared to the 2018 TMP, where a maximum of 886 two-way trips were expected during the studied peak hours, this is a reduction of 1 trip. Thus, the previous assumption that the trip generation in the Updated Draft Plan will be less than that of the 2018 TMP holds true, and the analysis is indeed conservative.

### 3.2 TRIP DISTRIBUTION AND ASSIGNMENT

Directional trip distribution of the site traffic from the 2018 TMP was derived using Transportation Tomorrow Survey (TTS) 2011 data. The site traffic was assigned to the road network based on trip patterns in the study area, location and configuration of the site accesses, and the route providing the shortest travel time. These values were extracted from the 2018 TMP and compared to 2016 TTS data. A summary of the comparison is outlined in Table 3-2.

Table 3-2: Trip Distribution Comparison

Origin/Destination	2011 TTS Data				2016 TTS Data			
	AM		PM		AM		PM	
	In	Out	In	Out	In	Out	In	Out
York & Toronto	11%	23%	27%	6%	10%	25%	33%	6%
Simcoe & Barrie	4%	1%	3%	0%	4%	2%	3%	1%
Dufferin & Orangeville	7%	3%	4%	2%	4%	2%	3%	3%
Waterloo, Wellington & Guelph	1%	0%	0%	0%	1%	1%	2%	0%
Brantford, Hamilton, Halton & Niagara	2%	3%	3%	1%	4%	2%	4%	1%
Caledon	54%	43%	36%	83%	51%	41%	26%	81%
Brampton	18%	15%	16%	6%	24%	18%	19%	6%
Mississauga	3%	11%	11%	2%	2%	9%	10%	1%
TOTAL	100%		100%		100%		100%	

When comparing the 2016 TTS trip distribution to the 2011 trip distribution, the trip distributions are similar. Thus, the trip distribution and assignment from the 2018 TMP is still applicable.

## 4 FUTURE INTERSECTION CAPACITY ANALYSIS

Three horizon years are evaluated:

- ▶ 2026 – Planned full build-out of the subdivision;
- ▶ 2031 – Planned build-out + 5 years, consistent with the 2018 TMP; and
- ▶ 2041 – Planned build-out + 10 years, consistent with the 2018 TMP.

### 4.1 2026 HORIZON

LEA is currently undergoing analysis for an updated phasing plan. This analysis will update the phasing plan titled “MW2 Phasing Analysis – Estimation of Build-out Proportions vs. the Spine/Hurontario Connection and Mayfield Road Widening”, dated August 9, 2018. The previous analysis evaluated how much development can proceed without the Spine/Hurontario Connection for two horizons: 2024 and 2026. The analysis found that 65% of the MW2 development could proceed before the construction of the Spine/Hurontario Connection.

Since 2018, there have been several changes in the construction schedule of the surrounding areas, as well as other updates to the forecasting used in the model. This analysis is currently underway for the 2026 horizon.

To avoid the duplication of work, the Updated Phasing Plan will be relied on for the 2026 horizon. Recommendations and conclusions from the Updated Phasing Plan will be assessed and incorporated for the MW2 lands owned by Mayfield Station Developments Inc. It is anticipated that the proposed development will be able to be accommodated by the future transportation network.

### 4.2 2031 AND 2041 HORIZONS

As mentioned in Section 1, the impacts of the subject site were assessed in the 2018 TMP submitted by Paradigm. As the most recent Draft Plan is expected to generate fewer trips than previously assumed in the 2018 TMP, the findings from the 2018 TMP for the 2031 and 2041 horizons hold true and is in fact conservative. As such, the analysis in the 2018 TMP is still applicable.

## 5 DESIGN OF THE DRAFT PLAN

### 5.1 RESIDENTIAL PARKING REVIEW

Parking ratios for both on-site (off-street) parking and on-street parking were recommended in the 2018 TMP. These parking requirements are summarized in Table 5-1.

Table 5-1: Required Parking Ratios

Land Use		On-Site Parking		On-Street Parking	
		Parking Rate	Min. Req.	Parking Rate	Min. Req.
Single Family Detached (Low Density Residential)	389 Units	2 spaces per unit	778 spaces	1 space per unit	389 spaces
Townhouse	162 Units	2 spaces per unit	324 spaces	0.5 spaces per unit	81 spaces
Total			1,102 spaces	-	470 spaces

In total, 1,102 on-site (off-street) parking spaces and 470 on-street parking spaces are required for the subject site. Based on the latest site plan received, 1,624 on-site parking spaces are proposed, satisfying the minimum requirements. In total, 273 on-street parking spaces are proposed, representing a deficit of 197 parking spaces.

Vehicle ownership trends were analyzed from 2016 Transportation Tomorrow Survey (TTS) data in the existing neighbourhoods surrounding the subject site. The results are summarized in Table 5-2 below.

Table 5-2: Vehicle Ownership (2016 TTS)

Number of Vehicles	Percentage of Households
1	28%
2	50%
3+	21%

The 2016 TTS data shows that the majority of households own two or less vehicles. Given the information, households with more than two (2) parking spaces (including garage space) would have surplus to serve some of the visitor parking requirements. Based on this assumption, the latest on-street parking plans (attached in Appendix D) indicate that 261 units will have two surplus spaces located on-site (off-street). This would result in 522 surplus off-street parking spaces.

When considering the surplus parking with the on-street proposed parking for the subject site, a total of 795 spaces would be provided. This would be considered sufficient in meeting the on-street visitor parking requirements.

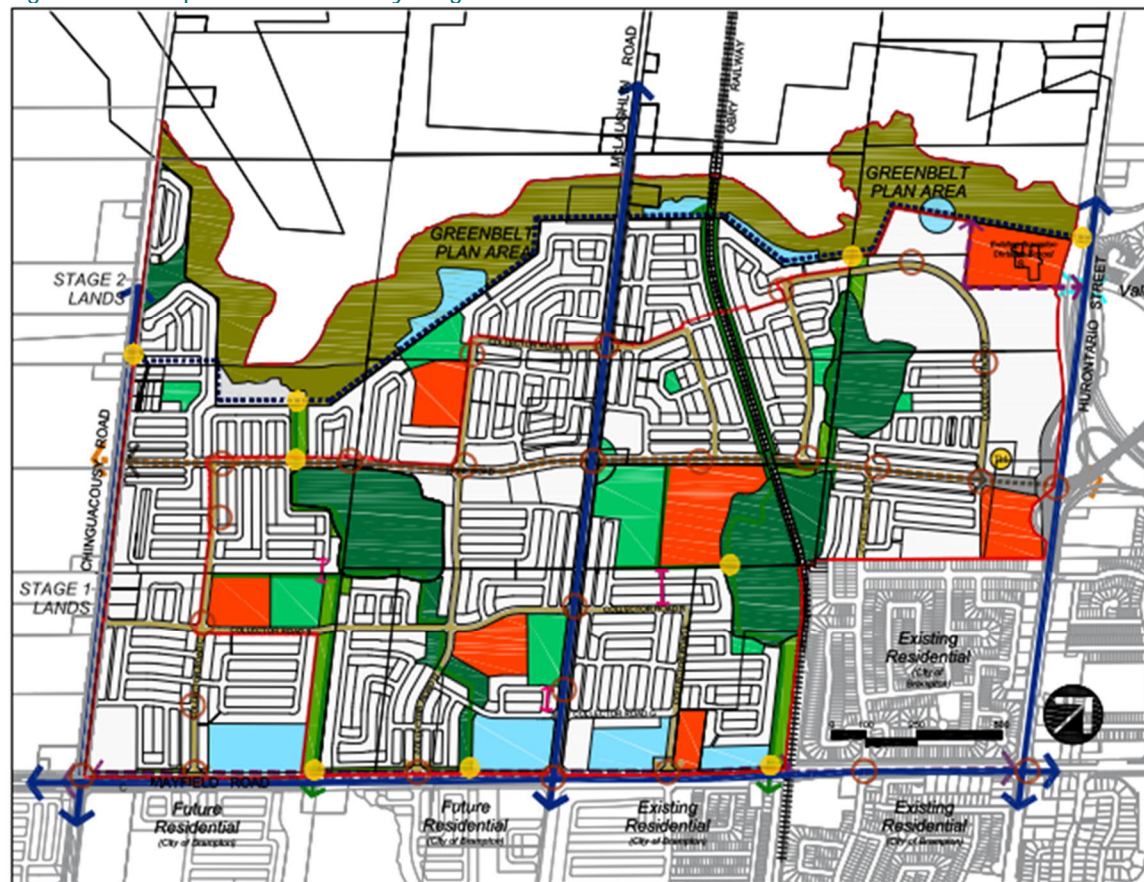


## 5.2 ACTIVE TRANSPORTATION FACILITIES

All active transportation facilities and connections such as bike lanes, multi-use paths, the open space link, and trails are illustrated in

Figure 5-1 and Appendix E.

Figure 5-1: Proposed Trail and Cycling Network



### LEGEND

MAYFIELD WEST PHASE 2 BOUNDARY	POTENTIAL BUS STOP LOCATION	GREENLANDS A
EXISTING ARTERIAL ROADS	COLLECTOR ROADS - BIKE LANES OR PAVEMENT WIDENING / SIDEWALKS ON BOTH SIDES	GREENLANDS B
COLLECTOR ROADS	GREENWAY TRAIL	GREENBELT PLAN AREA
SPINE ROAD	MULTI-USE PATH	PARKS (INTERNAL PATHS)
ARTERIAL ROADS - BIKE LANES	POTENTIAL OPEN SPACE LINK	SWAMP PONDS (INTERNAL PATHS)
ARTERIAL ROADS - NO BIKE LANES	TRAIL GATEWAYS	SCHOOLS
PROPOSED PEDESTRIAN / CYCLING BRIDGE	KEY TRAIL / OPEN SPACE LINKAGES	

## 6 CONCLUSIONS AND RECOMMENDATIONS

This TIS is in support of a Draft Plan of Subdivision application for the lands owned by Mayfield Station Developments Inc. located in the Mayfield West Phase 2 area, municipally known as Part of Lot 18, Concession 2, W.H.S. in the Town of Caledon.

The Updated Draft Plan details the changes to the subject site since the 2018 TMP. In total, the subject site consists of 551 residential units (389 single-family detached/semi-detached units and 162 townhouse units) and a 6,500 ft<sup>2</sup> shopping centre. Compared to the 2018 TMP, this is a net reduction of 111 residential units and an increase of 900 ft<sup>2</sup> of retail space.

The existing conditions for the study area assessed the current traffic levels at the intersections of Mayfield Road at Chinguacousy Road and Mayfield Road at Edenbrook Hill Drive. The intersections currently operate under acceptable conditions. With the future widening of Mayfield Road and intersection improvements planned at Mayfield Road at Chinguacousy Road, any capacity constraints are anticipated to be alleviated.

The trip generation resulting from the subject site would be lower than the trip generation originally calculated, meaning that the overall traffic analysis is more conservative. As such, the analysis in the 2018 TMP is still applicable for the 2031 and 2041 horizons. LEA is currently undertaking analysis for an updated phasing plan assessing the 2026 horizon. Findings from the updated phasing plan will be relied on for the 2026 horizon.

A total on-street parking supply of 273 spaces is proposed in the subject site. While this results in a deficit of 197 parking spaces, an additional 522 spaces are proposed to be provided off-street. Based on the vehicle ownership rates in the surrounding area, the proposed on- and off-street parking spaces provided within the subject site will be sufficient to serve the expected demand.



# APPENDIX A

Terms of Reference

Jocelyn Lee

---

From: Jocelyn Lee  
Sent: October 5, 2021 9:24 AM  
To: 'Jillian Britto'  
Cc: Nixon Chan; Jason Afonso; Arash Olia  
Subject: RE: Terms of Reference - Mayfield Station Developments Inc (Laurier Mayfield)

Hi Jillian,

Thanks for your response. We will ensure we include discussion on the future active transportation facilities as well.

Thanks,

Jocelyn Lee, EIT, B.Eng., B.A.

