7 Rossland Avenue

TIA Strategy Report

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June 2023

TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed[1] or registered[2] professional in good standing, whose field of expertise [check √ appropriate field(s)] is either transportation engineering ☑ or transportation planning ☐.

[1,2] **License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.**

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7 Rossland Avenue

TIA Strategy Report

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TABLE OF CONTENTS

DRAFT

LIST OF FIGURES

LIST OF TABLES

DRAFT

LIST OF APPENDICES

DRAFT

STRATEGY REPORT

Parsons has been retained by Julian of Norwich Anglican Church to prepare a TIA in support of a Zoning By Law Amendment to re-develop the existing site into a mixed-sue development. The existing buildings are to be demolished, with the current proposal to prove for two stacked townhouse dwelling buildings, an 8-storey residential building with ground-floor institutional uses and an attached single storey worship place. The total proposal would include approximately 84 new affordable dwellings, 219 m^2 of institutional/office use and 200m^2 of worship space.

This document follows the TIA process as outlined in the City Transportation Impact Assessment (TIA) Guidelines (2017). The following report represents Step 4 – Strategy Report.

1.0 SCREENING FORM

The Screening Form confirmed the need for a TIA Report based on the Location and Safety triggers. The Trip Generation trigger is not anticipated to be met as the development is below the trip generation threshold for residential units, and the worship areas with ancillary uses are anticipated to have a negligible impact on the peak hour. The Screening Form has been provided in **Appendix A.**

2.0 SCOPING REPORT

2.1. Existing and Planned Conditions

2.1.1. Proposed Development

The proposed development will be located at the municipal address of 7 Rossland Avenue. The site is currently occupied by the Julian of Norwich Anglican Church and its ancillary facilities. All buildings are to be demolished as part of this application. The development is anticipated to be constructed in a single phase with occupancy occurring by 2026.

Figure 1 illustrates the proposed site plan which includes more than 80 new affordable dwellings, 219 m^2 of institutional/office use and 200m^2 of worship space. Two accesses are proposed to Rossland Avenue, while one access is proposed to Withrow Avenue 55m west of Merivale Road. The site would be serviced by 71 parking stalls located in two parking lots, while driveways would be provided for the townhouse units. The site is currently zoned as Institutional and AM10 – Arterial Main Street Zone General Mixed-Use Zone.

The local context of the site is illustrated in **Figure 2.**

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Figure 1: Conceptual Site Plan (April 2022)

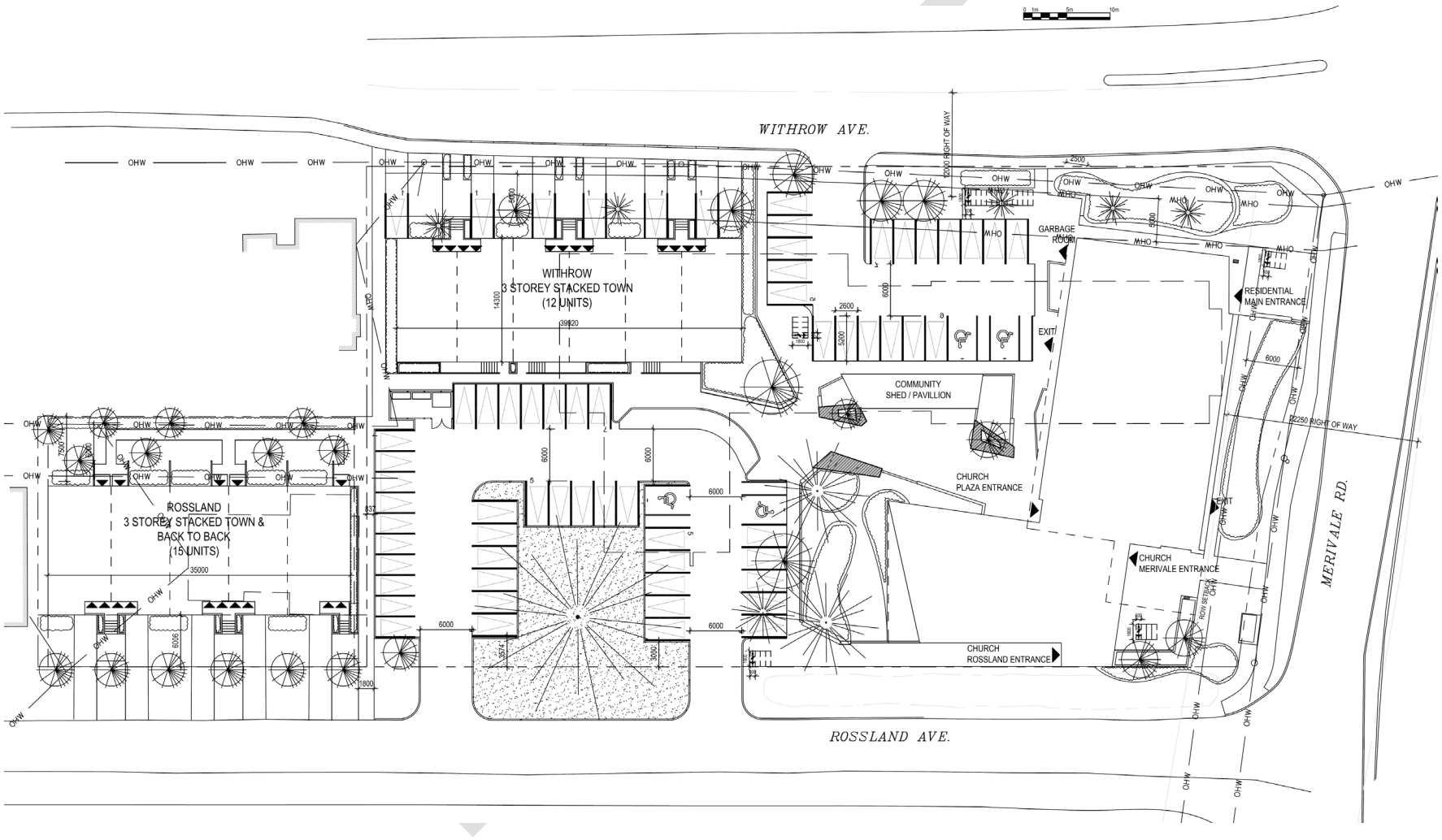

Figure 2: Local Transportation Context

2.1.2. Existing Conditions

Area Road Network

The following roadways are located nearest the proposed development. A description for each road within the greater study area has been provided below.

Merivale Road is a north-south municipal arterial road that extends from Island Park in the north to Fallowfield Road in the south. Forming the eastern boundary road, Merivale Road has a 4-lane divided urban cross section with a posted speed limit of 60 km/h. Merivale Road has a ROW protected of 44.5m.

Rossland Avenue is a local east-west municipal street that connects to Merivale Road via a median depression allowing for all movements to Merivale Road. It has a 2-lane rural cross-section and has an assumed posted speed limit of 40 km/hr.

Withrow Avenue-Capilano Drive is an east-west municipal collector road that connects to Meadowlands Drive in the east to Merivale Road, before continuing as Withrow Avenue before returning to Meadowlands Drive. It is typified by a 2-lane cross section and a posted 40 km/hr speed limit. Withrow Avenue has a ROW protection of 24m.

St. Helen's Place is a discontinuous north-south municipal local road that connects Rossland Avenue to Withrow Avenue, before proceeding north of Cleto Avenue to Tower Road. It is typified by a 2-lane cross section, residential driveways and an assumed posted 40 km/hr speed limit.

Meadowlands Drive is an east-west municipal major collector road that connects Woodroffe in the west to Prince of Wales Drive in the east, which then continues as Hogs' Back Road. It typically provides for a 2-lane urban cross-section, except in the vicinity of Merivale Road where it widens to 4-lanes with additional auxiliary lanes. Nearest Merivale Road, the speed limit is posted 50km/h.

