9332 County Road 93
Town of Midland

Traffic Impact Study for
Pine Valley Estates Ltd.

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Executive Summary

This report summarizes the traffic impact study for the proposed residential development on a site municipally known as 9332 County Road 93, located on the west side of County Road 93, north of County Road 25, in the Town of Midland [Town], County of Simcoe [County]. The report assesses the impact of traffic related to the development on the adjacent roadway and provides recommendations to accommodate this traffic in a safe and efficient manner.

The proposed development will include a total of 1051 units, with the following unit breakdown:

- Two-storey townhouses – 55 units;
- Three-storey townhouses – 138 units;
- 3.5-storey stacked townhouses – 288 total units;
- Three-storey stacked rear lane townhouses – 138 units; and
- Three, six-storey apartment buildings – 432 total units.

Access to the subject site will be provided via the following:

- Connection to Lanigan Drive and the existing intersection of County Road 93 / Lanigan Drive & Commercial Driveway;
- An extension of Lanigan Drive to the north with a proposed connection to County Road 93 at St. Andrews Drive;
- Street B is aligned with a future development on the south side of the existing private driveway [Fosters Road], which will provide a connection to Sundowner Road; and
- The Street B connection to Fosters Road will also provide an emergency access connection to County Road 93, via the existing private driveway.

The scope of this analysis includes a review of the following intersections:

- County Road 93 / Lanigan Drive & Commercial Driveway;
- County Road 93 / Lanigan Drive Extension & St. Andrews Drive;
- County Road 93 / Hugel Avenue & Commercial Access; and
- Lanigan Drive / Street B.

Conclusions

1. The proposed development is estimated to generate 490 AM and 494 PM new peak hour vehicle trips in the study area.
2. Detailed traffic and pedestrian counts were conducted at the study intersections in December 2025.
3. An intersection operational analysis was completed at the study area intersections, using the existing (2026) and background (2031, 2036 and 2041) traffic volumes, without the proposed development traffic. This enabled a review of existing and future traffic deficiencies that would be present without the influence of the proposed development. The following improvements are recommended:

County Road 93 / Lanigan Drive Extension & St. Andrews Drive

Background (2031)

- Construct a southbound left turn lane with a 40-meter storage length, 50-meter parallel length and 130-meter taper length.
- Install underground provisions for future traffic signals.

Background (2036)

- Signalization of the intersection (pending future traffic volume validation / justification)

4. An estimate of the amount of traffic that would be generated by the Subject Site was prepared and assigned to the study area roads and intersections.
5. An intersection operation analysis was completed under total (2031, 2036 and 2041) traffic volumes with the proposed development operational at the study area intersections. The following improvements are recommended:

   County Road 93 / Lanigan Drive Extension & St. Andrews Drive

   Total (2031)

   - Extend the TWLTL to provide a northbound left turn lane on County Road 93 at Lanigan Drive Extension.

   Background (2031)

   - Signalization of the intersection (pending future traffic volume validation / justification)

   County Road 93 / Lanigan Drive & Commercial Driveway

   Background (2031)

   - Traffic signal optimization with and extended cycle length during the PM peak hour (96s to 110s)
6. The proposed roundabout at Lanigan Drive / Street 'B' will operate efficiently as a single lane roundabout with a 40-metre inscribed circle diameter and single lane entry at each approach.
7. The Lanigan Drive will operate efficiently at the County Road 93 / Lanigan Drive & Commercial Driveway intersection. A single ingress and egress lane will provide the necessary capacity to service the proposed development.
8. The Lanigan Drive Extension will operate efficiently at the intersection of County Road 93 / St. Andrews with two-way stop control for the east / west movements. A single ingress and egress lane for the Lanigan Drive Extension will provide the necessary capacity to service the proposed development. The optimal alignment of the Lanigan Drive Extension will be confirmed through the detailed design process.
9. The proposed spacing between the signalized County Road 93 / Lanigan Drive Extension & St. Andrews Drive intersection and the signalized County Road 93 / Lanigan Drive & Commercial Driveway intersection to the south exceeds the minimum intersection spacing according to TAC Guidelines and the Ontario Traffic Manual Book guidelines and are appropriate for the intended use.
10. The sight distance to the north and south of the Lanigan Drive Extension meets the minimum requirements as identified in the County's Entrance By-Law and is suitable for the intended use.
11. The proposed parking supply exceeds the minimum requirement identified in the Town's Zoning By-law and is suitable for the intended use.

12. In summary the proposed development will not cause any operational issues and will not add significant delay or congestion to the local roadway network.

Table of Contents

List of Tables

List of Figures

List of Appendices

1 Introduction

1.1 Background

Pine Valley Estates Ltd. [the Developer] is proposing a residential development, on a site municipally known as 9332 County Road 93, located on the west side of County Road 93, north of County Road 25, in the Town of Midland [Town], County of Simcoe [County]. The report assesses the impact of traffic related to the development on the adjacent roadway and provides recommendations to accommodate this traffic in a safe and efficient manner.

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- Street B is aligned with a future development on the south side of the existing private driveway [Fosters Road], which will provide a connection to Sundowner Road; and
- The Street B connection to Fosters Road will also provide an emergency access connection to County Road 93, via the existing private driveway.

The Developer has retained **JD Engineering Inc.** [JD Engineering] to prepare this traffic impact study in support of the proposed development.

1.2 Study Area

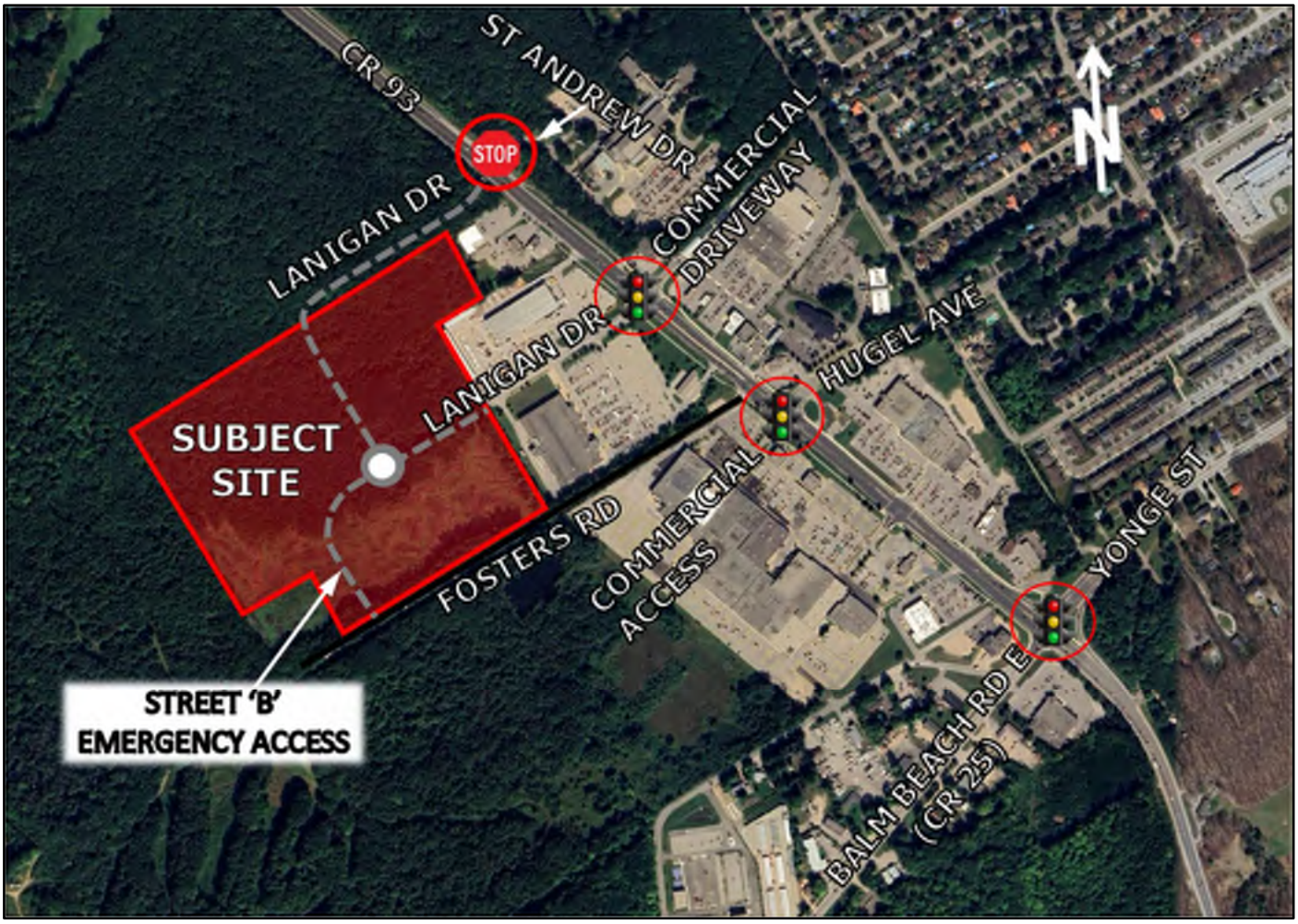
Figure 1 illustrates the location of the subject site and study area intersections, in relation to the surrounding area. The Site Plan provided by Orchard Design Studio Inc. is included in **Appendix A.**

The subject site is bound by County Road 93 and existing commercial area to the east, Fosters Road and a future residential development to the south, and undeveloped lands to the north and west.

Through consultation with the Town and the County, the following intersections will be analysed as part of the study:

- County Road 93 / Lanigan Drive & Commercial driveway;
- County Road 93 / Lanigan Drive Extension & Saint Andrews Drive;
- County Road 93 / Hugel Avenue & Commercial Access; and
- Lanigan Drive / Street B.

Figure 1 – Proposed Site Location and Study Area



1.3 Study Scope and Objectives

The purpose of this study is to identify the potential impacts to traffic flow at the site accesses and on the surrounding roadway network. The study analysis includes the following tasks:

- Consult with the Town and County to address any traffic-related issues or concerns they have with the proposed development;
- Determine existing traffic volumes and circulation patterns;
- Estimate future traffic volumes if the proposed development was not constructed, including the impact of additional proposed developments in the area;
- Estimate the amount of traffic that would be generated by the proposed development and assign to the roadway network;
- Complete level-of-service [LOS] analysis of horizon year (without the proposed development) traffic conditions and identify operational deficiencies;
- Estimate the amount of traffic that would be generated by the proposed development and assign to the roadway network;
- Complete LOS analysis of horizon year (with the proposed development) traffic conditions and identify additional operational deficiencies;

- Identify improvement options to address operational deficiencies;
- Review the proposed configuration of the Site Access driveways; and
- Document findings and recommendations in a final report.

1.4 Horizon Year and Analysis Periods

Traffic scenarios for the existing (2026) year, buildout horizon year (2031), 5-year post buildout horizon year (2036), and 10-year post buildout horizon year (2041) were selected for analysis of traffic operations in the study area. The weekday morning [AM] and afternoon [PM] peak hours have been selected as the analysis periods for this study.

2 Information Gathering

2.1 Street and Intersection Characteristics

The study area road network is summarized in **Table 1**.

Table 1 – Study Area Road Network

Road	Classification	Cross-Section	Direction	Speed (km/h)	Sidewalk (side of road)	Jurisdiction
County Road 93	Primary Arterial	4-lane[1]	N-S	60[2]	E & W[3]	County
Lanigan Drive	Local	2-lane	E-W	50 (assumed)	E & W	Town
Saint Andrews Drive	Local	2-lane	E-W	50 (assumed)	-	Town
Hugel Avenue	Collector	2-lane	E-W	50	E & W	Town
Fosters Road	Local	2-lane	E-W	50 (assumed)	-	Town

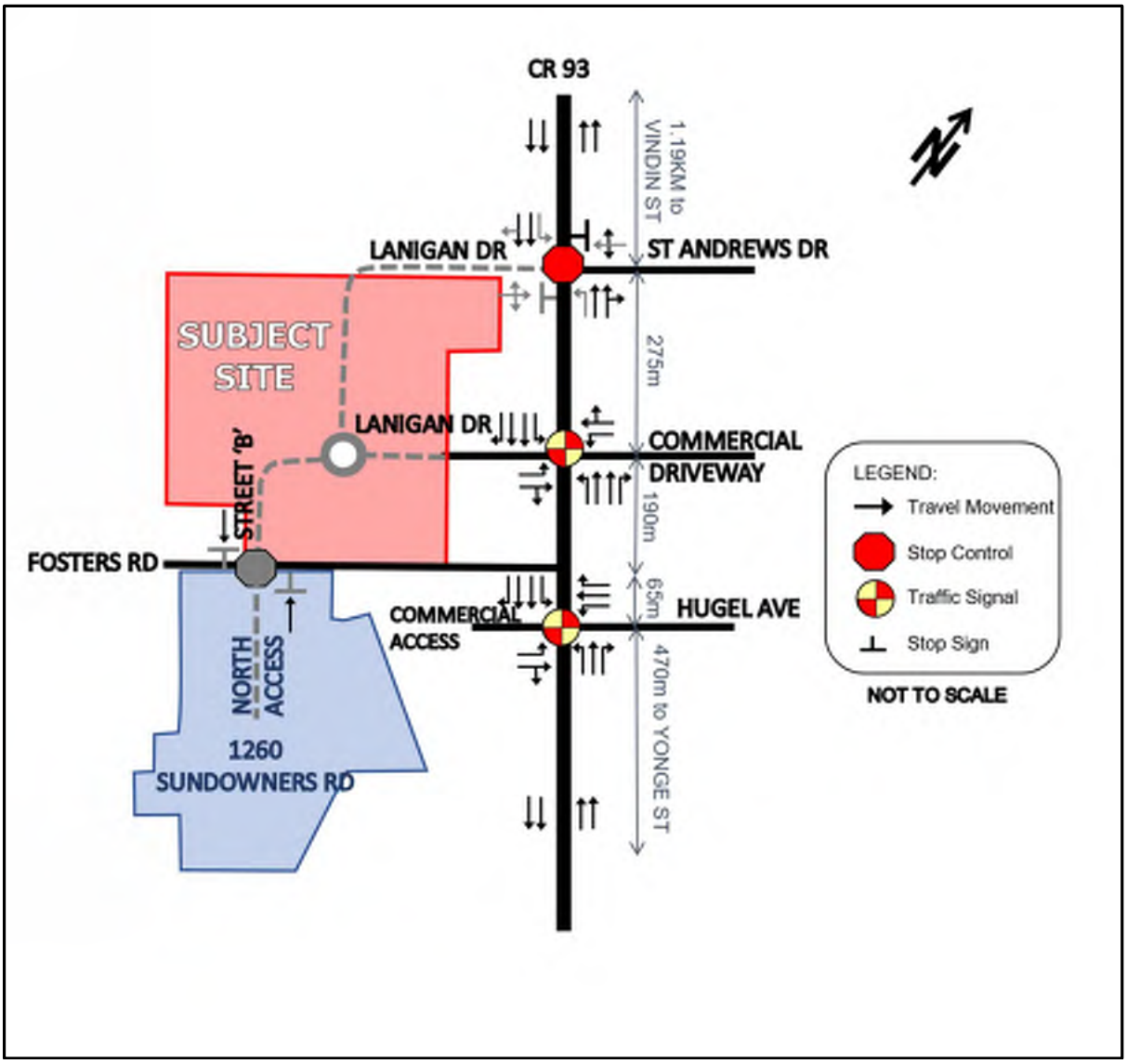
The existing intersection spacing and lane configuration within the study area is illustrated in **Figure 2**.

[1] North of County Road 93 / Yonge Street intersection.

[2] County Road 93 has an urban cross-section with sidewalk on both sides of the road, north of County Road 25 / Yonge Street intersection to Saint Andrews Drive. North of Saint Andrews Drive, County Road 93 has a rural cross-section with asphalt shoulders and a sidewalk on the east side of the road.

[3] County Road 93 has a posted speed limit of 60 km/hr. north of County Road 25 / Yonge Street intersection to Saint Andrews Drive. North of Saint Andrews Drive, County Road 93 has a posted speed limit of 80 km/hr.

Figure 2 – Existing Intersection Lane Configuration within Study Area



2.2 Local Transportation Infrastructure Improvements

Based on our review of the County's Transportation Master Plan: Phase 3 (September 2023) [County TMP], the County's 2024 Capital Budget, the County's 2024 Asset Management Plan, the Town's 2025 Capital Budget, and the Town's Official Plan, the following infrastructure improvements have been identified within the study area:

County Road 93 (County Road 25 to Highway 12)

- Road widening from 2- to 4-lanes, including bicycle lanes (by 2041)

St. Andrew Drive (Penetanguishene Road to County Road 93)

- One-side sidewalk (short term)

There are no other planned infrastructure improvements within the study area that would impact the local traffic volumes or traffic distribution.

2.3 Transit Access

Mid-Pen Transit service provides one transit route within the subject area. The Midland bus route provides bus service to various points of interest within the Town travelling along Yonge Street, Hugel Avenue, County Road 93, and Lanigan Drive (to downtown area) and provides connections to the Town's major destinations to the east and south along King Street.

LINX Transit provides one bus route within the study area. The Penetanguishene bus route provides service along County Road 93, Hugel Avenue and Lanigan Drive to major destinations in Penetanguishene.

Both bus routes are connected within a transfer zone at the Mountain Mall and Huronia Mall, south of the subject site, providing a shared service route that allows travelers to connect to LINX Transit service and to major urban hubs in the County (Georgian Bay General Hospital, Village Square Mall, Waypoint Centre Penetanguishene, etc.).

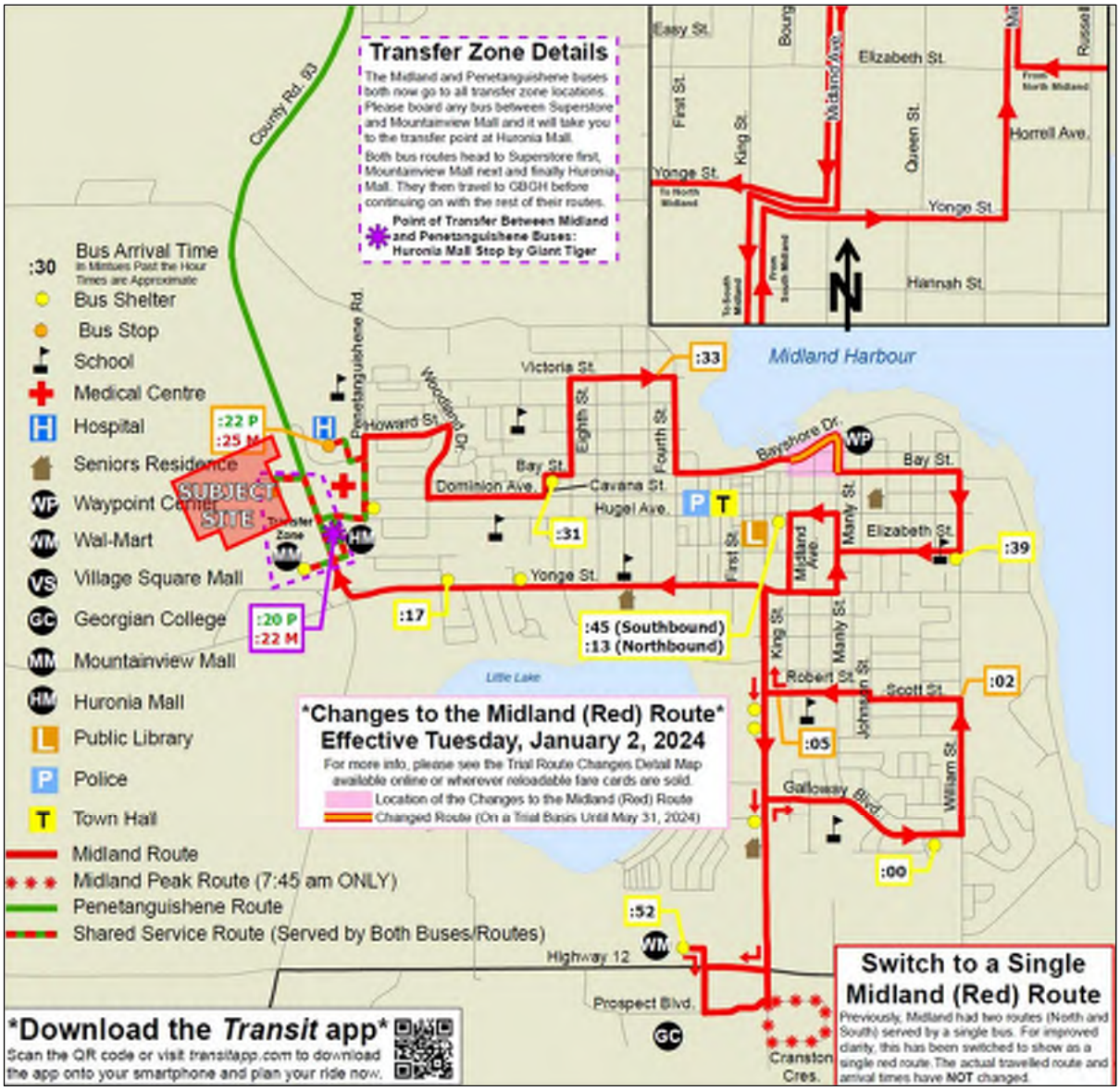
The Midland bus route operates between 07:15 – 17:45 on weekdays and 08:45 – 16:45 on Saturdays with service every 60 minutes. There is no bus service on Sundays or Holidays.

The Penetanguishene bus route operates between 06:25 – 17:25 on weekdays and 08:25 – 16:25 on Saturdays with service every 60 minutes. There is no bus service on Sundays or Holidays.

Both bus routes provide a "flag on" service where passengers are not required to be at a bus stop and can flag down the bus along the route to get on the bus.

Figure 3 illustrates the transit service within the study area.

Figure 3 – Study Area Transit Routes



2.4 Development Growth

In review of the Town's development information and through discussions with Town planning staff, the following development has been noted for consideration with respect to impacts on the local traffic volumes / infrastructure capacity:

- 1260 Sundowner Road – (498 units)
  - 180 Townhouse units;
  - 180 Basement apartment units; and
  - 138 Residential Medium Density units.

The 1260 Sundowner Road development is located on the south side of Fosters Road, adjacent to the subject site. Access to the 1260 Sundowner Road development will be provided via two full movement access driveways onto Sundower Road and one access onto Fosters Road, aligned with Street “B”.

Traffic volumes for this development have been calculated based on the development statistics and data provided in the Institute of Transportation Engineers [ITE] Trip Generation Manual (12th Edition) [ITE Trip Generation Manual].

The following ITE land uses have been applied to estimate the traffic from this development:

- ITE land use 220 (Multifamily Housing (Low-Rise)) – General Urban/Suburban Setting; and
- ITE land use 221 (Multifamily Housing (Mid-Rise)) – General Urban/Suburban Setting.

The AM and PM peak hour traffic generation for the adjacent developments do not exactly align with the AM and PM peak hour in the traffic counts; consequently, we have applied the peak hour of adjacent street traffic values provided in the ITE Trip Generation Manual.

For the basement apartment units, the traffic generation is estimated to be 50% of a typical townhouse unit. This traffic generation ratio is based on the ratio between the parking rates for townhouse units and basement apartment units, provided in the Towns Zoning By-law 2004-90 [ZBL].

The utilized traffic rates and estimated trip generation of the 1260 Sundowner Road development is illustrated below in **Table 2** and **3**.

Table 2 – ITE Traffic Generation Rates

Land Use	Trip Basis / Size	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Multi-Family Housing – Low - Rise ITE Land Use: 220	equation (units)	T = 0.35(X) + 12.93			T = 0.48(X) + 7.35		
	distribution	24%	76%	100%	62%	38%	100%
Multi-Family Housing – Mid - Rise ITE Land Use: 221	equation (units)	T = 0.42 (X) - 7.77			T = 0.36 (X) + 3.07		
	distribution	23%	77%	100%	64%	36%	100%

Table 3 – Estimated Traffic Generation – 1260 Sundowner Road development

Development	Land Use	Size	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
1260 Sundowner Road development	Low-Rise	360 units	27	87	114	87	54	141
	Mid-Rise	138 units	12	38	50	34	19	53
Total			**39**	**125**	**164**	**121**	**73**	**194**

No transportation modal split has been applied to the above-noted traffic generation calculation.

The distribution of traffic through the study area has been assumed based on the 2022 Transportation Tomorrow Survey [TTS] data using the 2016 traffic zones, with consideration for the anticipated commuter travel patterns within the subject site area, as noted in section 4.2. It has been assumed that all primary vehicle trips generated by the proposed development will be new traffic and would not be in the study area if the development was not constructed. It has been assumed that 25% of the 1260 Sundowner Road development traffic travelling to/from County Road 93, north of the study area will travel via Street “B”, through the internal road network within the subject site.

Figure 4 illustrate the assignment of the traffic through the study are, as generated by the 1260 Sundowner Road development.

The 1260 Sundowner Road development has been assumed to be completed by the 2031 horizon year.

2.5 Background Traffic Growth

2.5.1 Population Growth and Projections

The County TMP projected a population growth from 314,580 in 2016 to 555,020 in 2051, translating to an average annual increase of 1.6%. Over the same period the Town’s population is projected to grow from 17,290 in 2016 to 24,290 in 2051, translating to an average annual increase of 1.0%.

2.5.2 Traffic Volume Growth

Historic traffic volumes were obtained from the County for the segments of County Road 93 between Highway 12 to County Road 25 and County Road 25 to Hugel Avenue. The Annual Average Daily Traffic (AADT) volumes on County Road 93 for the period of 2015 to 2021 show an annual increase of 1.6% to 1.9%.

2.5.3 Overall Background Growth Rate

Considering the above historical population and traffic growth and based on similar studies within the area, a background traffic growth rate of 2.0% per annum has been utilized for County Road 93. A growth rate of 1.0% per annum has been utilized for Hugel Avenue. No growth has been applied to St. Andrew Drive and Lanigan Drive.

2.6 Traffic Counts

Detailed turning movement traffic and pedestrian counts were commissioned and obtained by JD Engineering at the study intersections. **Table 4** summarizes the traffic count data collection information.

Table 4 – Traffic Count Data

Intersection (N-S Street / E-W Street)	Count Date	AM Peak Hour	PM Peak Hour	Source
County Road 93 / Lanigan Road	Tuesday, December 2nd, 2025	08:00 – 09:00	16:00 – 17:00	JD Eng.*
County Road 93 / St. Andrews Drive		07:45 – 08:45	16:00 – 17:00	JD Eng.*
County Road 93 / Hugel Avenue		07:45 – 08:45	16:00 – 17:00	JD Eng.*
County Road 93 / Mountain Ski Club Private Drive		08:00 – 09:00	16:00 – 17:00	JD Eng.*

*Counts were completed by Accu -Traffic Inc. on behalf of JD Engineering.

Detailed traffic count data can be found in **Appendix C**.

2.7 Existing Traffic Volumes

The 2026 existing AM and PM peak hour traffic volumes in the study area are illustrated in **Figure 5**, established based on the conducted traffic counts, adjusted to reflect the annual background growth rate noted in Section 2.5.

2.8 Horizon Year Traffic Volumes

The background (2031, 2036 and 2041) horizon year traffic volumes are illustrated in **Figure 6** through **Figure 8**. The background volumes are based on the conducted traffic counts noted in Section 2.6, adjusted to reflect the annual background growth rate noted in Section 2.5 and the traffic volumes generated by the noted adjacent developments as noted in Section 2.4.

3 Intersection Operation without Proposed Development

3.1 Intersection Capacity Analysis Criteria

Intersection performance was measured using the traffic analysis software, Synchro 12, a deterministic model that employs Highway Capacity Manual and Intersection Capacity Utilization methodologies for analysing intersection operations. These procedures are accepted by provincial and municipal agencies throughout North America.

Synchro 12 enables the study area to be graphically defined in terms of streets and intersections, along with their geometric and traffic control characteristics. The user is able to evaluate both signalized and unsignalized intersections in relation to each other, thus not only providing level of service for the individual intersections, but also enabling an assessment of the impact the various intersections in a network have on each other in terms of spacing, traffic congestion, delay, and queuing.

The intersection operations were also evaluated in terms of the LOS. LOS is a common measure of the quality of performance at an intersection and is defined in terms of vehicular delay. This delay includes deceleration delay, queue move-up time, stopped delay, and acceleration delay. LOS is expressed on a scale of A through F, where LOS A represents very little delay (i.e. less than 10 seconds per vehicle) and LOS F represents very high delay (i.e. greater than 50 seconds per vehicle for a stop sign controlled intersection and greater than 80 seconds per vehicle for a signalized intersection).

The LOS criteria for signalized and stop sign-controlled intersections are shown in **Table 5**. A description of traffic performance characteristics is included for each LOS.

Table 5 – Level of Service Criteria for Intersections

LOS	LOS Description	Control Delay (seconds per vehicle)	
		Signalized Intersections	**Stop Controlled Intersections**
A	Very low delay; most vehicles do not stop (**Excellent**)	less than 10.0	less than 10.0
B	Higher delay; more vehicles stop (**Very Good**)	between 10.0 and 20.0	between 10.0 and 15.0
C	Higher level of congestion; number of vehicles stopping is significant, although many still pass through intersection without stopping **(Good**)	between 20.0 and 35.0	between 15.0 and 25.0
D	Congestion becomes noticeable; vehicles must sometimes wait through more than one red light; many vehicles stop (**Satisfactory**)	between 35.0 and 55.0	between 25.0 and 35.0
E	Vehicles must often wait through more than one red light; considered by many agencies to be the limit of **acceptable** delay	between 55.0 and 80.0	between 35.0 and 50.0
F	This level is considered to be unacceptable to most drivers; occurs when arrival flow rates exceed the capacity of the intersection (**Unacceptable**)	greater than 80.0	greater than 50.0

The proposed development includes a roundabout at the intersection of Lanigan Drive / Street 'B'. Since the design is preliminary, we have utilized typical single lane roundabout parameters for the purpose of our analysis.

Roundabout performance was measured using the ARCADY (version 11) [ARCADY] software. ARCADY software is developed in the United Kingdom and is based on three decades of research and development. The software is used for predicting capacities, queues, delays and accident risk at roundabouts. This software has been developed to analyze roundabout operation with the assumption that drivers are familiar with roundabout operation. Roundabouts are becoming more widely used in southern Ontario; however, they are currently not nearly as widely used as they are in the United Kingdom. Consequently, lane capacities used in the ARCADY software have been considered to be optimistic.

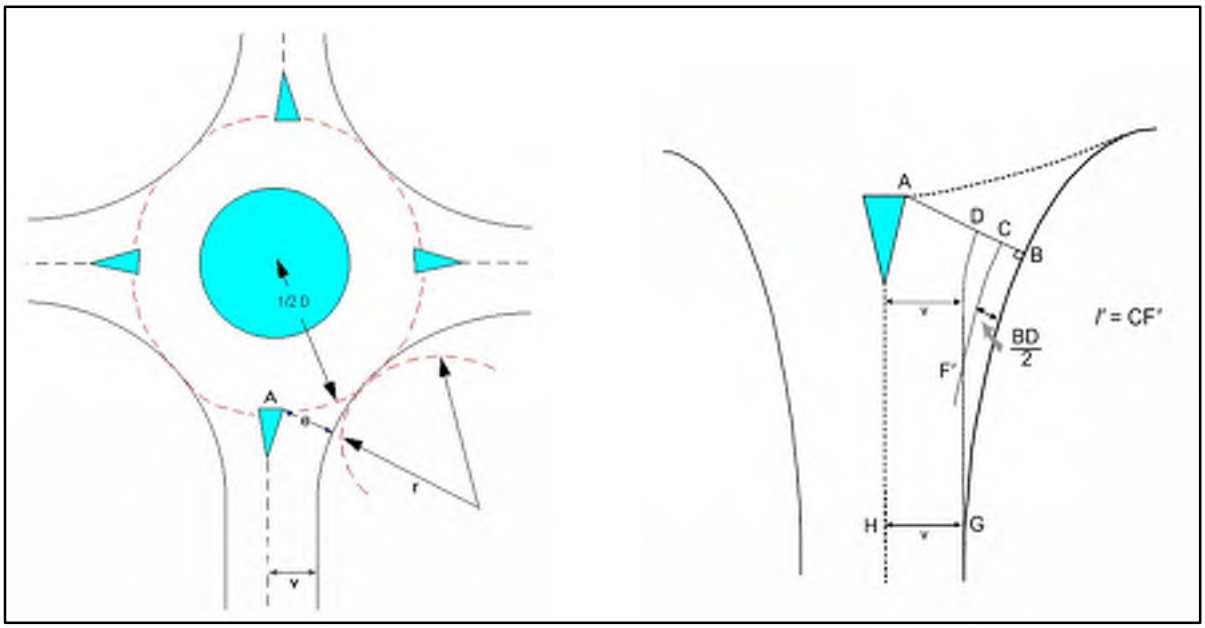
The geometric configuration of the potential roundabout was based on typical design parameters, applied for preliminary analysis of roundabout performance. The key geometric parameters are illustrated in **Table 6** and associated **Figure 4.**

Table 6 – Roundabout Parameters for 6th Line / Webster Boulevard

Geometric Parameters	Westbound Approach	Northbound Approach	Eastbound Approach
Entry Width (E)* (metres)	4.5	4.5	4.5
Effective Flare Length (L)* (metres)	30	30	30
Half Width (V) (metres)	3.5	3.5	3.5
Entry Radius (R) (degrees)	20	20	20
Entry Angle (phi) (degrees)	25	25	25
Inscribed Circle Diameter (D) (metres)	40	40	40

*High influence on capacity

Figure 9 – Roundabout Parameters



Source: ARCADY8 User Guide 2014

3.2 Existing (2026) Intersection Operation

The results of the LOS analysis under existing (2026) traffic volumes during the AM and PM peak hours can be found below in **Table 7**. Existing intersection geometry and traffic control have been utilized for this scenario. Detailed output of the Synchro analysis can be found in **Appendix D**.

Table 7 - Existing (2026) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Commercial Driveway & Hugel Drive (signalized)	0.45	14.8	B	-	-	0.56	17.5	B	-	-
EBL	0.08	23.7	C	-	6	0.36	25.3	C	-	28
EBTR	0.06	23.5	C	20	6	0.27	24.3	C	20	28
WBL	0.66	32.7	C	TWLTL	45	0.74	36.3	D	TWLTL	57
WBT	0.07	23.6	C	-	10	0.25	24.1	C	-	27
WBR	0.13	24.0	C	55	14	0.18	23.6	C	55	16
NBL	0.01	10.7	B	35	1	0.02	12.5	B	35	2
NBT	0.31	13.6	B	-	40	0.40	16.5	B	-	61
NBR	0.13	12.2	B	60	10	0.14	14.3	B	60	15
SBL	0.35	6.8	A	55	23	0.46	8.8	A	55	35
SBT	0.24	8.6	A	-	33	0.32	10.7	B	-	55
SBR	0.02	7.3	A	35	1	0.09	9.1	A	35	12
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.39	15.3	B	-	-	0.54	22.4	C	-	-
EBL	0.12	25.3	C	-	9	0.41	25.7	C	-	32
WBTR	0.06	24.9	C	20	7	0.07	23.2	C	20	10
WBL	0.52	34.6	C	-	25	0.70	47.2	D	-	43
WBTR	0.11	30.4	C	-	8	0.25	35.3	D	-	21
NBL	0.18	803	A	55	13	0.49	12.7	B	55	29
NBT	0.26	12.3	B	-	41	0.46	19.0	B	-	71
NBR	0.03	10.7	B	15	1	0.11	15.3	B	15	14
SBL	0.13	8.1	A	60	10	0.20	14.0	B	60	12
SBT	0.40	13.8	B	-	54	0.51	22.3	C	-	68
SBR	0.03	10.8	B	25	0	0.06	17.2	B	25	5
County Rd 93 / St. Andrews Drive (unsignalized)	-	0.7	A	-	-	-	2.3	A	-	-
WB	0.09	16.2	C	-	2	0.48	32.1	D	-	19

The results of the LOS analysis indicate that the intersection movements are operating within the typical design limits noted in Section 3.1.

The anticipated 95th percentile queue length for eastbound through / right traffic movement at the County Rd 93 / Commercial Driveway & Hugel Drive intersection exceeds the storage length; however, the queue can be accommodated within the existing taper length. The anticipated 95th percentile queues for all other turning movements at all other study area intersections can be accommodated by the existing auxiliary lane storage lengths.

An analysis was completed for left turn movements at the unsignalized intersections, based on the criteria outlined in Appendix 9A of the Ontario Ministry of Transportation Design Supplement for TAC Geometric Design Guide for Canadian Roads June 2017 [MTO DS]. According to the above-noted criteria, a southbound left turn lane is warranted on County Road 93 at St. Andrews Drive (results provided in **Appendix H**). Based on the MTO Design Supplement for the Transportation Association of Canada Geometric Design Guidelines (2023), a southbound left turn lane with a 40 metre storage length, 50 metre parallel length and 130 metre taper length is required for a 80km/h design speed. It's recommended that County include a southbound left turn lane in future capital budgeting.

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at County Road 93 / St. Andrews Drive intersection (results are provided in **Appendix I**).

No additional infrastructure improvements are recommended within the study area.

3.3 Background (2031) Intersection Operation

The results of the LOS analysis under background (2031) traffic volumes during the AM and PM peak hours can be found below in **Table** 8 **8**. Existing intersection geometry and traffic control have been utilized for this scenario in addition to the proposed southbound auxiliary left turn lane at County Road 93 / St. Andrews Drive intersection noted in section 3.2. Detailed output of the Synchro analysis can be found in **Appendix E**.

Table 8 - Background (2031) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Commercial Driveway & Hugel Drive (signalized)	0.48	15.4	B	-	-	0.62	18.9	B	-	-
EBL	0.08	23.5	C	-	6	0.33	24.4	C	-	28
EBTR	0.06	23.3	C	20	6	0.24	23.5	C	20	28
WBL	0.70	34.2	C	TWLTL	48	0.78	38.1	D	TWLTL	67
WBT	0.08	23.4	C	-	10	0.23	23.4	C	-	28
WBR	0.14	23.8	C	55	14	0.19	23.1	C	55	16
NBL	0.01	11.1	B	35	1	0.02	13.9	B	35	3
NBT	0.36	14.5	B	-	46	0.46	18.9	B	-	75
NBR	0.15	12.9	B	60	11	0.16	16.0	B	60	17
SBL	0.38	7.2	A	55	25	0.51	10.5	B	55	39
SBT	0.27	9.2	A	-	39	0.37	12.6	B	-	69
SBR	0.02	7.7	A	35	1	0.09	10.4	B	35	14
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.42	15.5	B	-	-	0.58	22.9	C	-	-
EBL	0.12	25.3	C	-	9	0.41	25.7	C	-	32
WBTR	0.06	24.9	C	20	7	0.07	23.2	C	20	10
WBL	0.52	34.6	C	-	25	0.70	47.2	D	-	43
WBTR	0.11	30.4	C	-	8	0.25	35.3	D	-	21
NBL	0.20	8.4	A	55	13	0.53	13.8	B	55	29
NBT	0.29	12.6	B	-	47	0.51	19.7	B	-	80
NBR	0.03	10.7	B	15	1	0.11	15.3	B	15	14
SBL	0.13	8.1	A	60	10	0.22	14.2	B	60	12
SBT	0.45	14.3	B	-	61	0.58	23.3	C	-	78
SBR	0.03	10.8	B	25	0	0.06	17.1	B	25	5
County Rd 93 / St. Andrews Drive (unsignalized)	-	0.6	A	-	-	-	2.7	A	-	-
WB	0.10	17.6	C	-	3	0.56	41.9	E	-	24

The results of the LOS analysis indicate that the intersection movements are operating within the typical design limits noted in Section 3.1.

The anticipated 95th percentile queue length for eastbound through / right traffic movement at the County Rd 93 / Commercial Driveway & Hugel Drive intersection exceeds the storage length; however,

the queue can be accommodated within the existing taper length. The anticipated 95th percentile queues for all other turning movements at all other study area intersections can be accommodated by the existing auxiliary lane storage lengths.

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at County Road 93 / St. Andrews Drive intersection (results are provided in **Appendix I**).

No infrastructure improvements are recommended within the study area.

3.4 Background (2036) Intersection Operation

The results of the LOS analysis under background (2036) traffic volumes during the AM and PM peak hours can be found below in **Table 9**. Existing intersection geometry and traffic control have been utilized for this scenario in addition to the proposed southbound auxiliary left turn lane at County Road 93 / St. Andrews Drive intersection noted in section 3.2. Detailed output of the Synchro analysis can be found in **Appendix E**.

Table 9 - Background (2036) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Commercial Driveway & Hugel Drive (signalized)	0.51	15.8	B	-	-	0.66	19.6	B	-	-
EBL	0.08	23.3	C	-	6	0.32	24.2	C	-	28
EBTR	0.06	23.2	C	20	6	0.24	23.3	C	20	28
WBL	0.71	35.0	C	TWLTL	51	0.79	39.2	D	TWLTL	71
WBT	0.08	23.3	C	-	10	0.24	23.3	C	-	29
WBR	0.14	23.8	C	55	14	0.20	23.0	C	55	17
NBL	0.01	11.3	B	35	1	0.02	14.3	B	35	3
NBT	0.40	15.1	B	-	53	0.52	20.1	C	-	85
NBR	0.16	13.2	B	60	11	0.16	16.4	B	60	17
SBL	0.40	7.6	A	55	26	0.55	11.8	B	55	40
SBT	0.29	9.6	A	-	44	0.42	13.4	B	-	78
SBR	0.02	7.9	A	35	1	0.10	10.8	B	35	16
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.46	15.7	B	-	-	0.61	23.6	C	-	-
EBL	0.12	25.3	C	-	9	0.41	25.7	C	-	32
WBTR	0.06	24.9	C	20	7	0.07	23.2	C	20	10
WBL	0.52	34.6	C	-	25	0.70	47.2	D	-	43
WBTR	0.11	30.4	C	-	8	0.25	35.3	D	-	21
NBL	0.22	8.6	A	55	13	0.58	15.5	B	55	29
NBT	0.32	12.9	B	-	52	0.56	20.6	C	-	90
NBR	0.03	10.7	B	15	1	0.11	15.3	B	15	14
SBL	0.14	8.2	A	60	10	0.25	14.5	B	60	12
SBT	0.49	14.9	B	-	68	0.63	24.5	C	-	87
SBR	0.03	10.9	B	25	0	0.06	17.1	B	25	5
County Rd 93 / St. Andrews Drive (unsignalized)	-	0.6	A	-	-	-	3.4	A	-	-
WB	0.11	19.0	C	-	3	0.66	57.9	F	-	31

The results of the LOS analysis indicate that the westbound traffic movement at County Road 93 / St. Andrews Drive intersection is operating outside the design limits noted in section 3.1.

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at County Road 93 / St. Andrews Drive intersection (results are provided in **Appendix I**).

Although traffic signals are not warranted according to the Ontario Traffic Manual Justification, it is recommended that the County monitor the traffic operations at this intersection in 2036 to confirm the findings of this report. Based on the control delay observed in this scenario, it is recommended that the County install traffic signal ducts as part of the intersection reconstruction for the left turn lane on County Road 93 at St. Andrews Drive.

An intersection operation analysis has been completed to illustrate how the County Road 93 / St. Andrews Drive intersection would operate as a signalized intersection for the critical background (2036) scenario. **Table 10** illustrates the results of the LOS analysis with the above noted improvements. Detailed output of the Synchro analysis can be found in **Appendix E**.

Table 10 – Background (2036) LOS + Improvements

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / St. Andrews Drive (signalized)	0.32	2.4	A	-	-	0.40	5.1	A	-	-
WB	0.26	32.2	C	-	7	0.45	26.9	C	-	13
NBT	0.23	1.7	A	-	15	0.39	3.9	A	-	37
NBR	0.05	1.4	A	-	4	0.02	2.5	A	-	2
SBL	0.07	1.5	A	90	3	0.05	2.9	A	90	2
SBT	0.32	2.0	A	-	20	0.37	3.8	A	-	30

The results of the LOS analysis indicate that the signalized configuration of the County Road 93 / St. Andrews Drive intersection would operate within the typical design limits noted in Section 3.2.

The anticipated 95th percentile queue length for eastbound through / right traffic movement at the County Rd 93 / Commercial Driveway & Hugel Drive intersection exceeds the storage length; however, the queue can be accommodated within the existing taper length. The anticipated 95th percentile queues for all other turning movements at all other study area intersections can be accommodated by the existing auxiliary lane storage lengths.

No infrastructure improvements are recommended within the study area.

3.5 Background (2041) Intersection Operation

The results of the LOS analysis under background (2041) traffic volumes during the AM and PM peak hours can be found below in **Table 11**. Existing intersection geometry and traffic control have been utilized for this scenario, with the improvements noted in section 3.2 and 3.4. Detailed output of the Synchro analysis can be found in **Appendix E**.

Table 11 - Background (2041) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Commercial Driveway & Hugel Drive (signalized)	0.53	16.3	B	-	-	0.70	20.4	C	-	-
EBL	0.08	23.1	C	-	6	0.31	24.0	C	-	28
EBTR	0.06	22.9	C	20	6	0.23	23.1	C	20	28
WBL	0.73	35.4	D	TWLTL	54	0.81	40.4	D	TWLTL	74
WBT	0.08	23.1	C	-	10	0.25	23.2	C	-	30
WBR	0.15	23.6	C	55	15	0.21	22.9	C	55	17
NBL	0.01	11.6	B	35	1	0.03	14.7	B	35	3
NBT	0.45	16.1	B	-	60	0.58	21.5	C	-	95
NBR	0.17	13.7	B	60	12	0.17	17.0	B	60	17
SBL	0.43	8.1	A	55	27	0.60	13.4	B	55	40
SBT	0.33	10.2	B	-	50	0.46	14.3	B	-	88
SBR	0.02	8.1	A	35	1	0.11	11.1	B	35	17
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.49	16.0	B	-	-	0.65	24.6	C	-	-
EBL	0.12	25.3	C	-	9	0.41	25.7	C	-	32
WBTR	0.06	24.9	C	20	7	0.07	23.2	C	20	10
WBL	0.52	34.6	C	-	25	0.70	47.2	D	-	43
WBTR	0.11	30.4	C	-	8	0.25	35.3	D	-	21
NBL	0.24	8.9	A	55	13	0.64	18.3	B	55	30
NBT	0.35	13.2	B	-	57	0.62	21.7	C	-	102
NBR	0.03	10.7	B	15	1	0.11	15.3	B	15	14
SBL	0.15	8.2	A	60	10	0.28	14.9	B	60	12
SBT	0.55	15.6	B	-	76	0.70	26.0	C	-	99
SBR	0.03	10.8	B	25	0	0.06	17.1	B	25	5
County Rd 93 / St. Andrews Drive (signalized)	0.35	2.5	A	-	-	0.44	5.2	A	-	-
WB	0.26	32.2	C	-	7	0.45	26.9	C	-	13
NBT	0.25	1.8	A	-	16	0.43	4.1	A	-	42
NBR	0.06	1.4	A	-	4	0.02	2.5	A	-	3
SBL	0.07	1.5	A	90	3	0.05	3.0	A	90	2
SBT	0.36	2.1	A	-	23	0.41	4.0	A	-	34

The results of the LOS analysis indicate that the intersection movements are operating within the typical design limits noted in Section 3.1.

The anticipated 95th percentile queue length for eastbound through / right traffic movement at the County Rd 93 / Commercial Driveway & Hugel Drive intersection exceeds the storage length; however the queue can be accommodated within the existing taper length. The anticipated 95th percentile queues for all other turning movements at all other study area intersections can be accommodated by the existing auxiliary lane storage lengths.

No infrastructure improvements are recommended within the study area.

4 Proposed Development Traffic Generation and Assignment

4.1 Traffic Generation

The traffic generation for the proposed development has been based on data provided in the Institute of Transportation Engineers [ITE] *Trip Generation Manual* (12th Edition) [ITE Trip Generation Manual]. The following ITE land uses have been applied to estimate the traffic from the proposed development:

- ITE land use 220 (Multi-Family Housing Low-rise) – General Urban / Suburban Setting;
- ITE land use 215 (Single Family Attached Housing) – General Urban / Suburban Setting; and
- ITE land use 221 (Multi-Family Housing Mid-rise) – General Urban / Suburban Setting.

The utilized traffic rates and estimated trip generation for the proposed development is illustrated below in **Tables 12 and 13**.

Table 12 – Trip Generation Rates & Equations

Land Use	Trip Basis	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Multi-Family Housing – Low Rise ITE Land Use: 220	equation (units)	T = 0.31(X) + 22.85			T = 0.43(X) + 20.55		
	distribution	24%	76%	100%	63%	37%	100%
Single Family Attached Housing ITE Land Use: 215	equation (units)	T = 0.59(X) - 15.25			T = 0.57(X) - 7.84		
	distribution	25%	75%	100%	57%	43%	100%
Multi-Family Housing – Mid Rise ITE Land Use: 221	equation (units)	T = 0.44(X) - 11.61			T = 0.39(X) + 0.34		
	distribution	23%	77%	100%	61%	39%	100%

Table 13 – Estimated Trip Generation of Proposed Development

Land Use	Size	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Multifamily Housing (Low-Rise) ITE Land Use: 220	193 units	19	61	80	62	38	100
Single Family Attached Housing ITE Land Use: 215	426 units	59	177	236	134	101	235
Multifamily Housing (Mid-Rise) ITE Land Use: 221	432 units	40	134	174	101	58	159
Total		**118**	**372**	**490**	**297**	**197**	**494**

No transportation modal split has been applied to the above-noted traffic generation calculation.

4.2 Traffic Assignment

The ITE data provides the anticipated percentage of new traffic entering and exiting during the peak hour. The distribution of traffic has been calculated based on the 2022 Transportation Tomorrow Survey [TTS] data using the 2016 traffic zones 8577, and 8578, retrieved using the TTS Internet Data Retrieval System [IDRS] (output attached as **Appendix F**). TTS data provides historical origin and destination work trip percentages for specific areas within the Town and the GTHA. It is noted that the subject site

is located within zone 8577; however, zone 8578 has also been used to increase the size of the data set and provide a more accurate representation of the travel demand for the subject site.

Traffic distribution for the trips generated by the proposed development are expected to generally follow commuter travel patterns. Our analysis is based on egress traffic during the AM peak hour. Logically, the distribution of ingress traffic will follow the inverse of the entering traffic distribution. For each of the individual areas identified in the TTS data, we have selected the probable route of travel, assuming that drivers will select their route primarily based on travel time.

The distribution of traffic for the proposed development is illustrated in **Table 14** using the methodology outlined above.

Table 14 – Proposed Development Traffic Distribution - Residential

Travel Direction (to/from)	Percent of Total Traffic Generation
North via County Road 93	17%
South via County Road 93	62%
East via Hugel	21%
Total	**100%**

The site traffic assignment for the site trips during the AM and PM peak hour is illustrated in **Figure 10**.

4.3 Total Horizon Year Traffic Volumes with the Proposed Development

For the total (2031, 2036 and 2041) horizon year traffic volumes, the proposed development traffic was added to the background (2031, 2036 and 2041) traffic volumes. The resulting total (2031, 2036 and 2041) horizon year traffic volume for the AM and PM peak hour are illustrated in **Figure 11** through **Figure 13**.

