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Wildfield Village
Town of Caledon
Transportation Impact Study

Paradigm Transportation Solutions Limited

2025-01-29
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Project Summary

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Wildfield Village
Town of Caledon
Transportation Impact Study

<< Original Signed By >>

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Executive Summary

Content

Global Properties Inc. retained Paradigm Transportation Solutions Limited (Paradigm) to prepare this Transportation Impact Study (TIS) for a proposed residential subdivision in the Town of Caledon. The proposed development lands are generally bound by The Gore Road by the east, Centreville Creek Road to the west, Healey Road to the north, and vacant lands to the south within the Town of Caledon. The lands are currently undeveloped, and form part of the wider Wildfield Village Secondary Plan area.

The TIS includes an assessment of future traffic conditions (with and without the proposed development), with the purpose to determine the net impacts of the development site traffic on surrounding road network, and to identify any remedial measures required to accommodate the site traffic, if any.

The findings, conclusions, and recommendations of this study are summarized below and outlined in further detail in the body of the report.

Development Concept

The subject site is generally bound by The Gore Road by the east, Centreville Creek Road to the west, Healey Road to the north, and Mayfield Road to the south within the Town of Caledon.

The property owner proposes to construct a residential subdivision providing 708 single-family detached dwellings, 1,328 single-family attached dwellings, and 1,243 street townhouse units. As we understand, the development is anticipated to be constructed via two phases:

- **Phase 1 is** proposed to consist of 214 single-family detached dwellings, 632 single-family attached dwellings, and 391 street townhouse units, for a total of 1,237 units within Phase 1.
- **Phase 2** is proposed to consist of 494 single-family detached dwellings, 852 single-family attached dwellings, and 696 street townhouse units, for a total of 2,042 units.
- **The full build-out** is proposed to consist of 708 single-family dwellings, 1328 single-family attached dwellings, and 1,243 street townhouse units, for a total of 3,279 units.

Regarding vehicular access, upon full build-out, the residential subdivision will be served by three full-movement connections along Centreville Creek Road, and one full-movement connection to The Gore Road. The Secondary Plan Transportation Study identified that these will be signalized. However, the traffic analysis in this report assumes they will be built as unsignalized intersections, to determine whether signalization will be justified.

Conclusions

- **Development Trip Generation:** Phase 1 of the proposed development is forecast to generate a total of 616 and 767 vehicular trips during the weekday AM and PM peak hours, respectively. Phase 2 is forecast to generate a total of 962 and 1,247 vehicular trips during the weekday AM and PM peak hours, respectively

  At full build-out, the subdivision will generate approximately 1,578 and 2,014 vehicular trips during the weekday AM and PM peak hours, respectively.
- **Phase 1 Background Traffic Conditions:** The study area intersections are forecast to operate with acceptable levels of service, with all movements within capacity.
- **Phase 1 Total Traffic Conditions:** The study area intersections operations are reported to be slightly worse with the addition of the site generated traffic in comparison to background traffic conditions. It is noted the study area intersections are forecast to continue to operate at acceptable levels of service and within all movements within capacity.

  The exception would be at the intersection of Street E and The Gore Road where the eastbound left-turn movement is forecast to operate at a LOS F with delays reported between 96 and 91 seconds during the AM and PM peak hours. Furthermore, the reported 95th percentile queue length for the movement is reported to exceed an assumed storage (50 m) provision by 5 m during the AM peak hour. No additional critical movements are noted.
- **Full Build-Out Background Traffic Conditions:** The study area intersections are forecast to operate with acceptable levels of service, will all movements within capacity.
- **Full Build-Out Total Traffic Conditions:** With the addition of site generated traffic, the development of the subject site is forecast to have a negligible impact on traffic operations on the adjacent transportation network. The study intersections are forecast to operate at very similar levels of service as under

background traffic conditions. All traffic movements are forecast to continue operating with acceptable levels of service and well within capacity.

The exception would be at the Street E and The Gore Road intersection where the projected 95th percentile queue for the eastbound left-turn lane movement is reported to exceed the assumed storage (50 m) provision by a maximum of 18 m during the PM peak hour.

- **Remedial Measures:** All unsignalized study area intersections were reviewed to determine whether traffic signal control would be warranted for consideration.

  Traffic signal control is determined not to be warranted under Phase 1 Total Traffic Conditions.

  Under Full Build-Out Total Traffic Conditions, traffic signal control is determined to be warranted at the Street E intersection with The Gore Road.

Recommendations

Based upon the findings of this study, the following is recommended:

- From a transportation perspective, the planning applications sought should be approved as the development can be accommodated by the anticipated future transportation network.
- It is recommended the eastbound left-turn lane at the intersection of Street E and The Gore Road provides a minimum storage provision of 80 m to accommodate the projected maximum 95th percentile queue.
- It is recommended that the appropriate jurisdiction monitor traffic volumes in regard to background growth and changes in traffic patterns to determine whether traffic signal control is warranted under Phase 2 of the proposed development. That is, if the projected background traffic growth and level of development is actually realized or not.
- It is recommended the internal study area intersections provide the noted lane configurations and traffic control as documented within **Figure 8.1**.

From a transportation perspective, the required planning applications to allow the proposed residential development should be approved.

Contents

Appendices

Figures

Tables

1 Introduction

Global Properties Inc. retained Paradigm Transportation Solutions Limited (Paradigm) to prepare this Transportation Impact Study (TIS) for a proposed residential subdivision in the Town of Caledon. The proposed development is generally bound by The Gore Road by the east, Centreville Creek Road to the west, Healey Road to the north and a future road (running parallel to Mayfield Road), within the Town of Caledon. The site is situated within the Wildfield Village Secondary Plan area.

Figure 1.1 illustrates the location of the subject site. The scope of this study is as follows:

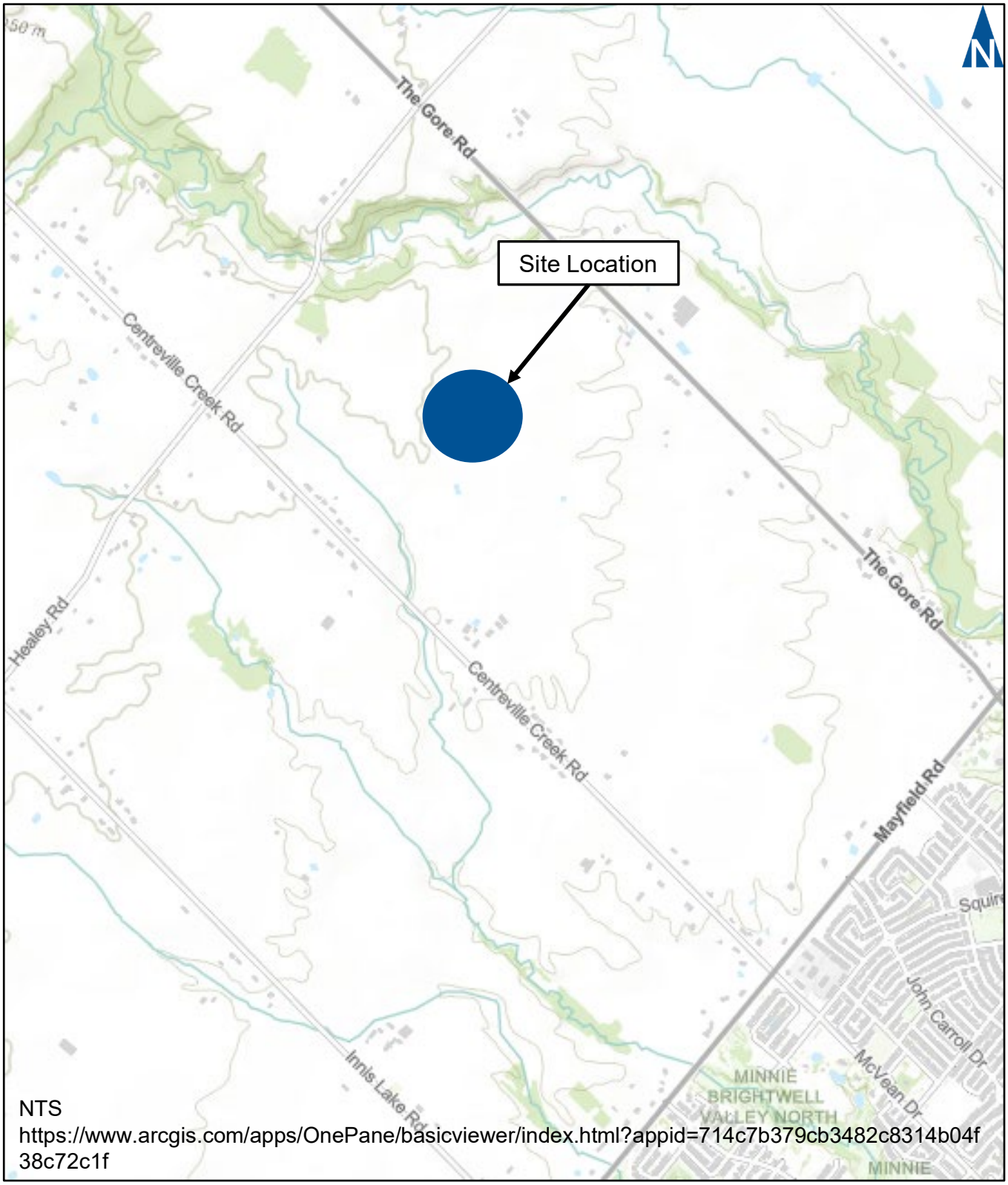
- **Transportation Impact Study**
  - A study area comprising the following intersections:
    - Street B and Centreville Creek Road;
    - Street D and Centreville Creek Road;
    - Street E and Centreville Creek Road; and
    - Street E and The Gore Road.
  - Traffic forecasts for year 2051, which aligns with Secondary Plan Transportation Study[1]; and
  - Analysis time periods comprising the weekday AM and PM peak hours (i.e., typical commuter periods).
- An **On-Street Parking Plan**, provided in **Appendix G**.

This study has been completed in general accordance with the Town of Caledon *Transportation Impact Studies Terms of Reference and Guidelines* [2], and the terms of reference provided to Town staff. At the time of writing no response was received from Town staff. **Appendix A** contains the pre-study consultation material provided to Town staff.

The requirements outlined in the Active Transportation Plan have been addressed within the Community Design Guidelines prepared for the Wildfield Village Secondary Plan. The Pedestrian Circulation Plan for this proposed development is provided by the project architect.

As demonstrated in the Healthy Development Assessment for the Wildfield Village Secondary Plan, the community scores “Gold” regarding active transportation infrastructure and connections.

[1] BA Group. *Wildfield Village Transportation Study.* (BA Group. December 2024).
[2] Town of Caledon, *Transportation Impact Studies Terms of Reference and Guidelines*, March 2017.



NTS
https://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=714c7b379cb3482c8314b04f38c72c1f

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Site Location

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Figure 1.1

2 Existing Conditions

2.1 Roadways

The characteristics of the roads and intersections in vicinity of the subject site are described below. Reference was made to the Town of Caledon *Official Plan*, *Schedule J – Long Range Road Network*.[3]

The existing major in roads within the study area consist of:

- **Centreville Creek Road** is a north-south medium capacity arterial roadway within the study area. The roadway currently provides a two-lane rural cross section. The roadway has a posted speed limit of 80 km/h within the study area.
- **The Gore Road** is a north-south collector roadway within the study area. The roadway currently provides a two-lane rural cross-section. The roadway has a posted speed limit of 80 km/h within the study area.

Based on the Secondary Plan Transportation Study conducted, the following roadway improvements are assumed to be in place after the development of Phase 1, but prior to the development of Phase 2:

- **Centreville Creek Road** is anticipated to be improved and widened from a two-lane rural cross-section to a four-lane urban cross-section. The roadway is anticipated to have a reduced maximum posted speed limit of 60 km/h within the study area.
- **The Gore Road** is anticipated to be improved and widened from a two-lane rural cross-section to a four-lane urban-cross section. The roadway is anticipated to have a reduced maximum posted speed limit of 60 km/h within the study area.

The Secondary Plan Transportation Study identified that the various intersections on Centreville Creek Road and The Gore Road providing access to the proposed development will be signalized. However, the traffic analysis in this report assumes they will be built as unsignalized intersections, to determine whether signalization will be justified.

Given the analysis conducted within the Secondary Plan Transportation Study, and in line with the Terms of Reference issued to the Town, existing traffic conditions have not been analysed within our study.

[3] Town of Caledon, *Official Plan, Schedule J – Long Range Road Network*, April 2018.

2.2 Transit

The Town of Caledon does not provide any frequent regular transit service within the study area. However, there are two on-demand specialized transit services currently available:

- **TransHelp** is a specialized transit service that provides specific trips, flexible trips, subscription trips, return trips and cross-boundary trips to people with disabilities across Peel Region;[4] and
- **Caledon Community Services (CCS)** is a door-to-door transportation service available for seniors and people with disabilities, that is, those unable to drive on their own.[5]

2.3 Active Transportation

2.3.1 Walking

There is currently no dedicated pedestrian infrastructure/facilities provided along The Gore Road or along Centreville Creek Road within the study area.

2.3.2 Cycling

Similarly, according to cycling facility descriptions in the Town of Caledon *Transportation Master Plan*,[6] and the Peel Region *Long Range Transportation Plan*[7] no dedicated cycling facilities are provided along Centreville Creek Road and The Gore Road.

However, under future conditions the Peel Region *Long Range Transportation Masterplan* identifies and proposes cycling facilities along The Gore Road. The type of facility and implementation date is currently unknown. While the Town of Caledon *Multi-Model Transportation Masterplan*[8] proposes visually separated cycling lanes along Centreville Creek Road.

2.4 Data Collection

Paradigm collected turning movement counts at the intersections of Mayfield Drive at The Gore Road and Centreville Creek Road on Wednesday, October 30, 2024, during the AM and PM peak periods to establish baseline volumes to be used as a comparison to the forecast

[4] Region of Peel, *My Trips*, Accessed 7 December 2022. https://www.peelregion.ca/transhelp/my-trips#fares
[5] Caledon Community Services, *Specialized Transportation Application*, Accessed 7 December 2022. https://ccs4u.org/specialized-transportation-application
[6] Town of Caledon, *Transportation Master Plan*, October 2017, p651 of PDF.
[7] Peel Region. *Let'sMovePeel Long Range Transportation Plan*. (Peel. 2019).
[8] Town of Caledon. *Multi-Modal Transportation Masterplan. (*Burnside. June 2024*).*

background traffic. The data was counted in 15-minute intervals and vehicles were classified by type.

Appendix B contains the raw turning movement count data for reference.

3 Development Concept

The subject site is generally bound by The Gore Road by the east, Centreville Creek Road to the west, Healey Road to the north and vacant lands to the south within the Town of Caledon.

Phase 1 and Phase 2 of the development is proposed to occur on the northern section of the subject lands. The lands are currently undeveloped, and form part of the wider Wildfield Village Secondary Plan area.

The property owner is proposing to construct a residential subdivision, with an interim Phase 1, with the remainder of the development occurring under Phase 2. **Table 3.1** summarizes the dwelling unit count and dwelling type for each development phase.

TABLE 3.1: NUMBER OF UNITS BY TYPE AND PHASE

Dwelling type	Phase One	Phase Two	Total
Single-family (detached)	214	494	708
Single-family (attached)	632	852	1,484
Townhouse	391	696	1,087
Total units	**1,237**	**2,042**	**3,279**

Vehicular access to Phase 1 is proposed via one full-movement connection to The Gore Road operating under stop control on the minor road approach, that is, Street E, and one full-movement connection to Centreville Creek Road operating under stop controlled on the minor road approach, that is, Street E.

Upon full build-out, vehicular access to the development will be provided by three full-movement connections with Centreville Creek Road with all three assumed to be operating under traffic signal control, that is Street B, Street D, and Street E. There will also be one full-movement connection to The Gore Road operating under stop control on the minor road approach (Street E).

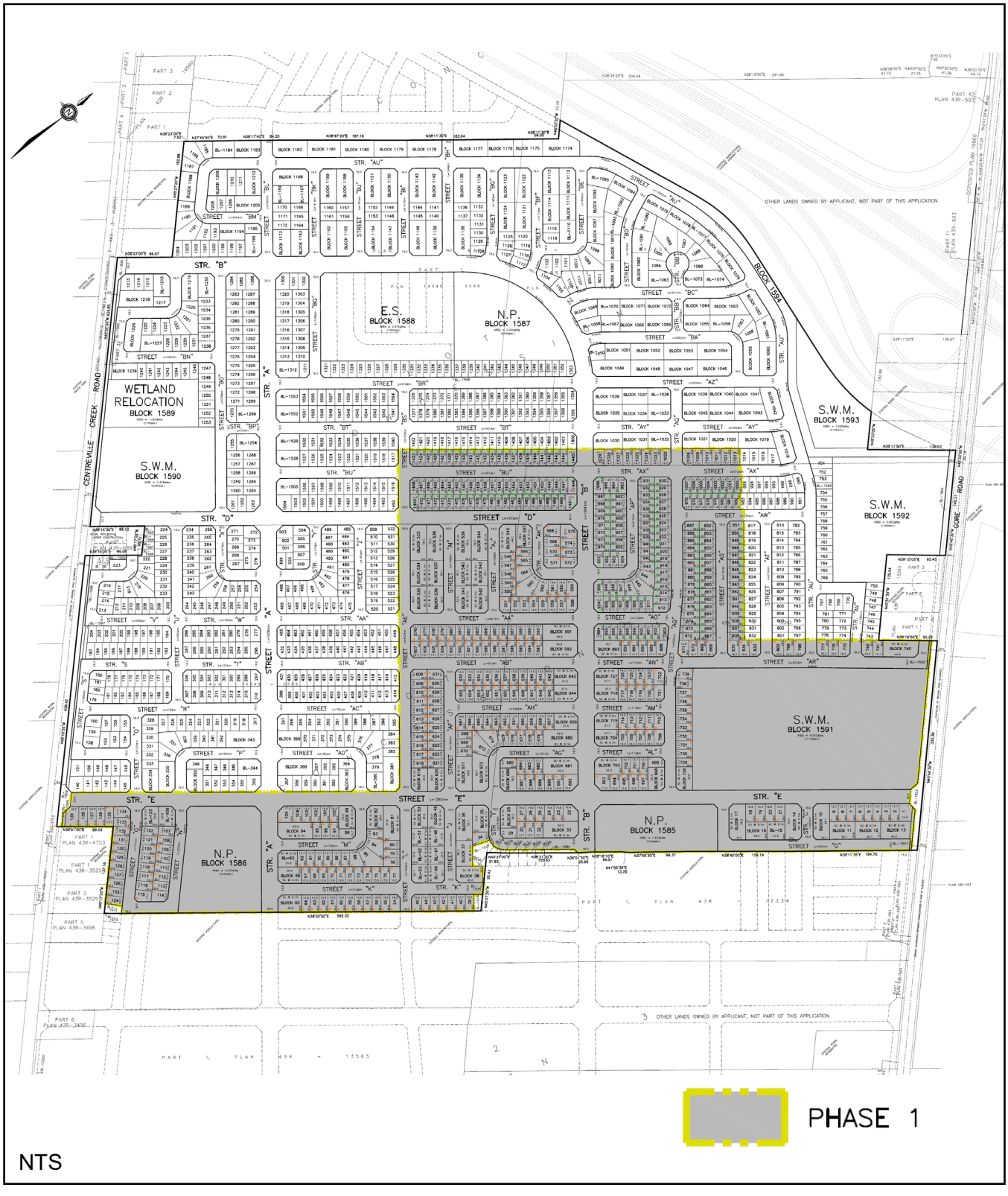
The three street connections (Street B, Street D, and Street E) along Centreville Creek Road are proposed at locations approximately 815 metres, 1.21 km and 2.05 km south of Healey Road. The Street E connection to The Gore Road is proposed approximately 1.76 km south of Healey Road.

The proposed Gore Road and Centreville Creek Road street connections are a portion of a larger internal road network. The site's internal roadways provide two travel lanes (one lane in each direction)

with 18 to 26 metre cross-sections. **Appendix F** contains the proposed cross-sections for the internal roadways.

It is further noted that, once adjacent properties to the south are developed, additional vehicular connections to the larger external transportation network will be available.

Figure 3.1 illustrates the proposed development concept. The Phase 1 lands are outlined in yellow; the Phase 2 lands are the remainder.



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Development Concept

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Figure 3.1

4 Proposed Transportation Demand Measures

4.1 Walking and Cycling

Appropriate active transportation infrastructure will be provided with the development of the residential subdivision to provide appropriate connections with the larger future municipal networks. **Appendix F** shows the planned cross-sections for roads in the study area.

Sidewalks will be provided on at least one-side of the roadway throughout the proposed development with a minimum with of 1.5 m.

Additionally, cycling facilities will be provided throughout the proposed development as detailed in the Secondary Plan Transportation Study.

The development's internal pedestrian network will connect to the greater active transportation network as detailed in the Town of Caledon's *Multi-Modal Transportation Master Plan* (2024).

As we understand, a pedestrian and cyclist circulation plan for the development has been prepared by the project architect and will be included in the submission package.

4.2 Transit Service

Is it recommended that the grid style network as proposed by the Town of Caledon's *Multi-Modal Transportation Master Plan* (2024) and as endorsed by the Secondary Plan Transportation Study be implemented.

The site is bound by the roadways of Centreville Creek Road and The Gore Road, both of which are proposed transit corridors. It is also bound by the proposed Highway 413 route, which is planned to have a transitway running parallel to the vehicular travel lanes. Use of these corridors alone could provide a high level of transit connectivity to the community on efficient linear routes.

Additional supplemental routes could be introduced on the planned new collector roads as required to provide additional connectivity to transit. The collector road network should be designed to accommodate transit service/access.

5 Forecast Traffic Volumes

Traffic forecasts and analyses have been completed for a 2051 horizon year which aligns with the Secondary Plan Transportation Study[9] and the Town of Caledon's *Multi-Modal Transportation Master Plan,* herein utilized as the background traffic volumes. That is, traffic conditions without the proposed development.

Future traffic forecasts in the vicinity of the development consist of increased non-site traffic volumes (general background traffic growth), traffic related to other area developments, if any, and traffic forecast to be generated by the proposed development.

5.1 Background Traffic Volumes

The background traffic growth surrounding the subject site is anticipated to consist of generalized background growth under Phase 1, and a combination of generalized background growth and Secondary Plan area development under Phase 2.

5.1.1 Generalized Background Growth

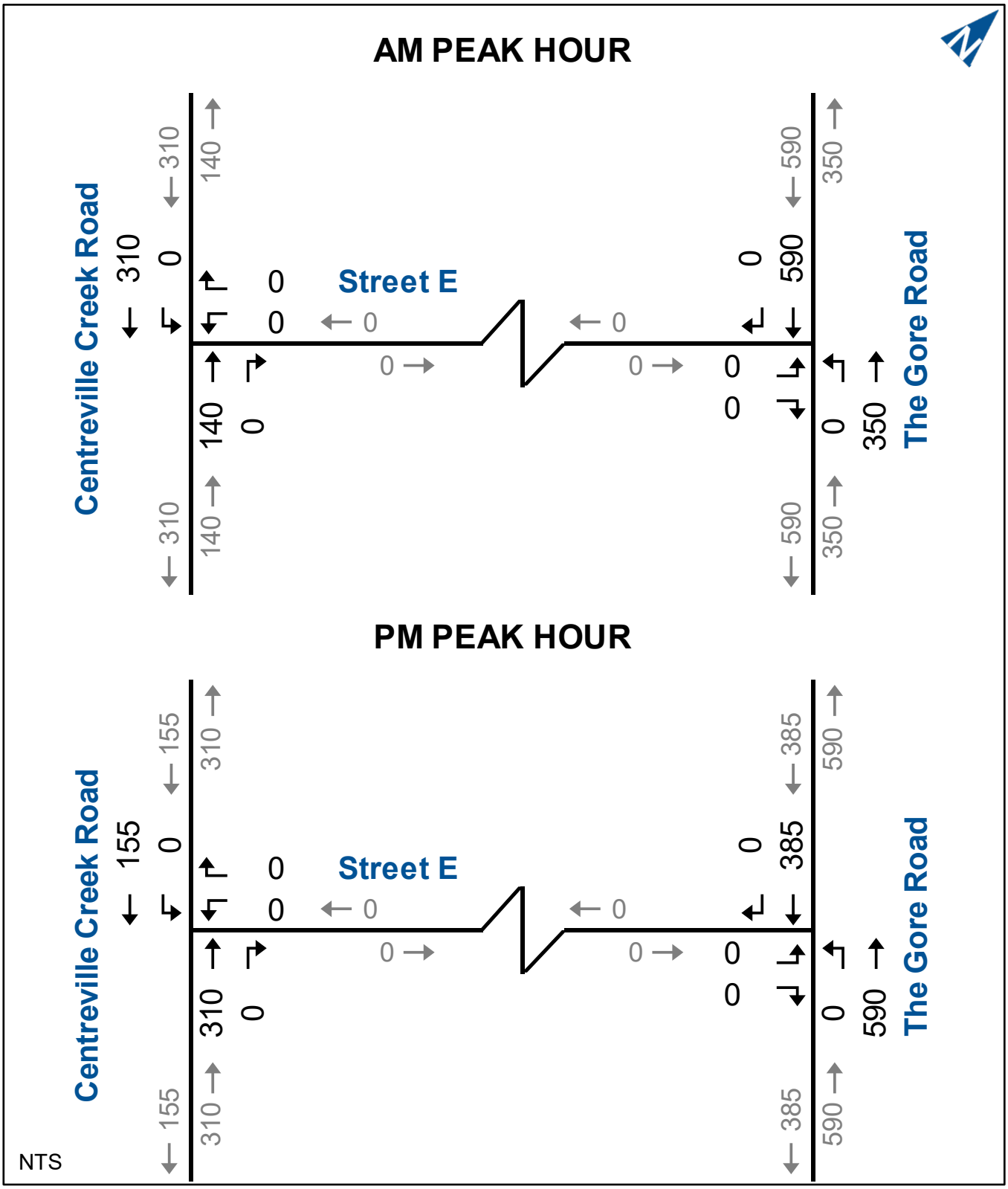
General background traffic reflects increase in traffic unrelated to developments within the immediate vicinity of the subject site.

The background traffic volumes for Phase 1 and Full Build-Out traffic conditions (without the proposed development) utilizes the developed traffic volume estimates from the Secondary Plan Transportation Study. The Secondary Plan Transportation Study background traffic assumptions were formed from the Year 2051 background traffic assumptions provided in the *Town of Caledon's Future Caledon Official Plan*[10].

The background traffic volumes detailed in the Secondary Plan Transportation Study are on average 230% higher compared to the existing northbound and southbound traffic volumes along Centreville Creek Road and The Gore Road. While Phase 1 is expected to occur prior to the 2051 horizon year, the projected background traffic volumes were not adjusted or modified to remain conservative (that is, err on the high side).

Figure 5.1 illustrates the Phase 1 forecast background traffic volumes for the weekday AM and PM peak hours, respectively.

[9] BA Group. *Wildfield Village Transportation Study.* (BA Group. December 2024).
[10] Town of Caledon. *Town of Caledon's Future Caledon Official Plan*. (Caledon. March, 2024).



Phase 1
Background Traffic Volumes

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Figure 5.1

5.1.2 Inline Developments

The outstanding remainder of the properties within the Secondary Plan area are anticipated to be developed by the 2051 horizon. This area is bound by The Gore Road to the east, Centreville Creek Road to the west, the subject site to the north and Mayfield Road to the south. In addition, the property located on the east side of The Gore Road adjacent to the proposed development is accounted for.