Clyde Avenue is a north-south municipal arterial road which extends Northerly to Maitland Avenue and the HWY 417 from the Merivale/Clyde intersection at its south terminus. It is characterized by a 4-lane divived urban cross section with a 60 km/hr posted speed limit.

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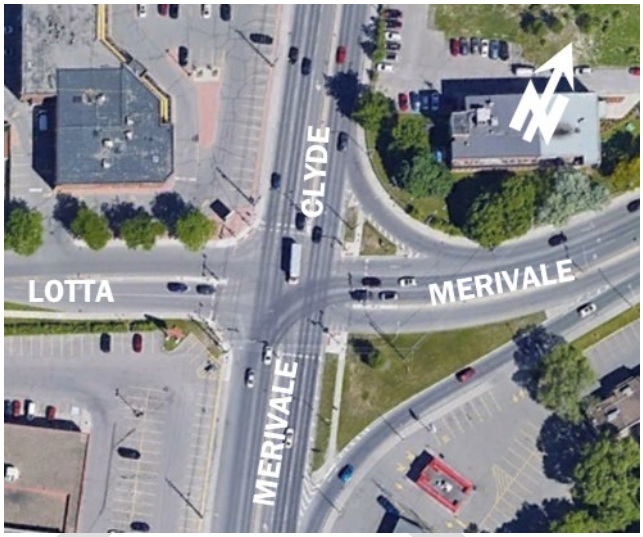
Existing Study Area Intersections

Merivale/Clyde

The Merivale/Clyde intersection is a four-legged signalized intersection. The westbound approach consists of a dedicated through lane, a dedicated and channelized right turn lane and a double left-turn lane. The southbound approach consists of a dedicated through lane, a dedicated left turn lane and a shared thru/right-turn lane. The northbound approach provides for a dedicated left turn lane, two dedicated through lanes and a channelized right turn lane with a large island. The eastbound approach provides for a dedicated left turn lane and a shared through/right turn lane. RTOR is permitted on all approaches.



Merivale/Capilano-Withrow

The Merivale/Withrow intersection is a four-legged signalized intersection. The minor leg eastbound and westbound approaches each provide for dedicated left turns and shared through/right turns. The major north-south approaches each provide for a dedicated right turn, 2 dedicated through lanes and a dedicated single left-turn. No RTOR restrictions are present. U-Turns are not permitted in the major north-south directions.

Merivale/Rossland

The Merivale/Rossland intersection is STOP-controlled on the east-west minor approaches. Opposite Rossland Avenue is an existing private approach with several shared uses. Rossland Avenue utilizes a median break on Walkley Road to provide for all movements to and from the public roadway. The major north-south Merivale Road approaches provide for two through lanes.

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Merivale/Emerald Plaza

The Merivale/Emerald Plaza intersection is a four-legged signalized intersection where the east-west approaches serve adjacent private commercial centres. The minor east-west approaches provide for a shared through/right lane and dedicated left-turn lane. The southbound approach provides for a double left tun lane, a dedicated through lane and shared through/right lane. The northbound approach provides or a dedicated left turn lane, two dedicated through lanes and a dedicated right turn lane. No RTOR or U-turn restrictions are present.

Merivale/Meadowlands

The Merivale/Meadowlands intersection is an signalized four-legged intersection. The minor east-west approaches each provide for a dedicated left turn, two through lanes and a channelized right turn. Similarly, the major north-south approaches accommodate dedicated single left-turns, two dedicated through lanes and a channelized right turn.

Existing Driveways to Adjacent Developments

Within 200m of the proposed site access along Merivale Road, 6 accesses adjacent to the site and 4 accesses opposite the site as shown in **Figure 3**.

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Figure 3: Adjacent Public and Private Driveways within 200m of Site Access

Inspection of **Figure 3** and existing private driveways within 200m of the proposed site indicates that several private driveways are located to the easy along Withrow Avenue and Rossland Avenue. On Rossland Avenue, there are two private approaches to the Shell gas station and the Elizabeth Wyn Wood school, respectively. The Cleto Plaza has parking stalls fronting Withrow Avenue immediately east of Merivale Road.

Existing Area Traffic Management Measures

Existing area traffic management measures within the study area are limited to pedestrian advance walk phases and zebra crosswalks at intersections with Merivale Road.

Pedestrian/Cycling Network

Figure 4 illustrates an extract from the City of Ottawa's TMP, Map 1, Cycling Network – Primary Urban. Merivale Road and Meadowlands Drive are designated cycling 'Spine Routes', however, neither facility provides cycling facilities at segments or intersections in the study area. A review of GeoOttawa indicates that Capilano and Withrow provide for 'paved shoulder' facilities, however a review of street-level photography indicates that mixed-traffic is more prevalent.

A sidewalk and paved boulevard arrangement is provided along either side of Merivale Road nearest the proposed development. Capilano Drive includes a concrete sidewalk on the south side of the street with a small paved boulevard. Rossland Avenue currently does not provide for a sidewalk fronting the site.

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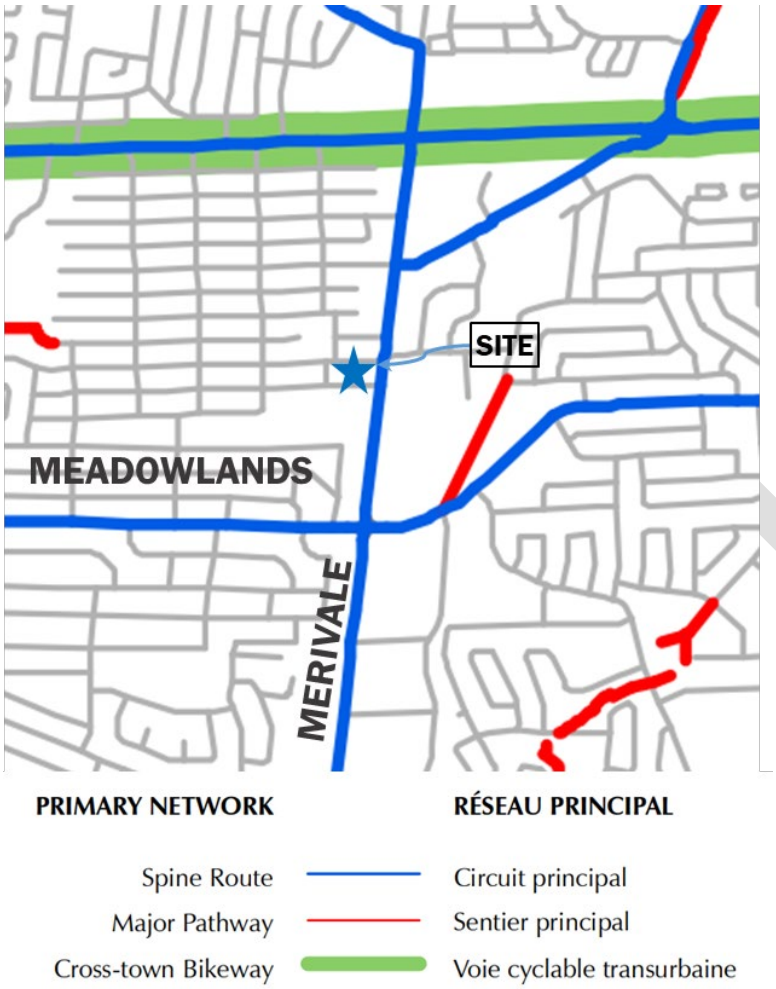
Figure 4: Study Area Active Transportation Facilities