5 Intersection Operation with Proposed Development

5.1 Total (2031) Intersection Operation

The results of the LOS analysis under total (2031) traffic volumes during the AM and PM peak hours can be found below in **Table 15**. Existing intersection geometry and traffic control have been utilized for this scenario, in addition to the recommended auxiliary left turn lane at County Road 93 / St. Andrews Drive intersection, as noted in Section 3.2. Stop control has been assumed for the Lanigan Drive Extension at County Road 93. Detailed output of the Synchro analysis can be found in **Appendix G**.

Table 15 – Total (2031) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Commercial Driveway & Hugel Drive (signalized)	0.62	15.6	B	-	-	0.75	20.5	B	-	-
EBL	0.08	24.0	C	-	6	0.33	24.9	C	-	28
EBTR	0.06	23.8	C	20	6	0.25	24.1	C	20	28
WBL	0.71	35.4	D	TWLTL	48	0.78	39.4	D	TWLTL	67
WBT	0.08	23.9	C	-	10	0.23	24.0	C	-	28
WBR	0.16	24.5	C	55	15	0.29	24.5	C	55	24
NBL	0.01	11.6	B	35	1	0.02	14.6	B	35	3
NBT	0.42	15.7	B	-	55	0.61	22.1	C	-	102
NBR	0.15	13.4	B	60	11	0.16	16.6	B	60	17
SBL	0.55	8.6	A	55	35	0.69	16.3	B	55	56
SBT	0.39	10.2	B	-	60	0.44	13.2	B	-	84
SBR	0.02	7.6	A	35	1	0.10	10.4	B	35	17
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.54	21.4	C	-	-	1.08	42.4	D	-	-
EBL	0.17	24.8	C	-	13	0.44	26.3	C	-	34
EBTR	0.45	27.9	C	20	21	0.18	24.4	C	20	14
WBL	0.77	57.2	E	-	27	0.78	57.3	E	-	45
WBTR	0.10	32.3	C	-	8	0.24	35.6	D	-	21
NBL	0.44	10.9	B	55	27	1.24	144.6	F	55	129
NBT	0.31	15.1	B	-	51	0.53	20.5	C	-	84
NBR	0.03	12.8	B	15	1	0.11	15.7	B	15	14
SBL	0.16	11.9	B	60	11	0.24	15.3	B	60	12
SBT	0.54	20.2	C	-	71	0.61	25.3	C	-	81
SBR	0.04	14.8	B	25	0	0.08	18.5	B	25	8
County Rd 93 / St. Andrews Drive (unsignalized)	-	2.7	A	-	-	-	7.0	A	-	-
EB	0.45	39.5	E	-	17	0.28	37.6	E	-	9
WB	0.14	23.2	C	-	4	0.86	103.8	F	-	44

The results of the LOS analysis indicate that the County Road 93 / Lanigan Drive & Commercial Driveway intersection and westbound traffic movement at County Road 93 / St. Andrews Drive are operating outside the design limits noted in Section 3.1.

Signal timing optimization is recommended at County Road 93 / Lanigan Drive &Commercial Driveway intersection with an extended cycle length (from 96 seconds to 110 seconds).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at County Road 93 / St. Andrews Drive & Lanigan Drive intersection (results are provided in **Appendix I**).

Although traffic signals are not warranted according to the Ontario Traffic Manual Justification, it is recommended that the County monitor the traffic operations at this intersection as development within the subject site proceeds to confirm the findings of this report. Similar to the recommendation in Section 3.4, based on the control delay observed in this scenario, it is recommended that the County install traffic signal ducts as part of the intersection reconstruction for the left turn lane on County Road 93 at St. Andrews Drive.

An analysis was completed for left turn movements at the County Road 93 / St. Andrews Drive & Lanigan Drive intersection, based on the criteria outlined in Appendix 9A of the MTO DS. According to the above-noted criteria, a northbound left turn lane is warranted on County Road 93 at the Lanigan Drive Extension (results provided in **Appendix H**). It is recommended that the existing TWLTL on County Road 93, south of the Lanigan Drive Extension, is extended to provide a northbound left turn lane on County Road 93 at the Lanigan Drive Extension.

Table 16 illustrates the results of the LOS analysis with the above noted improvements. Detailed output of the Synchro analysis can be found in **Appendix E**.

Table 16 – Total (2031) LOS + Improvements

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.58	22.5	C	-	-	0.80	27.2	C	-	-
EBL	0.17	25.9	C	-	12	0.81	61.2	E	-	42
EBTR	0.70	40.8	D	20	34	0.26	41.9	D	20	19
WBL	0.52	27.4	C	-	18	0.83	66.4	E	-	39
WBTR	0.09	17.9	C	-	8	0.39	43.1	D	-	26
NBL	0.49	12.2	B	55	29	0.76	26.1	C	55	84
NBT	0.33	16.1	B	-	51	0.36	7.9	A	-	49
NBR	0.03	13.5	B	15	0	0.11	6.3	A	15	11
SBL	0.17	12.5	B	60	12	0.35	27.9	C	60	23
SBT	0.56	20.8	C	-	70	0.67	30.4	C	-	88
SBR	0.04	15.1	B	25	0	0.09	21.8	C	25	10
County Rd 93 / St. Andrews Drive & Lanigan Drive (signalized)	0.34	4.7	A	-	-	0.38	5.4	A	-	-
EBT	0.36	27.0	C	-	15	0.15	23.7	C	-	9
WBT	0.02	24.7	C	-	3	0.52	27.2	C	-	13
NBL	0.03	2.4	A	TWLTL	2	0.06	2.8	A	TWLTL	4
NBT	0.23	2.9	A	-	17	0.36	3.7	A	-	34
NBR	0.06	2.4	A	-	4	0.01	2.5	A	-	2
SBL	0.07	2.6	A	90	4	0.04	2.7	A	90	2
SBTR	0.33	3.3	A	-	23	0.36	3.7	A	-	30

The results of the LOS analysis indicate that County Road 93 / St. Andrews Drive & Commercial driveway, and County Road 93 / St. Andrews & Lanigan Drive intersections are operating within the typical design limits noted in Section 3.2.

The anticipated 95th percentile queue length for eastbound through / right traffic movement at the County Rd 93 / Commercial Driveway & Hugel Drive intersection and for northbound left traffic movement at County Rd 93 / Lanigan Drive & Commercial Driveway intersection exceed the storage length; however, the queue can be accommodated within the existing taper length. The anticipated 95th percentile queues for all other turning movements at all other study area intersections can be accommodated by the existing auxiliary lane storage lengths.

No additional infrastructure improvements are recommended within the study area.

5.2 Total (2036) Intersection Operation

The results of the LOS analysis under total (2036) traffic volumes during the AM and PM peak hours can be found below in **Table 17**. Existing intersection geometry and traffic control have been utilized for this scenario, in addition to the improvements noted in Section 5.1. Detailed output of the Synchro analysis can be found in **Appendix G**.

Table 17 - Total (2036) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Commercial Driveway & Hugel Drive (signalized)	0.65	16.2	B	-	-	0.79	21.7	C	-	-
EBL	0.08	23.9	C	-	6	0.32	24.9	C	-	28
EBTR	0.06	23.7	C	20	6	0.24	24.0	C	20	28
WBL	0.72	35.9	D	TWLTL	51	0.80	40.3	D	TWLTL	71
WBT	0.08	23.8	C	-	10	0.24	24.0	C	-	29
WBR	0.16	24.5	C	55	15	0.33	24.9	C	55	28
NBL	0.01	12.0	B	35	1	0.03	15.2	B	35	3
NBT	0.47	16.7	B	-	61	0.67	24.1	C	-	114
NBR	0.16	13.9	B	60	11	0.18	17.6	B	60	19
SBL	0.58	9.6	A	55	36	0.74	20.0	C	55	68
SBT	0.42	10.7	B	-	67	0.48	14.1	B	-	94
SBR	0.02	7.8	A	35	1	0.11	10.8	B	35	18
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.63	23.3	C	-	-	0.83	28.3	C	-	-
EBL	0.17	25.9	C	-	12	0.81	61.2	E	-	42
WBTR	0.72	42.4	D	20	37	0.26	41.9	D	20	19
WBL	0.52	27.4	C	-	18	0.83	66.4	E	-	39
WBTR	0.09	27.8	C	-	8	0.39	43.1	D	-	26
NBL	0.53	13.5	B	55	29	0.80	32.2	C	55	94
NBT	0.36	16.6	B	-	56	0.39	8.2	A	-	55
NBR	0.03	13.7	B	15	0	0.11	6.3	A	15	11
SBL	0.17	12.6	B	60	12	0.38	29.2	C	60	23
SBT	0.62	22.0	C	-	78	0.74	32.3	C	-	99
SBR	0.04	15.3	B	25	0	0.09	21.8	C	25	10
County Rd 93 / St. Andrews Drive (signalized)	0.37	4.7	A	-	-	0.42	5.4	A	-	-
EBT	0.36	27.0	C	-	15	0.15	23.7	C	-	9
WBT	0.02	24.7	C	-	3	0.52	27.2	C	-	13
NBL	0.03	2.4	A	TWLTL	2	0.07	2.9	A	TWLTL	4
NBT	0.26	3.0	A	-	19	0.40	3.8	A	-	39
NBR	0.06	2.4	A	-	5	0.01	2.5	A	-	2
SBL	0.08	2.6	A	90	4	0.05	2.8	A	90	2
SBTR	0.37	3.5	A	-	26	0.39	3.8	A	-	34

The results of the LOS analysis indicate that the intersection movements are operating within the typical design limits noted in Section 3.1.

The anticipated 95th percentile queue length for eastbound through / right and southbound left traffic movements at the County Rd 93 / Commercial Driveway & Hugel Drive intersection and for northbound

left traffic movement at County Rd 93 / Lanigan Drive & Commercial Driveway intersection exceed the storage length; however, the queue can be accommodated within the existing taper length. The anticipated 95th percentile queues for all other turning movements at all other study area intersections can be accommodated by the existing auxiliary lane storage lengths.

No infrastructure improvements are recommended within the study area.

5.3 Total (2041) Intersection Operation

The results of the LOS analysis under total (2041) traffic volumes during the AM and PM peak hours can be found below in **Table 18**. Existing intersection geometry and traffic control have been utilized for this scenario, in addition to the improvements noted in Section 5.2. Detailed output of the Synchro analysis can be found in **Appendix G**.

Table 18 - Total (2041) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
County Rd 93 / Commercial Driveway & Hugel Drive (signalized)	0.68	17.0	B	-	-	0.83	23.2	C	-	-
EBL	0.08	23.8	C	-	6	0.31	24.6	C	-	28
EBTR	0.06	23.7	C	20	6	0.23	23.8	C	20	28
WBL	0.74	37.1	D	TWLTL	54	0.81	41.8	D	TWLTL	74
WBT	0.08	23.8	C	-	10	0.25	23.9	C	-	30
WBR	0.17	24.5	C	55	15	0.37	25.1	C	55	33
NBL	0.01	12.3	B	35	1	0.03	15.6	B	35	3
NBT	0.51	17.8	B	-	69	0.74	26.1	C	-	136
NBR	0.17	14.4	B	60	12	0.20	18.2	B	60	23
SBL	0.62	10.7	B	55	37	0.80	27.7	C	55	78
SBT	0.45	11.3	B	-	75	0.52	15.1	B	-	104
SBR	0.02	8.0	A	35	1	0.11	11.2	B	35	19
County Rd 93 / Lanigan Drive & Commercial Driveway (signalized)	0.67	24.2	C	-	-	0.86	29.8	C	-	-
EBL	0.16	25.7	C	-	12	0.81	61.2	E	-	42
WBTR	0.74	43.0	D	20	39	0.26	41.9	D	20	19
WBL	0.52	27.5	C	-	18	0.83	66.4	E	-	39
WBTR	0.09	27.6	C	-	8	0.39	43.1	D	-	26
NBL	0.59	15.8	B	55	29	0.83	39.2	D	55	113
NBT	0.40	17.2	B	-	62	0.43	8.6	A	-	62
NBR	0.03	13.8	B	15	0	0.11	6.4	A	15	12
SBL	0.19	13.0	B	60	12	0.41	31.0	C	60	24
SBT	0.69	23.8	C	-	87	0.81	35.3	D	-	111
SBR	0.04	15.5	B	25	0	0.09	21.8	C	25	10
County Rd 93 / St. Andrews Drive & Lanigan Drive (signalized)	0.40	4.7	A	-	-	0.45	5.5	A	-	-
EBT	0.36	27.0	C	-	15	0.15	23.7	C	-	9
WBT	0.02	24.7	C	-	4	0.52	27.2	C	-	13
NBL	0.03	2.5	A	TWLTL	2	0.08	3.0	A	TWLTL	4
NBT	0.28	3.1	A	-	21	0.44	4.1	A	-	45
NBR	0.06	2.4	A	-	5	0.01	2.5	A	-	2
SBL	0.08	2.7	A	90	4	0.06	2.9	A	90	2
SBTR	0.41	3.7	A	-	29	0.43	4.0	A	-	38

The results of the LOS analysis indicate that the intersection movements are operating within the typical design limits noted in Section 3.1.

The anticipated 95th percentile queue length for eastbound through / right and southbound left traffic movements at the County Rd 93 / Commercial Driveway & Hugel Drive intersection and for northbound left traffic movement and westbound through / right traffic movements at County Rd 93 / Lanigan Drive & Commercial Driveway intersection exceed the storage length; however, the queue can be accommodated within the existing taper length. The anticipated 95th percentile queues for all other turning movements at all other study area intersections can be accommodated by the existing auxiliary lane storage lengths.

No infrastructure improvements are recommended within the study area.

5.4 Roundabout Analysis

For the purpose of the roundabout analysis, it is conservatively assumed that the total volume of traffic travelling through the roundabout will be equal to the volume of traffic generated by the proposed development on Lanigan Drive, west of County Road 93 (Figure 9). This is a conservative assumption as some of the site traffic on Lanigan Drive, west of County Road 93 will access the parking lot for Building 1 – 5 (approximately 44% of the total units). The distribution of the volume of traffic for each leg of the roundabout was estimated based on the distribution of units within the subject site, approximately 50% of the traffic travelling to/from the southwest corner of the site, 40% travelling to/from the northwest corner of the site and 10% travelling between the northwest and southwest, via the roundabout.

The results of the LOS analysis under total (2041) traffic volumes during the AM and PM peak hours can be found below in **Table 19**. The roundabout configuration recommended in Section 3.1 have been utilized in this scenario. Detailed output of the ARCADY analysis can be found in **Appendix G**.

Table 19 - Total (2041) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Storage	Model				Storage	Model
Lanigan Drive / Street 'B' (roundabout)	-	3.8	A	-	-	-	3.9	A	-	-
WB	0.08	3.5	A	-	<5	0.20	4.0	A	-	<5
SB	0.12	3.7	A	-	<5	0.08	3.7	A	-	<5
EB	0.17	4.1	A	-	<5	0.09	3.6	A	-	<5

The results of the LOS analysis indicate that all approaches in the roundabout are operating within the typical design limits noted in Section 3.1.

5.5 Site Access & Intersection Spacing

5.5.1 Lanigan Drive / County Road 93

The Lanigan Drive Extension will operate efficiently at the intersection of County Road 93 / St. Andrews with two-way stop control for the east / west movements. A single ingress and egress lane for the Lanigan Drive Extension will provide the necessary capacity to service the proposed development.

The proposed spacing between the Lanigan Drive & St. Andrews Drive / County Road 93 intersection and the County Road 93 / Lanigan Drive & Commercial Driveway intersection to the south (approximately 265 metres) is in excess of the typical minimum intersection spacing on an arterial road according to TAC Guidelines (Section 9.4.2.1) – 200 metres) and in excess of the typical minimum signalized intersection spacing according to Section 3.7 of the Ontario Traffic Manual Book 12 *Traffic Signals* (215 metre spacing for roads with 60km/h posted speed limit).

5.6 Sight Distance Review

A review of the available sight distance was completed for the proposed Lanigan Drive Extension at County Road 93, as part of this analysis.

The sight distance to the north and south of the Lanigan Drive Extension (greater than 300 metres in both directions) is greater than the minimum stopping sight distance requirements as identified in the County's Entrance By-Law #5544 – Section 3.2.2 – 180 meters for a posted speed of 60km/h.

Consequently, there are no issues with the sight distance for the Lanigan Drive Extension.

5.7 Emergency Access

A secondary emergency access is required for the subject site, prior to occupancy of the 101st residential unit. Depending on the progress of the 1260 Sundowner Development, the Street B connection to Fosters Road (Private Road) will provide a temporary secondary emergency access connection to County Road 93. The access would be gated to restrict public vehicle access and seasonal maintenance would be provided. The specifics for this design will be included as part of the detailed engineering design, if it is determined that this temporary alternative is necessary.

6 Parking Review

The Town's current Zoning By-law 2004-90 [ZBL] provides parking requirements for a variety of building types and land uses. **Table 20** summarizes the parking requirement for the proposed development uses, according to the ZBL.

Table 20 – Zoning By-Laws Requirement

Category	ZBL Section	Parking Standard	Size	Required	Provided	Net Supply
Townhouses (Residential (including any dwelling in any Zone)	4.1.5	1.5 per dwelling unit of which 25% shall be for designated visitor parking	1,051 units	1,183 spaces + 394 Visitor spaces	1,238 spaces + 394 Visitor spaces	+55 spaces
Total				1,577 spaces	1,632 Spaces	+55 spaces
Barrier-Free Parking		for 501 or more required spaces		6 spaces	26 spaces	+20 spaces

As indicated, the proposed parking supply exceeds the minimum requirement identified in the ZBL. Consequently, the proposed parking supply is acceptable for the intended use.

7 Summary

Pine Valley Estates Ltd. retained **JD Engineering** to prepare this traffic impact study in support of the proposed residential development, on a site municipally known as 9332 County Road 93, in the Town of Midland, County of Simcoe.

This chapter summarizes the conclusions and recommendations from the study.

1. The proposed development is estimated to generate 490 AM and 494 PM new peak hour vehicle trips in the study area.
2. Detailed traffic and pedestrian counts were conducted at the study intersections in December 2025.
3. An intersection operational analysis was completed at the study area intersections, using the existing (2026) and background (2031, 2036 and 2041) traffic volumes, without the proposed

development traffic. This enabled a review of existing and future traffic deficiencies that would be present without the influence of the proposed development. The following improvements are recommended:

County Road 93 / Lanigan Drive Extension & St. Andrews Drive

Background (2031)

- Construct a southbound left turn lane with a 40-meter storage length, 50-meter parallel length and 130-meter taper length.
- Install underground provisions for future traffic signals.

Background (2036)

- Signalization of the intersection (pending future traffic volume validation / justification)

4. An estimate of the amount of traffic that would be generated by the Subject Site was prepared and assigned to the study area roads and intersections.
5. An intersection operation analysis was completed under total (2031, 2036 and 2041) traffic volumes with the proposed development operational at the study area intersections. The following improvements are recommended:

   County Road 93 / Lanigan Drive Extension & St. Andrews Drive

   Total (2031)

   - Extend the TWLTL to provide a northbound left turn lane on County Road 93 at Lanigan Drive Extension.

   Background (2031)

   - Signalization of the intersection (pending future traffic volume validation / justification)

   County Road 93 / Lanigan Drive & Commercial Driveway

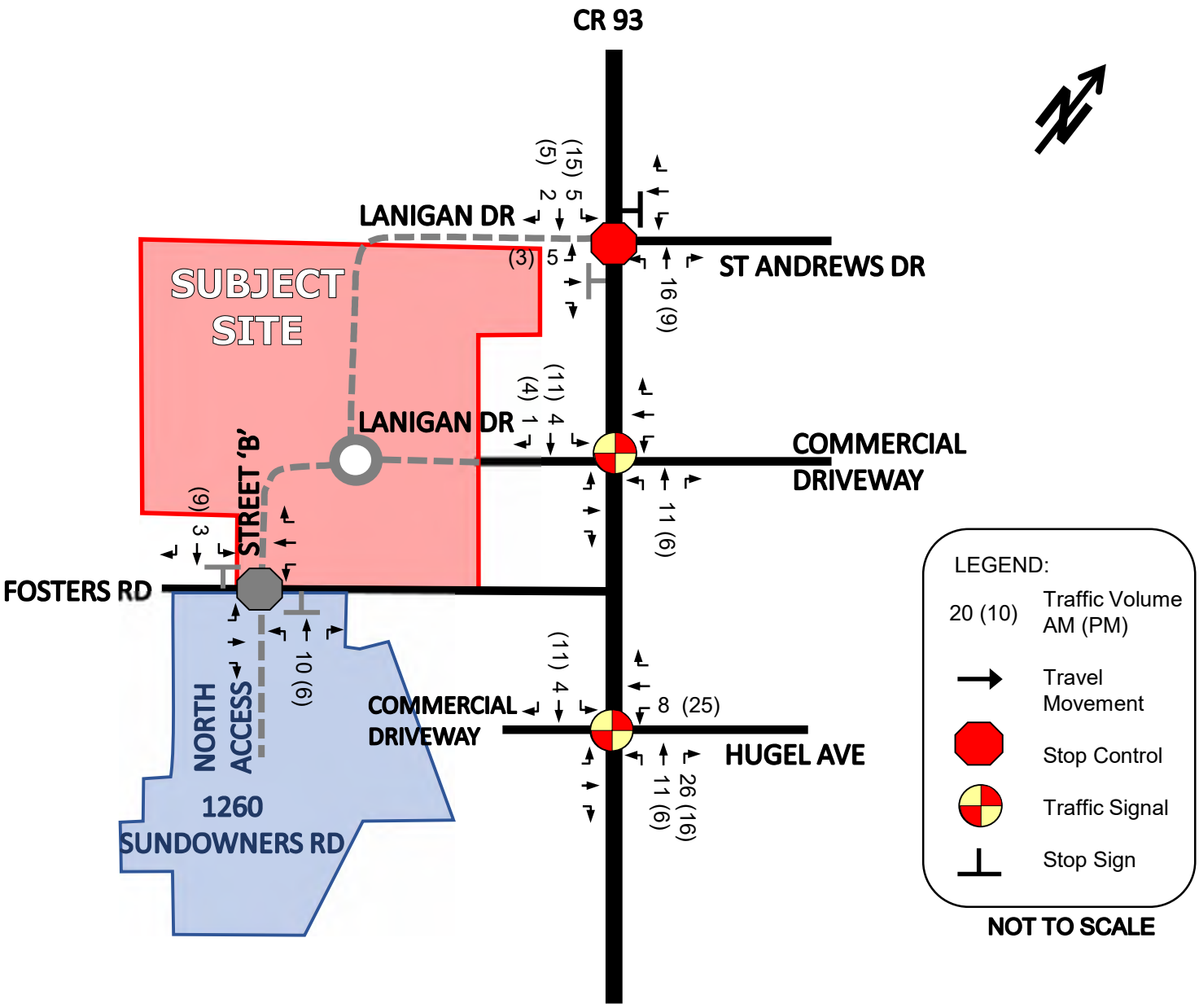
   Background (2031)

   - Traffic signal optimization with and extended cycle length during the PM peak hour (96s to 110s)
6. The proposed roundabout at Lanigan Drive / Street 'B' will operate efficiently as a single lane roundabout with a 40-metre inscribed circle diameter and single lane entry at each approach.
7. The Lanigan Drive will operate efficiently at the County Road 93 / Lanigan Drive & Commercial Driveway intersection. A single ingress and egress lane will provide the necessary capacity to service the proposed development.
8. The Lanigan Drive Extension will operate efficiently at the intersection of County Road 93 / St. Andrews with two-way stop control for the east / west movements. A single ingress and egress lane for the Lanigan Drive Extension will provide the necessary capacity to service the proposed development. The optimal alignment of the Lanigan Drive Extension will be confirmed through the detailed design process.
9. The proposed spacing between the signalized County Road 93 / Lanigan Drive Extension & St. Andrews Drive intersection and the signalized County Road 93 / Lanigan Drive & Commercial Driveway intersection to the south exceeds the minimum intersection spacing according to TAC Guidelines and the Ontario Traffic Manual Book guidelines and are appropriate for the intended use.
10. The sight distance to the north and south of the Lanigan Drive Extension meets the minimum requirements as identified in the County's Entrance By-Law and is suitable for the intended use.

11. The proposed parking supply exceeds the minimum requirement identified in the Town's Zoning By-law and is suitable for the intended use.

In summary the proposed development will not cause any operational issues and will not add significant delay or congestion to the local roadway network.

Figure 4: Adjacent Development Traffic Volumes – 1260 Sundowner Road Development



ENGINEERING

Figure 5: Existing (2026) Traffic Volumes

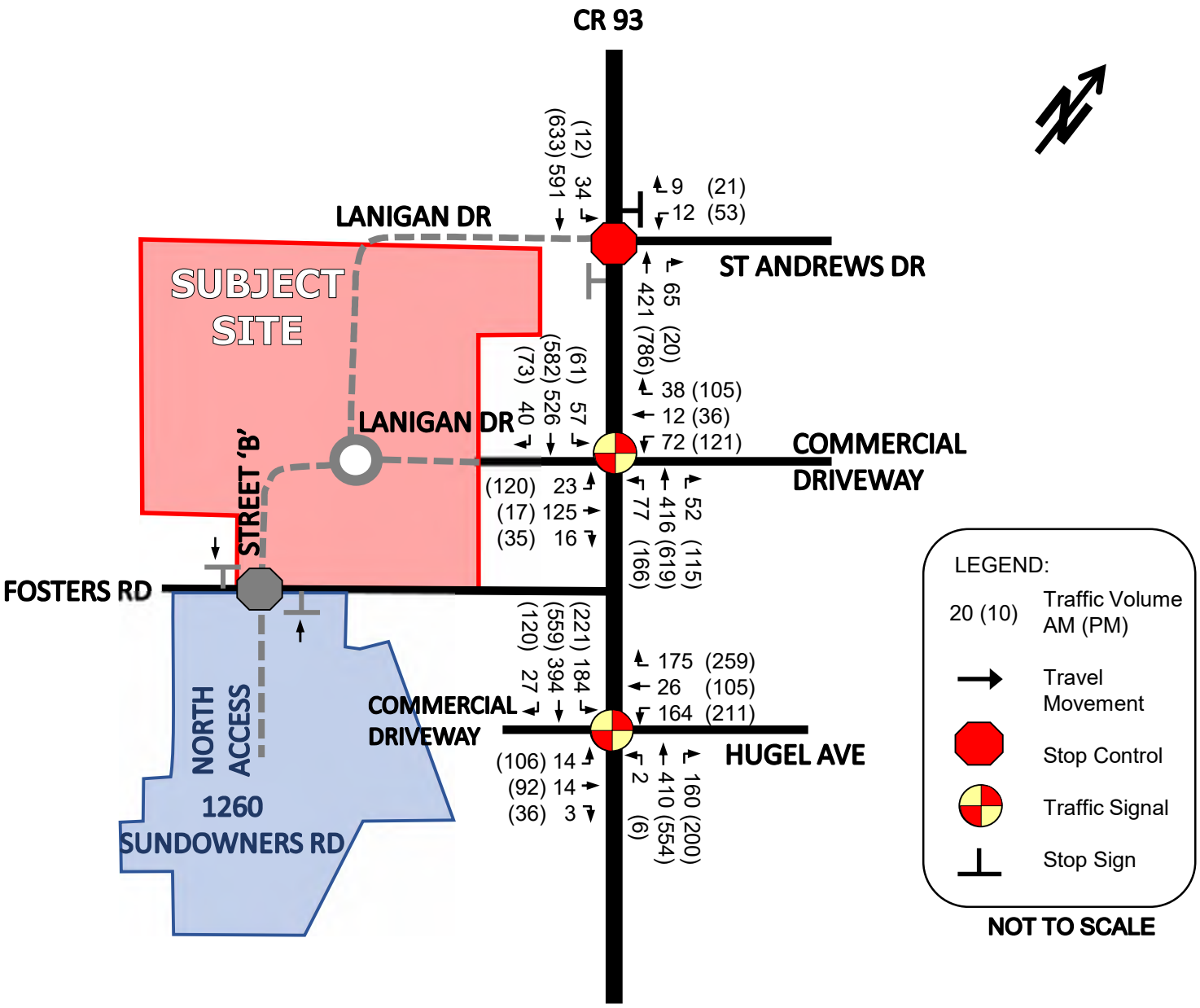


Figure 6: Background (2031) Traffic Volumes

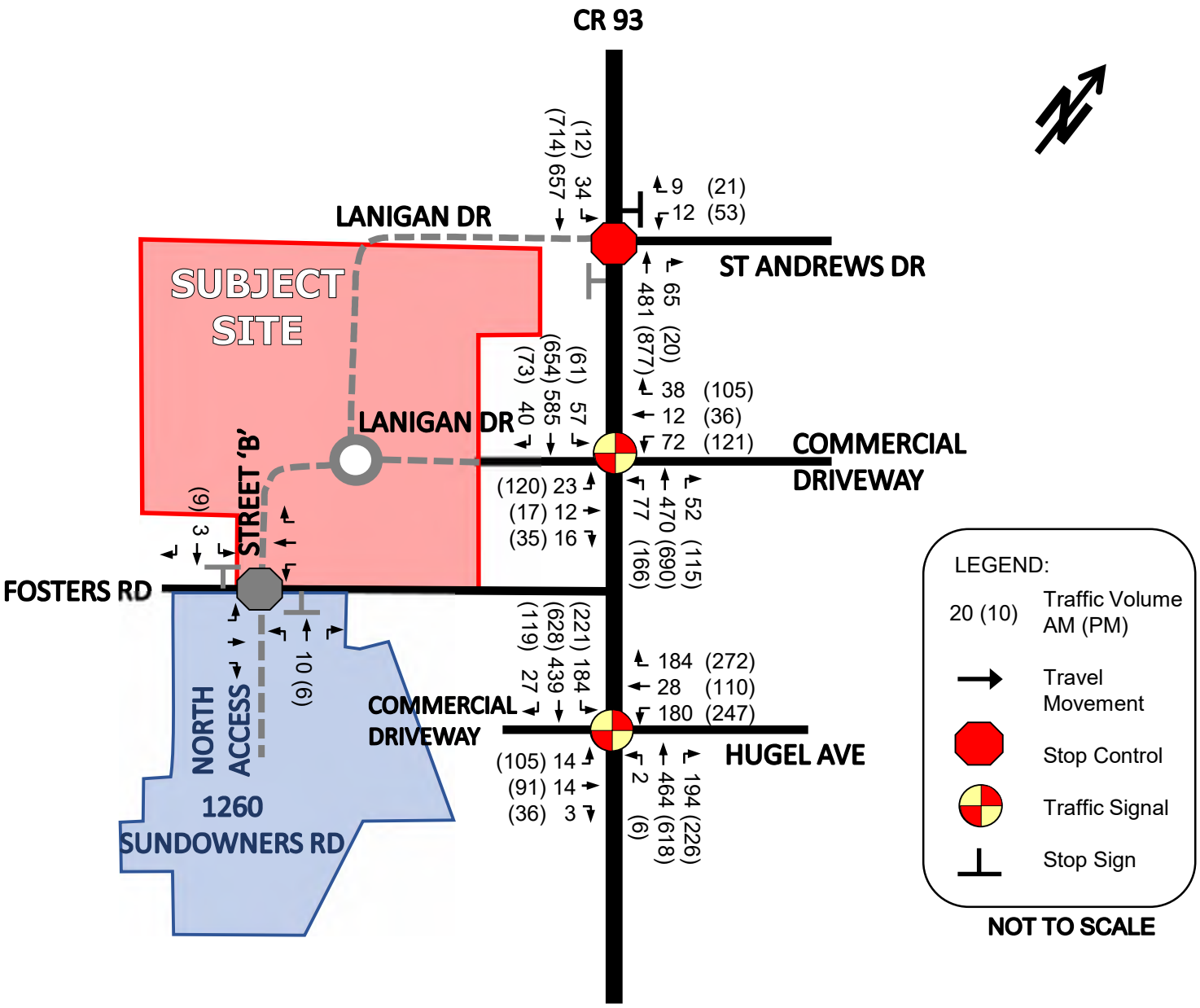
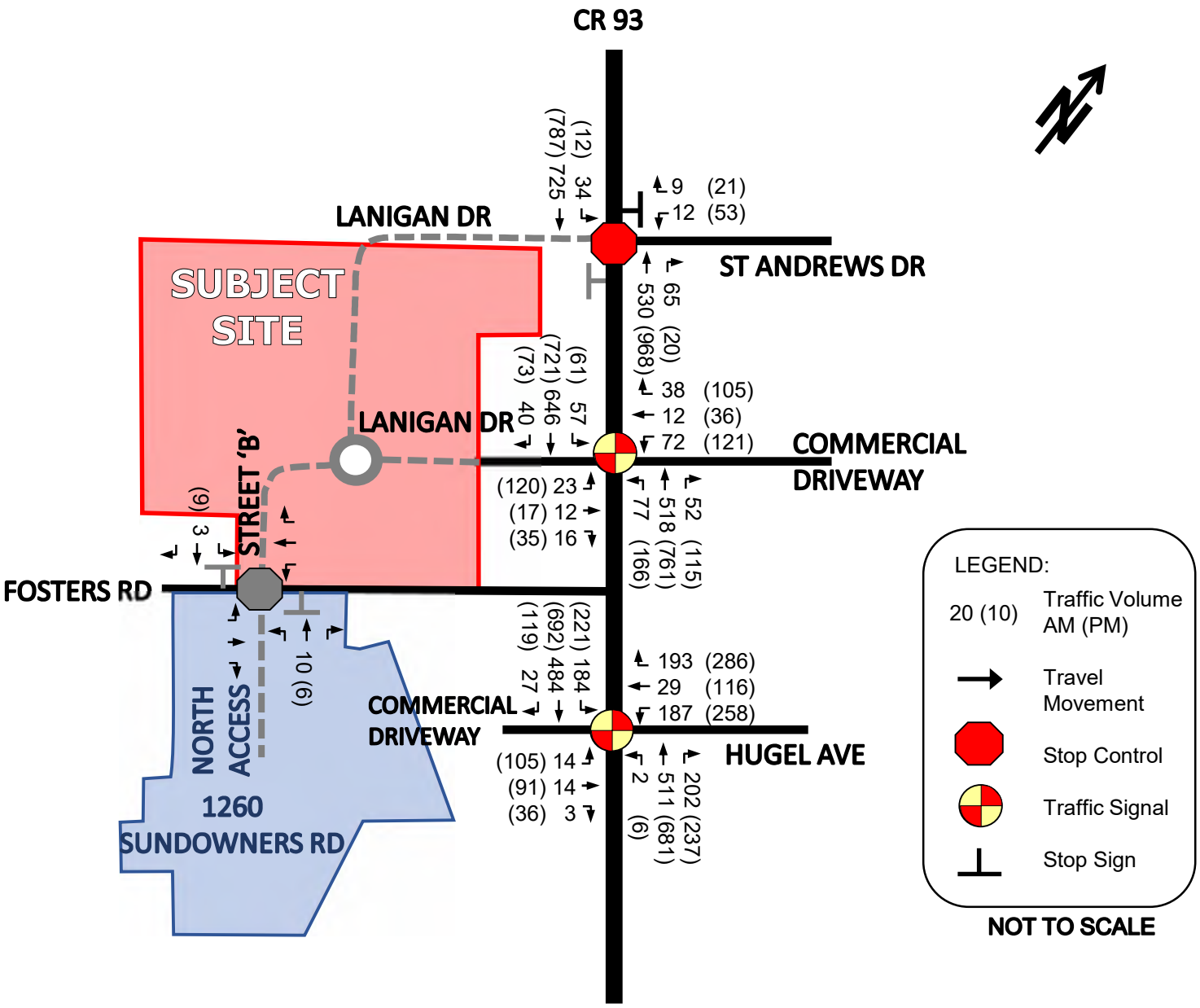


Figure 7: Background (2036) Traffic Volumes



ENGINEERING

Figure 8: Background (2041) Traffic Volumes

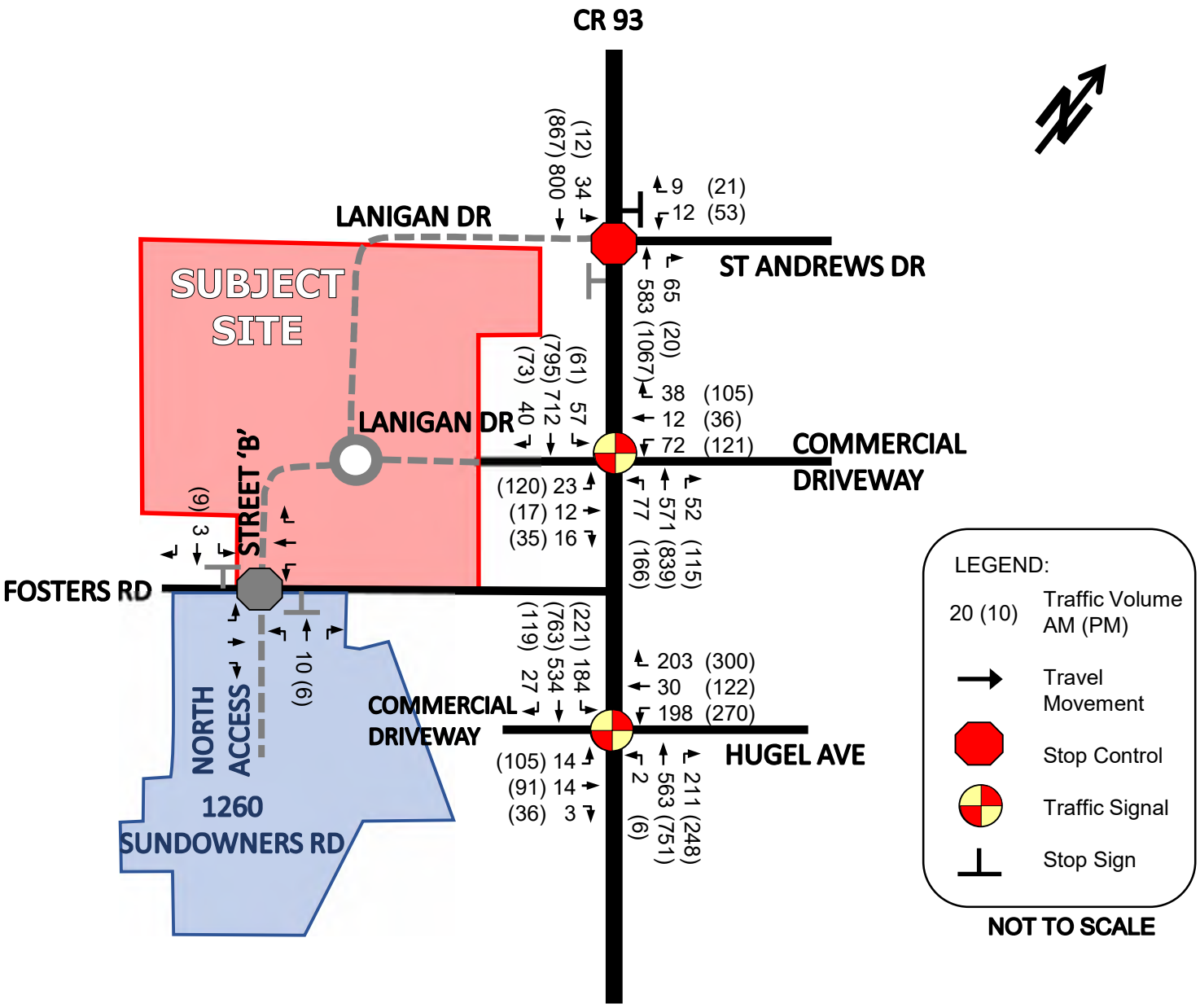


Figure 9: Site Traffic Assignment

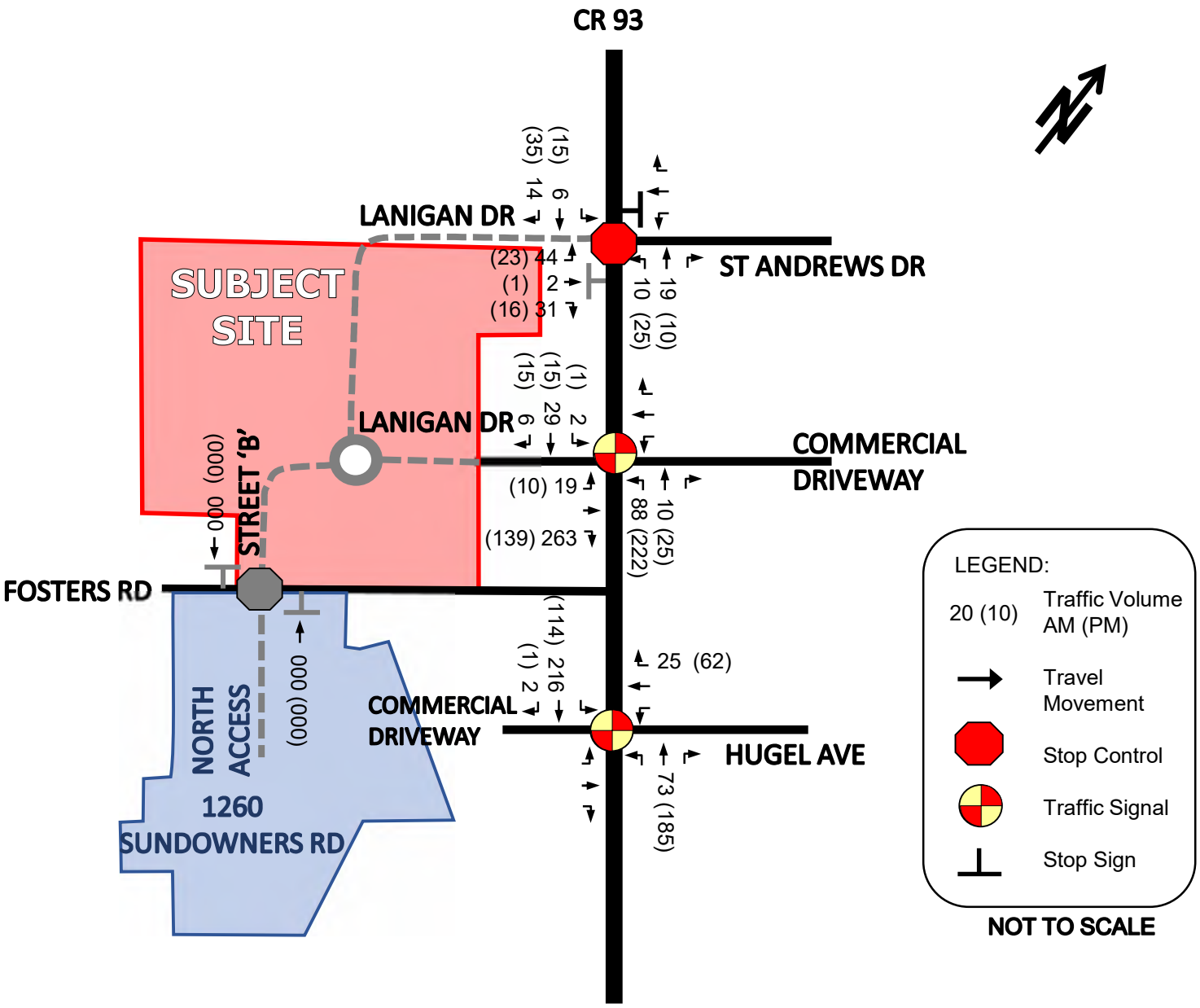
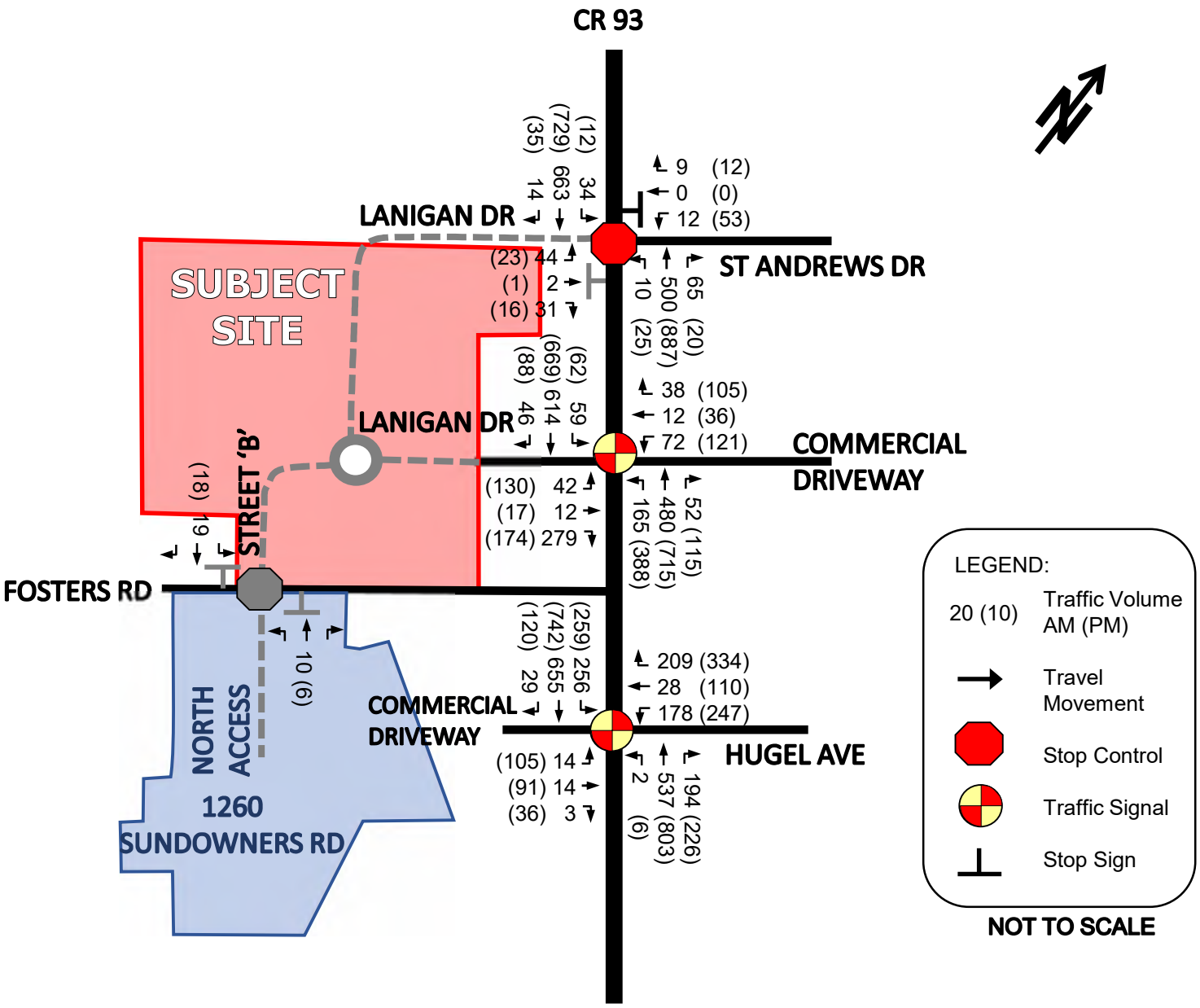