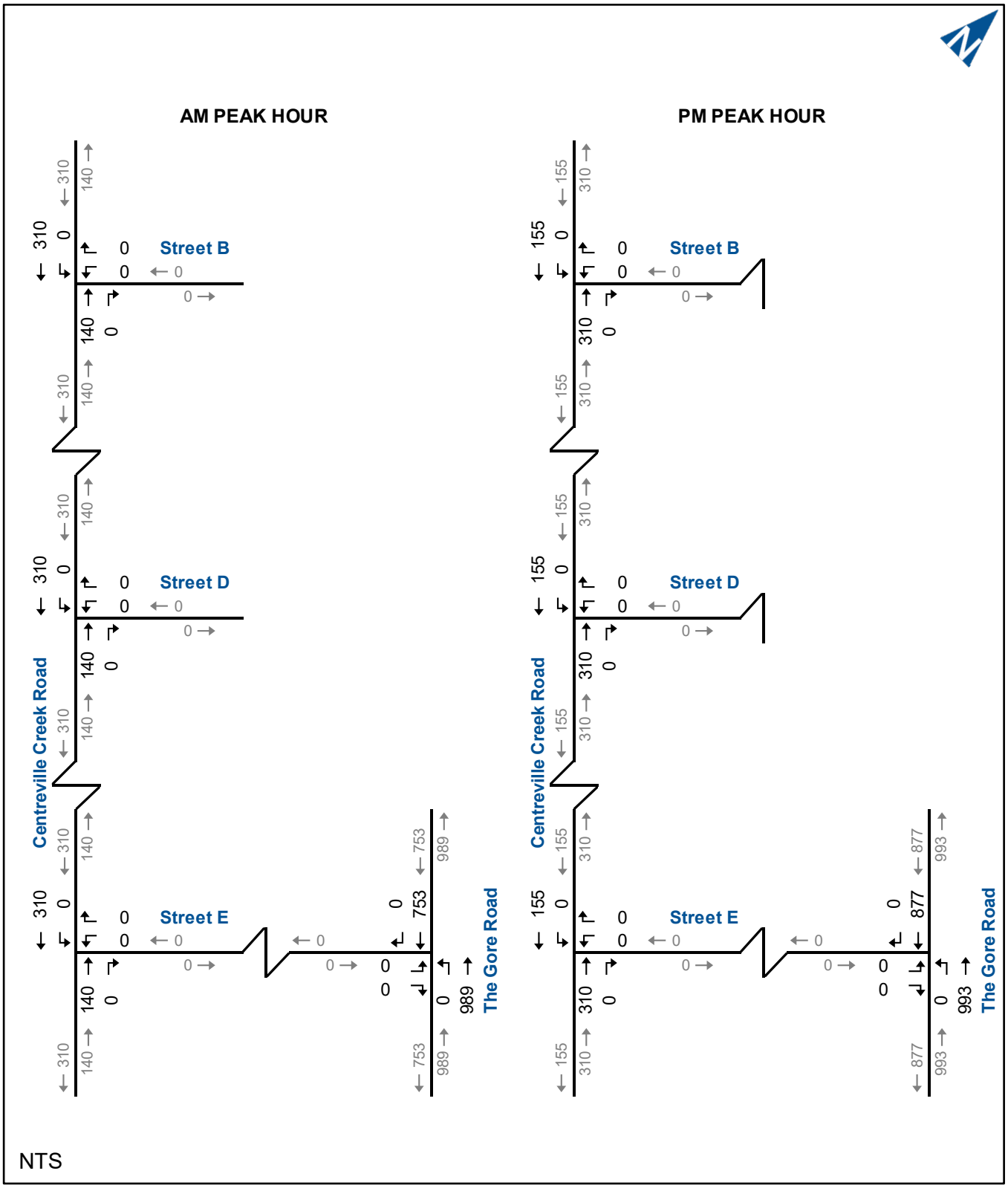
These developments are detailed as Zone D (east side of The Gore Road only) and Zones Z-K within the Secondary Plan Transportation Study. These developments are anticipated to consist of a total of 3,912 residential units (townhomes, single-family dwellings, and single-family attached dwellings), and approximately 68,700 m² of retail space as detailed in Table 3 of the Secondary Plan Transportation Study.

It was assumed the retail develops will primarily be oriented towards fulfilling the needs of the immediate community, and the retail uses on site will not generate a significant number of external trips. The residential units are anticipated to generate approximately 1,885 AM peak hour, and 2,300 PM peak hour trips as outlined in Table 3 of the *Wildfield Village Transportation Study.*

Appendix E contains the background development trip generation table and study area map for reference.

For consistency with the Secondary Plan Transportation Study, the same trip distribution was used for site generated traffic and also was applied to the forecast traffic generated by inline background developments.

Figure 5.2 illustrates the forecast Full Build-Out background traffic volumes (without the proposed development) for the weekday AM and PM peak hours, respectively.



Full Build-Out Background Traffic Volumes

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Figure 5.2

5.2 Site Trip Generation

Trip generation for the proposed development has been estimated using data from the Institute of Transportation Engineer's (ITE) publication, *Trip Generation Manual (11th Edition)*,[11] which includes trip generation rates/equations for the following land-use codes (LUC):

- LUC 210 – Single-Family Detached Housing
- LUC 215 – Single-Family Attached Housing
- LUC 220 – Multifamily Housing (Low-Rise)

Fitted curve equations were utilized to calculate the site generated traffic. For assessment purposes a conservative approach was taken by which no modal split reductions are applied.

Table 5.1 summarizes the resultant weekday AM and PM peak hour site trip generation. Phase 1 of the proposed development is forecast to generate a total of 616 and 767 vehicular trips during the weekday AM and PM peak hours, respectively. Phase 2 is forecast to generate an additional 962 and 1247 vehicular trips during the weekday AM and PM peak hours, respectively

TABLE 5.1: SITE TRIP GENERATION

	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Phase 1	LUC 210 - 214 units	37	112	149	128	75	203
	LUC 220 - 391 units	35	109	144	119	70	189
	LUC 215 - 632 units	81	242	323	221	154	375
	Total Phase 1	**153**	**463**	**616**	**468**	**299**	**767**
	Land Use	**AM Peak Hour**			**PM Peak Hour**		
		In	**Out**	**Total**	**In**	**Out**	**Total**
Phase 2	LUC 210 - 494 units	80	239	319	281	165	446
	LUC 220 - 852 units	69	218	287	244	143	387
	LUC 215 - 696 units	89	267	356	244	170	414
	Total Phase 2	**238**	**724**	**962**	**769**	**478**	**1247**
Full Build-Out		**391**	**1,187**	**1,578**	**1,237**	**777**	**2,014**

LUC 210: AM Peak Hour - Ln(T) = 0.91 Ln(X) + 0.12, PM Peak Hour Ln(T) = 0.94 Ln(X) + 0.27

LUC 220: AM Peak Hour - T = 0.31(X) + 22.85, PM Peak Hour T = 0.43(X) + 20.55

LUC 215: AM Peak Hour - T = 0.52(X) - 5.70, PM Peak Hour T = 0.60(X) - 3.93

[11] Institute of Transportation Engineers, *Trip Generation Manual*, 11th ed., (Washington, DC: ITE, 2021).

5.3 Site Trip Distribution and Assignment

Directional distribution of traffic approaching and departing the subject lands is a function of several variables, including population densities, existing travel patterns and efficiency of the roadways leading to the site. The trip distribution for the subject lands follows the distribution established in the Secondary Plan Transportation Study.

Table 5.2 summarizes the trip distribution used in this study. Aforementioned, for consistency with the *Wildfield Village Transportation Study* the same trip distribution was used for site generated traffic. **Appendix E** provides the Secondary Plan Transportation Study site distribution assumptions for reference.

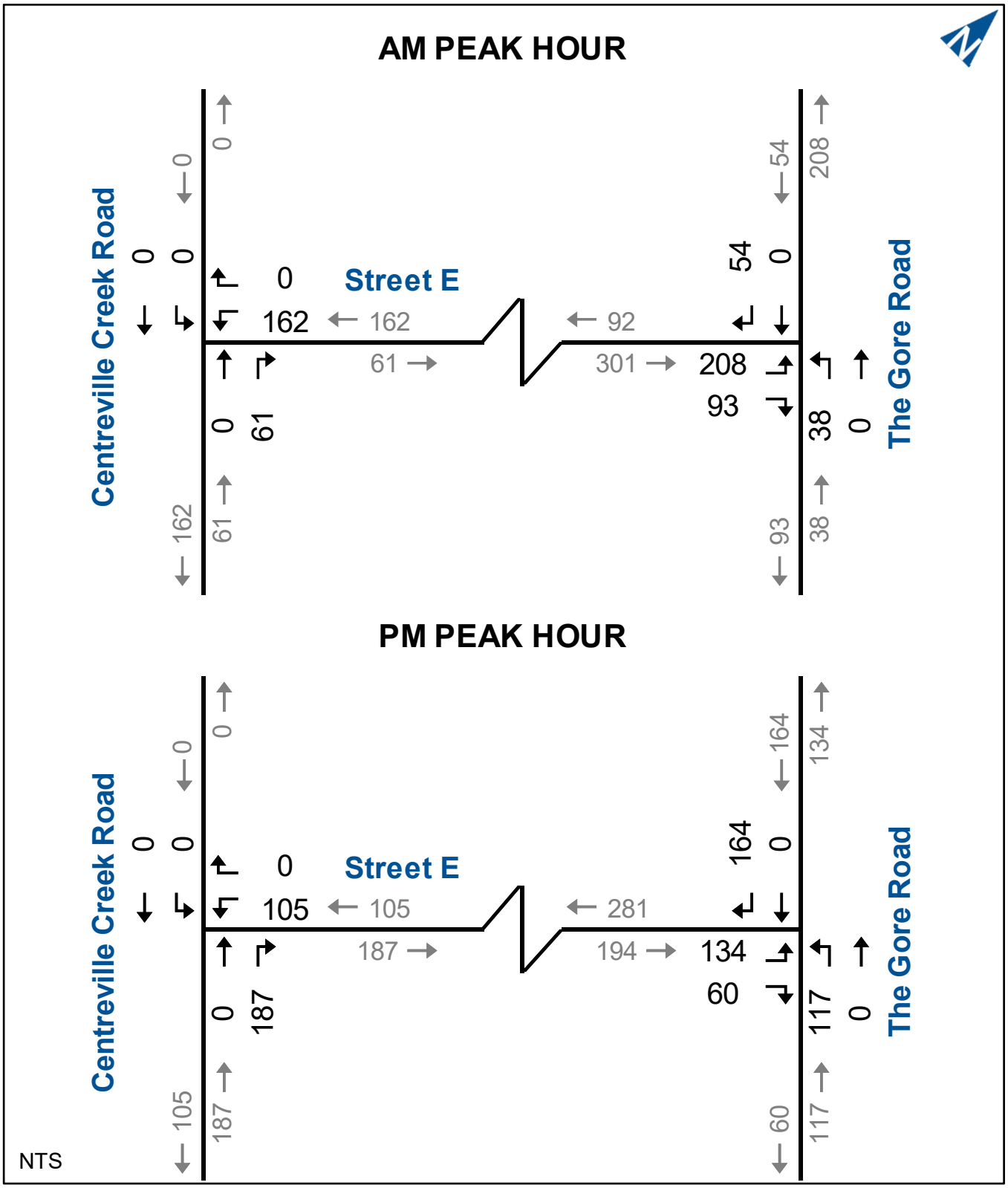
TABLE 5.2: TRIP DISTRIBUTION

Origin/Destination	In	Out
North via The Gore Road	35%	45%
South via The Gore Road	25%	20%
South via Centreville Creek Road	40%	35%
Total	***100%***	***100%***

Figure 5.3 illustrates the Phase 1 site generated traffic assignments for the weekday AM and PM peak hours.

Figure 5.4 illustrates the Full Build-Out site generated traffic assignments for the weekday AM and PM peak hours.

Slight differences with respect to the trip generation estimates are due to rounding.



Phase 1
Site Traffic Volumes

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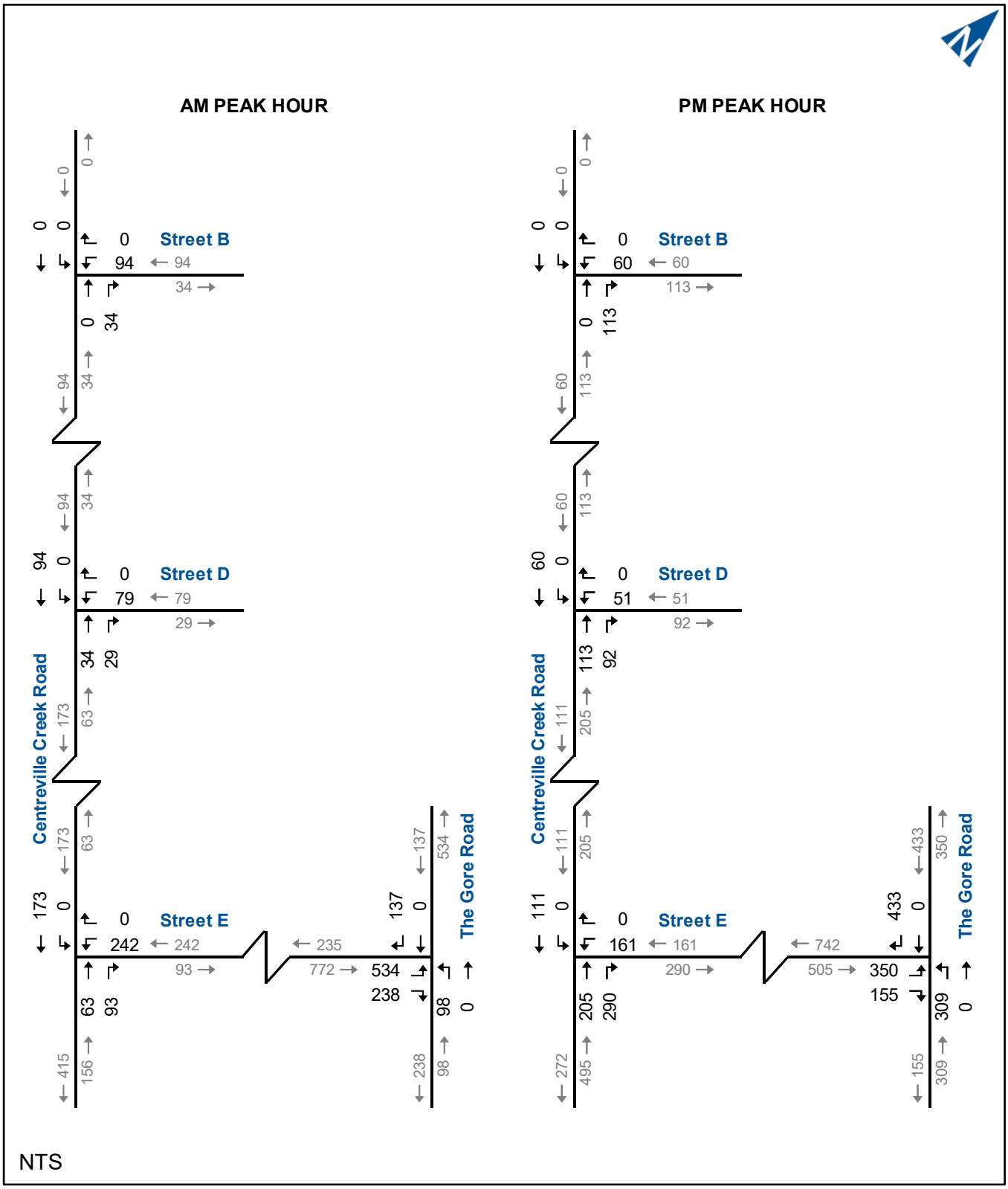
Figure 5.3



Full Build-Out Site Traffic Volumes

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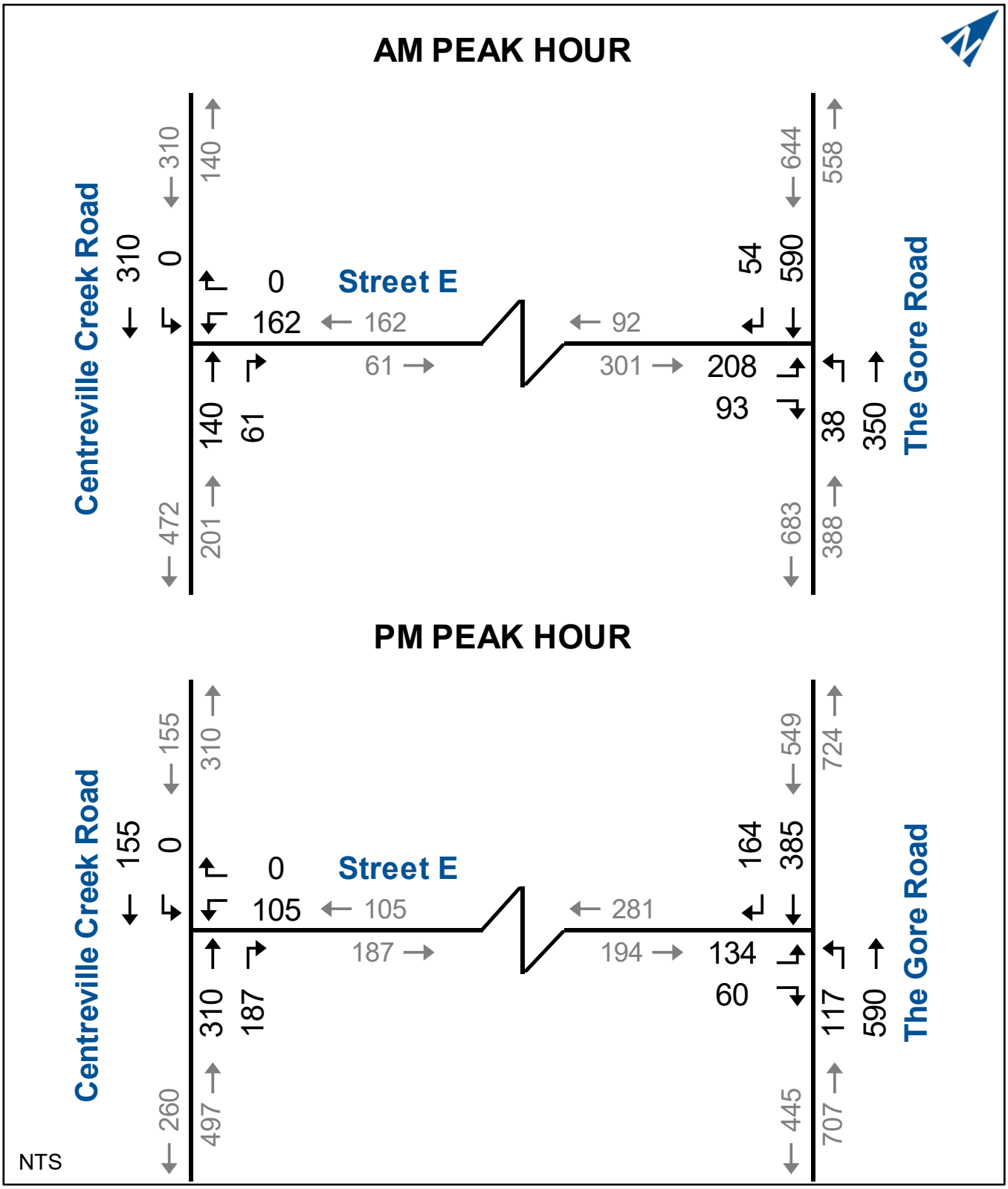
Figure 5.4

5.4 Total Traffic Volumes

The Phase 1 site traffic trips were added to the Phase 1 background traffic forecasts (without inline development traffic), and the Full Build-Out site traffic trips were added to the Full Build-Out background traffic forecasts (with inline development traffic) to determine the future total traffic forecasts for Phase 1 and Full Build-Out traffic conditions.

Figure 5.5 illustrates the Phase 1 total traffic volumes for the weekday AM and PM peak hours.

Figure 5.6 illustrates the Full Build-Out total traffic volumes for the weekday AM and PM peak hours.



Phase 1
Total Traffic Volumes

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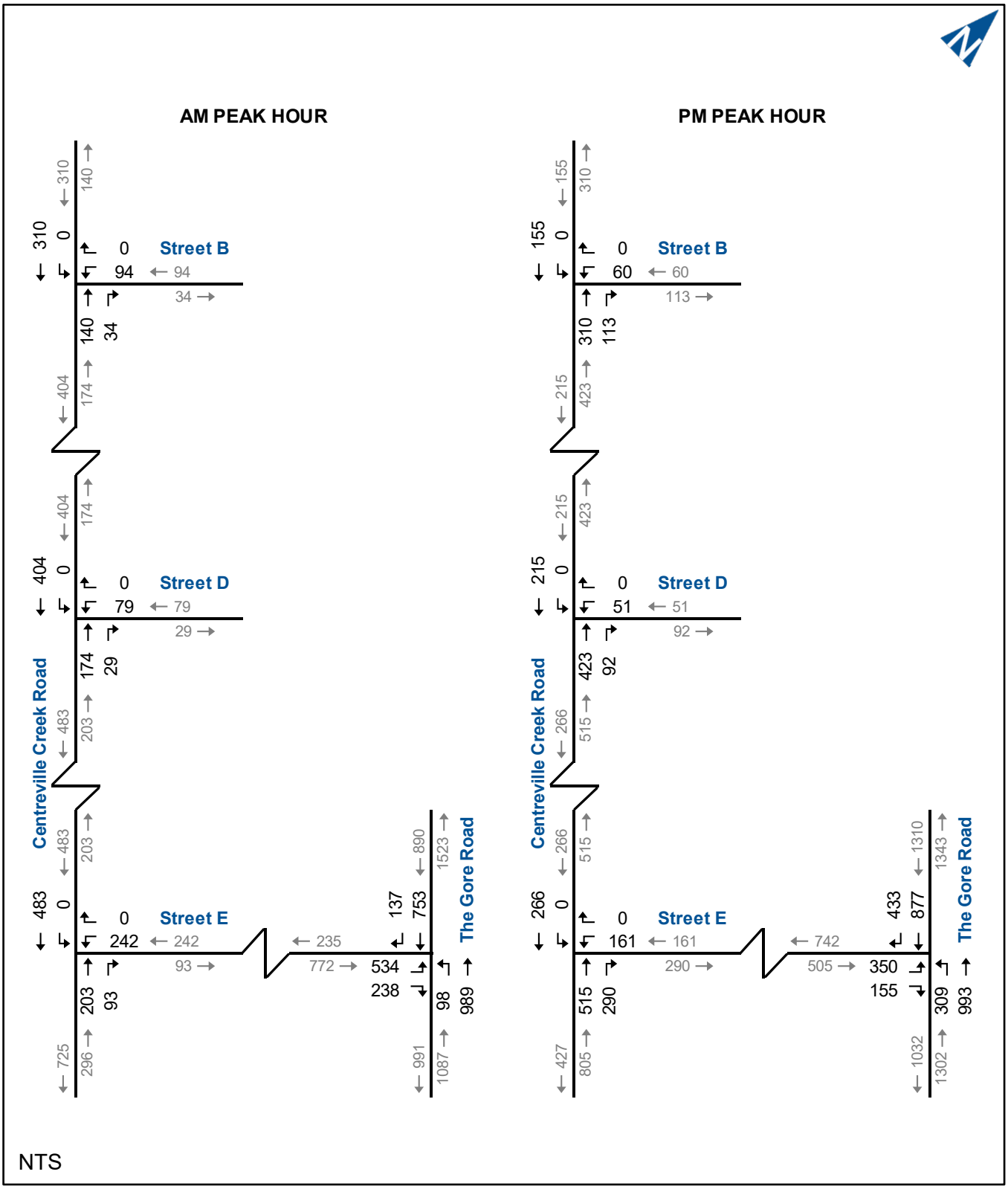
Figure 5.5



Full Build-Out Total Traffic Volumes

Figure 5.6

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6 Traffic Operations

Intersection level of service (LOS) is a recognized method of quantifying the delay experienced by drivers at intersections. The term "level of service" denotes how well (or poorly) a traffic movement operates under given traffic demands, lane arrangements, and controls. Control delay is the total delay associated with stopping for a signal or stop sign and includes four components; deceleration delay, stopped delay, queue move-up time and final acceleration delay. Each level is determined by the average amount of control delay per vehicle. The delay is related to the number of vehicles desiring to make a movement, compared to the estimated capacity for that movement. The capacity is based on several criteria related to the opposing traffic flows and intersection geometry.

Table 6.1 summarizes the level of service criteria for signalized and stop-controlled intersections. LOS A indicates small, average control delays (less than 10 seconds per vehicle). In contrast, LOS F indicates intersection failure, which results in extensive vehicular queues and long delays (over 50 seconds per vehicle at an unsignalized intersection and over 80 seconds per vehicle at a signalized intersection). LOS D is typically considered acceptable peak hour performance in an urban setting, and lower LOS values are tolerable for short-term periods during peak hours when heavier traffic volumes are expected.

TABLE 6.1: VEHICLE LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersections Average Total Delay (sec/veh)	Unsignalized Intersections Average Total Delay (sec/veh)
A	<= 10	<= 10
B	> 10 & <= 20	> 10 & <= 15
C	> 20 & <= 35	> 15 & <= 25
D	> 35 & <= 55	> 25 & <= 35
E	> 55 & <= 80	> 35 & <= 50
F	> 80	> 50

The Town of Caledon *Transportation Impact Studies Terms of Reference and Guidelines* [12] identifies critical movements as follows:

- Signalized intersections:

[12] Town of Caledon, *Transportation Impact Studies Terms of Reference and Guidelines*, March 2017.

- Volume to capacity (v/c) ratio for overall intersections, through movements or shared through/turning movements increased to 0.90 or above;
- v/c ratios for individual through or turning movements increase to 1.00 or higher; or
- 95th percentile queue lengths for an individual movement exceed available lane storage.

- Unsignalized intersections:
  - LOS, based on average delay per vehicle, on individual movements, exceed LOS E; or
  - The estimated maximum queue length for an individual movement exceeds the available lane storage.

To assess the Phase 1 and Full Build-Out peak hour traffic conditions, an operational analysis was conducted for the weekday AM and PM peak hour traffic volumes at the study area intersections using Synchro 12 software, which implements the methods of the Highway Capacity Manual. The key parameters used in the analysis include:

- Heavy vehicle percentages, conflicting pedestrian volumes, lane configuration and intersection control type based on the *Wildfield Village Transportation Study*; and
- Synchro default values for all other inputs.

Phase 1 and Full Build-Out operational analyses assumed the improvements to The Gore Road and Centreville Creek Road as prescribed in the *Wildfield Village Transportation Study* would be implemented.

6.1 Phase 1 Background Traffic Operations

Optimized signal timing plans were employed at all signalized intersections within the study to ensure all movements are best served.

Table 6.2 summarizes the results of the operational analysis for 2051 Phase 1 background traffic conditions for the AM and PM peak hours. Any movements identified as critical movements are highlighted within the results table. **Appendix C** contains the Synchro analysis outputs for reference.

All intersections and traffic movements are forecast to operate at acceptable levels of service and well within capacity under Phase 1 background traffic conditions. All vehicle movements are reported to be operating at a LOS of A. No critical movements are identified.

The 95th percentile queue lengths were checked for all through lanes against provided storage lengths. No spillback issues are identified.

TABLE 6.2: 2051 BACKGROUND TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach								
				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	Centreville Creek Road & Street E	TWSC	LOS		A	>	**A**	<	A		**A**	**A**
			Delay		0	>	**0**	<	0		**0**	**0**
			V/C		0.08	>		<	0.00			
			Q		0	>		<	0			
			Stor.		-	>		<	-			
			Avail.		-	>		<	-			
	The Gore Road & Street E	TWSC	LOS	<	A		**A**		A	>	**A**	**A**
			Delay	<	0		**0**		0	>	**0**	**0**
			V/C	<	0.00				0.35	>		
			Q	<	0				0	>		
			Stor.	<	-				-	>		
			Avail.	<	-				-	>		
PM Peak Hour	Centreville Creek Road & Street E	TWSC	LOS		A	>	**A**	<	A		**A**	**A**
			Delay		0	>	**0**	<	0		**0**	**0**
			V/C		0.18	>		<	0.00			
			Q		0	>		<	0			
			Stor.		-	>		<	-			
			Avail.		-	>		<	-			
	The Gore Road & Street E	TWSC	LOS	<	A		**A**		A	>	**A**	**A**
			Delay	<	0		**0**		0	>	**0**	**0**
			V/C	<	0.00				0.23	>		
			Q	<	0				0	>		
			Stor.	<	-				-	>		
			Avail.	<	-				-	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
< / > - Shared with through movement
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal

6.2 Phase 1 Total Traffic Operations

To assess the automobile operating conditions for total traffic conditions, operational analyses were undertaken using the same methodology, parameters, lane arrangements and traffic control devices as in the analysis of Phase 1 background traffic conditions. Optimized signal timing plans are employed at all signalized intersections within the study to ensure all movements are best served.