Transit Network

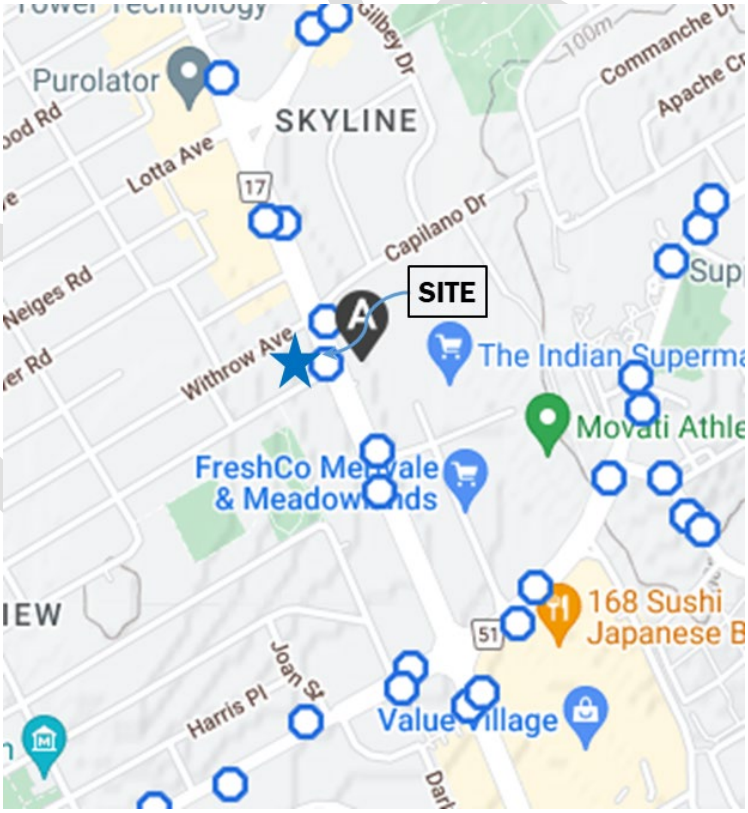
Due to the current circumstances regarding COVID-19, some bus services may have been altered by OC Transpo to operate on a different schedule. The following description of OC Transpo routes within the study area reflect the current bus operations (July, 2022):

- **Route #80 (Barrhaven Centre <-> Tunney's Pasture):** identified by OC Transpo as a "Frequent Route", this route operates all day, 7 days a week and at an average rate of every 15 or less on weekdays. The nearest bus stops to the site are at the intersections of Merivale/Capilno (northbound) and Merivale/Rossland (southbound).
- **Route #81 (Clyde <-> Tunney's Pasture):** identified by OC Transpo as a "Local Route", this route operates 7 days a week (except on weekend evenings) and at an average headway of 30 minutes. The nearest bus stops to the site are located at the Merivale / Clyde intersection.
- **Route #86 (Baseline <-> Tunney's Pasture):** identified by OC Transpo as a "Local Route", this route operates 7 days a week with all day service and at an average headway of 15-to-30 minutes. The nearest bus stops to the site are located at the Merivale / Meadowlands intersection.
- **Route #186 (Lincoln Fields <-> Merivale/Slack):** identified by OC Transpo as a weekday "Local Route" with service during the peak hours, Monday to Friday. The nearest bus stops to the site are located at the Merivale / Meadowlands intersection.

The transit network for the study area is illustrated in **Figure 5** and the transit route maps are provided in **Appendix B**. **Figure 6** illustrates the bus stop locations.

Figure 5: Area Transit Network

Figure 6: Bus Stop Locations



Peak Hour Travel Demands

The existing peak hour traffic volumes at the signalized intersections within the study area were obtained from the City of Ottawa for the following intersections:

- Merivale/Clyde – Conducted Wednesday, April 05, 2017.
- Merivale/Withrow – Conducted Thursday May 4, 2023 during the AM and PM peak periods.
- Merivale/Rossland-Ultramar – Referenced TMC undertaken by the 1545 Merivale Road TIA (Parsons, 2023) Tuesday, August 2nd, 2022.
- Merivale/Emerald Plaza – Conducted Wednesday, April 05, 2017.
- Merivale/Meadowlands – Conducted Wednesday, April 05, 2017.

The traffic volumes at study area intersections are illustrated in **Figure 7**, with raw traffic count data provided in **Appendix C**.

The Merivale/Withrow-Capilano intersection was surveyed during the morning and afternoon peak periods on May 4, 2023. Comparison of the north-south traffic volumes on Merivale Road found that volumes are within 5%-to-10% of pre-COVID levels.

No adjustments such as traffic growth have been applied to the traffic volumes given the study area context in a well-established neighborhood and in a central area of the City of Ottawa.

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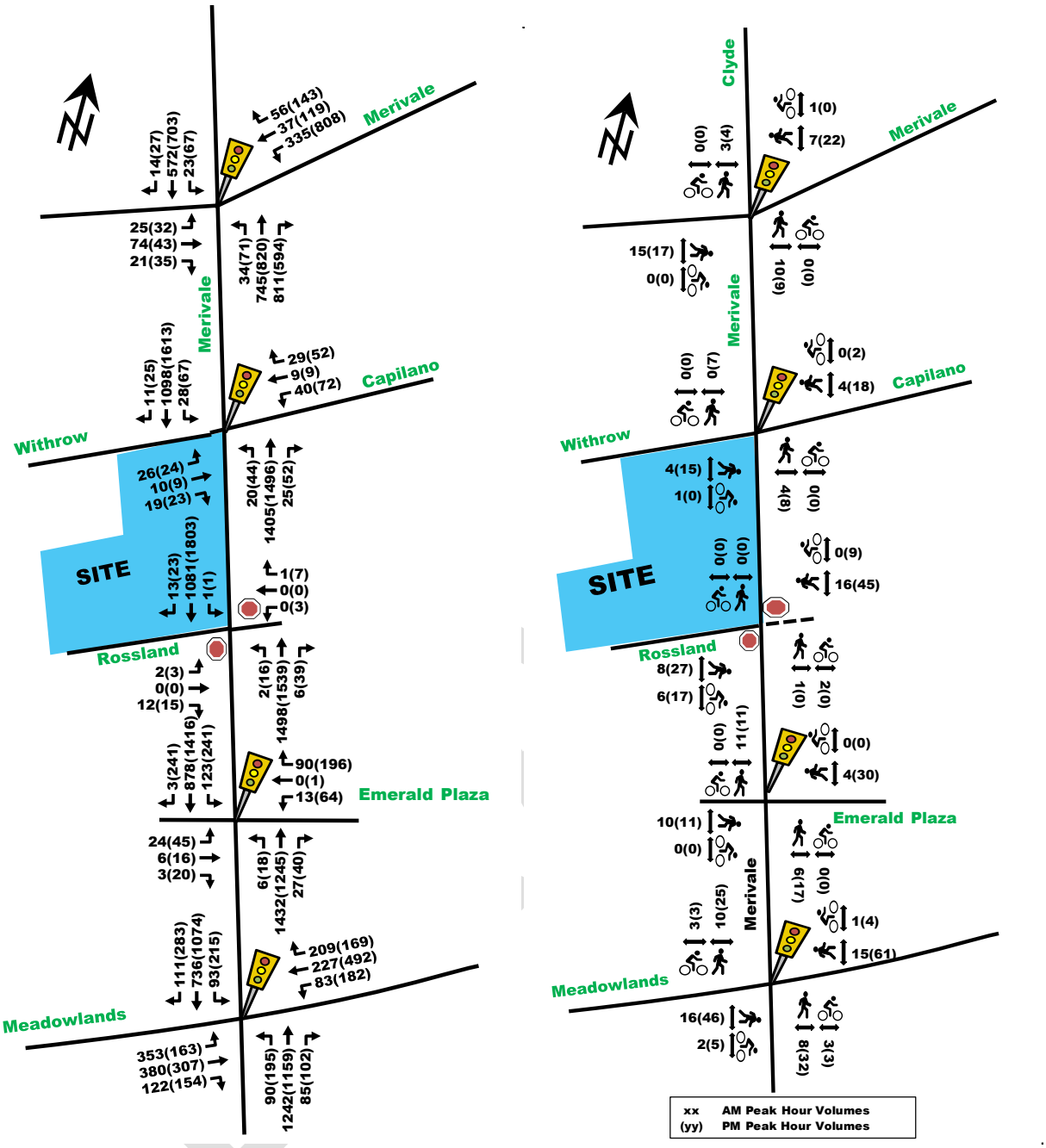
Figure 7: Existing (2023) AM (PM) Peak Hour Traffic Volumes (Left) and Pedestrian/Cyclist Volumes (Right)



The peak hour volumes were then imported into Trafficware Synchro™ 10 software to complete intersection capacity analysis. The resultant intersection performance has been summarized in **Table 1** with detailed results provided in **Appendix D**.