Figure 10: Total (2031) Traffic Volumes



ENGINEERING

Figure 11: Total (2036) Traffic Volumes

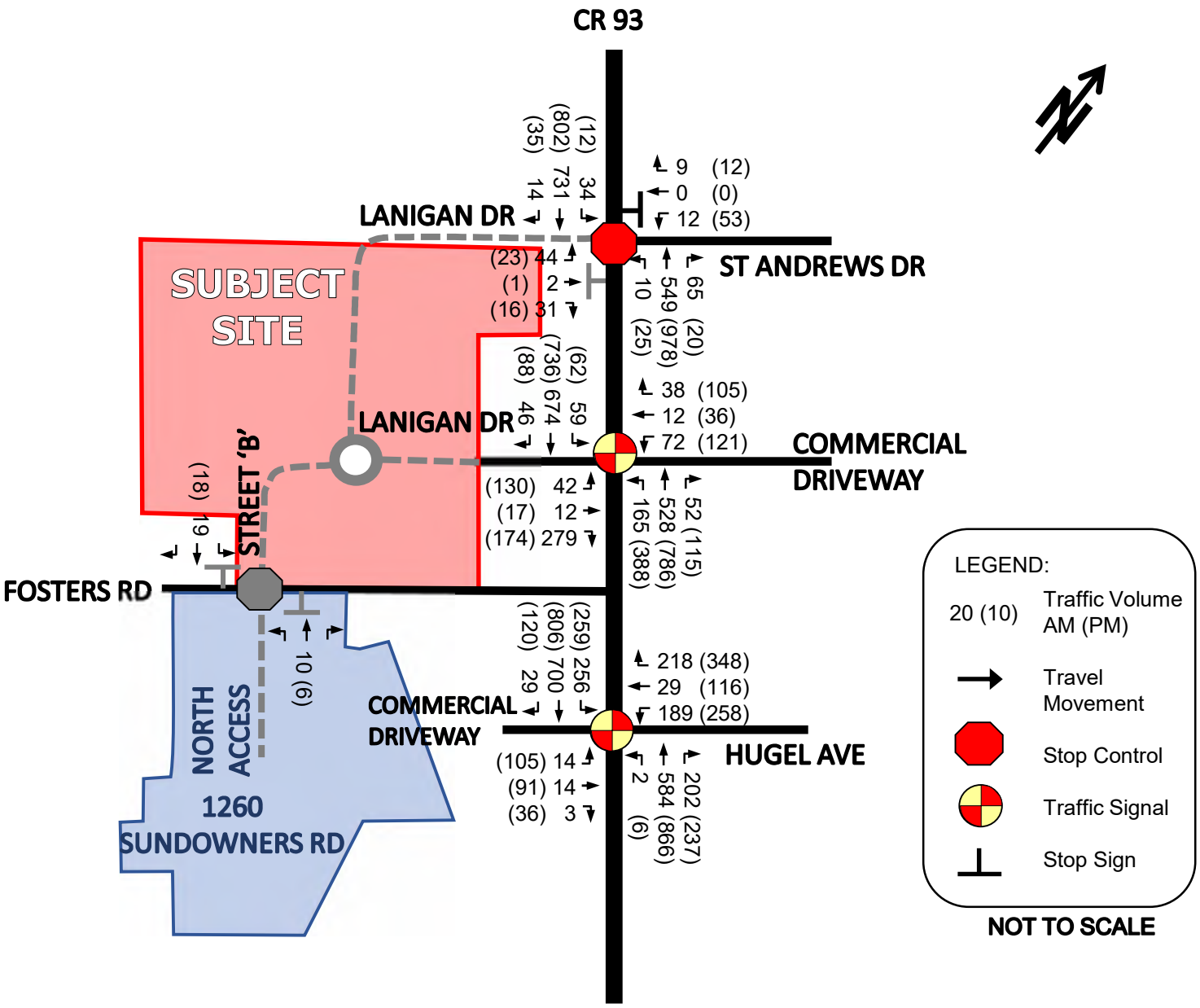
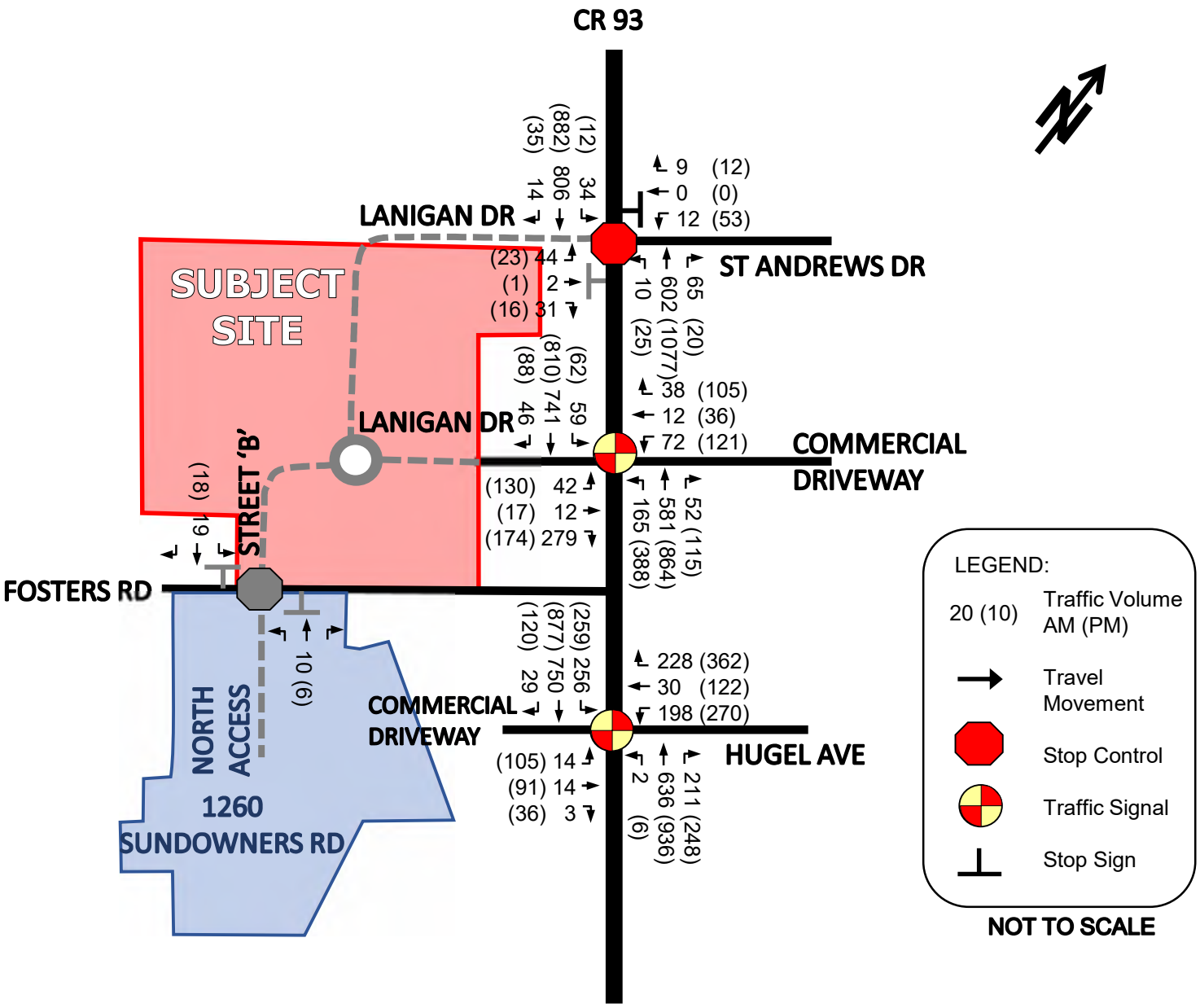
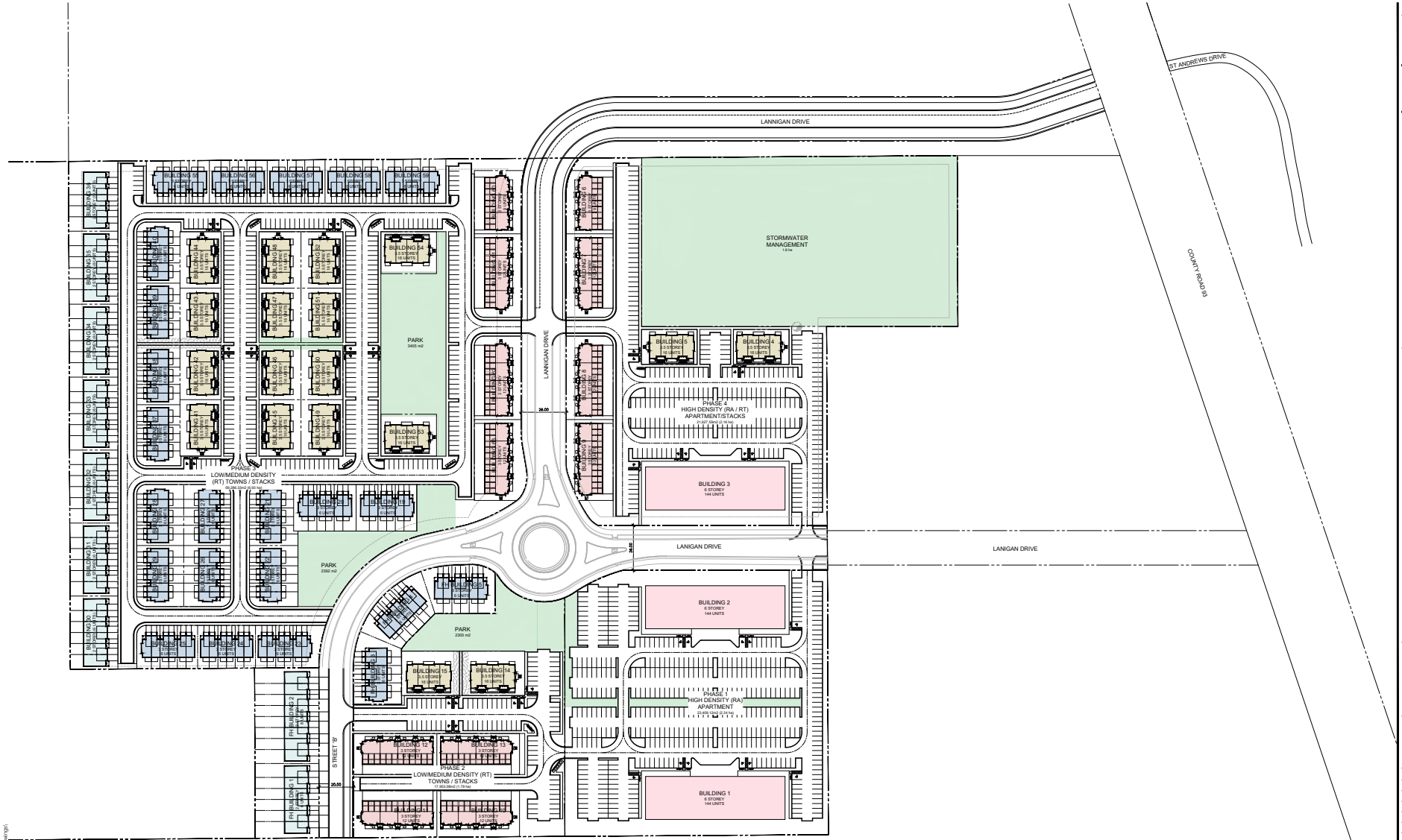


Figure 11: Total (2041) Traffic Volumes



ENGINEERING

Appendix A –
Site Plan



UNITS BREAKDOWN							
PHASE	APARTMENT UNITS	REAR LANE UNITS	STACKED TOWNS	3 STOREY TOWNS	2 STOREY TOWNS	TOTAL NUMBER OF UNITS
PHASE 1	288	0	0	0	0	288
PHASE 2	0	48	32	0	0	80
PHASE 3	0	40	224	120	46	430
PHASE 4	144	40	32	0	0	221
FREEHOLD	0	0	0	18	14	32
TOTAL	432	136	288	138	60	1054

UNIT LEGEND	# units
21' (6.4m) 2 STORY TOWN	55 units
40' - 4" (12.0m) 3 STORY TOWN	138 units
20'-10"(6.3m) 3.5 STORY STACKED TOWN	288 units
33' -7" (10.2m) 3 STORY STACKED REAR LANE TOWN	136 units
6 STOREY APARTMENT BUILDING	432 units
TOTAL UNITS =	1054 units

COMMUNITY TRAIL / LINEAR PARK

PARKING CALCULATIONS				
PHASE	NUMBER OF UNITS	REQUIRED PARKING SPACES	REQUIRED VISITOR SPACES (25% OF REGULAR SPACES)(NOT ADDITIONAL)	PROVIDED PARKING SPACES
PHASE 1	288	288 x 1.5 = 432	108	441
PHASE 2	80	80 x 1.5 = 120	30	192
PHASE 3	430	430 x 1.5 = 646	162	710
PHASE 4	221	221 x 1.5 = 332	83	376
TOTAL	1019	1542 x 1.5= 1363	383	1709

P:\1-Projects\Pine Valley Homes\16142_9332 County Road 93, Midland\2-Drawings\

North Arrow

True North

ORCHARD DESIGN STUDIO INC

Project Information

PINE VALLEY HOMES

PINE VALLEY ESTATES
9332 County Road 93, Midland ON

Set Issuance

No.	Date	Description

Sheet Information

OVERALL SITE PLAN

Project No. 16142
Project Start Date: 2025-10-16
File: 9332 County Road 93 - Site Plan.dwg
Drawn by: MGL
Scale: 1:1000

PRELIMINARY

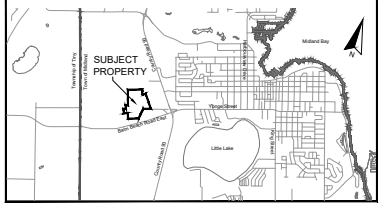
A1.01

Plot Date|Time - 5/4/2026 11:43:59 AM

Appendix B –
Adjacent Development Excerpts

KEY MAP

Scale: 1:50,000



CONCEPTUAL ROAD & BLOCK PLAN

PART 1, R.P. 51R-2750,
AND PARTS 1, 2, 12, 13, 14, 15 & 16, R.P. 51R-10292
PART OF LOTS 105 AND 106, CONCESSION I (O.S.)
FORMER TOWNSHIP OF TINY
NOW IN THE
TOWN OF MIDLAND
COUNTY OF SIMCOE

SCALE = 1:1500

LEGEND

- SUBJECT LANDS - 24.00 ha
- 164 — RESIDENTIAL STREET TOWNHOUSES 7.6m - 8.8m
- 16 — RESIDENTIAL STREET TOWNHOUSES 9.8m - 13.0m
- 138 — RESIDENTIAL MEDIUM DENSITY 45 upha.
- STORMWATER MANAGEMENT FACILITIES
- PARKLAND
- RETAINED NATURAL HERITAGE AREA

Street Townhouse with Basement Apartments

	Required	Proposed
Lot Area	440m²	340m²
Interior Side Yard	1.22m	1.2m
Exterior Side Yard	4.5m	2.5m
Rear Yard Setback	7.6m	7m
Front Yard Setback - dwelling	5.5m	3m
Front Yard Setback - attached garage	5.5m	5.8m
Lot Coverage	36%	45%

Standard TH - Lot Frontage

Interior Lot	7.6m
Exterior Lot	10.1m
End Lot	8.8m

METRIC NOTE:
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

CONCEPTUAL LOTTING PLAN - 498 units (180 TH units + 180 Basem Apt + 138 RMD)

1260 Sundowners Road, Midland

IPS INNOVATIVE PLANNING SOLUTIONS
PLANNERS • PROJECT MANAGERS • LAND DEVELOPERS
647 WELHAM ROAD, UNIT 9A, BARRIE, ONTARIO, L4N 0B7
tel: 705 • 812 • 3281 fax: 705 • 812 • 3438 e: info@ipsconsultinginc.com www.ipsconsultinginc.com

Date:	July 9, 2025	Drawn By:	B.H / A.G
File:	23-1349	Checked:	CS

Appendix C –
Traffic Count Data

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

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

One Hour Peak
From: 8:00:00
To: 9:00:00

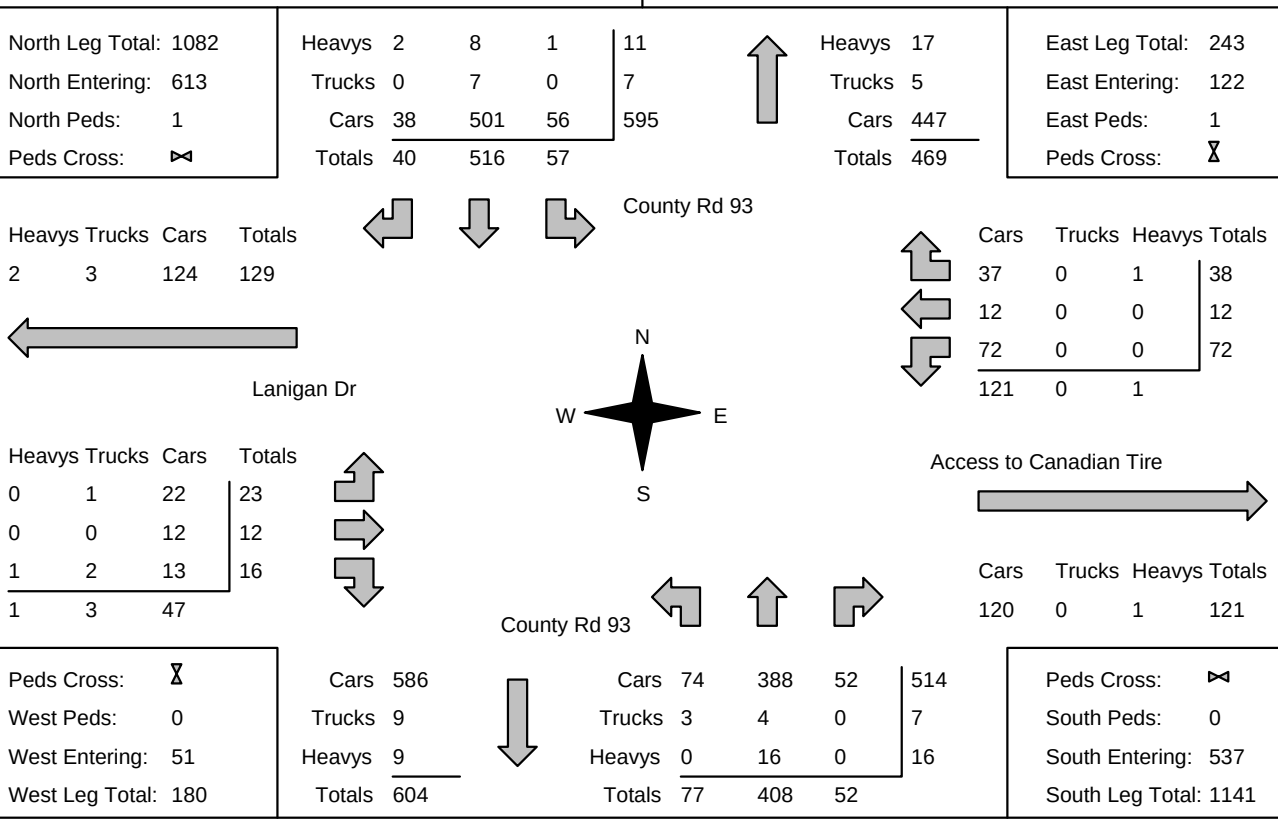
Municipality: Midland
Site #: 2518900001
Intersection: County Rd 93 & Lanigan Dr
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 93 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 16:00:00
To: 19:00:00

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

Municipality: Midland
Site #: 2518900001
Intersection: County Rd 93 & Lanigan Dr
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

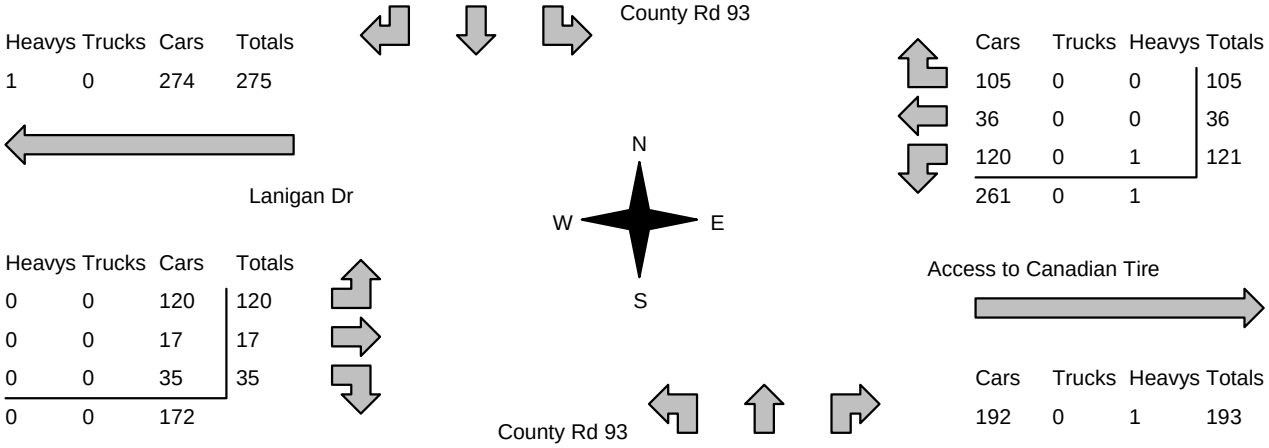
Major Road: County Rd 93 runs N/S

North Leg Total: 1537
North Entering: 705
North Peds: 0
Peds Cross: ⋈

Heavys	1	10	0	11
Trucks	0	6	0	6
Cars	72	555	61	688
Totals	73	571	61	

Heavys	10
Trucks	2
Cars	820
Totals	832

East Leg Total: 455
East Entering: 262
East Peds: 4
Peds Cross: ⧗



Peds Cross: ⧗
West Peds: 0
West Entering: 172
West Leg Total: 447

Cars	710			
Trucks	6			
Heavys	11			
Totals	727			

Cars	166	595	114	875
Trucks	0	2	0	2
Heavys	0	10	1	11
Totals	166	607	115	

Peds Cross: ⋈
South Peds: 4
South Entering: 888
South Leg Total: 1615

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

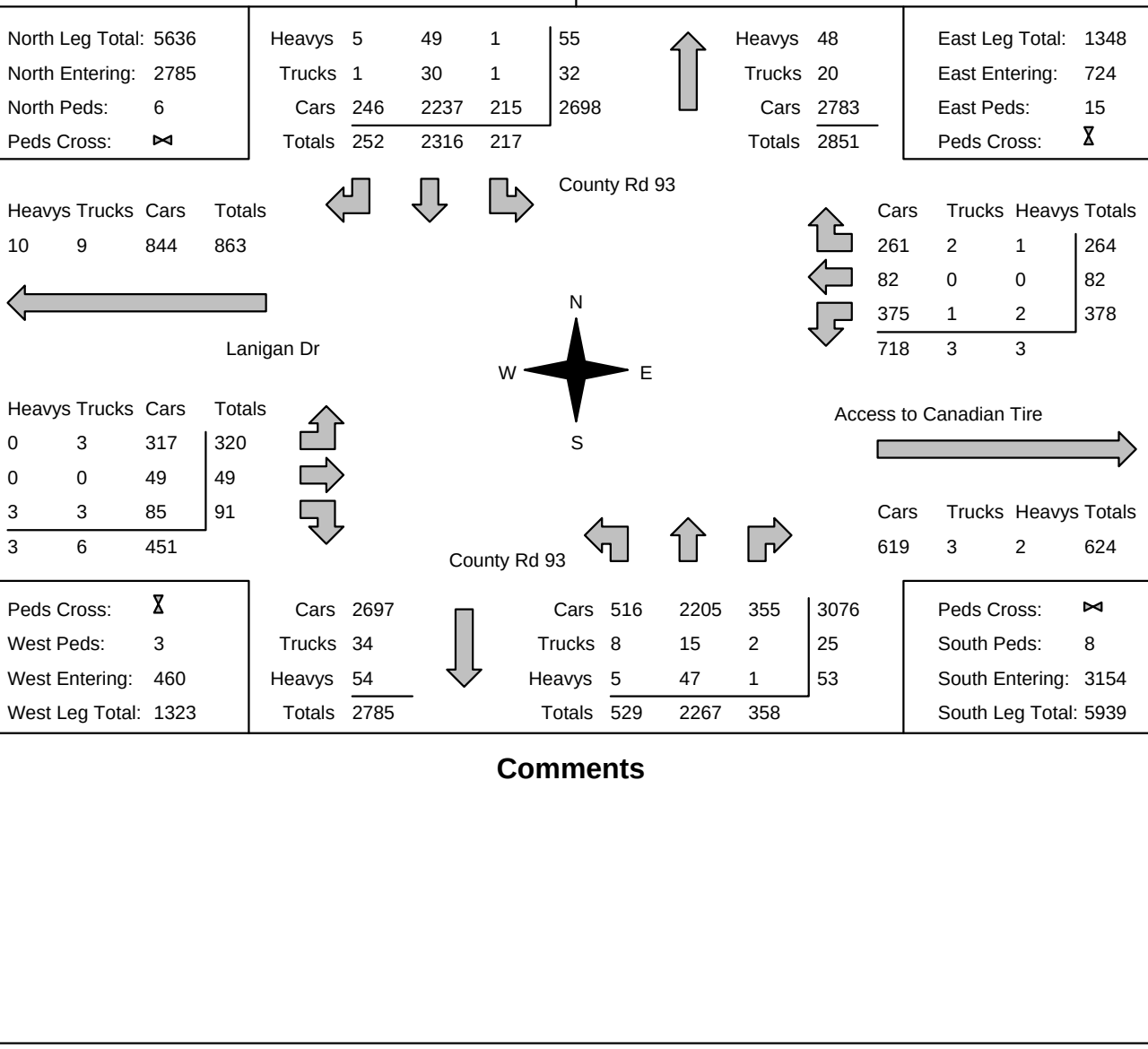
Municipality: Midland
Site #: 2518900001
Intersection: County Rd 93 & Lanigan Dr
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 93 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: County Rd 93 & Lanigan Dr | **Count Date:** 2-Dec-25 | **Municipality:** Midland

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*30*	*451*	*28*	*509*	*3*
9:00:00	*57*	*516*	*40*	*613*	*1*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*61*	*571*	*73*	*705*	*0*
18:00:00	*34*	*443*	*66*	*543*	*1*
19:00:00	*35*	*335*	*45*	*415*	*1*
Totals:	217	2316	252	2785	6

North/South Total Approaches: 5939

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*49*	*297*	*29*	*375*	*0*
9:00:00	*77*	*408*	*52*	*537*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*166*	*607*	*115*	*888*	*4*
18:00:00	*146*	*525*	*93*	*764*	*3*
19:00:00	*91*	*430*	*69*	*590*	*1*
S Totals:	529	2267	358	3154	8

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*26*	*3*	*21*	*50*	*6*
9:00:00	*72*	*12*	*38*	*122*	*1*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*121*	*36*	*105*	*262*	*4*
18:00:00	*91*	*20*	*62*	*173*	*3*
19:00:00	*68*	*11*	*38*	*117*	*1*
Totals:	378	82	264	724	15

East/West Total Approaches: 1184

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*16*	*1*	*6*	*23*	*0*
9:00:00	*23*	*12*	*16*	*51*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*120*	*17*	*35*	*172*	*0*
18:00:00	*103*	*14*	*22*	*139*	*3*
19:00:00	*58*	*5*	*12*	*75*	*0*
W Totals:	320	49	91	460	3

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*16:00*	*17:00*	*18:00*	*19:00*	*0:00*
Crossing Values:	*0*	*48*	*108*	*0*	*281*	*218*	*139*	*0*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 **Site #: 2518900001**

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	88	88	7	7	0	0	0	0	0	0	0	0	0	0	1	1	0	0
7:30:00	6	4	182	94	13	6	0	0	1	1	1	1	0	0	1	1	1	0	0	0
7:45:00	14	8	283	101	17	4	0	0	2	1	1	0	0	0	14	13	1	0	0	0
8:00:00	30	16	426	143	26	9	0	0	6	4	1	0	0	0	19	5	1	0	3	3
8:15:00	41	11	552	126	36	10	0	0	10	4	1	0	0	0	19	0	2	1	3	0
8:30:00	54	13	673	121	44	8	0	0	12	2	1	0	0	0	20	1	2	0	3	0
8:45:00	69	15	759	86	51	7	0	0	13	1	1	0	0	0	23	3	2	0	4	1
9:00:00	86	17	927	168	64	13	0	0	13	0	1	0	1	1	27	4	3	1	4	0
9:15:00	86	0	927	0	64	0	0	0	13	0	1	0	1	0	27	0	3	0	4	0
16:00:00	86	0	927	0	64	0	0	0	13	0	1	0	1	0	27	0	3	0	4	0
16:15:00	108	22	1079	152	87	23	0	0	14	1	1	0	1	0	36	9	3	0	4	0
16:30:00	130	22	1205	126	106	19	0	0	17	3	1	0	1	0	36	0	4	1	4	0
16:45:00	138	8	1350	145	122	16	0	0	18	1	1	0	1	0	36	0	4	0	4	0
17:00:00	147	9	1482	132	136	14	0	0	19	1	1	0	1	0	37	1	4	0	4	0
17:15:00	157	10	1615	133	158	22	0	0	21	2	1	0	1	0	41	4	4	0	4	0
17:30:00	167	10	1717	102	176	18	0	0	22	1	1	0	1	0	42	1	5	1	4	0
17:45:00	177	10	1823	106	193	17	0	0	23	1	1	0	1	0	43	1	5	0	4	0
18:00:00	181	4	1912	89	201	8	0	0	23	0	1	0	1	0	46	3	5	0	5	1
18:15:00	188	7	2007	95	212	11	0	0	25	2	1	0	1	0	47	1	5	0	6	1
18:30:00	196	8	2094	87	229	17	1	1	26	1	1	0	1	0	48	1	5	0	6	0
18:45:00	207	11	2162	68	240	11	1	0	28	2	1	0	1	0	49	1	5	0	6	0
19:00:00	215	8	2237	75	246	6	1	0	30	2	1	0	1	0	49	0	5	0	6	0
19:15:00	215	0	2237	0	246	0	1	0	30	0	1	0	1	0	49	0	5	0	6	0
19:15:15	215	0	2237	0	246	0	1	0	30	0	1	0	1	0	49	0	5	0	6	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900001

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	1	1
7:30:00	12	10	0	0	4	2	1	0	0	0	1	1	0	0	0	0	0	0	2	1
7:45:00	14	2	0	0	11	7	1	0	0	0	1	0	0	0	0	0	0	0	2	0
8:00:00	25	11	3	3	20	9	1	0	0	0	1	0	0	0	0	0	0	0	6	4
8:15:00	43	18	3	0	23	3	1	0	0	0	1	0	0	0	0	0	0	0	7	1
8:30:00	53	10	5	2	34	11	1	0	0	0	1	0	0	0	0	0	0	0	7	0
8:45:00	69	16	9	4	45	11	1	0	0	0	1	0	0	0	0	0	0	0	7	0
9:00:00	97	28	15	6	57	12	1	0	0	0	1	0	0	0	0	0	1	1	7	0
9:15:00	97	0	15	0	57	0	1	0	0	0	1	0	0	0	0	0	1	0	7	0
16:00:00	97	0	15	0	57	0	1	0	0	0	1	0	0	0	0	0	1	0	7	0
16:15:00	130	33	27	12	81	24	1	0	0	0	1	0	1	1	0	0	1	0	7	0
16:30:00	157	27	36	9	114	33	1	0	0	0	1	0	1	0	0	0	1	0	8	1
16:45:00	187	30	43	7	138	24	1	0	0	0	1	0	1	0	0	0	1	0	9	1
17:00:00	217	30	51	8	162	24	1	0	0	0	1	0	1	0	0	0	1	0	11	2
17:15:00	239	22	57	6	187	25	1	0	0	0	1	0	2	1	0	0	1	0	11	0
17:30:00	258	19	63	6	198	11	1	0	0	0	1	0	2	0	0	0	1	0	11	0
17:45:00	280	22	69	6	216	18	1	0	0	0	1	0	2	0	0	0	1	0	14	3
18:00:00	307	27	71	2	224	8	1	0	0	0	1	0	2	0	0	0	1	0	14	0
18:15:00	320	13	73	2	237	13	1	0	0	0	1	0	2	0	0	0	1	0	15	1
18:30:00	342	22	76	3	242	5	1	0	0	0	1	0	2	0	0	0	1	0	15	0
18:45:00	355	13	80	4	250	8	1	0	0	0	2	1	2	0	0	0	1	0	15	0
19:00:00	375	20	82	2	261	11	1	0	0	0	2	0	2	0	0	0	1	0	15	0
19:15:00	375	0	82	0	261	0	1	0	0	0	2	0	2	0	0	0	1	0	15	0
19:15:15	375	0	82	0	261	0	1	0	0	0	2	0	2	0	0	0	1	0	15	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 **Site #: 2518900001**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	7	7	30	30	2	2	0	0	0	0	1	1	0	0	3	3	0	0	0	0
7:30:00	10	3	81	51	6	4	1	1	0	0	1	0	0	0	7	4	0	0	0	0
7:45:00	28	18	161	80	15	9	2	1	3	3	1	0	0	0	10	3	0	0	0	0
8:00:00	45	17	278	117	28	13	2	0	4	1	1	0	2	2	15	5	0	0	0	0
8:15:00	60	15	369	91	41	13	2	0	5	1	1	0	2	0	18	3	0	0	0	0
8:30:00	81	21	462	93	54	13	4	2	5	0	1	0	2	0	22	4	0	0	0	0
8:45:00	96	15	566	104	70	16	5	1	7	2	1	0	2	0	26	4	0	0	0	0
9:00:00	119	23	666	100	80	10	5	0	8	1	1	0	2	0	31	5	0	0	0	0
9:15:00	119	0	666	0	80	0	5	0	8	0	1	0	2	0	31	0	0	0	0	0
16:00:00	119	0	666	0	80	0	5	0	8	0	1	0	2	0	31	0	0	0	0	0
16:15:00	164	45	812	146	109	29	5	0	9	1	1	0	2	0	33	2	0	0	0	0
16:30:00	199	35	958	146	136	27	5	0	9	0	1	0	2	0	36	3	0	0	0	0
16:45:00	237	38	1116	158	163	27	5	0	10	1	1	0	2	0	39	3	0	0	3	3
17:00:00	285	48	1261	145	194	31	5	0	10	0	1	0	2	0	41	2	1	1	4	1
17:15:00	329	44	1390	129	222	28	5	0	11	1	2	1	2	0	41	0	1	0	4	0
17:30:00	369	40	1550	160	248	26	5	0	11	0	2	0	2	0	43	2	1	0	5	1
17:45:00	399	30	1671	121	271	23	6	1	12	1	2	0	3	1	45	2	1	0	5	0
18:00:00	427	28	1779	108	286	15	6	0	13	1	2	0	5	2	45	0	1	0	7	2
18:15:00	452	25	1910	131	312	26	7	1	13	0	2	0	5	0	45	0	1	0	8	1
18:30:00	475	23	2018	108	329	17	8	1	14	1	2	0	5	0	46	1	1	0	8	0
18:45:00	494	19	2120	102	344	15	8	0	15	1	2	0	5	0	47	1	1	0	8	0
19:00:00	516	22	2205	85	355	11	8	0	15	0	2	0	5	0	47	0	1	0	8	0
19:15:00	516	0	2205	0	355	0	8	0	15	0	2	0	5	0	47	0	1	0	8	0
19:15:15	516	0	2205	0	355	0	8	0	15	0	2	0	5	0	47	0	1	0	8	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 **Site #: 2518900001**

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	3	3	0	0	2	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
7:45:00	10	7	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00:00	16	6	1	1	4	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0
8:15:00	23	7	3	2	5	1	0	0	0	0	2	1	0	0	0	0	1	0	0	0
8:30:00	27	4	8	5	9	4	0	0	0	0	2	0	0	0	0	0	1	0	0	0
8:45:00	34	7	13	5	13	4	1	1	0	0	2	0	0	0	0	0	1	0	0	0
9:00:00	38	4	13	0	17	4	1	0	0	0	3	1	0	0	0	0	2	1	0	0
9:15:00	38	0	13	0	17	0	1	0	0	0	3	0	0	0	0	0	2	0	0	0
16:00:00	38	0	13	0	17	0	1	0	0	0	3	0	0	0	0	0	2	0	0	0
16:15:00	70	32	17	4	29	12	1	0	0	0	3	0	0	0	0	0	2	0	0	0
16:30:00	100	30	20	3	37	8	1	0	0	0	3	0	0	0	0	0	2	0	0	0
16:45:00	126	26	30	10	45	8	1	0	0	0	3	0	0	0	0	0	2	0	0	0
17:00:00	158	32	30	0	52	7	1	0	0	0	3	0	0	0	0	0	2	0	0	0
17:15:00	191	33	31	1	57	5	1	0	0	0	3	0	0	0	0	0	2	0	1	1
17:30:00	217	26	37	6	63	6	1	0	0	0	3	0	0	0	0	0	2	0	2	1
17:45:00	244	27	43	6	73	10	1	0	0	0	3	0	0	0	0	0	2	0	2	0
18:00:00	261	17	44	1	74	1	1	0	0	0	3	0	0	0	0	0	2	0	3	1
18:15:00	277	16	45	1	79	5	1	0	0	0	3	0	0	0	0	0	2	0	3	0
18:30:00	291	14	47	2	84	5	2	1	0	0	3	0	0	0	0	0	3	1	3	0
18:45:00	308	17	47	0	84	0	3	1	0	0	3	0	0	0	0	0	3	0	3	0
19:00:00	317	9	49	2	85	1	3	0	0	0	3	0	0	0	0	0	3	0	3	0
19:15:00	317	0	49	0	85	0	3	0	0	0	3	0	0	0	0	0	3	0	3	0
19:15:15	317	0	49	0	85	0	3	0	0	0	3	0	0	0	0	0	3	0	3	0

Accu-Traffic Inc.

Morning Peak Diagram

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

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

Municipality: Midland
Site #: 2518900002
Intersection: County Rd 93 & St Andrews Dr
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

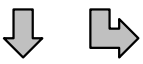
Major Road: County Rd 93 runs N/S

North Leg Total: 1035
North Entering: 613
North Peds: 0
Peds Cross: ⋈

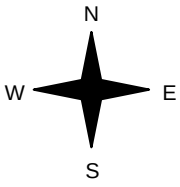
Heavys	11	0	11
Trucks	10	0	10
Cars	558	34	592
Totals	579	34	

Heavys	16
Trucks	6
Cars	400
Totals	422

East Leg Total: 120
East Entering: 21
East Peds: 1
Peds Cross: ⋈



Cars	Trucks	Heavys	Totals
9	0	0	9
12	0	0	12
21	0	0	



St Andrews Dr

Cars	Trucks	Heavys	Totals
99	0	0	99

Cars	570		
Trucks	10		
Heavys	11		
Totals	591		

Cars	391	65	456
Trucks	6	0	6
Heavys	16	0	16
Totals	413	65	

Peds Cross: ⋈
South Peds: 0
South Entering: 478
South Leg Total: 1069

Comments

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 16:00:00
To: 19:00:00

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

Municipality: Midland
Site #: 2518900002
Intersection: County Rd 93 & St Andrews Dr
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

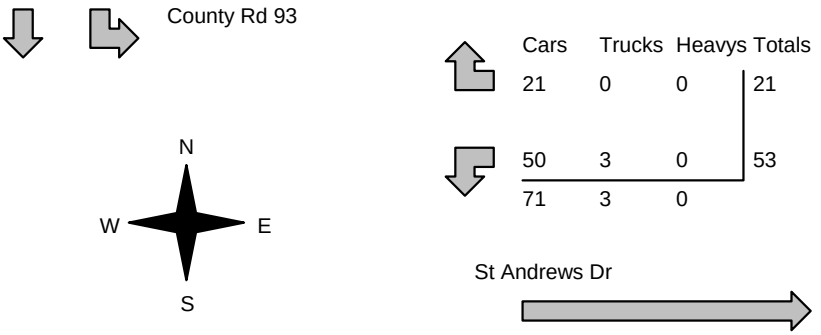
Major Road: County Rd 93 runs N/S

North Leg Total: 1425
North Entering: 633
North Peds: 0
Peds Cross: ⋈

Heavys	9	0	9
Trucks	3	3	6
Cars	609	9	618
Totals	621	12	

Heavys	10
Trucks	0
Cars	782
Totals	792

East Leg Total: 106
East Entering: 74
East Peds: 0
Peds Cross: ⋈



Cars	659		
Trucks	6		
Heavys	9		
Totals	674		

Cars	761	18	779
Trucks	0	2	2
Heavys	10	0	10
Totals	771	20	

Peds Cross: ⋈
South Peds: 0
South Entering: 791
South Leg Total: 1465

Comments

Accu-Traffic Inc.

Total Count Diagram

Municipality: Midland
Site #: 2518900002
Intersection: County Rd 93 & St Andrews Dr
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

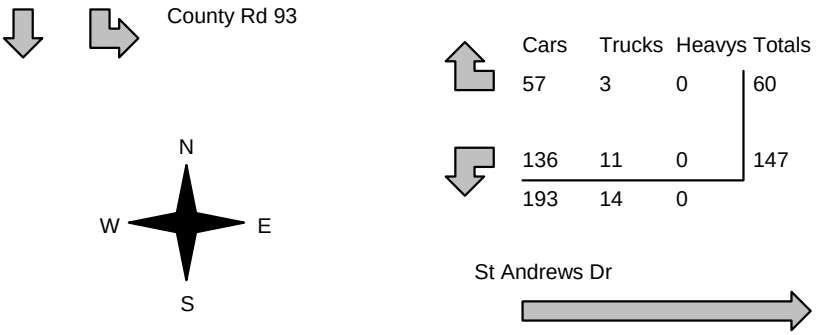
Major Road: County Rd 93 runs N/S

North Leg Total: 5215
North Entering: 2614
North Peds: 0
Peds Cross: ⋈

Heavys	55	0	55
Trucks	20	5	25
Cars	2444	90	2534
Totals	2519	95	

Heavys	47
Trucks	16
Cars	2538
Totals	2601

East Leg Total: 495
East Entering: 207
East Peds: 1
Peds Cross: ⋈



	Cars	Trucks	Heavys	Totals
	57	3	0	60
	136	11	0	147
	193	14	0	

	Cars	Trucks	Heavys	Totals
	277	10	1	288

Cars	2580		
Trucks	31		
Heavys	55		
Totals	2666		

Cars	2481	187	2668
Trucks	13	5	18
Heavys	47	1	48
Totals	2541	193	

Peds Cross: ⋈
South Peds: 0
South Entering: 2734
South Leg Total: 5400

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: County Rd 93 & St Andrews Dr | **Count Date:** 2-Dec-25 | **Municipality:** Midland

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*33*	*489*	*0*	*522*	*0*
9:00:00	*23*	*589*	*0*	*612*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*12*	*621*	*0*	*633*	*0*
18:00:00	*9*	*478*	*0*	*487*	*0*
19:00:00	*18*	*342*	*0*	*360*	*0*
Totals:	95	2519	0	2614	0

North/South Total Approaches: 5348

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*275*	*58*	*333*	*0*
9:00:00	*0*	*409*	*49*	*458*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*771*	*20*	*791*	*0*
18:00:00	*0*	*629*	*23*	*652*	*0*
19:00:00	*0*	*457*	*43*	*500*	*0*
S Totals:	0	2541	193	2734	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*21*	*0*	*13*	*34*	*0*
9:00:00	*14*	*0*	*7*	*21*	*1*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*53*	*0*	*21*	*74*	*0*
18:00:00	*31*	*0*	*8*	*39*	*0*
19:00:00	*28*	*0*	*11*	*39*	*0*
Totals:	147	0	60	207	1

East/West Total Approaches: 207

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*0*
9:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*0*	*0*	*0*	*0*
18:00:00	*0*	*0*	*0*	*0*	*0*
19:00:00	*0*	*0*	*0*	*0*	*0*
W Totals:	0	0	0	0	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*16:00*	*17:00*	*18:00*	*19:00*	*0:00*
Crossing Values:	*0*	*21*	*14*	*0*	*53*	*31*	*28*	*0*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900002

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	90	90	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
7:30:00	10	8	179	89	0	0	0	0	1	1	0	0	0	0	2	1	0	0	0	0
7:45:00	17	7	296	117	0	0	0	0	2	1	0	0	0	0	15	13	0	0	0	0
8:00:00	33	16	463	167	0	0	0	0	6	4	0	0	0	0	20	5	0	0	0	0
8:15:00	42	9	596	133	0	0	0	0	10	4	0	0	0	0	22	2	0	0	0	0
8:30:00	46	4	741	145	0	0	0	0	11	1	0	0	0	0	23	1	0	0	0	0
8:45:00	51	5	854	113	0	0	0	0	12	1	0	0	0	0	26	3	0	0	0	0
9:00:00	56	5	1034	180	0	0	0	0	12	0	0	0	0	0	32	6	0	0	0	0
9:15:00	56	0	1034	0	0	0	0	0	12	0	0	0	0	0	32	0	0	0	0	0
16:00:00	56	0	1034	0	0	0	0	0	12	0	0	0	0	0	32	0	0	0	0	0
16:15:00	58	2	1211	177	0	0	1	1	13	1	0	0	0	0	39	7	0	0	0	0
16:30:00	60	2	1355	144	0	0	3	2	13	0	0	0	0	0	40	1	0	0	0	0
16:45:00	64	4	1499	144	0	0	3	0	14	1	0	0	0	0	40	0	0	0	0	0
17:00:00	65	1	1643	144	0	0	3	0	15	1	0	0	0	0	41	1	0	0	0	0
17:15:00	67	2	1796	153	0	0	3	0	15	0	0	0	0	0	45	4	0	0	0	0
17:30:00	70	3	1910	114	0	0	3	0	16	1	0	0	0	0	47	2	0	0	0	0
17:45:00	71	1	2022	112	0	0	4	1	17	1	0	0	0	0	49	2	0	0	0	0
18:00:00	73	2	2108	86	0	0	4	0	17	0	0	0	0	0	52	3	0	0	0	0
18:15:00	74	1	2199	91	0	0	4	0	18	1	0	0	0	0	53	1	0	0	0	0
18:30:00	77	3	2296	97	0	0	5	1	19	1	0	0	0	0	54	1	0	0	0	0
18:45:00	84	7	2365	69	0	0	5	0	19	0	0	0	0	0	55	1	0	0	0	0
19:00:00	90	6	2444	79	0	0	5	0	20	1	0	0	0	0	55	0	0	0	0	0
19:15:00	90	0	2444	0	0	0	5	0	20	0	0	0	0	0	55	0	0	0	0	0
19:15:15	90	0	2444	0	0	0	5	0	20	0	0	0	0	0	55	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900002

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	7	7	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	16	9	0	0	8	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	17	1	0	0	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	20	3	0	0	13	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	24	4	0	0	17	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	26	2	0	0	18	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	29	3	0	0	19	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1
9:00:00	34	5	0	0	20	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
9:15:00	34	0	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
16:00:00	34	0	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
16:15:00	53	19	0	0	31	11	1	0	0	0	0	0	0	0	0	0	0	0	1	0
16:30:00	60	7	0	0	33	2	4	3	0	0	0	0	0	0	0	0	0	0	1	0
16:45:00	76	16	0	0	37	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0
17:00:00	84	8	0	0	41	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0
17:15:00	94	10	0	0	43	2	6	2	0	0	2	2	0	0	0	0	0	0	1	0
17:30:00	105	11	0	0	45	2	6	0	0	0	2	0	0	0	0	0	0	0	1	0
17:45:00	109	4	0	0	47	2	6	0	0	0	2	0	0	0	0	0	0	0	1	0
18:00:00	112	3	0	0	47	0	7	1	0	0	2	0	0	0	0	0	0	0	1	0
18:15:00	124	12	0	0	50	3	9	2	0	0	2	0	0	0	0	0	0	0	1	0
18:30:00	129	5	0	0	50	0	10	1	0	0	2	0	0	0	0	0	0	0	1	0
18:45:00	133	4	0	0	53	3	10	0	0	0	2	0	0	0	0	0	0	0	1	0
19:00:00	136	3	0	0	57	4	11	1	0	0	3	1	0	0	0	0	0	0	1	0
19:15:00	136	0	0	0	57	0	11	0	0	0	3	0	0	0	0	0	0	0	1	0
19:15:15	136	0	0	0	57	0	11	0	0	0	3	0	0	0	0	0	0	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900002

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	26	26	6	6	0	0	0	0	0	0	0	0	3	3	0	0	0	0
7:30:00	0	0	69	43	18	12	0	0	1	1	0	0	0	0	8	5	0	0	0	0
7:45:00	0	0	149	80	29	11	0	0	3	2	0	0	0	0	11	3	0	0	0	0
8:00:00	0	0	255	106	58	29	0	0	4	1	0	0	0	0	16	5	0	0	0	0
8:15:00	0	0	338	83	68	10	0	0	6	2	0	0	0	0	19	3	0	0	0	0
8:30:00	0	0	435	97	84	16	0	0	6	0	0	0	0	0	23	4	0	0	0	0
8:45:00	0	0	540	105	94	10	0	0	9	3	0	0	0	0	27	4	0	0	0	0
9:00:00	0	0	643	103	106	12	0	0	10	1	0	0	0	0	31	4	1	1	0	0
9:15:00	0	0	643	0	106	0	0	0	10	0	0	0	0	0	31	0	1	0	0	0
16:00:00	0	0	643	0	106	0	0	0	10	0	0	0	0	0	31	0	1	0	0	0
16:15:00	0	0	831	188	111	5	0	0	10	0	1	1	0	0	33	2	1	0	0	0
16:30:00	0	0	1031	200	115	4	0	0	10	0	1	0	0	0	36	3	1	0	0	0
16:45:00	0	0	1224	193	120	5	0	0	10	0	2	1	0	0	39	3	1	0	0	0
17:00:00	0	0	1404	180	124	4	0	0	10	0	2	0	0	0	41	2	1	0	0	0
17:15:00	0	0	1580	176	126	2	0	0	10	0	3	1	0	0	41	0	1	0	0	0
17:30:00	0	0	1755	175	132	6	0	0	10	0	3	0	0	0	42	1	1	0	0	0
17:45:00	0	0	1903	148	138	6	0	0	11	1	3	0	0	0	44	2	1	0	0	0
18:00:00	0	0	2028	125	145	7	0	0	11	0	4	1	0	0	45	1	1	0	0	0
18:15:00	0	0	2163	135	153	8	0	0	11	0	4	0	0	0	45	0	1	0	0	0
18:30:00	0	0	2275	112	163	10	0	0	11	0	5	1	0	0	46	1	1	0	0	0
18:45:00	0	0	2390	115	177	14	0	0	13	2	5	0	0	0	47	1	1	0	0	0
19:00:00	0	0	2481	91	187	10	0	0	13	0	5	0	0	0	47	0	1	0	0	0
19:15:00	0	0	2481	0	187	0	0	0	13	0	5	0	0	0	47	0	1	0	0	0
19:15:15	0	0	2481	0	187	0	0	0	13	0	5	0	0	0	47	0	1	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900002

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

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

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

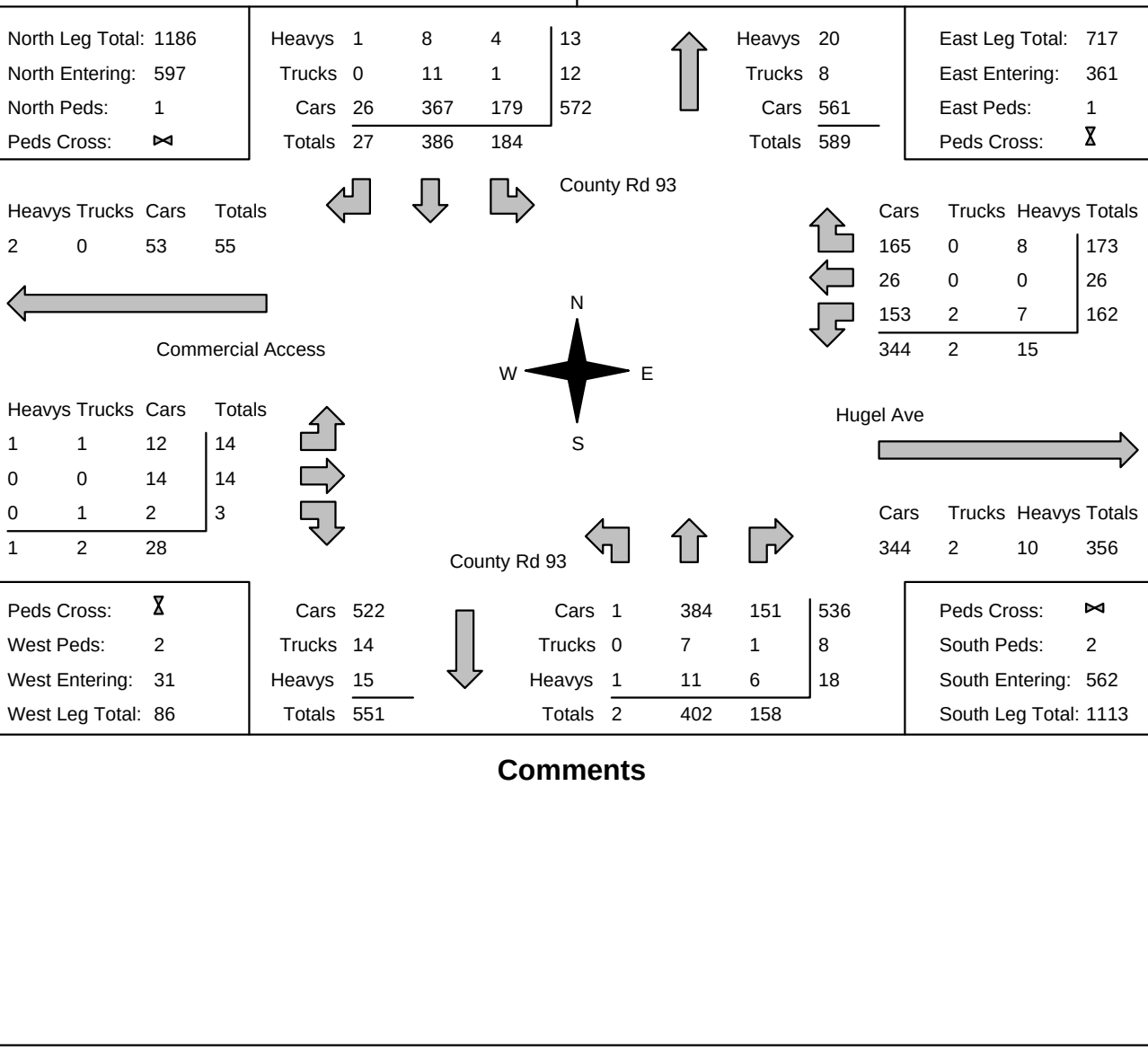
Municipality: Midland
Site #: 2518900003
Intersection: County Rd 93 & Hugel Ave
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 93 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 16:00:00
To: 19:00:00

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

Municipality: Midland
Site #: 2518900003
Intersection: County Rd 93 & Hugel Ave
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 93 runs N/S