Table 6.3 summarize the results of the operational analysis for 2051 Phase 1 total traffic conditions for the weekday AM and PM peak hours. Any movements identified as critical movements are highlighted within the results tables. **Appendix C** contains the Synchro analysis outputs for reference.

With the addition of site generated traffic, the study area intersection operations are reported to operate at acceptable levels of service and with all movements within capacity.

The exception would be at the intersection of Street E and The Gore Road where the eastbound left-turn movement is forecast to operate at a LOS F with delays reported between 96 and 91 seconds during the AM and PM peak hours.

Further, the reported 95th percentile queue length for the movement is reported to exceed the assumed storage (50 m) provision by 5 m during the AM peak hour.

TABLE 6.3: PHASE 1 TOTAL TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Centreville Creek Road & Street E	TWSC	LOS					B		A	B		A	>	A	<	A		A	A
			Delay					14		0	14		0	>	0	<	0		0	4
			V/C					0.30		0.00			0.12	>		<	0.00			
			Q					10		0			0	>		<	0			
			Stor.					50		-			-	>		<	-			
			Avail.					40		-			-	>		<	-			
	The Gore Road & Street E	TWSC	LOS	F		B	F					<	A		A		A	>	A	B
			Delay	69		14	52					<	1		1		0	>	0	12
			V/C	0.85		0.19						<	0.04				0.38	>		
			Q	55		6						<	1				0	>		
			Stor.	50		-						<	-				-	>		
			Avail.	-5		-						<	-				-	>		
PM Peak Hour	Centreville Creek Road & Street E	TWSC	LOS					B		A	B		A	>	A	<	A		A	A
			Delay					14		0	14		0	>	0	<	0		0	2
			V/C					0.21		0.00			0.29	>		<	0.00			
			Q					6		0			0	>		<	0			
			Stor.					50		-			-	>		<	-			
			Avail.					44		-			-	>		<	-			
	The Gore Road & Street E	TWSC	LOS	F		B	F					<	A		A		A	>	A	B
			Delay	91		12	66					<	3		3		0	>	0	10
			V/C	0.84		0.10						<	0.11				0.32	>		
			Q	45		3						<	3				0	>		
			Stor.	50		-						<	-				-	>		
			Avail.	5		-						<	-				-	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal
< / > - Shared with through movement

6.3 Full Build-Out Background Traffic Operations

To assess the automobile operating conditions for Full Build-Out background traffic conditions, operational analyses were undertaken using the same methodology, parameters, lane arrangements and traffic control devices as in the analysis of Phase 1 background traffic conditions. Optimized signal timing plans are employed at all signalized intersections within the study to ensure all movements are best served.

Table 6.4 summarizes the results of the operational analysis for Full Build-Out background traffic conditions for the AM and PM peak hours. Any movements identified as critical movements are highlighted within the results table. **Appendix C** contains the Synchro analysis outputs for reference.

All intersections and traffic movements are forecast to operate at acceptable levels of service and well within capacity under Full Build-Out background traffic conditions. All vehicle movements are reported to be operating at a LOS of A. No critical movements are identified.

The 95th percentile queue lengths were checked for all through lanes against provided storage lengths. No spillback issues are identified.

TABLE 6.4: FULL BUILD-OUT BACKGROUND TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach								
				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	Centreville Creek Road & Street B	TCS	LOS		A	>		<	A		**A**	**A**
			Delay		0	>		<	0		**0**	**0**
			V/C		0.04	>		<	0.09			**0.12**
			Q		0	>		<	0			
	Centreville Creek Road & Street D	TCS	LOS		A	>		<	A		**A**	**A**
			Delay		0	>		<	0		**0**	**0**
			V/C		0.04	>		<	0.09			**0.12**
			Q		0	>		<	0			
	Centreville Creek Road & Street E	TCS	LOS		A	>		<	A		**A**	**A**
			Delay		0	>		<	0		**0**	**0**
			V/C		0.04	>		<	0.09			**0.12**
			Q		0	>		<	0			
	The Gore Road & Street E	TCS	LOS		A				A	A	**A**	**A**
			Delay		0				0	0	**0**	**0**
			V/C		0.28				0.21	0.00		**0.31**
			Q		0				0	0		
			Stor.	50.0	-				-	50		
			Avail.	-	-				-	50		
PM Peak Hour	Centreville Creek Road & Street B	TCS	LOS		A	>		<	A		**A**	**A**
			Delay		0	>		<	0		**0**	**0**
			V/C		0.09	>		<	0.04			**0.12**
			Q		0	>		<	0			
	Centreville Creek Road & Street D	TCS	LOS		A	>		<	A		**A**	**A**
			Delay		0	>		<	0		**0**	**0**
			V/C		0.09	>		<	0.04			**0.12**
			Q		0	>		<	0			
	Centreville Creek Road & Street E	TCS	LOS		A	>		<	A		**A**	**A**
			Delay		0	>		<	0		**0**	**0**
			V/C		0.09	>		<	0.04			**0.12**
			Q		0	>		<	0			
	The Gore Road & Street E	TCS	LOS		A				A	A	**A**	**A**
			Delay		0				0	0	**0**	**0**
			V/C		0.28				0.25	0.00		**0.31**
			Q		0				0	0		
			Stor.	50.0	-				-	50		
			Avail.	-	-				-	50		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
< / > - Shared with through movement
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal

6.4 Full Build-Out Total Traffic Operations

To assess the automobile operating conditions for total traffic conditions, operational analyses were undertaken using the same methodology, parameters, lane arrangements and traffic control devices as in the analysis of Full Build-Out background traffic conditions. Optimized signal timing plans are employed at all signalized intersections within the study to ensure all movements are best served.

Table 6.5A and **Table 6.5B** summarize the results of the operational analysis for Full Build-Out total traffic conditions for the weekday AM and PM peak hours, respectively. Any movements identified as critical movements are highlighted within the results tables. **Appendix C** contains the Synchro analysis outputs for reference.

With the addition of site generated traffic. All intersections and traffic movements are forecast to operate at acceptable levels of service and well within capacity under Full Build-Out total traffic conditions. All vehicle movements are reported to be operating at LOS B or better. No critical movements are identified.

The 95th percentile queue lengths were checked for all through lanes against provided storage lengths. The 95th percentile queue length for the eastbound left-turn at the Street E and The Gore Road intersection is anticipated exceed the assumed storage length (50 m) by 9 m and 18 m during the AM and PM peak hours, respectively. No additional spillback issues are identified.

TABLE 6.5A: AM PEAK HOUR – FULL BUILD-OUT TOTAL TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Centreville Creek Road & Street B	TCS	LOS					C					A	>		<	A		**A**	**A**
			Delay					22					2	>		<	2		**2**	**4**
			V/C					0.34					0.16	>		<	0.06			**0.27**
			Q					12					0	>		<	5			
			Stor.					50		-			-	>		<	-			
			Avail.					38		-			-	>		<	-			
	Centreville Creek Road & Street D	TCS	LOS					C					A	>		<	A		**A**	**A**
			Delay					22					5	>		<	2		**2**	**5**
			V/C					0.29					0.20	>		<	0.08			**0.30**
			Q					11					29	>		<	8			
			Stor.					50		-			-	>		<	-			
			Avail.					39		-			-	>		<	-			
	Centreville Creek Road & Street E	TCS	LOS					B					A	>		<	A		**A**	**A**
			Delay					19					4	>		<	2		**2**	**6**
			V/C					0.47					0.33	>		<	0.12			**0.39**
			Q					24					21	>		<	6			
			Stor.					50		-			-	>		<	-			
			Avail.					26		-			-	>		<	-			
	The Gore Road & Street E	TCS	LOS	C		B						B	A				B	B	**B**	**B**
			Delay	24		16						13	8				17	14	**16**	**14**
			V/C	0.72		0.10						0.70	0.48				0.64	0.27		**0.71**
			Q	59		11						46	48				64	16		
			Stor.	50		-						50	-				-	50		
			Avail.	-9		-						4	-				-	34		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal
< / > - Shared with through movement

TABLE 6.5B: PM PEAK HOUR – FULL BUILD-OUT TOTAL TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	Centreville Creek Road & Street B	TCS	LOS					C					A	>		<	A		**A**	**A**
			Delay					20					3	>		<	3		**3**	**6**
			V/C					0.37					0.07	>		<	0.13			**0.24**
			Q					17					14	>		<	9			
			Stor.					50		-			-	>		<	-			
			Avail.					33		-			-	>		<	-			
	Centreville Creek Road & Street D	TCS	LOS					C					A	>		<	A		**A**	**A**
			Delay					20					5	>		<	3		**3**	**5**
			V/C					0.32					0.08	>		<	0.16			**0.26**
			Q					15					14	>		<	18			
			Stor.					50		-			-	>		<	-			
			Avail.					35		-			-	>		<	-			
	Centreville Creek Road & Street E	TCS	LOS					B					A	>		<	A		**A**	**A**
			Delay					18					5	>		<	3		**3**	**7**
			V/C					0.52					0.13	>		<	0.24			**0.33**
			Q					42					10	>		<	12			
			Stor.					50		-			-	>		<	-			
			Avail.					8		-			-	>		<	-			
	The Gore Road & Street E	TCS	LOS	B		B						B	B				B	A	**A**	**B**
			Delay	19		10						13	12				10	8	**10**	**13**
			V/C	0.79		0.29						0.38	0.61				0.47	0.09		**0.66**
			Q	68		18						17	54				39	7		
			Stor.	50		-						50	-				-	50		
			Avail.	-18		-						33	-				-	43		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal
< / > - Shared with through movement

7 Remedial Measures

7.1 Operational Analysis

Under Phase 1 total traffic conditions, the eastbound left-turn movement at The Gore Road and Street E is forecast to operate at a LOS F.

Under Full Build-Out total traffic conditions, the movement is reported to operate at a LOS C and B, during the AM and PM peak hours, respectively. Additionally, the reported eastbound left-turn 95th percentile queue is forecast to exceed the assumed storage of 50 m by a maximum of 18 m during the PM peak hour.

The poor LOS F under Phase 1 for the movement has improved under Full Build-Out conditions, benefiting from the expanded transportation network allowing for further distribution across the available connections with the external transportation network.

As related to be reported 95th percentile queue, it is recommended that the eastbound left-turn lane at the intersection of Street E and The Gore Road provide a minimum storage provision of 80 m.

7.2 Traffic Control Improvements

From the preceding operational analysis undertaken, there were several poor operations identified under both Phase 1 and Full Build-Out total traffic conditions.

The provision of traffic signal control at all unsignalized study area intersections were assessed using the Ontario Traffic Manual *OTM Book 12* Justification 7 signal warrant[13] procedures and Phase 1/Full Build-Out total traffic volumes.

To warrant the consideration for installation of traffic signal control with forecast traffic volumes (peak hour volumes), at least one warrant must be fulfilled by 120% for an existing intersection or 150% for a proposed new intersection. **Appendix D** contains the warrant analysis for reference.

The following is surmised:

- No traffic control signals are warranted under Phase 1 total traffic conditions.

[13] Ontario Ministry of Transportation, Ontario Traffic Manual Book 12: Traffic Signals, (Toronto: Queen's Printer for Ontario, 2012).

- Traffic signal control is satisfies the warrant threshold for the consideration of traffic signals at the Street E intersection with The Gore Road under Full Build-Out total traffic conditions.

It is suggested that traffic volumes are monitored under Phase 1 total traffic conditions to determine if traffic signal control signal is required prior to Phase 2 of the proposed development. That is, if background growth exceeds the forecast traffic volume projections.

8 Access and Circulation

8.1 Internal Intersection Configuration

The site includes five major internal intersections and numerous minor intersections. It is suggested that:

- Major internal intersections follow the configuration and traffic control shown in **Figure 8.1;**
- Other internal intersections along Streets A, B and E provide two-way stop control on the minor approach; *and*
- The remaining intersections provide all-way stop control with single-lane approaches on all legs.

8.2 On-Street Parking Plan

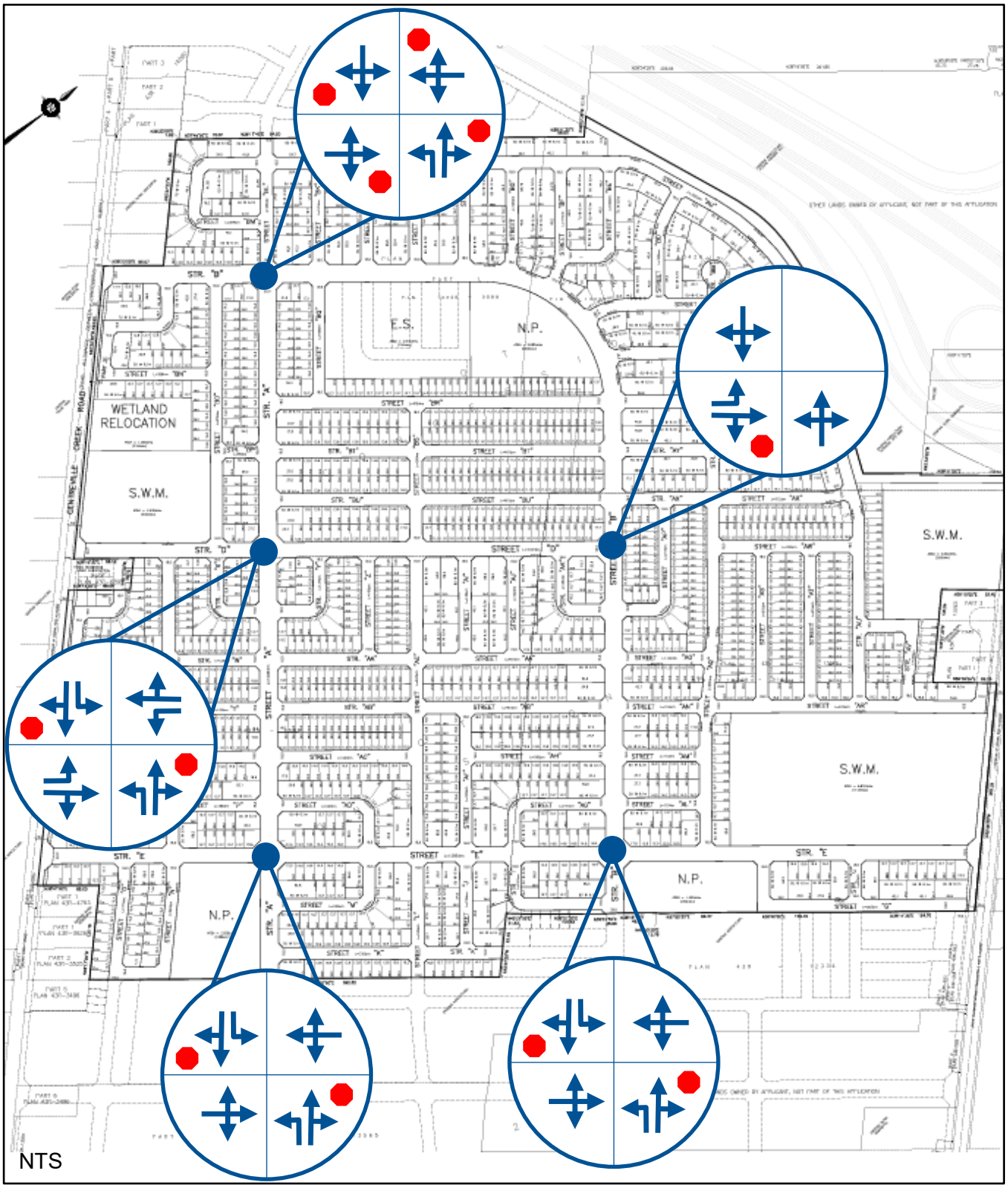
The on-street parking plan is shown in **Appendix G**, with locations where on-street parking is proposed to be permitted shown with a blue line.

The proposed cross-sections from the Secondary Plan Transportation Study (shown in **Appendix F**) show that on-street parking is potentially allowed on both sides of streets with a 26m right-of-way, and on one side of streets with a 22m or 18m right-of-way. The cross-section for the 16m right-of-way is assumed to have the same pavement width, and hence also potentially permit on-street parking on one side.

Parking is not shown in the following locations:

- In front of townhouse blocks (shown by blue rectangles), as the distance between driveways is unlikely to provide sufficient space
- Adjacent to or within intersections, in accordance with standard practice
- On the inside of tight bends, where this would create possibly sightline issues
- In front of the elementary school (labelled “E.S” on the plan).

Otherwise, parking was placed to maximize supply and user convenience.



Major Internal Intersections Lane Configuration and Traffic Control

Wildfield Village
240562

Figure 8.1

9 Conclusions and Recommendations

9.1 Conclusions

- **Development Trip Generation:** Phase 1 of the proposed development is forecast to generate a total of 616 and 767 vehicular trips during the weekday AM and PM peak hours, respectively. Phase 2 is forecast to generate a total of 962 and 1,247 vehicular trips during the weekday AM and PM peak hours, respectively
- At full build-out, the subdivision will generate approximately 1,578 and 2,014 vehicular trips during the weekday AM and PM peak hours, respectively.
- **Phase 1 Background Traffic Conditions:** The study area intersections are forecast to operate with acceptable levels of service, with all movements within capacity.
- **Phase 1 Total Traffic Conditions:** The study area intersections operations are reported to be slightly worse with the addition of the site generated traffic in comparison to background traffic conditions. It is noted the study area intersections are forecast to continue to operate at acceptable levels of service and within all movements within capacity.
- The exception would be at the intersection of Street E and The Gore Road where the eastbound left-turn movement is forecast to operate at a LOS F with delays reported between 96 and 91 seconds during the AM and PM peak hours. Furthermore, the reported 95th percentile queue length for the movement is reported to exceed an assumed storage (50 m) provision by 5 m during the AM peak hour. No additional critical movements are noted.
- **Full Build-Out Background Traffic Conditions:** The study area intersections are forecast to operate with acceptable levels of service, will all movements within capacity.
- **Full Build-Out Total Traffic Conditions:** With the addition of site generated traffic, the development of the subject site is forecast to have a negligible impact on traffic operations on the adjacent transportation network. The study intersections are forecast to operate at very similar levels of service as under background traffic conditions. All traffic movements are forecast to continue operating with acceptable levels of service and well within capacity.

  The exception would be at the Street E and The Gore Road intersection where the projected 95th percentile queue for the eastbound left-turn lane movement is reported to exceed the

assumed storage (50 m) provision by a maximum of 18 m during the PM peak hour.

- **Remedial Measures:** All unsignalized study area intersections were reviewed to determine whether traffic signal control would be warranted for consideration.

  Traffic signal control is determined not to be warranted under Phase 1 Total Traffic Conditions.

- Under Full Build-Out Total Traffic Conditions, traffic signal control is determined to be warranted at the Street E intersection with The Gore Road.

9.2 Recommendations

Based upon the findings of this study, the following is recommended:

- From a transportation perspective, the planning applications sought should be approved as the development can be accommodated by the anticipated future transportation network.
- It is recommended the eastbound left-turn lane at the intersection of Street E and The Gore Road provides a minimum storage provision of 80 m to accommodate the projected maximum 95th percentile queue.
- It is recommended that the appropriate jurisdiction monitor traffic volumes in regard to background growth and changes in traffic patterns to determine whether traffic signal control is warranted under Phase 2 of the proposed development. That is, if the projected background traffic growth and level of development is actually realized or not.
- It is recommended the internal study area intersections provide the noted lane configurations and traffic control as documented within **Figure 8.1**.

From a transportation perspective, the required planning applications to allow the proposed residential development should be approved.

Appendix A

Study Terms of Reference

5A-150 Pinebush Road
Cambridge ON N1R 8J8
p: 416.479.9684
905.381.2229
519.896.3163

www.ptsl.com

2023-12-XX
Project number: 240562

Kavleen S. Younan, P.Eng.
Transportation Engineer
Town of Caledon
6311 Old Church Road,
Caledon, ON
L7C 1J6

Dear Kavleen:

RE: TERMS OF REFERENCE FOR TRANSPORTATION STUDY – RESIDENTIAL DEVELOPMENT, WILDFIELD VILLAGE, CALEDON, ONTARIO

Paradigm Transportation Solutions Limited is pleased to provide our terms of reference for a transportation study in support of the above development. The following outlines our understanding of the assignment and details our work plan.

Project Understanding

The subject site is generally bound by The Gore Road on the east, Centreville Creek Road on the west, Mayfield Road on the south and the future Hwy 413 on the north. It is located in the northern portion of the Mayfield Community Secondary Plan Area. The attached site plan illustrates the location of internal and external roads in the proposed development. The proposed development is in the lands outlined in red.

The property owner is proposing to create a residential subdivision with approximately 3335 dwelling units. These units will be a mix of detached homes, semi-detached homes and townhouses. Development is likely to occur in two Phases where Phase 1 will consist of approximately 1000 units while Phase 2 will consist of approximately 2335 units. Vehicle access is proposed via three municipal street accesses to Centreville Creek Road and one municipal street access to The Gore Road.

We will be conducting the following investigations:

- A **Transportation Impact Assessment (TIA)** to evaluate the effects of the proposed development on the transportation system and recommend improvements, if necessary,

to address potential impacts. With the information we have to date, we believe that a reasonable study area would include the following four intersections:

- Street B and Centreville Creek Road;
- Street D and Centreville Creek Road;
- Street E and Centreville Creek Road; and
- Street E and The Gore Road.

We will also conduct a qualitative assessment of internal intersections to confirm traffic control types. Traffic forecasts and analysis will be completed for two planning horizons (the planned opening year for Phase 1; and 2051 for Phase 2, to align with BA Group's *Wildfield Village Transportation Study*) and two analysis periods (weekday AM and PM peak hours).

- An **Access and Circulation Review** to ensure compliance of the proposed development plan with review agency requirements and applicable industry guidelines. This will include a **Pedestrian and Cyclist Circulation Plan** in line with the Town of Caledon's requirements.
- A **Transportation Demand Management (TDM) Plan** outlining existing and proposed TDM measures, assessing their likely effectiveness for the proposed development and determining implementation requirements to facilitate their use.

The study will follow the Town of Caledon's *Traffic Impact Study: Terms of Reference and Guidelines* (March 2017) and *Peel Region's Traffic Impact Study - Terms of Reference (2008)*.

Work Plan

The following outlines our proposed work plan to carry out this assignment:

Task 1 – Pre-Study Consultation and Data Assembly

We will contact the Town of Caledon and Peel Region (the review agencies) to request their feedback on the scope of work, study area and other assumptions.

We will gather available data, relevant background reports (BA Group's *Wildfield Village Transportation Study*) and any other information about the study area pertinent to the assessment (e.g. other approved developments in the vicinity, zoning by-law provisions). Any apparent data gaps or discrepancies will be addressed with the review agencies.

We will visit the site to observe traffic and parking conditions on roads in the study area. Roadway configuration and traffic control will be documented, with a figure illustrating the study area prepared. Other related features such as pedestrian and cycling facilities and transit stops will be noted.

Task 2 – Forecasting and Analysis

Transportation Impact Assessment

We will prepare vehicle traffic forecasts for each planning horizon and analysis period. The components of the forecasts are as follows:

- **Future Traffic** background traffic volumes consistent with BA Group's *Wildfield Village Transportation Study*
- **Future roadway improvements** will align with the findings within BA Group's *Wildfield Village Transportation Study*
- The **total trips generated** by the proposed development will be forecast based on the rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11th Edition)* or as directed by the review agencies. The following land-use codes are proposed: Single-Family Detached Housing (210), Single-Family Attached Housing (215), and Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220).
- The **site-generated vehicle trips** will be distributed and assigned to the study area intersections based on BA Group's *Wildfield Village Transportation Study*
- The resulting site traffic assignments will be added to the Future Background estimates to produce **Future Total** volumes for the future horizon year and analysis period.
- The TIS will include all planned infrastructure proposed by the planner that will be implemented for all modes of transportation in the proposed development; missing links will be addressed to ensure that the proposed development is accessible for all modes of transportation;

We will analyze the operation of the study area intersections for the Future Background (without the development) and Future Total (with the development Phase 1 and Phase 2) traffic conditions for each analysis period using Synchro software. Volume-to-capacity (v/c) ratios, Level of Service (LOS) and queuing will be assessed. Qualitative analysis will be performed for the site's internal intersections.

Based on the analysis results, we will identify any operational deficiencies as well as the net impact of the proposed development on the study area road network. The need for road improvements (e.g. auxiliary turn lanes) and/or other mitigating measures (e.g. traffic control device modifications) to address deficiencies will be determined. We will assess whether these measures are required due to non-site traffic (i.e. Existing or Future Background) or the increase in volumes resulting from the proposed development (i.e. Future Total).

We will assess the potential impact and requirements of the site for non-auto modes of transportation. This would include identifying existing and planned transit, walking, and cycling routes and facilities that would enhance connectivity both within the subdivision and with the rest of the municipality for these modes.

Access and Circulation Review

We will review the concept plans to assess the design and operation of the proposed accesses and internal roadways and laneways. This includes the adequacy of sight lines, spacing and location of the proposed site access locations, and a review of the roadway and intersection design for the intended functional classifications.

A **Pedestrian and Cyclist Circulation Plan** will be conducted which will also show the boundary connections. Clearances will be confirmed as specified in TAC are met for collector roadways. The intersection spacing and sight distance will be reviewed for all new roads along Town Roads.

Transportation Demand Management (TDM)

We will prepare a TDM Plan for the proposed development. The plan will capture:

- Existing TDM opportunities near the development site (such as proximity to existing or planned transit or active transportation networks); and
- Proposed TDM measures to be implemented on the site. This list of measures to encourage greater use of more sustainable modes of transportation (transit, walking, cycling) and trip decision making that reduces, combines, or shortens vehicle trips will be developed in consultation with the client (and/or its agents).

The plan will summarize existing and proposed measures, assess their likely effectiveness for the proposed development and determine implementation requirements to facilitate their use (e.g. bike racks, showers).

Task 3 – Report Preparation

We will document the study methodologies, findings and conclusions in a report for review by the client, prior to their submission to the Town. The final report will include detailed analysis, results, and any data collected. The report will be stamped by a suitably-qualified Professional Engineer in line with the requirements of Professional Engineers Ontario.