Table 1: Existing (2023) Study Area Intersection Performance

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'As a Whole'		
	LoS	Max Delay (s) or v/c	Movement	Delay (s)	LoS	Max v/c
SIGNALIZED INTERSECTIONS						
Clyde/Merivale	C(E)	0.74(0.96)	WBL(WBL)	20.8(41.3)	C(D)	0.72(0.81)
Withrow/Merivale	B(D)	0.61(0.81)	NBT(SBT)	10.0(18.6)	A(C)	0.58(0.77)
Emerald Plaza/Merivale	C(E)	0.75(0.93)	NBT(EBL)	17.4(18.1)	B(C)	0.70(0.75)
Meadowland/Merivale	F(E)	1.03(0.93)	EBL(NBL)	40.2(44.2)	D(D)	0.87(0.84)
UNSIGNALIZED INTERSECTIONS						
Rossland/Merivale	C(E)	16(40)	WB(WB)	0(2)	A(A)	-
Note: Analysis of intersections assumes a PHF of 0.90 and a saturation flow rate of 1800 veh/h/lane						

As shown in **Table 1**, all intersections perform overall at good LoS D or better; however, most intersections also have critical turning movement, particularly left turns, approaching capacity. In the AM peak hour, the eastbound left turn at Meadowlands/Merivale operates above capacity, which can be expected from a major arterial to arterial intersection which processes a high number of vehicles per hour. Also of note, the westbound left turn at Clyde/Merivale has queue lengths longer than the available storage space for the PM peak hour, with approximately 800 left turning vehicles accommodated in a double left turn lane arrangement.

Existing Road Safety Conditions

Five years of collision history data (2016-2020, inclusive) was obtained from the City of Ottawa OpenData portal for all intersections and road segments within the study area. While 2021 data is recognized as being available, due to lower overall traffic volumes, collision occurrences are expected to be lower than the 2016-to-2020 period. Therefore, the safety review of the 2016-2020 period is considered to better capture potential safety concerns.

It was determined that a total of 367 collisions have been reported, of which 50% (185) were rear-ends, 23% (84) were turning movements, 12% (45) were sideswipes and 9% (32) were angle collisions. 81% (297) collisions resulted in property damage while the remaining result in injury. No fatalities were reported. 5 collisions involved pedestrians. The source collision data from OpenData Ottawa and detailed analysis results are provided in **Appendix E**.

A standard unit of measure for assessing collisions at an intersection is based on the number of collisions per million entering vehicles (MEV). Intersections with a ratio of 1.0 Collisions/MEV or greater are considered to be at a higher risk for collisions. At signalized intersections within the study area, reported collisions have historically taken place at a rate of:

- 1.38 Collisions/MEV at the intersection of Carling/Clyde which experienced 106 collisions in the five-year period. 54% (57) of collisions were reported as rear-ends, 18% (19) were reported as turning movements and 16% reported as sideswipes of which types are typical of congested intersections, particularly those with a heavily utilized double left-turn.
- 0.37 Collisions/MEV at the intersection of Merivale/Withrow where 29 collisions occurred. More than half the collisions were reported as rear-ends. No other discernible pattern was evident in the remaining collisions,
- 0.22 Collisions/MEV at the intersection of Merivale/Rossland where 15 collisions occurred. While 67% (10) were labelled as rear-ends (typically indicating sudden stops on the mainline) there were 4

DRAFT

collisions reported as turning movements and 4 collisions reported as angle collisions. These 8 collisions imply conflicts between vehicles travelling to and from Rossland and the Ultramar Gas station. However, at this time, it does not appear there is a significant pattern in collision history.

- 0.32 Collisions/MEV at the intersection of Merivale/Emerald Plaza, where a total of 23 collisions were reported. The most frequent type of collision was a rear end, where 10 collisions were reported as such.
- 1.42 Collisions/MEV at the intersection of Merivale/Meadowlands where 130 collisions were reported over the 5-year period. Notably, 53 (41%) rear end collisions, 50 (38%) turning movement collisions and 11 (8%) sideswipe collisions were reported.

With respect to the existing Merivale/Rossland intersection, vehicles have been observed to use the depressed median for turns to and from Merivale Road. To turn from Merivale Road, vehicles often wait in the limited vehicle storage area for upstream traffic signals to provide a red phase for oncoming traffic. Similarly, left turning vehicles from the side streets often need red phases from both intersections before proceeding. Two collision patterns of note are rear-ends and angled collisions. The risk of rear-end collisions in the northbound and southbound directions occur when vehicles turn from Merivale Road and remain within the partial storage lane. The driver expectation is for this vehicle to turn left at the next signalized intersection, so sudden braking can be unexpected. Left-turn angled and similar collisions carry a risk due to misjudging vehicle gaps in the 4-lane Merivale Road traffic flow.

Segment collisions have also been evaluated, with particular interest to the Merivale Road segments from Withrow Avenue to Emerald Plaza Shopping Center, an approximate 220-meter segment with the site access located between the two points. Within this segment of Merivale Road, a total of 23 collisions have been recorded, with 13 of them being north of the site access and 10 south of the site access. The collisions north of the site access were predominantly property damage only (11 or 85%) and about half of them involved rear-end collisions, normally attributed with start and go traffic or having a large number of driveway accesses. The segment south of the site however had a larger percentage of non-fatal injury, with 3 or 30% involving injuries, and one of the injuries resulting from a collision with a cyclist. Unlike the north segment, a larger percentage of collisions involved sideswipes and angle collisions, likely attributed to vehicles changing lanes or merging in and out of driveway accesses. It is noteworthy that only 1 of the 23 (4%) involved turning movements.

Of the remaining segment collisions, the majority of collisions were reported as rear-end incidents. This finding is consistent with the presence of a significant number of accesses along Merivale Road which require vehicles to come nearly to a stop resulting in conflicts with through traffic. Planned Conditions

2.1.2.1. Future Transportation Network Changes

1545A Merivale Road SPC – Rossland Avenue Right in Right Out

The 1545A Merivale Road site plan control proposal is anticipated to include a right-in right out intersection conversion at the Merivale/Rossland intersection. At this time, it will be assumed that any future analysis would accommodate the right-in right-out.

Merivale Road Secondary Plan

The proposed site is located within the Merivale Road Secondary Plan Area which provides planning direction for the Merivale Main Street corridor. The Plan is founded on the premise that Merivale Road is not a 'greenfield' area and is therefore to be maintained as a retail and service corridor between 'Activity Centres'. The purpose of the Merivale Planning Area is to support ongoing retail function.