Project Coordinator

**LEA Consulting Ltd.**

625 Cochrane Drive, 9<sup>th</sup> Floor | Markham, ON | L3R 9R9

T: 905-470-0015 ext. 374 E: [jlee@lea.ca](mailto:jlee@lea.ca) W: [www.LEA.ca](http://www.LEA.ca)

---

From: Jillian Britto <Jillian.Britto@caledon.ca>  
Sent: October 4, 2021 2:48 PM  
To: Jocelyn Lee <JLee@lea.ca>  
Cc: Nixon Chan <NChan@lea.ca>; Jason Afonso <jasona@gsai.ca>; Arash Olia <Arash.Olia@caledon.ca>  
Subject: RE: Terms of Reference - Mayfield Station Developments Inc (Laurier Mayfield)

External Sender

Good afternoon Jocelyn,

Hope you had a great weekend!

Thank you for providing the Town an opportunity to comment on the scope of work for this study. All the items noted below are acceptable. We ask that the study also illustrate all future active transportation facilities and connections such as bike lanes, multi-use paths, the open space link and trails, etc.

Let us know if you have any questions.

Regards,

Jillian Britto, P.Eng.

Coordinator, Transportation Development

Transportation Engineering

Engineering Services

Office: 905.584.2272 x 4108

Email: [Jillian.Britto@caledon.ca](mailto:Jillian.Britto@caledon.ca)

From: Jocelyn Lee <[JLee@lea.ca](mailto:JLee@lea.ca)>  
Sent: Wednesday, September 29, 2021 9:49 AM  
To: Arash Olia <[Arash.Olia@caledon.ca](mailto:Arash.Olia@caledon.ca)>; Jillian Britto <[Jillian.Britto@caledon.ca](mailto:Jillian.Britto@caledon.ca)>  
Cc: Nixon Chan <[NChan@lea.ca](mailto:NChan@lea.ca)>; Jason Afonso <[jasona@gsai.ca](mailto:jasona@gsai.ca)>  
Subject: Terms of Reference - Mayfield Station Developments Inc (Laurier Mayfield)

**CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the contents to be safe.**

Hi Arash and Jillian:

Please review and confirm the Terms of Reference below before we move forward with the Transportation Impact Study (TIS). The TIS will be in support of the Draft Plan of Subdivision for the Mayfield Station Developments Inc. (Laurier Mayfield) development, located in the lands designated as Mayfield West Phase 2 in the Town of Caledon, as specified in the 2018 Transportation Master Plan (TMP) completed by Paradigm.

The TIS will follow the Town of Caledon Traffic Impact Study Guidelines, as well as previous TIS's completed for the Mayfield West Phase 2 development and will assess the weekday AM and PM peak hours. The TOR outlined below follows the work plans similar to the TIS Addendums submitted for the Brookvalley and Mattamy developments within MW2.

As previous analysis for the subdivision has been completed as part of the 2018 TMP, LEA proposes to review the latest draft plan statistics and compare it with what was proposed in the 2018 TMP. This will include reviewing the trip generation, in line with the ITE Trip Generation Manual (10<sup>th</sup> Edition).

Synchro will be used to assess intersection operations during the peak hour for existing conditions. For the 2026 horizon, the TIS will refer to the Updated Phasing Analysis conducted by LEA. The analysis conducted during the 2031 and 2041 horizons from the 2018 TMP will also be referenced and commentary will be provided.

Parking will be analyzed and compared to minimum requirements as per the Town of Caledon By-Laws. A parking justification section will be provided for the potential shortfall.

Please let me know if you have any questions or comments regarding this TOR.

Thanks,  
Jocelyn Lee, EIT, B.Eng., B.A.  
Project Coordinator

**LEA Consulting Ltd.**

625 Cochrane Drive, 9<sup>th</sup> Floor | Markham, ON | L3R 9R9  
T: 905-470-0015 ext. 374 E: [jlee@lea.ca](mailto:jlee@lea.ca) W: [www.LEA.ca](http://www.LEA.ca)

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# APPENDIX B

## Traffic Data

# REGIONAL MUNICIPALITY OF PEEL

## Traffic Signal Timing Parameters

Database Date		January 26, 2011				Prepared Date:		December 1, 2014	
Database Rev		22				Completed By:		RD	
Timing Card / Field rev		-				Checked By:		AK	
Location:		Mayfield Road @ Chinguacousy Road					<b>TIME PERIOD</b> (sec.) ( Green+Amber+All Red )		
Phase #	Direction	Vehicle Minimum (sec.)	Pedestrian Minimum (sec.)		Amber (sec.)	All Red (sec.)			
1	Not in Use								
2	Mayfield Road - E/B	12.0	8.0	5.0	4.6	2.0	66.6	51.6	
3	Not in Use								
4	Chingacousy Road - N/B	12.0	8.0	5.0	4.6	2.0	36.6	31.6	
5	Not in Use								
6	Mayfield Road - W/B	12.0	8.0	5.0	4.6	2.0	66.6	51.6	
7	Not in Use								
8	Chingacousy Road - S/B	12.0	8.0	5.0	4.6	2.0	36.6	31.6	
System Control		NO		TIME (M-F)		PEAK	CYCLE LENGTH (sec.)	OFFSET (sec.)	
Local Control		YES		7:00 - 9:00 15:30 - 19:00		AM/PM	Local	-	
Semi-Actuated Mode		NO (Fully)		9:00 - 15:30 19:00 - 0:00		OFF	Local	-	



Turning Movement Count (44 . MAYFIELD RD & CHINGUACOUSY RD) CustID: 01419287 Miod:

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	UTurn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	UTurn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
07:00:00	2	20	4	0	0	26	35	92	1	0	0	128	7	16	16	0	0	39	1	143	11	0	0	155	348	
07:15:00	3	21	1	0	0	25	46	114	2	0	0	162	4	21	27	0	0	52	1	174	15	0	0	190	429	
07:30:00	2	47	0	0	0	49	35	147	1	0	0	183	10	17	22	0	0	49	2	184	19	0	0	205	486	
07:45:00	2	46	3	0	0	51	42	139	0	0	0	181	9	18	26	0	0	53	1	146	25	0	0	172	457	1720
08:00:00	1	35	1	0	0	37	34	127	1	0	0	162	10	22	26	0	0	58	1	139	25	0	0	165	422	1794
08:15:00	2	30	6	0	0	38	33	132	1	0	0	166	7	19	36	0	0	62	1	142	17	0	0	160	426	1791
08:30:00	2	20	1	0	0	23	45	139	0	0	0	184	12	16	38	0	0	66	1	151	17	0	0	169	442	1747
08:45:00	5	15	4	0	0	24	40	112	2	0	0	154	20	14	33	0	0	67	4	105	12	0	0	121	366	1656
***BREAK***																										
11:00:00	0	11	1	0	0	12	17	60	1	0	0	78	3	10	29	0	0	42	0	78	8	0	0	86	218	
11:15:00	3	8	0	0	0	11	30	87	2	0	0	119	4	8	30	0	0	42	0	71	4	0	0	75	247	
11:30:00	0	9	1	0	0	10	24	63	2	0	0	89	3	9	23	0	0	35	0	97	5	0	0	102	236	
11:45:00	1	7	1	0	0	9	18	57	1	0	0	76	5	6	25	0	0	36	1	81	4	0	0	86	207	908
12:00:00	1	9	1	0	0	11	23	69	0	0	0	92	2	5	31	0	0	38	3	86	5	0	0	94	235	925
12:15:00	0	5	4	0	0	9	22	71	0	0	0	93	3	8	20	0	0	31	1	75	2	0	0	78	211	889
12:30:00	3	10	0	0	0	13	26	77	0	0	0	103	6	6	23	0	0	35	2	76	5	0	0	83	234	887
12:45:00	2	7	1	0	0	10	27	61	4	0	0	92	5	6	24	0	0	35	1	91	5	0	0	97	234	914
13:00:00	1	3	0	0	0	4	27	85	1	0	0	113	6	10	24	0	0	40	1	80	5	0	0	86	243	922
13:15:00	3	5	1	0	0	9	29	75	3	0	0	107	9	7	29	0	0	45	4	66	8	1	0	79	240	951
13:30:00	1	8	1	0	0	10	26	63	4	0	0	93	5	9	31	0	0	45	0	78	5	0	0	83	231	948
13:45:00	3	11	3	0	0	17	26	86	2	0	0	114	6	13	28	0	0	47	0	81	6	0	0	87	265	979
***BREAK***																										
15:00:00	3	11	0	0	0	14	44	136	0	0	0	180	11	10	32	0	0	53	2	118	9	0	0	129	376	
15:15:00	3	16	6	0	0	25	24	133	0	0	0	157	13	13	45	0	0	71	0	118	7	0	0	125	378	
15:30:00	2	21	2	0	0	25	37	125	2	0	0	164	18	15	40	0	0	73	6	146	14	0	0	166	428	
15:45:00	1	17	2	0	0	20	37	130	1	0	0	168	8	21	40	0	0	69	5	125	12	0	0	142	399	1581
16:00:00	2	20	1	0	0	23	31	144	3	0	0	178	13	29	45	0	0	87	8	159	9	0	0	176	464	1669
16:15:00	7	17	2	0	0	26	27	146	5	0	0	178	12	16	28	0	0	56	6	138	9	0	0	153	413	1704
16:30:00	2	23	1	0	0	26	39	133	2	0	0	174	12	28	33	0	0	73	4	153	7	0	0	164	437	1713
16:45:00	0	27	2	0	0	29	35	118	3	0	0	156	13	29	45	0	0	87	6	155	19	0	0	180	452	1766
17:00:00	3	23	2	0	0	28	36	140	2	0	0	178	6	24	37	0	0	67	9	172	7	0	0	188	461	1763
17:15:00	0	14	1	0	0	15	41	169	3	0	0	213	8	23	23	0	0	54	2	150	11	0	0	163	445	1795
17:30:00	1	29	2	0	0	32	34	162	1	0	0	197	7	16	27	0	0	50	1	172	11	0	0	184	463	1821
17:45:00	2	22	2	0	0	26	35	150	1	0	0	186	6	18	23	0	0	47	1	145	12	0	0	158	417	1786
Grand Total	63	567	57	0	0	687	1025	3542	51	0	0	4618	263	482	959	0	0	1704	75	3895	330	1	0	4301	11310	-
Approach%	9.2%	82.5%	8.3%	0%		-	22.2%	76.7%	1.1%	0%		-	15.4%	28.3%	56.3%	0%		-	1.7%	90.6%	7.7%	0%		-	-	-
Totals %	0.6%	5%	0.5%	0%		6.1%	9.1%	31.3%	0.5%	0%	40.8%	2.3%	4.3%	8.5%	0%		15.1%	0.7%	34.4%	2.9%	0%		38%	-	-	-
Heavy	12	19	10	0		-	90	246	9	0	-	-	48	20	99	0		-	13	292	30	0		-	-	-
Heavy %	19%	3.4%	17.5%	0%		-	8.8%	6.9%	17.6%	0%		-	18.3%	4.1%	10.3%	0%		-	17.3%	7.5%	9.1%	0%		-	-	-
Bicycles	0	1	0	0		-	0	0	1	0	-	-	0	1	0	0		-	0	0	0	0		-	-	-
Bicycle %	0%	0.2%	0%	0%		-	0%	0%	2%	0%		-	0%	0.2%	0%	0%		-	0%	0%	0%	0%		-	-	-