North Leg Total:	1792			
North Entering:	888			
North Peds:	3			
Peds Cross:	⋈			

Heavys	1	11	2	14
Trucks	2	4	1	7
Cars	116	533	218	867
Totals	119	548	221	

Heavys	11
Trucks	2
Cars	891
Totals	904

East Leg Total:	1079			
East Entering:	569			
East Peds:	3			
Peds Cross:	⧖			

County Rd 93

Heavys	Trucks	Cars	Totals
2	3	224	229

Commercial Access

Heavys	Trucks	Cars	Totals
0	0	105	105
0	0	91	91
0	0	36	36
0	0	232	

Cars	Trucks	Heavys	Totals
252	0	4	256
102	1	1	104
207	0	2	209
561	1	7	

N
W E
S

Hugel Ave

Cars	Trucks	Heavys	Totals
505	2	3	510

County Rd 93

Peds Cross:	⧖			
West Peds:	1			
West Entering:	232			
West Leg Total:	461			

Cars	776			
Trucks	4			
Heavys	13			
Totals	793			

Cars	6	534	196	736
Trucks	0	2	1	3
Heavys	0	7	1	8
Totals	6	543	198	

Peds Cross:	⋈			
South Peds:	12			
South Entering:	747			
South Leg Total:	1540			

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

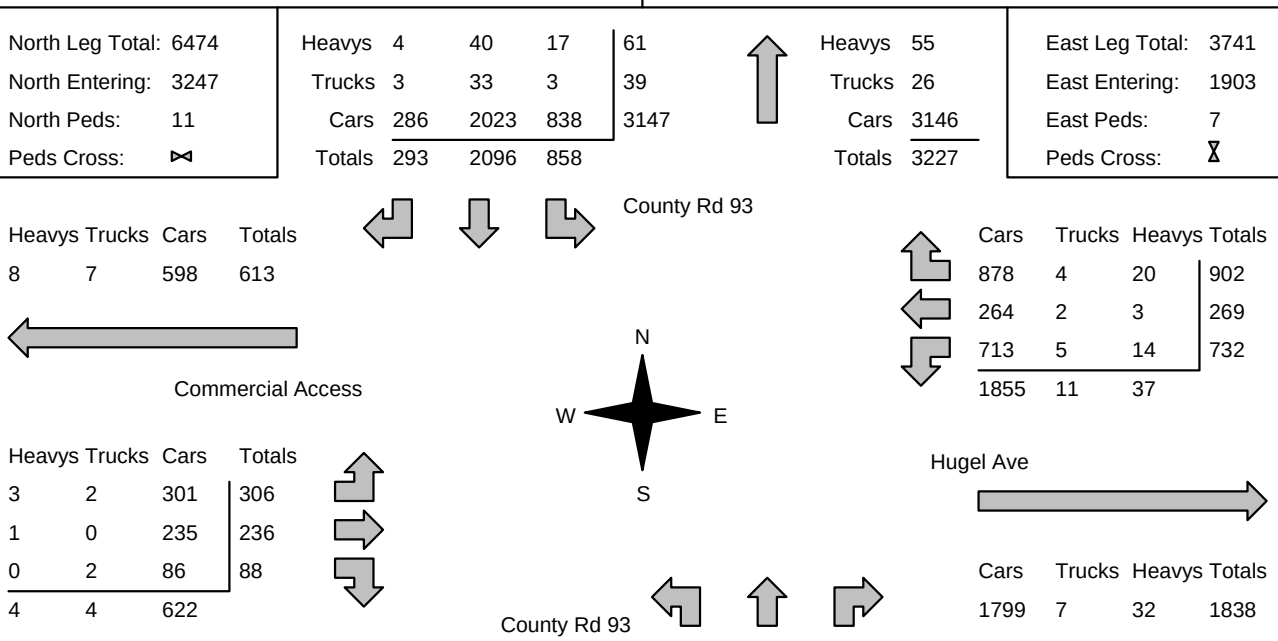
Municipality: Midland
Site #: 2518900003
Intersection: County Rd 93 & Hugel Ave
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 93 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: County Rd 93 & Hugel Ave | **Count Date:** 2-Dec-25 | **Municipality:** Midland

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*128*	*359*	*8*	*495*	*0*
9:00:00	*194*	*409*	*32*	*635*	*2*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*221*	*548*	*119*	*888*	*3*
18:00:00	*180*	*440*	*75*	*695*	*0*
19:00:00	*135*	*340*	*59*	*534*	*6*
Totals:	858	2096	293	3247	11

North/South Total Approaches: 6061

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*5*	*290*	*106*	*401*	*1*
9:00:00	*2*	*366*	*150*	*518*	*3*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*6*	*543*	*198*	*747*	*12*
18:00:00	*21*	*466*	*162*	*649*	*5*
19:00:00	*17*	*354*	*128*	*499*	*2*
S Totals:	51	2019	744	2814	23

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*134*	*12*	*103*	*249*	*0*
9:00:00	*145*	*34*	*173*	*352*	*1*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*209*	*104*	*256*	*569*	*3*
18:00:00	*146*	*65*	*211*	*422*	*2*
19:00:00	*98*	*54*	*159*	*311*	*1*
Totals:	732	269	902	1903	7

East/West Total Approaches: 2533

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*8*	*4*	*3*	*15*	*1*
9:00:00	*21*	*18*	*3*	*42*	*2*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*105*	*91*	*36*	*232*	*1*
18:00:00	*99*	*80*	*28*	*207*	*2*
19:00:00	*73*	*43*	*18*	*134*	*1*
W Totals:	306	236	88	630	7

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*16:00*	*17:00*	*18:00*	*19:00*	*0:00*
Crossing Values:	*0*	*155*	*205*	*0*	*433*	*330*	*233*	*0*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900003

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	14	14	85	85	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0
7:30:00	30	16	172	87	1	1	0	0	3	2	0	0	0	0	1	1	1	0	0	0
7:45:00	58	28	245	73	2	1	0	0	4	1	0	0	10	10	3	2	1	0	0	0
8:00:00	115	57	345	100	7	5	0	0	8	4	0	0	13	3	6	3	1	0	0	0
8:15:00	161	46	448	103	17	10	0	0	13	5	0	0	13	0	6	0	2	1	0	0
8:30:00	204	43	541	93	24	7	1	1	14	1	0	0	14	1	6	0	2	0	0	0
8:45:00	237	33	612	71	28	4	1	0	15	1	0	0	14	0	11	5	2	0	1	1
9:00:00	305	68	738	126	38	10	2	1	16	1	0	0	15	1	14	3	2	0	2	1
9:15:00	305	0	738	0	38	0	2	0	16	0	0	0	15	0	14	0	2	0	2	0
16:00:00	305	0	738	0	38	0	2	0	16	0	0	0	15	0	14	0	2	0	2	0
16:15:00	371	66	891	153	64	26	2	0	16	0	1	1	16	1	22	8	2	0	2	0
16:30:00	417	46	1011	120	96	32	3	1	18	2	2	1	17	1	23	1	3	1	4	2
16:45:00	474	57	1161	150	124	28	3	0	19	1	2	0	17	0	23	0	3	0	4	0
17:00:00	523	49	1271	110	154	30	3	0	20	1	2	0	17	0	25	2	3	0	5	1
17:15:00	576	53	1379	108	178	24	3	0	21	1	2	0	17	0	30	5	3	0	5	0
17:30:00	615	39	1489	110	196	18	3	0	23	2	2	0	17	0	31	1	4	1	5	0
17:45:00	656	41	1611	122	209	13	3	0	24	1	2	0	17	0	32	1	4	0	5	0
18:00:00	703	47	1697	86	228	19	3	0	24	0	2	0	17	0	35	3	4	0	5	0
18:15:00	742	39	1783	86	242	14	3	0	27	3	3	1	17	0	37	2	4	0	6	1
18:30:00	778	36	1873	90	262	20	3	0	29	2	3	0	17	0	39	2	4	0	7	1
18:45:00	806	28	1948	75	279	17	3	0	31	2	3	0	17	0	40	1	4	0	9	2
19:00:00	838	32	2023	75	286	7	3	0	33	2	3	0	17	0	40	0	4	0	11	2
19:15:00	838	0	2023	0	286	0	3	0	33	0	3	0	17	0	40	0	4	0	11	0
19:15:15	838	0	2023	0	286	0	3	0	33	0	3	0	17	0	40	0	4	0	11	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900003

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	23	23	0	0	8	8	0	0	0	0	1	1	1	1	0	0	0	0	0	0
7:30:00	44	21	4	4	21	13	1	1	0	0	2	1	1	0	1	1	2	2	0	0
7:45:00	84	40	7	3	51	30	1	0	0	0	2	0	2	1	1	0	4	2	0	0
8:00:00	127	43	11	4	94	43	3	2	0	0	2	0	4	2	1	0	7	3	0	0
8:15:00	167	40	20	9	144	50	3	0	0	0	2	0	7	3	1	0	8	1	0	0
8:30:00	200	33	26	6	179	35	3	0	0	0	2	0	9	2	1	0	12	4	0	0
8:45:00	237	37	33	7	216	37	3	0	0	0	2	0	9	0	1	0	12	0	1	1
9:00:00	266	29	45	12	261	45	4	1	0	0	2	0	9	0	1	0	13	1	1	0
9:15:00	266	0	45	0	261	0	4	0	0	0	2	0	9	0	1	0	13	0	1	0
16:00:00	266	0	45	0	261	0	4	0	0	0	2	0	9	0	1	0	13	0	1	0
16:15:00	317	51	68	23	324	63	4	0	0	0	2	0	10	1	1	0	13	0	1	0
16:30:00	375	58	89	21	387	63	4	0	1	1	2	0	10	0	2	1	16	3	1	0
16:45:00	422	47	117	28	441	54	4	0	1	0	2	0	10	0	2	0	17	1	4	3
17:00:00	473	51	147	30	513	72	4	0	1	0	2	0	11	1	2	0	17	0	4	0
17:15:00	528	55	164	17	576	63	5	1	1	0	3	1	12	1	2	0	17	0	4	0
17:30:00	558	30	184	20	637	61	5	0	1	0	3	0	13	1	3	1	18	1	4	0
17:45:00	594	36	197	13	684	47	5	0	1	0	3	0	13	0	3	0	19	1	6	2
18:00:00	615	21	211	14	721	37	5	0	1	0	3	0	14	1	3	0	19	0	6	0
18:15:00	645	30	228	17	763	42	5	0	1	0	3	0	14	0	3	0	19	0	6	0
18:30:00	672	27	238	10	810	47	5	0	1	0	4	1	14	0	3	0	20	1	6	0
18:45:00	694	22	248	10	843	33	5	0	1	0	4	0	14	0	3	0	20	0	7	1
19:00:00	713	19	264	16	878	35	5	0	2	1	4	0	14	0	3	0	20	0	7	0
19:15:00	713	0	264	0	878	0	5	0	2	0	4	0	14	0	3	0	20	0	7	0
19:15:15	713	0	264	0	878	0	5	0	2	0	4	0	14	0	3	0	20	0	7	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900003

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	38	38	12	12	1	1	0	0	0	0	0	0	3	3	0	0	0	0
7:30:00	2	1	82	44	28	16	2	1	0	0	0	0	0	0	4	1	1	1	1	1
7:45:00	3	1	160	78	55	27	2	0	2	2	0	0	0	0	5	1	5	4	1	0
8:00:00	3	0	277	117	97	42	2	0	4	2	0	0	0	0	9	4	9	4	1	0
8:15:00	3	0	348	71	133	36	2	0	5	1	1	1	0	0	11	2	9	0	1	0
8:30:00	3	0	442	94	178	45	2	0	6	1	1	0	0	0	12	1	10	1	2	1
8:45:00	4	1	544	102	206	28	2	0	9	3	1	0	1	1	16	4	11	1	3	1
9:00:00	4	0	627	83	241	35	2	0	10	1	2	1	1	0	19	3	13	2	4	1
9:15:00	4	0	627	0	241	0	2	0	10	0	2	0	1	0	19	0	13	0	4	0
16:00:00	4	0	627	0	241	0	2	0	10	0	2	0	1	0	19	0	13	0	4	0
16:15:00	4	0	757	130	285	44	2	0	11	1	2	0	1	0	21	2	13	0	5	1
16:30:00	4	0	884	127	336	51	2	0	11	0	2	0	1	0	21	0	13	0	12	7
16:45:00	5	1	1027	143	390	54	2	0	12	1	2	0	1	0	23	2	13	0	15	3
17:00:00	10	5	1161	134	437	47	2	0	12	0	3	1	1	0	26	3	14	1	16	1
17:15:00	14	4	1264	103	483	46	2	0	13	1	3	0	1	0	26	0	14	0	17	1
17:30:00	23	9	1415	151	524	41	2	0	13	0	3	0	1	0	27	1	14	0	17	0
17:45:00	26	3	1519	104	559	35	2	0	15	2	3	0	1	0	29	2	14	0	19	2
18:00:00	31	5	1618	99	598	39	2	0	15	0	4	1	1	0	32	3	14	0	21	2
18:15:00	36	5	1734	116	629	31	2	0	16	1	4	0	1	0	32	0	14	0	22	1
18:30:00	43	7	1818	84	657	28	2	0	18	2	4	0	1	0	32	0	14	0	22	0
18:45:00	45	2	1896	78	696	39	2	0	20	2	4	0	1	0	32	0	14	0	22	0
19:00:00	48	3	1967	71	726	30	2	0	20	0	4	0	1	0	32	0	14	0	23	1
19:15:00	48	0	1967	0	726	0	2	0	20	0	4	0	1	0	32	0	14	0	23	0
19:15:15	48	0	1967	0	726	0	2	0	20	0	4	0	1	0	32	0	14	0	23	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900003

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	1	1
7:30:00	2	0	2	2	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0
7:45:00	5	3	2	0	1	0	1	1	0	0	1	0	1	0	0	0	0	0	1	0
8:00:00	6	1	4	2	1	0	1	0	0	0	2	1	1	0	0	0	0	0	1	0
8:15:00	9	3	6	2	2	1	1	0	0	0	2	0	2	1	0	0	0	0	1	0
8:30:00	12	3	10	4	2	0	2	1	0	0	2	0	2	0	0	0	0	0	1	0
8:45:00	17	5	16	6	3	1	2	0	0	0	2	0	2	0	0	0	0	0	3	2
9:00:00	24	7	21	5	4	1	2	0	0	0	2	0	3	1	1	1	0	0	3	0
9:15:00	24	0	21	0	4	0	2	0	0	0	2	0	3	0	1	0	0	0	3	0
16:00:00	24	0	21	0	4	0	2	0	0	0	2	0	3	0	1	0	0	0	3	0
16:15:00	55	31	43	22	17	13	2	0	0	0	2	0	3	0	1	0	0	0	3	0
16:30:00	75	20	65	22	27	10	2	0	0	0	2	0	3	0	1	0	0	0	4	1
16:45:00	103	28	86	21	30	3	2	0	0	0	2	0	3	0	1	0	0	0	4	0
17:00:00	129	26	112	26	40	10	2	0	0	0	2	0	3	0	1	0	0	0	4	0
17:15:00	161	32	130	18	51	11	2	0	0	0	2	0	3	0	1	0	0	0	4	0
17:30:00	185	24	152	22	57	6	2	0	0	0	2	0	3	0	1	0	0	0	4	0
17:45:00	207	22	180	28	63	6	2	0	0	0	2	0	3	0	1	0	0	0	4	0
18:00:00	228	21	192	12	68	5	2	0	0	0	2	0	3	0	1	0	0	0	6	2
18:15:00	252	24	205	13	71	3	2	0	0	0	2	0	3	0	1	0	0	0	6	0
18:30:00	266	14	218	13	79	8	2	0	0	0	2	0	3	0	1	0	0	0	6	0
18:45:00	284	18	226	8	81	2	2	0	0	0	2	0	3	0	1	0	0	0	7	1
19:00:00	301	17	235	9	86	5	2	0	0	0	2	0	3	0	1	0	0	0	7	0
19:15:00	301	0	235	0	86	0	2	0	0	0	2	0	3	0	1	0	0	0	7	0
19:15:15	301	0	235	0	86	0	2	0	0	0	2	0	3	0	1	0	0	0	7	0

Accu-Traffic Inc.

Morning Peak Diagram

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

One Hour Peak
From: 8:00:00
To: 9:00:00

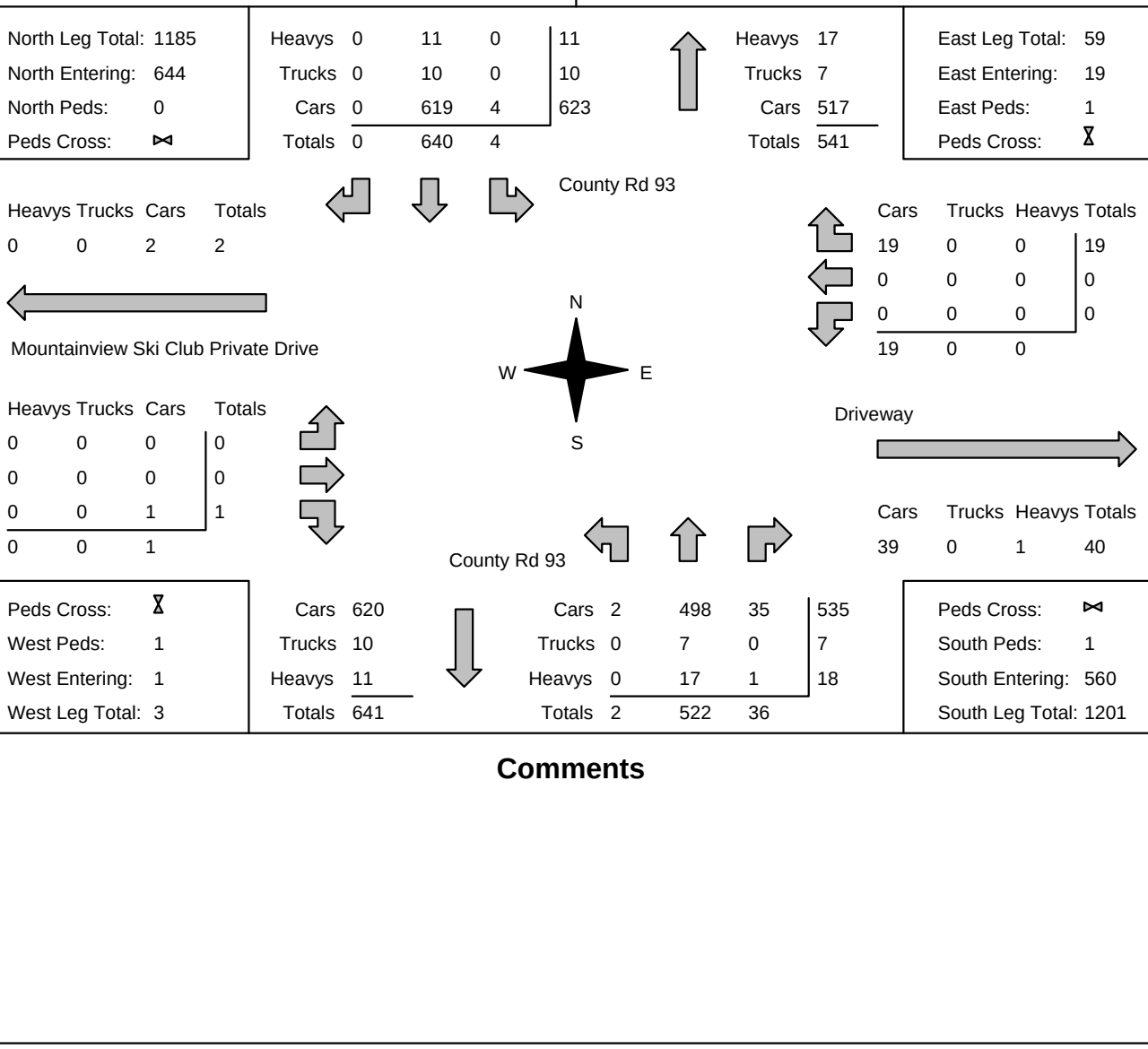
Municipality: Midland
Site #: 2518900004
Intersection: County Rd 93 & Mountainview Ski
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 93 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 16:00:00
To: 19:00:00

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

Municipality: Midland
Site #: 2518900004
Intersection: County Rd 93 & Mountainview Ski
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

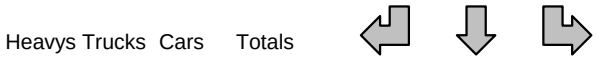
Major Road: County Rd 93 runs N/S

North Leg Total: 1778
North Entering: 891
North Peds: 0
Peds Cross: ⋈

Heavys	0	13	0	13
Trucks	0	6	0	6
Cars	5	866	1	872
Totals	5	885	1	

Heavys	11
Trucks	2
Cars	874
Totals	887

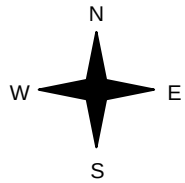
East Leg Total: 50
East Entering: 16
East Peds: 7
Peds Cross: ⧗



Heavys	Trucks	Cars	Totals
0	0	5	5

Mountainview Ski Club Private Drive

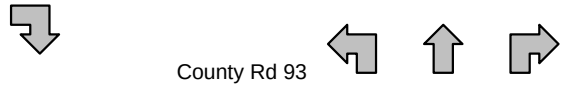
Heavys	Trucks	Cars	Totals
0	0	2	2
0	0	0	0
0	0	5	5
0	0	7	



Cars	Trucks	Heavys	Totals
16	0	0	16
0	0	0	0
0	0	0	0
16	0	0	

Driveway

Cars	Trucks	Heavys	Totals
34	0	0	34



Peds Cross: ⧗
West Peds: 1
West Entering: 7
West Leg Total: 12

Cars	871
Trucks	6
Heavys	13
Totals	890

Cars	0	856	33	889
Trucks	0	2	0	2
Heavys	0	11	0	11
Totals	0	869	33	

Peds Cross: ⋈
South Peds: 0
South Entering: 902
South Leg Total: 1792

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

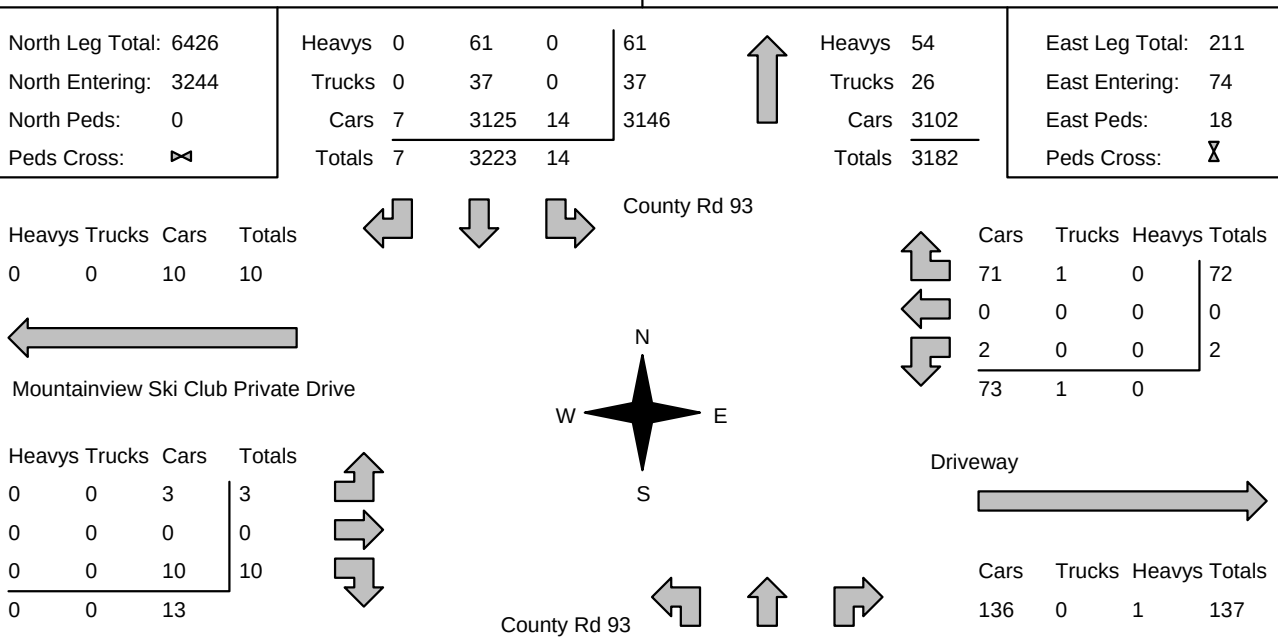
Municipality: Midland
Site #: 2518900004
Intersection: County Rd 93 & Mountainview Ski
TFR File #: 1
Count date: 2-Dec-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 93 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: County Rd 93 & Mountainview Ski | **Count Date:** 2-Dec-25 | **Municipality:** Midland

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*2*	*498*	*0*	*500*	*0*
9:00:00	*4*	*640*	*0*	*644*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*1*	*885*	*5*	*891*	*0*
18:00:00	*6*	*674*	*2*	*682*	*0*
19:00:00	*1*	*526*	*0*	*527*	*0*
Totals:	14	3223	7	3244	0

North/South Total Approaches: 6477

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*380*	*21*	*401*	*0*
9:00:00	*2*	*522*	*36*	*560*	*1*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*869*	*33*	*902*	*0*
18:00:00	*1*	*764*	*14*	*779*	*0*
19:00:00	*0*	*572*	*19*	*591*	*0*
S Totals:	3	3107	123	3233	1

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*8*	*8*	*6*
9:00:00	*0*	*0*	*19*	*19*	*1*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*0*	*16*	*16*	*7*
18:00:00	*1*	*0*	*13*	*14*	*3*
19:00:00	*1*	*0*	*16*	*17*	*1*
Totals:	2	0	72	74	18

East/West Total Approaches: 87

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*1*
9:00:00	*0*	*0*	*1*	*1*	*1*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*2*	*0*	*5*	*7*	*1*
18:00:00	*1*	*0*	*3*	*4*	*3*
19:00:00	*0*	*0*	*1*	*1*	*1*
W Totals:	3	0	10	13	7

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*16:00*	*17:00*	*18:00*	*19:00*	*0:00*
Crossing Values:	*0*	*0*	*1*	*0*	*2*	*2*	*1*	*0*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900004

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	99	99	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
7:30:00	0	0	205	106	0	0	0	0	3	2	0	0	0	0	2	1	0	0	0	0
7:45:00	1	1	310	105	0	0	0	0	4	1	0	0	0	0	15	13	0	0	0	0
8:00:00	2	1	469	159	0	0	0	0	8	4	0	0	0	0	21	6	0	0	0	0
8:15:00	3	1	629	160	0	0	0	0	13	5	0	0	0	0	22	1	0	0	0	0
8:30:00	3	0	768	139	0	0	0	0	15	2	0	0	0	0	23	1	0	0	0	0
8:45:00	3	0	878	110	0	0	0	0	16	1	0	0	0	0	28	5	0	0	0	0
9:00:00	6	3	1088	210	0	0	0	0	18	2	0	0	0	0	32	4	0	0	0	0
9:15:00	6	0	1088	0	0	0	0	0	18	0	0	0	0	0	32	0	0	0	0	0
16:00:00	6	0	1088	0	0	0	0	0	18	0	0	0	0	0	32	0	0	0	0	0
16:15:00	6	0	1331	243	4	4	0	0	19	1	0	0	0	0	42	10	0	0	0	0
16:30:00	7	1	1531	200	5	1	0	0	22	3	0	0	0	0	43	1	0	0	0	0
16:45:00	7	0	1761	230	5	0	0	0	23	1	0	0	0	0	43	0	0	0	0	0
17:00:00	7	0	1954	193	5	0	0	0	24	1	0	0	0	0	45	2	0	0	0	0
17:15:00	9	2	2137	183	5	0	0	0	26	2	0	0	0	0	50	5	0	0	0	0
17:30:00	10	1	2289	152	6	1	0	0	27	1	0	0	0	0	52	2	0	0	0	0
17:45:00	11	1	2462	173	7	1	0	0	28	1	0	0	0	0	53	1	0	0	0	0
18:00:00	13	2	2613	151	7	0	0	0	28	0	0	0	0	0	56	3	0	0	0	0
18:15:00	14	1	2751	138	7	0	0	0	30	2	0	0	0	0	58	2	0	0	0	0
18:30:00	14	0	2896	145	7	0	0	0	33	3	0	0	0	0	60	2	0	0	0	0
18:45:00	14	0	3013	117	7	0	0	0	35	2	0	0	0	0	61	1	0	0	0	0
19:00:00	14	0	3125	112	7	0	0	0	37	2	0	0	0	0	61	0	0	0	0	0
19:15:00	14	0	3125	0	7	0	0	0	37	0	0	0	0	0	61	0	0	0	0	0
19:15:15	14	0	3125	0	7	0	0	0	37	0	0	0	0	0	61	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900004

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:30:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45:00	0	0	0	0	5	3	0	0	0	0	1	1	0	0	0	0	0	0	3	2
8:00:00	0	0	0	0	7	2	0	0	0	0	1	0	0	0	0	0	0	0	6	3
8:15:00	0	0	0	0	12	5	0	0	0	0	1	0	0	0	0	0	0	0	6	0
8:30:00	0	0	0	0	17	5	0	0	0	0	1	0	0	0	0	0	0	0	6	0
8:45:00	0	0	0	0	23	6	0	0	0	0	1	0	0	0	0	0	0	0	7	1
9:00:00	0	0	0	0	26	3	0	0	0	0	1	0	0	0	0	0	0	0	7	0
9:15:00	0	0	0	0	26	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0
16:00:00	0	0	0	0	26	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0
16:15:00	0	0	0	0	31	5	0	0	0	0	1	0	0	0	0	0	0	0	8	1
16:30:00	0	0	0	0	37	6	0	0	0	0	1	0	0	0	0	0	0	0	11	3
16:45:00	0	0	0	0	42	5	0	0	0	0	1	0	0	0	0	0	0	0	12	1
17:00:00	0	0	0	0	42	0	0	0	0	0	1	0	0	0	0	0	0	0	14	2
17:15:00	0	0	0	0	45	3	0	0	0	0	1	0	0	0	0	0	0	0	14	0
17:30:00	0	0	0	0	48	3	0	0	0	0	1	0	0	0	0	0	0	0	15	1
17:45:00	0	0	0	0	55	7	0	0	0	0	1	0	0	0	0	0	0	0	17	2
18:00:00	1	1	0	0	55	0	0	0	0	0	1	0	0	0	0	0	0	0	17	0
18:15:00	1	0	0	0	58	3	0	0	0	0	1	0	0	0	0	0	0	0	17	0
18:30:00	1	0	0	0	63	5	0	0	0	0	1	0	0	0	0	0	0	0	17	0
18:45:00	1	0	0	0	68	5	0	0	0	0	1	0	0	0	0	0	0	0	18	1
19:00:00	2	1	0	0	71	3	0	0	0	0	1	0	0	0	0	0	0	0	18	0
19:15:00	2	0	0	0	71	0	0	0	0	0	1	0	0	0	0	0	0	0	18	0
19:15:15	2	0	0	0	71	0	0	0	0	0	1	0	0	0	0	0	0	0	18	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 **Site #: 2518900004**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	43	43	3	3	0	0	1	1	0	0	0	0	3	3	0	0	0	0
7:30:00	0	0	97	54	6	3	0	0	2	1	0	0	0	0	7	4	0	0	0	0
7:45:00	0	0	203	106	12	6	0	0	5	3	0	0	0	0	10	3	0	0	0	0
8:00:00	0	0	356	153	21	9	0	0	7	2	0	0	0	0	17	7	0	0	0	0
8:15:00	1	1	468	112	31	10	0	0	8	1	0	0	0	0	20	3	1	1	1	1
8:30:00	1	0	591	123	40	9	0	0	10	2	0	0	0	0	25	5	1	0	1	0
8:45:00	1	0	730	139	46	6	0	0	13	3	0	0	0	0	29	4	1	0	1	0
9:00:00	2	1	854	124	56	10	0	0	14	1	0	0	0	0	34	5	1	0	1	0
9:15:00	2	0	854	0	56	0	0	0	14	0	0	0	0	0	34	0	1	0	1	0
16:00:00	2	0	854	0	56	0	0	0	14	0	0	0	0	0	34	0	1	0	1	0
16:15:00	2	0	1069	215	64	8	0	0	15	1	0	0	0	0	36	2	1	0	1	0
16:30:00	2	0	1269	200	73	9	0	0	15	0	0	0	0	0	39	3	1	0	1	0
16:45:00	2	0	1485	216	81	8	0	0	16	1	0	0	0	0	42	3	1	0	1	0
17:00:00	2	0	1710	225	89	8	0	0	16	0	0	0	0	0	45	3	1	0	1	0
17:15:00	3	1	1909	199	91	2	0	0	18	2	0	0	0	0	45	0	1	0	1	0
17:30:00	3	0	2134	225	99	8	0	0	18	0	0	0	0	0	47	2	1	0	1	0
17:45:00	3	0	2305	171	103	4	0	0	20	2	0	0	0	0	50	3	1	0	1	0
18:00:00	3	0	2462	157	103	0	0	0	21	1	0	0	0	0	52	2	1	0	1	0
18:15:00	3	0	2642	180	108	5	0	0	22	1	0	0	0	0	52	0	1	0	1	0
18:30:00	3	0	2783	141	114	6	0	0	24	2	0	0	0	0	53	1	1	0	1	0
18:45:00	3	0	2911	128	115	1	0	0	25	1	0	0	0	0	54	1	1	0	1	0
19:00:00	3	0	3028	117	122	7	0	0	25	0	0	0	0	0	54	0	1	0	1	0
19:15:00	3	0	3028	0	122	0	0	0	25	0	0	0	0	0	54	0	1	0	1	0
19:15:15	3	0	3028	0	122	0	0	0	25	0	0	0	0	0	54	0	1	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 2-Dec-25 Site #: 2518900004

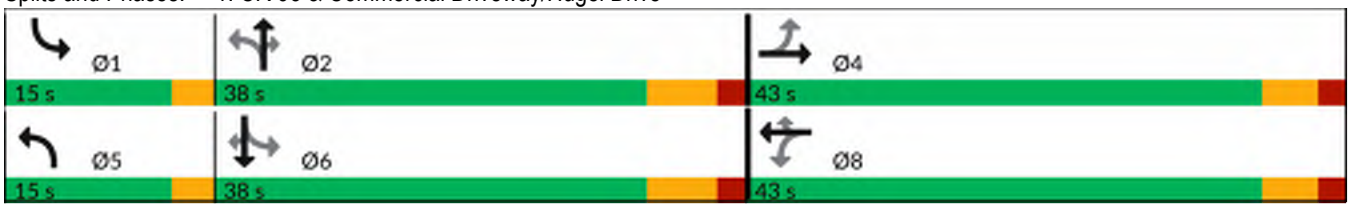
Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
9:00:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:30:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1
16:45:00	1	1	0	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0	3	0
17:00:00	2	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
17:15:00	3	1	0	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0
17:30:00	3	0	0	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0
17:45:00	3	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
18:00:00	3	0	0	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	6	3
18:15:00	3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1
18:30:00	3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
18:45:00	3	0	0	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	7	0
19:00:00	3	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
19:15:00	3	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
19:15:15	3	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0

Appendix D –
Synchro Analysis Output –
Existing Traffic Volumes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	14	14	164	26	175	2	410	160	184	394	27
Future Volume (vph)	14	14	164	26	175	2	410	160	184	394	27
Lane Group Flow (vph)	22	27	186	30	199	2	494	193	211	453	31
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.08	0.07	0.64	0.07	0.41	0.01	0.33	0.25	0.33	0.23	0.03
Control Delay (s/veh)	22.8	19.4	36.5	22.4	6.5	6.5	15.5	3.7	7.2	9.2	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.8	19.4	36.5	22.4	6.5	6.5	15.5	3.7	7.2	9.2	0.8
Queue Length 50th (m)	2.5	2.5	24.0	3.4	0.0	0.1	23.1	0.0	9.9	13.7	0.0
Queue Length 95th (m)	5.8	6.0	44.5	9.6	14.1	0.9	39.6	10.1	23.4	33.4	1.0
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	635	900	684	982	881	498	1504	767	683	1988	905
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.27	0.03	0.23	0.00	0.33	0.25	0.31	0.23	0.03

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 72.1
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	14	3	164	26	175	2	410	160	184	394	27
Future Volume (vph)	14	14	3	164	26	175	2	410	160	184	394	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1582	1737		1701	1900	1519	1203	3471	1520	1752	3438	1518
Flt Permitted	0.74	1.00		0.74	1.00	1.00	0.49	1.00	1.00	0.43	1.00	1.00
Satd. Flow (perm)	1229	1737		1324	1900	1519	621	3471	1520	798	3438	1518
Peak-hour factor, PHF	0.65	0.65	0.65	0.88	0.88	0.88	0.83	0.83	0.83	0.87	0.87	0.87
Adj. Flow (vph)	22	22	5	186	30	199	2	494	193	211	453	31
RTOR Reduction (vph)	0	4	0	0	0	157	0	0	106	0	0	14
Lane Group Flow (vph)	22	23	0	186	30	42	2	494	87	211	453	17
Confl. Peds. (#/hr)	1		2	2		1	2		1	1		2
Heavy Vehicles (%)	14%	0%	33%	6%	0%	5%	50%	4%	4%	3%	5%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	15.8	15.8		15.8	15.8	15.8	34.7	33.7	33.7	45.7	41.7	41.7
Effective Green, g (s)	15.8	15.8		15.8	15.8	15.8	34.7	33.7	33.7	45.7	41.7	41.7
Actuated g/C Ratio	0.21	0.21		0.21	0.21	0.21	0.47	0.45	0.45	0.61	0.56	0.56
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	260	368		280	402	322	297	1570	687	604	1924	849
v/s Ratio Prot		0.01			0.02		0.00	0.14		c0.04	0.13	
v/s Ratio Perm	0.02			c0.14		0.03	0.00		0.06	c0.17		0.01
v/c Ratio	0.08	0.06		0.66	0.07	0.13	0.01	0.31	0.13	0.35	0.24	0.02
Uniform Delay, d1	23.5	23.4		26.9	23.5	23.8	10.6	13.0	11.9	6.4	8.3	7.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		5.8	0.1	0.2	0.0	0.5	0.4	0.4	0.3	0.0
Delay (s)	23.7	23.5		32.7	23.6	24.0	10.7	13.6	12.2	6.8	8.6	7.3
Level of Service	C	C		C	C	C	B	B	B	A	A	A
Approach Delay (s/veh)		23.6			27.9			13.2			8.0	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	74.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	23	12	72	12	77	416	52	57	526	40
Future Volume (vph)	23	12	72	12	77	416	52	57	526	40
Lane Group Flow (vph)	31	37	111	76	81	438	55	76	701	53
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.10	0.11	0.50	0.25	0.16	0.25	0.06	0.11	0.39	0.06
Control Delay (s/veh)	22.3	14.5	40.6	14.9	7.5	13.7	0.5	7.1	15.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.3	14.5	40.6	14.9	7.5	13.7	0.5	7.1	15.1	0.3
Queue Length 50th (m)	3.7	2.0	14.9	2.3	2.9	17.2	0.0	2.8	30.3	0.0
Queue Length 95th (m)	8.5	7.1	24.7	7.9	12.9	41.4	1.0	10.1	54.2	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	350	705	352	455	585	1772	867	740	1801	843
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.05	0.32	0.17	0.14	0.25	0.06	0.10	0.39	0.06

Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 80.1
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	12	16	72	12	38	77	416	52	57	526	40
Future Volume (vph)	23	12	16	72	12	38	77	416	52	57	526	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.91		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1735	1569		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.55	1.00		0.73	1.00		0.35	1.00	1.00	0.50	1.00	1.00
Satd. Flow (perm)	1013	1569		1393	1628		638	3438	1581	927	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	31	16	21	111	18	58	81	438	55	76	701	53
RTOR Reduction (vph)	0	16	0	0	49	0	0	0	28	0	0	27
Lane Group Flow (vph)	31	21	0	111	27	0	81	438	27	76	701	26
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Effective Green, g (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Actuated g/C Ratio	0.23	0.23		0.15	0.15		0.57	0.50	0.50	0.57	0.50	0.50
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	361		213	249		445	1712	787	588	1741	764
v/s Ratio Prot	c0.00	0.01			0.02		c0.01	0.13		0.01	c0.20	
v/s Ratio Perm	0.02			c0.08			0.09		0.02	0.06		0.02
v/c Ratio	0.12	0.06		0.52	0.11		0.18	0.26	0.03	0.13	0.40	0.03
Uniform Delay, d1	25.1	24.9		32.3	30.2		8.1	12.0	10.6	8.0	13.1	10.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		2.3	0.2		0.2	0.4	0.1	0.1	0.7	0.1
Delay (s)	25.3	24.9		34.6	30.4		8.3	12.3	10.7	8.1	13.8	10.8
Level of Service	C	C		C	C		A	B	B	A	B	B
Approach Delay (s/veh)		25.1			32.9			11.6			13.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	82.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	9	421	65	34	591
Future Volume (Veh/h)	12	9	421	65	34	591
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.66	0.66	0.85	0.85	0.80	0.80
Hourly flow rate (vph)	18	14	495	76	42	739
Pedestrians	1					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			278			
pX, platoon unblocked						
vC, conflicting volume	950	249			572	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	950	249			572	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	98			96	
cM capacity (veh/h)	251	757			1010	

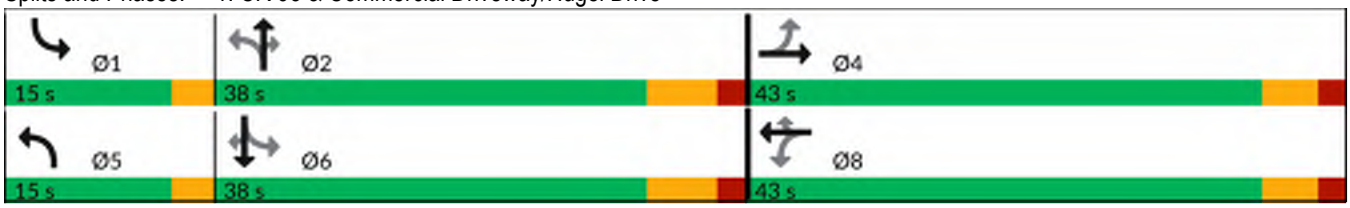
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	32	248	248	76	288	493
Volume Left	18	0	0	0	42	0
Volume Right	14	0	0	76	0	0
cSH	355	1700	1700	1700	1010	1700
Volume to Capacity	0.09	0.15	0.15	0.04	0.04	0.29
Queue Length 95th (m)	2.4	0.0	0.0	0.0	1.0	0.0
Control Delay (s/veh)	16.2	0.0	0.0	0.0	1.6	0.0
Lane LOS	C				A	
Approach Delay (s/veh)	16.2	0.0			0.6	
Approach LOS	C					

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	106	92	211	105	259	6	554	200	221	559	120
Future Volume (vph)	106	92	211	105	259	6	554	200	221	559	120
Lane Group Flow (vph)	115	139	229	114	282	7	602	217	240	608	130
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.35	0.29	0.72	0.24	0.46	0.01	0.42	0.28	0.43	0.31	0.14
Control Delay (s/veh)	26.2	20.0	39.3	23.4	5.5	8.3	19.1	4.1	10.2	11.8	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.2	20.0	39.3	23.4	5.5	8.3	19.1	4.1	10.2	11.8	3.8
Queue Length 50th (m)	14.3	13.9	31.8	13.7	0.0	0.4	33.2	0.0	13.8	22.6	0.5
Queue Length 95th (m)	28.4	28.3	56.7	26.9	16.4	2.4	61.4	14.8	34.6	55.2	11.5
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	619	880	604	905	914	634	1441	773	591	1955	928
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.16	0.38	0.13	0.31	0.01	0.42	0.28	0.41	0.31	0.14

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 77.1
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	92	36	211	105	259	6	554	200	221	559	120
Future Volume (vph)	106	92	36	211	105	259	6	554	200	221	559	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1784		1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.68	1.00		0.67	1.00	1.00	0.42	1.00	1.00	0.36	1.00	1.00
Satd. Flow (perm)	1273	1784		1245	1863	1583	786	3539	1583	668	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	100	39	229	114	282	7	602	217	240	608	130
RTOR Reduction (vph)	0	18	0	0	0	212	0	0	124	0	0	56
Lane Group Flow (vph)	115	121	0	229	114	70	7	602	93	240	608	74
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	19.8	19.8		19.8	19.8	19.8	34.9	33.9	33.9	46.6	42.6	42.6
Effective Green, g (s)	19.8	19.8		19.8	19.8	19.8	34.9	33.9	33.9	46.6	42.6	42.6
Actuated g/C Ratio	0.25	0.25		0.25	0.25	0.25	0.44	0.43	0.43	0.59	0.54	0.54
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	317	444		310	464	394	357	1510	675	526	1898	849
v/s Ratio Prot		0.07			0.06		0.00	0.17		c0.06	0.17	
v/s Ratio Perm	0.09			c0.18		0.04	0.01		0.06	c0.21		0.05
v/c Ratio	0.36	0.27		0.74	0.25	0.18	0.02	0.40	0.14	0.46	0.32	0.09
Uniform Delay, d1	24.6	24.0		27.4	23.8	23.4	12.5	15.7	13.8	8.1	10.3	8.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.3		8.9	0.3	0.2	0.0	0.8	0.4	0.6	0.4	0.2
Delay (s)	25.3	24.3		36.3	24.1	23.6	12.5	16.5	14.3	8.8	10.7	9.1
Level of Service	C	C		D	C	C	B	B	B	A	B	A
Approach Delay (s/veh)		24.8			28.4			15.9			10.0	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	79.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	17	121	36	166	619	115	61	582	73
Future Volume (vph)	120	17	121	36	166	619	115	61	582	73
Lane Group Flow (vph)	148	64	151	176	198	737	137	77	737	92
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.39	0.12	0.69	0.46	0.47	0.45	0.17	0.18	0.52	0.13
Control Delay (s/veh)	25.5	11.1	54.8	15.6	13.9	20.5	6.4	10.9	23.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.5	11.1	54.8	15.6	13.9	20.5	6.4	10.9	23.9	3.6
Queue Length 50th (m)	20.5	2.8	28.3	8.0	17.2	52.9	3.2	6.2	57.5	0.0
Queue Length 95th (m)	31.5	10.2	43.4	20.8	28.8	70.7	13.6	11.9	68.4	5.1
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	392	643	284	460	441	1627	786	505	1416	687
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.10	0.53	0.38	0.45	0.45	0.17	0.15	0.52	0.13

Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 94.5
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	17	35	121	36	105	166	619	115	61	582	73
Future Volume (vph)	120	17	35	121	36	105	166	619	115	61	582	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1655		1778	1688		1752	3574	1599	1805	3505	1543
Flt Permitted	0.44	1.00		0.72	1.00		0.27	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	812	1655		1339	1688		493	3574	1599	646	3505	1543
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	148	21	43	151	45	131	198	737	137	77	737	92
RTOR Reduction (vph)	0	30	0	0	108	0	0	0	59	0	0	54
Lane Group Flow (vph)	148	34	0	151	68	0	198	737	78	77	737	38
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.2	39.0	39.0
Effective Green, g (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.2	39.0	39.0
Actuated g/C Ratio	0.31	0.31		0.16	0.16		0.55	0.45	0.45	0.47	0.41	0.41
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	512		216	273		407	1614	722	382	1435	632
v/s Ratio Prot	c0.05	0.02			0.04		c0.05	0.21		0.01	0.21	
v/s Ratio Perm	0.08			c0.11			c0.22		0.05	0.08		0.02
v/c Ratio	0.41	0.07		0.70	0.25		0.49	0.46	0.11	0.20	0.51	0.06
Uniform Delay, d1	25.0	23.2		37.7	34.8		11.7	18.0	15.0	13.8	21.0	17.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1		9.5	0.5		0.9	0.9	0.3	0.3	1.3	0.2
Delay (s)	25.7	23.2		47.2	35.3		12.7	19.0	15.3	14.0	22.3	17.2
Level of Service	C	C		D	D		B	B	B	B	C	B
Approach Delay (s/veh)		25.0			40.8			17.3			21.1	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	53	21	786	20	12	633
Future Volume (Veh/h)	53	21	786	20	12	633
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.62	0.62	0.96	0.96	0.84	0.84
Hourly flow rate (vph)	85	34	819	21	14	754
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			278			
pX, platoon unblocked	0.91	0.91			0.91	
vC, conflicting volume	1224	410			840	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1041	142			617	
tC, single (s)	6.9	6.9			4.6	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.4	
p0 queue free %	56	96			98	
cM capacity (veh/h)	195	803			741	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	119	410	410	21	265	503
Volume Left	85	0	0	0	14	0
Volume Right	34	0	0	21	0	0
cSH	249	1700	1700	1700	741	1700
Volume to Capacity	0.48	0.24	0.24	0.01	0.02	0.30
Queue Length 95th (m)	19.2	0.0	0.0	0.0	0.5	0.0
Control Delay (s/veh)	32.1	0.0	0.0	0.0	0.7	0.0
Lane LOS	D				A	
Approach Delay (s/veh)	32.1	0.0			0.3	
Approach LOS	D					

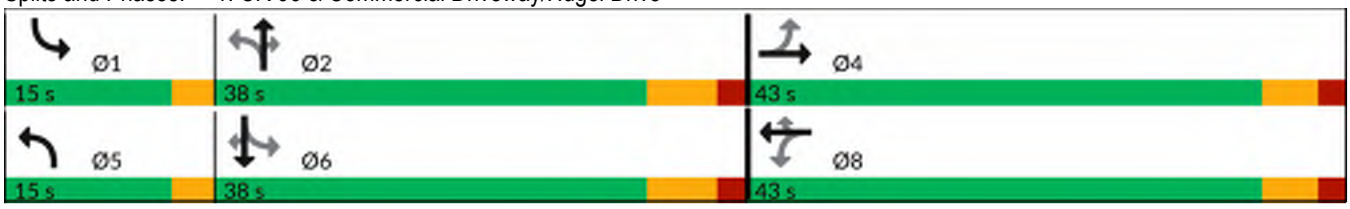
Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix E –
Synchro Analysis Output –
Background Traffic Volumes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	14	14	180	28	184	2	464	194	184	439	27
Future Volume (vph)	14	14	180	28	184	2	464	194	184	439	27
Lane Group Flow (vph)	22	27	205	32	209	2	559	234	211	505	31
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.08	0.07	0.68	0.07	0.41	0.01	0.38	0.30	0.36	0.26	0.03
Control Delay (s/veh)	22.4	19.0	37.5	22.0	6.2	7.0	16.7	3.8	8.0	9.9	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.4	19.0	37.5	22.0	6.2	7.0	16.7	3.8	8.0	9.9	0.9
Queue Length 50th (m)	2.5	2.5	27.0	3.6	0.0	0.1	27.8	0.0	10.5	16.4	0.0
Queue Length 95th (m)	5.8	6.0	48.8	10.1	14.1	0.9	46.7	10.9	25.0	38.8	1.0
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	624	886	674	967	876	476	1481	782	637	1963	895
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.30	0.03	0.24	0.00	0.38	0.30	0.33	0.26	0.03