The relevant Transportation and streetscape policies from the Merivale Road Secondary Plan include:

- **Pedestrian Realm:** Well furnished, protected and continuous pedestrian sidewalks are to be provided on the frontage of all developments.
- **Transit Network:** Pedestrian routes to and from sidewalks shall connect directly transit stops

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- **Interconnected Vehicle Access:** where possible, parking aisles and bays shall be linked between sites

City of Ottawa Transportation Master Plan (2013)

A review of the City of Ottawa Official Plan, Transportation Master Plan, Pedestrian Plan and Cycling Plan has indicated the following:

- The Baseline BRT Corridor Plan and the Affordable Transit Network Plan indicates a future LRT-BRT station at the Clyde/Merivale/Baseline junction within approximately 800m of the site. The timing of which is currently unknown and likely outside this developments horizon.
- Merivale Road is designed a transit priority corridor (continuous lanes) in the TMP Network Concept. These transit improvements are omitted from the Affordable Concept. To the knowledge of the proponent, no design has been prepared.
- Merivale Road is designated a Spine Route in the Ultimate Cycling Network
- Capilano Drive-Withrow Avenue is designated a Local Route in the Ultimate Cycling Network.

2.1.3.1 Other Study Area Developments

Based on the City of Ottawa's Development Applications search tool, several applications have been initiated near the proposed development site which include:

- 1545A Merivale Road (Parsons, 2023) This site plan control proposal is located opposite Rossland Avenue. It would include a one-storey medical imaging clinic with an approximate area of 27,700 ft^2 and accessed from the existing driveway to Merivale Road. As part of this proposal, the Rossland Avenue intersection is anticipated to be converted to a right-in right out intersection.
- 1375 Clyde Avenue (Parsons, 2017) This proposal is located north of the Merivale/Clyde intersection within the Baseline-Clyde-Merivale triangle. The proposal includes a self-storage facility, a restaurant (With drive-thru) and an expansion on the existing retail building. The development is anticipated to generated 47 and 93 new AM and PM peak hour two-way auto trips.
- 1357 Baseline Road (Stantec, 2020) This proposal includes 174 residential units, 228 senior residence units and a 5,900 ft^2 ground floor retail. The total two way trips are estimated to be 53 auto trips in the AM and 66 auto trips in the PM peaks.
- 1500 Merivale Road (Novatech, 2021) This proposal is located within the Baseline-Clyde-Merivale and proposed 1m967 dwelling units and approximately 12,000 ft^2 of commercial over the span of 10 phases from 2023 to 2028. At 50% build-out, the development would contribute 118 two-way AM peak hour trips and 131 PM peak hour trips to the surrounding network.
- 1509 Merivale Road (CGH, 2021) This proposal is located north of Capilano Drive along Merivale and would include a high-rise residential development of 203 units. This proposal is anticipated to generate 32 and 33 morning and afternoon peak hour trips, respectively.
- 56 Capilano Drive (ZBLA) – The existing curling rink is proposed to be re-zoned from an L1 – Community Leisure Facility to an R4Z – Residential use. The proposal would include 50 units. A 2013 Transportation Overview estimated existing peak hour traffic demand of approximately 24 two-way auto trips. When considering the balance of removing the existing curling trips for 50 residential units, the net impact to Capilano and Merivale would be minimal, therefore no additional traffic has been assumed from this proposal.

2.2. Study Area and Time Periods

The proposed development will be constructed in a single phase, anticipated for 2026. Given that the site does not meet the trip generation traffic, the proposed study area intersections are proposed to be limited to the Merivale/Withrow intersection, as illustrated in **Figure 8** for site build-out forecast conditions.

As part of the 1545A Merivale TIA (2023), a traffic count was undertaken during the AM and PM peak periods to determine turning movement volumes to and from Rossland Avenue and the existing site access. The count

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also identified pedestrian and cyclist movements during the peak periods. Notably, the majority of vehicles utilizing Rossland Avenue were destined to/originating from the Shell gas station west of Merivale Road. The median break was observed to be used consistently for all movements. Conflicts were also observed between the northbound and southbound left turns, which typically relied on downstream traffic signals to provide a red phase to Merivale Road before proceeding.

Figure 8: Proposed Limited TIA Study Area

2.3. Exemption Review

The following modules/elements of the TIA process are recommended to be exempt based on the City's TIA guidelines and considering that the proposed site does not meet the TIA Trip Generation trigger. To facilitate the future Site Plan Control application, the Design Review elements of 4.1-through-4.4 will be reviewed including site circulation and parking.

Module 4.5 (Transportation Demand Measures) will be included to provide measures and design features to benefit non-auto mode travel and support the recommended parking ratio.

Table 2: Exemptions Review Summary

Module	Element	Exemption Consideration
4.6-4.9 Network Impact	All	Only required when the development exceeds 60 person trips

3.0 FORECASTING REPORT

3.1. Development Generated Travel Demand

For the purposes of remaining conservative in regard to the total projected number of peak-hour person trips, the existing site was assumed to produce a negligible number of trips during the morning and afternoon peaks as most church related trips are anticipated to occur during weekend hours. Therefore, no reductions will be applied for the removal of the existing church and related office development. Similarly, the proposed worship and supporting office space is understood to produce minimal weekday peak period trips.

The following trip generation approach provides peak-hour person-trip projections based on two potential mode shares; those presented within the TRANS 2020 Manual (reflectively of the entire Merivale area) and mode shares based upon a reflection of transit-oriented mode share targets which reflect the site being proposed as an affordable housing development.

3.1.1. Residential Trip Generation and Mode Shares

Table 3 summarizes the AM and PM peak period person-trip generation rates for the development based on the newly revised 2020 TRANS Trip Generation Manual. The 'High-Rise' person-trip rate was selected based on the definition provided by the TRANS Trip Generation Manual Summary Report, as the proposed mixed-use development is anticipated to exceed two-stories in height (8-storey building and 3-storey stacked towns are proposed).

Table 3: 2020 TRANS Residential Trip Generation Rates

Land Use	ITE/TRANS Designation	Development Size	Trip Rates	
			AM PEAK	PM PEAK
High Rise Apartments	ITE 222	84 Units	T = 0.80(du)	T = 0.90(du)

Notes: *T = Average Vehicle Trip Ends; du = dwelling units*

Using the TRANS Trip Generation rates, the total amount of person trips generated by the proposed 80 residential units was calculated. The results are summarized in Table 4.

Table 4: Projected Residential Peak Period Person Trip Generation – TRANS Model

Land Use	Development Size	AM Peak (Person Trips/Period)	PM Peak (Person Trips/Period)
High Rise Apartments	84 Units	67	76

Table 5 of the TRANS 2020 Trip Generation Manual was referenced for the base mode shares applicable to a high-rise residential development within the Merivale ward. The projected site peak period person trips according to the Merivale mode shares are summarized in Table 5.

Table 5: Residential Peak Period Trips using TRANS 2020 Mode Shares (Merivale)

Travel Mode	AM Peak (Person Trips/Period)		PM Peak (Person Trips/Period)	
	MODE SHARE	PERSON TRIPS	MODE SHARE	PERSON TRIPS
Auto Driver	41%	27	41%	31
Auto Passenger	6%	4	11%	8
Transit	42%	28	33%	24
Cycling	2%	2	2%	2
Walking	8%	6	13%	10
Total Person Trips	100%	67	100%	76

Standard traffic analysis is usually conducted using the morning and afternoon peak hour trips as they represent a worst-case scenario for traffic operations. The 2020 TRANS Manual used for Table 5 uses critical peak periods which could be longer or shorter than an hour, rather than a defined critical 60-minute block.

The 2020 TRANS Manual Table 4 was referenced to convert the peak-period person-trips to peak-hour person trips by mode. Table 6 summarizes the conversion factors from the 2020 TRANS Manual. Note that conversion factors for passenger trips are assumed to be equivalent to the published 'Auto Driver' factors for both the morning and afternoon peak period-to-hour conversion.