Peak Hour: 07:15 AM - 08:15 AM Weather: Moderate Rain (15.36 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:15:00	3	21	1	0	0	25	46	114	2	0	0	162	4	21	27	0	0	52	1	174	15	0	0	190	429
07:30:00	2	47	0	0	0	49	35	147	1	0	0	183	10	17	22	0	0	49	2	184	19	0	0	205	486
07:45:00	2	46	3	0	0	51	42	139	0	0	0	181	9	18	26	0	0	53	1	146	25	0	0	172	457
08:00:00	1	35	1	0	0	37	34	127	1	0	0	162	10	22	26	0	0	58	1	139	25	0	0	165	422
Grand Total	8	149	5	0	0	162	157	527	4	0	0	688	33	78	101	0	0	212	5	643	84	0	0	732	1794
Approach%	4.9%	92%	3.1%	0%		-	22.8%	76.6%	0.6%	0%		-	15.6%	36.8%	47.6%	0%		-	0.7%	87.8%	11.5%	0%		-	-
Totals %	0.4%	8.3%	0.3%	0%		9%	8.8%	29.4%	0.2%	0%		38.4%	1.8%	4.3%	5.6%	0%		11.8%	0.3%	35.8%	4.7%	0%		40.8%	-
PHF	0.67	0.79	0.42	0		0.79	0.85	0.9	0.5	0		0.94	0.83	0.89	0.94	0		0.91	0.63	0.87	0.84	0		0.89	-
Heavy	2	6	1	0		9	20	48	0	0		68	9	4	7	0		20	1	29	5	0		35	-
Heavy %	25%	4%	20%	0%		5.6%	12.7%	9.1%	0%	0%		9.9%	27.3%	5.1%	6.9%	0%		9.4%	20%	4.5%	6%	0%		4.8%	-
Lights	6	143	4	0		153	137	479	4	0		620	24	74	94	0		192	4	614	79	0		697	-
Lights %	75%	96%	80%	0%		94.4%	87.3%	90.9%	100%	0%		90.1%	72.7%	94.9%	93.1%	0%		90.6%	80%	95.5%	94%	0%		95.2%	-
Single-Unit Trucks	0	1	0	0		1	12	20	0	0		32	4	1	1	0		6	0	13	1	0		14	-
Single-Unit Trucks %	0%	0.7%	0%	0%		0.6%	7.6%	3.8%	0%	0%		4.7%	12.1%	1.3%	1%	0%		2.8%	0%	2%	1.2%	0%		1.9%	-
Buses	2	5	1	0		8	7	8	0	0		15	3	3	5	0		11	1	11	4	0		16	-
Buses %	25%	3.4%	20%	0%		4.9%	4.5%	1.5%	0%	0%		2.2%	9.1%	3.8%	5%	0%		5.2%	20%	1.7%	4.8%	0%		2.2%	-
Articulated Trucks	0	0	0	0		0	1	20	0	0		21	2	0	1	0		3	0	5	0	0		5	-
Articulated Trucks %	0%	0%	0%	0%		0%	0.6%	3.8%	0%	0%		3.1%	6.1%	0%	1%	0%		1.4%	0%	0.8%	0%	0%		0.7%	-
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	-
Bicycles on Road%	-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		-



Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (16.94 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
13:00:00	1	3	0	0	0	4	27	85	1	0	0	113	6	10	24	0	0	40	1	80	5	0	0	86	243
13:15:00	3	5	1	0	0	9	29	75	3	0	0	107	9	7	29	0	0	45	4	66	8	1	0	79	240
13:30:00	1	8	1	0	0	10	26	63	4	0	0	93	5	9	31	0	0	45	0	78	5	0	0	83	231
13:45:00	3	11	3	0	0	17	26	86	2	0	0	114	6	13	28	0	0	47	0	81	6	0	0	87	265
Grand Total	8	27	5	0	0	40	108	309	10	0	0	427	26	39	112	0	0	177	5	305	24	1	0	335	979
Approach%	20%	67.5%	12.5%	0%		-	25.3%	72.4%	2.3%	0%		-	14.7%	22%	63.3%	0%		-	1.5%	91%	7.2%	0.3%		-	-
Totals %	0.8%	2.8%	0.5%	0%		4.1%	11%	31.6%	1%	0%		43.6%	2.7%	4%	11.4%	0%		18.1%	0.5%	31.2%	2.5%	0.1%		34.2%	-
PHF	0.67	0.61	0.42	0		0.59	0.93	0.9	0.63	0		0.94	0.72	0.75	0.9	0		0.94	0.31	0.94	0.75	0.25		0.96	-
Heavy	2	4	2	0		8	10	21	1	0		32	5	2	13	0		20	1	28	7	0		36	-
Heavy %	25%	14.8%	40%	0%		20%	9.3%	6.8%	10%	0%		7.5%	19.2%	5.1%	11.6%	0%		11.3%	20%	9.2%	29.2%	0%		10.7%	-
Lights	6	23	3	0		32	98	288	9	0		395	21	37	99	0		157	4	277	17	1		299	-
Lights %	75%	85.2%	60%	0%		80%	90.7%	93.2%	90%	0%		92.5%	80.8%	94.9%	88.4%	0%		88.7%	80%	90.8%	70.8%	100%		89.3%	-
Single-Unit Trucks	0	1	0	0		1	7	9	0	0		16	3	1	13	0		17	1	19	5	0		25	-
Single-Unit Trucks %	0%	3.7%	0%	0%		2.5%	6.5%	2.9%	0%	0%		3.7%	11.5%	2.6%	11.6%	0%		9.6%	20%	6.2%	20.8%	0%		7.5%	-
Buses	2	3	1	0		6	3	2	0	0		5	2	1	0	0		3	0	3	2	0		5	-
Buses %	25%	11.1%	20%	0%		15%	2.8%	0.6%	0%	0%		1.2%	7.7%	2.6%	0%	0%		1.7%	0%	1%	8.3%	0%		1.5%	-
Articulated Trucks	0	0	1	0		1	0	10	1	0		11	0	0	0	0		0	0	6	0	0		6	-
Articulated Trucks %	0%	0%	20%	0%		2.5%	0%	3.2%	10%	0%		2.6%	0%	0%	0%	0%		0%	0%	2%	0%	0%		1.8%	-
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	-
Bicycles on Road%	-	-	-	-	%	-	-	-	-	-	%	-	-	-	-	-	%	-	-	-	-	%	-	-	-