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 73.3
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	14	3	180	28	184	2	464	194	184	439	27
Future Volume (vph)	14	14	3	180	28	184	2	464	194	184	439	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1582	1737		1701	1900	1519	1203	3471	1520	1752	3438	1518
Flt Permitted	0.74	1.00		0.74	1.00	1.00	0.47	1.00	1.00	0.39	1.00	1.00
Satd. Flow (perm)	1226	1737		1324	1900	1519	590	3471	1520	723	3438	1518
Peak-hour factor, PHF	0.65	0.65	0.65	0.88	0.88	0.88	0.83	0.83	0.83	0.87	0.87	0.87
Adj. Flow (vph)	22	22	5	205	32	209	2	559	234	211	505	31
RTOR Reduction (vph)	0	4	0	0	0	163	0	0	130	0	0	14
Lane Group Flow (vph)	22	23	0	205	32	46	2	559	104	211	505	17
Confl. Peds. (#/hr)	1		2	2		1	2		1	1		2
Heavy Vehicles (%)	14%	0%	33%	6%	0%	5%	50%	4%	4%	3%	5%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	16.8	16.8		16.8	16.8	16.8	34.8	33.8	33.8	45.9	41.9	41.9
Effective Green, g (s)	16.8	16.8		16.8	16.8	16.8	34.8	33.8	33.8	45.9	41.9	41.9
Actuated g/C Ratio	0.22	0.22		0.22	0.22	0.22	0.46	0.45	0.45	0.61	0.55	0.55
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	272	385		293	421	337	279	1549	678	562	1902	840
v/s Ratio Prot		0.01			0.02		0.00	0.16		c0.05	0.15	
v/s Ratio Perm	0.02			c0.15		0.03	0.00		0.07	c0.18		0.01
v/c Ratio	0.08	0.06		0.70	0.08	0.14	0.01	0.36	0.15	0.38	0.27	0.02
Uniform Delay, d1	23.3	23.2		27.1	23.3	23.6	11.1	13.8	12.5	6.8	8.8	7.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		7.1	0.1	0.2	0.0	0.7	0.5	0.4	0.3	0.0
Delay (s)	23.5	23.3		34.2	23.4	23.8	11.1	14.5	12.9	7.2	9.2	7.7
Level of Service	C	C		C	C	C	B	B	B	A	A	A
Approach Delay (s/veh)		23.4			28.6			14.0			8.6	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	75.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	23	12	72	12	77	470	52	57	585	40
Future Volume (vph)	23	12	72	12	77	470	52	57	585	40
Lane Group Flow (vph)	31	37	111	76	81	495	55	76	780	53
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.10	0.11	0.50	0.25	0.17	0.28	0.06	0.12	0.43	0.06
Control Delay (s/veh)	22.3	14.5	40.6	14.9	7.6	14.0	0.5	7.2	15.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.3	14.5	40.6	14.9	7.6	14.0	0.5	7.2	15.6	0.3
Queue Length 50th (m)	3.7	2.0	14.9	2.3	2.9	19.9	0.0	2.8	34.7	0.0
Queue Length 95th (m)	8.5	7.1	24.7	7.9	12.9	46.8	1.0	10.1	60.8	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	350	705	352	455	547	1772	867	714	1801	843
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.05	0.32	0.17	0.15	0.28	0.06	0.11	0.43	0.06

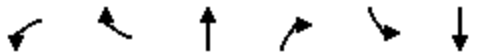
Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 80.1
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	12	16	72	12	38	77	470	52	57	585	40
Future Volume (vph)	23	12	16	72	12	38	77	470	52	57	585	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.91		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1735	1569		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.55	1.00		0.73	1.00		0.31	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	1013	1569		1393	1628		566	3438	1581	877	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	31	16	21	111	18	58	81	495	55	76	780	53
RTOR Reduction (vph)	0	16	0	0	49	0	0	0	28	0	0	27
Lane Group Flow (vph)	31	21	0	111	27	0	81	495	27	76	780	26
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Effective Green, g (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Actuated g/C Ratio	0.23	0.23		0.15	0.15		0.57	0.50	0.50	0.57	0.50	0.50
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	361		213	249		409	1712	787	563	1741	764
v/s Ratio Prot	c0.00	0.01			0.02		c0.01	0.14		0.01	c0.22	
v/s Ratio Perm	0.02			c0.08			0.10		0.02	0.07		0.02
v/c Ratio	0.12	0.06		0.52	0.11		0.20	0.29	0.03	0.13	0.45	0.03
Uniform Delay, d1	25.1	24.9		32.3	30.2		8.2	12.2	10.6	8.0	13.5	10.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		2.3	0.2		0.2	0.4	0.1	0.1	0.8	0.1
Delay (s)	25.3	24.9		34.6	30.4		8.4	12.6	10.7	8.1	14.3	10.8
Level of Service	C	C		C	C		A	B	B	A	B	B
Approach Delay (s/veh)		25.1			32.9			11.9			13.6	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	82.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	9	481	65	34	657
Future Volume (Veh/h)	12	9	481	65	34	657
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.66	0.66	0.85	0.85	0.80	0.80
Hourly flow rate (vph)	18	14	566	76	42	821
Pedestrians	1					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			278			
pX, platoon unblocked	0.98	0.98			0.98	
vC, conflicting volume	1062	284			643	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1028	237			603	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	98			96	
cM capacity (veh/h)	219	757			967	

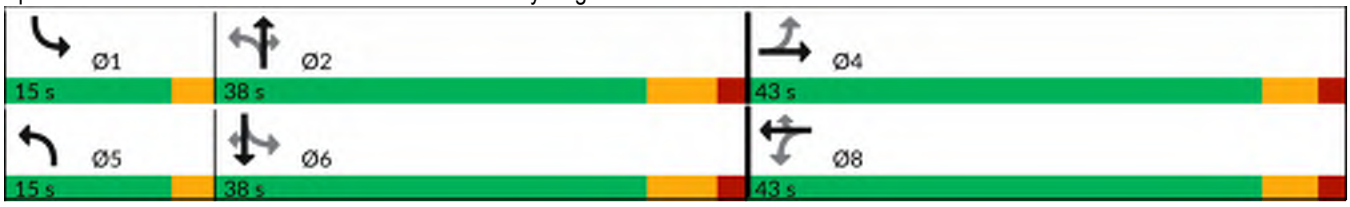
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	32	283	283	76	42	411	411
Volume Left	18	0	0	0	42	0	0
Volume Right	14	0	0	76	0	0	0
cSH	318	1700	1700	1700	967	1700	1700
Volume to Capacity	0.10	0.17	0.17	0.04	0.04	0.24	0.24
Queue Length 95th (m)	2.7	0.0	0.0	0.0	1.1	0.0	0.0
Control Delay (s/veh)	17.6	0.0	0.0	0.0	8.9	0.0	0.0
Lane LOS	C				A		
Approach Delay (s/veh)	17.6	0.0			0.4		
Approach LOS	C						

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	105	91	247	110	272	6	618	226	221	628	119
Future Volume (vph)	105	91	247	110	272	6	618	226	221	628	119
Lane Group Flow (vph)	114	138	268	120	296	7	672	246	240	683	129
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.32	0.26	0.75	0.23	0.45	0.02	0.49	0.32	0.48	0.36	0.14
Control Delay (s/veh)	24.5	18.8	40.1	22.4	4.9	9.8	21.9	4.4	12.6	13.8	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.5	18.8	40.1	22.4	4.9	9.8	21.9	4.4	12.6	13.8	5.1
Queue Length 50th (m)	14.3	13.9	39.1	14.7	0.0	0.4	42.4	0.0	16.2	30.0	1.5
Queue Length 95th (m)	28.0	27.6	67.1	27.6	16.3	2.8	75.1	16.6	39.0	68.8	14.2
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	590	843	580	867	895	584	1380	767	528	1882	892
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.16	0.46	0.14	0.33	0.01	0.49	0.32	0.45	0.36	0.14

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 80.7
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	91	36	247	110	272	6	618	226	221	628	119
Future Volume (vph)	105	91	36	247	110	272	6	618	226	221	628	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1784		1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.68	1.00		0.67	1.00	1.00	0.39	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)	1266	1784		1246	1863	1583	730	3539	1583	579	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	99	39	268	120	296	7	672	246	240	683	129
RTOR Reduction (vph)	0	17	0	0	0	214	0	0	145	0	0	52
Lane Group Flow (vph)	114	121	0	268	120	82	7	672	101	240	683	77
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	23.0	23.0		23.0	23.0	23.0	35.1	34.0	34.0	47.0	42.9	42.9
Effective Green, g (s)	23.0	23.0		23.0	23.0	23.0	35.1	34.0	34.0	47.0	42.9	42.9
Actuated g/C Ratio	0.28	0.28		0.28	0.28	0.28	0.42	0.41	0.41	0.57	0.52	0.52
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	350	494		345	516	438	322	1449	648	471	1829	818
v/s Ratio Prot		0.07			0.06		0.00	0.19		c0.06	0.19	
v/s Ratio Perm	0.09			c0.22		0.05	0.01		0.06	c0.23		0.05
v/c Ratio	0.33	0.24		0.78	0.23	0.19	0.02	0.46	0.16	0.51	0.37	0.09
Uniform Delay, d1	23.8	23.3		27.6	23.2	22.9	13.9	17.9	15.4	9.6	12.0	10.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3		10.5	0.2	0.2	0.0	1.1	0.5	0.9	0.6	0.2
Delay (s)	24.4	23.5		38.1	23.4	23.1	13.9	18.9	16.0	10.5	12.6	10.4
Level of Service	C	C		D	C	C	B	B	B	B	B	B
Approach Delay (s/veh)		23.9			29.0			18.1			11.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	83.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	17	121	36	166	690	115	61	654	73
Future Volume (vph)	120	17	121	36	166	690	115	61	654	73
Lane Group Flow (vph)	148	64	151	176	198	821	137	77	828	92
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.39	0.12	0.69	0.46	0.52	0.50	0.17	0.20	0.58	0.13
Control Delay (s/veh)	25.5	11.1	54.8	15.6	15.0	21.3	6.4	11.1	25.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.5	11.1	54.8	15.6	15.0	21.3	6.4	11.1	25.0	3.6
Queue Length 50th (m)	20.5	2.8	28.2	8.0	17.2	60.7	3.2	6.2	66.7	0.0
Queue Length 95th (m)	31.5	10.2	43.4	20.8	28.8	80.1	13.6	11.9	78.1	5.1
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	392	643	284	460	405	1626	786	466	1417	688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.10	0.53	0.38	0.49	0.50	0.17	0.17	0.58	0.13

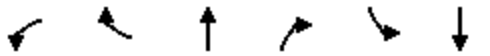
Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 94.4
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	17	35	121	36	105	166	690	115	61	654	73
Future Volume (vph)	120	17	35	121	36	105	166	690	115	61	654	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1655		1778	1688		1752	3574	1599	1805	3505	1543
Flt Permitted	0.44	1.00		0.72	1.00		0.22	1.00	1.00	0.29	1.00	1.00
Satd. Flow (perm)	812	1655		1339	1688		415	3574	1599	557	3505	1543
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	148	21	43	151	45	131	198	821	137	77	828	92
RTOR Reduction (vph)	0	30	0	0	108	0	0	0	59	0	0	54
Lane Group Flow (vph)	148	34	0	151	68	0	198	821	78	77	828	38
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.3	39.1	39.1
Effective Green, g (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.3	39.1	39.1
Actuated g/C Ratio	0.31	0.31		0.16	0.16		0.55	0.45	0.45	0.48	0.41	0.41
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	512		216	273		371	1614	722	346	1439	633
v/s Ratio Prot	c0.05	0.02			0.04		c0.06	0.23		0.01	c0.24	
v/s Ratio Perm	0.08			c0.11			0.24		0.05	0.09		0.02
v/c Ratio	0.41	0.07		0.70	0.25		0.53	0.51	0.11	0.22	0.58	0.06
Uniform Delay, d1	25.0	23.2		37.7	34.8		12.3	18.6	15.0	13.8	21.6	16.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1		9.5	0.5		1.5	1.1	0.3	0.3	1.7	0.2
Delay (s)	25.7	23.2		47.2	35.3		13.8	19.7	15.3	14.2	23.3	17.1
Level of Service	C	C		D	D		B	B	B	B	C	B
Approach Delay (s/veh)		25.0			40.8			18.2			22.0	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	53	21	877	20	12	714
Future Volume (Veh/h)	53	21	877	20	12	714
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.62	0.62	0.96	0.96	0.84	0.84
Hourly flow rate (vph)	85	34	914	21	14	850
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			278			
pX, platoon unblocked	0.88	0.88			0.88	
vC, conflicting volume	1367	457			935	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1135	95			641	
tC, single (s)	6.9	6.9			4.6	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.4	
p0 queue free %	48	96			98	
cM capacity (veh/h)	163	831			700	

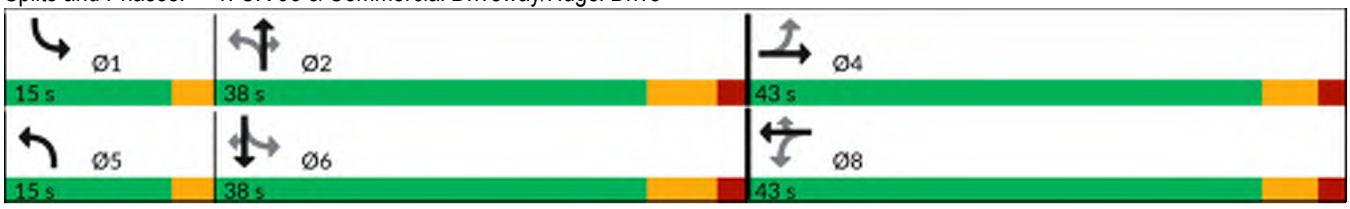
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	119	457	457	21	14	425	425
Volume Left	85	0	0	0	14	0	0
Volume Right	34	0	0	21	0	0	0
cSH	212	1700	1700	1700	700	1700	1700
Volume to Capacity	0.56	0.27	0.27	0.01	0.02	0.25	0.25
Queue Length 95th (m)	24.4	0.0	0.0	0.0	0.5	0.0	0.0
Control Delay (s/veh)	41.9	0.0	0.0	0.0	10.3	0.0	0.0
Lane LOS	E				B		
Approach Delay (s/veh)	41.9	0.0			0.2		
Approach LOS	E						

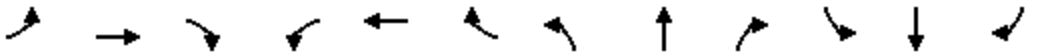
Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	14	14	189	29	193	2	511	202	184	484	27
Future Volume (vph)	14	14	189	29	193	2	511	202	184	484	27
Lane Group Flow (vph)	22	27	215	33	219	2	616	243	211	556	31
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.08	0.07	0.69	0.07	0.42	0.01	0.42	0.31	0.38	0.29	0.03
Control Delay (s/veh)	22.1	18.8	38.0	21.8	6.1	7.0	17.5	3.8	8.5	10.4	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.1	18.8	38.0	21.8	6.1	7.0	17.5	3.8	8.5	10.4	0.8
Queue Length 50th (m)	2.5	2.5	28.6	3.8	0.0	0.1	31.8	0.0	10.9	18.8	0.0
Queue Length 95th (m)	5.8	5.8	51.0	10.2	14.4	0.9	52.8	11.2	25.8	44.0	1.0
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	619	878	668	958	874	459	1467	782	602	1948	889
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.32	0.03	0.25	0.00	0.42	0.31	0.35	0.29	0.03

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 74.1
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	14	3	189	29	193	2	511	202	184	484	27
Future Volume (vph)	14	14	3	189	29	193	2	511	202	184	484	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1582	1737		1701	1900	1519	1203	3471	1520	1752	3438	1518
Flt Permitted	0.74	1.00		0.74	1.00	1.00	0.44	1.00	1.00	0.36	1.00	1.00
Satd. Flow (perm)	1225	1737		1324	1900	1519	562	3471	1520	660	3438	1518
Peak-hour factor, PHF	0.65	0.65	0.65	0.88	0.88	0.88	0.83	0.83	0.83	0.87	0.87	0.87
Adj. Flow (vph)	22	22	5	215	33	219	2	616	243	211	556	31
RTOR Reduction (vph)	0	4	0	0	0	169	0	0	135	0	0	14
Lane Group Flow (vph)	22	23	0	215	33	50	2	616	108	211	556	17
Confl. Peds. (#/hr)	1		2	2		1	2		1	1		2
Heavy Vehicles (%)	14%	0%	33%	6%	0%	5%	50%	4%	4%	3%	5%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	17.4	17.4		17.4	17.4	17.4	34.9	33.9	33.9	46.0	42.0	42.0
Effective Green, g (s)	17.4	17.4		17.4	17.4	17.4	34.9	33.9	33.9	46.0	42.0	42.0
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.23	0.46	0.44	0.44	0.60	0.55	0.55
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	278	395		301	432	345	265	1540	674	527	1890	834
v/s Ratio Prot		0.01			0.02		0.00	0.18		c0.05	0.16	
v/s Ratio Perm	0.02			c0.16		0.03	0.00		0.07	c0.19		0.01
v/c Ratio	0.08	0.06		0.71	0.08	0.14	0.01	0.40	0.16	0.40	0.29	0.02
Uniform Delay, d1	23.2	23.1		27.2	23.2	23.6	11.3	14.4	12.7	7.1	9.2	7.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		7.8	0.1	0.2	0.0	0.8	0.5	0.5	0.4	0.0
Delay (s)	23.3	23.2		35.0	23.3	23.8	11.3	15.1	13.2	7.6	9.6	7.9
Level of Service	C	C		D	C	C	B	B	B	A	A	A
Approach Delay (s/veh)		23.2			28.9			14.6			9.0	
Approach LOS		C			C			B			A	

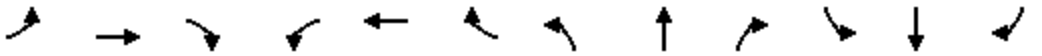
Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	23	12	72	12	77	518	52	57	646	40
Future Volume (vph)	23	12	72	12	77	518	52	57	646	40
Lane Group Flow (vph)	31	37	111	76	81	545	55	76	861	53
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.10	0.11	0.50	0.25	0.19	0.31	0.06	0.13	0.48	0.06
Control Delay (s/veh)	22.3	14.5	40.6	14.9	7.8	14.2	0.5	7.2	16.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.3	14.5	40.6	14.9	7.8	14.2	0.5	7.2	16.2	0.3
Queue Length 50th (m)	3.7	2.0	14.9	2.3	2.9	22.3	0.0	2.8	39.5	0.0
Queue Length 95th (m)	8.5	7.1	24.7	7.9	12.9	51.8	1.0	10.1	68.1	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	350	705	352	455	511	1772	867	684	1801	843
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.05	0.32	0.17	0.16	0.31	0.06	0.11	0.48	0.06

Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 80.1
Natural Cycle: 95
Control Type: Semi Act-Uncoord

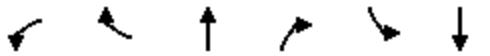
Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	12	16	72	12	38	77	518	52	57	646	40
Future Volume (vph)	23	12	16	72	12	38	77	518	52	57	646	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.91		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1735	1569		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.55	1.00		0.73	1.00		0.27	1.00	1.00	0.44	1.00	1.00
Satd. Flow (perm)	1013	1569		1393	1628		497	3438	1581	819	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	31	16	21	111	18	58	81	545	55	76	861	53
RTOR Reduction (vph)	0	16	0	0	49	0	0	0	28	0	0	27
Lane Group Flow (vph)	31	21	0	111	27	0	81	545	27	76	861	26
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Effective Green, g (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Actuated g/C Ratio	0.23	0.23		0.15	0.15		0.57	0.50	0.50	0.57	0.50	0.50
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	361		213	249		375	1712	787	535	1741	764
v/s Ratio Prot	c0.00	0.01			0.02		c0.02	0.16		0.01	c0.25	
v/s Ratio Perm	0.02			c0.08			0.11		0.02	0.07		0.02
v/c Ratio	0.12	0.06		0.52	0.11		0.22	0.32	0.03	0.14	0.49	0.03
Uniform Delay, d1	25.1	24.9		32.3	30.2		8.3	12.4	10.6	8.0	13.9	10.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		2.3	0.2		0.3	0.5	0.1	0.1	1.0	0.1
Delay (s)	25.3	24.9		34.6	30.4		8.6	12.9	10.7	8.2	14.9	10.8
Level of Service	C	C		C	C		A	B	B	A	B	B
Approach Delay (s/veh)		25.1			32.9			12.2			14.2	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	82.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	9	530	65	34	725
Future Volume (Veh/h)	12	9	530	65	34	725
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.66	0.66	0.85	0.85	0.80	0.80
Hourly flow rate (vph)	18	14	624	76	42	906
Pedestrians	1					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			278			
pX, platoon unblocked	0.97	0.97			0.97	
vC, conflicting volume	1162	313			701	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1096	217			619	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	98			96	
cM capacity (veh/h)	194	765			937	

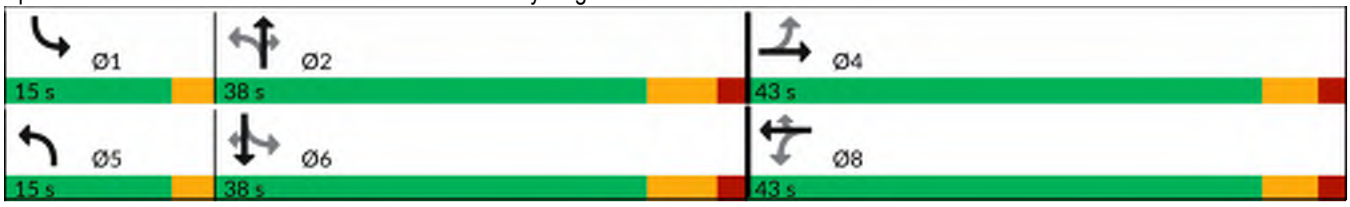
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	32	312	312	76	42	453	453
Volume Left	18	0	0	0	42	0	0
Volume Right	14	0	0	76	0	0	0
cSH	288	1700	1700	1700	937	1700	1700
Volume to Capacity	0.11	0.18	0.18	0.04	0.04	0.27	0.27
Queue Length 95th (m)	3.0	0.0	0.0	0.0	1.1	0.0	0.0
Control Delay (s/veh)	19.0	0.0	0.0	0.0	9.0	0.0	0.0
Lane LOS	C				A		
Approach Delay (s/veh)	19.0	0.0			0.4		
Approach LOS	C						

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	105	91	258	116	286	6	681	237	221	692	119
Future Volume (vph)	105	91	258	116	286	6	681	237	221	692	119
Lane Group Flow (vph)	114	138	280	126	311	7	740	258	240	752	129
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.31	0.26	0.77	0.23	0.46	0.02	0.54	0.34	0.52	0.40	0.15
Control Delay (s/veh)	24.2	18.6	40.7	22.3	4.8	10.2	23.2	4.4	13.8	14.6	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.2	18.6	40.7	22.3	4.8	10.2	23.2	4.4	13.8	14.6	5.8
Queue Length 50th (m)	14.4	14.0	41.5	15.5	0.0	0.4	49.2	0.0	16.9	34.9	2.3
Queue Length 95th (m)	28.0	27.5	70.5	28.6	16.6	2.8	84.8	17.0	39.6	77.9	15.6
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	579	834	573	857	896	556	1364	768	491	1863	879
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.17	0.49	0.15	0.35	0.01	0.54	0.34	0.49	0.40	0.15

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 81.6
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	91	36	258	116	286	6	681	237	221	692	119
Future Volume (vph)	105	91	36	258	116	286	6	681	237	221	692	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1784		1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.68	1.00		0.67	1.00	1.00	0.37	1.00	1.00	0.27	1.00	1.00
Satd. Flow (perm)	1260	1784		1246	1863	1583	682	3539	1583	508	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	99	39	280	126	311	7	740	258	240	752	129
RTOR Reduction (vph)	0	17	0	0	0	223	0	0	153	0	0	47
Lane Group Flow (vph)	114	121	0	280	126	88	7	740	105	240	752	82
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	23.9	23.9		23.9	23.9	23.9	35.2	34.1	34.1	47.1	43.0	43.0
Effective Green, g (s)	23.9	23.9		23.9	23.9	23.9	35.2	34.1	34.1	47.1	43.0	43.0
Actuated g/C Ratio	0.28	0.28		0.28	0.28	0.28	0.42	0.41	0.41	0.56	0.51	0.51
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	358	507		354	530	450	300	1436	642	435	1811	810
v/s Ratio Prot		0.07			0.07		0.00	0.21		c0.07	0.21	
v/s Ratio Perm	0.09			c0.22		0.06	0.01		0.07	c0.24		0.05
v/c Ratio	0.32	0.24		0.79	0.24	0.20	0.02	0.52	0.16	0.55	0.42	0.10
Uniform Delay, d1	23.6	23.1		27.7	23.1	22.8	14.2	18.7	15.9	10.2	12.7	10.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2		11.4	0.2	0.2	0.0	1.3	0.5	1.5	0.7	0.2
Delay (s)	24.2	23.3		39.2	23.3	23.0	14.3	20.1	16.4	11.8	13.4	10.8
Level of Service	C	C		D	C	C	B	C	B	B	B	B
Approach Delay (s/veh)		23.7			29.4			19.1			12.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	17	121	36	166	761	115	61	721	73
Future Volume (vph)	120	17	121	36	166	761	115	61	721	73
Lane Group Flow (vph)	148	64	151	176	198	906	137	77	913	92
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.39	0.12	0.69	0.46	0.56	0.56	0.17	0.22	0.64	0.13
Control Delay (s/veh)	25.5	11.1	54.8	15.6	16.6	22.2	6.4	11.3	26.3	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.5	11.1	54.8	15.6	16.6	22.2	6.4	11.3	26.3	3.6
Queue Length 50th (m)	20.5	2.8	28.2	8.0	17.2	69.1	3.2	6.2	76.0	0.0
Queue Length 95th (m)	31.5	10.2	43.4	20.8	28.8	90.3	13.6	11.9	87.7	5.1
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	392	643	284	460	374	1626	786	431	1417	688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.10	0.53	0.38	0.53	0.56	0.17	0.18	0.64	0.13

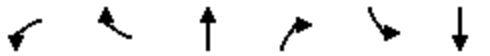
Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 94.4
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	17	35	121	36	105	166	761	115	61	721	73
Future Volume (vph)	120	17	35	121	36	105	166	761	115	61	721	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1655		1778	1688		1752	3574	1599	1805	3505	1543
Flt Permitted	0.44	1.00		0.72	1.00		0.19	1.00	1.00	0.25	1.00	1.00
Satd. Flow (perm)	812	1655		1339	1688		347	3574	1599	477	3505	1543
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	148	21	43	151	45	131	198	906	137	77	913	92
RTOR Reduction (vph)	0	30	0	0	108	0	0	0	59	0	0	54
Lane Group Flow (vph)	148	34	0	151	68	0	198	906	78	77	913	38
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.3	39.1	39.1
Effective Green, g (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.3	39.1	39.1
Actuated g/C Ratio	0.31	0.31		0.16	0.16		0.55	0.45	0.45	0.48	0.41	0.41
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	512		216	273		341	1614	722	313	1439	633
v/s Ratio Prot	c0.05	0.02			0.04		c0.06	0.25		0.02	c0.26	
v/s Ratio Perm	0.08			c0.11			0.26		0.05	0.10		0.02
v/c Ratio	0.41	0.07		0.70	0.25		0.58	0.56	0.11	0.25	0.63	0.06
Uniform Delay, d1	25.0	23.2		37.7	34.8		13.0	19.2	15.0	14.0	22.4	16.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1		9.5	0.5		2.5	1.4	0.3	0.4	2.1	0.2
Delay (s)	25.7	23.2		47.2	35.3		15.5	20.6	15.3	14.5	24.5	17.1
Level of Service	C	C		D	D		B	C	B	B	C	B
Approach Delay (s/veh)		25.0			40.8			19.2			23.2	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	53	21	968	20	12	787
Future Volume (Veh/h)	53	21	968	20	12	787
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.62	0.62	0.96	0.96	0.84	0.84
Hourly flow rate (vph)	85	34	1008	21	14	937
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			278			
pX, platoon unblocked	0.84	0.84			0.84	
vC, conflicting volume	1505	504			1029	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1230	45			667	
tC, single (s)	6.9	6.9			4.6	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.4	
p0 queue free %	37	96			98	
cM capacity (veh/h)	136	863			659	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	119	504	504	21	14	469	469
Volume Left	85	0	0	0	14	0	0
Volume Right	34	0	0	21	0	0	0
cSH	179	1700	1700	1700	659	1700	1700
Volume to Capacity	0.66	0.30	0.30	0.01	0.02	0.28	0.28
Queue Length 95th (m)	31.3	0.0	0.0	0.0	0.5	0.0	0.0
Control Delay (s/veh)	57.9	0.0	0.0	0.0	10.6	0.0	0.0
Lane LOS	F				B		
Approach Delay (s/veh)	57.9	0.0			0.2		
Approach LOS	F						

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	12	530	65	34	725
Future Volume (vph)	12	530	65	34	725
Lane Group Flow (vph)	32	624	76	43	906
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	8	2			6
Permitted Phases			2	6	
Detector Phase	8	2	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	24.0	24.0
Total Split (s)	23.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	64.6%	64.6%	64.6%	64.6%
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)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	Max	Max	Max	Max
v/c Ratio	0.17	0.20	0.05	0.06	0.29
Control Delay (s/veh)	21.8	1.6	1.3	2.1	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.8	1.6	1.3	2.1	1.9
Queue Length 50th (m)	1.8	0.0	0.0	0.0	0.0
Queue Length 95th (m)	6.6	14.5	3.5	3.0	20.4
Internal Link Dist (m)	250.0	253.8			528.9
Turn Bay Length (m)			1.0	90.0	
Base Capacity (vph)	519	3089	1423	708	3119
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.20	0.05	0.06	0.29

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 62.1
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & St Andrews Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	9	530	65	34	725
Future Volume (vph)	12	9	530	65	34	725
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0	5.0	5.0	5.0
Lane Util. Factor	1.00		0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00		1.00	0.98	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1739		3438	1580	1804	3471
Flt Permitted	0.97		1.00	1.00	0.42	1.00
Satd. Flow (perm)	1739		3438	1580	788	3471
Peak-hour factor, PHF	0.66	0.66	0.85	0.85	0.80	0.80
Adj. Flow (vph)	18	14	624	76	42	906
RTOR Reduction (vph)	13	0	0	7	0	0
Lane Group Flow (vph)	19	0	624	69	43	906
Confl. Peds. (#/hr)				1	1	
Heavy Vehicles (%)	0%	0%	5%	0%	0%	4%
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Actuated Green, G (s)	2.7		52.5	52.5	52.5	52.5
Effective Green, g (s)	2.7		52.5	52.5	52.5	52.5
Actuated g/C Ratio	0.04		0.81	0.81	0.81	0.81
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	72		2768	1272	634	2794
v/s Ratio Prot	c0.01		0.18			c0.26
v/s Ratio Perm				0.04	0.05	
v/c Ratio	0.26		0.23	0.05	0.07	0.32
Uniform Delay, d1	30.3		1.5	1.3	1.3	1.7
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9		0.2	0.1	0.2	0.3
Delay (s)	32.2		1.7	1.4	1.5	2.0
Level of Service	C		A	A	A	A
Approach Delay (s/veh)	32.2		1.7			2.0
Approach LOS	C		A			A

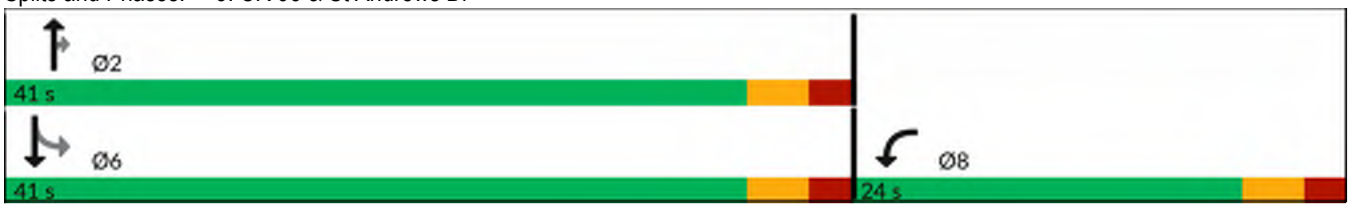
Intersection Summary			
HCM 2000 Control Delay (s/veh)	2.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	65.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	53	968	20	12	787
Future Volume (vph)	53	968	20	12	787
Lane Group Flow (vph)	119	1008	21	14	937
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	8	2			6
Permitted Phases			2	6	
Detector Phase	8	2	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	41.0	41.0	41.0	41.0
Total Split (%)	36.9%	63.1%	63.1%	63.1%	63.1%
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)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	Max	Max	Max	Max
v/c Ratio	0.45	0.38	0.02	0.05	0.35
Control Delay (s/veh)	23.0	4.5	3.2	4.3	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.0	4.5	3.2	4.3	4.4
Queue Length 50th (m)	10.0	20.9	0.4	0.4	19.0
Queue Length 95th (m)	12.6	36.8	2.4	2.1	30.3
Internal Link Dist (m)	250.0	253.8			528.9
Turn Bay Length (m)			1.0	90.0	
Base Capacity (vph)	551	2672	1099	306	2646
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.22	0.38	0.02	0.05	0.35

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.9
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & St Andrews Dr



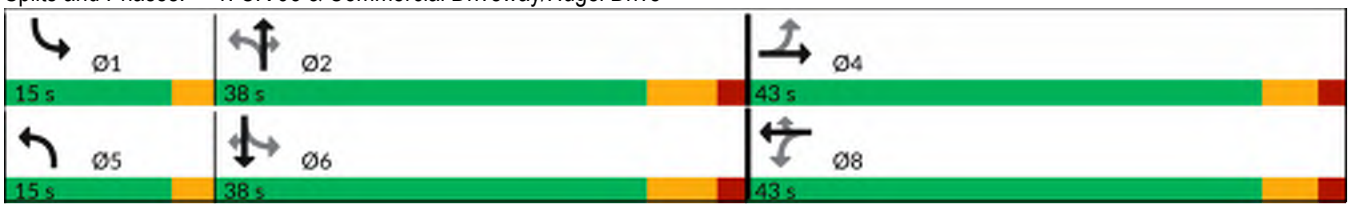
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	53	21	968	20	12	787
Future Volume (vph)	53	21	968	20	12	787
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0	5.0	5.0	5.0
Lane Util. Factor	1.00		0.95	1.00	1.00	0.95
Frt	0.96		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1691		3574	1468	1444	3539
Flt Permitted	0.97		1.00	1.00	0.27	1.00
Satd. Flow (perm)	1691		3574	1468	410	3539
Peak-hour factor, PHF	0.62	0.62	0.96	0.96	0.84	0.84
Adj. Flow (vph)	85	34	1008	21	14	937
RTOR Reduction (vph)	27	0	0	2	0	0
Lane Group Flow (vph)	92	0	1008	19	14	937
Heavy Vehicles (%)	6%	0%	1%	10%	25%	2%
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Actuated Green, G (s)	7.5		44.5	44.5	44.5	44.5
Effective Green, g (s)	7.5		44.5	44.5	44.5	44.5
Actuated g/C Ratio	0.12		0.72	0.72	0.72	0.72
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	204		2565	1053	294	2540
v/s Ratio Prot	c0.05		c0.28			0.26
v/s Ratio Perm				0.01	0.03	
v/c Ratio	0.45		0.39	0.02	0.05	0.37
Uniform Delay, d1	25.3		3.4	2.5	2.6	3.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6		0.5	0.0	0.3	0.4
Delay (s)	26.9		3.9	2.5	2.9	3.8
Level of Service	C		A	A	A	A
Approach Delay (s/veh)	26.9		3.9			3.8
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	0.40		
Actuated Cycle Length (s)	62.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	14	14	198	30	203	2	563	211	184	534	27
Future Volume (vph)	14	14	198	30	203	2	563	211	184	534	27
Lane Group Flow (vph)	22	27	225	34	231	2	678	254	211	614	31
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.07	0.06	0.70	0.07	0.43	0.01	0.47	0.32	0.41	0.32	0.04
Control Delay (s/veh)	21.9	18.6	38.3	21.6	5.9	7.5	18.5	3.9	9.2	11.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.9	18.6	38.3	21.6	5.9	7.5	18.5	3.9	9.2	11.0	0.9
Queue Length 50th (m)	2.5	2.5	30.2	3.9	0.0	0.1	36.5	0.0	11.2	21.8	0.0
Queue Length 95th (m)	5.8	5.8	53.5	10.4	14.5	1.0	60.0	11.5	26.8	50.3	1.0
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	612	871	662	950	874	440	1454	784	566	1931	881
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.34	0.04	0.26	0.00	0.47	0.32	0.37	0.32	0.04

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 74.8
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	14	3	198	30	203	2	563	211	184	534	27
Future Volume (vph)	14	14	3	198	30	203	2	563	211	184	534	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1582	1737		1701	1900	1519	1203	3471	1520	1752	3438	1518
Flt Permitted	0.73	1.00		0.74	1.00	1.00	0.42	1.00	1.00	0.32	1.00	1.00
Satd. Flow (perm)	1224	1737		1324	1900	1519	531	3471	1520	594	3438	1518
Peak-hour factor, PHF	0.65	0.65	0.65	0.88	0.88	0.88	0.83	0.83	0.83	0.87	0.87	0.87
Adj. Flow (vph)	22	22	5	225	34	231	2	678	254	211	614	31
RTOR Reduction (vph)	0	4	0	0	0	177	0	0	143	0	0	14
Lane Group Flow (vph)	22	23	0	225	34	54	2	678	111	211	614	17
Confl. Peds. (#/hr)	1		2	2		1	2		1	1		2
Heavy Vehicles (%)	14%	0%	33%	6%	0%	5%	50%	4%	4%	3%	5%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	18.1	18.1		18.1	18.1	18.1	34.8	33.8	33.8	46.0	42.0	42.0
Effective Green, g (s)	18.1	18.1		18.1	18.1	18.1	34.8	33.8	33.8	46.0	42.0	42.0
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.23	0.45	0.44	0.44	0.60	0.54	0.54
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	287	407		310	446	356	248	1521	666	492	1872	826
v/s Ratio Prot		0.01			0.02		0.00	0.20		c0.05	0.18	
v/s Ratio Perm	0.02			c0.17		0.04	0.00		0.07	c0.20		0.01
v/c Ratio	0.08	0.06		0.73	0.08	0.15	0.01	0.45	0.17	0.43	0.33	0.02
Uniform Delay, d1	23.0	22.9		27.2	23.0	23.4	11.6	15.1	13.1	7.5	9.7	8.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		8.2	0.1	0.2	0.0	0.9	0.5	0.6	0.5	0.0
Delay (s)	23.1	22.9		35.4	23.1	23.6	11.6	16.1	13.7	8.1	10.2	8.1
Level of Service	C	C		D	C	C	B	B	B	A	B	A
Approach Delay (s/veh)		23.0			29.0			15.4			9.6	
Approach LOS		C			C			B			A	

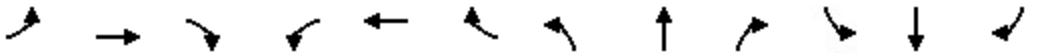
Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	77.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	23	12	72	12	77	571	52	57	712	40
Future Volume (vph)	23	12	72	12	77	571	52	57	712	40
Lane Group Flow (vph)	31	37	111	76	81	601	55	76	949	53
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.10	0.11	0.50	0.25	0.20	0.34	0.06	0.13	0.53	0.06
Control Delay (s/veh)	22.3	14.5	40.6	14.9	8.0	14.5	0.5	7.3	16.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.3	14.5	40.6	14.9	8.0	14.5	0.5	7.3	16.9	0.3
Queue Length 50th (m)	3.7	2.0	14.9	2.3	2.9	25.2	0.0	2.8	45.1	0.0
Queue Length 95th (m)	8.5	7.1	24.7	7.9	12.9	57.6	1.0	10.1	76.4	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	350	705	352	455	476	1772	867	651	1801	843
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.05	0.32	0.17	0.17	0.34	0.06	0.12	0.53	0.06

Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 80.1
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	12	16	72	12	38	77	571	52	57	712	40
Future Volume (vph)	23	12	16	72	12	38	77	571	52	57	712	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.91		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1735	1569		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.55	1.00		0.73	1.00		0.23	1.00	1.00	0.41	1.00	1.00
Satd. Flow (perm)	1013	1569		1393	1628		429	3438	1581	757	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	31	16	21	111	18	58	81	601	55	76	949	53
RTOR Reduction (vph)	0	16	0	0	49	0	0	0	28	0	0	27
Lane Group Flow (vph)	31	21	0	111	27	0	81	601	27	76	949	26
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Effective Green, g (s)	19.1	19.1		12.7	12.7		47.4	41.3	41.3	47.2	41.2	41.2
Actuated g/C Ratio	0.23	0.23		0.15	0.15		0.57	0.50	0.50	0.57	0.50	0.50
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	361		213	249		341	1712	787	504	1741	764
v/s Ratio Prot	c0.00	0.01			0.02		c0.02	0.17		0.01	c0.27	
v/s Ratio Perm	0.02			c0.08			0.12		0.02	0.07		0.02
v/c Ratio	0.12	0.06		0.52	0.11		0.24	0.35	0.03	0.15	0.55	0.03
Uniform Delay, d1	25.1	24.9		32.3	30.2		8.6	12.7	10.6	8.1	14.4	10.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		2.3	0.2		0.4	0.6	0.1	0.1	1.2	0.1
Delay (s)	25.3	24.9		34.6	30.4		8.9	13.2	10.7	8.2	15.6	10.8
Level of Service	C	C		C	C		A	B	B	A	B	B
Approach Delay (s/veh)		25.1			32.9			12.6			14.9	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	82.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	12	583	65	34	800
Future Volume (vph)	12	583	65	34	800
Lane Group Flow (vph)	32	686	76	43	1000
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	8	2			6
Permitted Phases			2	6	
Detector Phase	8	2	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	24.0	24.0
Total Split (s)	23.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	64.6%	64.6%	64.6%	64.6%
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)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	Max	Max	Max	Max
v/c Ratio	0.17	0.22	0.05	0.06	0.32
Control Delay (s/veh)	21.8	1.7	1.4	2.1	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.8	1.7	1.4	2.1	2.0
Queue Length 50th (m)	1.8	0.0	0.0	0.0	0.0
Queue Length 95th (m)	6.6	16.1	3.6	3.0	23.0
Internal Link Dist (m)	250.0	253.8			528.9
Turn Bay Length (m)			1.0	90.0	
Base Capacity (vph)	519	3089	1423	667	3119
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.22	0.05	0.06	0.32

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 62.1
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & St Andrews Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	9	583	65	34	800
Future Volume (vph)	12	9	583	65	34	800
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0	5.0	5.0	5.0
Lane Util. Factor	1.00		0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00		1.00	0.98	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1739		3438	1580	1804	3471
Flt Permitted	0.97		1.00	1.00	0.39	1.00
Satd. Flow (perm)	1739		3438	1580	742	3471
Peak-hour factor, PHF	0.66	0.66	0.85	0.85	0.80	0.80
Adj. Flow (vph)	18	14	686	76	42	1000
RTOR Reduction (vph)	13	0	0	6	0	0
Lane Group Flow (vph)	19	0	686	70	43	1000
Confl. Peds. (#/hr)				1	1	
Heavy Vehicles (%)	0%	0%	5%	0%	0%	4%
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Actuated Green, G (s)	2.7		52.5	52.5	52.5	52.5
Effective Green, g (s)	2.7		52.5	52.5	52.5	52.5
Actuated g/C Ratio	0.04		0.81	0.81	0.81	0.81
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	72		2768	1272	597	2794
v/s Ratio Prot	c0.01		0.20			c0.29
v/s Ratio Perm				0.04	0.06	
v/c Ratio	0.26		0.25	0.06	0.07	0.36
Uniform Delay, d1	30.3		1.5	1.3	1.3	1.7
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9		0.2	0.1	0.2	0.4
Delay (s)	32.2		1.8	1.4	1.5	2.1
Level of Service	C		A	A	A	A
Approach Delay (s/veh)	32.2		1.7			2.1
Approach LOS	C		A			A

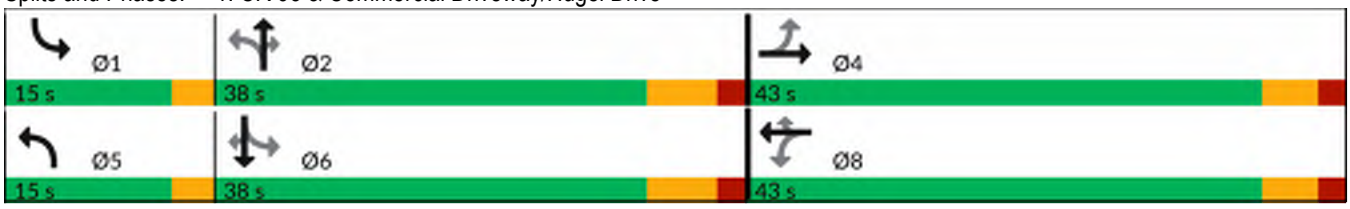
Intersection Summary			
HCM 2000 Control Delay (s/veh)	2.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	65.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

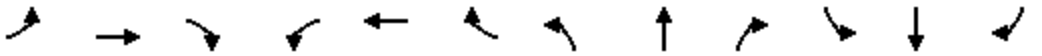
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	105	91	270	122	300	6	751	248	221	763	119
Future Volume (vph)	105	91	270	122	300	6	751	248	221	763	119
Lane Group Flow (vph)	114	138	293	133	326	7	816	270	240	829	129
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.30	0.25	0.79	0.24	0.47	0.02	0.61	0.35	0.57	0.45	0.15
Control Delay (s/veh)	24.0	18.4	41.9	22.3	4.8	10.3	24.8	4.5	15.3	15.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.0	18.4	41.9	22.3	4.8	10.3	24.8	4.5	15.3	15.5	6.5
Queue Length 50th (m)	14.5	14.1	44.3	16.6	0.0	0.4	57.5	0.0	17.5	41.0	3.0
Queue Length 95th (m)	28.1	27.5	74.3	30.0	16.9	2.8	95.3	17.3	39.6	87.5	16.9
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	569	824	566	847	897	529	1348	770	453	1847	868
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.17	0.52	0.16	0.36	0.01	0.61	0.35	0.53	0.45	0.15

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 82.6
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	91	36	270	122	300	6	751	248	221	763	119
Future Volume (vph)	105	91	36	270	122	300	6	751	248	221	763	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1784		1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.67	1.00		0.67	1.00	1.00	0.34	1.00	1.00	0.23	1.00	1.00
Satd. Flow (perm)	1252	1784		1246	1863	1583	632	3539	1583	434	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	99	39	293	133	326	7	816	270	240	829	129
RTOR Reduction (vph)	0	17	0	0	0	231	0	0	162	0	0	43
Lane Group Flow (vph)	114	121	0	293	133	95	7	816	108	240	829	86
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	24.7	24.7		24.7	24.7	24.7	35.1	34.0	34.0	47.2	43.1	43.1
Effective Green, g (s)	24.7	24.7		24.7	24.7	24.7	35.1	34.0	34.0	47.2	43.1	43.1
Actuated g/C Ratio	0.29	0.29		0.29	0.29	0.29	0.41	0.40	0.40	0.56	0.51	0.51
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	364	519		362	542	460	276	1417	633	401	1796	803
v/s Ratio Prot		0.07			0.07		0.00	0.23		c0.07	0.23	
v/s Ratio Perm	0.09			c0.24		0.06	0.01		0.07	c0.26		0.05
v/c Ratio	0.31	0.23		0.81	0.25	0.21	0.03	0.58	0.17	0.60	0.46	0.11
Uniform Delay, d1	23.5	22.9		27.9	23.0	22.7	14.7	19.8	16.4	11.0	13.4	10.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2		12.5	0.2	0.2	0.0	1.7	0.6	2.4	0.9	0.3
Delay (s)	24.0	23.1		40.4	23.2	22.9	14.7	21.5	17.0	13.4	14.3	11.1
Level of Service	C	C		D	C	C	B	C	B	B	B	B
Approach Delay (s/veh)		23.5			29.8			20.4			13.8	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	84.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	17	121	36	166	839	115	61	795	73
Future Volume (vph)	120	17	121	36	166	839	115	61	795	73
Lane Group Flow (vph)	148	64	151	176	198	999	137	77	1006	92
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.39	0.12	0.69	0.46	0.62	0.61	0.17	0.24	0.71	0.13
Control Delay (s/veh)	25.5	11.1	54.8	15.6	20.1	23.3	6.4	11.7	27.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.5	11.1	54.8	15.6	20.1	23.3	6.4	11.7	27.9	3.6
Queue Length 50th (m)	20.5	2.8	28.2	8.0	17.2	79.0	3.2	6.2	86.7	0.0
Queue Length 95th (m)	31.5	10.2	43.4	20.8	30.0	101.9	13.6	11.9	98.5	5.1
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	392	643	284	460	343	1626	786	396	1417	688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.10	0.53	0.38	0.58	0.61	0.17	0.19	0.71	0.13

Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 94.4
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	17	35	121	36	105	166	839	115	61	795	73
Future Volume (vph)	120	17	35	121	36	105	166	839	115	61	795	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1655		1778	1688		1752	3574	1599	1805	3505	1543
Flt Permitted	0.44	1.00		0.72	1.00		0.15	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	812	1655		1339	1688		280	3574	1599	397	3505	1543
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	148	21	43	151	45	131	198	999	137	77	1006	92
RTOR Reduction (vph)	0	30	0	0	108	0	0	0	59	0	0	54
Lane Group Flow (vph)	148	34	0	151	68	0	198	999	78	77	1006	38
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.3	39.1	39.1
Effective Green, g (s)	29.5	29.5		15.4	15.4		52.7	43.0	43.0	45.3	39.1	39.1
Actuated g/C Ratio	0.31	0.31		0.16	0.16		0.55	0.45	0.45	0.48	0.41	0.41
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	512		216	273		311	1614	722	280	1439	633
v/s Ratio Prot	c0.05	0.02			0.04		c0.07	0.28		0.02	c0.29	
v/s Ratio Perm	0.08			c0.11			0.28		0.05	0.11		0.02
v/c Ratio	0.41	0.07		0.70	0.25		0.64	0.62	0.11	0.28	0.70	0.06
Uniform Delay, d1	25.0	23.2		37.7	34.8		14.0	19.9	15.0	14.4	23.2	16.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1		9.5	0.5		4.2	1.8	0.3	0.5	2.8	0.2
Delay (s)	25.7	23.2		47.2	35.3		18.3	21.7	15.3	14.9	26.0	17.1
Level of Service	C	C		D	D		B	C	B	B	C	B
Approach Delay (s/veh)		25.0			40.8			20.5			24.6	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	53	1067	20	12	867
Future Volume (vph)	53	1067	20	12	867
Lane Group Flow (vph)	119	1111	21	14	1032
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	8	2			6
Permitted Phases			2	6	
Detector Phase	8	2	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	41.0	41.0	41.0	41.0
Total Split (%)	36.9%	63.1%	63.1%	63.1%	63.1%
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)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	Max	Max	Max	Max
v/c Ratio	0.45	0.42	0.02	0.05	0.39
Control Delay (s/veh)	23.0	4.8	3.3	4.5	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.0	4.8	3.3	4.5	4.6
Queue Length 50th (m)	10.0	24.0	0.5	0.4	21.6
Queue Length 95th (m)	12.6	42.0	2.5	2.2	34.3
Internal Link Dist (m)	250.0	253.8			528.9
Turn Bay Length (m)			1.0	90.0	
Base Capacity (vph)	551	2672	1099	269	2646
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.22	0.42	0.02	0.05	0.39