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Table 6: Residential Peak Period to Peak Hour Conversion Factors (2020 TRANS Manual)

Travel Mode	Peak Period to Peak Hour Conversion Factors	
	AM	PM
Auto Driver	0.48	0.44
Auto Passenger	0.48	0.44
Transit	0.55	0.47
Cycling	0.58	0.48
Walking	0.58	0.52

Table 7 summarizes the residential peak hour trips for TRANS 2020 Merivale mode share generated by the site by adopting the peak period to peak hour conversion rates from **Table 6**, the derived peak period trips by mode shares from **Table 5**, and the inbound and outbound splits from TRANS 2020 Manual Table 9.

Table 7: Residential Peak Hour Trips Generated using TRANS 2020 Mode Shares

Travel Mode	Mode Share AM(PM)	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	41% (41%)	4	9	13	8	6	14
Auto Passenger	6% (11%)	1	1	2	2	1	3
Transit	42% (33%)	5	11	16	7	5	12
Cycling	2% (2%)	0	1	1	0	1	1
Pedestrian	8% (13%)	1	2	3	3	2	5
Total Person Trips	100%	11	24	35	20	15	35
'New' Auto Driver Trips		4	9	13	8	6	14

A significant transit modal share for the residential portion of the development is proposed given the site is located adjacent to frequent transit route #80, is within 800m of the future Baseline BRT to the north, and an increase in walking is also forecasted given close proximity to shopping, grocery, and employment. The development proposes affordable housing units which typically have higher non-auto mode shares, which is reflected in the reduce parking rate proposal.

Table 8 summarizes the TRANS 2020 suggested residential modal shares for Merivale, the City's Transit Oriented Development (TOD) modal shares and future projected residential modal shares based on the sites context.

Table 8: Future Residential Modal Share Targets for the Development

Travel Mode	TRANS Residential Mode Shares		City's TOD Mode Shares	Future Target Mode Share AM & PM	Residential Modal Share Target Rationale
	AM	PM			
Auto Driver	41%	41%	15%	30%	A reduction in driver mode share from TRANS is justifiable given the close proximity to frequent transit route #80 and site context near walkable destinations. A low parking ratio has also been proposed, lowering likelihood of driving.
Auto Passenger	6%	11%	5%	8%	
Transit	42%	33%	65%	45%	Development is located adjacent to frequent transit route #80. Given that the development is catered to low income housing, transit is a likelier mode share than driving alone.
Cycling	2%	2%	5%	2%	Slight increase in walking mode share given the sites context near walkable destinations (shopping, employment, etc.).
Pedestrian	8%	13%	10%	15%	

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Table 9: Residential Peak Hour Trips using TOD Mode Shares

Travel Mode	Mode Share AM & PM	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	30%	3	7	10	6	4	10
Auto Passenger	8%	1	2	3	2	1	3
Transit	45%	5	11	16	9	6	15
Cycling	2%	0	1	1	0	0	1
Pedestrian	15%	2	3	5	3	2	5
Total Person Trips	100%	11	24	35	19	14	33
'New' Auto Driver Trips		3	7	10	6	4	10

3.1.2. Institutional, Office and Worship Trip Generation

The proposed concept plan of the subject development includes a place of worship and supportive office/administrative space to replace the existing Anglican Church of similar size. Currently, there are only religious services on weekends and once during weekdays at Thursdays at 11:00, which does not occur during regular AM and PM peak hours. The existing land use trips which are also a place of worship (Julian of Norwich Anglican Church) and ancillary institutional uses such as New Star Children's Theater (closed) and L'Arche Ottawa Community Center will not be removed from the analysis of the network, as their peak hour influence during weekdays is considered negligible.

Therefore, future trip generation from the institutional and supportive administrative land uses will be considered to generate negligible person-trips during weekday peak hours.

3.2. Projected Travel Demands of Proposed Development

3.2.1. Trip Distribution

Based on the OD Mode Share Survey, existing traffic volume counts and the location of adjacent arterial roadways and neighborhoods, the distribution of site-generated traffic volumes is as follows:

- (From/To) the North: 45%;
- (From/To) the South: 20%;
- (From/To) the West: 20%; and,
- (From/To) the East: 15%.

3.2.2. Trip Assignment

Discussions with the City of Ottawa as part of this development and the adjacent 1545 Merivale Road development (located across Merivale Road from this development), have come to an understanding that a right-in-right-out (RIRO) type access is proposed at Rossland/Merivale. Any vehicle departing from the parking spaces with access to Rossland Avenue and headed northbound are anticipated to exit the site westbound on Rossland Avenue, turn on St. Helens Place and perform a left-turn at the signalized Withrow/Merivale intersection. Similarly, the opposite route is anticipated for northbound headed vehicles on Merivale who are headed to parking accessed via Rossland Avenue. The forecasted vehicle trips from **Table 9** were assigned to the network as shown in **Figure 9**.

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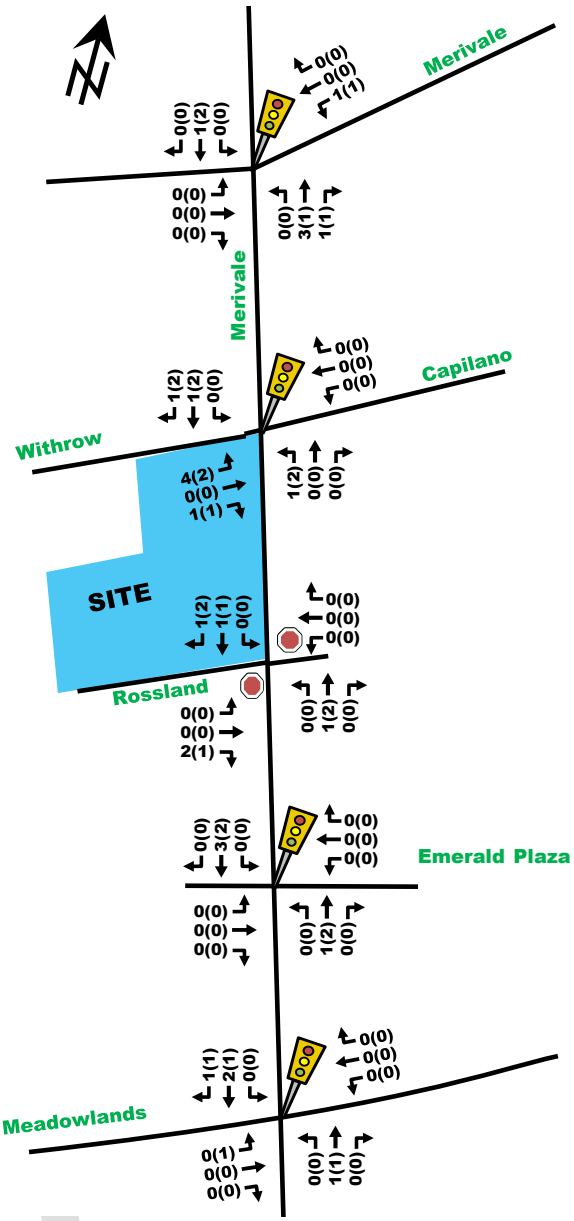
Figure 9: 'New' Site-Generated Trips



3.3. Background Network Travel Demands

3.3.1. Transportation Network Plans

Refer to **Section 2.1.3** Planned Conditions – Planned Study Area Transportation Network Changes. The Baseline BRT corridor and station nearest Clyde Avenue are assumed to be outside of the study horizon.

3.3.2. Background Growth

The City's TRANS Regional Model forecasts were reviewed for the 2011 and 2031 horizons along Merivale Road (**Appendix F**). In general, growth was found to be essentially near-zero along Merivale Road and Clyde Avenue surrounding the proposed development.

It is anticipated that background growth along the Merivale Road corridor will be captured through the addition of other nearby developments layered on individually as described in Section 3.2.3. Therefore, a 0% background annual growth rate has been applied to study area intersections.

3.3.3. Other Area Developments

Other area developments were identified and described in **Section 2.1.3**. Peak hour trips generated by these developments, based on the supporting TIA studies, have been summarized in **Table 10**. Since a background growth rate of 0% annual is proposed, then the background volumes reflect other area developments layered on to existing traffic volumes.