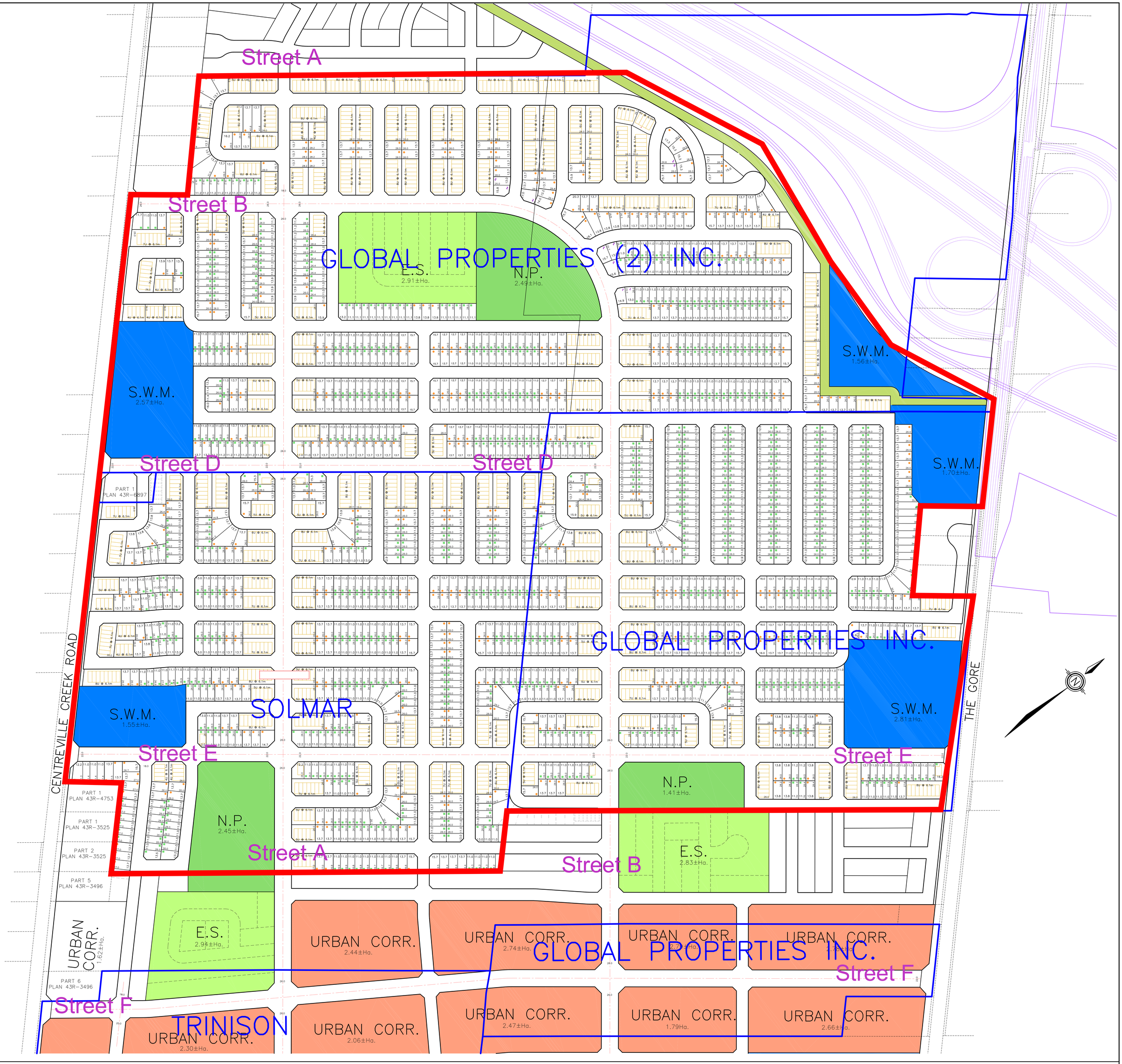
Conclusion

Please contact Tom Willis, the Project Manager for this assignment, at (416) 479 9684 x503 or by e-mail at twillis@ptsl.com if you have any questions related to this project.

Yours truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED

Tom Willis
MMath
Senior Project Manager



SOLMAR UNIT STATISTICS (FREEHOLD WHOLE LOTS NOT INCLUDING PART LOTS):

SYMBOL	TYPE	LOTS/BK	UNITS
■	11.0m SINGLE	1049	1049
✦	SPECIAL DESIGN SINGLE	10	10
●	13.7m DUAL ZONED	513	513–1026
	6.1m STREET TOWNHOUSE	193	1250
	TOTAL	1765	2822–3335

ALL LOTTING STATISTICS SUBJECT TO REVISION AND CONFIRMATION.

WILDFIELD VILLAGE

PRELIMINARY DEVELOPMENT CONCEPT

(SOLMAR LOTTING LAYOUT - 4)

BOUNDARY LINES FROM RPE, SUBJECT TO CONFIRMATION.

ENVIRONMENTAL FEATURES ARE UNEVALUATED WETLAND + BUFFERS AS PER GEORGE BUCKTON.

CONCEPT SUBJECT TO REVISION.

3210ADES47–LOTTING4 (xref: 3210MAS1)
1:2000 AUG. 15, 2024

Appendix B

Turning Movement Count Data

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & Centreville Creek Road
Site Code: 240562
Start Date: 10/30/2024

Turning Movement Data

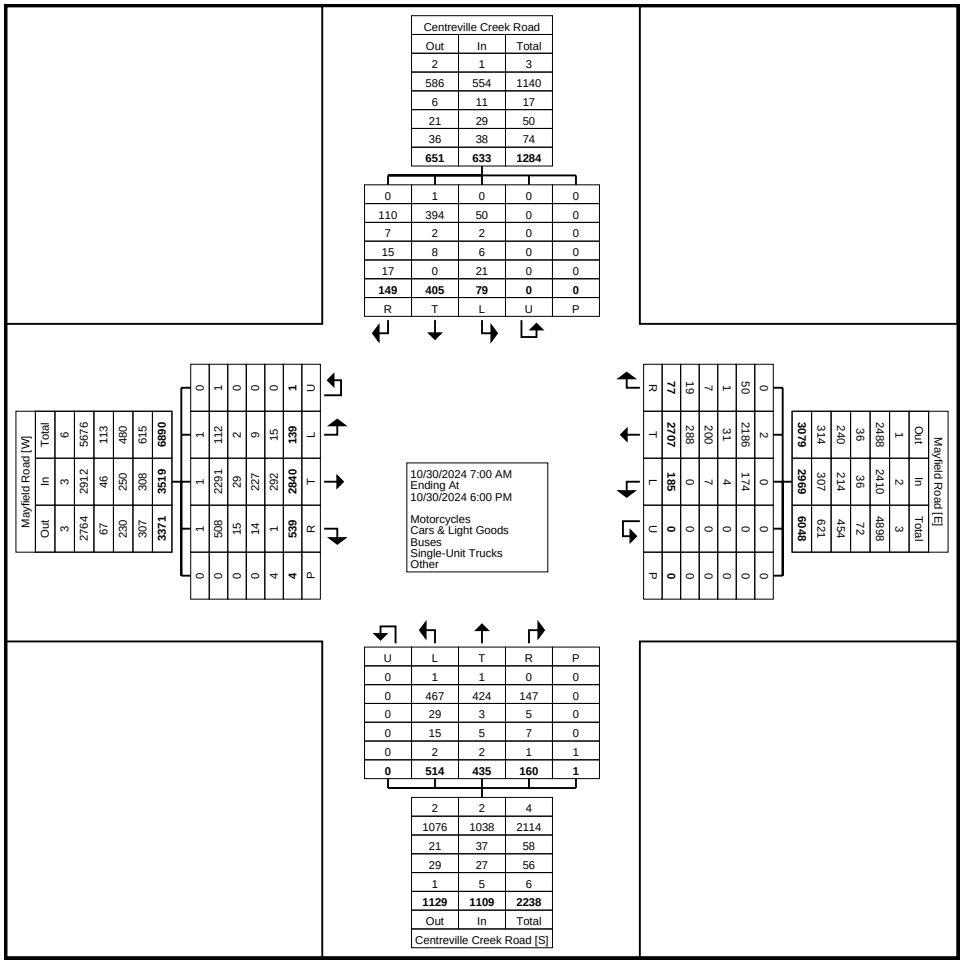
Start Time	Mayfield Road Eastbound						Mayfield Road Westbound						Centreville Creek Road Northbound						Centreville Creek Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	11	101	16	0	0	128	2	71	0	0	0	73	9	4	9	0	0	22	1	17	5	0	0	23	246
7:15 AM	6	140	16	0	0	162	11	85	1	0	0	97	5	3	4	0	0	12	5	23	3	0	0	31	302
7:30 AM	9	114	20	0	0	143	5	93	3	0	0	101	13	9	5	0	0	27	2	21	3	0	0	26	297
7:45 AM	4	136	21	0	0	161	8	86	3	0	0	97	16	6	2	0	0	24	9	36	8	0	0	53	335
Hourly Total	30	491	73	0	0	594	26	335	7	0	0	368	43	22	20	0	0	85	17	97	19	0	0	133	1180
8:00 AM	2	119	10	0	0	131	7	106	1	0	0	114	24	11	7	0	0	42	3	27	7	0	0	37	324
8:15 AM	8	137	19	0	0	164	10	99	1	0	0	110	15	10	5	0	0	30	8	26	4	0	0	38	342
8:30 AM	7	140	15	0	2	162	6	113	0	0	0	119	27	8	7	0	0	42	1	26	10	0	0	37	360
8:45 AM	6	121	18	0	0	145	12	111	3	0	0	126	11	11	6	0	0	28	1	18	5	0	0	24	323
Hourly Total	23	517	62	0	2	602	35	429	5	0	0	469	77	40	25	0	0	142	13	97	26	0	0	136	1349
9:00 AM	9	125	17	0	0	151	6	86	5	0	0	97	13	14	4	0	0	31	3	14	5	0	0	22	301
9:15 AM	4	110	12	0	0	126	3	77	2	0	0	82	9	5	4	0	0	18	3	17	7	0	0	27	253
9:30 AM	2	108	25	0	0	135	5	84	2	0	0	91	13	5	2	0	0	20	4	10	4	0	0	18	264
9:45 AM	4	116	16	0	0	136	7	74	1	0	0	82	7	7	3	0	0	17	4	9	3	0	0	16	251
Hourly Total	19	459	70	0	0	548	21	321	10	0	0	352	42	31	13	0	0	86	14	50	19	0	0	83	1069
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	4	114	25	1	0	144	8	132	5	0	0	145	25	15	10	0	0	50	5	10	13	0	0	28	367
3:15 PM	4	100	17	0	0	121	8	117	6	0	0	131	24	23	4	0	0	51	6	10	5	0	0	21	324
3:30 PM	4	127	28	0	0	159	14	145	4	0	0	163	33	29	7	0	0	69	4	7	5	0	0	16	407
3:45 PM	7	107	25	0	0	139	10	132	5	0	0	147	29	28	9	0	0	66	4	19	13	0	0	36	388
Hourly Total	19	448	95	1	0	563	40	526	20	0	0	586	111	95	30	0	0	236	19	46	36	0	0	101	1486
4:00 PM	3	120	28	0	1	151	5	130	2	0	0	137	25	37	13	0	1	75	2	9	4	0	0	15	378
4:15 PM	8	109	23	0	0	140	7	123	3	0	0	133	28	27	3	0	0	58	2	17	2	0	0	21	352
4:30 PM	7	120	25	0	0	152	5	142	7	0	0	154	29	32	15	0	0	76	1	14	8	0	0	23	405
4:45 PM	5	112	31	0	0	148	9	125	4	0	0	138	25	35	9	0	0	69	0	12	8	0	0	20	375
Hourly Total	23	461	107	0	1	591	26	520	16	0	0	562	107	131	40	0	1	278	5	52	22	0	0	79	1510
5:00 PM	7	125	26	0	0	158	9	151	6	0	0	166	30	28	9	0	0	67	4	17	7	0	0	28	419
5:15 PM	7	98	31	0	0	136	9	145	6	0	0	160	34	33	6	0	0	73	1	11	5	0	0	17	386
5:30 PM	5	125	34	0	0	164	8	150	1	0	0	159	45	36	6	0	0	87	5	13	9	0	0	27	437
5:45 PM	6	116	41	0	1	163	11	130	6	0	0	147	25	19	11	0	0	55	1	22	6	0	0	29	394
Hourly Total	25	464	132	0	1	621	37	576	19	0	0	632	134	116	32	0	0	282	11	63	27	0	0	101	1636
Grand Total	139	2840	539	1	4	3519	185	2707	77	0	0	2969	514	435	160	0	1	1109	79	405	149	0	0	633	8230
Approach %	3.9	80.7	15.3	0.0	-	-	6.2	91.2	2.6	0.0	-	-	46.3	39.2	14.4	0.0	-	-	12.5	64.0	23.5	0.0	-	-	-
Total %	1.7	34.5	6.5	0.0	-	42.8	2.2	32.9	0.9	0.0	-	36.1	6.2	5.3	1.9	0.0	-	13.5	1.0	4.9	1.8	0.0	-	7.7	-
Motorcycles	1	1	1	0	-	3	0	2	0	0	-	2	1	1	0	0	-	2	0	1	0	0	-	1	8

% Motorcycles	0.7	0.0	0.2	0.0	-	0.1	0.0	0.1	0.0	-	-	0.1	0.2	0.2	0.0	-	-	0.2	0.0	0.2	0.0	-	-	0.2	0.1
Cars & Light Goods	112	2291	508	1	-	2912	174	2186	50	0	-	2410	467	424	147	0	-	1038	50	394	110	0	-	554	6914
% Cars & Light Goods	80.6	80.7	94.2	100.0	-	82.8	94.1	80.8	64.9	-	-	81.2	90.9	97.5	91.9	-	-	93.6	63.3	97.3	73.8	-	-	87.5	84.0
Buses	2	29	15	0	-	46	4	31	1	0	-	36	29	3	5	0	-	37	2	2	7	0	-	11	130
% Buses	1.4	1.0	2.8	0.0	-	1.3	2.2	1.1	1.3	-	-	1.2	5.6	0.7	3.1	-	-	3.3	2.5	0.5	4.7	-	-	1.7	1.6
Single-Unit Trucks	9	227	14	0	-	250	7	200	7	0	-	214	15	5	7	0	-	27	6	8	15	0	-	29	520
% Single-Unit Trucks	6.5	8.0	2.6	0.0	-	7.1	3.8	7.4	9.1	-	-	7.2	2.9	1.1	4.4	-	-	2.4	7.6	2.0	10.1	-	-	4.6	6.3
Articulated Trucks	15	292	1	0	-	308	0	288	19	0	-	307	2	0	1	0	-	3	21	0	17	0	-	38	656
% Articulated Trucks	10.8	10.3	0.2	0.0	-	8.8	0.0	10.6	24.7	-	-	10.3	0.4	0.0	0.6	-	-	0.3	26.6	0.0	11.4	-	-	6.0	8.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.5	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & Centreville Creek Road
Site Code: 240562
Start Date: 10/30/2024



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & Centreville Creek Road
Site Code: 240562
Start Date: 10/30/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Mayfield Road Eastbound						Mayfield Road Westbound						Centreville Creek Road Northbound						Centreville Creek Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
7:45 AM	4	136	21	0	0	161	8	86	3	0	0	97	16	6	2	0	0	24	9	36	8	0	0	53	335
8:00 AM	2	119	10	0	0	131	7	106	1	0	0	114	24	11	7	0	0	42	3	27	7	0	0	37	324
8:15 AM	8	137	19	0	0	164	10	99	1	0	0	110	15	10	5	0	0	30	8	26	4	0	0	38	342
8:30 AM	7	140	15	0	2	162	6	113	0	0	0	119	27	8	7	0	0	42	1	26	10	0	0	37	360
Total	21	532	65	0	2	618	31	404	5	0	0	440	82	35	21	0	0	138	21	115	29	0	0	165	1361
Approach %	3.4	86.1	10.5	0.0	-	-	7.0	91.8	1.1	0.0	-	-	59.4	25.4	15.2	0.0	-	-	12.7	69.7	17.6	0.0	-	-	-
Total %	1.5	39.1	4.8	0.0	-	45.4	2.3	29.7	0.4	0.0	-	32.3	6.0	2.6	1.5	0.0	-	10.1	1.5	8.4	2.1	0.0	-	12.1	-
PHF	0.656	0.950	0.774	0.000	-	0.942	0.775	0.894	0.417	0.000	-	0.924	0.759	0.795	0.750	0.000	-	0.821	0.583	0.799	0.725	0.000	-	0.778	0.945
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.9	0.0	-	-	0.6	0.1
Cars & Light Goods	20	460	54	0	-	534	28	318	5	0	-	351	74	34	19	0	-	127	16	111	16	0	-	143	1155
% Cars & Light Goods	95.2	86.5	83.1	-	-	86.4	90.3	78.7	100.0	-	-	79.8	90.2	97.1	90.5	-	-	92.0	76.2	96.5	55.2	-	-	86.7	84.9
Buses	0	8	7	0	-	15	2	5	0	0	-	7	5	0	0	0	-	5	1	0	2	0	-	3	30
% Buses	0.0	1.5	10.8	-	-	2.4	6.5	1.2	0.0	-	-	1.6	6.1	0.0	0.0	-	-	3.6	4.8	0.0	6.9	-	-	1.8	2.2
Single-Unit Trucks	0	29	3	0	-	32	1	29	0	0	-	30	2	0	2	0	-	4	1	3	4	0	-	8	74
% Single-Unit Trucks	0.0	5.5	4.6	-	-	5.2	3.2	7.2	0.0	-	-	6.8	2.4	0.0	9.5	-	-	2.9	4.8	2.6	13.8	-	-	4.8	5.4
Articulated Trucks	1	35	1	0	-	37	0	52	0	0	-	52	1	0	0	0	-	1	3	0	7	0	-	10	100
% Articulated Trucks	4.8	6.6	1.5	-	-	6.0	0.0	12.9	0.0	-	-	11.8	1.2	0.0	0.0	-	-	0.7	14.3	0.0	24.1	-	-	6.1	7.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	2.9	0.0	-	-	0.7	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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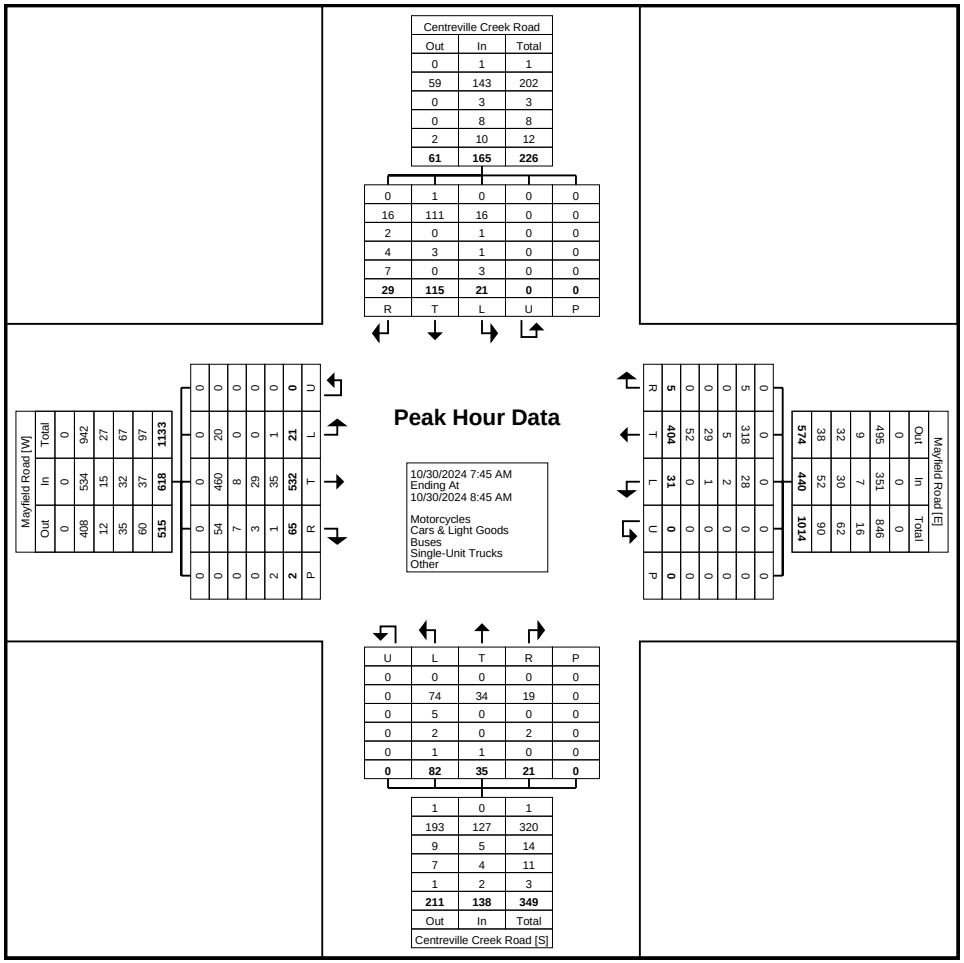


Turning Movement Peak Hour Data Plot (7:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & Centreville Creek Road
Site Code: 240562
Start Date: 10/30/2024

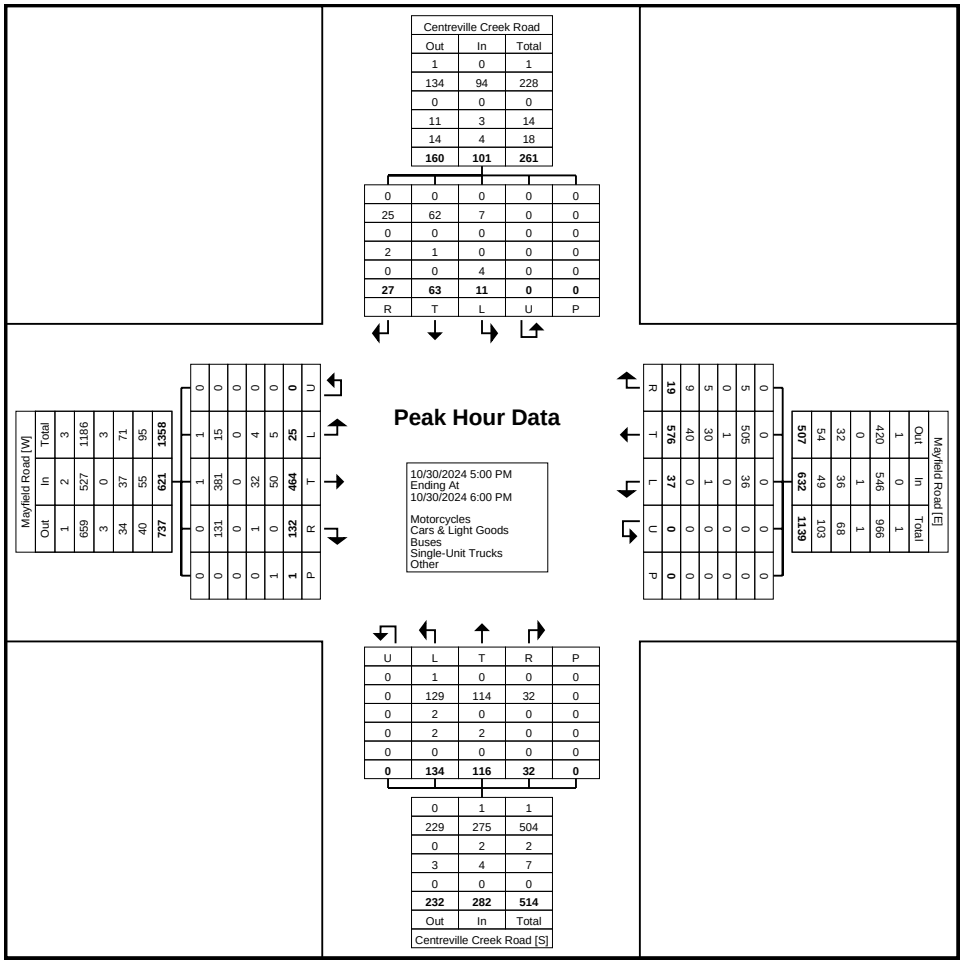
Turning Movement Peak Hour Data (5:00 PM)

Start Time	Mayfield Road Eastbound						Mayfield Road Westbound						Centreville Creek Road Northbound						Centreville Creek Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
5:00 PM	7	125	26	0	0	158	9	151	6	0	0	166	30	28	9	0	0	67	4	17	7	0	0	28	419
5:15 PM	7	98	31	0	0	136	9	145	6	0	0	160	34	33	6	0	0	73	1	11	5	0	0	17	386
5:30 PM	5	125	34	0	0	164	8	150	1	0	0	159	45	36	6	0	0	87	5	13	9	0	0	27	437
5:45 PM	6	116	41	0	1	163	11	130	6	0	0	147	25	19	11	0	0	55	1	22	6	0	0	29	394
Total	25	464	132	0	1	621	37	576	19	0	0	632	134	116	32	0	0	282	11	63	27	0	0	101	1636
Approach %	4.0	74.7	21.3	0.0	-	-	5.9	91.1	3.0	0.0	-	-	47.5	41.1	11.3	0.0	-	-	10.9	62.4	26.7	0.0	-	-	-
Total %	1.5	28.4	8.1	0.0	-	38.0	2.3	35.2	1.2	0.0	-	38.6	8.2	7.1	2.0	0.0	-	17.2	0.7	3.9	1.7	0.0	-	6.2	-
PHF	0.893	0.928	0.805	0.000	-	0.947	0.841	0.954	0.792	0.000	-	0.952	0.744	0.806	0.727	0.000	-	0.810	0.550	0.716	0.750	0.000	-	0.871	0.936
Motorcycles	1	1	0	0	-	2	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	3
% Motorcycles	4.0	0.2	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.7	0.0	0.0	-	-	0.4	0.0	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	15	381	131	0	-	527	36	505	5	0	-	546	129	114	32	0	-	275	7	62	25	0	-	94	1442
% Cars & Light Goods	60.0	82.1	99.2	-	-	84.9	97.3	87.7	26.3	-	-	86.4	96.3	98.3	100.0	-	-	97.5	63.6	98.4	92.6	-	-	93.1	88.1
Buses	0	0	0	0	-	0	0	1	0	0	-	1	2	0	0	0	-	2	0	0	0	0	-	0	3
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	-	-	0.2	1.5	0.0	0.0	-	-	0.7	0.0	0.0	0.0	-	-	0.0	0.2
Single-Unit Trucks	4	32	1	0	-	37	1	30	5	0	-	36	2	2	0	0	-	4	0	1	2	0	-	3	80
% Single-Unit Trucks	16.0	6.9	0.8	-	-	6.0	2.7	5.2	26.3	-	-	5.7	1.5	1.7	0.0	-	-	1.4	0.0	1.6	7.4	-	-	3.0	4.9
Articulated Trucks	5	50	0	0	-	55	0	40	9	0	-	49	0	0	0	0	-	0	4	0	0	0	-	4	108
% Articulated Trucks	20.0	10.8	0.0	-	-	8.9	0.0	6.9	47.4	-	-	7.8	0.0	0.0	0.0	-	-	0.0	36.4	0.0	0.0	-	-	4.0	6.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & Centreville Creek Road
Site Code: 240562
Start Date: 10/30/2024



Turning Movement Peak Hour Data Plot (5:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & The Gore Road
Site Code: 240562
Start Date: 10/30/2024