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.9
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & St Andrews Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	53	21	1067	20	12	867
Future Volume (vph)	53	21	1067	20	12	867
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0	5.0	5.0	5.0
Lane Util. Factor	1.00		0.95	1.00	1.00	0.95
Frt	0.96		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1691		3574	1468	1444	3539
Flt Permitted	0.97		1.00	1.00	0.24	1.00
Satd. Flow (perm)	1691		3574	1468	360	3539
Peak-hour factor, PHF	0.62	0.62	0.96	0.96	0.84	0.84
Adj. Flow (vph)	85	34	1111	21	14	1032
RTOR Reduction (vph)	27	0	0	1	0	0
Lane Group Flow (vph)	92	0	1111	20	14	1032
Heavy Vehicles (%)	6%	0%	1%	10%	25%	2%
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Actuated Green, G (s)	7.5		44.5	44.5	44.5	44.5
Effective Green, g (s)	7.5		44.5	44.5	44.5	44.5
Actuated g/C Ratio	0.12		0.72	0.72	0.72	0.72
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	204		2565	1053	258	2540
v/s Ratio Prot	c0.05		c0.31			0.29
v/s Ratio Perm				0.01	0.04	
v/c Ratio	0.45		0.43	0.02	0.05	0.41
Uniform Delay, d1	25.3		3.6	2.5	2.6	3.5
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6		0.5	0.0	0.4	0.5
Delay (s)	26.9		4.1	2.5	3.0	4.0
Level of Service	C		A	A	A	A
Approach Delay (s/veh)	26.9		4.1			4.0
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	62.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Appendix F –
Transportation Tomorrow Survey Excerpts

datamanagementgroup

Hello John Northcote

Database Index | DMG | TTS | CCDRS | Contact | Logout

TTS Cross Tabulation

Cross Tabulation Query Form - Trip - 2022

Filter Variables

2006 GTA zone of desti... | 2006 GTA zone of hous... | (Optional) Table Attribute

Group Attributes

Row Grouping | Column Grouping | Table Grouping

Grouping file: Choose File | No file chosen

Filter Selection +

- [x] 2006 GTA zone of household | In | 8577,8578
- And
- [x] Trip Purpose of Destination | In | W, R,
- And
- [x] Start time of trip | In | 700- 900

Add | Delete

Output

Comma-delimited table | Column format | Expansion Factor On | Click to Select Load | Load