The other area development forecasted vehicle trips has been illustrated in **Figure 10** on the left side and the future total background volumes on the right side of the figure.

Rossland/Merivale was converted to a RIRO type intersection in future horizons. It is noteworthy that the study for 1375 Clyde was performed using the 2011 TRANS Trip Generation manual which is now outdated and projects a higher trip generation rate compared to the more recent TRANS 2020 Trip Generation manual. For the 1500 Merivale, the a reduced development assumption was adopted as 2038 full buildout is beyond this study horizon.

Table 10: Other Area Developments Vehicle Trip Generation

Development	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
1357 Baseline	16	38	53	38	29	66
1500 Merivale	38	80	118	75	56	131
1509 Merivale	25	56	81	47	34	81
1545 Merivale	51	14	66	17	41	58
1375 Clyde	28	19	47	47	46	93
'New' Auto Driver Trips Other Future Developments	158	207	365	224	206	429

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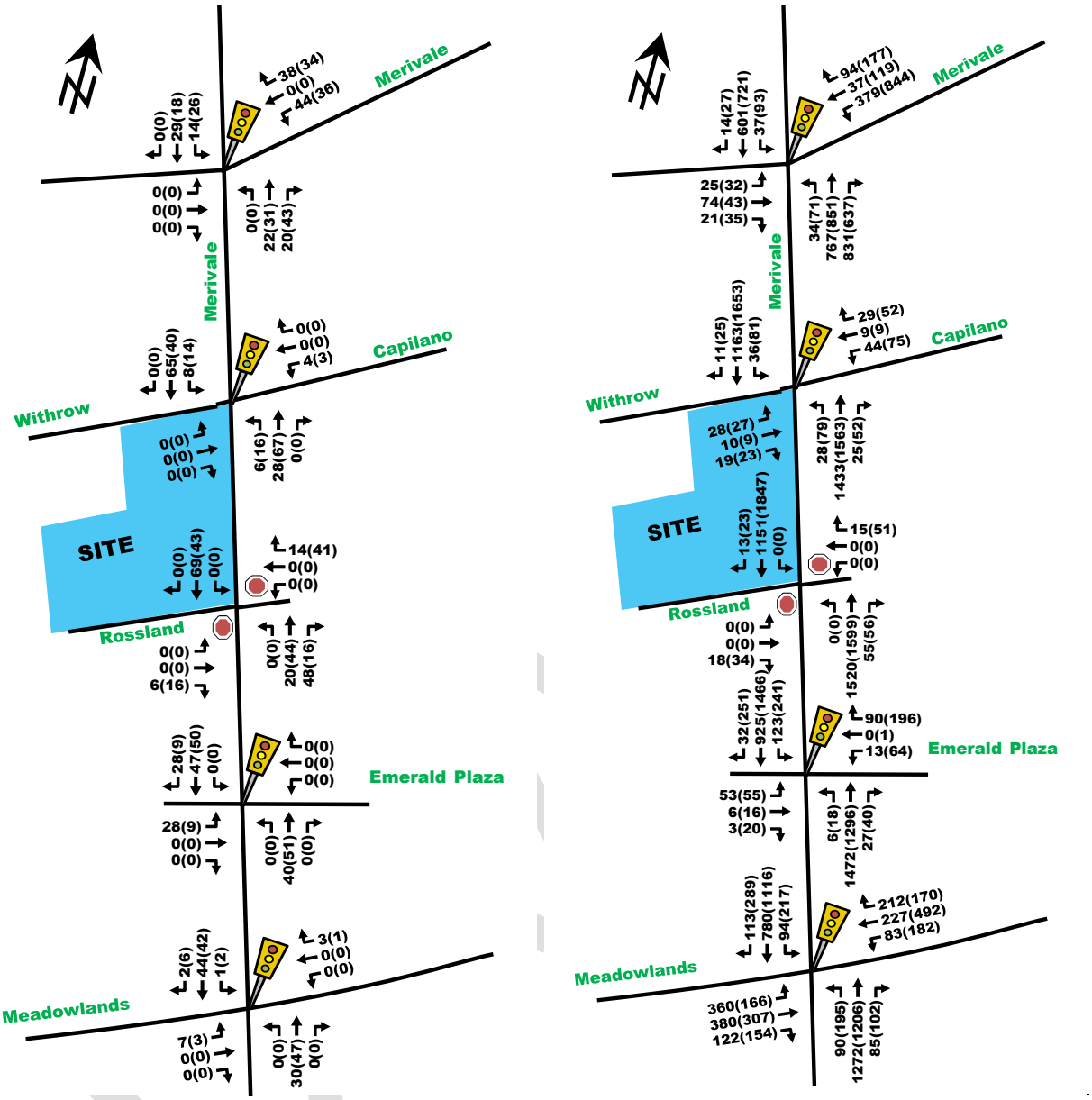
Figure 10: Other Area Developments Vehicle Trip Generation (Left) and Future Background Total Volumes (Right)



3.4. Demand Rationalization

The forecasted background volumes from **Figure 10** were imported into Synchro software. The output intersection performance has been summarized in **Table 11**, with detailed output in **Appendix G**.

Table 11: Future Total Background Volume – Intersection Performance

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'As a Whole'		
	LoS	Max Delay (s) or v/c	Movement	Delay (s)	LoS	Max v/c
SIGNALIZED INTERSECTIONS						
Clyde/Merivale	C(E)	0.74(0.93)	WBL(WBL)	20.0(38.0)	B(D)	0.69(0.81)
Withrow/Merivale	A(C)	0.56(0.75)	NBT(SBT)	8.9(17.4)	A(C)	0.53(0.71)
Emerald Plaza/Merivale	B(C)	0.69(0.73)	NBT(EBL)	13.6(17.5)	B(B)	0.65(0.69)
Meadowland/Merivale	D(D)	0.90(0.84)	EBL(WBT)	35.6(38.3)	C(D)	0.79(0.83)
UNSIGNALIZED INTERSECTIONS						
Rossland/Merivale	C(C)	17(22)	WB(EB)	0(2)	A(A)	-
Note: Analysis of intersections assumes a PHF of 0.90 and a saturation flow rate of 1800 veh/h/lane						

As shown in **Table 11**, the future background intersection performance are anticipated to operate similar to, or better than, existing conditions given that a peak hour factor of 1.0 was used compared to 0.9 for existing (as per TIA guidelines).

Given that there is projected background capacity along Merivale Road and the site is forecasted to produce very few new vehicle trips of 10 vehicles two-ways per peak hour (or a new vehicle every 6 minutes, considered negligible effect on the network intersections), then no demand rationalization is proposed to modify either background volumes or development volumes. The future intersection performance analysis including the proposed development will be exempt as it will perform the same as future background conditions.

4.0 STRATEGY REPORT

4.1. Development Design

4.1.1. Design for Sustainable Modes

Location of Transit Facilities

There are existing bus stops on Merivale Road near the Withrow/Merivale and Rossland/Merivale intersections for northbound and southbound frequent transit Route #80 respectively, as shown in **Figure 5**. The site has a southbound stop adjacent to the property line and approximately 30 meters to the northbound stop which is located on the other side of Merivale Road adjacent to the site. Supplementary bus local routes are provided approximately 550 meters north for route #81 on Clyde Avenue and 650 meters south for routes #86 and #186 on Meadowlands Drive.

The bus stop will be fully considered in the site design to ensure it maintains its location, pad, shelter and lighting.

Pedestrian/Cycling Routes and Facilities

The site will maintain the concrete sidewalk along Withrow Avenue connecting to the existing pedestrian facilities on Merivale Road. A sidewalk along Rossland Avenue to the first access is currently being explored to connect the site to the adjacent transit stop. The main residential block and place of worship will provide direct connectivity and front the Merivale Road sidewalk facilities. All bus stop locations within an 800-meter walk are accessible via paved sidewalks.