Turning Movement Data

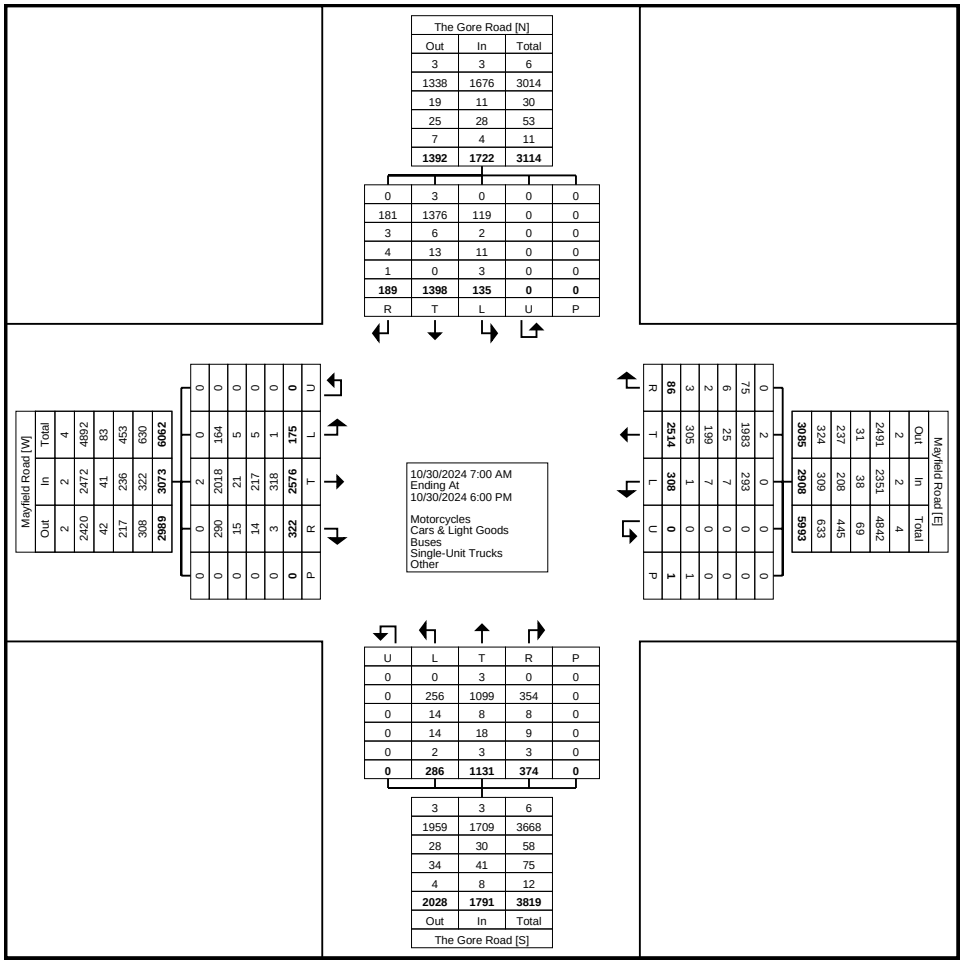
Start Time	Mayfield Road Eastbound						Mayfield Road Westbound						The Gore Road Northbound						The Gore Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	6	88	15	0	0	109	5	67	7	0	0	79	3	26	23	0	0	52	0	80	6	0	0	86	326
7:15 AM	7	106	20	0	0	133	10	79	1	0	0	90	8	26	21	0	0	55	1	99	4	0	0	104	382
7:30 AM	9	131	15	0	0	155	15	84	4	0	0	103	10	29	17	0	0	56	3	87	5	0	0	95	409
7:45 AM	5	120	10	0	0	135	20	81	3	0	0	104	7	30	17	0	0	54	3	112	9	0	0	124	417
Hourly Total	27	445	60	0	0	532	50	311	15	0	0	376	28	111	78	0	0	217	7	378	24	0	0	409	1534
8:00 AM	6	110	21	0	0	137	18	95	2	0	0	115	8	27	12	0	0	47	3	119	6	0	0	128	427
8:15 AM	6	121	20	0	0	147	22	82	3	0	0	107	9	45	27	0	0	81	5	89	11	0	0	105	440
8:30 AM	2	134	13	0	0	149	16	96	10	0	0	122	16	20	29	0	0	65	9	66	4	0	0	79	415
8:45 AM	9	124	7	0	0	140	14	91	2	0	0	107	16	28	23	0	0	67	12	80	6	0	0	98	412
Hourly Total	23	489	61	0	0	573	70	364	17	0	0	451	49	120	91	0	0	260	29	354	27	0	0	410	1694
9:00 AM	4	106	11	0	0	121	7	87	1	0	0	95	10	24	21	0	0	55	11	53	1	0	0	65	336
9:15 AM	5	101	12	0	0	118	9	63	2	0	0	74	4	17	10	0	0	31	7	48	4	0	0	59	282
9:30 AM	5	105	18	0	0	128	12	78	0	0	0	90	8	21	15	0	0	44	7	43	4	0	0	54	316
9:45 AM	3	110	18	0	0	131	10	78	1	0	0	89	5	17	17	0	0	39	8	44	4	0	0	56	315
Hourly Total	17	422	59	0	0	498	38	306	4	0	0	348	27	79	63	0	0	169	33	188	13	0	0	234	1249
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	9	96	8	0	0	113	13	153	1	0	0	167	17	63	8	0	0	88	2	28	5	0	0	35	403
3:15 PM	11	92	10	0	0	113	10	114	4	0	0	128	15	79	11	0	0	105	5	34	15	0	0	54	400
3:30 PM	7	133	15	0	0	155	12	135	4	0	1	151	11	61	13	0	0	85	3	42	9	0	0	54	445
3:45 PM	7	93	15	0	0	115	16	133	1	0	0	150	16	66	13	0	0	95	6	50	10	0	0	66	426
Hourly Total	34	414	48	0	0	496	51	535	10	0	1	596	59	269	45	0	0	373	16	154	39	0	0	209	1674
4:00 PM	10	97	8	0	0	115	16	98	8	0	0	122	20	65	9	0	0	94	5	46	13	0	0	64	395
4:15 PM	16	88	8	0	0	112	13	122	5	0	0	140	8	70	16	0	0	94	7	42	14	0	0	63	409
4:30 PM	14	89	25	0	0	128	9	128	5	0	0	142	13	78	13	0	0	104	7	39	7	0	0	53	427
4:45 PM	6	109	13	0	0	128	6	123	2	0	0	131	13	72	15	0	0	100	5	40	5	0	0	50	409
Hourly Total	46	383	54	0	0	483	44	471	20	0	0	535	54	285	53	0	0	392	24	167	39	0	0	230	1640
5:00 PM	3	113	14	0	0	130	21	156	5	0	0	182	13	79	11	0	0	103	7	35	8	0	0	50	465
5:15 PM	7	88	8	0	0	103	10	129	5	0	0	144	21	70	10	0	0	101	10	43	17	0	0	70	418
5:30 PM	6	108	11	0	0	125	13	118	6	0	0	137	16	70	10	0	0	96	4	50	8	0	0	62	420
5:45 PM	12	114	7	0	0	133	11	124	4	0	0	139	19	48	13	0	0	80	5	29	14	0	0	48	400
Hourly Total	28	423	40	0	0	491	55	527	20	0	0	602	69	267	44	0	0	380	26	157	47	0	0	230	1703
Grand Total	175	2576	322	0	0	3073	308	2514	86	0	1	2908	286	1131	374	0	0	1791	135	1398	189	0	0	1722	9494
Approach %	5.7	83.8	10.5	0.0	-	-	10.6	86.5	3.0	0.0	-	-	16.0	63.1	20.9	0.0	-	-	7.8	81.2	11.0	0.0	-	-	-
Total %	1.8	27.1	3.4	0.0	-	32.4	3.2	26.5	0.9	0.0	-	30.6	3.0	11.9	3.9	0.0	-	18.9	1.4	14.7	2.0	0.0	-	18.1	-
Motorcycles	0	2	0	0	-	2	0	2	0	0	-	2	0	3	0	0	-	3	0	3	0	0	-	3	10

% Motorcycles	0.0	0.1	0.0	-	-	0.1	0.0	0.1	0.0	-	-	0.1	0.0	0.3	0.0	-	-	0.2	0.0	0.2	0.0	-	-	0.2	0.1
Cars & Light Goods	164	2018	290	0	-	2472	293	1983	75	0	-	2351	256	1099	354	0	-	1709	119	1376	181	0	-	1676	8208
% Cars & Light Goods	93.7	78.3	90.1	-	-	80.4	95.1	78.9	87.2	-	-	80.8	89.5	97.2	94.7	-	-	95.4	88.1	98.4	95.8	-	-	97.3	86.5
Buses	5	21	15	0	-	41	7	25	6	0	-	38	14	8	8	0	-	30	2	6	3	0	-	11	120
% Buses	2.9	0.8	4.7	-	-	1.3	2.3	1.0	7.0	-	-	1.3	4.9	0.7	2.1	-	-	1.7	1.5	0.4	1.6	-	-	0.6	1.3
Single-Unit Trucks	5	217	14	0	-	236	7	199	2	0	-	208	14	18	9	0	-	41	11	13	4	0	-	28	513
% Single-Unit Trucks	2.9	8.4	4.3	-	-	7.7	2.3	7.9	2.3	-	-	7.2	4.9	1.6	2.4	-	-	2.3	8.1	0.9	2.1	-	-	1.6	5.4
Articulated Trucks	1	316	3	0	-	320	1	303	3	0	-	307	2	3	3	0	-	8	3	0	1	0	-	4	639
% Articulated Trucks	0.6	12.3	0.9	-	-	10.4	0.3	12.1	3.5	-	-	10.6	0.7	0.3	0.8	-	-	0.4	2.2	0.0	0.5	-	-	0.2	6.7
Bicycles on Road	0	2	0	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Bicycles on Road	0.0	0.1	0.0	-	-	0.1	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & The Gore Road
Site Code: 240562
Start Date: 10/30/2024



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & The Gore Road
Site Code: 240562
Start Date: 10/30/2024

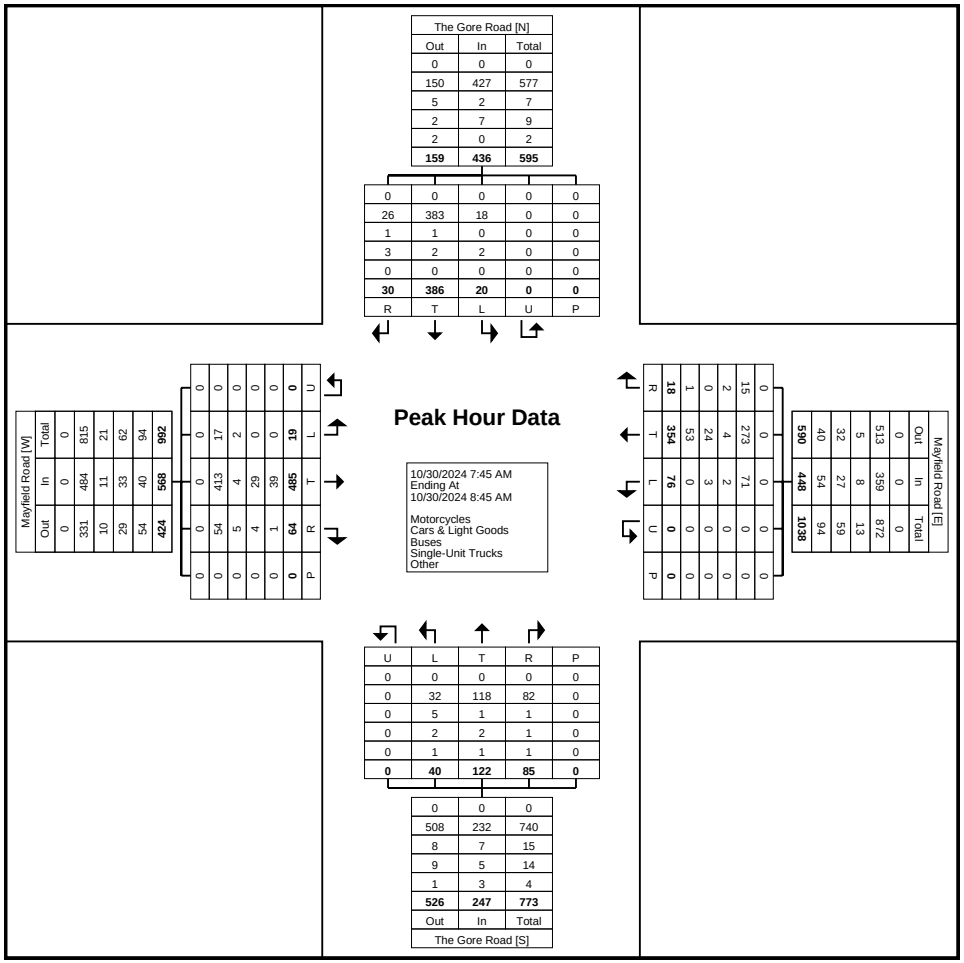
Turning Movement Peak Hour Data (7:45 AM)

Start Time	Mayfield Road Eastbound						Mayfield Road Westbound						The Gore Road Northbound						The Gore Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:45 AM	5	120	10	0	0	135	20	81	3	0	0	104	7	30	17	0	0	54	3	112	9	0	0	124	417
8:00 AM	6	110	21	0	0	137	18	95	2	0	0	115	8	27	12	0	0	47	3	119	6	0	0	128	427
8:15 AM	6	121	20	0	0	147	22	82	3	0	0	107	9	45	27	0	0	81	5	89	11	0	0	105	440
8:30 AM	2	134	13	0	0	149	16	96	10	0	0	122	16	20	29	0	0	65	9	66	4	0	0	79	415
Total	19	485	64	0	0	568	76	354	18	0	0	448	40	122	85	0	0	247	20	386	30	0	0	436	1699
Approach %	3.3	85.4	11.3	0.0	-	-	17.0	79.0	4.0	0.0	-	-	16.2	49.4	34.4	0.0	-	-	4.6	88.5	6.9	0.0	-	-	-
Total %	1.1	28.5	3.8	0.0	-	33.4	4.5	20.8	1.1	0.0	-	26.4	2.4	7.2	5.0	0.0	-	14.5	1.2	22.7	1.8	0.0	-	25.7	-
PHF	0.792	0.905	0.762	0.000	-	0.953	0.864	0.922	0.450	0.000	-	0.918	0.625	0.678	0.733	0.000	-	0.762	0.556	0.811	0.682	0.000	-	0.852	0.965
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	17	413	54	0	-	484	71	273	15	0	-	359	32	118	82	0	-	232	18	383	26	0	-	427	1502
% Cars & Light Goods	89.5	85.2	84.4	-	-	85.2	93.4	77.1	83.3	-	-	80.1	80.0	96.7	96.5	-	-	93.9	90.0	99.2	86.7	-	-	97.9	88.4
Buses	2	4	5	0	-	11	2	4	2	0	-	8	5	1	1	0	-	7	0	1	1	0	-	2	28
% Buses	10.5	0.8	7.8	-	-	1.9	2.6	1.1	11.1	-	-	1.8	12.5	0.8	1.2	-	-	2.8	0.0	0.3	3.3	-	-	0.5	1.6
Single-Unit Trucks	0	29	4	0	-	33	3	24	0	0	-	27	2	2	1	0	-	5	2	2	3	0	-	7	72
% Single-Unit Trucks	0.0	6.0	6.3	-	-	5.8	3.9	6.8	0.0	-	-	6.0	5.0	1.6	1.2	-	-	2.0	10.0	0.5	10.0	-	-	1.6	4.2
Articulated Trucks	0	38	1	0	-	39	0	52	1	0	-	53	1	1	1	0	-	3	0	0	0	0	-	0	95
% Articulated Trucks	0.0	7.8	1.6	-	-	6.9	0.0	14.7	5.6	-	-	11.8	2.5	0.8	1.2	-	-	1.2	0.0	0.0	0.0	-	-	0.0	5.6
Bicycles on Road	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.2	0.0	-	-	0.2	0.0	0.3	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & The Gore Road
Site Code: 240562
Start Date: 10/30/2024



Turning Movement Peak Hour Data Plot (7:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & The Gore Road
Site Code: 240562
Start Date: 10/30/2024

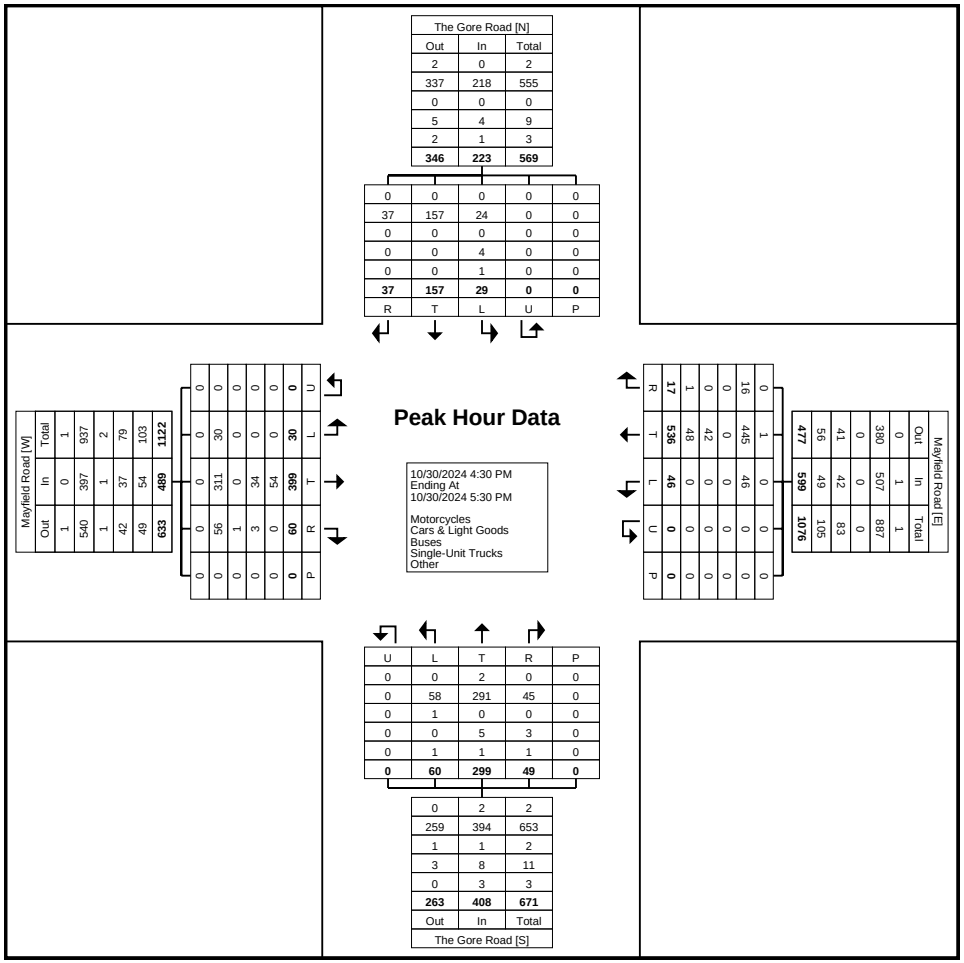
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Mayfield Road Eastbound						Mayfield Road Westbound						The Gore Road Northbound						The Gore Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
4:30 PM	14	89	25	0	0	128	9	128	5	0	0	142	13	78	13	0	0	104	7	39	7	0	0	53	427
4:45 PM	6	109	13	0	0	128	6	123	2	0	0	131	13	72	15	0	0	100	5	40	5	0	0	50	409
5:00 PM	3	113	14	0	0	130	21	156	5	0	0	182	13	79	11	0	0	103	7	35	8	0	0	50	465
5:15 PM	7	88	8	0	0	103	10	129	5	0	0	144	21	70	10	0	0	101	10	43	17	0	0	70	418
Total	30	399	60	0	0	489	46	536	17	0	0	599	60	299	49	0	0	408	29	157	37	0	0	223	1719
Approach %	6.1	81.6	12.3	0.0	-	-	7.7	89.5	2.8	0.0	-	-	14.7	73.3	12.0	0.0	-	-	13.0	70.4	16.6	0.0	-	-	-
Total %	1.7	23.2	3.5	0.0	-	28.4	2.7	31.2	1.0	0.0	-	34.8	3.5	17.4	2.9	0.0	-	23.7	1.7	9.1	2.2	0.0	-	13.0	-
PHF	0.536	0.883	0.600	0.000	-	0.940	0.548	0.859	0.850	0.000	-	0.823	0.714	0.946	0.817	0.000	-	0.981	0.725	0.913	0.544	0.000	-	0.796	0.924
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	2	0	0	-	2	0	0	0	0	-	0	3
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	-	-	0.2	0.0	0.7	0.0	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	30	311	56	0	-	397	46	445	16	0	-	507	58	291	45	0	-	394	24	157	37	0	-	218	1516
% Cars & Light Goods	100.0	77.9	93.3	-	-	81.2	100.0	83.0	94.1	-	-	84.6	96.7	97.3	91.8	-	-	96.6	82.8	100.0	100.0	-	-	97.8	88.2
Buses	0	0	1	0	-	1	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	2
% Buses	0.0	0.0	1.7	-	-	0.2	0.0	0.0	0.0	-	-	0.0	1.7	0.0	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.1
Single-Unit Trucks	0	34	3	0	-	37	0	42	0	0	-	42	0	5	3	0	-	8	4	0	0	0	-	4	91
% Single-Unit Trucks	0.0	8.5	5.0	-	-	7.6	0.0	7.8	0.0	-	-	7.0	0.0	1.7	6.1	-	-	2.0	13.8	0.0	0.0	-	-	1.8	5.3
Articulated Trucks	0	54	0	0	-	54	0	48	1	0	-	49	1	1	1	0	-	3	1	0	0	0	-	1	107
% Articulated Trucks	0.0	13.5	0.0	-	-	11.0	0.0	9.0	5.9	-	-	8.2	1.7	0.3	2.0	-	-	0.7	3.4	0.0	0.0	-	-	0.4	6.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Mayfield Road & The Gore Road
Site Code: 240562
Start Date: 10/30/2024



Turning Movement Peak Hour Data Plot (4:30 PM)

Appendix C

Synchro Reports

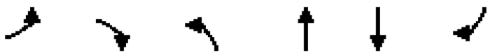
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	140	0	0	310
Future Volume (vph)	0	0	140	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	0	0	1863
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			177.0
Travel Time (s)	98.3		15.2			12.7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	140	0	0	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	140	0	0	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	140	0	0	310
Future Volume (Veh/h)	0	0	140	0	0	310
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	140	0	0	310
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	450	140			140	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	450	140			140	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	567	908			1443	

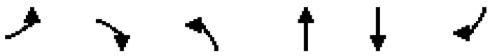
Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	0	0	140	310
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1700	1443
Volume to Capacity	0.00	0.00	0.08	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s/veh)	0.0		0.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	350	590	0
Future Volume (vph)	0	0	0	350	590	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	0			0
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	1863	0	1863	1863	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	350	590	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	350	590	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	350	590	0
Future Volume (Veh/h)	0	0	0	350	590	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	0	350	590	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	940	590	590			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	940	590	590			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	293	508	985			

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	0	0	350	590
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	985	1700
Volume to Capacity	0.00	0.00	0.00	0.35
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s/veh)	0.0		0.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		

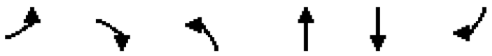
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	310	0	0	155
Future Volume (vph)	0	0	310	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	0	0	1863
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			177.0
Travel Time (s)	98.3		15.2			12.7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	310	0	0	155
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	310	0	0	155
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100		100	100	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	310	0	0	155
Future Volume (Veh/h)	0	0	310	0	0	155
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	310	0	0	155
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	465	310			310	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	465	310			310	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	556	730			1250	

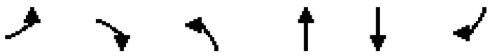
Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	0	0	310	155
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1700	1250
Volume to Capacity	0.00	0.00	0.18	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s/veh)	0.0		0.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	590	385	0
Future Volume (vph)	0	0	0	590	385	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	0			0
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	1863	0	1863	1863	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	590	385	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	590	385	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	590	385	0
Future Volume (Veh/h)	0	0	0	590	385	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	0	590	385	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	975	385	385			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	975	385	385			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	279	663	1173			

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	0	0	590	385
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1173	1700
Volume to Capacity	0.00	0.00	0.00	0.23
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s/veh)	0.0		0.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		

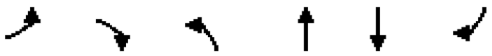
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	162	0	140	61	0	310
Future Volume (vph)	162	0	140	61	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.959			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1786	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1786	0	0	1863
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			177.0
Travel Time (s)	98.3		15.2			12.7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	162	0	140	61	0	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	162	0	201	0	0	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	162	0	140	61	0	310
Future Volume (Veh/h)	162	0	140	61	0	310
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	162	0	140	61	0	310
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	481	171			201	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	481	171			201	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	70	100			100	
cM capacity (veh/h)	544	873			1371	

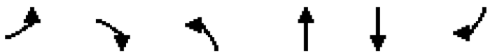
Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	162	0	201	310
Volume Left	162	0	0	0
Volume Right	0	0	61	0
cSH	544	1700	1700	1371
Volume to Capacity	0.30	0.00	0.12	0.00
Queue Length 95th (m)	9.9	0.0	0.0	0.0
Control Delay (s/veh)	14.4	0.0	0.0	0.0
Lane LOS	B	A		
Approach Delay (s/veh)	14.4		0.0	0.0
Approach LOS	B			

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	208	93	38	350	590	54
Future Volume (vph)	208	93	38	350	590	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	0			0
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.989	
Flt Protected	0.950			0.995		
Satd. Flow (prot)	1770	1583	0	1853	1842	0
Flt Permitted	0.950			0.995		
Satd. Flow (perm)	1770	1583	0	1853	1842	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	208	93	38	350	590	54
Shared Lane Traffic (%)						
Lane Group Flow (vph)	208	93	0	388	644	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 68.3%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	208	93	38	350	590	54
Future Volume (Veh/h)	208	93	38	350	590	54
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	208	93	38	350	590	54
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1043	617	644			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1043	617	644			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	15	81	96			
cM capacity (veh/h)	244	490	941			

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	208	93	388	644
Volume Left	208	0	38	0
Volume Right	0	93	0	54
cSH	244	490	941	1700
Volume to Capacity	0.85	0.19	0.04	0.38
Queue Length 95th (m)	55.0	5.5	1.0	0.0
Control Delay (s/veh)	69.0	14.1	1.3	0.0
Lane LOS	F	B	A	
Approach Delay (s/veh)	52.0		1.3	0.0
Approach LOS	F			

Intersection Summary			
Average Delay	12.1		
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

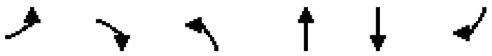
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	105	0	310	187	0	155
Future Volume (vph)	105	0	310	187	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.949			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1768	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1768	0	0	1863
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			481.8
Travel Time (s)	98.3		15.2			34.7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	105	0	310	187	0	155
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	0	497	0	0	155
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100		100	100	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	105	0	310	187	0	155
Future Volume (Veh/h)	105	0	310	187	0	155
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	105	0	310	187	0	155
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	559	404			497	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	559	404			497	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	79	100			100	
cM capacity (veh/h)	490	647			1067	

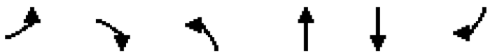
Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	105	0	497	155
Volume Left	105	0	0	0
Volume Right	0	0	187	0
cSH	490	1700	1700	1067
Volume to Capacity	0.21	0.00	0.29	0.00
Queue Length 95th (m)	6.4	0.0	0.0	0.0
Control Delay (s/veh)	14.3	0.0	0.0	0.0
Lane LOS	B	A		
Approach Delay (s/veh)	14.3		0.0	0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	134	60	117	590	385	164
Future Volume (vph)	134	60	117	590	385	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	0			0
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.960	
Flt Protected	0.950			0.992		
Satd. Flow (prot)	1770	1583	0	1848	1788	0
Flt Permitted	0.950			0.992		
Satd. Flow (perm)	1770	1583	0	1848	1788	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	134	60	117	590	385	164
Shared Lane Traffic (%)						
Lane Group Flow (vph)	134	60	0	707	549	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 85.2%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	60	117	590	385	164
Future Volume (Veh/h)	134	60	117	590	385	164
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	134	60	117	590	385	164
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1291	467	549			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1291	467	549			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	16	90	89			
cM capacity (veh/h)	160	596	1021			

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	134	60	707	549
Volume Left	134	0	117	0
Volume Right	0	60	0	164
cSH	160	596	1021	1700
Volume to Capacity	0.84	0.10	0.11	0.32
Queue Length 95th (m)	45.4	2.7	3.1	0.0
Control Delay (s/veh)	90.7	11.7	2.8	0.0
Lane LOS	F	B	A	
Approach Delay (s/veh)	66.3		2.8	0.0
Approach LOS	F			

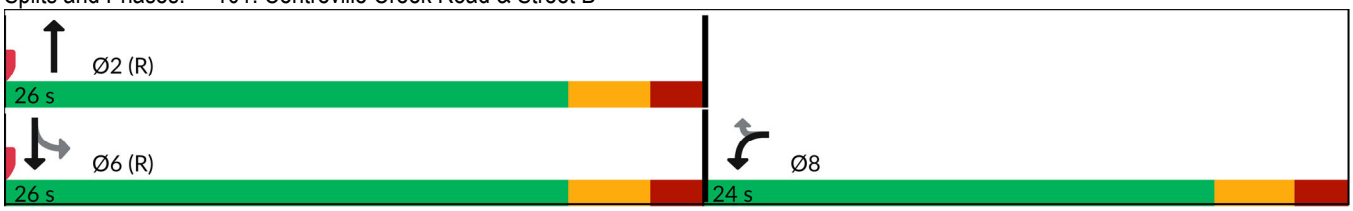
Intersection Summary			
Average Delay	10.2		
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	140	0	0	310
Future Volume (vph)	0	0	140	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	1863	1863	3539	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (k/h)	50		50			50
Link Distance (m)	232.4		609.7			158.3
Travel Time (s)	16.7		43.9			11.4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	140	0	0	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	140	0	0	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
v/c Ratio			0.04			0.09
Control Delay (s/veh)			0.0			0.0
Queue Delay			0.0			0.0
Total Delay (s/veh)			0.0			0.0
LOS			A			A
Approach Delay (s/veh)						
Approach LOS						