Execute Query | Select All | Save As

```
Mon Feb 23 2026 14:44:23 GMT-0500 (Eastern Standard Time) - Run Time: 1996ms

Cross Tabulation Query Form - Trip - 2022

Row: 2006 GTA zone of destination - gta06_dest
Column: 2006 GTA zone of household - gta06_hhld


Filters:
(2006 GTA zone of household - gta06_hhld In 8577,8578
and
Trip Purpose of Destination - purp_dest In W, R,
and
Start time of trip - start_time In 700- 900)

Trip 2022
Table:

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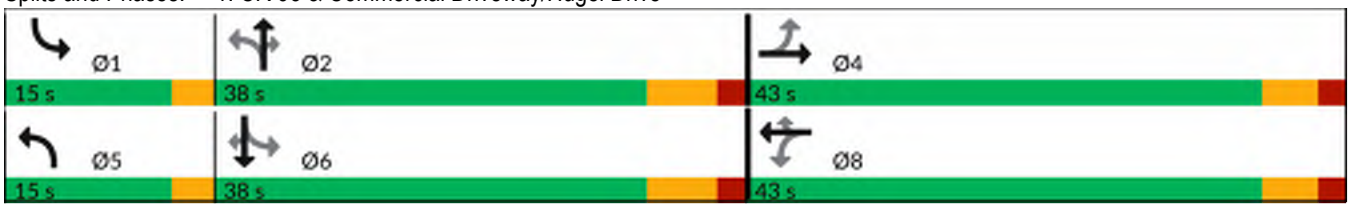
Appendix G –
Synchro and ARCADY Analysis Output –
Total Traffic Volumes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	14	14	180	28	209	2	537	194	256	655	29
Future Volume (vph)	14	14	180	28	209	2	537	194	256	655	29
Lane Group Flow (vph)	22	27	205	32	238	2	647	234	294	753	33
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.08	0.07	0.69	0.07	0.45	0.01	0.44	0.30	0.52	0.38	0.04
Control Delay (s/veh)	22.8	19.3	38.7	22.5	6.4	7.0	17.9	3.8	10.0	10.8	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.8	19.3	38.7	22.5	6.4	7.0	17.9	3.8	10.0	10.8	1.1
Queue Length 50th (m)	2.6	2.6	27.9	3.7	0.0	0.1	34.9	0.0	15.5	26.7	0.0
Queue Length 95th (m)	5.8	6.0	48.8	10.1	14.9	0.9	54.7	10.9	34.9	60.3	1.4
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	614	871	663	951	879	412	1456	773	590	1983	903
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.31	0.03	0.27	0.00	0.44	0.30	0.50	0.38	0.04

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 74.5
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	14	3	180	28	209	2	537	194	256	655	29
Future Volume (vph)	14	14	3	180	28	209	2	537	194	256	655	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1582	1737		1701	1900	1519	1203	3471	1520	1752	3438	1518
Flt Permitted	0.74	1.00		0.74	1.00	1.00	0.37	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	1226	1737		1324	1900	1519	463	3471	1520	626	3438	1518
Peak-hour factor, PHF	0.65	0.65	0.65	0.88	0.88	0.88	0.83	0.83	0.83	0.87	0.87	0.87
Adj. Flow (vph)	22	22	5	205	32	238	2	647	234	294	753	33
RTOR Reduction (vph)	0	4	0	0	0	186	0	0	131	0	0	15
Lane Group Flow (vph)	22	23	0	205	32	52	2	647	103	294	753	18
Confl. Peds. (#/hr)	1		2	2		1	2		1	1		2
Heavy Vehicles (%)	14%	0%	33%	6%	0%	5%	50%	4%	4%	3%	5%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	16.9	16.9		16.9	16.9	16.9	34.8	33.8	33.8	47.0	43.0	43.0
Effective Green, g (s)	16.9	16.9		16.9	16.9	16.9	34.8	33.8	33.8	47.0	43.0	43.0
Actuated g/C Ratio	0.22	0.22		0.22	0.22	0.22	0.45	0.44	0.44	0.61	0.56	0.56
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	269	381		290	417	333	219	1525	668	531	1922	848
v/s Ratio Prot		0.01			0.02		0.00	0.19		c0.07	0.22	
v/s Ratio Perm	0.02			c0.15		0.03	0.00		0.07	c0.26		0.01
v/c Ratio	0.08	0.06		0.71	0.08	0.16	0.01	0.42	0.15	0.55	0.39	0.02
Uniform Delay, d1	23.8	23.7		27.7	23.8	24.2	11.5	14.8	13.0	7.4	9.6	7.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		7.6	0.1	0.2	0.0	0.9	0.5	1.3	0.6	0.0
Delay (s)	24.0	23.8		35.4	23.9	24.5	11.6	15.7	13.4	8.6	10.2	7.6
Level of Service	C	C		D	C	C	B	B	B	A	B	A
Approach Delay (s/veh)		23.9			29.1			15.1			9.7	
Approach LOS		C			C			B			A	

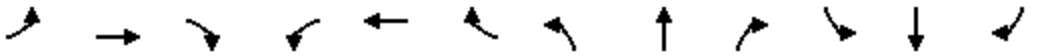
Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	76.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	42	12	72	12	165	480	52	59	614	46
Future Volume (vph)	42	12	72	12	165	480	52	59	614	46
Lane Group Flow (vph)	56	388	111	76	174	505	55	79	819	61
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.15	0.66	0.75	0.24	0.43	0.30	0.07	0.14	0.54	0.08
Control Delay (s/veh)	22.5	12.7	67.4	15.1	12.2	17.2	0.4	9.6	22.2	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.5	12.7	67.4	15.1	12.2	17.2	0.4	9.6	22.2	1.1
Queue Length 50th (m)	7.2	12.4	19.8	2.8	12.9	30.6	0.0	5.5	58.7	0.0
Queue Length 95th (m)	13.3	21.2	27.3	7.9	27.1	50.7	0.8	11.2	70.8	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	404	728	200	416	442	1660	818	639	1517	727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.53	0.56	0.18	0.39	0.30	0.07	0.12	0.54	0.08

Intersection Summary
Cycle Length: 101
Actuated Cycle Length: 89
Natural Cycle: 95
Control Type: Semi Act-Uncoord

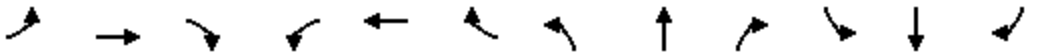
Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	12	279	72	12	38	165	480	52	59	614	46
Future Volume (vph)	42	12	279	72	12	38	165	480	52	59	614	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1735	1376		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.57	1.00		0.46	1.00		0.24	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	1046	1376		883	1628		443	3438	1581	868	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	56	16	372	111	18	58	174	505	55	79	819	61
RTOR Reduction (vph)	0	216	0	0	48	0	0	0	29	0	0	34
Lane Group Flow (vph)	56	172	0	111	28	0	174	505	26	79	819	27
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	25.0	25.0		14.9	14.9		52.5	43.0	43.0	45.4	39.4	39.4
Effective Green, g (s)	25.0	25.0		14.9	14.9		52.5	43.0	43.0	45.4	39.4	39.4
Actuated g/C Ratio	0.28	0.28		0.16	0.16		0.58	0.48	0.48	0.50	0.44	0.44
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	339	380		145	268		394	1633	751	495	1525	669
v/s Ratio Prot	0.01	c0.12			0.02		c0.05	0.15		0.01	c0.23	
v/s Ratio Perm	0.03			c0.13			0.21		0.02	0.07		0.02
v/c Ratio	0.17	0.45		0.77	0.10		0.44	0.31	0.03	0.16	0.54	0.04
Uniform Delay, d1	24.6	27.1		36.1	32.1		10.1	14.6	12.7	11.8	18.8	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.9		21.1	0.2		0.8	0.5	0.1	0.2	1.4	0.1
Delay (s)	24.8	27.9		57.2	32.3		10.9	15.1	12.8	11.9	20.2	14.8
Level of Service	C	C		E	C		B	B	B	B	C	B
Approach Delay (s/veh)		27.5			47.1			13.9			19.2	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	2	31	12	0	9	10	500	65	34	663	14
Future Volume (Veh/h)	44	2	31	12	0	9	10	500	65	34	663	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.66	0.66	0.66	0.85	0.85	0.85	0.80	0.80	0.80
Hourly flow rate (vph)	48	2	34	18	0	14	12	588	76	42	829	18
Pedestrians					1							
Lane Width (m)					3.6							
Walking Speed (m/s)					1.2							
Percent Blockage					0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								278				
pX, platoon unblocked	0.97	0.97		0.97	0.97	0.97				0.97		
vC, conflicting volume	1254	1611	424	1147	1544	295	847			665		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1197	1566	424	1086	1496	207	847			589		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	63	98	94	88	100	98	98			96		
cM capacity (veh/h)	128	101	579	149	113	780	799			964		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	32	12	294	294	76	42	553	294
Volume Left	48	18	12	0	0	0	42	0	0
Volume Right	34	14	0	0	0	76	0	0	18
cSH	186	230	799	1700	1700	1700	964	1700	1700
Volume to Capacity	0.45	0.14	0.02	0.17	0.17	0.04	0.04	0.33	0.17
Queue Length 95th (m)	17.0	3.8	0.4	0.0	0.0	0.0	1.1	0.0	0.0
Control Delay (s/veh)	39.5	23.2	9.6	0.0	0.0	0.0	8.9	0.0	0.0
Lane LOS	E	C	A				A		
Approach Delay (s/veh)	39.5	23.2	0.2				0.4		
Approach LOS	E	C							

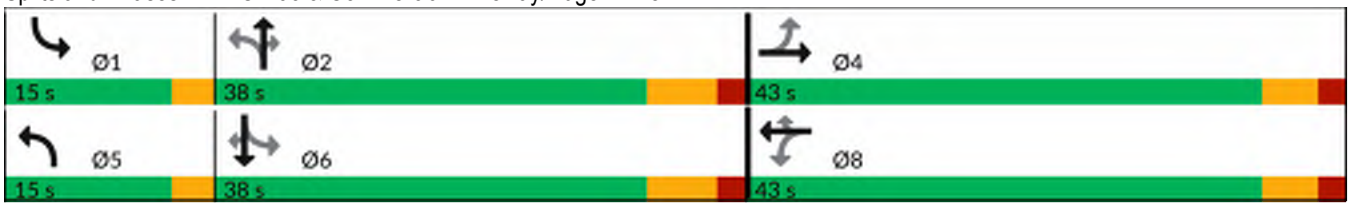
Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	37.5%	ICU Level of Service		A
Analysis Period (min)	15			

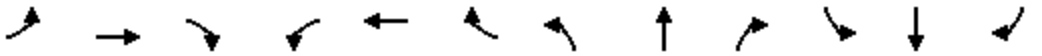
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	105	91	247	110	334	6	803	226	259	742	120
Future Volume (vph)	105	91	247	110	334	6	803	226	259	742	120
Lane Group Flow (vph)	114	138	268	120	363	7	873	246	282	807	130
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.32	0.26	0.76	0.23	0.53	0.02	0.65	0.32	0.66	0.42	0.15
Control Delay (s/veh)	24.9	19.1	41.2	22.8	7.0	9.8	25.1	4.4	18.4	14.4	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.9	19.1	41.2	22.8	7.0	9.8	25.1	4.4	18.4	14.4	6.1
Queue Length 50th (m)	14.8	14.3	40.2	15.1	4.6	0.4	61.4	0.0	19.7	37.1	2.7
Queue Length 95th (m)	28.0	27.6	67.1	27.6	23.9	2.8	102.3	16.6	#56.1	83.6	16.5
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	578	827	568	850	899	540	1353	757	439	1904	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.17	0.47	0.14	0.40	0.01	0.65	0.32	0.64	0.42	0.15

Intersection Summary

Cycle Length: 96
Actuated Cycle Length: 82
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	91	36	247	110	334	6	803	226	259	742	120
Future Volume (vph)	105	91	36	247	110	334	6	803	226	259	742	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1784		1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.68	1.00		0.67	1.00	1.00	0.35	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	1266	1784		1246	1863	1583	646	3539	1583	387	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	99	39	268	120	363	7	873	246	282	807	130
RTOR Reduction (vph)	0	17	0	0	0	236	0	0	147	0	0	43
Lane Group Flow (vph)	114	121	0	268	120	127	7	873	99	282	807	87
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	23.2	23.2		23.2	23.2	23.2	35.0	33.9	33.9	48.2	44.1	44.1
Effective Green, g (s)	23.2	23.2		23.2	23.2	23.2	35.0	33.9	33.9	48.2	44.1	44.1
Actuated g/C Ratio	0.27	0.27		0.27	0.27	0.27	0.41	0.40	0.40	0.57	0.52	0.52
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	348	490		342	512	435	282	1421	635	406	1849	827
v/s Ratio Prot		0.07			0.06		0.00	0.25		c0.09	0.23	
v/s Ratio Perm	0.09			c0.22		0.08	0.01		0.06	c0.30		0.05
v/c Ratio	0.33	0.25		0.78	0.23	0.29	0.02	0.61	0.16	0.69	0.44	0.10
Uniform Delay, d1	24.4	23.8		28.3	23.7	24.1	14.5	20.1	16.1	11.2	12.5	10.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.3		11.2	0.2	0.4	0.0	2.0	0.5	5.1	0.8	0.3
Delay (s)	24.9	24.1		39.4	24.0	24.5	14.6	22.1	16.6	16.3	13.2	10.4
Level of Service	C	C		D	C	C	B	C	B	B	B	B
Approach Delay (s/veh)		24.5			29.7			20.8			13.6	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	84.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		

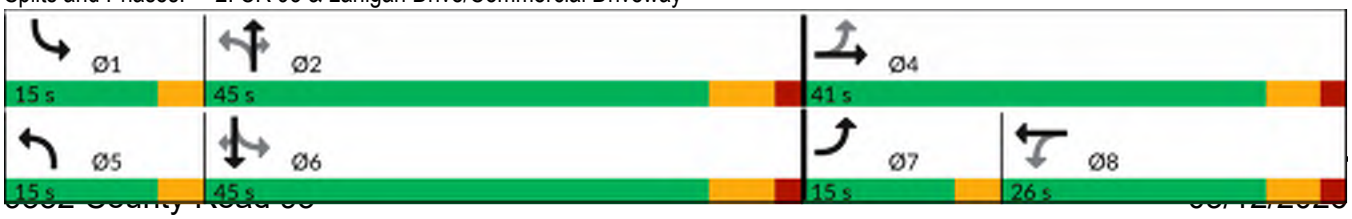
c Critical Lane Group

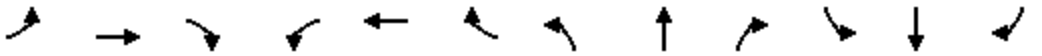
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	130	17	121	36	388	715	115	62	669	88
Future Volume (vph)	130	17	121	36	388	715	115	62	669	88
Lane Group Flow (vph)	160	236	151	176	462	851	137	78	847	111
Turn Type	pm+pt	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	26.0	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.0	41.0	26.0	26.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	14.9%	40.6%	25.7%	25.7%	14.9%	44.6%	44.6%	14.9%	44.6%	44.6%
Yellow Time (s)	3.5	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead		Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.41	0.36	0.77	0.45	1.20	0.52	0.17	0.21	0.62	0.17
Control Delay (s/veh)	26.0	6.2	64.8	15.3	130.1	22.1	6.5	11.5	26.7	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.0	6.2	64.8	15.3	130.1	22.1	6.5	11.5	26.7	5.1
Queue Length 50th (m)	22.5	2.8	29.0	8.1	~74.0	67.3	3.4	6.7	72.6	0.4
Queue Length 95th (m)	33.8	14.0	44.9	20.8	#129.3	83.7	13.6	12.0	80.1	8.1
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	395	709	236	450	386	1627	786	447	1376	671
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.33	0.64	0.39	1.20	0.52	0.17	0.17	0.62	0.17

Intersection Summary

Cycle Length: 101
Actuated Cycle Length: 97
Natural Cycle: 105
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway

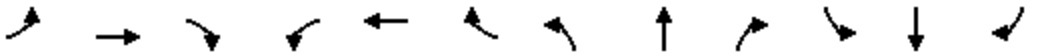




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	17	174	121	36	105	388	715	115	62	669	88
Future Volume (vph)	130	17	174	121	36	105	388	715	115	62	669	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1582		1780	1688		1752	3574	1599	1805	3505	1542
Flt Permitted	0.44	1.00		0.61	1.00		0.21	1.00	1.00	0.29	1.00	1.00
Satd. Flow (perm)	824	1582		1146	1688		385	3574	1599	543	3505	1542
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	160	21	215	151	45	131	462	851	137	78	847	111
RTOR Reduction (vph)	0	147	0	0	107	0	0	0	59	0	0	65
Lane Group Flow (vph)	160	89	0	151	69	0	462	851	78	78	847	46
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	30.8	30.8		16.5	16.5		53.9	44.2	44.2	45.1	38.9	38.9
Effective Green, g (s)	30.8	30.8		16.5	16.5		53.9	44.2	44.2	45.1	38.9	38.9
Actuated g/C Ratio	0.32	0.32		0.17	0.17		0.55	0.45	0.45	0.46	0.40	0.40
Clearance Time (s)	3.5	6.0		6.0	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	364	498		193	285		373	1616	723	330	1395	613
v/s Ratio Prot	c0.05	0.06			0.04		c0.15	0.24		0.01	0.24	
v/s Ratio Perm	0.09			c0.13			c0.54		0.05	0.09		0.03
v/c Ratio	0.44	0.18		0.78	0.24		1.24	0.53	0.11	0.24	0.61	0.08
Uniform Delay, d1	25.4	24.3		38.9	35.2		16.3	19.2	15.4	15.0	23.3	18.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.2		18.4	0.4		128.3	1.2	0.3	0.4	2.0	0.2
Delay (s)	26.3	24.4		57.3	35.6		144.6	20.5	15.7	15.3	25.3	18.5
Level of Service	C	C		E	D		F	C	B	B	C	B
Approach Delay (s/veh)		25.2			45.6			59.6			23.8	
Approach LOS		C			D			E			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	42.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1	16	53	0	21	25	887	20	12	729	35
Future Volume (Veh/h)	23	1	16	53	0	21	25	887	20	12	729	35
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.62	0.62	0.62	0.96	0.96	0.96	0.84	0.84	0.84
Hourly flow rate (vph)	25	1	17	85	0	34	26	924	21	14	868	42
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								278				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1465	1914	455	1456	1914	462	910			945		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1238	1753	455	1227	1753	87	910			641		
tC, single (s)	7.5	6.5	6.9	7.6	6.5	6.9	4.1			4.6		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.4		
p0 queue free %	76	99	97	18	100	96	97			98		
cM capacity (veh/h)	106	70	552	104	71	837	757			696		

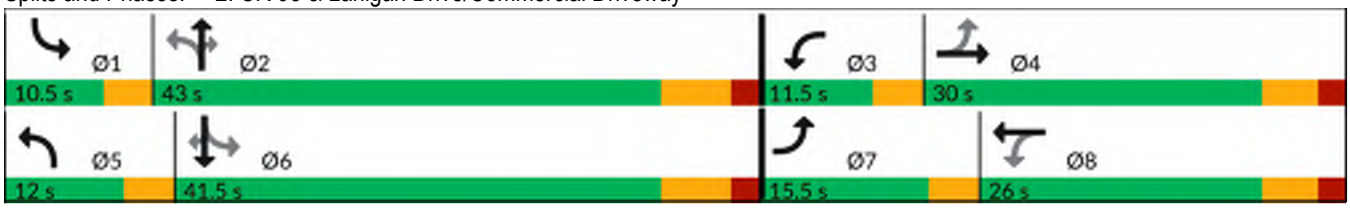
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	43	119	26	462	462	21	14	579	331
Volume Left	25	85	26	0	0	0	14	0	0
Volume Right	17	34	0	0	0	21	0	0	42
cSH	153	139	757	1700	1700	1700	696	1700	1700
Volume to Capacity	0.28	0.86	0.03	0.27	0.27	0.01	0.02	0.34	0.19
Queue Length 95th (m)	8.7	44.4	0.9	0.0	0.0	0.0	0.5	0.0	0.0
Control Delay (s/veh)	37.6	103.8	9.9	0.0	0.0	0.0	10.3	0.0	0.0
Lane LOS	E	F	A				B		
Approach Delay (s/veh)	37.6	103.8	0.3				0.2		
Approach LOS	E	F							

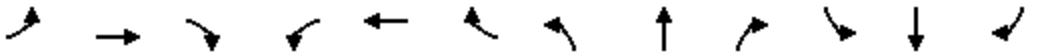
Intersection Summary				
Average Delay	7.0			
Intersection Capacity Utilization	36.8%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	42	12	72	12	165	480	52	59	614	46
Future Volume (vph)	42	12	72	12	165	480	52	59	614	46
Lane Group Flow (vph)	56	388	111	76	174	505	55	79	819	61
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	5.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	9.5	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.5	30.0	11.5	26.0	12.0	43.0	43.0	10.5	41.5	41.5
Total Split (%)	16.3%	31.6%	12.1%	27.4%	12.6%	45.3%	45.3%	11.1%	43.7%	43.7%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	3.5	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.14	0.84	0.44	0.20	0.46	0.32	0.07	0.14	0.56	0.08
Control Delay (s/veh)	19.6	29.0	25.4	13.0	13.8	17.9	0.2	10.4	22.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.6	29.0	25.4	13.0	13.8	17.9	0.2	10.4	22.4	0.2
Queue Length 50th (m)	6.6	22.1	13.4	2.6	12.9	30.4	0.0	5.5	56.7	0.0
Queue Length 95th (m)	11.9	34.3	17.5	7.5	28.6	50.6	0.0	11.9	69.6	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	476	578	257	451	386	1579	809	546	1458	730
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.67	0.43	0.17	0.45	0.32	0.07	0.14	0.56	0.08

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 84.3
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	12	279	72	12	38	165	480	52	59	614	46
Future Volume (vph)	42	12	279	72	12	38	165	480	52	59	614	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1734	1376		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.71	1.00		0.22	1.00		0.24	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	1292	1376		427	1628		439	3438	1581	868	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	56	16	372	111	18	58	174	505	55	79	819	61
RTOR Reduction (vph)	0	207	0	0	46	0	0	0	30	0	0	36
Lane Group Flow (vph)	56	181	0	111	30	0	174	505	25	79	819	25
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	20.9	16.3		23.9	17.8		46.8	38.7	38.7	41.4	36.0	36.0
Effective Green, g (s)	20.9	16.3		23.9	17.8		46.8	38.7	38.7	41.4	36.0	36.0
Actuated g/C Ratio	0.24	0.19		0.28	0.21		0.54	0.45	0.45	0.48	0.42	0.42
Clearance Time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	335	259		215	335		358	1538	707	471	1458	640
v/s Ratio Prot	0.01	c0.13		c0.04	0.02		c0.05	0.15		0.01	c0.23	
v/s Ratio Perm	0.03			0.11			0.22		0.02	0.07		0.02
v/c Ratio	0.17	0.70		0.52	0.09		0.49	0.33	0.03	0.17	0.56	0.04
Uniform Delay, d1	25.7	32.8		25.3	27.8		11.2	15.5	13.4	12.3	19.2	15.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	8.0		2.1	0.1		1.0	0.6	0.1	0.2	1.6	0.1
Delay (s)	25.9	40.8		27.4	27.9		12.2	16.1	13.5	12.5	20.8	15.1
Level of Service	C	D		C	C		B	B	B	B	C	B
Approach Delay (s/veh)		38.9			27.6			15.0			19.8	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	86.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	44	2	12	0	10	500	65	34	663
Future Volume (vph)	44	2	12	0	10	500	65	34	663
Lane Group Flow (vph)	0	84	0	32	12	588	76	43	847
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	8	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	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	23.0	23.0	23.0
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%	64.6%	64.6%	64.6%
Yellow Time (s)	3.0	3.0	3.0	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	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max
v/c Ratio		0.40		0.14	0.03	0.22	0.06	0.07	0.32
Control Delay (s/veh)		21.0		9.7	3.6	3.4	2.3	3.7	3.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		21.0		9.7	3.6	3.4	2.3	3.7	3.8
Queue Length 50th (m)		5.7		0.0	0.3	9.5	1.1	1.2	15.0
Queue Length 95th (m)		15.2		3.4	1.7	16.9	4.4	3.8	23.2
Internal Link Dist (m)		136.7		250.0		253.8			528.9
Turn Bay Length (m)					90.0		1.0	90.0	
Base Capacity (vph)		446		478	477	2615	1210	621	2636
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.19		0.07	0.03	0.22	0.06	0.07	0.32

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.6
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & St Andrews Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	2	31	12	0	9	10	500	65	34	663	14
Future Volume (vph)	44	2	31	12	0	9	10	500	65	34	663	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97			0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1712			1739		1805	3438	1580	1804	3463	
Flt Permitted		0.81			0.85		0.33	1.00	1.00	0.43	1.00	
Satd. Flow (perm)		1418			1524		627	3438	1580	817	3463	
Peak-hour factor, PHF	0.92	0.92	0.92	0.66	0.66	0.66	0.85	0.85	0.85	0.80	0.80	0.80
Adj. Flow (vph)	48	2	34	18	0	14	12	588	76	42	829	18
RTOR Reduction (vph)	0	30	0	0	29	0	0	0	10	0	1	0
Lane Group Flow (vph)	0	54	0	0	3	0	12	588	66	43	846	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	5%	0%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		6.6			6.6		45.0	45.0	45.0	45.0	45.0	
Effective Green, g (s)		6.6			6.6		45.0	45.0	45.0	45.0	45.0	
Actuated g/C Ratio		0.11			0.11		0.73	0.73	0.73	0.73	0.73	
Clearance Time (s)		5.0			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	3.0	
Lane Grp Cap (vph)		151			163		458	2511	1154	596	2529	
v/s Ratio Prot								0.17			c0.24	
v/s Ratio Perm		c0.04			0.00		0.02		0.04	0.05		
v/c Ratio		0.36			0.02		0.03	0.23	0.06	0.07	0.33	
Uniform Delay, d1		25.5			24.6		2.3	2.7	2.3	2.4	3.0	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.4			0.1		0.1	0.2	0.1	0.2	0.4	
Delay (s)		27.0			24.7		2.4	2.9	2.4	2.6	3.3	
Level of Service		C			C		A	A	A	A	A	
Approach Delay (s/veh)		27.0			24.7			2.9			3.3	
Approach LOS		C			C			A			A	

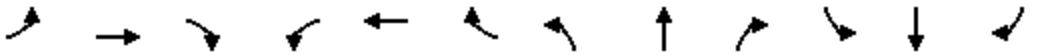
Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	61.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	130	17	121	36	388	715	115	62	669	88
Future Volume (vph)	130	17	121	36	388	715	115	62	669	88
Lane Group Flow (vph)	160	236	151	176	462	851	137	78	847	111
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	5	2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	7.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	26.0	9.5	26.0	10.5	40.0	40.0	40.0	40.0	40.0
Total Split (s)	9.6	26.0	9.6	26.0	31.0	74.4	74.4	43.4	43.4	43.4
Total Split (%)	8.7%	23.6%	8.7%	23.6%	28.2%	67.6%	67.6%	39.5%	39.5%	39.5%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	0.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	3.5	6.0	3.5	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max	Max
v/c Ratio	0.74	0.64	0.76	0.60	0.75	0.36	0.13	0.35	0.67	0.18
Control Delay (s/veh)	55.6	16.4	59.6	25.2	23.3	8.2	3.6	29.9	31.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.6	16.4	59.6	25.2	23.3	8.2	3.6	29.9	31.0	6.8
Queue Length 50th (m)	28.1	4.0	26.4	11.6	48.4	34.7	3.9	11.4	75.2	1.6
Queue Length 95th (m)	41.8	18.9	39.1	25.7	84.3	48.9	10.6	22.8	88.3	10.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	217	484	198	425	619	2374	1087	226	1257	616
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.49	0.76	0.41	0.75	0.36	0.13	0.35	0.67	0.18

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 101.5
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	17	174	121	36	105	388	715	115	62	669	88
Future Volume (vph)	130	17	174	121	36	105	388	715	115	62	669	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1582		1785	1688		1752	3574	1599	1805	3505	1542
Flt Permitted	0.43	1.00		0.35	1.00		0.18	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)	807	1582		659	1688		339	3574	1599	631	3505	1542
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	160	21	215	151	45	131	462	851	137	78	847	111
RTOR Reduction (vph)	0	191	0	0	103	0	0	0	25	0	0	63
Lane Group Flow (vph)	160	45	0	151	73	0	462	851	112	78	847	48
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	17.5	11.4		17.5	11.4		67.4	67.4	67.4	36.4	36.4	36.4
Effective Green, g (s)	17.5	11.4		17.5	11.4		67.4	67.4	67.4	36.4	36.4	36.4
Actuated g/C Ratio	0.17	0.11		0.17	0.11		0.66	0.66	0.66	0.36	0.36	0.36
Clearance Time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	197	177		181	189		608	2375	1062	226	1258	553
v/s Ratio Prot	0.05	0.03		c0.05	0.04		c0.21	0.24			0.24	
v/s Ratio Perm	0.09			c0.09			c0.30		0.07	0.12		0.03
v/c Ratio	0.81	0.26		0.83	0.39		0.76	0.36	0.11	0.35	0.67	0.09
Uniform Delay, d1	39.3	41.1		39.6	41.8		17.4	7.5	6.1	23.8	27.5	21.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	21.9	0.8		26.8	1.3		8.7	0.4	0.2	4.1	2.9	0.3
Delay (s)	61.2	41.9		66.4	43.1		26.1	7.9	6.3	27.9	30.4	21.8
Level of Service	E	D		E	D		C	A	A	C	C	C
Approach Delay (s/veh)		49.7			53.9			13.6			29.3	
Approach LOS		D			D			B			C	

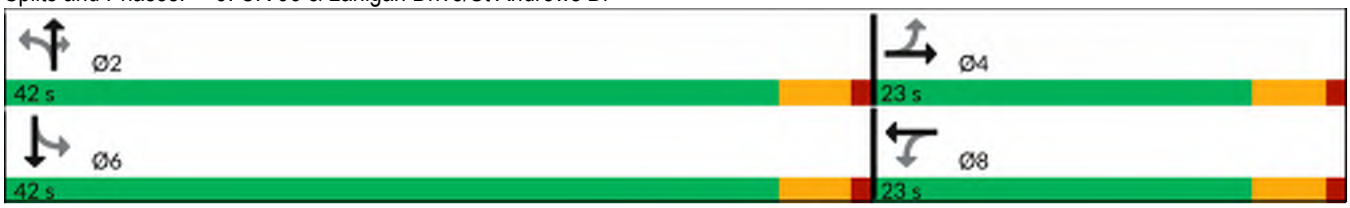
Intersection Summary			
HCM 2000 Control Delay (s/veh)	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	101.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

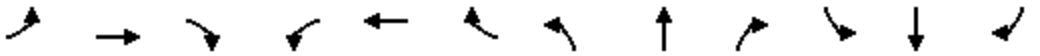
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	1	53	0	25	887	20	12	729
Future Volume (vph)	23	1	53	0	25	887	20	12	729
Lane Group Flow (vph)	0	43	0	119	26	924	21	14	910
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	8	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%	64.6%	64.6%	64.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max
v/c Ratio		0.18		0.51	0.06	0.35	0.02	0.04	0.35
Control Delay (s/veh)		15.7		24.9	4.4	4.4	1.8	4.4	4.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		15.7		24.9	4.4	4.4	1.8	4.4	4.3
Queue Length 50th (m)		2.6		9.1	0.7	17.6	0.0	0.4	17.0
Queue Length 95th (m)		9.3		12.9	3.6	34.4	1.8	2.2	30.2
Internal Link Dist (m)		136.7		250.0		253.8			528.9
Turn Bay Length (m)					90.0		1.0	90.0	
Base Capacity (vph)		460		431	426	2663	1100	335	2624
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.09		0.28	0.06	0.35	0.02	0.04	0.35

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.4
Natural Cycle: 45
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & Lanigan Drive/St Andrews Dr





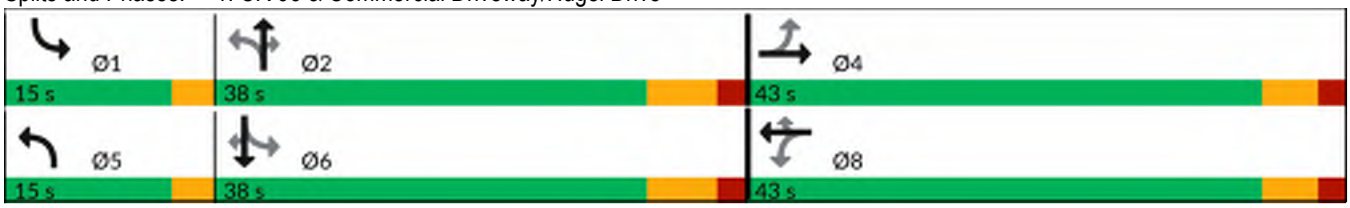
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	1	16	53	0	21	25	887	20	12	729	35
Future Volume (vph)	23	1	16	53	0	21	25	887	20	12	729	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	
Frt		0.95			0.96		1.00	1.00	0.85	1.00	0.99	
Flt Protected		0.97			0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1714			1691		1805	3574	1468	1444	3518	
Flt Permitted		0.83			0.76		0.30	1.00	1.00	0.30	1.00	
Satd. Flow (perm)		1457			1333		572	3574	1468	450	3518	
Peak-hour factor, PHF	0.92	0.92	0.92	0.62	0.62	0.62	0.96	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	25	1	17	85	0	34	26	924	21	14	868	42
RTOR Reduction (vph)	0	15	0	0	27	0	0	0	6	0	4	0
Lane Group Flow (vph)	0	28	0	0	92	0	26	924	15	14	906	0
Heavy Vehicles (%)	2%	2%	2%	6%	0%	0%	0%	1%	10%	25%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		8.2			8.2		44.0	44.0	44.0	44.0	44.0	
Effective Green, g (s)		8.2			8.2		44.0	44.0	44.0	44.0	44.0	
Actuated g/C Ratio		0.13			0.13		0.72	0.72	0.72	0.72	0.72	
Clearance Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		195			178		411	2569	1055	323	2529	
v/s Ratio Prot								c0.26			0.26	
v/s Ratio Perm		0.02			c0.07		0.05		0.01	0.03		
v/c Ratio		0.15			0.52		0.06	0.36	0.01	0.04	0.36	
Uniform Delay, d1		23.4			24.7		2.5	3.3	2.4	2.5	3.3	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			2.5		0.3	0.4	0.0	0.3	0.4	
Delay (s)		23.7			27.2		2.8	3.7	2.5	2.7	3.7	
Level of Service		C			C		A	A	A	A	A	
Approach Delay (s/veh)		23.7			27.2			3.6			3.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	14	14	189	29	218	2	584	202	256	700	29
Future Volume (vph)	14	14	189	29	218	2	584	202	256	700	29
Lane Group Flow (vph)	22	27	215	33	248	2	704	243	294	805	33
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.08	0.07	0.70	0.07	0.46	0.01	0.49	0.32	0.55	0.41	0.04
Control Delay (s/veh)	22.5	19.2	39.2	22.3	6.2	7.5	19.0	3.9	10.9	11.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.5	19.2	39.2	22.3	6.2	7.5	19.0	3.9	10.9	11.4	1.1
Queue Length 50th (m)	2.6	2.6	29.9	3.9	0.0	0.1	40.0	0.0	16.0	30.0	0.0
Queue Length 95th (m)	5.8	5.8	51.0	10.2	15.1	0.9	61.3	11.2	36.2	66.8	1.3
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	606	860	654	939	875	397	1437	771	555	1970	898
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.33	0.04	0.28	0.01	0.49	0.32	0.53	0.41	0.04

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 75.5
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	14	3	189	29	218	2	584	202	256	700	29
Future Volume (vph)	14	14	3	189	29	218	2	584	202	256	700	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1582	1737		1701	1900	1519	1203	3471	1520	1752	3438	1518
Flt Permitted	0.74	1.00		0.74	1.00	1.00	0.35	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)	1225	1737		1324	1900	1519	440	3471	1520	565	3438	1518
Peak-hour factor, PHF	0.65	0.65	0.65	0.88	0.88	0.88	0.83	0.83	0.83	0.87	0.87	0.87
Adj. Flow (vph)	22	22	5	215	33	248	2	704	243	294	805	33
RTOR Reduction (vph)	0	4	0	0	0	192	0	0	138	0	0	15
Lane Group Flow (vph)	22	23	0	215	33	56	2	704	105	294	805	18
Confl. Peds. (#/hr)	1		2	2		1	2		1	1		2
Heavy Vehicles (%)	14%	0%	33%	6%	0%	5%	50%	4%	4%	3%	5%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	17.6	17.6		17.6	17.6	17.6	34.8	33.8	33.8	47.3	43.3	43.3
Effective Green, g (s)	17.6	17.6		17.6	17.6	17.6	34.8	33.8	33.8	47.3	43.3	43.3
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.23	0.45	0.43	0.43	0.61	0.56	0.56
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	276	392		299	429	343	206	1506	659	503	1910	843
v/s Ratio Prot		0.01			0.02		0.00	0.20		c0.08	0.23	
v/s Ratio Perm	0.02			c0.16		0.04	0.00		0.07	c0.28		0.01
v/c Ratio	0.08	0.06		0.72	0.08	0.16	0.01	0.47	0.16	0.58	0.42	0.02
Uniform Delay, d1	23.8	23.7		27.9	23.8	24.2	11.9	15.7	13.4	7.8	10.0	7.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		8.0	0.1	0.2	0.0	1.0	0.5	1.7	0.7	0.0
Delay (s)	23.9	23.7		35.9	23.8	24.5	12.0	16.7	13.9	9.6	10.7	7.8
Level of Service	C	C		D	C	C	B	B	B	A	B	A
Approach Delay (s/veh)		23.8			29.4			16.0			10.3	
Approach LOS		C			C			B			B	

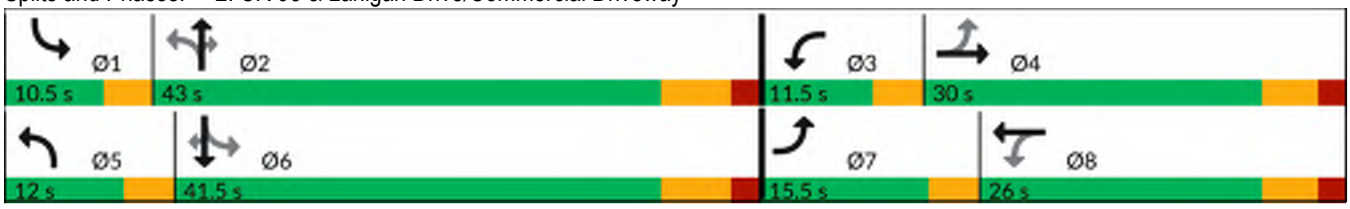
Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	77.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	42	12	72	12	165	528	52	59	675	46
Future Volume (vph)	42	12	72	12	165	528	52	59	675	46
Lane Group Flow (vph)	56	388	111	76	174	556	55	79	900	61
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	5.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	9.5	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.5	30.0	11.5	26.0	12.0	43.0	43.0	10.5	41.5	41.5
Total Split (%)	16.3%	31.6%	12.1%	27.4%	12.6%	45.3%	45.3%	11.1%	43.7%	43.7%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	3.5	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.13	0.85	0.44	0.19	0.51	0.35	0.07	0.15	0.62	0.08
Control Delay (s/veh)	19.5	30.6	25.4	12.9	15.3	18.5	0.2	10.7	23.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.5	30.6	25.4	12.9	15.3	18.5	0.2	10.7	23.8	0.2
Queue Length 50th (m)	6.6	24.5	13.4	2.6	13.3	34.8	0.0	5.7	65.6	0.0
Queue Length 95th (m)	11.9	36.8	17.5	7.5	28.6	56.0	0.0	11.9	77.5	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	480	568	257	455	352	1570	806	525	1450	727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.68	0.43	0.17	0.49	0.35	0.07	0.15	0.62	0.08

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 84.8
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	12	279	72	12	38	165	528	52	59	675	46
Future Volume (vph)	42	12	279	72	12	38	165	528	52	59	675	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1734	1376		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.71	1.00		0.22	1.00		0.20	1.00	1.00	0.44	1.00	1.00
Satd. Flow (perm)	1292	1376		418	1628		371	3438	1581	826	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	56	16	372	111	18	58	174	556	55	79	900	61
RTOR Reduction (vph)	0	197	0	0	46	0	0	0	30	0	0	36
Lane Group Flow (vph)	56	191	0	111	30	0	174	556	25	79	900	25
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	21.3	16.7		24.3	18.2		46.9	38.8	38.8	41.5	36.1	36.1
Effective Green, g (s)	21.3	16.7		24.3	18.2		46.9	38.8	38.8	41.5	36.1	36.1
Actuated g/C Ratio	0.24	0.19		0.28	0.21		0.54	0.45	0.45	0.48	0.41	0.41
Clearance Time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	339	264		214	340		327	1533	705	452	1454	638
v/s Ratio Prot	0.01	c0.14		c0.04	0.02		c0.05	0.16		0.01	c0.26	
v/s Ratio Perm	0.03			0.11			0.24		0.02	0.07		0.02
v/c Ratio	0.17	0.72		0.52	0.09		0.53	0.36	0.03	0.17	0.62	0.04
Uniform Delay, d1	25.6	33.0		25.3	27.7		11.9	15.9	13.6	12.5	20.0	15.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	9.4		2.1	0.1		1.7	0.7	0.1	0.2	2.0	0.1
Delay (s)	25.9	42.4		27.4	27.8		13.5	16.6	13.7	12.6	22.0	15.3
Level of Service	C	D		C	C		B	B	B	B	C	B
Approach Delay (s/veh)		40.3			27.6			15.7			20.9	
Approach LOS		D			C			B			C	

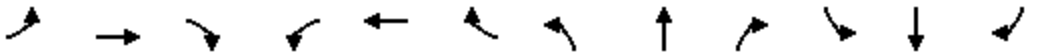
Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	87.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	44	2	12	0	10	549	65	34	731
Future Volume (vph)	44	2	12	0	10	549	65	34	731
Lane Group Flow (vph)	0	84	0	32	12	646	76	43	932
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	8	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	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	23.0	23.0	23.0
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%	64.6%	64.6%	64.6%
Yellow Time (s)	3.0	3.0	3.0	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	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max
v/c Ratio		0.40		0.14	0.03	0.25	0.06	0.07	0.35
Control Delay (s/veh)		21.0		9.7	3.7	3.5	2.4	3.8	4.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		21.0		9.7	3.7	3.5	2.4	3.8	4.0
Queue Length 50th (m)		5.7		0.0	0.3	10.6	1.1	1.2	17.1
Queue Length 95th (m)		15.2		3.4	1.7	18.6	4.5	3.8	26.0
Internal Link Dist (m)		136.7		250.0		253.8			528.9
Turn Bay Length (m)					90.0		1.0	90.0	
Base Capacity (vph)		446		478	430	2615	1210	586	2635
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.19		0.07	0.03	0.25	0.06	0.07	0.35

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.6
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & St Andrews Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	2	31	12	0	9	10	549	65	34	731	14
Future Volume (vph)	44	2	31	12	0	9	10	549	65	34	731	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97			0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1712			1739		1805	3438	1580	1804	3464	
Flt Permitted		0.81			0.85		0.30	1.00	1.00	0.41	1.00	
Satd. Flow (perm)		1418			1524		567	3438	1580	772	3464	
Peak-hour factor, PHF	0.92	0.92	0.92	0.66	0.66	0.66	0.85	0.85	0.85	0.80	0.80	0.80
Adj. Flow (vph)	48	2	34	18	0	14	12	646	76	42	914	18
RTOR Reduction (vph)	0	30	0	0	29	0	0	0	9	0	1	0
Lane Group Flow (vph)	0	54	0	0	3	0	12	646	67	43	931	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	5%	0%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		6.6			6.6		45.0	45.0	45.0	45.0	45.0	
Effective Green, g (s)		6.6			6.6		45.0	45.0	45.0	45.0	45.0	
Actuated g/C Ratio		0.11			0.11		0.73	0.73	0.73	0.73	0.73	
Clearance Time (s)		5.0			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	3.0	
Lane Grp Cap (vph)		151			163		414	2511	1154	563	2530	
v/s Ratio Prot								0.19			c0.27	
v/s Ratio Perm		c0.04			0.00		0.02		0.04	0.06		
v/c Ratio		0.36			0.02		0.03	0.26	0.06	0.08	0.37	
Uniform Delay, d1		25.5			24.6		2.3	2.8	2.3	2.4	3.1	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.4			0.1		0.1	0.2	0.1	0.3	0.4	