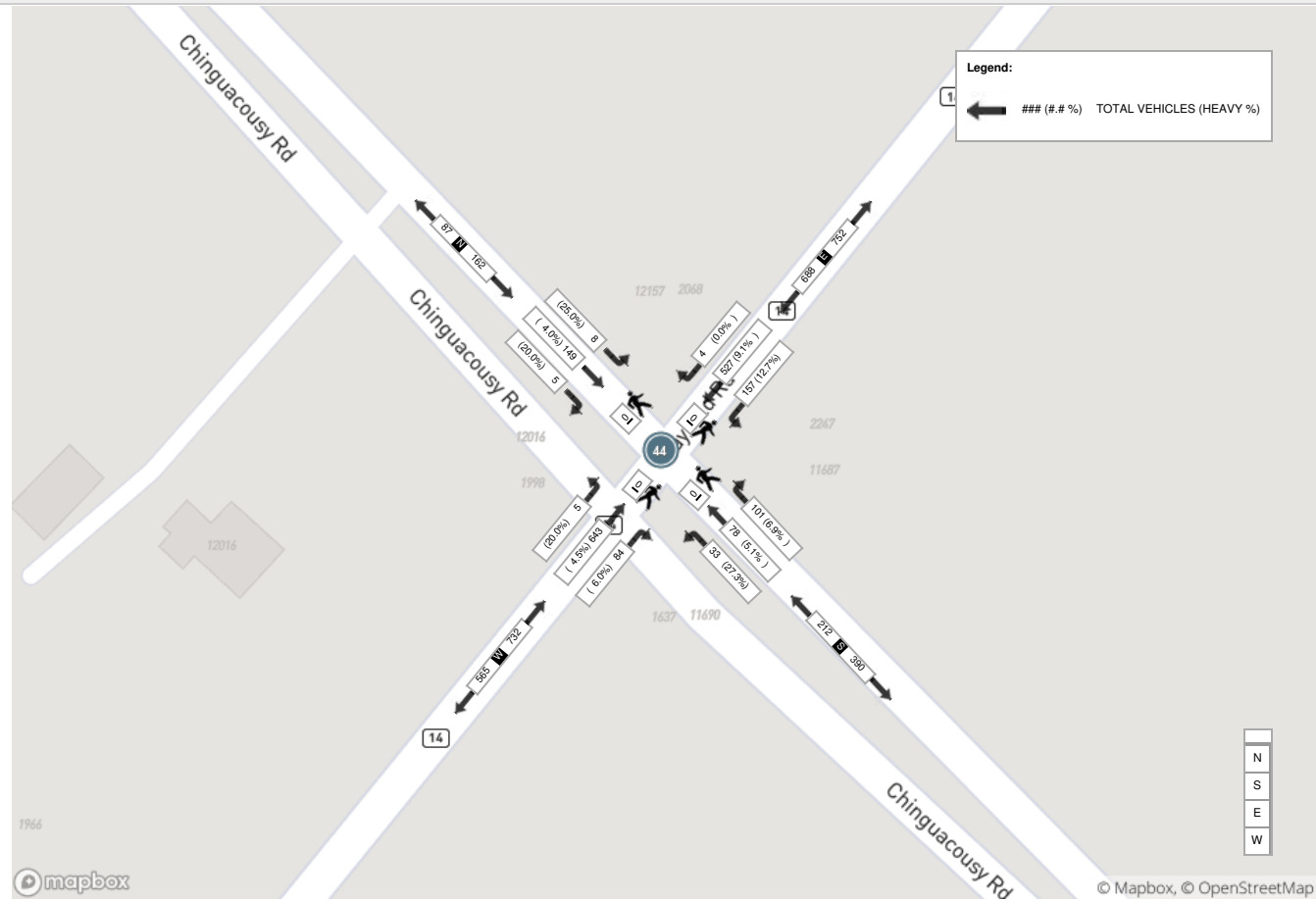




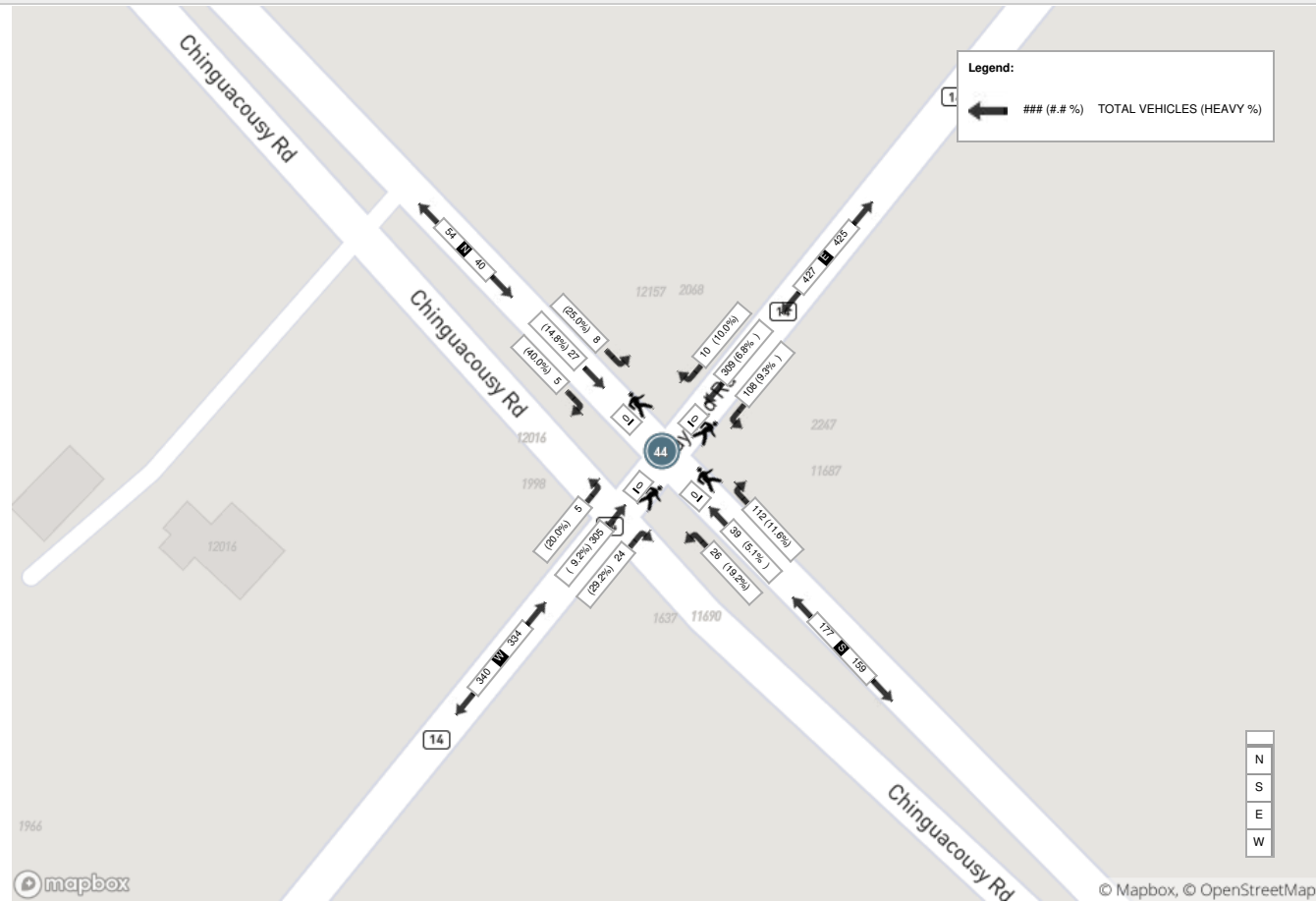
Peak Hour: 04:45 PM - 05:45 PM Weather: Scattered Clouds (20.41 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
16:45:00	0	27	2	0	0	29	35	118	3	0	0	156	13	29	45	0	0	87	6	155	19	0	0	180	452
17:00:00	3	23	2	0	0	28	36	140	2	0	0	178	6	24	37	0	0	67	9	172	7	0	0	188	461
17:15:00	0	14	1	0	0	15	41	169	3	0	0	213	8	23	23	0	0	54	2	150	11	0	0	163	445
17:30:00	1	29	2	0	0	32	34	162	1	0	0	197	7	16	27	0	0	50	1	172	11	0	0	184	463
Grand Total	4	93	7	0	0	104	146	589	9	0	0	744	34	92	132	0	0	258	18	649	48	0	0	715	1821
Approach%	3.8%	89.4%	6.7%	0%		-	19.6%	79.2%	1.2%	0%		-	13.2%	35.7%	51.2%	0%		-	2.5%	90.8%	6.7%	0%		-	-
Totals %	0.2%	5.1%	0.4%	0%		5.7%	8%	32.3%	0.5%	0%		40.9%	1.9%	5.1%	7.2%	0%		14.2%	1%	35.6%	2.6%	0%		39.3%	-
PHF	0.33	0.8	0.88	0		0.81	0.89	0.87	0.75	0		0.87	0.65	0.79	0.73	0		0.74	0.5	0.94	0.63	0		0.95	-
Heavy	1	1	1	0		3	3	31	0	0		34	4	3	7	0		14	0	36	1	0		37	-
Heavy %	25%	1.1%	14.3%	0%		2.9%	2.1%	5.3%	0%	0%		4.6%	11.8%	3.3%	5.3%	0%		5.4%	0%	5.5%	2.1%	0%		5.2%	-
Lights	3	92	6	0		101	143	558	9	0		710	30	89	125	0		244	18	613	47	0		678	-
Lights %	75%	98.9%	85.7%	0%		97.1%	97.9%	94.7%	100%	0%		95.4%	88.2%	96.7%	94.7%	0%		94.6%	100%	94.5%	97.9%	0%		94.8%	-
Single-Unit Trucks	0	0	1	0		1	2	19	0	0		21	2	2	5	0		9	0	25	1	0		26	-
Single-Unit Trucks %	0%	0%	14.3%	0%		1%	1.4%	3.2%	0%	0%		2.8%	5.9%	2.2%	3.8%	0%		3.5%	0%	3.9%	2.1%	0%		3.6%	-
Buses	0	1	0	0		1	1	3	0	0		4	2	1	1	0		4	0	3	0	0		3	-
Buses %	0%	1.1%	0%	0%		1%	0.7%	0.5%	0%	0%		0.5%	5.9%	1.1%	0.8%	0%		1.6%	0%	0.5%	0%	0%		0.4%	-
Articulated Trucks	1	0	0	0		1	0	9	0	0		9	0	0	1	0		1	0	8	0	0		8	-
Articulated Trucks %	25%	0%	0%	0%		1%	0%	1.5%	0%	0%		1.2%	0%	0%	0.8%	0%		0.4%	0%	1.2%	0%	0%		1.1%	-
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	-
Bicycles on Road%	-	-	-	-	%	-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		-	-

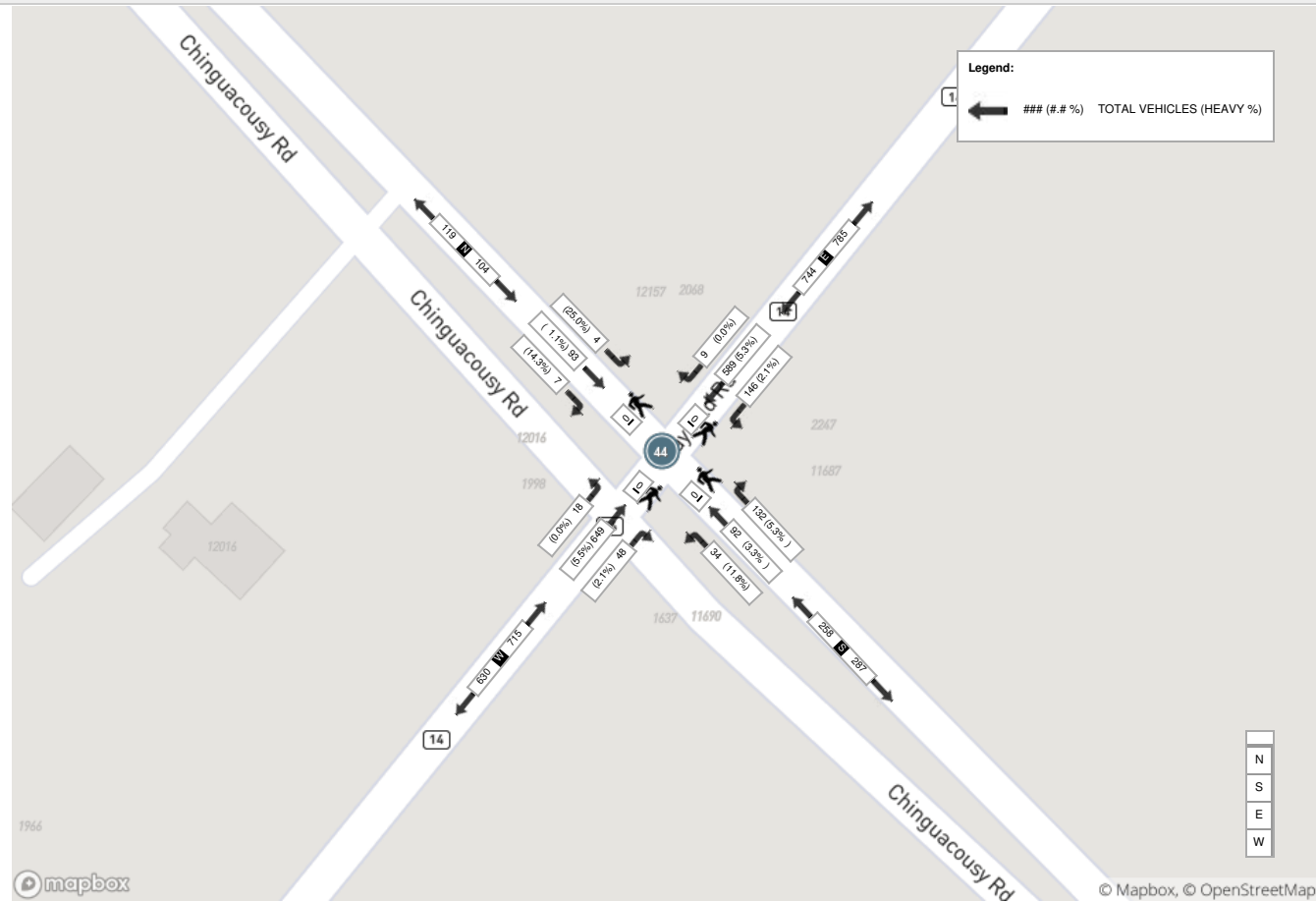
Peak Hour: 07:15 AM - 08:15 AM Weather: Moderate Rain (15.36 °C)



Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (16.94 °C)



Peak Hour: 04:45 PM - 05:45 PM Weather: Scattered Clouds (20.41 °C)





Turning Movement Count (1 . MAYFIELD RD & EDENBROOK HILL DR)

Start Time	E Approach MAYFIELD RD					S Approach EDENBROOK HILL DR					W Approach MAYFIELD RD					Int. Total (15 min)	Int. Total (1 hr)
	Left E:S	Thru E:W	UTurn E:E	Peds E:	Approach Total	Left S:W	Right S:E	UTurn S:S	Peds S:	Approach Total	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
07:00:00	16	152	0	0	168	2	24	0	0	26	150	2	0	0	152	346	
07:15:00	12	173	0	0	185	5	23	0	0	28	227	0	0	0	227	440	
07:30:00	11	167	0	0	178	1	26	0	0	27	179	4	0	0	183	388	
07:45:00	6	182	0	0	188	4	23	0	0	27	177	0	0	0	177	392	1566
08:00:00	13	167	0	0	180	1	13	0	0	14	181	6	0	0	187	381	1601
08:15:00	8	177	0	0	185	4	28	0	0	32	168	4	0	0	172	389	1550
08:30:00	9	157	0	0	166	1	20	0	0	21	199	6	0	0	205	392	1554
08:45:00	10	155	0	0	165	9	16	0	0	25	143	6	0	0	149	339	1501
***BREAK***																	
11:00:00	6	86	0	0	92	1	7	0	0	8	100	5	0	0	105	205	
11:15:00	4	91	0	0	95	2	8	0	0	10	133	0	0	0	133	238	
11:30:00	9	91	0	0	100	0	10	0	0	10	102	3	0	0	105	215	
11:45:00	9	80	0	0	89	3	11	0	0	14	88	2	0	0	90	193	851
12:00:00	12	101	0	1	113	2	18	0	0	20	113	3	0	0	116	249	895
12:15:00	7	112	0	0	119	4	6	0	0	10	106	2	0	0	108	237	894
12:30:00	5	95	0	0	100	3	15	0	0	18	117	3	0	0	120	238	917
12:45:00	14	101	0	0	115	0	10	0	0	10	136	2	0	0	138	263	987
13:00:00	13	102	0	0	115	1	14	0	0	15	88	4	0	0	92	222	960
13:15:00	10	90	0	0	100	5	12	0	0	17	107	2	0	0	109	226	949
13:30:00	11	111	0	0	122	2	10	0	0	12	99	1	1	0	101	235	946
13:45:00	12	108	0	0	120	0	7	0	0	7	114	2	0	0	116	243	926
***BREAK***																	
15:00:00	15	156	0	0	171	1	14	0	0	15	150	5	0	0	155	341	
15:15:00	12	164	0	0	176	2	21	0	0	23	178	5	0	0	183	382	
15:30:00	23	179	0	0	202	1	20	0	0	21	204	8	0	0	212	435	
15:45:00	20	117	0	0	137	0	24	0	0	24	185	8	0	0	193	354	1512
16:00:00	27	158	0	0	185	2	20	0	0	22	157	7	0	0	164	371	1542
16:15:00	23	174	0	0	197	0	8	0	0	8	169	5	0	0	174	379	1539
16:30:00	21	189	0	0	210	1	20	0	0	21	143	7	0	0	150	381	1485
16:45:00	19	160	0	0	179	2	13	0	0	15	169	7	0	0	176	370	1501
17:00:00	23	172	0	0	195	1	6	0	0	7	177	3	0	0	180	382	1512
17:15:00	21	165	0	0	186	0	12	0	0	12	175	6	0	0	181	379	1512
17:30:00	25	176	0	0	201	3	12	0	0	15	195	5	0	0	200	416	1547
17:45:00	15	170	0	0	185	0	14	0	0	14	166	3	0	0	169	368	1545