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.09			
Intersection Signal Delay (s/veh): 0.0		Intersection LOS: A	
Intersection Capacity Utilization 11.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 101: Centreville Creek Road & Street B



Lane Group	NBT	SBT
Lane Group Flow (vph)	140	310
v/c Ratio	0.04	0.09
Control Delay (s/veh)	0.0	0.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.0	0.0
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	585.7	134.3
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.04	0.09

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	140	0	0	310
Future Volume (vph)	0	0	140	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			0.95
Frt			1.00			1.00
Flt Protected			1.00			1.00
Satd. Flow (prot)			3539			3539
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	140	0	0	310
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	140	0	0	310
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)			50.0			50.0
Effective Green, g (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
Clearance Time (s)			5.0			5.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			3539			3539
v/s Ratio Prot			0.04			c0.09
v/s Ratio Perm						
v/c Ratio			0.04			0.09
Uniform Delay, d1			0.0			0.0
Progression Factor			1.00			1.00
Incremental Delay, d2			0.0			0.0
Delay (s)			0.0			0.0
Level of Service			A			A
Approach Delay (s/veh)	0.0		0.0			0.0
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.10		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	11.9%	ICU Level of Service	A
Analysis Period (min)	15		

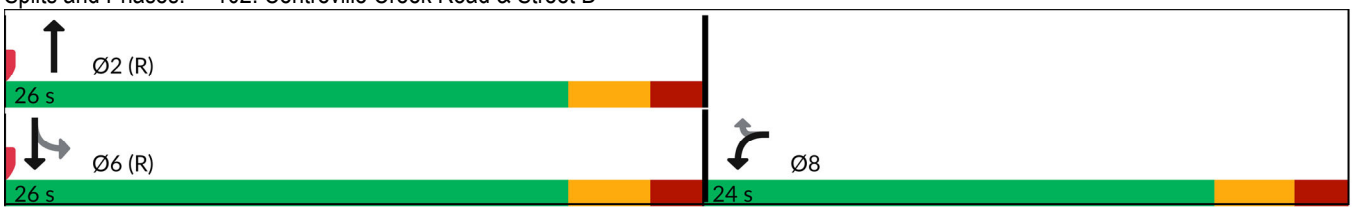
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	140	0	0	310
Future Volume (vph)	0	0	140	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	1863	1863	3539	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (k/h)	50		50			50
Link Distance (m)	475.6		354.1			609.7
Travel Time (s)	34.2		25.5			43.9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	140	0	0	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	140	0	0	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
v/c Ratio			0.04			0.09
Control Delay (s/veh)			0.0			0.0
Queue Delay			0.0			0.0
Total Delay (s/veh)			0.0			0.0
LOS			A			A
Approach Delay (s/veh)						
Approach LOS						

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.09			
Intersection Signal Delay (s/veh): 0.0		Intersection LOS: A	
Intersection Capacity Utilization 11.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 102: Centreville Creek Road & Street D



Lane Group	NBT	SBT
Lane Group Flow (vph)	140	310
v/c Ratio	0.04	0.09
Control Delay (s/veh)	0.0	0.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.0	0.0
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	330.1	585.7
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.04	0.09

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	140	0	0	310
Future Volume (vph)	0	0	140	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			0.95
Frt			1.00			1.00
Flt Protected			1.00			1.00
Satd. Flow (prot)			3539			3539
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	140	0	0	310
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	140	0	0	310
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)			50.0			50.0
Effective Green, g (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
Clearance Time (s)			5.0			5.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			3539			3539
v/s Ratio Prot			0.04			c0.09
v/s Ratio Perm						
v/c Ratio			0.04			0.09
Uniform Delay, d1			0.0			0.0
Progression Factor			1.00			1.00
Incremental Delay, d2			0.0			0.0
Delay (s)			0.0			0.0
Level of Service			A			A
Approach Delay (s/veh)	0.0		0.0			0.0
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.10		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	11.9%	ICU Level of Service	A
Analysis Period (min)	15		

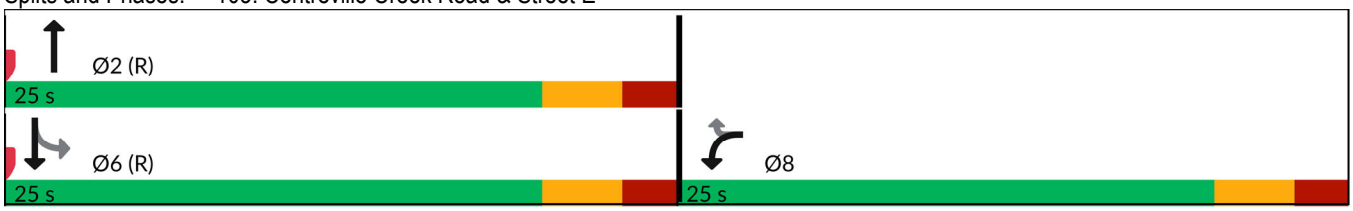
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	140	0	0	310
Future Volume (vph)	0	0	140	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	1863	1863	3539	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			354.1
Travel Time (s)	98.3		15.2			25.5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	140	0	0	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	140	0	0	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	25.0	25.0	25.0		25.0	25.0
Total Split (%)	50.0%	50.0%	50.0%		50.0%	50.0%
Maximum Green (s)	20.0	20.0	20.0		20.0	20.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
v/c Ratio			0.04			0.09
Control Delay (s/veh)			0.0			0.0
Queue Delay			0.0			0.0
Total Delay (s/veh)			0.0			0.0
LOS			A			A
Approach Delay (s/veh)						
Approach LOS						

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.09			
Intersection Signal Delay (s/veh): 0.0		Intersection LOS: A	
Intersection Capacity Utilization 11.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 103: Centreville Creek Road & Street E



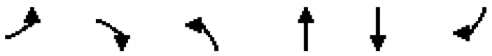
Lane Group	NBT	SBT
Lane Group Flow (vph)	140	310
v/c Ratio	0.04	0.09
Control Delay (s/veh)	0.0	0.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.0	0.0
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	187.0	330.1
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.04	0.09

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	140	0	0	310
Future Volume (vph)	0	0	140	0	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			0.95
Frt			1.00			1.00
Flt Protected			1.00			1.00
Satd. Flow (prot)			3539			3539
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	140	0	0	310
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	140	0	0	310
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)			50.0			50.0
Effective Green, g (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
Clearance Time (s)			5.0			5.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			3539			3539
v/s Ratio Prot			0.04			c0.09
v/s Ratio Perm						
v/c Ratio			0.04			0.09
Uniform Delay, d1			0.0			0.0
Progression Factor			1.00			1.00
Incremental Delay, d2			0.0			0.0
Delay (s)			0.0			0.0
Level of Service			A			A
Approach Delay (s/veh)	0.0		0.0			0.0
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.10		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	11.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

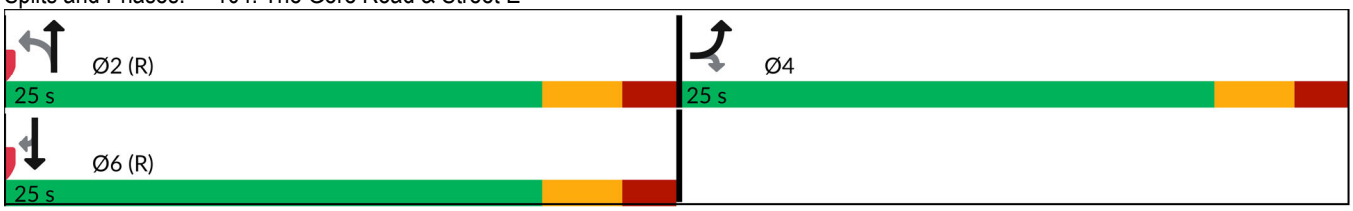


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	989	753	0
Future Volume (vph)	0	0	0	989	753	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	1			1
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	3539	3539	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	3539	3539	1863
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	989	753	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	989	753	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)				50.0	50.0	
Actuated g/C Ratio				1.00	1.00	
v/c Ratio				0.28	0.21	
Control Delay (s/veh)				0.2	0.1	
Queue Delay				0.0	0.0	
Total Delay (s/veh)				0.2	0.1	
LOS				A	A	
Approach Delay (s/veh)				0.2	0.1	
Approach LOS				A	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.28			
Intersection Signal Delay (s/veh): 0.2		Intersection LOS: A	
Intersection Capacity Utilization 30.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 104: The Gore Road & Street E



Lane Group	NBT	SBT
Lane Group Flow (vph)	989	753
v/c Ratio	0.28	0.21
Control Delay (s/veh)	0.2	0.1
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.2	0.1
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	163.4	711.4
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.28	0.21

Intersection Summary

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	989	753	0
Future Volume (vph)	0	0	0	989	753	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	
Lane Util. Factor				0.95	0.95	
Frt				1.00	1.00	
Flt Protected				1.00	1.00	
Satd. Flow (prot)				3539	3539	
Flt Permitted				1.00	1.00	
Satd. Flow (perm)				3539	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	989	753	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	989	753	0
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)				50.0	50.0	
Effective Green, g (s)				50.0	50.0	
Actuated g/C Ratio				1.00	1.00	
Clearance Time (s)				5.0	5.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3539	3539	
v/s Ratio Prot				c0.28	0.21	
v/s Ratio Perm						
v/c Ratio				0.28	0.21	
Uniform Delay, d1				0.0	0.0	
Progression Factor				1.00	1.00	
Incremental Delay, d2				0.2	0.1	
Delay (s)				0.2	0.1	
Level of Service				A	A	
Approach Delay (s/veh)	0.0			0.2	0.1	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		

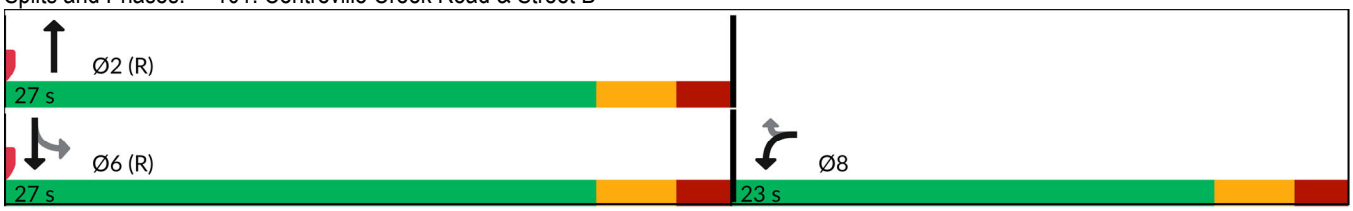
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	310	0	0	155
Future Volume (vph)	0	0	310	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	1863	1863	3539	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (k/h)	50		50			50
Link Distance (m)	232.4		609.7			158.3
Travel Time (s)	16.7		43.9			11.4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	310	0	0	155
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	310	0	0	155
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	23.0	23.0	27.0		27.0	27.0
Total Split (%)	46.0%	46.0%	54.0%		54.0%	54.0%
Maximum Green (s)	18.0	18.0	22.0		22.0	22.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
v/c Ratio			0.09			0.04
Control Delay (s/veh)			0.0			0.0
Queue Delay			0.0			0.0
Total Delay (s/veh)			0.0			0.0
LOS			A			A
Approach Delay (s/veh)						
Approach LOS						

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.09			
Intersection Signal Delay (s/veh): 0.0		Intersection LOS: A	
Intersection Capacity Utilization 11.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 101: Centreville Creek Road & Street B



Lane Group	NBT	SBT
Lane Group Flow (vph)	310	155
v/c Ratio	0.09	0.04
Control Delay (s/veh)	0.0	0.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.0	0.0
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	585.7	134.3
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.09	0.04

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	310	0	0	155
Future Volume (vph)	0	0	310	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			0.95
Frt			1.00			1.00
Flt Protected			1.00			1.00
Satd. Flow (prot)			3539			3539
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	310	0	0	155
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	310	0	0	155
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)			50.0			50.0
Effective Green, g (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
Clearance Time (s)			5.0			5.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			3539			3539
v/s Ratio Prot			c0.09			0.04
v/s Ratio Perm						
v/c Ratio			0.09			0.04
Uniform Delay, d1			0.0			0.0
Progression Factor			1.00			1.00
Incremental Delay, d2			0.0			0.0
Delay (s)			0.0			0.0
Level of Service			A			A
Approach Delay (s/veh)	0.0		0.0			0.0
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.10		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	11.9%	ICU Level of Service	A
Analysis Period (min)	15		

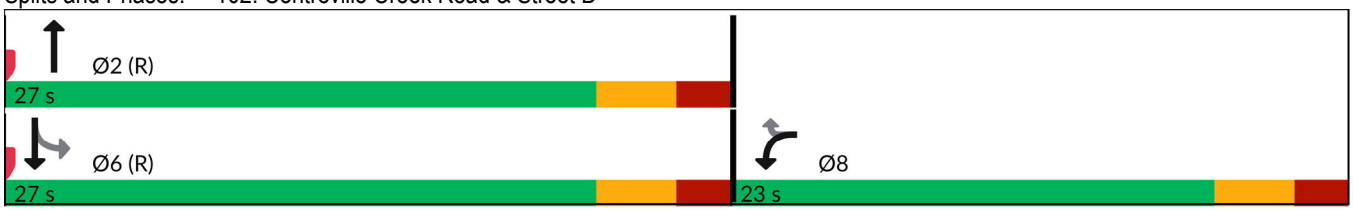
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	310	0	0	155
Future Volume (vph)	0	0	310	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	1863	1863	3539	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (k/h)	50		50			50
Link Distance (m)	475.6		354.1			609.7
Travel Time (s)	34.2		25.5			43.9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	310	0	0	155
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	310	0	0	155
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	23.0	23.0	27.0		27.0	27.0
Total Split (%)	46.0%	46.0%	54.0%		54.0%	54.0%
Maximum Green (s)	18.0	18.0	22.0		22.0	22.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
v/c Ratio			0.09			0.04
Control Delay (s/veh)			0.0			0.0
Queue Delay			0.0			0.0
Total Delay (s/veh)			0.0			0.0
LOS			A			A
Approach Delay (s/veh)						
Approach LOS						

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.09			
Intersection Signal Delay (s/veh): 0.0		Intersection LOS: A	
Intersection Capacity Utilization 11.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 102: Centreville Creek Road & Street D



Lane Group	NBT	SBT
Lane Group Flow (vph)	310	155
v/c Ratio	0.09	0.04
Control Delay (s/veh)	0.0	0.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.0	0.0
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	330.1	585.7
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.09	0.04

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	310	0	0	155
Future Volume (vph)	0	0	310	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			0.95
Frt			1.00			1.00
Flt Protected			1.00			1.00
Satd. Flow (prot)			3539			3539
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	310	0	0	155
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	310	0	0	155
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)			50.0			50.0
Effective Green, g (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
Clearance Time (s)			5.0			5.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			3539			3539
v/s Ratio Prot			c0.09			0.04
v/s Ratio Perm						
v/c Ratio			0.09			0.04
Uniform Delay, d1			0.0			0.0
Progression Factor			1.00			1.00
Incremental Delay, d2			0.0			0.0
Delay (s)			0.0			0.0
Level of Service			A			A
Approach Delay (s/veh)	0.0		0.0			0.0
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.10		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	11.9%	ICU Level of Service	A
Analysis Period (min)	15		

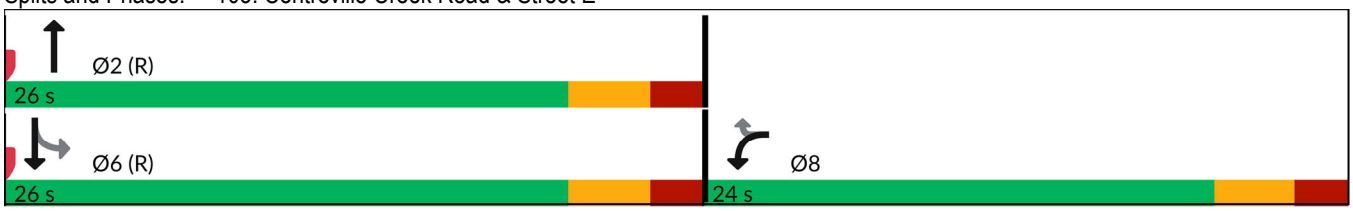
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	310	0	0	155
Future Volume (vph)	0	0	310	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	1863	1863	3539	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			354.1
Travel Time (s)	98.3		15.2			25.5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	310	0	0	155
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	310	0	0	155
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100		100	100	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
v/c Ratio			0.09			0.04
Control Delay (s/veh)			0.0			0.0
Queue Delay			0.0			0.0
Total Delay (s/veh)			0.0			0.0
LOS			A			A
Approach Delay (s/veh)						
Approach LOS						

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.09			
Intersection Signal Delay (s/veh): 0.0		Intersection LOS: A	
Intersection Capacity Utilization 11.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 103: Centreville Creek Road & Street E



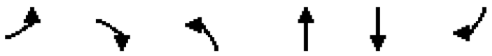
Lane Group	NBT	SBT
Lane Group Flow (vph)	310	155
v/c Ratio	0.09	0.04
Control Delay (s/veh)	0.0	0.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.0	0.0
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	187.0	330.1
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.09	0.04

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	310	0	0	155
Future Volume (vph)	0	0	310	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			0.95
Frt			1.00			1.00
Flt Protected			1.00			1.00
Satd. Flow (prot)			3539			3539
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	310	0	0	155
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	310	0	0	155
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)			50.0			50.0
Effective Green, g (s)			50.0			50.0
Actuated g/C Ratio			1.00			1.00
Clearance Time (s)			5.0			5.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			3539			3539
v/s Ratio Prot			c0.09			0.04
v/s Ratio Perm						
v/c Ratio			0.09			0.04
Uniform Delay, d1			0.0			0.0
Progression Factor			1.00			1.00
Incremental Delay, d2			0.0			0.0
Delay (s)			0.0			0.0
Level of Service			A			A
Approach Delay (s/veh)	0.0		0.0			0.0
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.10		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	11.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	993	877	0
Future Volume (vph)	0	0	0	993	877	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	1			1
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	1863	1863	3539	3539	1863
Flt Permitted						
Satd. Flow (perm)	1863	1863	1863	3539	3539	1863
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	993	877	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	993	877	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6

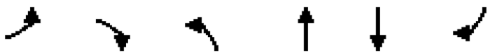
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.0	23.0	10.0	23.0	23.0	23.0
Total Split (s)	23.0	23.0	12.0	37.0	25.0	25.0
Total Split (%)	38.3%	38.3%	20.0%	61.7%	41.7%	41.7%
Maximum Green (s)	18.0	18.0	9.0	32.0	20.0	20.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	2.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)				60.0	60.0	
Actuated g/C Ratio				1.00	1.00	
v/c Ratio				0.28	0.25	
Control Delay (s/veh)				0.2	0.2	
Queue Delay				0.0	0.0	
Total Delay (s/veh)				0.2	0.2	
LOS				A	A	
Approach Delay (s/veh)				0.2	0.2	
Approach LOS				A	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.28			
Intersection Signal Delay (s/veh): 0.2		Intersection LOS: A	
Intersection Capacity Utilization 30.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 104: The Gore Road & Street E

Lane Group	NBT	SBT
Lane Group Flow (vph)	993	877
v/c Ratio	0.28	0.25
Control Delay (s/veh)	0.2	0.2
Queue Delay	0.0	0.0
Total Delay (s/veh)	0.2	0.2
Queue Length 50th (m)	0.0	0.0
Queue Length 95th (m)	0.0	0.0
Internal Link Dist (m)	163.4	711.4
Turn Bay Length (m)		
Base Capacity (vph)	3539	3539
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.28	0.25

Intersection Summary



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	993	877	0
Future Volume (vph)	0	0	0	993	877	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	
Lane Util. Factor				0.95	0.95	
Frt				1.00	1.00	
Flt Protected				1.00	1.00	
Satd. Flow (prot)				3539	3539	
Flt Permitted				1.00	1.00	
Satd. Flow (perm)				3539	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	993	877	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	993	877	0
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)				60.0	60.0	
Effective Green, g (s)				60.0	60.0	
Actuated g/C Ratio				1.00	1.00	
Clearance Time (s)				5.0	5.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				3539	3539	
v/s Ratio Prot				c0.28	0.25	
v/s Ratio Perm						
v/c Ratio				0.28	0.25	
Uniform Delay, d1				0.0	0.0	
Progression Factor				1.00	1.00	
Incremental Delay, d2				0.2	0.2	
Delay (s)				0.2	0.2	
Level of Service				A	A	
Approach Delay (s/veh)	0.0			0.2	0.2	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	0.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	30.8%	ICU Level of Service	A
Analysis Period (min)	15		

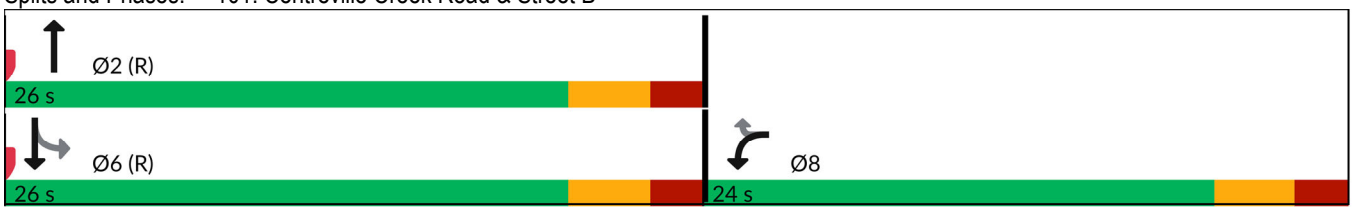
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	94	0	140	34	0	310
Future Volume (vph)	94	0	140	34	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt			0.971			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	3437	0	0	3539
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	3437	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			34			
Link Speed (k/h)	50		50			50
Link Distance (m)	232.4		609.7			158.3
Travel Time (s)	16.7		43.9			11.4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	0	140	34	0	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	174	0	0	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	11.2		38.4			38.4
Actuated g/C Ratio	0.22		0.77			0.77
v/c Ratio	0.24		0.07			0.11
Control Delay (s/veh)	17.7		3.3			3.4
Queue Delay	0.0		0.0			0.0
Total Delay (s/veh)	17.7		3.3			3.4
LOS	B		A			A
Approach Delay (s/veh)	17.7		3.3			3.4
Approach LOS	B		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay (s/veh): 5.7		Intersection LOS: A	
Intersection Capacity Utilization 23.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 101: Centreville Creek Road & Street B



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	94	174	310
v/c Ratio	0.24	0.07	0.11
Control Delay (s/veh)	17.7	3.3	3.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	17.7	3.3	3.4
Queue Length 50th (m)	7.3	2.9	5.1
Queue Length 95th (m)	16.7	14.4	9.3
Internal Link Dist (m)	208.4	585.7	134.3
Turn Bay Length (m)	50.0		
Base Capacity (vph)	708	2650	2721
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.13	0.07	0.11

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	94	0	140	34	0	310
Future Volume (vph)	94	0	140	34	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frt	1.00		0.97			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1770		3435			3539
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1770		3435			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	0	140	34	0	310
RTOR Reduction (vph)	0	0	10	0	0	0
Lane Group Flow (vph)	94	0	164	0	0	310
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	6.2		33.8			33.8
Effective Green, g (s)	7.2		34.8			34.8
Actuated g/C Ratio	0.14		0.70			0.70
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	254		2390			2463
v/s Ratio Prot	c0.05		0.05			c0.09
v/s Ratio Perm						
v/c Ratio	0.37		0.07			0.13
Uniform Delay, d1	19.3		2.4			2.5
Progression Factor	1.00		1.14			1.00
Incremental Delay, d2	0.9		0.1			0.1
Delay (s)	20.3		2.8			2.6
Level of Service	C		A			A
Approach Delay (s/veh)	20.3		2.8			2.6
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		

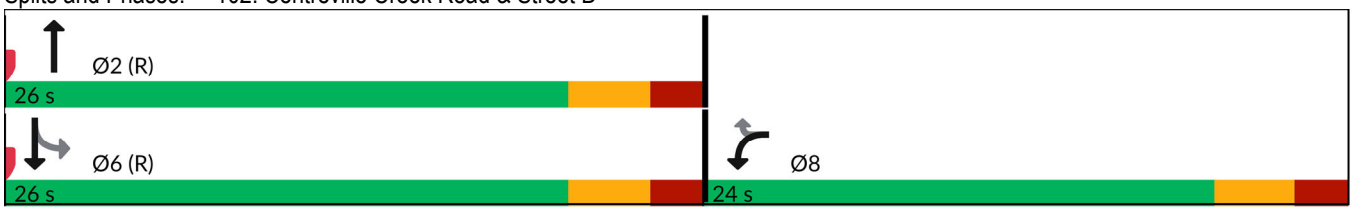
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	79	0	174	29	0	404
Future Volume (vph)	79	0	174	29	0	404
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt			0.979			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	3465	0	0	3539
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	3465	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			29			
Link Speed (k/h)	50		50			50
Link Distance (m)	475.6		354.1			609.7
Travel Time (s)	34.2		25.5			43.9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	79	0	174	29	0	404
Shared Lane Traffic (%)						
Lane Group Flow (vph)	79	0	203	0	0	404
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	11.0		38.6			38.6
Actuated g/C Ratio	0.22		0.77			0.77
v/c Ratio	0.20		0.08			0.15
Control Delay (s/veh)	17.5		5.5			3.4
Queue Delay	0.0		0.0			0.0
Total Delay (s/veh)	17.5		5.5			3.4
LOS	B		A			A
Approach Delay (s/veh)	17.5		5.5			3.4
Approach LOS	B		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.20			
Intersection Signal Delay (s/veh): 5.6		Intersection LOS: A	
Intersection Capacity Utilization 26.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 102: Centreville Creek Road & Street D



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	79	203	404
v/c Ratio	0.20	0.08	0.15
Control Delay (s/veh)	17.5	5.5	3.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	17.5	5.5	3.4
Queue Length 50th (m)	6.1	2.8	8.6
Queue Length 95th (m)	14.9	13.5	17.8
Internal Link Dist (m)	451.6	330.1	585.7
Turn Bay Length (m)	50.0		
Base Capacity (vph)	708	2680	2731
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.11	0.08	0.15

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	79	0	174	29	0	404
Future Volume (vph)	79	0	174	29	0	404
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frt	1.00		0.98			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1770		3463			3539
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1770		3463			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	79	0	174	29	0	404
RTOR Reduction (vph)	0	0	9	0	0	0
Lane Group Flow (vph)	79	0	194	0	0	404
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	6.0		34.0			34.0
Effective Green, g (s)	7.0		35.0			35.0
Actuated g/C Ratio	0.14		0.70			0.70
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	247		2424			2477
v/s Ratio Prot	c0.04		0.06			c0.11
v/s Ratio Perm						
v/c Ratio	0.32		0.08			0.16
Uniform Delay, d1	19.4		2.4			2.5
Progression Factor	1.00		1.91			1.01
Incremental Delay, d2	0.8		0.1			0.1
Delay (s)	20.1		4.6			2.7
Level of Service	C		A			A
Approach Delay (s/veh)	20.1		4.6			2.7
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		