Delay (s)		27.0			24.7		2.4	3.0	2.4	2.6	3.5	
Level of Service		C			C		A	A	A	A	A	
Approach Delay (s/veh)		27.0			24.7			2.9			3.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	61.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

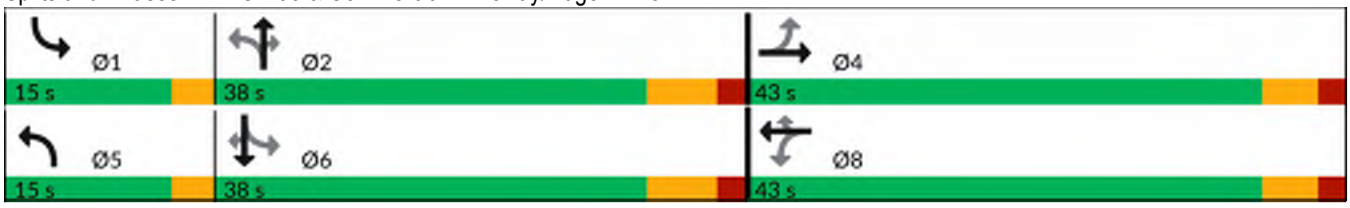
c Critical Lane Group

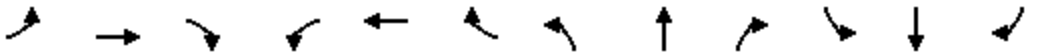
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	105	91	258	116	348	6	866	237	259	806	120
Future Volume (vph)	105	91	258	116	348	6	866	237	259	806	120
Lane Group Flow (vph)	114	138	280	126	378	7	941	258	282	876	130
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.31	0.26	0.78	0.23	0.55	0.02	0.71	0.35	0.71	0.46	0.15
Control Delay (s/veh)	24.6	18.9	41.8	22.6	7.8	10.3	27.5	5.2	22.8	15.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.6	18.9	41.8	22.6	7.8	10.3	27.5	5.2	22.8	15.4	6.8
Queue Length 50th (m)	14.8	14.3	42.6	15.9	7.2	0.4	69.5	1.4	20.4	42.6	3.3
Queue Length 95th (m)	28.0	27.5	70.5	28.6	28.3	2.8	113.7	19.1	#67.8	93.8	17.7
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	563	812	557	833	884	512	1326	746	404	1887	883
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.17	0.50	0.15	0.43	0.01	0.71	0.35	0.70	0.46	0.15

Intersection Summary

Cycle Length: 96
Actuated Cycle Length: 83.6
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	91	36	258	116	348	6	866	237	259	806	120
Future Volume (vph)	105	91	36	258	116	348	6	866	237	259	806	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1784		1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.68	1.00		0.67	1.00	1.00	0.32	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)	1260	1784		1246	1863	1583	604	3539	1583	324	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	99	39	280	126	378	7	941	258	282	876	130
RTOR Reduction (vph)	0	17	0	0	0	229	0	0	148	0	0	40
Lane Group Flow (vph)	114	121	0	280	126	149	7	941	110	282	876	90
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	24.3	24.3		24.3	24.3	24.3	35.0	33.9	33.9	48.7	44.6	44.6
Effective Green, g (s)	24.3	24.3		24.3	24.3	24.3	35.0	33.9	33.9	48.7	44.6	44.6
Actuated g/C Ratio	0.28	0.28		0.28	0.28	0.28	0.41	0.39	0.39	0.57	0.52	0.52
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	356	504		352	526	447	260	1395	623	381	1835	820
v/s Ratio Prot		0.07			0.07		0.00	0.27		c0.10	0.25	
v/s Ratio Perm	0.09			c0.22		0.09	0.01		0.07	c0.32		0.06
v/c Ratio	0.32	0.24		0.80	0.24	0.33	0.03	0.67	0.18	0.74	0.48	0.11
Uniform Delay, d1	24.3	23.7		28.6	23.7	24.4	15.2	21.5	17.0	12.5	13.2	10.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2		11.7	0.2	0.4	0.0	2.6	0.6	7.5	0.9	0.3
Delay (s)	24.9	24.0		40.3	24.0	24.9	15.2	24.1	17.6	20.0	14.1	10.8
Level of Service	C	C		D	C	C	B	C	B	C	B	B
Approach Delay (s/veh)		24.4			30.2			22.7			15.1	
Approach LOS		C			C			C			B	

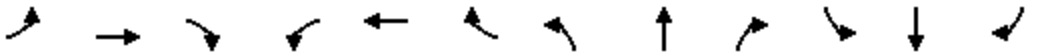
Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	130	17	121	36	388	786	115	62	736	88
Future Volume (vph)	130	17	121	36	388	786	115	62	736	88
Lane Group Flow (vph)	160	236	151	176	462	936	137	78	932	111
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	5	2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	7.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	26.0	9.5	26.0	10.5	40.0	40.0	40.0	40.0	40.0
Total Split (s)	9.6	26.0	9.6	26.0	31.0	74.4	74.4	43.4	43.4	43.4
Total Split (%)	8.7%	23.6%	8.7%	23.6%	28.2%	67.6%	67.6%	39.5%	39.5%	39.5%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	0.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	3.5	6.0	3.5	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max	Max
v/c Ratio	0.74	0.64	0.76	0.60	0.78	0.39	0.13	0.38	0.74	0.18
Control Delay (s/veh)	55.6	16.4	59.6	25.2	29.5	8.5	3.8	31.4	33.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.6	16.4	59.6	25.2	29.5	8.5	3.8	31.4	33.0	6.8
Queue Length 50th (m)	28.1	4.0	26.4	11.6	57.6	39.4	4.3	11.5	85.5	1.6
Queue Length 95th (m)	41.8	18.9	39.1	25.7	94.3	54.8	11.1	23.4	99.0	10.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	217	484	198	425	590	2374	1085	208	1257	616
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.49	0.76	0.41	0.78	0.39	0.13	0.38	0.74	0.18

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 101.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	17	174	121	36	105	388	786	115	62	736	88
Future Volume (vph)	130	17	174	121	36	105	388	786	115	62	736	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1582		1785	1688		1752	3574	1599	1805	3505	1542
Flt Permitted	0.43	1.00		0.35	1.00		0.15	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)	807	1582		659	1688		270	3574	1599	580	3505	1542
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	160	21	215	151	45	131	462	936	137	78	932	111
RTOR Reduction (vph)	0	191	0	0	103	0	0	0	23	0	0	63
Lane Group Flow (vph)	160	45	0	151	73	0	462	936	114	78	932	48
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	17.5	11.4		17.5	11.4		67.4	67.4	67.4	36.4	36.4	36.4
Effective Green, g (s)	17.5	11.4		17.5	11.4		67.4	67.4	67.4	36.4	36.4	36.4
Actuated g/C Ratio	0.17	0.11		0.17	0.11		0.66	0.66	0.66	0.36	0.36	0.36
Clearance Time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	197	177		181	189		581	2375	1062	208	1258	553
v/s Ratio Prot	0.05	0.03		c0.05	0.04		c0.22	0.26			0.27	
v/s Ratio Perm	0.09			c0.09			c0.31		0.07	0.13		0.03
v/c Ratio	0.81	0.26		0.83	0.39		0.80	0.39	0.11	0.38	0.74	0.09
Uniform Delay, d1	39.3	41.1		39.6	41.8		21.4	7.7	6.1	24.1	28.4	21.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	21.9	0.8		26.8	1.3		10.8	0.5	0.2	5.1	4.0	0.3
Delay (s)	61.2	41.9		66.4	43.1		32.2	8.2	6.3	29.2	32.3	21.8
Level of Service	E	D		E	D		C	A	A	C	C	C
Approach Delay (s/veh)		49.7			53.9			15.3			31.1	
Approach LOS		D			D			B			C	

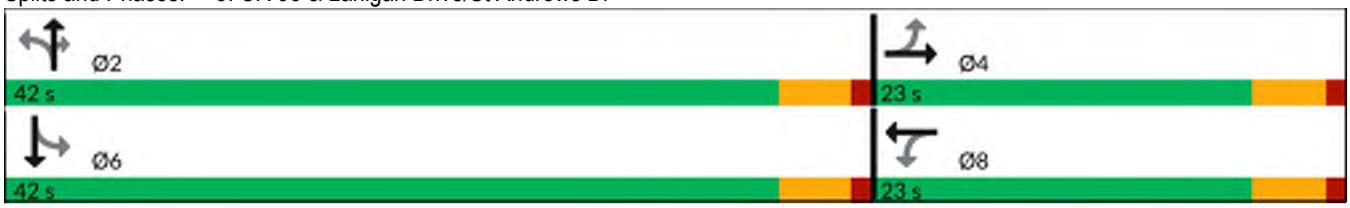
Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	101.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

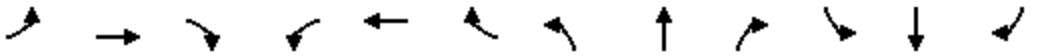
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	1	53	0	25	978	20	12	802
Future Volume (vph)	23	1	53	0	25	978	20	12	802
Lane Group Flow (vph)	0	43	0	119	26	1019	21	14	997
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	8	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%	64.6%	64.6%	64.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max
v/c Ratio		0.18		0.51	0.07	0.38	0.02	0.05	0.38
Control Delay (s/veh)		15.7		24.9	4.5	4.6	1.8	4.5	4.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		15.7		24.9	4.5	4.6	1.8	4.5	4.5
Queue Length 50th (m)		2.6		9.1	0.7	20.2	0.0	0.4	19.4
Queue Length 95th (m)		9.3		12.9	3.6	39.2	1.8	2.2	34.1
Internal Link Dist (m)		136.7		250.0		253.8			528.9
Turn Bay Length (m)					90.0		1.0	90.0	
Base Capacity (vph)		460		431	383	2663	1100	298	2626
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.09		0.28	0.07	0.38	0.02	0.05	0.38

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.4
Natural Cycle: 45
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & Lanigan Drive/St Andrews Dr





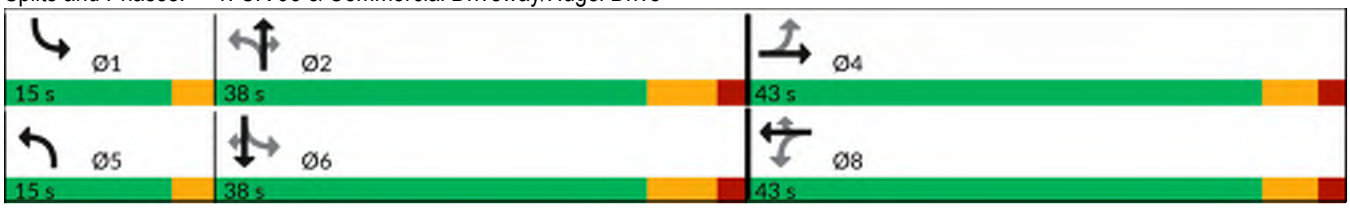
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	1	16	53	0	21	25	978	20	12	802	35
Future Volume (vph)	23	1	16	53	0	21	25	978	20	12	802	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	
Frt		0.95			0.96		1.00	1.00	0.85	1.00	0.99	
Flt Protected		0.97			0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1714			1691		1805	3574	1468	1444	3520	
Flt Permitted		0.83			0.76		0.27	1.00	1.00	0.26	1.00	
Satd. Flow (perm)		1457			1333		514	3574	1468	400	3520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.62	0.62	0.62	0.96	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	25	1	17	85	0	34	26	1019	21	14	955	42
RTOR Reduction (vph)	0	15	0	0	27	0	0	0	6	0	3	0
Lane Group Flow (vph)	0	28	0	0	92	0	26	1019	15	14	994	0
Heavy Vehicles (%)	2%	2%	2%	6%	0%	0%	0%	1%	10%	25%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		8.2			8.2		44.0	44.0	44.0	44.0	44.0	
Effective Green, g (s)		8.2			8.2		44.0	44.0	44.0	44.0	44.0	
Actuated g/C Ratio		0.13			0.13		0.72	0.72	0.72	0.72	0.72	
Clearance Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		195			178		369	2569	1055	287	2530	
v/s Ratio Prot								c0.29			0.28	
v/s Ratio Perm		0.02			c0.07		0.05		0.01	0.03		
v/c Ratio		0.15			0.52		0.07	0.40	0.01	0.05	0.39	
Uniform Delay, d1		23.4			24.7		2.5	3.4	2.4	2.5	3.4	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			2.5		0.4	0.5	0.0	0.3	0.5	
Delay (s)		23.7			27.2		2.9	3.8	2.5	2.8	3.8	
Level of Service		C			C		A	A	A	A	A	
Approach Delay (s/veh)		23.7			27.2			3.8			3.8	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	14	14	198	30	228	2	636	211	256	750	29
Future Volume (vph)	14	14	198	30	228	2	636	211	256	750	29
Lane Group Flow (vph)	22	27	225	34	259	2	766	254	294	862	33
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.08	0.06	0.71	0.08	0.46	0.01	0.54	0.33	0.59	0.44	0.04
Control Delay (s/veh)	22.4	19.0	39.8	22.1	6.1	7.5	20.2	4.0	12.1	12.1	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.4	19.0	39.8	22.1	6.1	7.5	20.2	4.0	12.1	12.1	1.0
Queue Length 50th (m)	2.6	2.6	31.9	4.1	0.0	0.1	45.8	0.0	16.5	33.6	0.0
Queue Length 95th (m)	5.8	5.8	53.5	10.4	15.2	1.0	68.8	11.5	37.3	74.5	1.4
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	597	849	646	927	873	381	1418	770	521	1958	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.35	0.04	0.30	0.01	0.54	0.33	0.56	0.44	0.04

Intersection Summary
Cycle Length: 96
Actuated Cycle Length: 76.5
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	14	3	198	30	228	2	636	211	256	750	29
Future Volume (vph)	14	14	3	198	30	228	2	636	211	256	750	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1582	1737		1701	1900	1519	1203	3471	1520	1752	3438	1518
Flt Permitted	0.73	1.00		0.74	1.00	1.00	0.33	1.00	1.00	0.27	1.00	1.00
Satd. Flow (perm)	1224	1737		1324	1900	1519	416	3471	1520	504	3438	1518
Peak-hour factor, PHF	0.65	0.65	0.65	0.88	0.88	0.88	0.83	0.83	0.83	0.87	0.87	0.87
Adj. Flow (vph)	22	22	5	225	34	259	2	766	254	294	862	33
RTOR Reduction (vph)	0	4	0	0	0	199	0	0	145	0	0	15
Lane Group Flow (vph)	22	23	0	225	34	60	2	766	109	294	862	18
Confl. Peds. (#/hr)	1		2	2		1	2		1	1		2
Heavy Vehicles (%)	14%	0%	33%	6%	0%	5%	50%	4%	4%	3%	5%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	18.2	18.2		18.2	18.2	18.2	34.8	33.8	33.8	47.6	43.6	43.6
Effective Green, g (s)	18.2	18.2		18.2	18.2	18.2	34.8	33.8	33.8	47.6	43.6	43.6
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.23	0.44	0.43	0.43	0.60	0.55	0.55
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	282	401		305	438	350	193	1488	651	475	1902	839
v/s Ratio Prot		0.01			0.02		0.00	0.22		c0.08	0.25	
v/s Ratio Perm	0.02			c0.17		0.04	0.00		0.07	c0.29		0.01
v/c Ratio	0.08	0.06		0.74	0.08	0.17	0.01	0.51	0.17	0.62	0.45	0.02
Uniform Delay, d1	23.7	23.6		28.1	23.7	24.3	12.3	16.5	13.8	8.3	10.5	8.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		9.0	0.1	0.2	0.0	1.3	0.6	2.4	0.8	0.0
Delay (s)	23.8	23.7		37.1	23.8	24.5	12.3	17.8	14.4	10.7	11.3	8.0
Level of Service	C	C		D	C	C	B	B	B	B	B	A
Approach Delay (s/veh)		23.8			29.9			16.9			11.1	
Approach LOS		C			C			B			B	

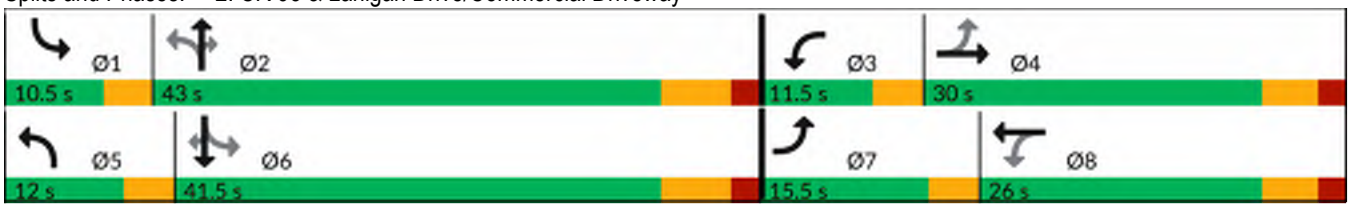
Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	78.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	42	12	72	12	165	581	52	59	741	46
Future Volume (vph)	42	12	72	12	165	581	52	59	741	46
Lane Group Flow (vph)	56	388	111	76	174	612	55	79	988	61
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	7.0	10.0	5.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	14.0	26.0	9.5	26.0	10.5	40.0	40.0	10.5	40.0	40.0
Total Split (s)	15.5	30.0	11.5	26.0	12.0	43.0	43.0	10.5	41.5	41.5
Total Split (%)	16.3%	31.6%	12.1%	27.4%	12.6%	45.3%	45.3%	11.1%	43.7%	43.7%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	3.5	6.0	3.5	7.0	7.0	3.5	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.13	0.85	0.45	0.19	0.56	0.39	0.07	0.16	0.69	0.08
Control Delay (s/veh)	19.4	31.9	25.3	12.8	17.5	19.2	0.2	10.9	25.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.4	31.9	25.3	12.8	17.5	19.2	0.2	10.9	25.5	0.2
Queue Length 50th (m)	6.6	26.4	13.4	2.6	13.6	39.6	0.0	5.8	75.8	0.0
Queue Length 95th (m)	11.9	38.9	17.5	7.5	28.6	62.3	0.0	11.9	86.7	0.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	484	560	255	458	316	1563	803	494	1439	722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.69	0.44	0.17	0.55	0.39	0.07	0.16	0.69	0.08

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 85.3
Natural Cycle: 95
Control Type: Semi Act-Uncoord

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	12	279	72	12	38	165	581	52	59	741	46
Future Volume (vph)	42	12	279	72	12	38	165	581	52	59	741	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1734	1376		1805	1628		1736	3438	1581	1769	3505	1538
Flt Permitted	0.71	1.00		0.21	1.00		0.16	1.00	1.00	0.41	1.00	1.00
Satd. Flow (perm)	1292	1376		406	1628		300	3438	1581	767	3505	1538
Peak-hour factor, PHF	0.75	0.75	0.75	0.65	0.65	0.65	0.95	0.95	0.95	0.75	0.75	0.75
Adj. Flow (vph)	56	16	372	111	18	58	174	612	55	79	988	61
RTOR Reduction (vph)	0	189	0	0	46	0	0	0	31	0	0	36
Lane Group Flow (vph)	56	199	0	111	30	0	174	612	24	79	988	25
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	4%	0%	19%	0%	0%	3%	4%	5%	0%	2%	3%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	21.8	17.2		24.8	18.7		47.0	38.8	38.8	41.2	35.9	35.9
Effective Green, g (s)	21.8	17.2		24.8	18.7		47.0	38.8	38.8	41.2	35.9	35.9
Actuated g/C Ratio	0.25	0.20		0.28	0.21		0.54	0.44	0.44	0.47	0.41	0.41
Clearance Time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	3.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	345	270		212	348		296	1526	701	422	1439	631
v/s Ratio Prot	0.01	c0.14		c0.04	0.02		c0.06	0.18		0.01	c0.28	
v/s Ratio Perm	0.03			0.11			0.26		0.02	0.08		0.02
v/c Ratio	0.16	0.74		0.52	0.09		0.59	0.40	0.03	0.19	0.69	0.04
Uniform Delay, d1	25.4	33.0		25.2	27.5		12.8	16.4	13.7	12.8	21.1	15.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	10.1		2.3	0.1		3.0	0.8	0.1	0.2	2.7	0.1
Delay (s)	25.7	43.0		27.5	27.6		15.8	17.2	13.8	13.0	23.8	15.5
Level of Service	C	D		C	C		B	B	B	B	C	B
Approach Delay (s/veh)		40.9			27.6			16.7			22.6	
Approach LOS		D			C			B			C	

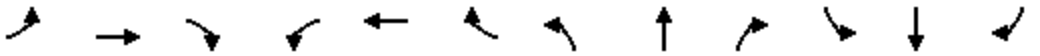
Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	87.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	44	2	12	0	10	602	65	34	806
Future Volume (vph)	44	2	12	0	10	602	65	34	806
Lane Group Flow (vph)	0	84	0	32	12	708	76	43	1026
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	8	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	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	23.0	23.0	23.0
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%	64.6%	64.6%	64.6%
Yellow Time (s)	3.0	3.0	3.0	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	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max
v/c Ratio		0.40		0.14	0.03	0.27	0.06	0.08	0.39
Control Delay (s/veh)		21.0		9.7	3.7	3.6	2.4	3.8	4.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		21.0		9.7	3.7	3.6	2.4	3.8	4.2
Queue Length 50th (m)		5.7		0.0	0.3	12.0	1.1	1.2	19.5
Queue Length 95th (m)		15.2		3.4	1.7	20.6	4.5	3.9	29.5
Internal Link Dist (m)		136.7		250.0		253.8			528.9
Turn Bay Length (m)					90.0		1.0	90.0	
Base Capacity (vph)		446		478	384	2615	1210	551	2635
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.19		0.07	0.03	0.27	0.06	0.08	0.39

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.6
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & St Andrews Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	2	31	12	0	9	10	602	65	34	806	14
Future Volume (vph)	44	2	31	12	0	9	10	602	65	34	806	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97			0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1712			1739		1805	3438	1580	1804	3464	
Flt Permitted		0.81			0.85		0.27	1.00	1.00	0.38	1.00	
Satd. Flow (perm)		1418			1524		506	3438	1580	726	3464	
Peak-hour factor, PHF	0.92	0.92	0.92	0.66	0.66	0.66	0.85	0.85	0.85	0.80	0.80	0.80
Adj. Flow (vph)	48	2	34	18	0	14	12	708	76	42	1008	18
RTOR Reduction (vph)	0	30	0	0	29	0	0	0	9	0	1	0
Lane Group Flow (vph)	0	54	0	0	3	0	12	708	67	43	1025	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	5%	0%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		6.6			6.6		45.0	45.0	45.0	45.0	45.0	
Effective Green, g (s)		6.6			6.6		45.0	45.0	45.0	45.0	45.0	
Actuated g/C Ratio		0.11			0.11		0.73	0.73	0.73	0.73	0.73	
Clearance Time (s)		5.0			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	3.0	
Lane Grp Cap (vph)		151			163		369	2511	1154	530	2530	
v/s Ratio Prot								0.21			c0.30	
v/s Ratio Perm		c0.04			0.00		0.02		0.04	0.06		
v/c Ratio		0.36			0.02		0.03	0.28	0.06	0.08	0.41	
Uniform Delay, d1		25.5			24.6		2.3	2.8	2.3	2.4	3.2	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.4			0.1		0.2	0.3	0.1	0.3	0.5	
Delay (s)		27.0			24.7		2.5	3.1	2.4	2.7	3.7	
Level of Service		C			C		A	A	A	A	A	
Approach Delay (s/veh)		27.0			24.7			3.0			3.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	61.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

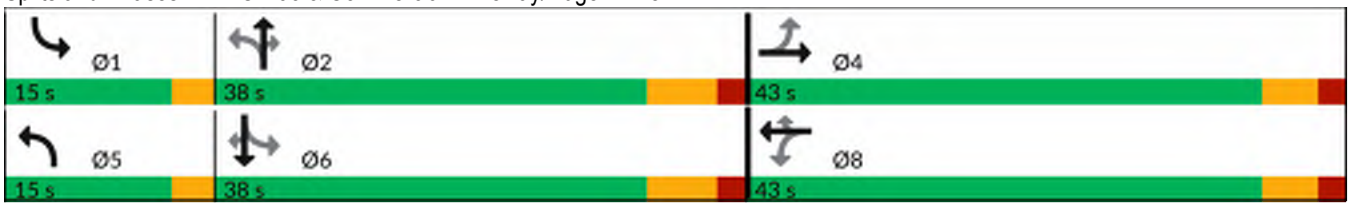
c Critical Lane Group

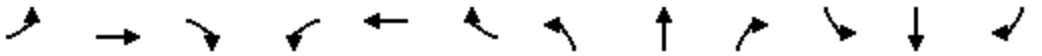
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	105	91	270	122	362	6	936	248	259	877	120
Future Volume (vph)	105	91	270	122	362	6	936	248	259	877	120
Lane Group Flow (vph)	114	138	293	133	393	7	1017	270	282	953	130
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	43.0	43.0	43.0	43.0	43.0	8.0	38.0	38.0	8.0	38.0	38.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	15.0	38.0	38.0	15.0	38.0	38.0
Total Split (%)	44.8%	44.8%	44.8%	44.8%	44.8%	15.6%	39.6%	39.6%	15.6%	39.6%	39.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
v/c Ratio	0.31	0.25	0.79	0.24	0.57	0.02	0.78	0.37	0.77	0.51	0.15
Control Delay (s/veh)	24.3	18.7	42.9	22.6	8.6	10.5	30.1	6.2	30.3	16.4	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.3	18.7	42.9	22.6	8.6	10.5	30.1	6.2	30.3	16.4	7.5
Queue Length 50th (m)	14.8	14.3	45.2	16.9	9.7	0.4	79.1	3.5	23.1	49.4	4.0
Queue Length 95th (m)	28.1	27.5	74.3	30.0	32.7	2.8	#136.2	22.6	#78.1	104.4	18.7
Internal Link Dist (m)		60.9		306.9			615.6			202.1	
Turn Bay Length (m)			1.0		55.0	35.0		60.0	55.0		35.0
Base Capacity (vph)	554	803	551	825	876	488	1312	737	373	1868	872
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.17	0.53	0.16	0.45	0.01	0.78	0.37	0.76	0.51	0.15

Intersection Summary

Cycle Length: 96
Actuated Cycle Length: 84.4
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: CR 93 & Commercial Driveway/Hugel Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	91	36	270	122	362	6	936	248	259	877	120
Future Volume (vph)	105	91	36	270	122	362	6	936	248	259	877	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1784		1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.67	1.00		0.67	1.00	1.00	0.30	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)	1252	1784		1246	1863	1583	559	3539	1583	263	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	99	39	293	133	393	7	1017	270	282	953	130
RTOR Reduction (vph)	0	17	0	0	0	224	0	0	145	0	0	37
Lane Group Flow (vph)	114	121	0	293	133	169	7	1017	125	282	953	93
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	25.1	25.1		25.1	25.1	25.1	35.0	33.9	33.9	48.7	44.6	44.6
Effective Green, g (s)	25.1	25.1		25.1	25.1	25.1	35.0	33.9	33.9	48.7	44.6	44.6
Actuated g/C Ratio	0.29	0.29		0.29	0.29	0.29	0.40	0.39	0.39	0.56	0.51	0.51
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	3.0	7.0	7.0	3.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	362	515		360	538	457	240	1382	618	352	1818	813
v/s Ratio Prot		0.07			0.07		0.00	0.29		c0.11	0.27	
v/s Ratio Perm	0.09			c0.24		0.11	0.01		0.08	c0.34		0.06
v/c Ratio	0.31	0.23		0.81	0.25	0.37	0.03	0.74	0.20	0.80	0.52	0.11
Uniform Delay, d1	24.1	23.5		28.7	23.6	24.6	15.5	22.6	17.5	15.4	14.0	10.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2		13.2	0.2	0.5	0.0	3.5	0.7	12.3	1.1	0.3
Delay (s)	24.6	23.8		41.8	23.9	25.1	15.6	26.1	18.2	27.7	15.1	11.2
Level of Service	C	C		D	C	C	B	C	B	C	B	B
Approach Delay (s/veh)		24.2			30.9			24.4			17.3	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	86.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

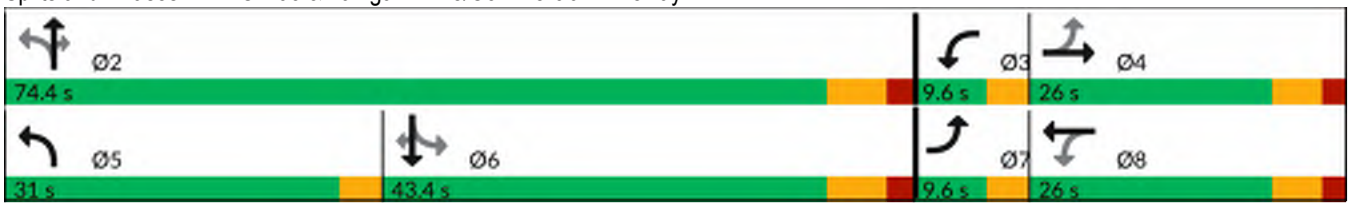
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	130	17	121	36	388	864	115	62	810	88
Future Volume (vph)	130	17	121	36	388	864	115	62	810	88
Lane Group Flow (vph)	160	236	151	176	462	1029	137	78	1025	111
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	5	2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	7.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	26.0	9.5	26.0	10.5	40.0	40.0	40.0	40.0	40.0
Total Split (s)	9.6	26.0	9.6	26.0	31.0	74.4	74.4	43.4	43.4	43.4
Total Split (%)	8.7%	23.6%	8.7%	23.6%	28.2%	67.6%	67.6%	39.5%	39.5%	39.5%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	0.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	3.5	6.0	3.5	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max	Max
v/c Ratio	0.74	0.64	0.76	0.60	0.82	0.43	0.13	0.41	0.82	0.18
Control Delay (s/veh)	55.6	16.4	59.6	25.2	36.9	8.9	3.9	33.5	36.2	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.6	16.4	59.6	25.2	36.9	8.9	3.9	33.5	36.2	6.8
Queue Length 50th (m)	28.1	4.0	26.4	11.6	66.5	44.9	4.6	11.7	97.6	1.6
Queue Length 95th (m)	41.8	18.9	39.1	25.7	#112.8	61.9	11.5	24.0	111.4	10.0
Internal Link Dist (m)		188.8		217.7		202.1			253.8	
Turn Bay Length (m)					55.0		15.0	60.0		25.0
Base Capacity (vph)	217	484	198	425	561	2374	1083	189	1257	616
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.49	0.76	0.41	0.82	0.43	0.13	0.41	0.82	0.18

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 101.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: CR 93 & Lanigan Drive/Commercial Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	17	174	121	36	105	388	864	115	62	810	88
Future Volume (vph)	130	17	174	121	36	105	388	864	115	62	810	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1582		1785	1688		1752	3574	1599	1805	3505	1542
Flt Permitted	0.43	1.00		0.35	1.00		0.11	1.00	1.00	0.28	1.00	1.00
Satd. Flow (perm)	807	1582		659	1688		201	3574	1599	529	3505	1542
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.84	0.84	0.84	0.79	0.79	0.79
Adj. Flow (vph)	160	21	215	151	45	131	462	1029	137	78	1025	111
RTOR Reduction (vph)	0	191	0	0	103	0	0	0	21	0	0	63
Lane Group Flow (vph)	160	45	0	151	73	0	462	1029	116	78	1025	48
Confl. Peds. (#/hr)			4	4			4					4
Heavy Vehicles (%)	2%	2%	2%	1%	0%	0%	3%	1%	1%	0%	3%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	17.5	11.4		17.5	11.4		67.4	67.4	67.4	36.4	36.4	36.4
Effective Green, g (s)	17.5	11.4		17.5	11.4		67.4	67.4	67.4	36.4	36.4	36.4
Actuated g/C Ratio	0.17	0.11		0.17	0.11		0.66	0.66	0.66	0.36	0.36	0.36
Clearance Time (s)	3.5	6.0		3.5	6.0		3.5	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	3.0	3.0
Lane Grp Cap (vph)	197	177		181	189		554	2375	1062	189	1258	553
v/s Ratio Prot	0.05	0.03		c0.05	0.04		c0.23	0.29			0.29	
v/s Ratio Perm	0.09			c0.09			c0.33		0.07	0.15		0.03
v/c Ratio	0.81	0.26		0.83	0.39		0.83	0.43	0.11	0.41	0.81	0.09
Uniform Delay, d1	39.3	41.1		39.6	41.8		25.4	8.0	6.1	24.5	29.4	21.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	21.9	0.8		26.8	1.3		13.8	0.6	0.2	6.5	5.9	0.3
Delay (s)	61.2	41.9		66.4	43.1		39.2	8.6	6.4	31.0	35.3	21.8
Level of Service	E	D		E	D		D	A	A	C	D	C
Approach Delay (s/veh)		49.7			53.9			17.1			33.8	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	101.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

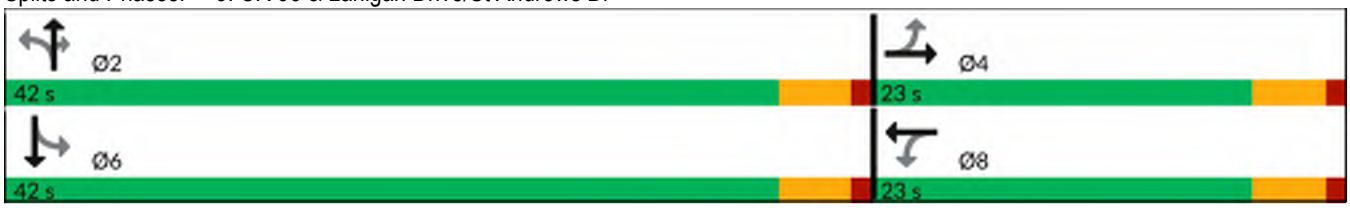
c Critical Lane Group

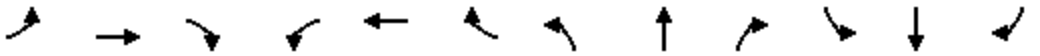
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	1	53	0	25	1077	20	12	882
Future Volume (vph)	23	1	53	0	25	1077	20	12	882
Lane Group Flow (vph)	0	43	0	119	26	1122	21	14	1092
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	8	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%	64.6%	64.6%	64.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	Max	Max	Max	Max	Max
v/c Ratio		0.18		0.51	0.08	0.42	0.02	0.05	0.42
Control Delay (s/veh)		15.7		24.9	4.7	4.8	1.8	4.7	4.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		15.7		24.9	4.7	4.8	1.8	4.7	4.8
Queue Length 50th (m)		2.6		9.1	0.7	23.1	0.0	0.4	22.1
Queue Length 95th (m)		9.3		12.9	3.7	44.7	1.8	2.3	38.4
Internal Link Dist (m)		136.7		250.0		253.8			528.9
Turn Bay Length (m)					90.0		1.0	90.0	
Base Capacity (vph)		460		431	340	2663	1100	261	2626
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.09		0.28	0.08	0.42	0.02	0.05	0.42

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 60.4
Natural Cycle: 50
Control Type: Semi Act-Uncoord

Splits and Phases: 3: CR 93 & Lanigan Drive/St Andrews Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	1	16	53	0	21	25	1077	20	12	882	35
Future Volume (vph)	23	1	16	53	0	21	25	1077	20	12	882	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	
Frt		0.95			0.96		1.00	1.00	0.85	1.00	0.99	
Flt Protected		0.97			0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1714			1691		1805	3574	1468	1444	3521	
Flt Permitted		0.83			0.76		0.24	1.00	1.00	0.23	1.00	
Satd. Flow (perm)		1457			1333		457	3574	1468	352	3521	
Peak-hour factor, PHF	0.92	0.92	0.92	0.62	0.62	0.62	0.96	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	25	1	17	85	0	34	26	1122	21	14	1050	42
RTOR Reduction (vph)	0	15	0	0	27	0	0	0	6	0	3	0
Lane Group Flow (vph)	0	28	0	0	92	0	26	1122	15	14	1089	0
Heavy Vehicles (%)	2%	2%	2%	6%	0%	0%	0%	1%	10%	25%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		8.2			8.2		44.0	44.0	44.0	44.0	44.0	
Effective Green, g (s)		8.2			8.2		44.0	44.0	44.0	44.0	44.0	
Actuated g/C Ratio		0.13			0.13		0.72	0.72	0.72	0.72	0.72	
Clearance Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		195			178		328	2569	1055	253	2531	
v/s Ratio Prot								c0.31			0.31	
v/s Ratio Perm		0.02			c0.07		0.06		0.01	0.04		
v/c Ratio		0.15			0.52		0.08	0.44	0.01	0.06	0.43	
Uniform Delay, d1		23.4			24.7		2.6	3.5	2.4	2.5	3.5	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			2.5		0.5	0.5	0.0	0.4	0.5	
Delay (s)		23.7			27.2		3.0	4.1	2.5	2.9	4.0	
Level of Service		C			C		A	A	A	A	A	
Approach Delay (s/veh)		23.7			27.2			4.0			4.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Junctions 8

ARCADY 8 Lite

Version: 8.0.4.487 [15039,24/03/2014]

Filename: 25076 - Total (2041).arc8
Path: C:_Project Files\JDE Projects\25076 - Pine Valley Estates - TIS\ARCADY
Report generation date: 05/05/2026 2:18:19 PM

Summary of intersection performance

	AM								PM							
	Queue (PCE)	95% Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity	Queue (PCE)	95% Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity
Pine Valley Estates Midland - Total 2041																
Leg 1	0.09	~1	3.52	0.08	A	3.83	A	327 % [Leg 3]	0.26	~1	4.02	0.20	A	3.86	A	356 % [Leg 1]
Leg 2	0.14	~1	3.70	0.12	A				0.09	~1	3.71	0.08	A			
Leg 3	0.21	~1	4.08	0.17	A				0.10	~1	3.60	0.09	A			

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D8 - Total 2041, AM " model duration: 8:00 AM - 9:00 AM
"D9 - Total 2041, PM" model duration: 4:00 PM - 5:00 PM

Run using Junctions 8.0.4.487 at 05/05/2026 2:18:16 PM

File summary

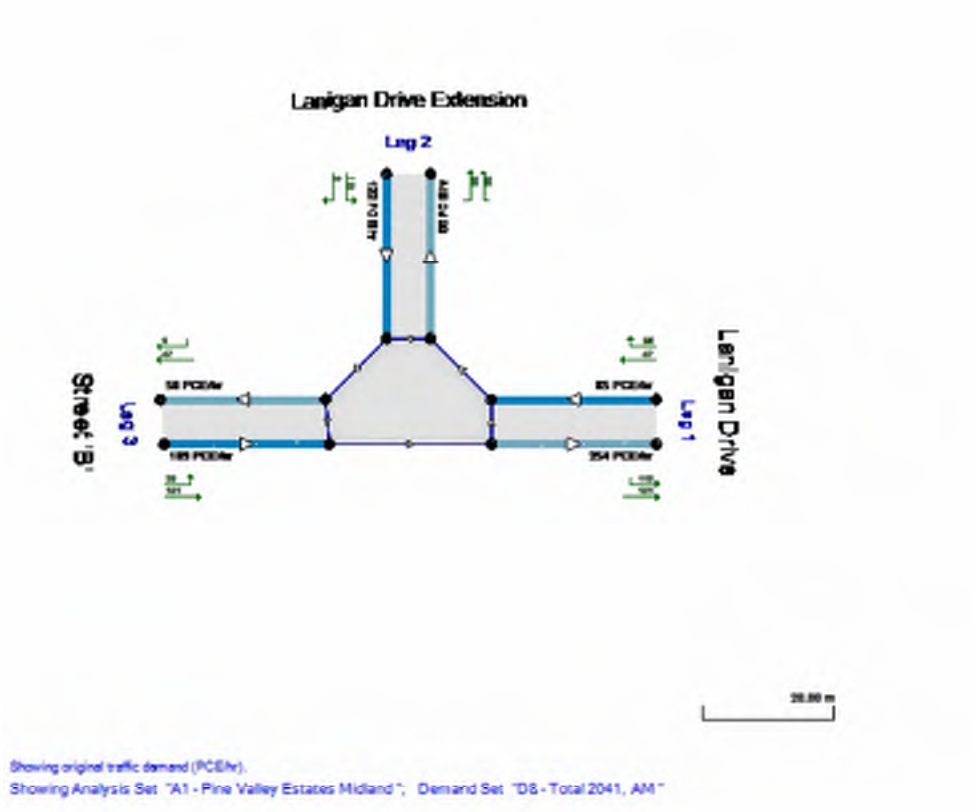
Title	Lanigan Drive Roundabout
Date	05/05/2026
Version	
Status	Final Report
Client	
Analyst	John
Description	

Analysis Options

Calculate Residual Capacity	Residual Capacity Criteria Type	V/C Ratio Threshold	Average Delay Threshold (s)	Queue Threshold (PCE)
✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCE	PCE	perHour	s	-Min	perMin



The intersection diagram reflects the last run of ARCADY.

Pine Valley Estates Midland - Total 2041, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Network Flow Scaling Factor (%)	Use Second Intercept Adjustment
Pine Valley Estates Midland	ARCADY	Roundabout Analysis	100.000	

Demand Set Details

Year	Time of day	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only
Total 2041	AM	PHF	08:00	09:00	60	15	

Roundabout details

Legs

Leg	Leg	Name	Truck Proportion
1	1	Lanigan Drive	2.0
2	2	Lanigan Drive Extension	2.0
3	3	Street 'B'	2.0

Capacity Options

Leg	Minimum Capacity (PCE/hr)	Maximum Capacity (PCE/hr)	Percentage Intercept Adjustment (%)	Percentage Intercept Adjustment2 (%)	Final Slope	Final Intercept (PCE/hr)
1	0.00	99999.00	85.00	85.00	0.579	1153.828
2	0.00	99999.00	85.00	85.00	0.579	1153.828
3	0.00	99999.00	85.00	85.00	0.579	1153.828

Roundabout Geometry

Leg	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.50	4.50	30.00	20.00	40.00	25.00	
2	3.50	4.50	30.00	20.00	40.00	25.00	
3	3.50	4.50	30.00	20.00	40.00	25.00	

Traffic Demand

Turning Counts / Proportions (PCE/hr) - Roundabout 1 (for whole period)

		To		
		1	2	3
From	1	0.000	38.000	47.000
	2	113.000	0.000	9.000
	3	141.000	28.000	0.000

PHF details

Hourly Volume (PCE/hr)	Peak Hour Factor	Peak Time Segment
85.00	0.92	SecondQuarter
122.00	0.92	SecondQuarter
169.00	0.92	SecondQuarter

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS
1	0.08	3.52	0.09	~1	A
2	0.12	3.70	0.14	~1	A
3	0.17	4.08	0.21	~1	A

Roundabout performance

Driving Side	Name	Intersection Delay (s)	Intersection LOS	Network Residual Capacity (%)	First Leg Reaching Threshold
Right	untitled	3.83	A	327	Leg 3

Pine Valley Estates Midland - Total 2041, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Network Flow Scaling Factor (%)	Use Second Intercept Adjustment
Pine Valley Estates Midland	ARCADY	Roundabout Analysis	100.000	

Demand Set Details

Year	Time of day	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only
Total 2041	PM	PHF	16:00	17:00	60	15	

Roundabout details

Legs

Leg	Leg	Name	Truck Proportion
1	1	Lanigan Drive	2.0
2	2	Lanigan Drive Extension	2.0
3	3	Street 'B'	2.0

Capacity Options

Leg	Minimum Capacity (PCE/hr)	Maximum Capacity (PCE/hr)	Percentage Intercept Adjustment (%)	Percentage Intercept Adjustment2 (%)	Final Slope	Final Intercept (PCE/hr)
1	0.00	99999.00	85.00	85.00	0.579	1153.828
2	0.00	99999.00	85.00	85.00	0.579	1153.828
3	0.00	99999.00	85.00	85.00	0.579	1153.828

Roundabout Geometry

Leg	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.50	4.50	30.00	20.00	40.00	25.00	
2	3.50	4.50	30.00	20.00	40.00	25.00	
3	3.50	4.50	30.00	20.00	40.00	25.00	

Traffic Demand

Turning Counts / Proportions (PCE/hr) - Roundabout 1 (for whole period)

		To		
		1	2	3
From	1	0.000	95.000	118.000
	2	60.000	0.000	24.000
	3	74.000	15.000	0.000

PHF details

Hourly Volume (PCE/hr)	Peak Hour Factor	Peak Time Segment
213.00	0.92	SecondQuarter
84.00	0.92	SecondQuarter
89.00	0.92	SecondQuarter

Results

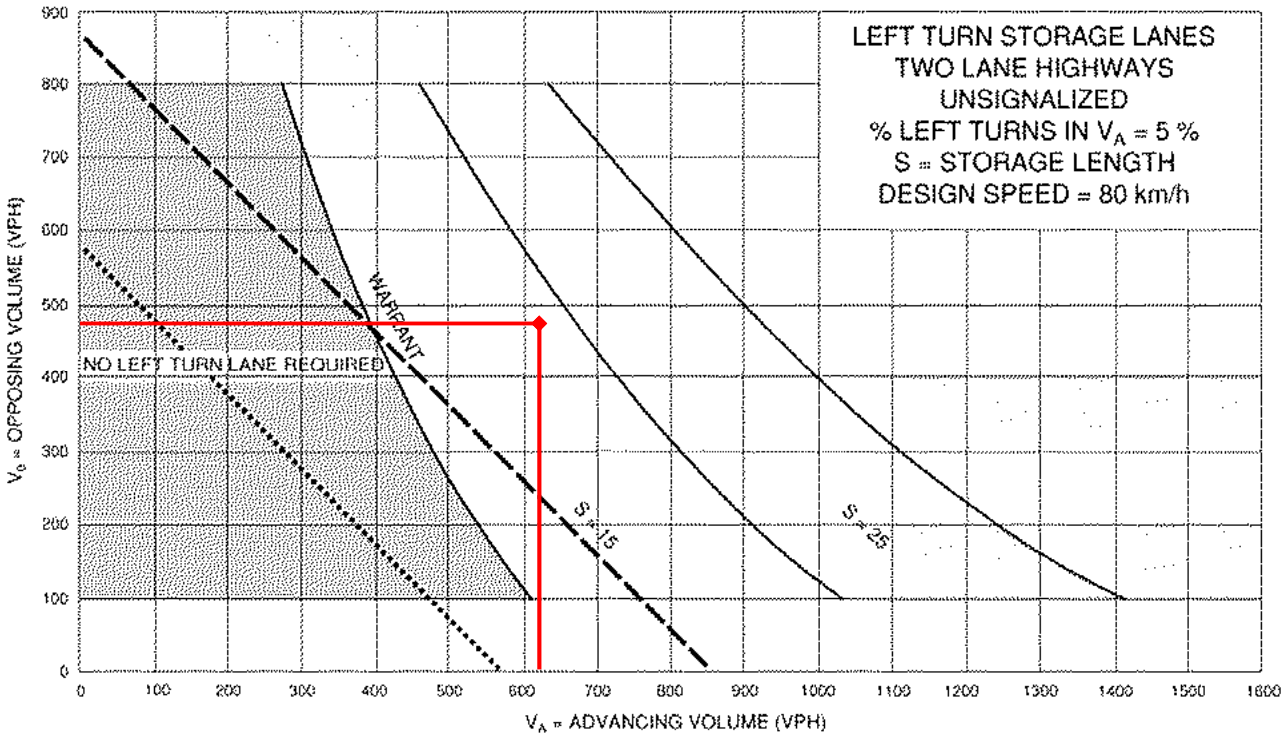
Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS
1	0.20	4.02	0.26	~1	A
2	0.08	3.71	0.09	~1	A
3	0.09	3.60	0.10	~1	A

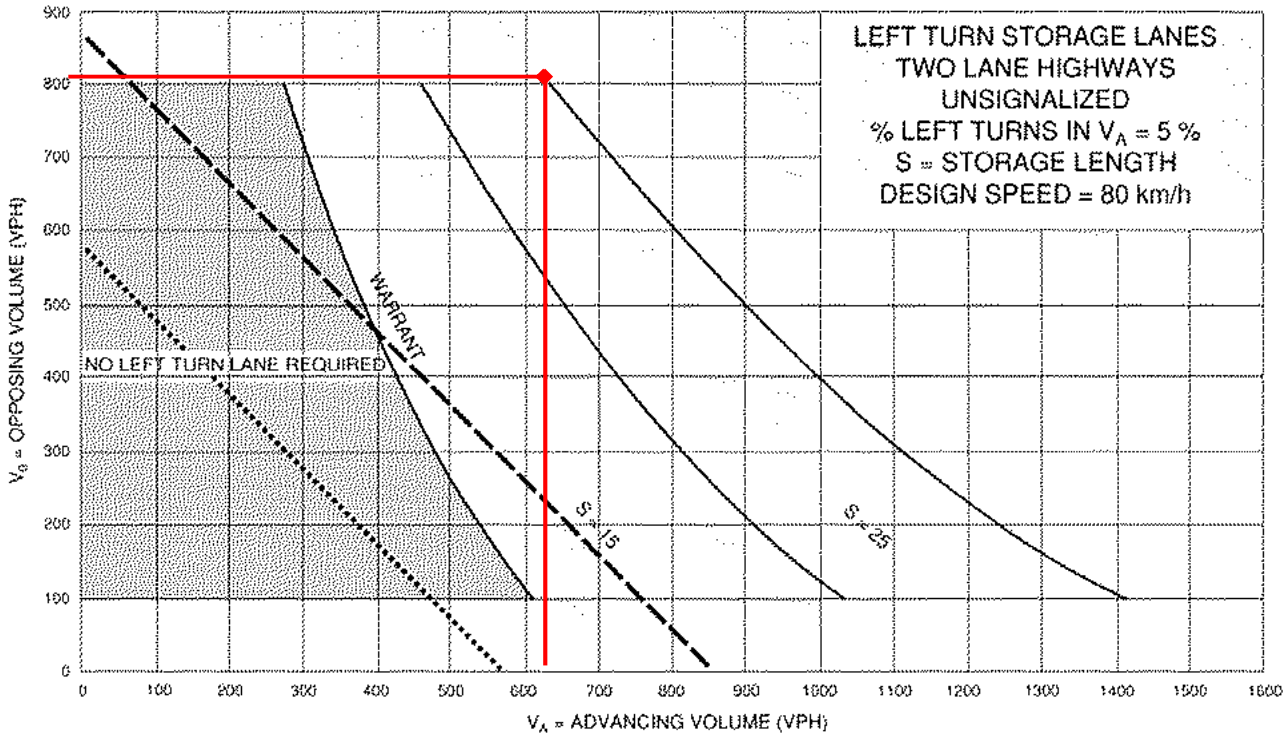
Roundabout performance

Driving Side	Name	Intersection Delay (s)	Intersection LOS	Network Residual Capacity (%)	First Leg Reaching Threshold
Right	untitled	3.86	A	356	Leg 1

Appendix H –
MTO Left Turn Analysis

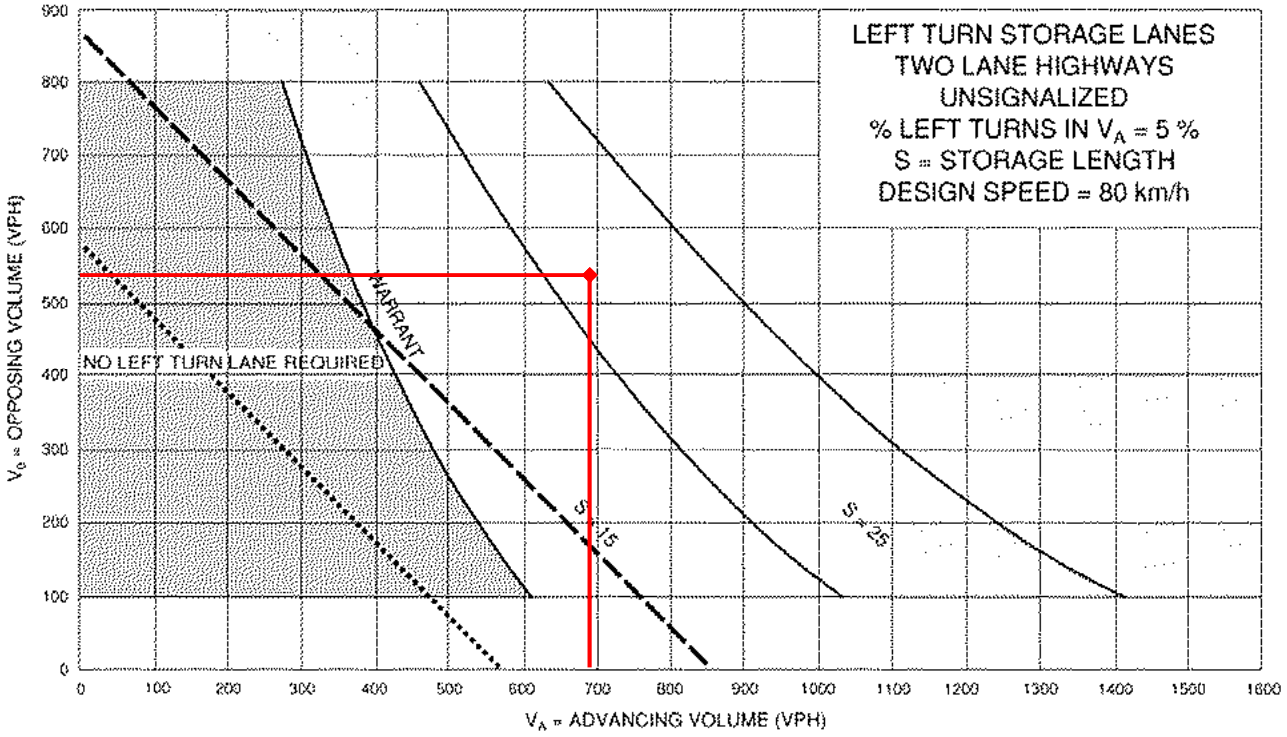


Existing (2026) AM Peak – SB on Lanigan Road / CR93

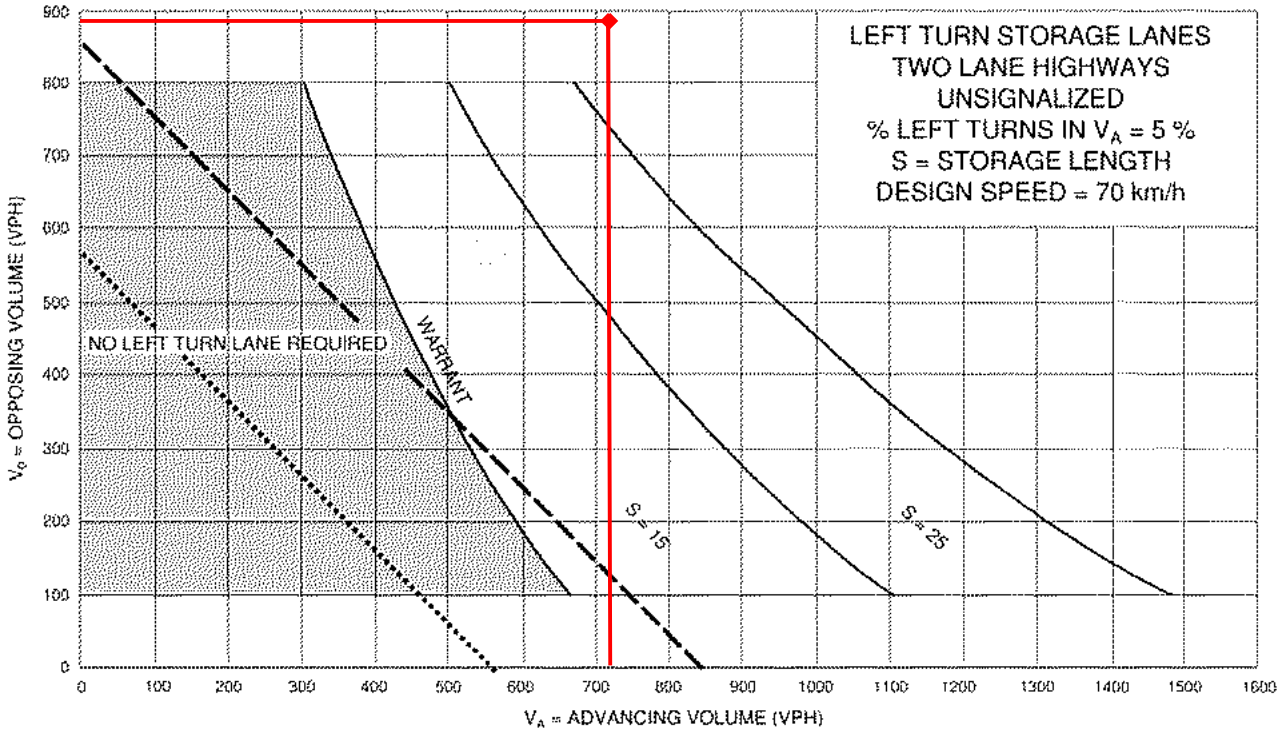


Existing (2026) PM Peak – SB on Lanigan Road / CR93

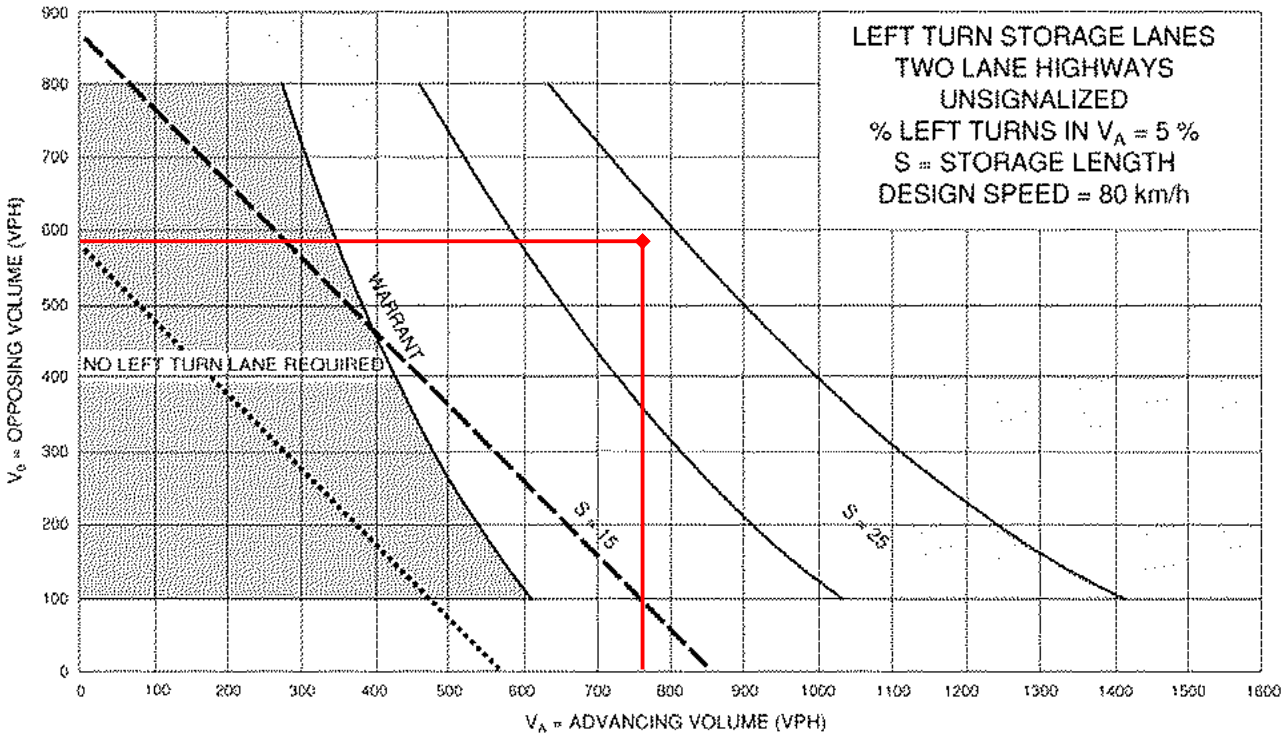
ENGINEERING



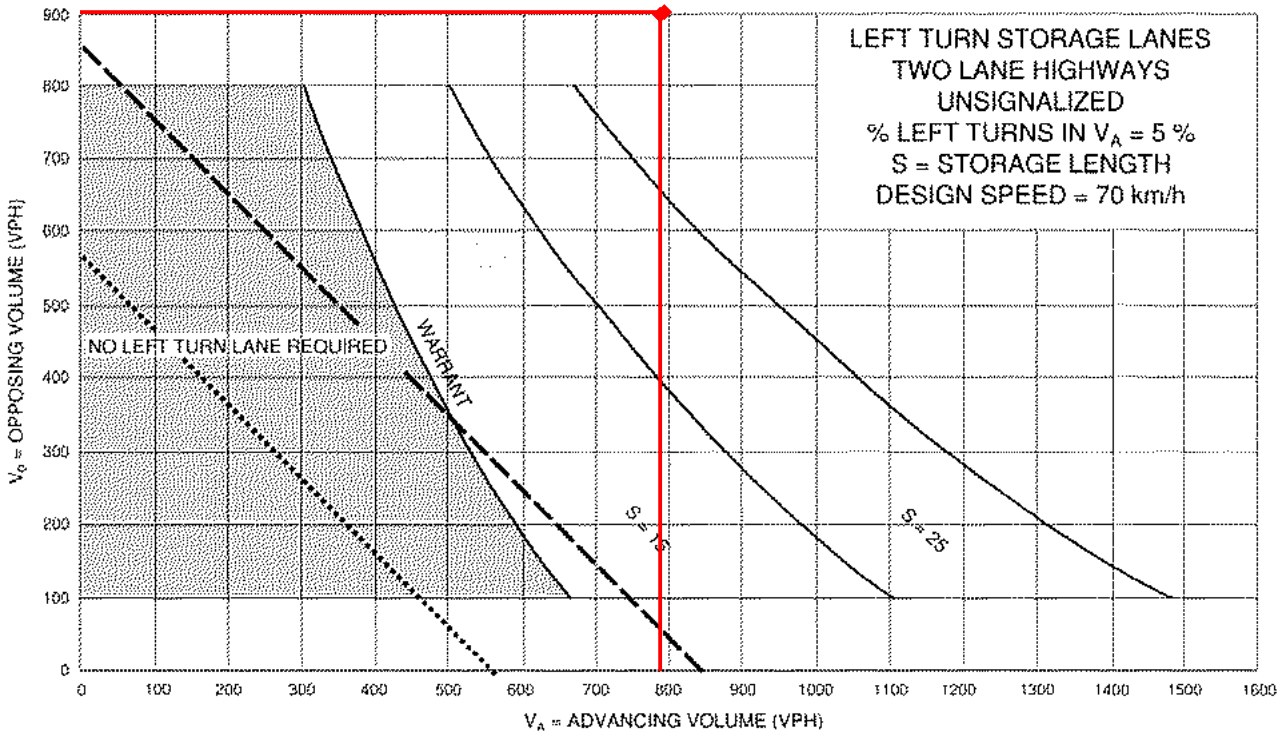
Background (2031) AM Peak – SB on Lanigan Road / CR93



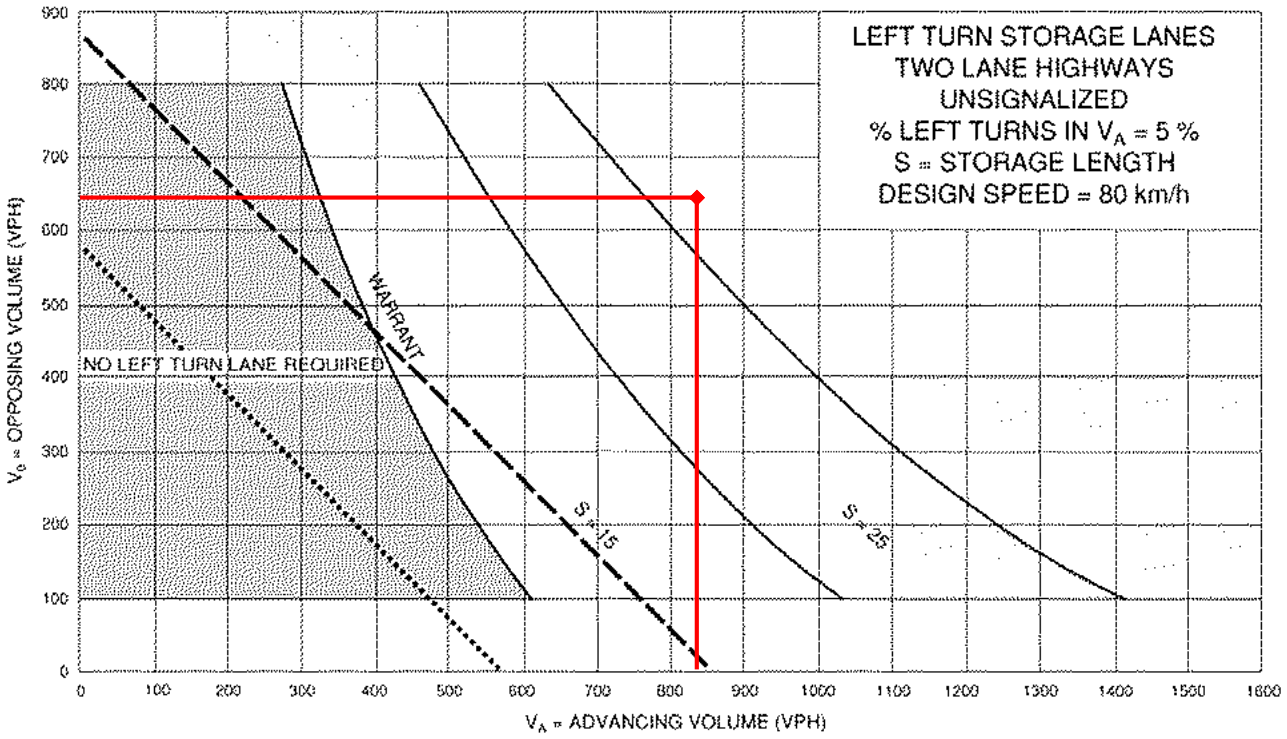
Background (2031) PM Peak – SB on Lanigan Road / CR93



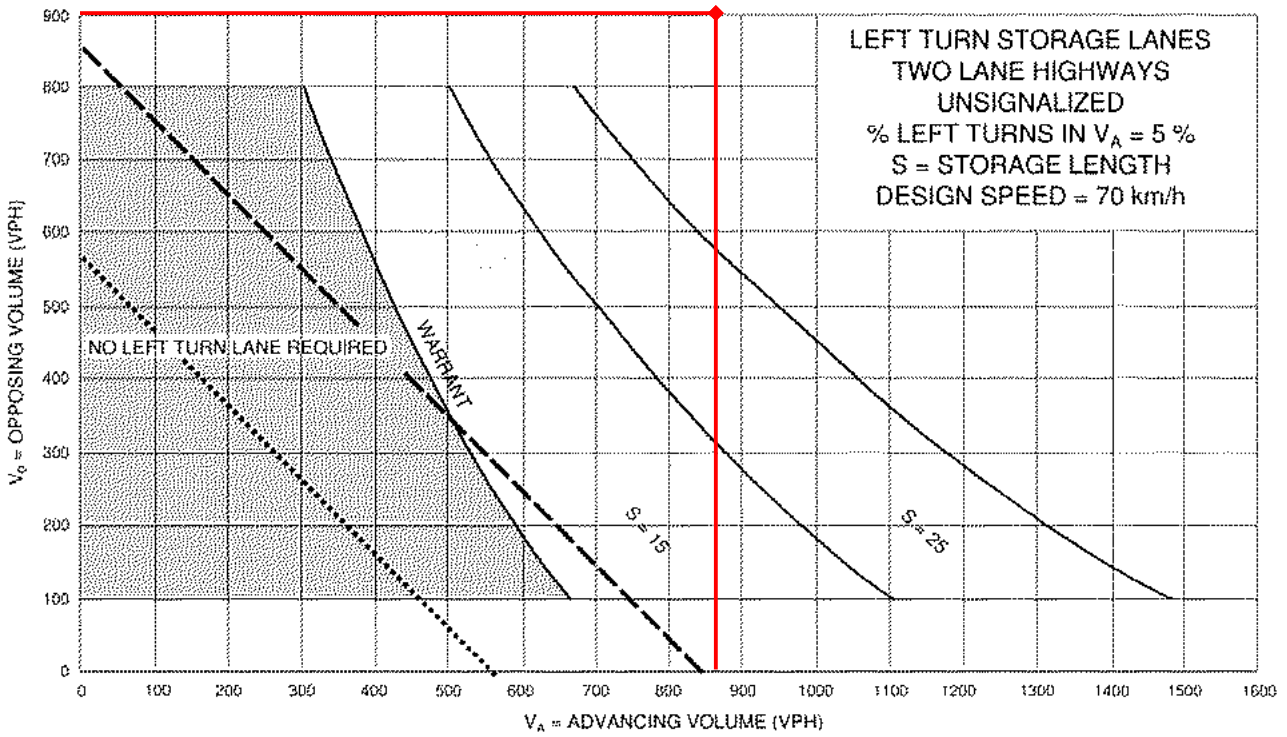
Background (2036) AM Peak – SB on Lanigan Road / CR93



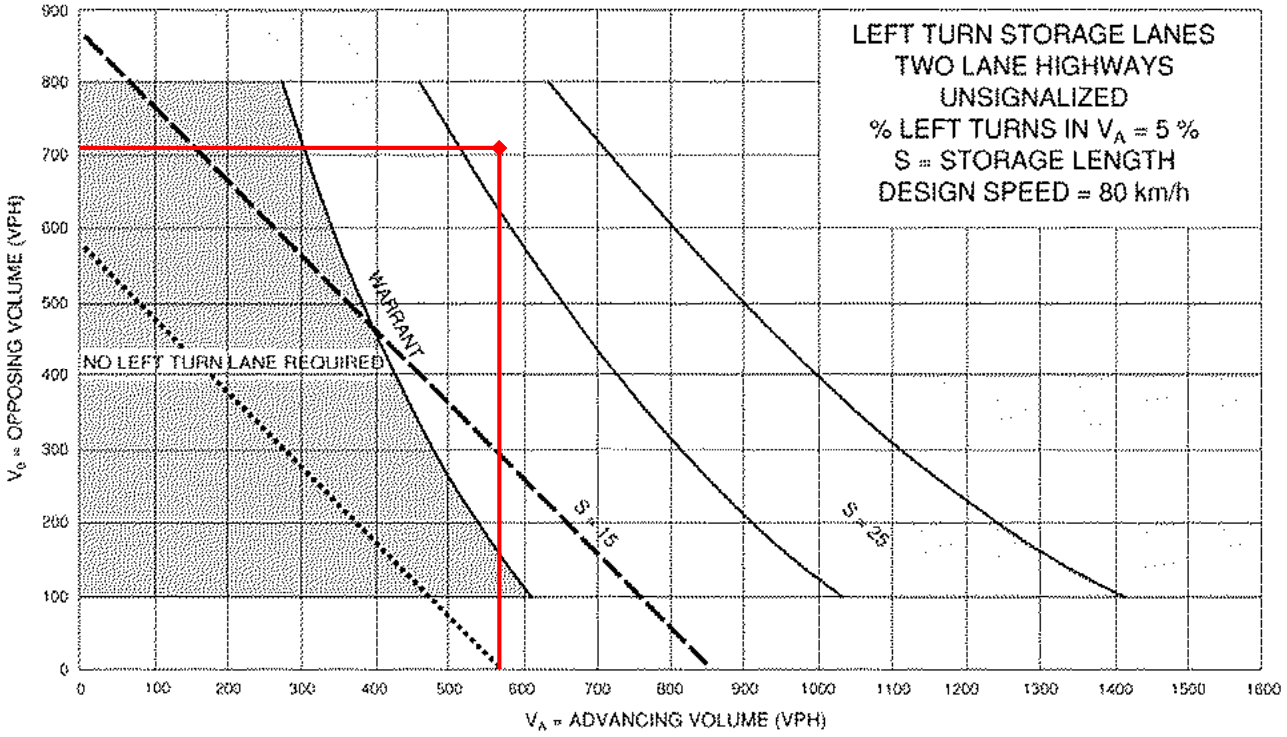
Background (2036) PM Peak – SB on Lanigan Road / CR93



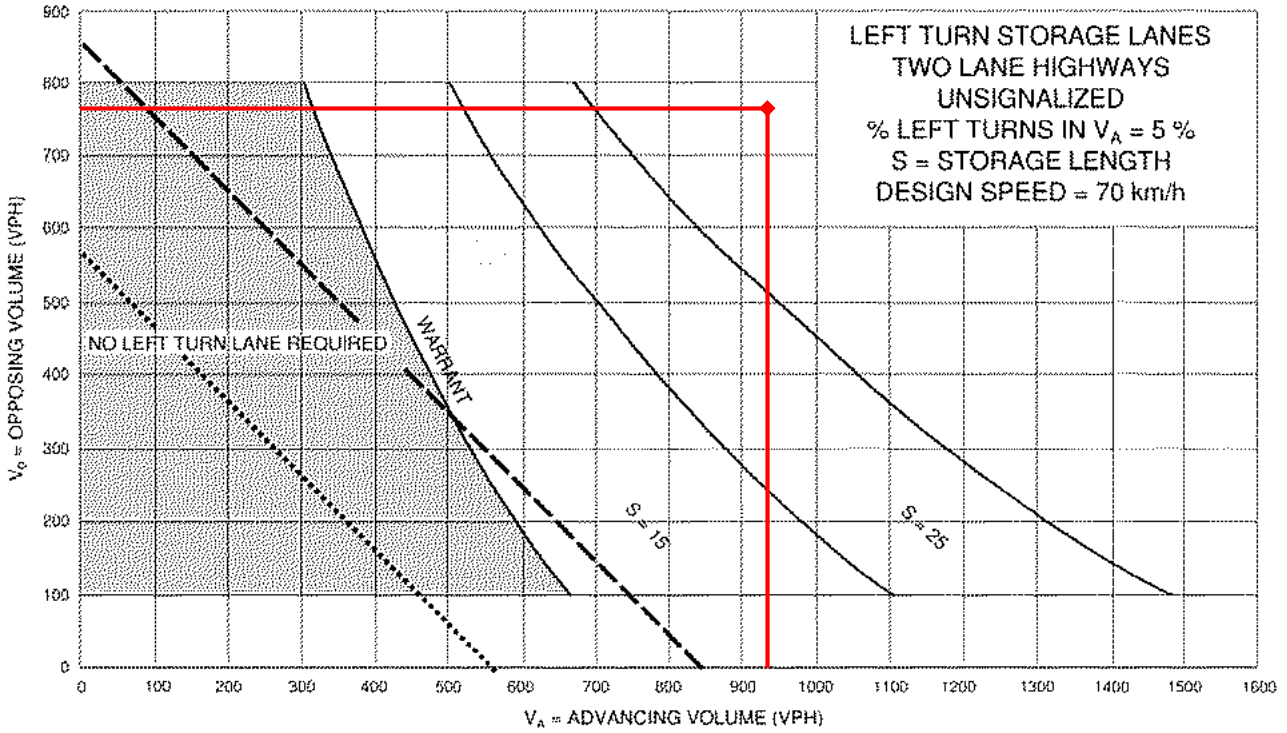
Background (2041) AM Peak – SB on Lanigan Road / CR93



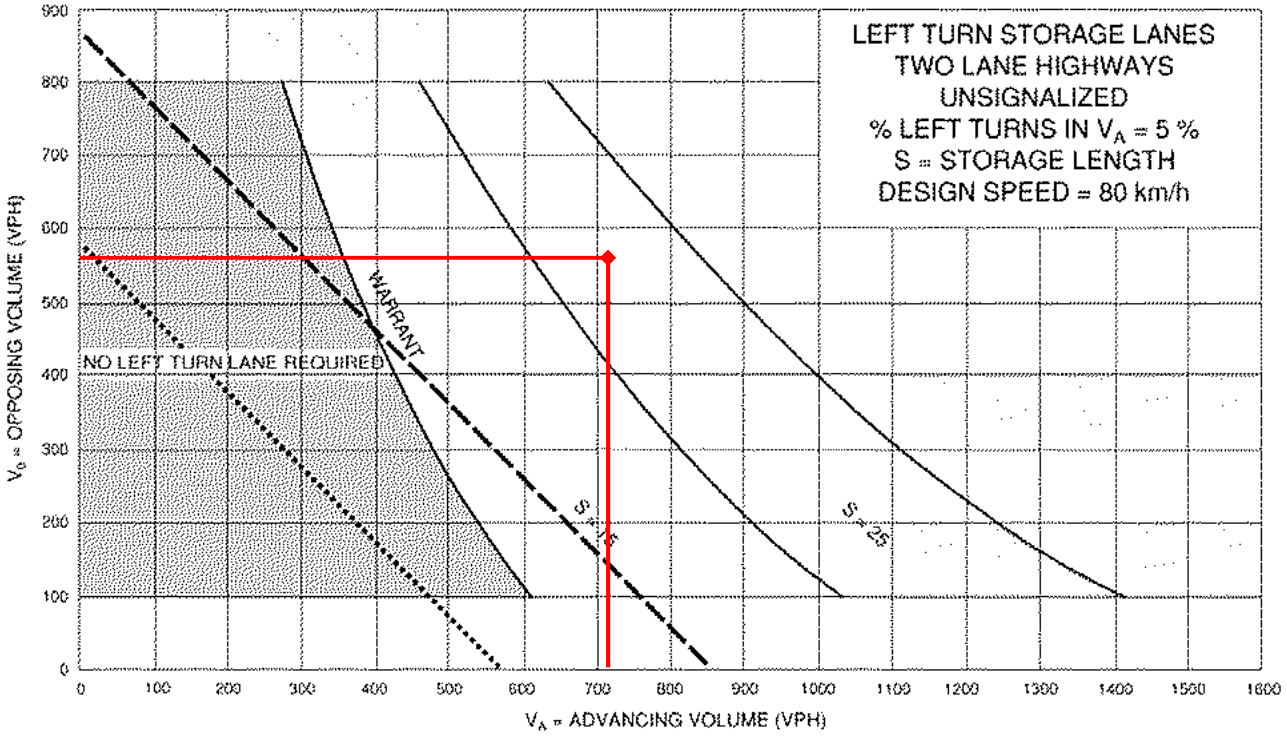
Background (2041) PM Peak – SB on Lanigan Road / CR93



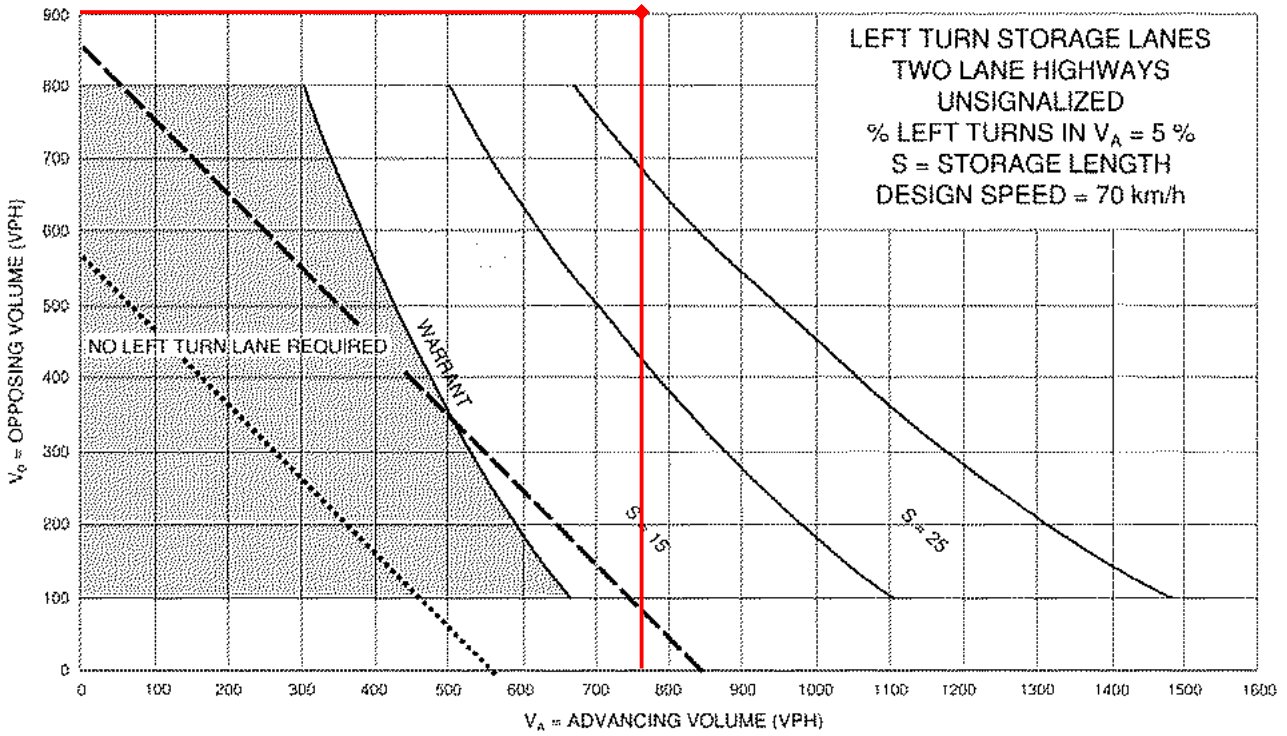
Total (2031) AM Peak – NB on Lanigan Road / CR93



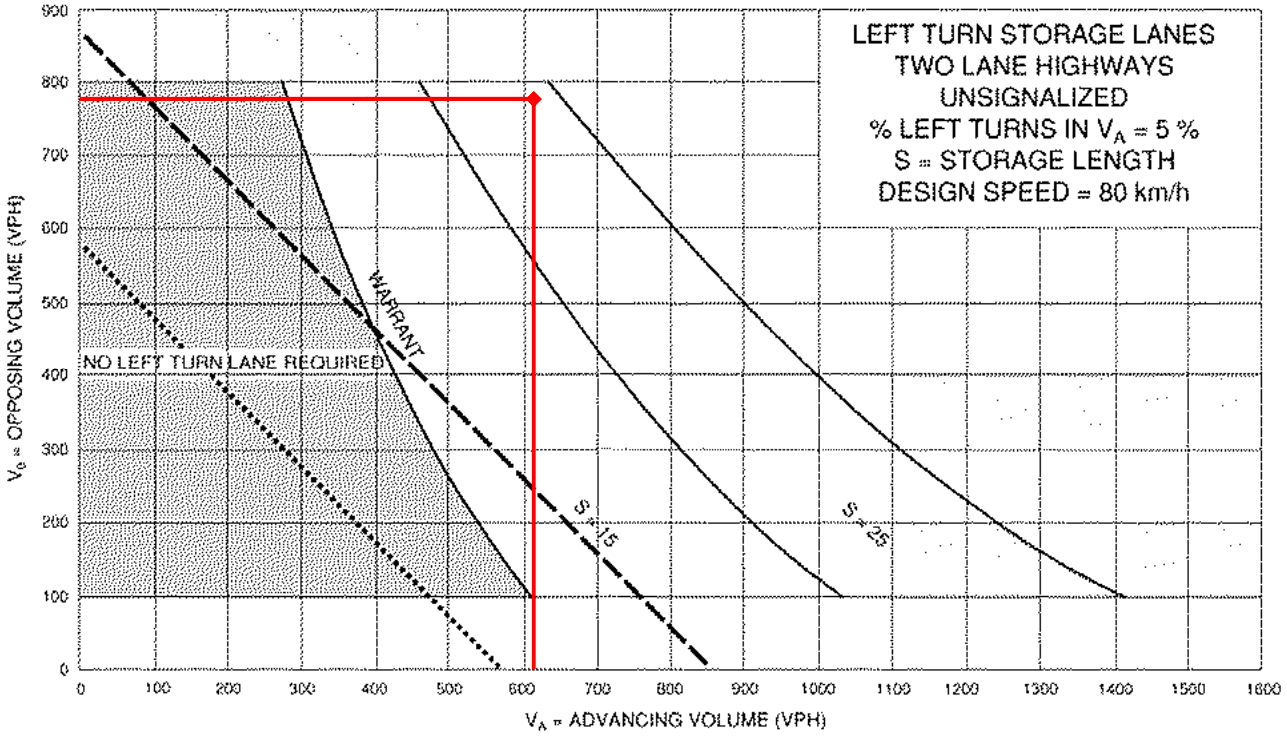
Total (2031) PM Peak – NB on Lanigan Road / CR93



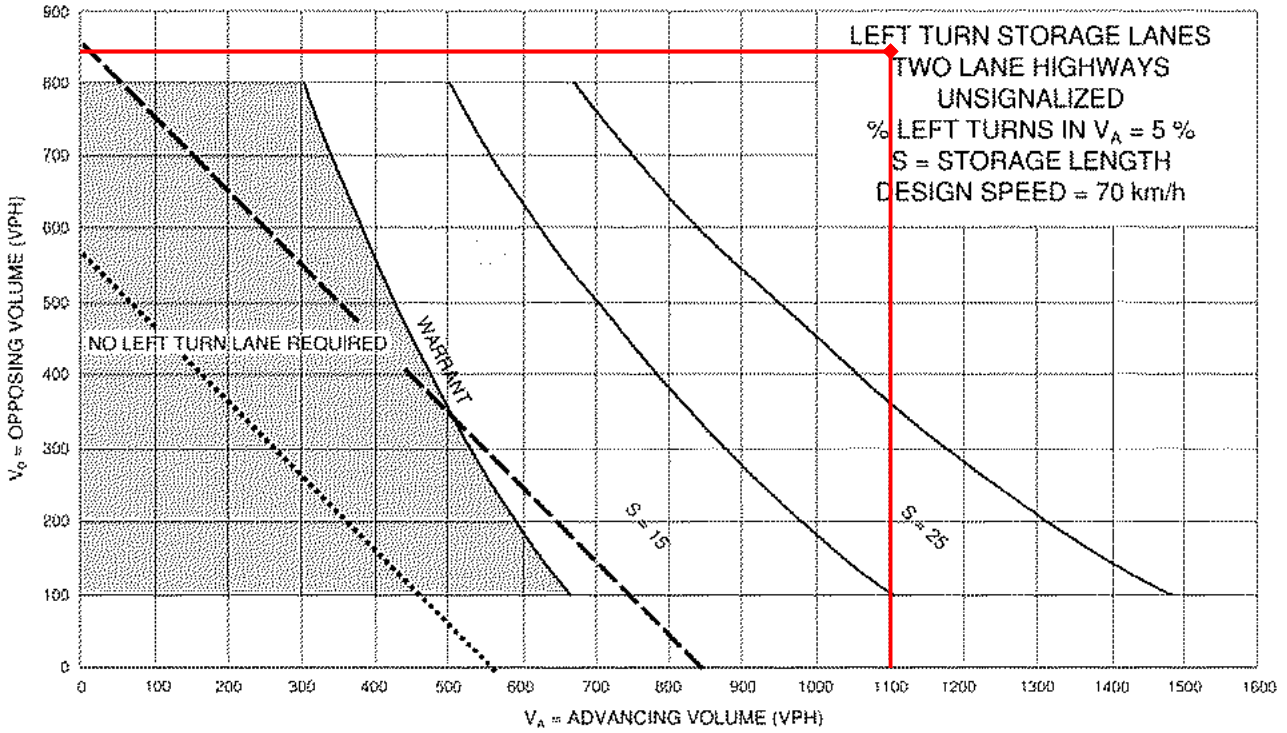
Total (2031) AM Peak – SB on Lanigan Road / CR93



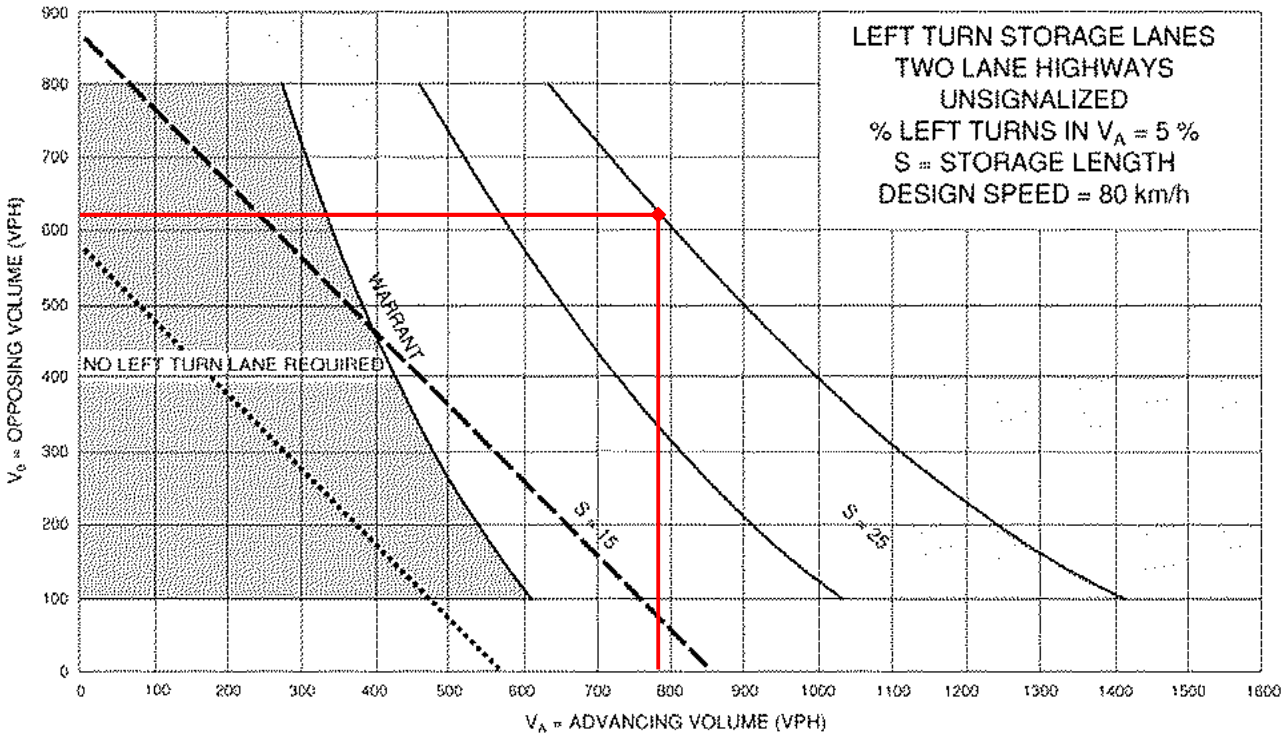
Total (2031) PM Peak – SB on Lanigan Road / CR93



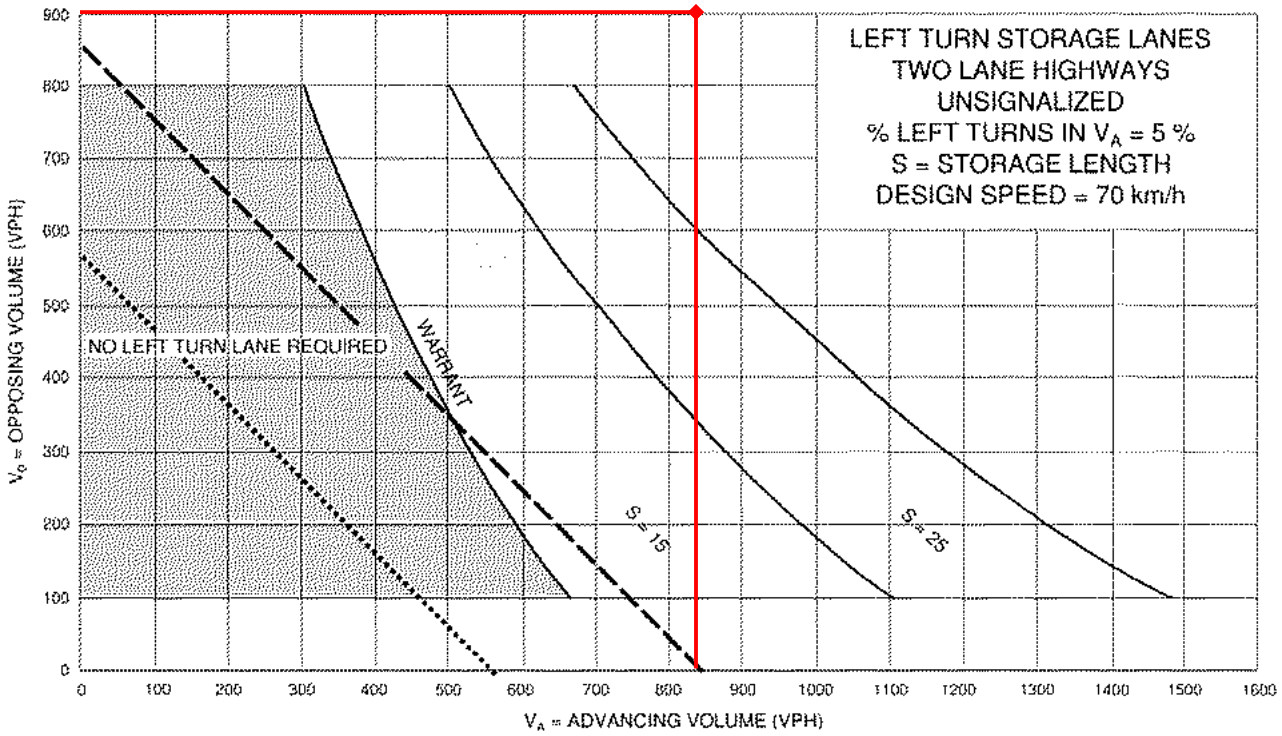
Total (2036) AM Peak – NB on Lanigan Road / CR93



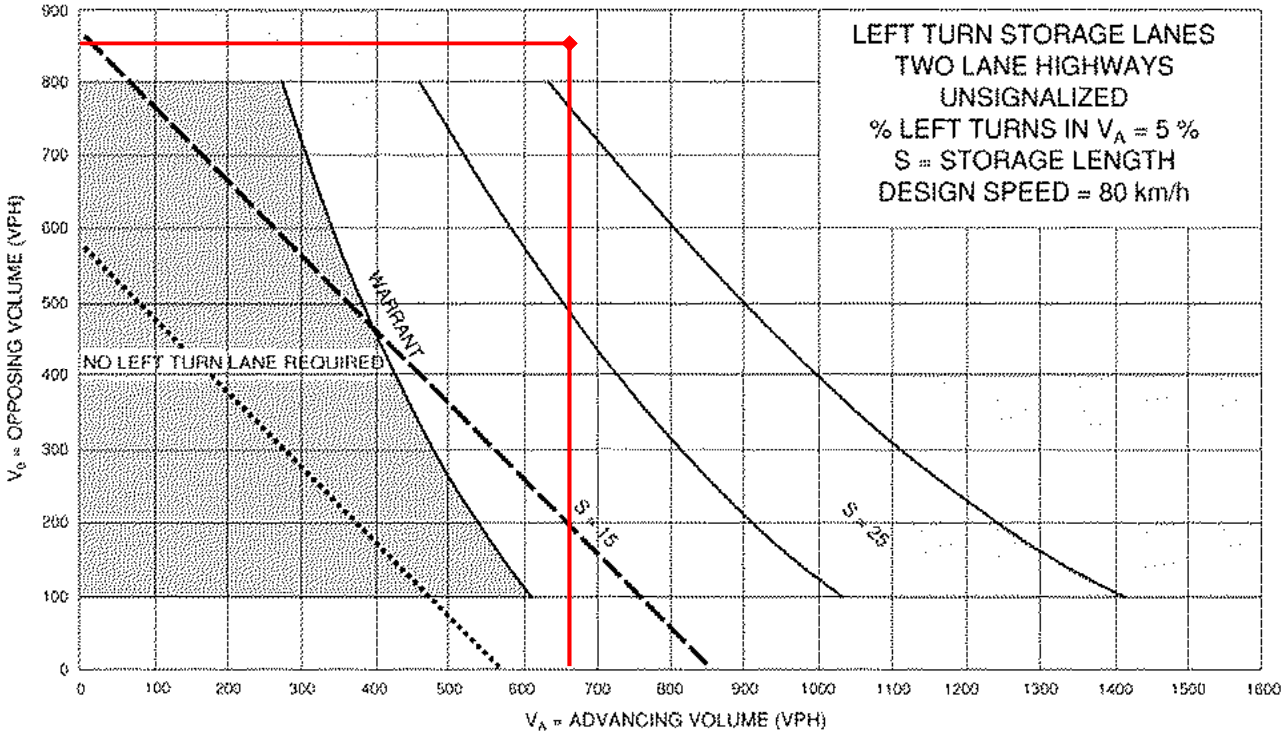
Total (2036) PM Peak – NB on Lanigan Road / CR93



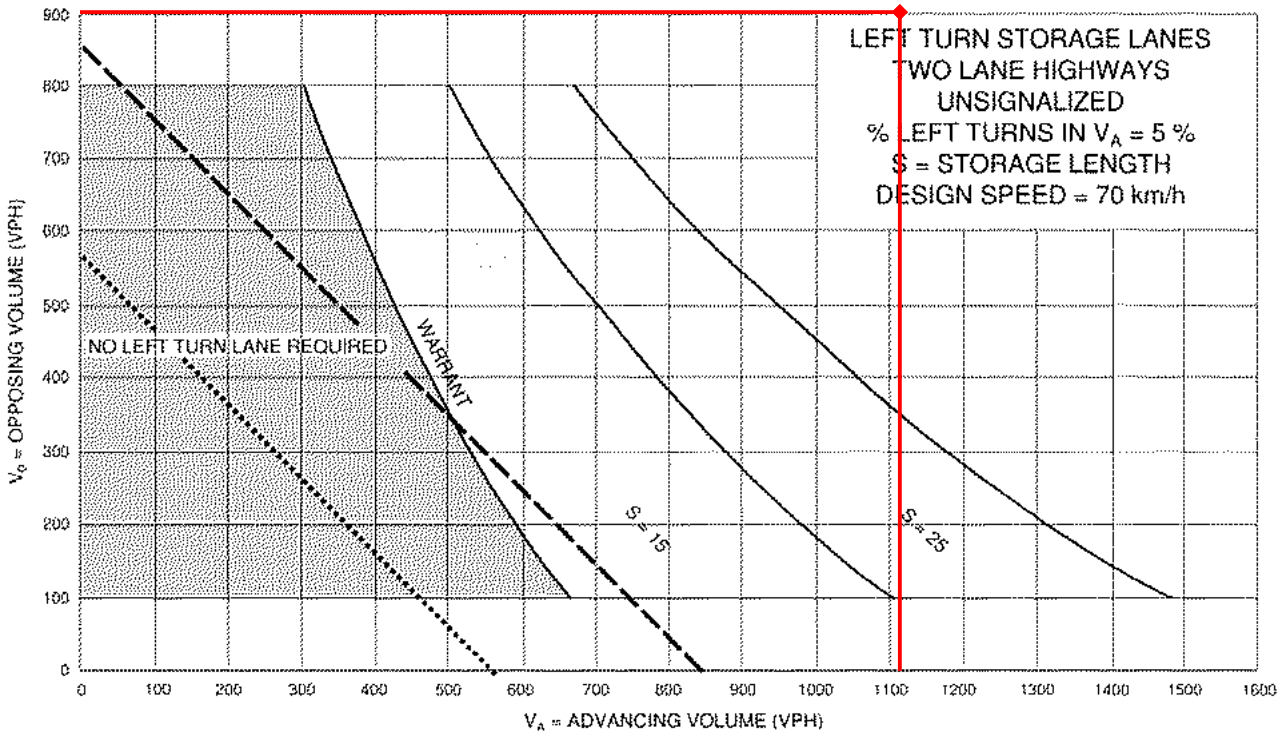
Total (2036) AM Peak – SB on Lanigan Road / CR93



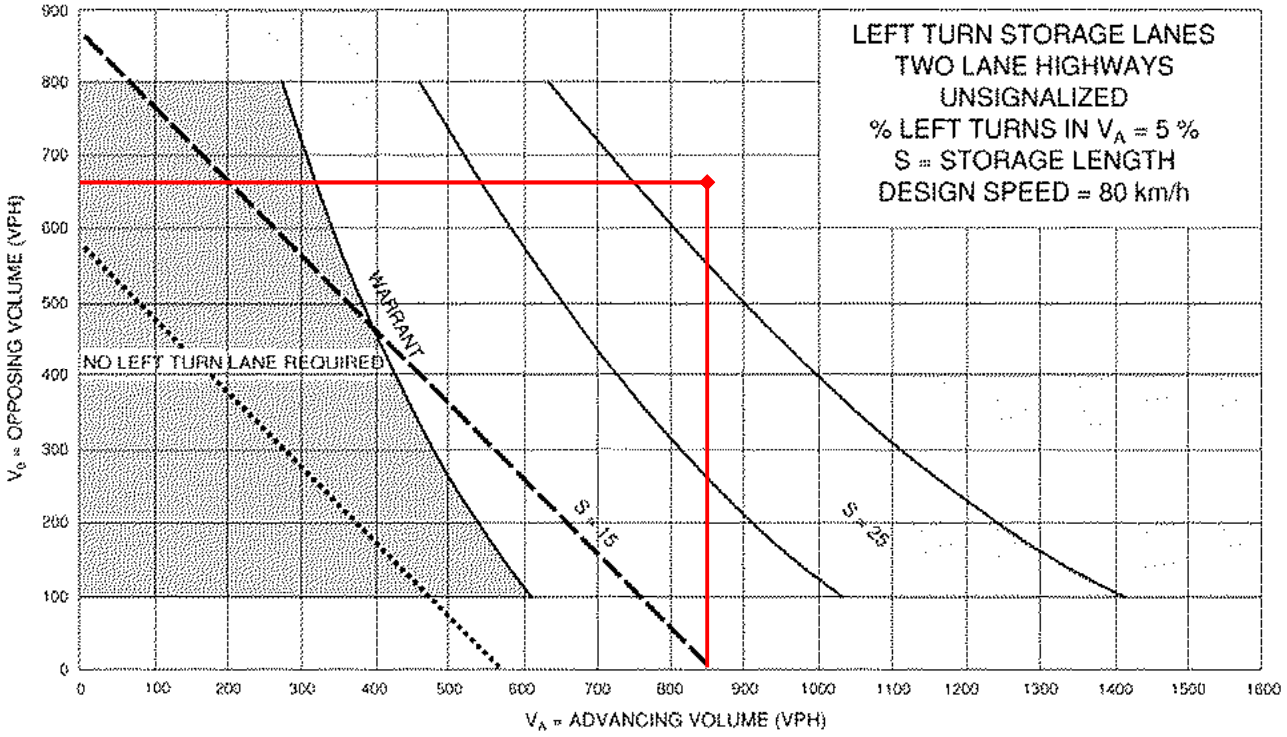
Total (2036) PM Peak – SB on Lanigan Road / CR93



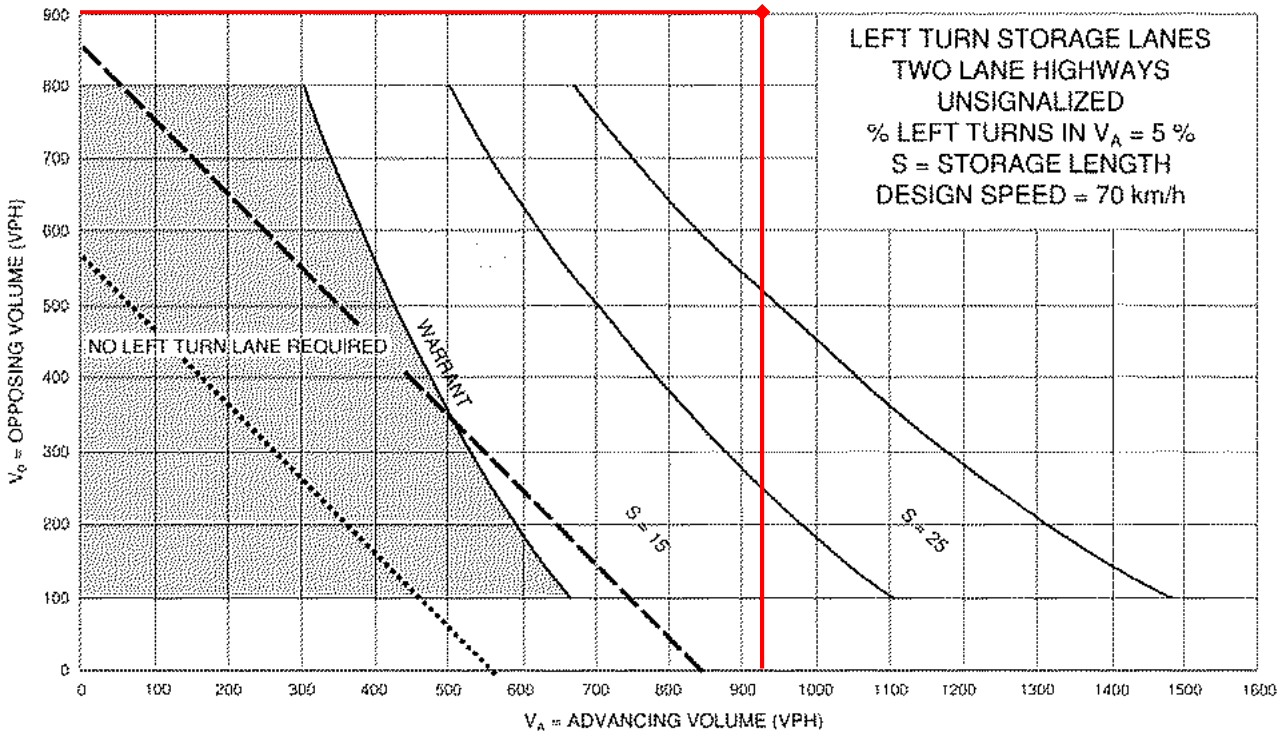
Total (2041) AM Peak – NB on Lanigan Road / CR93



Total (2041) PM Peak – NB on Lanigan Road / CR93



Total (2041) AM Peak – SB on Lanigan Road / CR93



Total (2041) PM Peak – SB on Lanigan Road / CR93

Appendix I –
OTM Signal Justification Sheets

Justification No. 7 - Total (2041) Traffic

CR 93 / St Andrews Dr

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	946	131%	21%	NO	YES
	B. Vehicle volume, along minor streets (average hour)	170	53	31%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	853	118%	30%	NO	YES
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	34	45%		NO	NO