Grand Total	441	4478	0	1	4919	63	485	0	0	548	4795	126	1	0	4922	10389	-
Approach%	9%	91%	0%		-	11.5%	88.5%	0%		-	97.4%	2.6%	0%		-	-	-
Totals %	4.2%	43.1%	0%		47.3%	0.6%	4.7%	0%		5.3%	46.2%	1.2%	0%		47.4%	-	-
Heavy	21	355	0		-	5	34	0		-	352	33	0		-	-	-
Heavy %	4.8%	7.9%	0%		-	7.9%	7%	0%		-	7.3%	26.2%	0%		-	-	-
Bicycles	1	1	0		-	0	0	0		-	1	1	0		-	-	-
Bicycle %	0.2%	0%	0%		-	0%	0%	0%		-	0%	0.8%	0%		-	-	-



**Peak Hour: 07:15 AM - 08:15 AM Weather: Clear Sky (18.23 °C)**

Start Time	E Approach MAYFIELD RD					S Approach EDENBROOK HILL DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
07:15:00	12	173	0	0	185	5	23	0	0	28	227	0	0	0	227	440
07:30:00	11	167	0	0	178	1	26	0	0	27	179	4	0	0	183	388
07:45:00	6	182	0	0	188	4	23	0	0	27	177	0	0	0	177	392
08:00:00	13	167	0	0	180	1	13	0	0	14	181	6	0	0	187	381
<b>Grand Total</b>	<b>42</b>	<b>689</b>	<b>0</b>	<b>0</b>	<b>731</b>	<b>11</b>	<b>85</b>	<b>0</b>	<b>0</b>	<b>96</b>	<b>764</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>774</b>	<b>1601</b>
<b>Approach%</b>	5.7%	94.3%	0%		-	11.5%	88.5%	0%		-	98.7%	1.3%	0%		-	-
<b>Totals %</b>	2.6%	43%	0%		45.7%	0.7%	5.3%	0%		6%	47.7%	0.6%	0%		48.3%	-
<b>PHF</b>	0.81	0.95	0		0.97	0.55	0.82	0		0.86	0.84	0.42	0		0.85	-
<b>Heavy</b>	6	63	0		69	1	3	0		4	44	4	0		48	-
<b>Heavy %</b>	14.3%	9.1%	0%		9.4%	9.1%	3.5%	0%		4.2%	5.8%	40%	0%		6.2%	-
<b>Lights</b>	36	626	0		662	10	82	0		92	720	6	0		726	-
<b>Lights %</b>	85.7%	90.9%	0%		90.6%	90.9%	96.5%	0%		95.8%	94.2%	60%	0%		93.8%	-
<b>Single-Unit Trucks</b>	2	34	0		36	0	0	0		0	21	0	0		21	-
<b>Single-Unit Trucks %</b>	4.8%	4.9%	0%		4.9%	0%	0%	0%		0%	2.7%	0%	0%		2.7%	-
<b>Buses</b>	2	13	0		15	1	3	0		4	16	4	0		20	-
<b>Buses %</b>	4.8%	1.9%	0%		2.1%	9.1%	3.5%	0%		4.2%	2.1%	40%	0%		2.6%	-
<b>Articulated Trucks</b>	2	16	0		18	0	0	0		0	7	0	0		7	-
<b>Articulated Trucks %</b>	4.8%	2.3%	0%		2.5%	0%	0%	0%		0%	0.9%	0%	0%		0.9%	-
<b>Pedestrians</b>	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
<b>Pedestrians%</b>	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-
<b>Bicycles on Road</b>	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
<b>Bicycles on Road%</b>	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-



**Peak Hour: 12:00 PM - 01:00 PM Weather: Scattered Clouds (26.07 °C)**

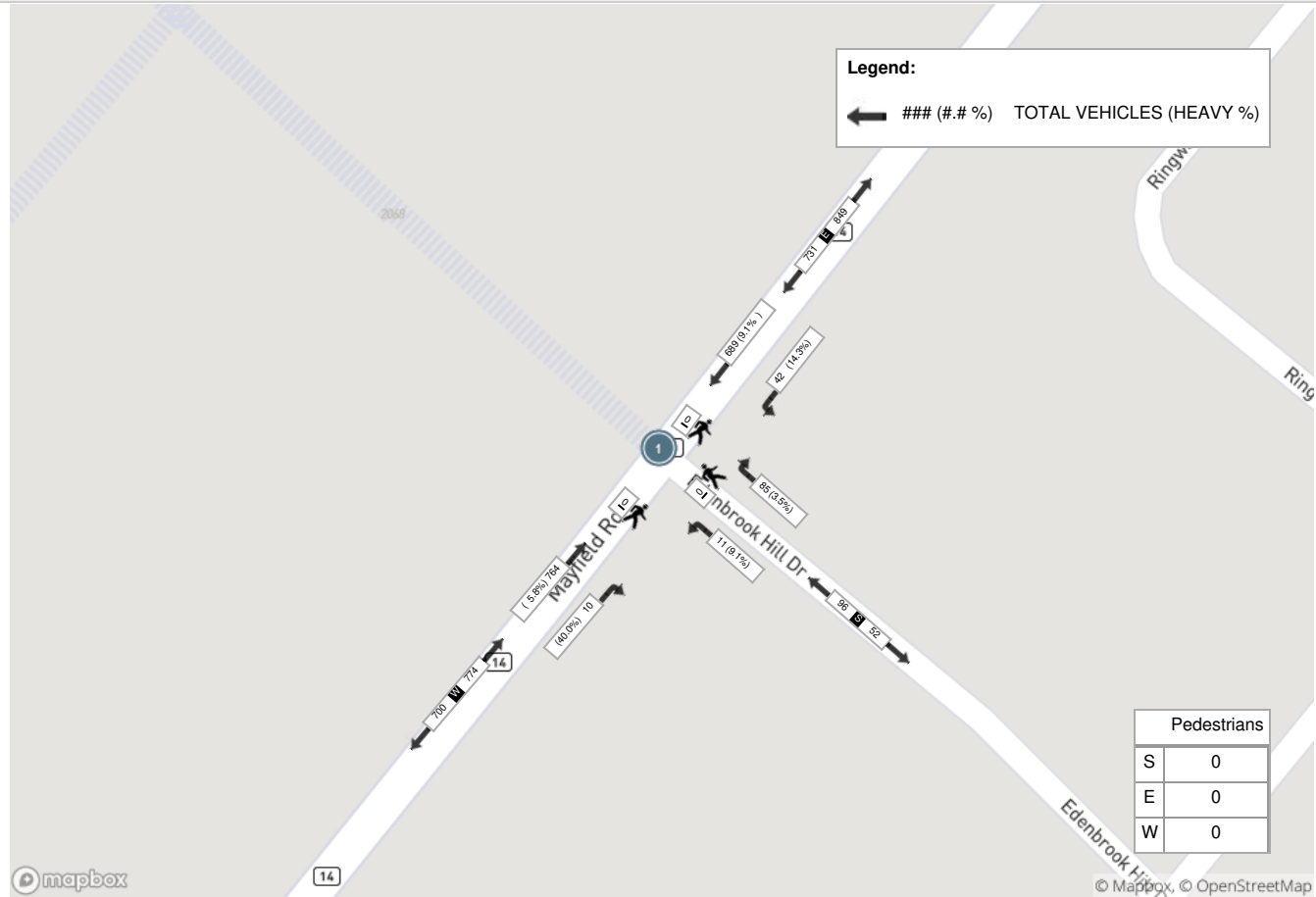
Start Time	E Approach MAYFIELD RD					S Approach EDENBROOK HILL DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
12:00:00	12	101	0	1	113	2	18	0	0	20	113	3	0	0	116	249
12:15:00	7	112	0	0	119	4	6	0	0	10	106	2	0	0	108	237
12:30:00	5	95	0	0	100	3	15	0	0	18	117	3	0	0	120	238
12:45:00	14	101	0	0	115	0	10	0	0	10	136	2	0	0	138	263
<b>Grand Total</b>	<b>38</b>	<b>409</b>	<b>0</b>	<b>1</b>	<b>447</b>	<b>9</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>472</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>482</b>	<b>987</b>
<b>Approach%</b>	8.5%	91.5%	0%		-	15.5%	84.5%	0%		-	97.9%	2.1%	0%		-	-
<b>Totals %</b>	3.9%	41.4%	0%		45.3%	0.9%	5%	0%		5.9%	47.8%	1%	0%		48.8%	-
<b>PHF</b>	0.68	0.91	0		0.94	0.56	0.68	0		0.73	0.87	0.83	0		0.87	-
<b>Heavy</b>	0	37	0		37	0	1	0		1	42	2	0		44	-
<b>Heavy %</b>	0%	9%	0%		8.3%	0%	2%	0%		1.7%	8.9%	20%	0%		9.1%	-
<b>Lights</b>	38	372	0		410	9	48	0		57	430	8	0		438	-
<b>Lights %</b>	100%	91%	0%		91.7%	100%	98%	0%		98.3%	91.1%	80%	0%		90.9%	-
<b>Single-Unit Trucks</b>	0	28	0		28	0	0	0		0	30	0	0		30	-
<b>Single-Unit Trucks %</b>	0%	6.8%	0%		6.3%	0%	0%	0%		0%	6.4%	0%	0%		6.2%	-
<b>Buses</b>	0	1	0		1	0	0	0		0	0	2	0		2	-
<b>Buses %</b>	0%	0.2%	0%		0.2%	0%	0%	0%		0%	0%	20%	0%		0.4%	-
<b>Articulated Trucks</b>	0	8	0		8	0	1	0		1	12	0	0		12	-
<b>Articulated Trucks %</b>	0%	2%	0%		1.8%	0%	2%	0%		1.7%	2.5%	0%	0%		2.5%	-
<b>Pedestrians</b>	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
<b>Pedestrians%</b>	-	-	-	100%	-	-	-	-	0%	-	-	-	-	0%	-	-
<b>Bicycles on Road</b>	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
<b>Bicycles on Road%</b>	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-