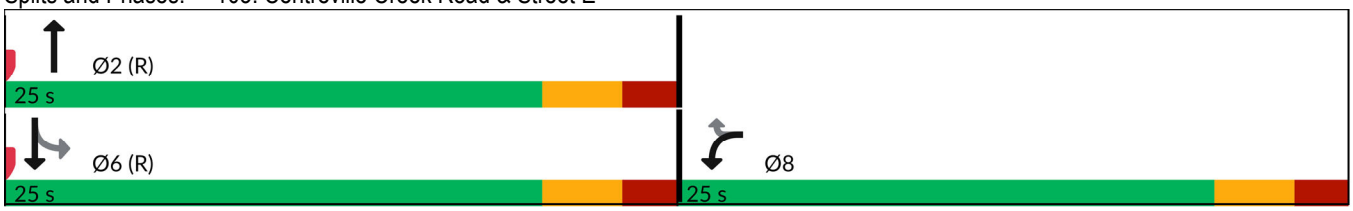
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	242	0	203	93	0	483
Future Volume (vph)	242	0	203	93	0	483
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt			0.953			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	3373	0	0	3539
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	3373	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			93			
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			354.1
Travel Time (s)	98.3		15.2			25.5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	242	0	203	93	0	483
Shared Lane Traffic (%)						
Lane Group Flow (vph)	242	0	296	0	0	483
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	25.0	25.0	25.0		25.0	25.0
Total Split (%)	50.0%	50.0%	50.0%		50.0%	50.0%
Maximum Green (s)	20.0	20.0	20.0		20.0	20.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	13.1		28.9			28.9
Actuated g/C Ratio	0.26		0.58			0.58
v/c Ratio	0.52		0.15			0.24
Control Delay (s/veh)	20.1		4.2			3.9
Queue Delay	0.0		0.0			0.0
Total Delay (s/veh)	20.1		4.2			3.9
LOS	C		A			A
Approach Delay (s/veh)	20.1		4.2			3.9
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 7.8		Intersection LOS: A	
Intersection Capacity Utilization 33.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 103: Centreville Creek Road & Street E



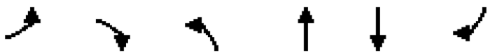
Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	242	296	483
v/c Ratio	0.52	0.15	0.24
Control Delay (s/veh)	20.1	4.2	3.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	20.1	4.2	3.9
Queue Length 50th (m)	21.2	3.8	6.1
Queue Length 95th (m)	42.1	10.1	12.0
Internal Link Dist (m)	1341.1	187.0	330.1
Turn Bay Length (m)	50.0		
Base Capacity (vph)	743	1990	2047
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.33	0.15	0.24

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	242	0	203	93	0	483
Future Volume (vph)	242	0	203	93	0	483
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frt	1.00		0.95			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1770		3372			3539
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1770		3372			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	242	0	203	93	0	483
RTOR Reduction (vph)	0	0	39	0	0	0
Lane Group Flow (vph)	242	0	257	0	0	483
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	12.1		27.9			27.9
Effective Green, g (s)	13.1		28.9			28.9
Actuated g/C Ratio	0.26		0.58			0.58
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	463		1949			2045
v/s Ratio Prot	c0.14		0.08			c0.14
v/s Ratio Perm						
v/c Ratio	0.52		0.13			0.24
Uniform Delay, d1	15.8		4.8			5.2
Progression Factor	1.07		1.00			0.60
Incremental Delay, d2	1.0		0.1			0.3
Delay (s)	17.9		5.0			3.4
Level of Service	B		A			A
Approach Delay (s/veh)	17.9		5.0			3.4
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

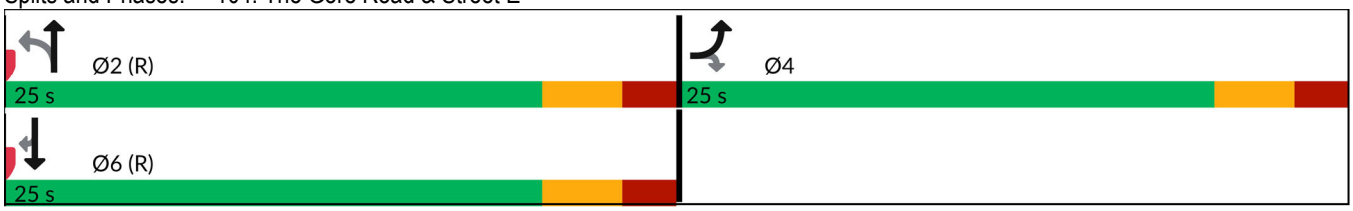


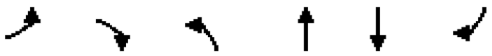
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	534	238	98	989	753	137
Future Volume (vph)	534	238	98	989	753	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	1			1
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.307			
Satd. Flow (perm)	1770	1583	572	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		101				137
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	534	238	98	989	753	137
Shared Lane Traffic (%)						
Lane Group Flow (vph)	534	238	98	989	753	137
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	19.2	19.2	22.8	22.8	22.8	22.8
Actuated g/C Ratio	0.38	0.38	0.46	0.46	0.46	0.46
v/c Ratio	0.79	0.36	0.38	0.61	0.47	0.17
Control Delay (s/veh)	22.7	7.3	15.5	12.9	11.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.7	7.3	15.5	12.9	11.2	2.8
LOS	C	A	B	B	B	A
Approach Delay (s/veh)	17.9			13.1	9.9	
Approach LOS	B			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 13.4		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 104: The Gore Road & Street E

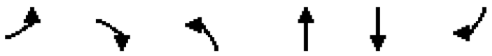




Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	534	238	98	989	753	137
v/c Ratio	0.79	0.36	0.38	0.61	0.47	0.17
Control Delay (s/veh)	22.7	7.3	15.5	12.9	11.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.7	7.3	15.5	12.9	11.2	2.8
Queue Length 50th (m)	36.6	7.1	6.0	36.9	25.7	0.0
Queue Length 95th (m)	#68.5	18.3	17.2	54.3	38.6	7.4
Internal Link Dist (m)	1341.1			163.4	711.4	
Turn Bay Length (m)	50.0		50.0			50.0
Base Capacity (vph)	743	723	260	1613	1613	796
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.33	0.38	0.61	0.47	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	534	238	98	989	753	137
Future Volume (vph)	534	238	98	989	753	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.95	1.00	0.31	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	572	3539	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	534	238	98	989	753	137
RTOR Reduction (vph)	0	62	0	0	0	75
Lane Group Flow (vph)	534	176	98	989	753	62
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	18.2	18.2	21.8	21.8	21.8	21.8
Effective Green, g (s)	19.2	19.2	22.8	22.8	22.8	22.8
Actuated g/C Ratio	0.38	0.38	0.46	0.46	0.46	0.46
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	679	607	260	1613	1613	721
v/s Ratio Prot	c0.30			c0.28	0.21	
v/s Ratio Perm		0.11	0.17			0.04
v/c Ratio	0.79	0.29	0.38	0.61	0.47	0.09
Uniform Delay, d1	13.6	10.7	8.9	10.3	9.4	7.7
Progression Factor	0.97	0.95	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.0	0.3	4.1	1.8	1.0	0.2
Delay (s)	19.2	10.4	13.1	12.0	10.4	7.9
Level of Service	B	B	B	B	B	A
Approach Delay (s/veh)	16.5			12.1	10.0	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

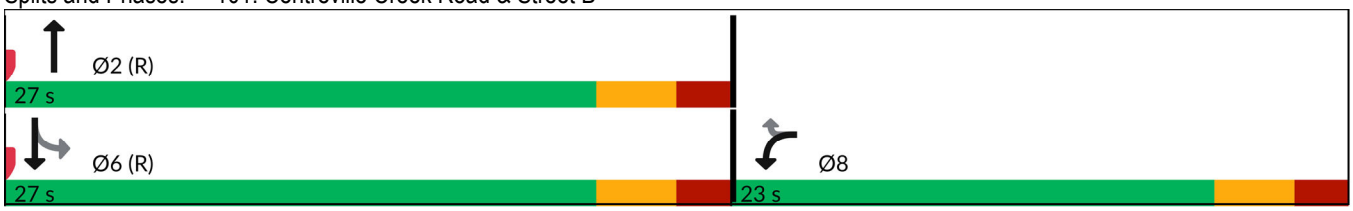
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	60	0	310	113	0	155
Future Volume (vph)	60	0	310	113	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt			0.960			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	3398	0	0	3539
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	3398	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			113			
Link Speed (k/h)	50		50			50
Link Distance (m)	340.0		609.7			158.3
Travel Time (s)	24.5		43.9			11.4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	60	0	310	113	0	155
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	423	0	0	155
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	23.0	23.0	27.0		27.0	27.0
Total Split (%)	46.0%	46.0%	54.0%		54.0%	54.0%
Maximum Green (s)	18.0	18.0	22.0		22.0	22.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	11.0		42.4			42.4
Actuated g/C Ratio	0.22		0.85			0.85
v/c Ratio	0.15		0.15			0.05
Control Delay (s/veh)	17.0		1.9			2.5
Queue Delay	0.0		0.0			0.0
Total Delay (s/veh)	17.0		1.9			2.5
LOS	B		A			A
Approach Delay (s/veh)	17.0		1.9			2.5
Approach LOS	B		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.15			
Intersection Signal Delay (s/veh): 3.5		Intersection LOS: A	
Intersection Capacity Utilization 27.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 101: Centreville Creek Road & Street B



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	60	423	155
v/c Ratio	0.15	0.15	0.05
Control Delay (s/veh)	17.0	1.9	2.5
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	17.0	1.9	2.5
Queue Length 50th (m)	4.6	0.0	0.0
Queue Length 95th (m)	12.1	0.0	4.9
Internal Link Dist (m)	316.0	585.7	134.3
Turn Bay Length (m)	50.0		
Base Capacity (vph)	672	2898	3001
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.15	0.05

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	60	0	310	113	0	155
Future Volume (vph)	60	0	310	113	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frt	1.00		0.96			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1770		3397			3539
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1770		3397			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	60	0	310	113	0	155
RTOR Reduction (vph)	0	0	29	0	0	0
Lane Group Flow (vph)	60	0	394	0	0	155
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	4.0		36.0			36.0
Effective Green, g (s)	5.0		37.0			37.0
Actuated g/C Ratio	0.10		0.74			0.74
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	177		2513			2618
v/s Ratio Prot	c0.03		c0.12			0.04
v/s Ratio Perm						
v/c Ratio	0.34		0.16			0.06
Uniform Delay, d1	21.0		1.9			1.8
Progression Factor	1.00		0.96			1.00
Incremental Delay, d2	1.1		0.1			0.0
Delay (s)	22.1		2.0			1.8
Level of Service	C		A			A
Approach Delay (s/veh)	22.1		2.0			1.8
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	27.2%	ICU Level of Service	A
Analysis Period (min)	15		

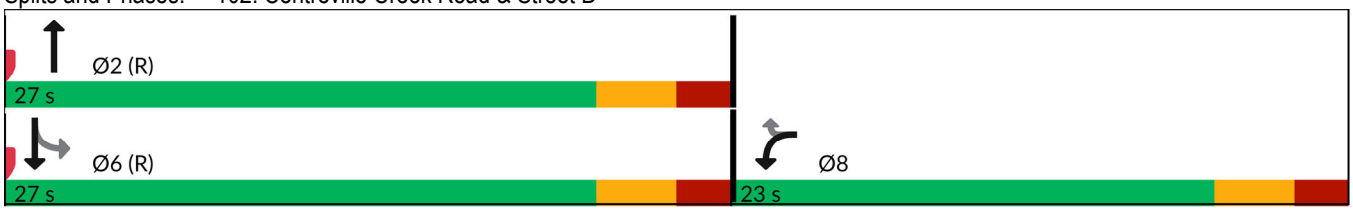
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	0	423	92	0	215
Future Volume (vph)	51	0	423	92	0	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt			0.973			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	3444	0	0	3539
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	3444	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			69			
Link Speed (k/h)	50		50			50
Link Distance (m)	475.6		354.1			609.7
Travel Time (s)	34.2		25.5			43.9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	0	423	92	0	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	515	0	0	215
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	23.0	23.0	27.0		27.0	27.0
Total Split (%)	46.0%	46.0%	54.0%		54.0%	54.0%
Maximum Green (s)	18.0	18.0	22.0		22.0	22.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	11.0		42.4			42.4
Actuated g/C Ratio	0.22		0.85			0.85
v/c Ratio	0.13		0.18			0.07
Control Delay (s/veh)	16.7		5.3			2.1
Queue Delay	0.0		0.0			0.0
Total Delay (s/veh)	16.7		5.3			2.1
LOS	B		A			A
Approach Delay (s/veh)	16.7		5.3			2.1
Approach LOS	B		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.18			
Intersection Signal Delay (s/veh): 5.1		Intersection LOS: A	
Intersection Capacity Utilization 29.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 102: Centreville Creek Road & Street D



Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	51	515	215
v/c Ratio	0.13	0.18	0.07
Control Delay (s/veh)	16.7	5.3	2.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	16.7	5.3	2.1
Queue Length 50th (m)	3.9	0.0	0.0
Queue Length 95th (m)	10.8	29.4	8.1
Internal Link Dist (m)	451.6	330.1	585.7
Turn Bay Length (m)	50.0		
Base Capacity (vph)	672	2931	3001
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.08	0.18	0.07

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	0	423	92	0	215
Future Volume (vph)	51	0	423	92	0	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frt	1.00		0.97			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1770		3444			3539
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1770		3444			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	0	423	92	0	215
RTOR Reduction (vph)	0	0	18	0	0	0
Lane Group Flow (vph)	51	0	497	0	0	215
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	4.0		36.0			36.0
Effective Green, g (s)	5.0		37.0			37.0
Actuated g/C Ratio	0.10		0.74			0.74
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	177		2548			2618
v/s Ratio Prot	c0.03		c0.14			0.06
v/s Ratio Perm						
v/c Ratio	0.29		0.20			0.08
Uniform Delay, d1	20.9		2.0			1.8
Progression Factor	1.00		2.41			0.84
Incremental Delay, d2	0.9		0.2			0.1
Delay (s)	21.8		4.9			1.6
Level of Service	C		A			A
Approach Delay (s/veh)	21.8		4.9			1.6
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

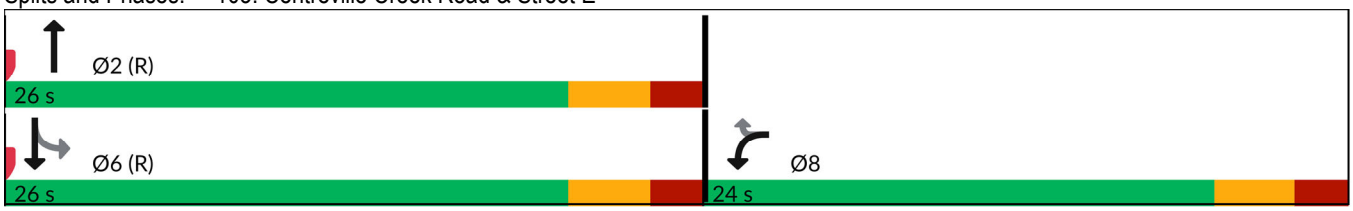
c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	161	0	515	290	0	266
Future Volume (vph)	161	0	515	290	0	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt			0.946			
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	3348	0	0	3539
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	3348	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			278			
Link Speed (k/h)	50		50			50
Link Distance (m)	1365.1		211.0			354.1
Travel Time (s)	98.3		15.2			25.5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	0	515	290	0	266
Shared Lane Traffic (%)						
Lane Group Flow (vph)	161	0	805	0	0	266
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100		100	100	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0			-1.0
Total Lost Time (s)	4.0	4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min		C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.8		34.2			34.2
Actuated g/C Ratio	0.22		0.68			0.68
v/c Ratio	0.42		0.34			0.11
Control Delay (s/veh)	19.5		3.6			2.7
Queue Delay	0.0		0.0			0.0
Total Delay (s/veh)	19.5		3.6			2.7
LOS	B		A			A
Approach Delay (s/veh)	19.5		3.6			2.7
Approach LOS	B		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay (s/veh): 5.5		Intersection LOS: A	
Intersection Capacity Utilization 39.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 103: Centreville Creek Road & Street E



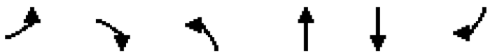
Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	161	805	266
v/c Ratio	0.42	0.34	0.11
Control Delay (s/veh)	19.5	3.6	2.7
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	19.5	3.6	2.7
Queue Length 50th (m)	13.1	9.3	2.4
Queue Length 95th (m)	24.0	20.6	6.1
Internal Link Dist (m)	1341.1	187.0	330.1
Turn Bay Length (m)	50.0		
Base Capacity (vph)	708	2376	2419
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.23	0.34	0.11

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	161	0	515	290	0	266
Future Volume (vph)	161	0	515	290	0	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frt	1.00		0.95			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1770		3348			3539
Flt Permitted	0.95		1.00			1.00
Satd. Flow (perm)	1770		3348			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	0	515	290	0	266
RTOR Reduction (vph)	0	0	98	0	0	0
Lane Group Flow (vph)	161	0	707	0	0	266
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	8.6		31.4			31.4
Effective Green, g (s)	9.6		32.4			32.4
Actuated g/C Ratio	0.19		0.65			0.65
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	339		2169			2293
v/s Ratio Prot	c0.09		c0.21			0.08
v/s Ratio Perm						
v/c Ratio	0.47		0.33			0.12
Uniform Delay, d1	18.0		3.9			3.3
Progression Factor	1.00		1.00			0.60
Incremental Delay, d2	1.1		0.4			0.1
Delay (s)	19.0		4.3			2.1
Level of Service	B		A			A
Approach Delay (s/veh)	19.0		4.3			2.1
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

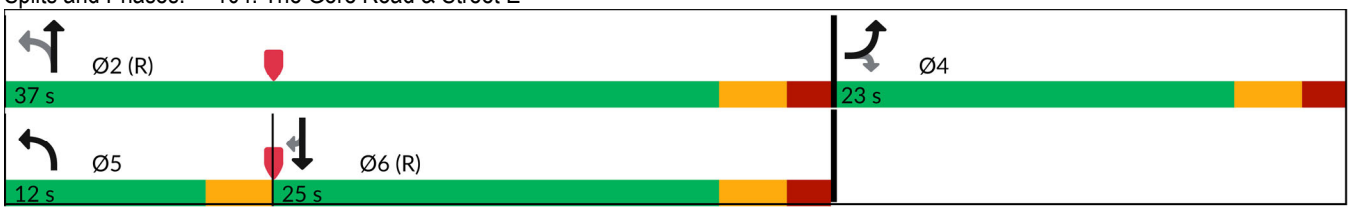


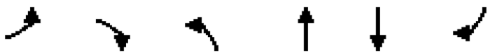
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	350	155	309	993	877	433
Future Volume (vph)	350	155	309	993	877	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0	50.0			50.0
Storage Lanes	1	1	1			1
Taper Length (m)	7.5		7.5			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.188			
Satd. Flow (perm)	1770	1583	350	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		155				433
Link Speed (k/h)	50			50	50	
Link Distance (m)	1365.1			187.4	735.4	
Travel Time (s)	98.3			13.5	52.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	350	155	309	993	877	433
Shared Lane Traffic (%)						
Lane Group Flow (vph)	350	155	309	993	877	433
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.0	23.0	10.0	23.0	23.0	23.0
Total Split (s)	23.0	23.0	12.0	37.0	25.0	25.0
Total Split (%)	38.3%	38.3%	20.0%	61.7%	41.7%	41.7%
Maximum Green (s)	18.0	18.0	9.0	32.0	20.0	20.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	2.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Don't Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	16.6	16.6	37.4	35.4	23.4	23.4
Actuated g/C Ratio	0.28	0.28	0.62	0.59	0.39	0.39
v/c Ratio	0.72	0.28	0.68	0.48	0.64	0.49
Control Delay (s/veh)	28.1	4.7	16.9	8.5	18.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.1	4.7	16.9	8.5	18.2	4.0
LOS	C	A	B	A	B	A
Approach Delay (s/veh)	20.9			10.5	13.5	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay (s/veh): 13.4		Intersection LOS: B	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 104: The Gore Road & Street E

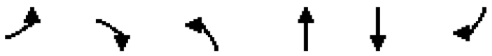




Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	350	155	309	993	877	433
v/c Ratio	0.72	0.28	0.68	0.48	0.64	0.49
Control Delay (s/veh)	28.1	4.7	16.9	8.5	18.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.1	4.7	16.9	8.5	18.2	4.0
Queue Length 50th (m)	35.1	0.0	14.9	32.0	45.1	0.0
Queue Length 95th (m)	58.7	10.9	#45.6	47.8	64.0	16.3
Internal Link Dist (m)	1341.1			163.4	711.4	
Turn Bay Length (m)	50.0		50.0			50.0
Base Capacity (vph)	560	607	461	2088	1381	881
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.26	0.67	0.48	0.64	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	350	155	309	993	877	433
Future Volume (vph)	350	155	309	993	877	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	2.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.95	1.00	0.19	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	351	3539	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	350	155	309	993	877	433
RTOR Reduction (vph)	0	112	0	0	0	264
Lane Group Flow (vph)	350	43	309	993	877	169
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	15.6	15.6	34.4	34.4	22.4	22.4
Effective Green, g (s)	16.6	16.6	35.4	35.4	23.4	23.4
Actuated g/C Ratio	0.28	0.28	0.59	0.59	0.39	0.39
Clearance Time (s)	5.0	5.0	3.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	489	437	443	2088	1380	617
v/s Ratio Prot	c0.20		c0.12	0.28	c0.25	
v/s Ratio Perm		0.03	0.29			0.11
v/c Ratio	0.72	0.10	0.70	0.48	0.64	0.27
Uniform Delay, d1	19.6	16.1	8.0	7.0	14.8	12.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.9	0.1	4.7	0.8	2.2	1.1
Delay (s)	24.5	16.2	12.8	7.8	17.1	13.6
Level of Service	C	B	B	A	B	B
Approach Delay (s/veh)	22.0			9.0	15.9	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Appendix D

Signalization Warrant Analysis

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: Phase 2 Total Traffic
Region/City/Township: Town of Caledon

Major Street: Centreville Creek Road North/South: Y
Minor Street: Street B

Number of Approach Lanes: 1
Tee Intersection? Y
Flow Conditions: Free

PM Forecast Only? N

Warrant Results		
150% Satisfied	**No**	Justification for new intersections with forecast traffic
120% Satisfied	**No**	Justification for existing intersections with forecast traffic

Time Period	Major Street						Minor Street						Peds Crossing Main Road
	Centreville Creek Road						Street B						
	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour		140	34	0	310					94		0	0
PM Peak Hour		310	113	0	155					60		0	0
Average Hourly Volume	**0**	**113**	**37**	**0**	**116**	**0**	**0**	**0**	**0**	**39**	**0**	**0**	**0**

Warrant 1 - Minimum Vehicular Volume

Warrant	AHV
1A - All	304
1B - Mino	39
2A - Majo	266
2B - Cros	39

1A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	All Approaches	480	720	600	900	304
					% Fulfilled	**63.3%**

1B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Minor Street Approaches	180	255	180	255	39
					% Fulfilled	**21.4%**

Warrant 2 - Delay To Cross Traffic

2A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Major Street Approaches	480	720	600	900	266
					% Fulfilled	**55.3%**

2B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Traffic Crossing Major Street	50	75	50	75	39
					% Fulfilled	**77.0%**

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: Phase 1 Total Traffic
Region/City/Township: Town of Caledon

Major Street: Centreville Creek Road North/South: Y
Minor Street: Street D

Number of Approach Lanes: 1
Tee Intersection? Y
Flow Conditions: Free

PM Forecast Only? N

Warrant Results		
150% Satisfied	**No**	Justification for new intersections with forecast traffic
120% Satisfied	**No**	Justification for existing intersections with forecast traffic

Time Period	Major Street						Minor Street						Peds Crossing Main Road
	Centreville Creek Road						Street D						
	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour		174	29	0	404					79		0	0
PM Peak Hour		423	92	0	215					51		0	0
Average Hourly Volume	**0**	**149**	**30**	**0**	**155**	**0**	**0**	**0**	**0**	**33**	**0**	**0**	**0**

Warrant 1 - Minimum Vehicular Volume

Warrant	AHV
1A - All	367
1B - Mino	33
2A - Majo	334
2B - Cros	33

1A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	All Approaches	480	720	600	900	367
					% Fulfilled	**76.4%**

1B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Minor Street Approaches	180	255	180	255	33
					% Fulfilled	**18.1%**

Warrant 2 - Delay To Cross Traffic

2A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Major Street Approaches	480	720	600	900	334
					% Fulfilled	**69.6%**

2B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Traffic Crossing Major Street	50	75	50	75	33
					% Fulfilled	**65.0%**

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: Phase 1 Total Traffic
Region/City/Township: Town of Caledon

Major Street: Centreville Creek Road North/South: Y
Minor Street: Street E

Number of Approach Lanes: 1
Tee Intersection? Y
Flow Conditions: Free

PM Forecast Only? N

Warrant Results		
150% Satisfied	**No**	Justification for new intersections with forecast traffic
120% Satisfied	**No**	Justification for existing intersections with forecast traffic

Time Period	Major Street						Minor Street						Peds Crossing Main Road
	Centreville Creek Road						Street E						
	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour		140	61	0	310					162		0	0
PM Peak Hour		310	187	0	155					105		0	0
Average Hourly Volume	**0**	**113**	**62**	**0**	**116**	**0**	**0**	**0**	**0**	**67**	**0**	**0**	**0**

Warrant 1 - Minimum Vehicular Volume

Warrant	AHV
1A - All	358
1B - Mino	67
2A - Majo	291
2B - Cros	67

1A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	All Approaches	480	720	600	900	358
					% Fulfilled	**74.5%**

1B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Minor Street Approaches	180	255	180	255	67
					% Fulfilled	**37.1%**

Warrant 2 - Delay To Cross Traffic

2A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Major Street Approaches	480	720	600	900	291
					% Fulfilled	**60.6%**

2B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Traffic Crossing Major Street	50	75	50	75	67
					% Fulfilled	**133.5%**

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: Phase 2 Total Traffic
Region/City/Township: Town of Caledon

Major Street: Centreville Creek Road North/South: Y
Minor Street: Street E

Number of Approach Lanes: 1
Tee Intersection? Y
Flow Conditions: Free

PM Forecast Only? N

Warrant Results		
150% Satisfied	**No**	Justification for new intersections with forecast traffic
120% Satisfied	**No**	Justification for existing intersections with forecast traffic

Time Period	Major Street						Minor Street						Peds Crossing Main Road
	Centreville Creek Road						Street E						
	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour		203	93	0	483					242		0	0
PM Peak Hour		515	290	0	266					161		0	0
Average Hourly Volume	**0**	**180**	**96**	**0**	**187**	**0**	**0**	**0**	**0**	**101**	**0**	**0**	**0**

Warrant 1 - Minimum Vehicular Volume

Warrant	AHV
1A - All	563
1B - Mino	101
2A - Majo	463
2B - Cros	101

1A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	All Approaches	480	720	600	900	563
					% Fulfilled	**117.3%**

1B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Minor Street Approaches	180	255	180	255	101
					% Fulfilled	**56.0%**

Warrant 2 - Delay To Cross Traffic

2A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Major Street Approaches	480	720	600	900	463
					% Fulfilled	**96.4%**

2B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Traffic Crossing Major Street	50	75	50	75	101
					% Fulfilled	**201.5%**

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: Phase 1 Total Traffic
Region/City/Township: Town of Caledon

Major Street: The Gore Road
Minor Street: Street E
North/South: Y

Number of Approach Lanes: 1
Tee Intersection? Y
Flow Conditions: Free

PM Forecast Only? N

Warrant Results		
150% Satisfied	**No**	Justification for new intersections with forecast traffic
120% Satisfied	**No**	Justification for existing intersections with forecast traffic

Time Period	Major Street – The Gore Road						Minor Street – Street E						Peds Crossing Main Road
	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour	38	350			590	54	208		93				0
PM Peak Hour	117	590			385	164	134		60				0
Average Hourly Volume	**39**	**235**	**0**	**0**	**244**	**55**	**86**	**0**	**38**	**0**	**0**	**0**	**0**

Warrant 1 - Minimum Vehicular Volume

Warrant	AHV
1A - All	696
1B - Mino	124
2A - Majo	572
2B - Cros	86

1A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	All Approaches	480	720	600	900	696
					% Fulfilled	**144.9%**

1B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Minor Street Approaches	180	255	180	255	124
					% Fulfilled	**68.8%**

Warrant 2 - Delay To Cross Traffic

2A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Major Street Approaches	480	720	600	900	572
					% Fulfilled	**119.2%**

2B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Traffic Crossing Major Street	50	75	50	75	86
					% Fulfilled	**171.0%**

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: Phase 2 Total Traffic
Region/City/Township: Town of Caledon