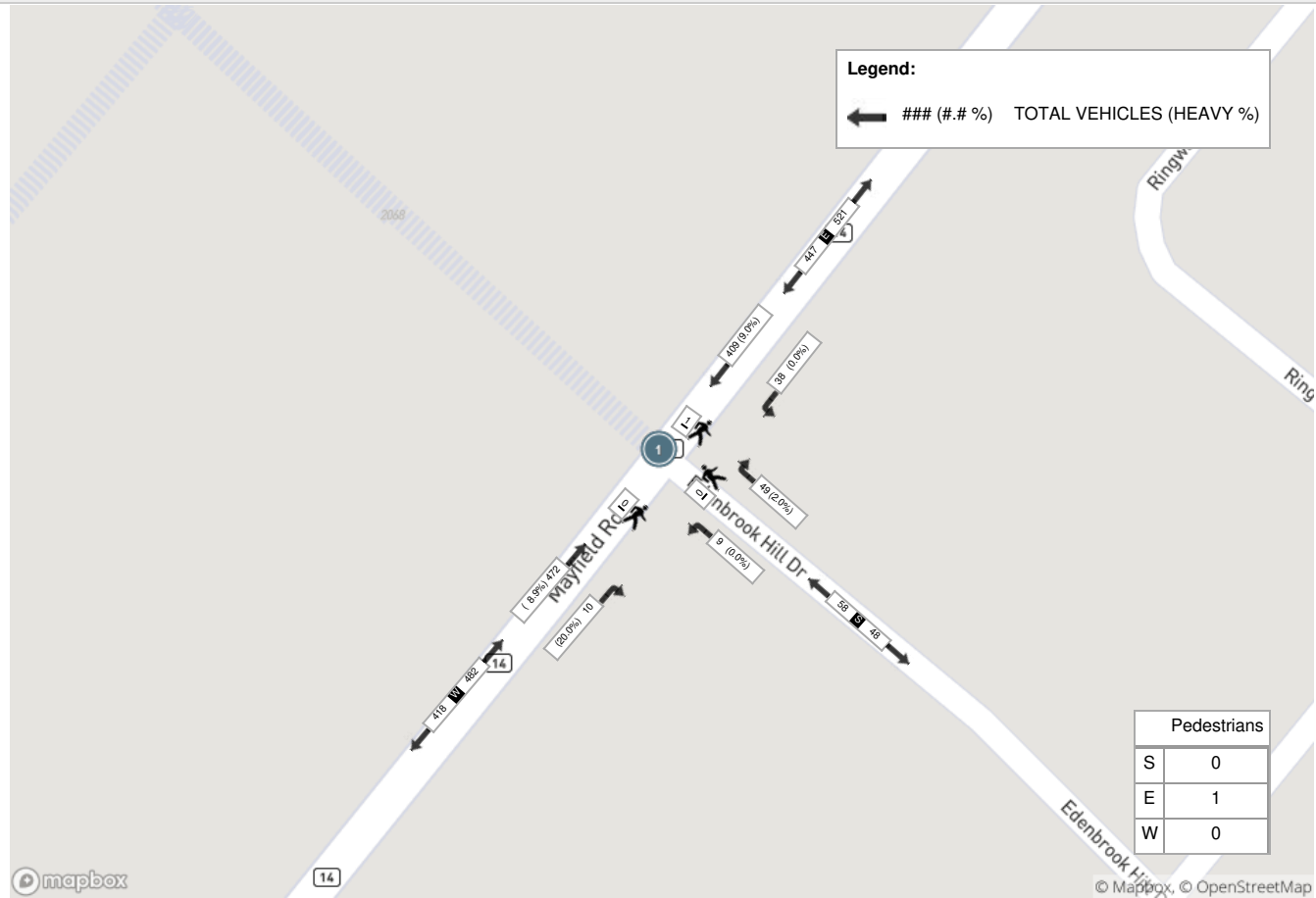
**Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (28.63 °C)**

Start Time	E Approach MAYFIELD RD					S Approach EDENBROOK HILL DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
16:45:00	19	160	0	0	179	2	13	0	0	15	169	7	0	0	176	370
17:00:00	23	172	0	0	195	1	6	0	0	7	177	3	0	0	180	382
17:15:00	21	165	0	0	186	0	12	0	0	12	175	6	0	0	181	379
17:30:00	25	176	0	0	201	3	12	0	0	15	195	5	0	0	200	416
<b>Grand Total</b>	<b>88</b>	<b>673</b>	<b>0</b>	<b>0</b>	<b>761</b>	<b>6</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>716</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>737</b>	<b>1547</b>
<b>Approach%</b>	11.6%	88.4%	0%		-	12.2%	87.8%	0%		-	97.2%	2.8%	0%		-	-
<b>Totals %</b>	5.7%	43.5%	0%		49.2%	0.4%	2.8%	0%		3.2%	46.3%	1.4%	0%		47.6%	-
<b>PHF</b>	0.88	0.96	0		0.95	0.5	0.83	0		0.82	0.92	0.75	0		0.92	-
<b>Heavy</b>	1	18	0		19	0	6	0		6	46	6	0		52	-
<b>Heavy %</b>	1.1%	2.7%	0%		2.5%	0%	14%	0%		12.2%	6.4%	28.6%	0%		7.1%	-
<b>Lights</b>	87	655	0		742	6	37	0		43	670	15	0		685	-
<b>Lights %</b>	98.9%	97.3%	0%		97.5%	100%	86%	0%		87.8%	93.6%	71.4%	0%		92.9%	-
<b>Single-Unit Trucks</b>	0	10	0		10	0	4	0		4	27	3	0		30	-
<b>Single-Unit Trucks %</b>	0%	1.5%	0%		1.3%	0%	9.3%	0%		8.2%	3.8%	14.3%	0%		4.1%	-
<b>Buses</b>	1	6	0		7	0	1	0		1	3	3	0		6	-
<b>Buses %</b>	1.1%	0.9%	0%		0.9%	0%	2.3%	0%		2%	0.4%	14.3%	0%		0.8%	-
<b>Articulated Trucks</b>	0	2	0		2	0	1	0		1	16	0	0		16	-
<b>Articulated Trucks %</b>	0%	0.3%	0%		0.3%	0%	2.3%	0%		2%	2.2%	0%	0%		2.2%	-
<b>Pedestrians</b>	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
<b>Pedestrians%</b>	-	-	-	0%		-	-	-	0%		-	-	-	0%		-
<b>Bicycles on Road</b>	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
<b>Bicycles on Road%</b>	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

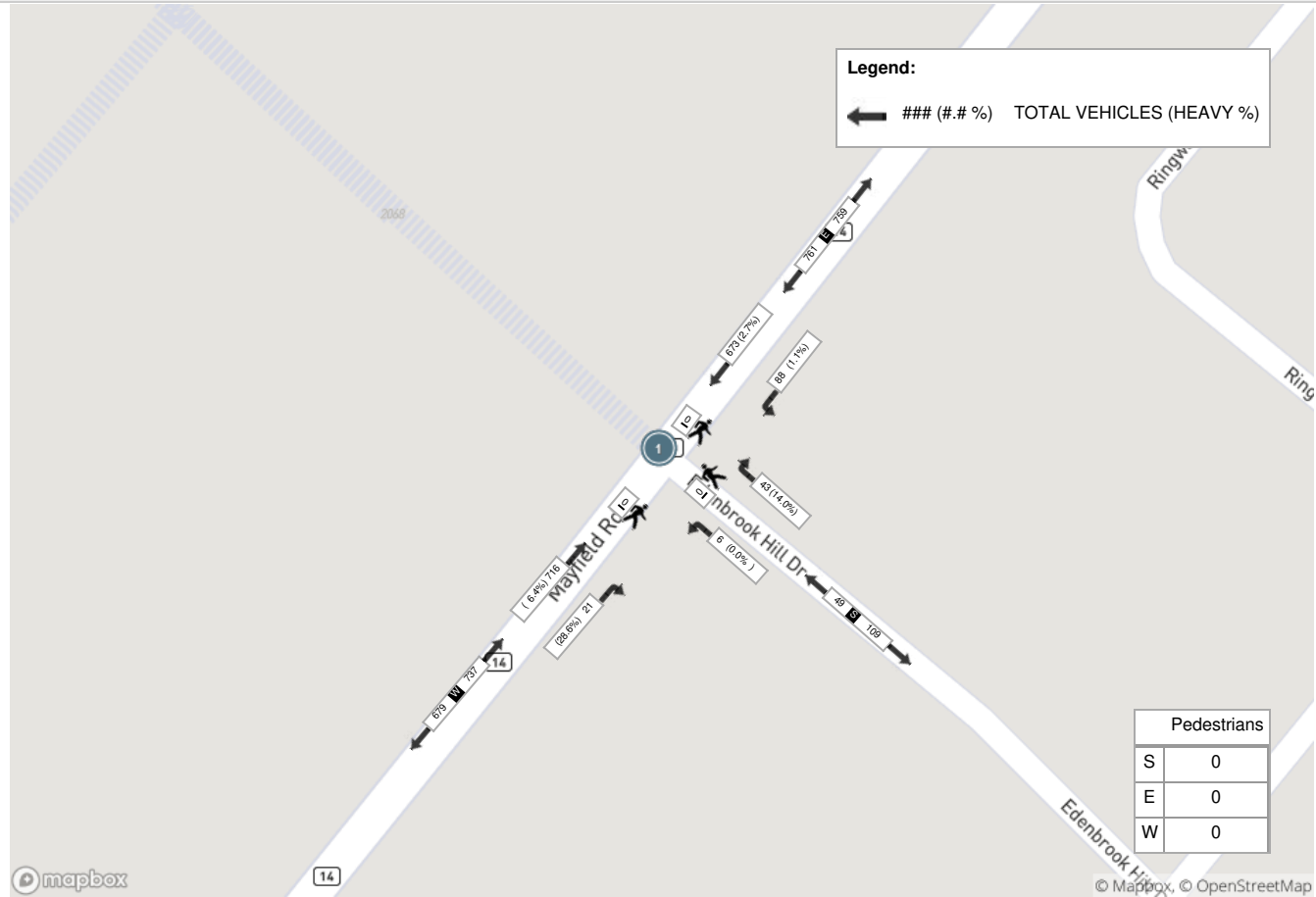
**Peak Hour: 07:15 AM - 08:15 AM    Weather: Clear Sky (18.23 °C)**



**Peak Hour: 12:00 PM - 01:00 PM    Weather: Scattered Clouds (26.07 °C)**



**Peak Hour: 04:45 PM - 05:45 PM    Weather: Broken Clouds (28.63 °C)**





# APPENDIX C

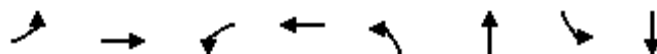
## Intersection Capacity Analysis – Existing Conditions



# Queues

## 1: Chinguacousy Road & Mayfield Road

10-12-2021



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕		↕		↕
Traffic Volume (vph)	5	662	160	536	33	78	8	149
Future Volume (vph)	5	662	160	536	33	78	8	149
Lane Group Flow (vph)	0	816	0	761	0	234	0	176
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
Total Split (s)	66.6	66.6	66.6	66.6	36.6	36.6	36.6	36.6
Total Split (%)	64.5%	64.5%	64.5%	64.5%	35.5%	35.5%	35.5%	35.5%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		6.6		6.6		6.6		6.6
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.67		0.97		0.79		0.55
Control Delay		13.7		44.4		49.9		43.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		13.7		44.4		49.9		43.6
Queue Length 50th (m)		85.5		132.2		38.5		34.0
Queue Length 95th (m)		164.9		#254.4		61.1		51.0
Internal Link Dist (m)		254.5		309.8		237.8		232.3
Turn Bay Length (m)								
Base Capacity (vph)		1224		783		446		508
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.67		0.97		0.52		0.35

### Intersection Summary

Cycle Length: 103.2

Actuated Cycle Length: 103.2

Offset: 36.6 (35%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

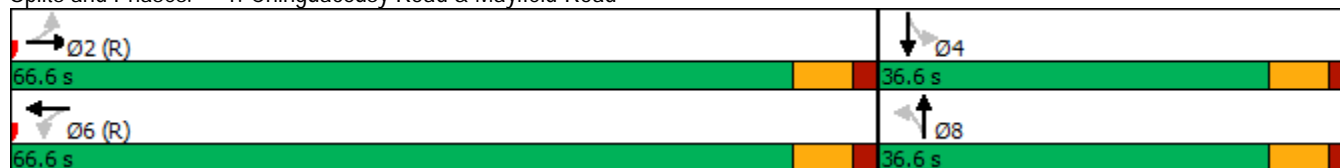
Natural Cycle: 90

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.