Major Street: The Gore Road
Minor Street: Street E
North/South: Y

Number of Approach Lanes: 1
Tee Intersection? Y
Flow Conditions: Free

PM Forecast Only? N

Warrant Results		
150% Satisfied	**Yes**	Justification for new intersections with forecast traffic
120% Satisfied	**Yes**	Justification for existing intersections with forecast traffic

Time Period	Major Street						Minor Street						Peds Crossing Main Road
	The Gore Road						Street E						
	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour	98	989			753	137	534		238				0
PM Peak Hour	309	993			877	433	350		155				0
Average Hourly Volume	**102**	**496**	**0**	**0**	**408**	**143**	**221**	**0**	**98**	**0**	**0**	**0**	**0**

Warrant 1 - Minimum Vehicular Volume

Warrant	AHV
1A - All	1467
1B - Mino	319
2A - Majo	1147
2B - Cros	221

1A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	All Approaches	480	720	600	900	1467
					% Fulfilled	**305.5%**

1B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Minor Street Approaches	180	255	180	255	319
					% Fulfilled	**177.4%**

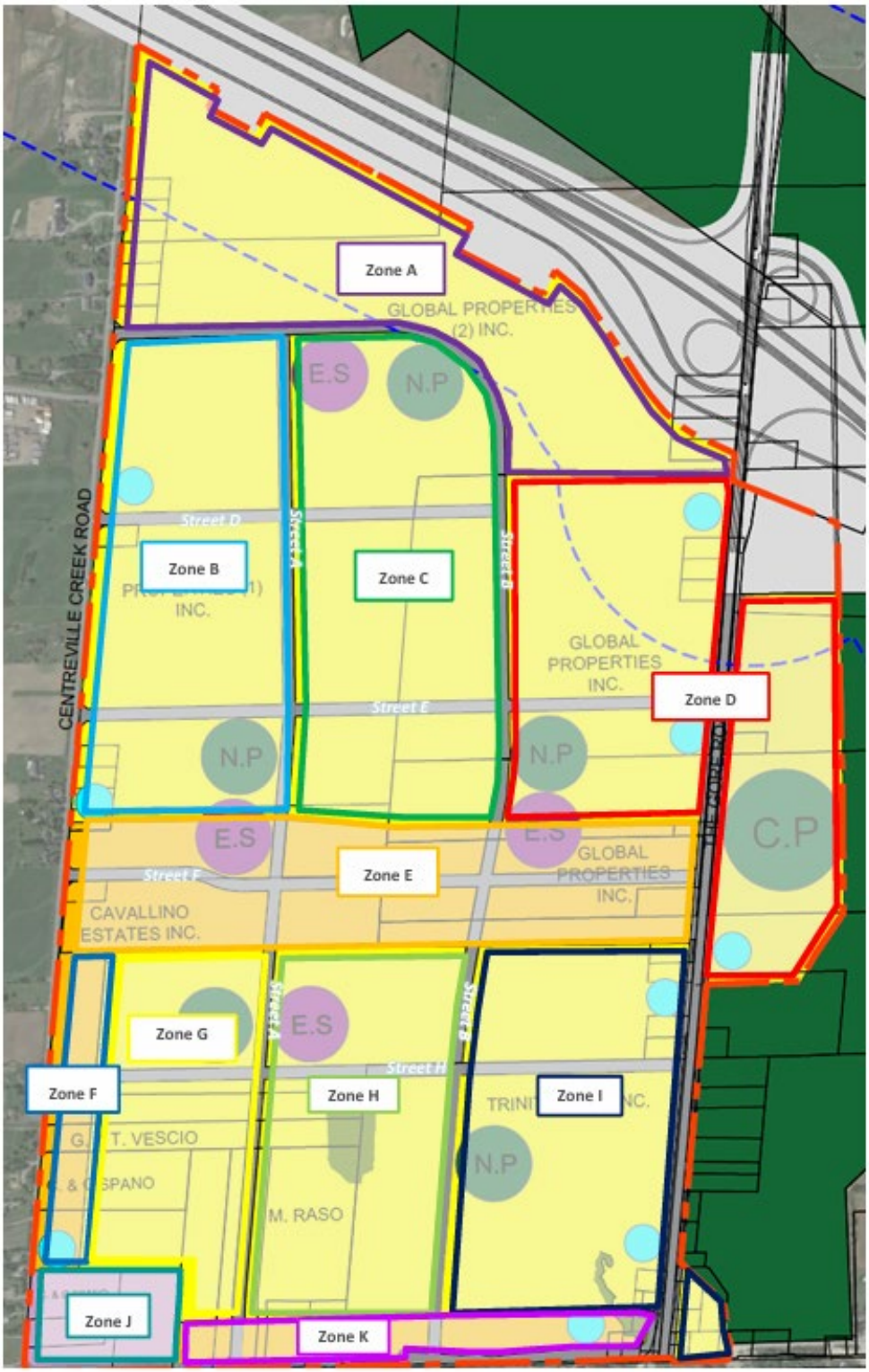
Warrant 2 - Delay To Cross Traffic

2A	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Major Street Approaches	480	720	600	900	1147
					% Fulfilled	**239.0%**

2B	Approach Lanes	1		2 or more		Average Hourly Volume
	Flow Conditions	Free	Restricted	Free	Restricted	
		X				
	Traffic Crossing Major Street	50	75	50	75	221
					% Fulfilled	**442.0%**

Appendix E

Background Development Trip Generation Table and Study Area Map



NTS

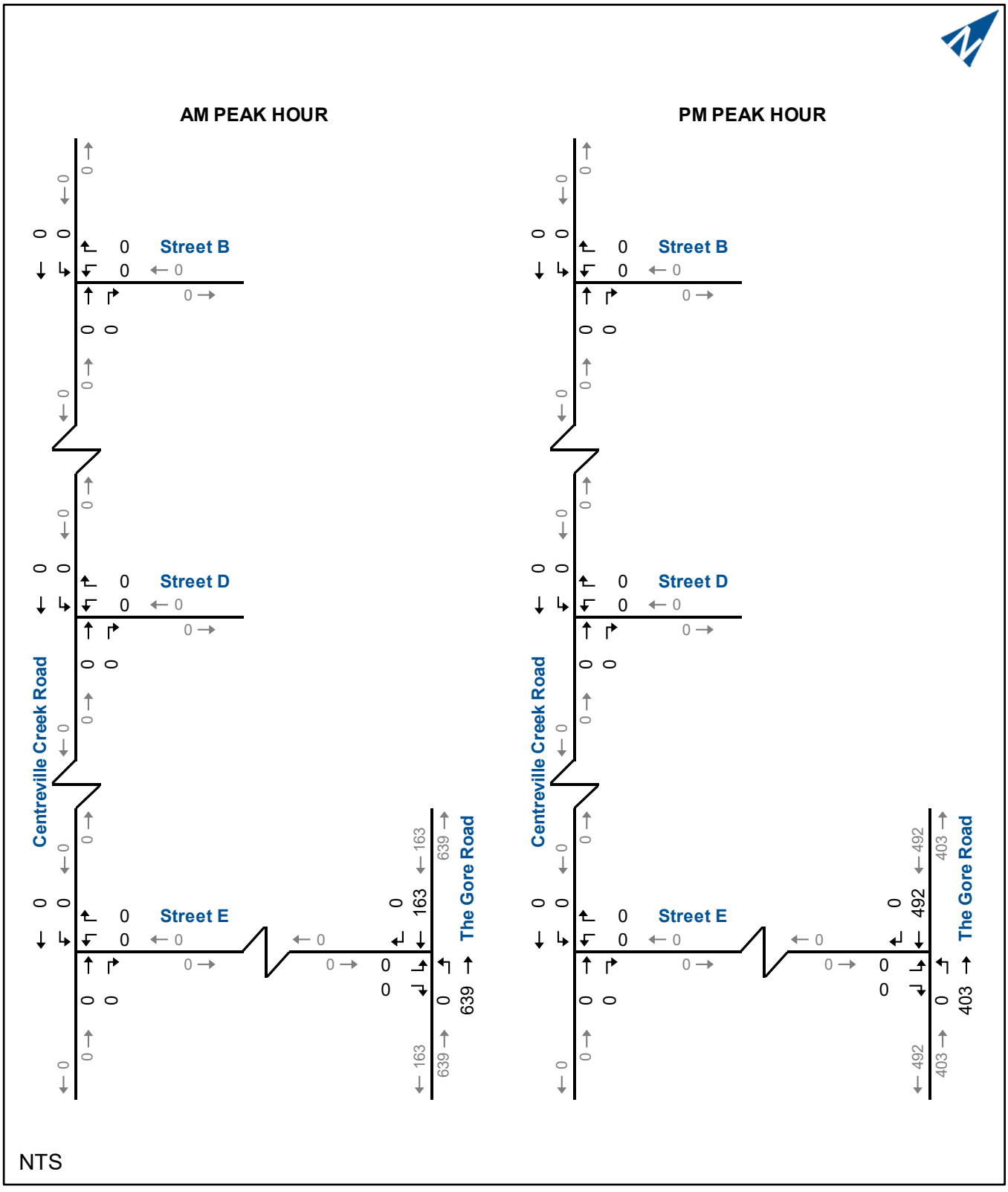
BA Group Wildfield Village Secondary Plan – November 2024

paradigm TRANSPORTATION SOLUTIONS LIMITED

Background Development Zones

Letter Zone	Unit Type	Units	AM Peak Hour			PM Peak Hour		
			In	Out	2-Way	In	Out	2-Way
A	Single	186	35	95	130	110	65	175
	Semis & Townhouse	394	45	140	185	135	90	225
	Zone A Total	**580**	**80**	**235**	**315**	**245**	**155**	**400**
B	Single	362	65	190	255	215	125	340
	Semis & Townhouse	331	40	120	160	110	75	185
	Zone B Total	**693**	**105**	**310**	**415**	**325**	**200**	**525**
C	Single	455	80	235	315	270	160	430
	Semis & Townhouse	426	50	155	205	145	100	245
	Zone C Total	**881**	**130**	**390**	**520**	**415**	**260**	**675**
D	Single	464	80	240	320	275	160	435
	Semis & Townhouse	443	55	160	215	150	105	255
	Zone D Total	**907**	**135**	**400**	**535**	**425**	**265**	**690**
E	Townhouse	659	80	235	315	220	155	375
	Stacked Townhouse	331	30	100	130	105	60	165
	Apartments	110	10	30	40	25	15	40
	Zone E Total	**1100**	**120**	**365**	**485**	**350**	**230**	**580**
F	Townhouse	292	35	105	140	100	70	170
	Stacked Townhouse	146	15	45	60	45	30	75
	Apartments	49	5	15	20	10	5	15
	Zone F Total	**487**	**55**	**165**	**220**	**155**	**105**	**260**
G	Semis & Townhouse	136	25	70	95	80	45	125
	Townhouse	144	15	50	65	50	35	85
	Zone G Total	**280**	**40**	**120**	**160**	**130**	**80**	**210**
H	Semis & Townhouse	320	55	165	220	190	110	300
	Townhouse	350	40	125	165	120	80	200
	Zone H Total	**670**	**95**	**290**	**385**	**310**	**190**	**500**

NTS
BA Group Wildfield Village Secondary Plan – November 2024



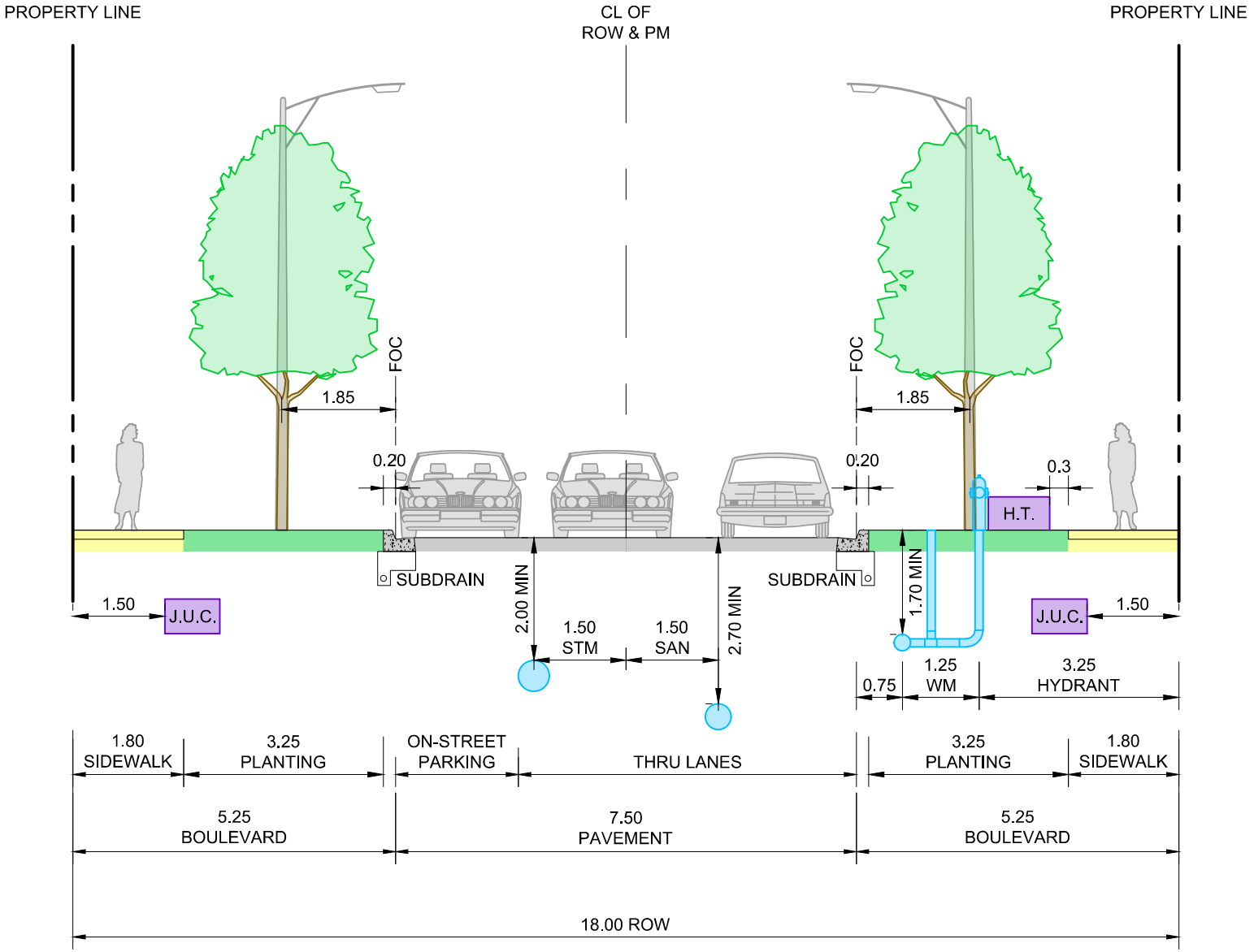
Background Development Trip Distribution

Wildfield Village
240562

Appendix E.3

Appendix F

Cross-sections from Secondary Plan Transportation Study



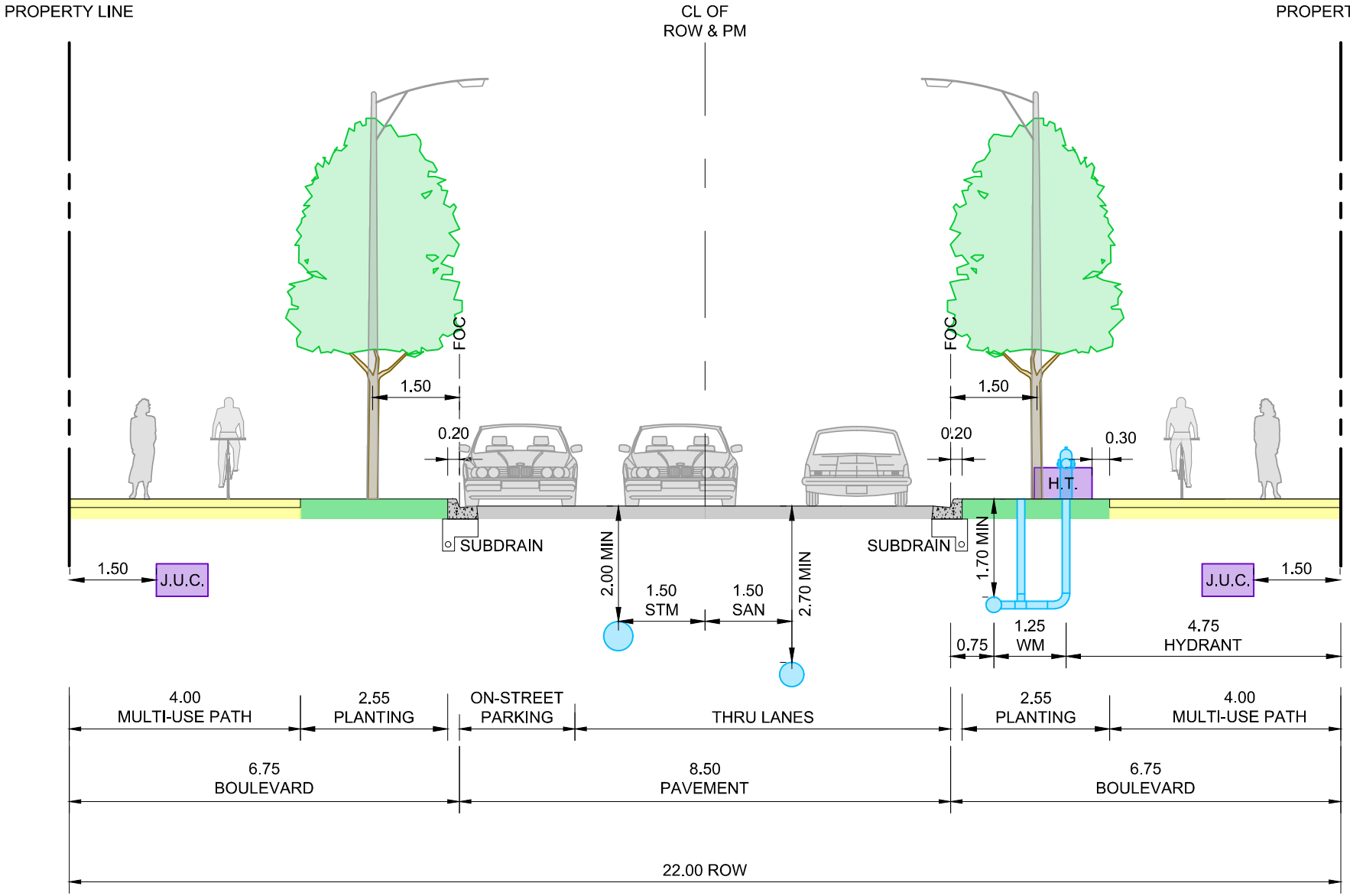
J.U.C. - JOINT USE UTILITY CORRIDOR
H.T. - HYDRO TRANSFORMER

BA Group

CALEDON CROSS-SECTION

18.0m R.O.W.
Local Road

Project:	Caledon
Project No.	8155-03
Date:	March 20, 2024
Revised:	June 26, 2024
Drawing No.	XS-1



J.U.C. - JOINT USE UTILITY CORRIDOR
H.T. - HYDRO TRANSFORMER

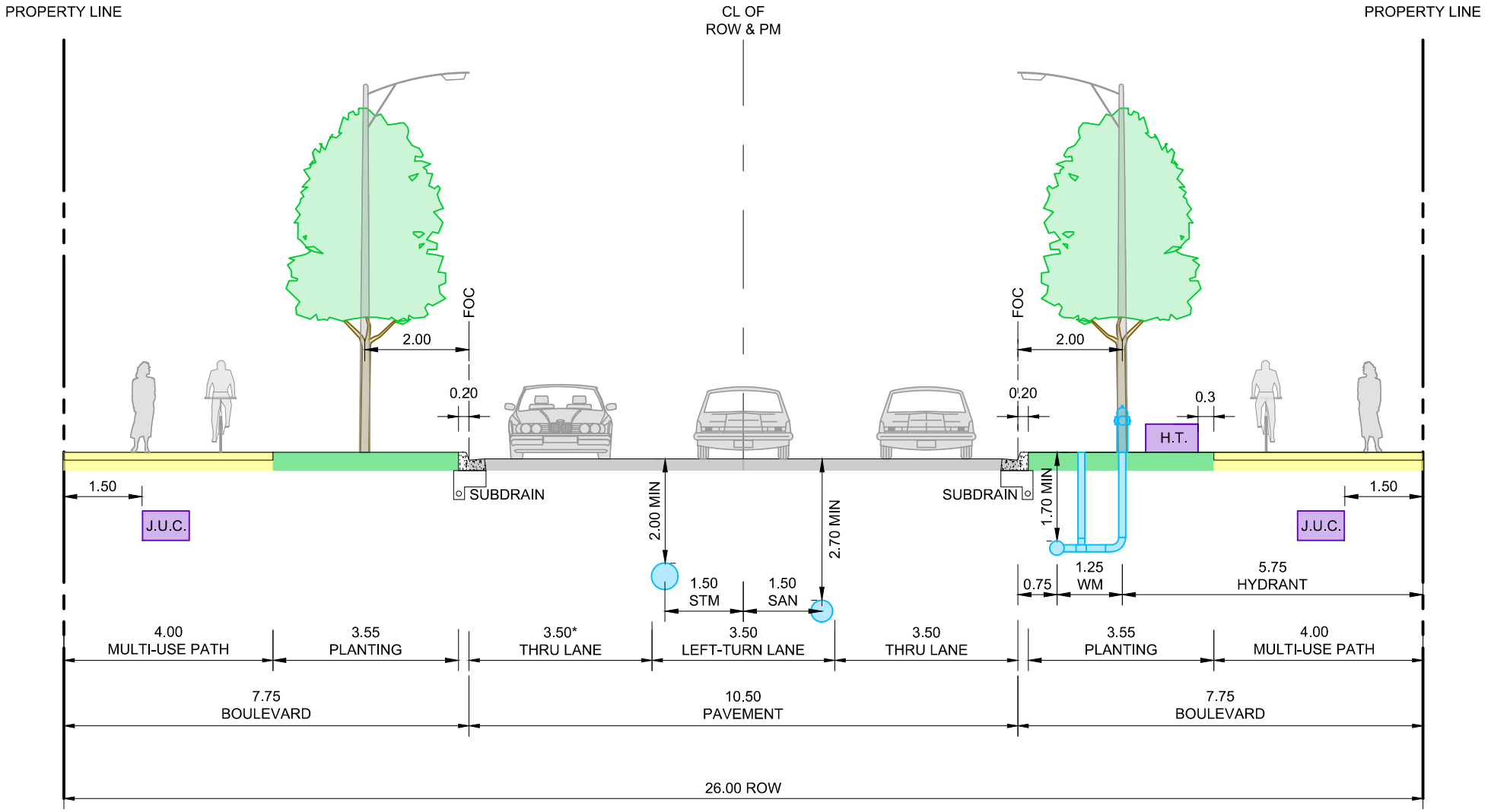
BA Group

CALEDON CROSS-SECTION

22.0m R.O.W.
Collector

Project:	Caledon
Project No.	8155-03
Date:	March 20, 2024
Revised:	June 26, 2024
Drawing No.	XS-2

Date Plotted: June 26, 2024 Filename: J:\8155-03\BA\Cross-Sections\03 - June 26, 2024\BA-Generic Caledon-XSEC-R03-815503.dwg



J.U.C. - JOINT USE UTILITY CORRIDOR
H.T. - HYDRO TRANSFORMER
* RECEIVING LANES AT INTERSECTIONS TO BE WIDENED

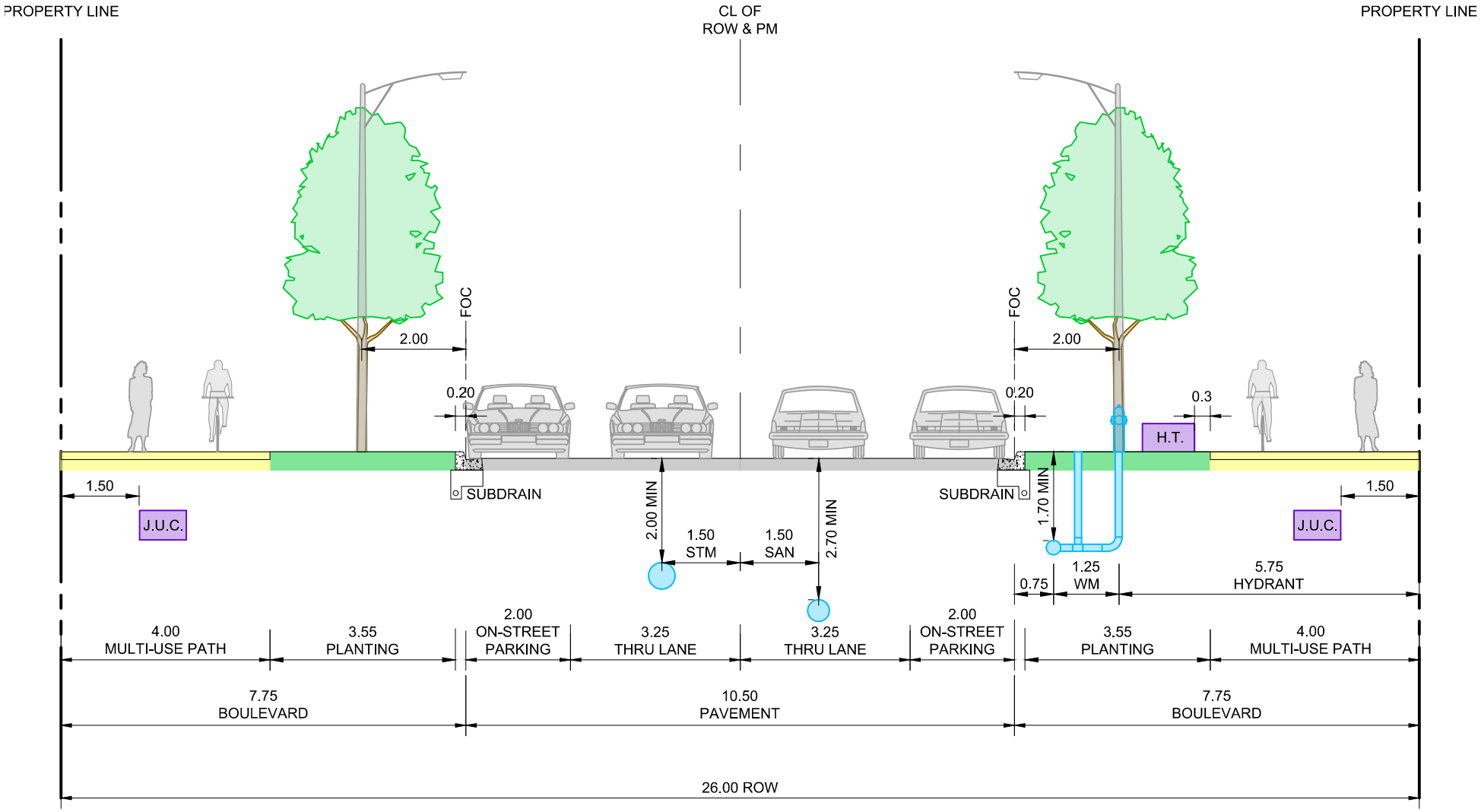
BA Group

CALEDON CROSS-SECTION

26.0m R.O.W.

Major Collector (Intersection)

Project:	Caledon
Project No.	8155-03
Date:	March 20, 2024
Revised:	June 26, 2024
Drawing No.	XS-4A



J.U.C. - JOINT USE UTILITY CORRIDOR
H.T. - HYDRO TRANSFORMER

BA Group

CALEDON CROSS-SECTION

26.0m R.O.W.

Major Collector (Mid-Section)

Project:	Caledon
Project No.	8155-03
Date:	March 20, 2024
Revised:	June 26, 2024
Drawing No.	XS-4B

Appendix G

On-Street Parking Plan

Legend

- On-street parking permitted

paradigm TRANSPORTATION SOLUTIONS LIMITED

On-Street Parking Plan

Wildfield Village
240562

2025-01-22