Splits and Phases: 1: Chinguacousy Road & Mayfield Road



# HCM Signalized Intersection Capacity Analysis

## 1: Chinguacousy Road & Mayfield Road













10-12-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	5	662	84	160	536	4	33	78	104	8	149	5
Future Volume (vph)	5	662	84	160	536	4	33	78	104	8	149	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.6			6.6			6.6			6.6	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			1.00			0.93			1.00	
Flt Protected		1.00			0.99			0.99			1.00	
Satd. Flow (prot)		1778			1709			1612			1789	
Flt Permitted		1.00			0.66			0.88			0.97	
Satd. Flow (perm)		1772			1137			1424			1749	
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)	5	720	91	174	583	4	36	85	113	9	162	5
RTOR Reduction (vph)	0	3	0	0	0	0	0	38	0	0	1	0
Lane Group Flow (vph)	0	813	0	0	761	0	0	196	0	0	175	0
Heavy Vehicles (%)	20%	5%	6%	13%	9%	0%	27%	5%	7%	25%	4%	20%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		71.1			71.1			18.9			18.9	
Effective Green, g (s)		71.1			71.1			18.9			18.9	
Actuated g/C Ratio		0.69			0.69			0.18			0.18	
Clearance Time (s)		6.6			6.6			6.6			6.6	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1220			783			260			320	
v/s Ratio Prot												
v/s Ratio Perm		0.46			0.67			0.14			0.10	
v/c Ratio		0.67			0.97			0.76			0.55	
Uniform Delay, d1		9.2			15.1			40.0			38.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.9			26.0			11.8			1.9	
Delay (s)		12.1			41.1			51.7			40.2	
Level of Service		B			D			D			D	
Approach Delay (s)		12.1			41.1			51.7			40.2	
Approach LOS		B			D			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			30.4									
HCM 2000 Volume to Capacity ratio			0.93									
Actuated Cycle Length (s)			103.2									
Intersection Capacity Utilization			117.7%									
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Unsignalized Intersection Capacity Analysis

### 2: Edenbrook Hill Drive & Mayfield Road

10-12-2021

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	764	10	42	689	11	85
Future Volume (Veh/h)	764	10	42	689	11	85
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	840	11	46	757	12	93
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	334					
pX, platoon unblocked			0.74		0.74	0.74
vC, conflicting volume			851		1689	840
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			618		1757	603
tC, single (s)			4.2		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.3
p0 queue free %			93		80	74
cM capacity (veh/h)			667		61	364
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	840	11	46	757	12	93
Volume Left	0	0	46	0	12	0
Volume Right	0	11	0	0	0	93
cSH	1700	1700	667	1700	61	364
Volume to Capacity	0.49	0.01	0.07	0.45	0.20	0.26
Queue Length 95th (m)	0.0	0.0	1.8	0.0	5.3	8.0
Control Delay (s)	0.0	0.0	10.8	0.0	77.4	18.2
Lane LOS			B		F	C
Approach Delay (s)	0.0		0.6		25.0	
Approach LOS					C	
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			52.1%		ICU Level of Service	
Analysis Period (min)			15		A	

Jocelyn Lee

---

From: Jocelyn Lee  
Sent: October 5, 2021 9:24 AM  
To: 'Jillian Britto'  
Cc: Nixon Chan; Jason Afonso; Arash Olia  
Subject: RE: Terms of Reference - Mayfield Station Developments Inc (Laurier Mayfield)

Hi Jillian,

Thanks for your response. We will ensure we include discussion on the future active transportation facilities as well.

Thanks,

Jocelyn Lee, EIT, B.Eng., B.A.

Project Coordinator

**LEA Consulting Ltd.**

625 Cochrane Drive, 9<sup>th</sup> Floor | Markham, ON | L3R 9R9

T: 905-470-0015 ext. 374 E: [jlee@lea.ca](mailto:jlee@lea.ca) W: [www.LEA.ca](http://www.LEA.ca)

---

From: Jillian Britto <[Jillian.Britto@caledon.ca](mailto:Jillian.Britto@caledon.ca)>  
Sent: October 4, 2021 2:48 PM  
To: Jocelyn Lee <[JLee@lea.ca](mailto:JLee@lea.ca)>  
Cc: Nixon Chan <[NChan@lea.ca](mailto:NChan@lea.ca)>; Jason Afonso <[jasona@gsai.ca](mailto:jasona@gsai.ca)>; Arash Olia <[Arash.Olia@caledon.ca](mailto:Arash.Olia@caledon.ca)>  
Subject: RE: Terms of Reference - Mayfield Station Developments Inc (Laurier Mayfield)

External Sender

Good afternoon Jocelyn,

Hope you had a great weekend!

Thank you for providing the Town an opportunity to comment on the scope of work for this study. All the items noted below are acceptable. We ask that the study also illustrate all future active transportation facilities and connections such as bike lanes, multi-use paths, the open space link and trails, etc.

Let us know if you have any questions.

Regards,

Jillian Britto, P.Eng.

Coordinator, Transportation Development

Transportation Engineering

Engineering Services

Office: 905.584.2272 x 4108

Email: [Jillian.Britto@caledon.ca](mailto:Jillian.Britto@caledon.ca)

From: Jocelyn Lee <[JLee@lea.ca](mailto:JLee@lea.ca)>  
Sent: Wednesday, September 29, 2021 9:49 AM  
To: Arash Olia <[Arash.Olia@caledon.ca](mailto:Arash.Olia@caledon.ca)>; Jillian Britto <[Jillian.Britto@caledon.ca](mailto:Jillian.Britto@caledon.ca)>  
Cc: Nixon Chan <[NChan@lea.ca](mailto:NChan@lea.ca)>; Jason Afonso <[jasona@gsai.ca](mailto:jasona@gsai.ca)>  
Subject: Terms of Reference - Mayfield Station Developments Inc (Laurier Mayfield)

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Hi Arash and Jillian:

Please review and confirm the Terms of Reference below before we move forward with the Transportation Impact Study (TIS). The TIS will be in support of the Draft Plan of Subdivision for the Mayfield Station Developments Inc. (Laurier Mayfield) development, located in the lands designated as Mayfield West Phase 2 in the Town of Caledon, as specified in the 2018 Transportation Master Plan (TMP) completed by Paradigm.

The TIS will follow the Town of Caledon Traffic Impact Study Guidelines, as well as previous TIS's completed for the Mayfield West Phase 2 development and will assess the weekday AM and PM peak hours. The TOR outlined below follows the work plans similar to the TIS Addendums submitted for the Brookvalley and Mattamy developments within MW2.

As previous analysis for the subdivision has been completed as part of the 2018 TMP, LEA proposes to review the latest draft plan statistics and compare it with what was proposed in the 2018 TMP. This will include reviewing the trip generation, in line with the ITE Trip Generation Manual (10<sup>th</sup> Edition).

Synchro will be used to assess intersection operations during the peak hour for existing conditions. For the 2026 horizon, the TIS will refer to the Updated Phasing Analysis conducted by LEA. The analysis conducted during the 2031 and 2041 horizons from the 2018 TMP will also be referenced and commentary will be provided.

Parking will be analyzed and compared to minimum requirements as per the Town of Caledon By-Laws. A parking justification section will be provided for the potential shortfall.

Please let me know if you have any questions or comments regarding this TOR.

Thanks,  
Jocelyn Lee, EIT, B.Eng., B.A.  
Project Coordinator

**LEA Consulting Ltd.**

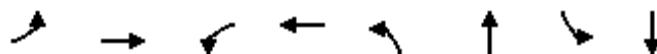
625 Cochrane Drive, 9<sup>th</sup> Floor | Markham, ON | L3R 9R9  
T: 905-470-0015 ext. 374 E: [jlee@lea.ca](mailto:jlee@lea.ca) W: [www.LEA.ca](http://www.LEA.ca)

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# Queues

## 1: Chinguacousy Road & Mayfield Road

10-12-2021



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕		↕		↕
Traffic Volume (vph)	18	649	146	589	34	92	4	93
Future Volume (vph)	18	649	146	589	34	92	4	93
Lane Group Flow (vph)	0	729	0	759	0	264	0	106
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
Total Split (s)	66.6	66.6	66.6	66.6	36.6	36.6	36.6	36.6
Total Split (%)	64.5%	64.5%	64.5%	64.5%	35.5%	35.5%	35.5%	35.5%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		6.6		6.6		6.6		6.6
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio		0.61		0.83		0.77		0.31
Control Delay		12.9		24.3		46.1		35.4
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		12.9		24.3		46.1		35.4
Queue Length 50th (m)		74.2		104.9		43.3		18.8
Queue Length 95th (m)		140.1		#230.3		66.1		31.3
Internal Link Dist (m)		254.5		309.8		237.8		232.3
Turn Bay Length (m)								
Base Capacity (vph)		1188		909		498		527
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.61		0.83		0.53		0.20

### Intersection Summary

Cycle Length: 103.2

Actuated Cycle Length: 103.2

Offset: 36.6 (35%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

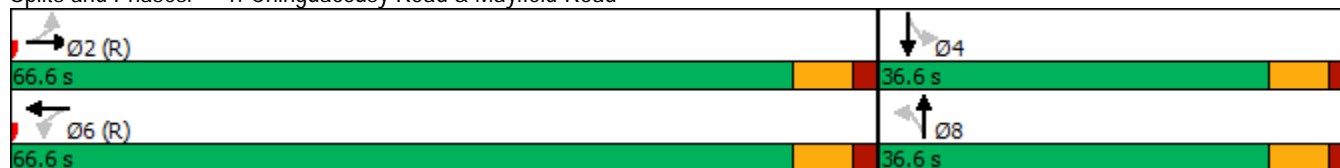
Natural Cycle: 80

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.


Splits and Phases: 1: Chinguacousy Road & Mayfield Road



# HCM Signalized Intersection Capacity Analysis

## 1: Chinguacousy Road & Mayfield Road













10-12-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	18	649	48	146	589	9	34	92	132	4	93	7
Future Volume (vph)	18	649	48	146	589	9	34	92	132	4	93	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.6			6.6			6.6			6.6	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.93			0.99	
Flt Protected		1.00			0.99			0.99			1.00	
Satd. Flow (prot)		1781			1800			1670			1829	
Flt Permitted		0.98			0.73			0.95			0.99	
Satd. Flow (perm)		1740			1334			1590			1808	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	18	662	49	149	601	9	35	94	135	4	95	7
RTOR Reduction (vph)	0	2	0	0	0	0	0	41	0	0	2	0
Lane Group Flow (vph)	0	727	0	0	759	0	0	223	0	0	104	0
Heavy Vehicles (%)	0%	6%	2%	2%	5%	0%	12%	3%	5%	25%	1%	14%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		70.4			70.4			19.6			19.6	
Effective Green, g (s)		70.4			70.4			19.6			19.6	
Actuated g/C Ratio		0.68			0.68			0.19			0.19	
Clearance Time (s)		6.6			6.6			6.6			6.6	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1186			910			301			343	
v/s Ratio Prot												
v/s Ratio Perm		0.42			c0.57			c0.14			0.06	
v/c Ratio		0.61			0.83			0.74			0.30	
Uniform Delay, d1		9.0			12.1			39.4			35.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.4			8.9			9.2			0.5	
Delay (s)		11.3			21.0			48.6			36.4	
Level of Service		B			C			D			D	
Approach Delay (s)		11.3			21.0			48.6			36.4	
Approach LOS		B			C			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			22.0				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			103.2				Sum of lost time (s)			13.2		
Intersection Capacity Utilization			115.7%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Unsignalized Intersection Capacity Analysis

### 2: Edenbrook Hill Drive & Mayfield Road

10-12-2021

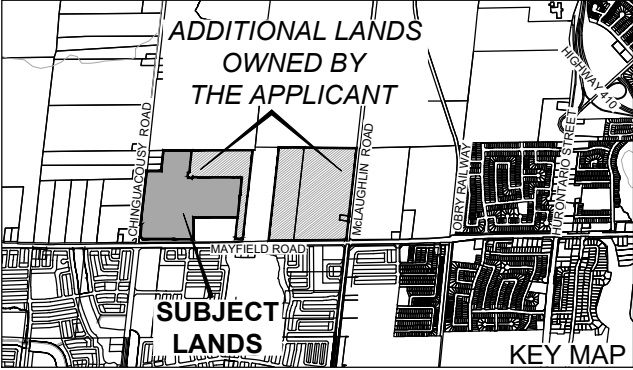
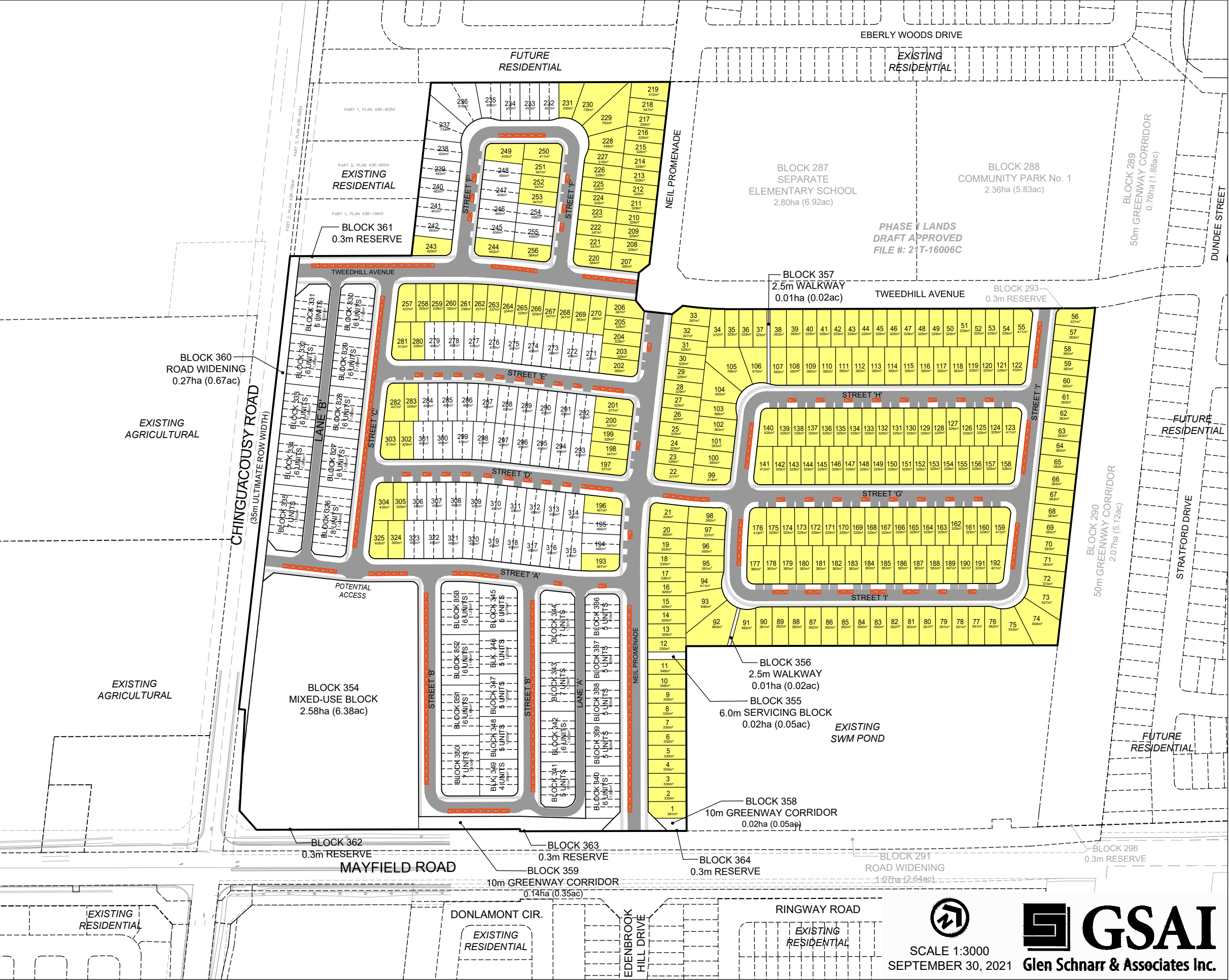
						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	764	21	88	738	6	43
Future Volume (Veh/h)	764	21	88	738	6	43
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	822	23	95	794	6	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)	334					
pX, platoon unblocked			0.78		0.78	0.78
vC, conflicting volume			845		1806	822
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			663		1891	634
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			87		89	87
cM capacity (veh/h)			728		53	359
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	822	23	95	794	6	46
Volume Left	0	0	95	0	6	0
Volume Right	0	23	0	0	0	46
cSH	1700	1700	728	1700	53	359
Volume to Capacity	0.48	0.01	0.13	0.47	0.11	0.13
Queue Length 95th (m)	0.0	0.0	3.6	0.0	2.9	3.5
Control Delay (s)	0.0	0.0	10.7	0.0	81.3	16.5
Lane LOS			B		F	C
Approach Delay (s)	0.0		1.1		24.0	
Approach LOS					C	
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			58.4%	ICU Level of Service	B	
Analysis Period (min)			15			





# APPENDIX D

## On-Street Parking Plan



**RESIDENT / ON-STREET PARKING & SIDEWALK LOCATION PLAN**  
**MAYFIELD STATION DEVELOPMENTS INC.**  
**FILE # \_\_\_\_\_**

PART OF LOT 18, CONCESSION 2, W.H.S.  
(GEOGRAPHIC TOWNSHIP OF CHINGUACOUSY, COUNTY OF PEEL)  
TOWN OF CALEDON  
REGIONAL MUNICIPALITY OF PEEL

RESIDENT PARKING REQUIREMENTS				
UNIT TYPE	No. of UNITS	REQUIRED SPACES PER UNIT	REQUIRED	PROVIDED
DETACHED	261	2.0	522	1044
SEMI-DETACHED	128	2.0	256	256
TOWNHOUSES	162	2.0	324	324
TOTAL	551		1102	1624

ON-STREET PARKING REQUIREMENTS				
UNIT TYPE	No. of UNITS	REQUIRED SPACES PER UNIT	REQUIRED	PROVIDED
DETACHED	261	1.0	261	273
SEMI-DETACHED	128	1.0	128	
TOWNHOUSES	162	0.50	81	
TOTAL	551		470	

**SURPLUS OFF-STREET PARKING PROVIDED**  
261 UNITS WITH SURPLUS PARKING (261 x 2 SURPLUS SPACES = 522 SPACES)

**TOTAL ON-STREET & SURPLUS PARKING PROVIDED**  
273 ON-STREET SPACES + 522 SURPLUS OFF-STREET SPACES = 795 SPACES

- LEGEND**
- POTENTIAL SIDEWALK LOCATIONS
  - CONCEPTUAL PAVEMENT / DRIVEWAYS
  - POTENTIAL ON-STREET PARKING (3.0 x 6.0m)
  - LOTS WITH SURPLUS OFF-STREET PARKING (DOUBLE CAR DRIVEWAY & GARAGE - 4 SPACES)

**NOTE**

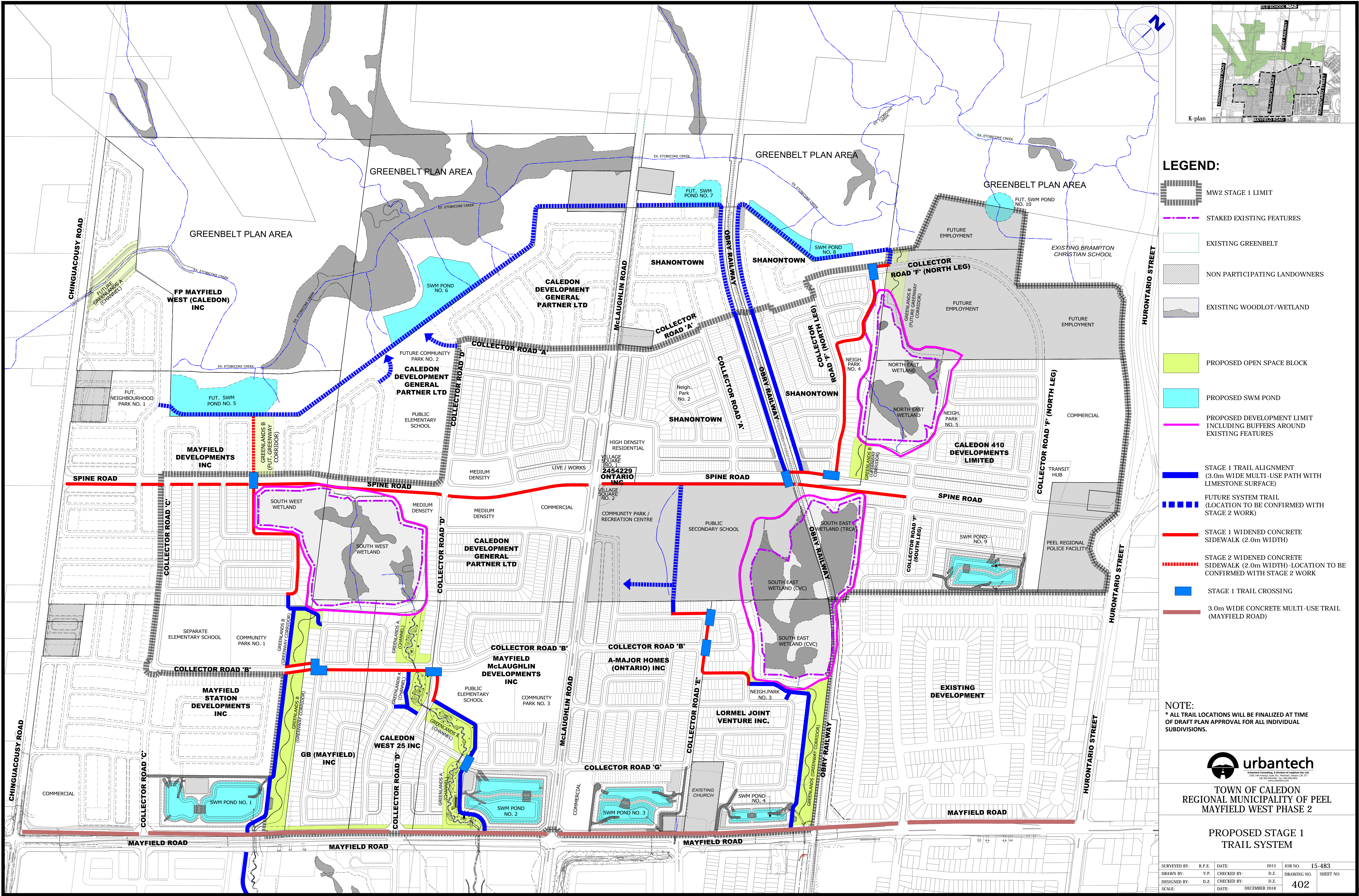
- 9.0m MINIMUM SETBACK FROM INTERSECTIONS FOR ALL ON-STREET PARKING SPACES.



# APPENDIX E

Proposed Stage 1 Trail System






**LEGEND:**

- MW2 STAGE 1 LIMIT
- STAKED EXISTING FEATURES
- EXISTING GREENBELT
- NON PARTICIPATING LANDOWNERS
- EXISTING WOODLOT/WETLAND
- PROPOSED OPEN SPACE BLOCK
- PROPOSED SWM POND
- PROPOSED DEVELOPMENT LIMIT INCLUDING BUFFERS AROUND EXISTING FEATURES
- STAGE 1 TRAIL ALIGNMENT (3.0m WIDE MULTI-USE PATH WITH LIMESTONE SURFACE)
- FUTURE SYSTEM TRAIL (LOCATION TO BE CONFIRMED WITH STAGE 2 WORK)
- STAGE 1 WIDENED CONCRETE SIDEWALK (2.0m WIDTH)
- STAGE 2 WIDENED CONCRETE SIDEWALK (2.0m WIDTH) LOCATION TO BE CONFIRMED WITH STAGE 2 WORK
- STAGE 1 TRAIL CROSSING
- 3.0m WIDE CONCRETE MULTI-USE TRAIL (MAYFIELD ROAD)

**NOTE:**  
\* ALL TRAIL LOCATIONS WILL BE FINALIZED AT TIME OF DRAFT PLAN APPROVAL FOR ALL INDIVIDUAL SUBDIVISIONS.



urbantech  
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416-947-8888 | Fax: 416-947-8889  
info@urbantech.ca

**TOWN OF CALEDON  
REGIONAL MUNICIPALITY OF PEEL  
MAYFIELD WEST PHASE 2**

**PROPOSED STAGE 1  
TRAIL SYSTEM**

SURVEYED BY:	R.P.E.	DATE:	2015	JOB NO.	15-483
DRAWN BY:	V.P.	CHECKED BY:	D.Z.	DRAWING NO.	SHEET NO.
DESIGNED BY:	D.Z.	CHECKED BY:	D.Z.	402	
SCALE:		DATE:	DECEMBER 2018		

Figure 13





LEADING IN ENVIRONMENTAL ACTION