Merivale Road and Meadowlands Drive are both denominated as spine bike routes, however neither of them have cycling facilities and it is assumed cyclists would share the road as mixed-user facilities. Desirable cycling routes can include the Nepean Trail Multi-Use Pathway (MUP) which provides connectivity to the Meadowlands

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Drive spine route (mixed-user facility). To the north, cyclists would need to use mixed facilities or local roads to travel 1.5kms to a branch of the Experimental Pathway MUP. It is understood that the future Baseline Road BRT Corridor could provide for future cycling infrastructure, however no formalized design has been confirmed.

Bicycle Parking

The proposed development will provide higher than minimum required bike parking, with 34 located indoors and 12 in the exterior of the building. All bike parking will be easily accessible.

4.1.2. Circulation and Access

The site proposes three access driveways. One is located approximately 55m west of Merivale Road on Withrow Avenue. A 6m wide two-way driveway is proposed, which serves 20 parking spots. The other two driveways are located approximately 65m and 95m west of Merivale Road on Rossland Avenue. The two driveways on Rossland Avenue form a loop that is 6m wide and provides two-way circulation. This loop driveway provides parking for 40 vehicles. All driveways and internal aisles adhere to Part 4: Parking Queueing and Loading Provisions by-laws. A pick-up/drop-off layby has been proposed within the internal Rossland Avenue loop, located near the church plaza entrance, for patrons of the new place of worship.

Garbage pickup is proposed at the curb front for both the townhouse and worship/multi-storey residential uses. In both cases, it is envisioned that garbage will be conveyed to the curb for pick-up. Waste trucks are not anticipated to access either parking lot.

4.1.3. New Streets Network

Exempt, refer to **Table 2**.

4.2. Parking

The site is located in Area C, Schedule 1A, and is not within a 600m walk to any rapid transit station within Schedule 2A or B. The walking distance to the future Baseline BRT system is greater than 600m but is less than 800m.

The site provides the following parking supply:

- 11 driveways fronting the 27 stacked townhouse units;
- 40 parking stalls accessed via Rossland Avenue;
- 20 parking stalls access via Withrow Avenue; and
- A parking lot located in the adjacent school property for overflow parking during weekend times of worship. This lot is currently used by the church informally.

Table 12 summarizes the vehicle parking minimum rates from Part 4, Parking, Queueing and Loading Provisions parking by-law, referenced from Tables 101 and 102. The table indicates the base parking rates based on Table 101, the residential visitor rates based on Table 102, the proposed residential parking rate, and the proposed parking supply.

As indicated by **Table 12**, the proposed residential combined base and visitor parking rate for the 84 affordable housing units is 0.5 stalls/unit, resulting in a requirement of 42 parking stalls. This rate is supported by:

- The development being located on Merivale Road, adjacent to a commercial district which serve residents' needs.
- The development being located adjacent to several frequent bus routes fronting the development on Merivale Road.
- The development being located within 800m of the future Baseline BRT, which will provide transit access beyond the Merivale community.

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- The proponent has committed to significant TDM measures, such as…

Without considering shared parking usage, and adopting the proposed 0.5 stall/unit parking rate, the development would require a total of 82 stalls, 57 stalls (42 tenant + 15 visitor) for the residential dwellings, 20 stalls for the place of worship and 5 stalls for the supportive administrative office spaces.

Table 12: Vehicle Parking Space Supply – Part 4, Table 101 and 102

Land Use	Size (units or m²)	Base Rate	Visitor Rate	Proposed Tenant Parking Supply Rate	Total Auto Parking Spaces		
		MIN	MIN		MIN DEMAND BASED ON TABLE 101 AND TABLE 102	DEMAND BASED ON PROPOSED RATE, TABLE 101 AND TABLE 102.	PROPOSED
Residential (R12)	84 units	1.2/unit[1]	0.2/unit	0.5/unit	117 (15 visitors[2])	**57** (15 visitors[2])	71
Place of Worship (N66)	200 m²	10/100 m²	-	10/100m²	20	**14**	
Institutional Office (N59)	219 m²	2.4/100 m²	-	2.4/100m²	5		
			Total		142	71	71

1. The residential component of the development is geared to low-income housing. A lesser minimum rate closer related to rooming house (R22) with a rate of 0.5/unit has been proposed as an appropriate.
2. Per Part 4, Section 102(4), in the case of a stacked dwelling or planned unit development where a development has a driveway accessing its own garage or carport; no visitor parking is required for that dwelling unit. Therefore, visitor parking calculations are based on 73 units (82 units – 11 driveways)

Table 13 summarizes the bicycle parking requirements as per City of Ottawa Zoning By-Law-Part 4, sections 100-114. Note that only units within the apartment building and the place of worship will require bike parking spaces.

Table 13: Bicycle Parking Requirements

Land Use	Size (units or m²)	Rate per 1,000 m²	Bike Spaces Required	
		MIN	MIN	PROPOSED
Residential	46 units[1]	0.5/unit	23	34
Worship Space/Admin Space	419 m²	1.0/1,500 m²	0	12
		Total	23	46

1. Only units within the apartment building were considered as per the parking by-law.

The development proposes double the minimum requirement of bike parking spaces.

4.2.1. Spillover Parking

The site proposal can result in parking deficiencies, specifically during weekend periods where peak parking demand is expected to occur during times of worship service. The overflow lot located south of the develop would be able to capture the additional parking demand resulting in minimal impact to street parking on the surrounding community.

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4.3. Boundary Street Design

4.3.1. Existing Conditions

The boundary street for the development is Merivale Road.

- Merivale Road:
  - 2 vehicle travel lane in each direction;
  - 1.5m sidewalk on both sides of road with 1.5m boulevard;
  - More than 3,000 vehicles per day;
  - Posted speed 60km/h (used 70km/h) with no parking allowed;
  - Classified an arterial mainstreet roadway;
  - Classified as a spine bike route; and,
  - Identified as a Truck Route.

The proposed site is not located within 600m of a rapid transit but is located within 300m of Elizabeth Wyn Wood Secondary School. Multi-modal Level of Service analysis for the subject road segments adjacent to the site is summarized in **Table 14** with detail analysis provided in **Appendix H**.

Table 14: MMLOS – Boundary Street Segments Existing and Future Proposed

Road Segment Level of Service (LoS)	Pedestrian PLoS		Bicycle (BLoS)		Transit (TLoS)		Truck (TkLoS)	
	PLOS	TARGET	BLOS	TARGET	TLOS	TARGET	TKLOS	TARGET
Merivale Road	E	A	F	C	D	D	A	D

Pedestrian: PLoS targets were not met due to the high target goal given the site's proximity to a school, the operating speeds, and types of sidewalk facilities. To achieve the PLoS target, the sidewalk would need to be widened to at least 2-meters wide with 2-meter boulevard separation and travel speeds would need to be reduced to 40 or less km/h. Given the arterial roadway designation, it is unlikely that speeds will be reduced.

Bicycle: BLoS targets were not met due to the lack of cycling infrastructure. Cyclists currently would have to share a lane with vehicles travelling 60km/h. Providing curbside bike lanes or physically separated bike lanes would meet the BLoS target on Merivale Road.

Transit: TLoS targets were met.

Truck: TkLoS targets were met.

4.4. Access Intersection Design

Although collision data from **Section 2.1.2** does not appear to show any significant collision patterns or a high incident of turning movement within historic data at Rossland/Merivale, it is acknowledged that an increase in turning movements to and from the adjacent site (1545 Merivale) and this site poses a risk to an increase in frequency of collisions at this location. For this reason, it is understood that this all-movement access will be reduced to a right-in-right-out (RIRO) only.

4.4.1. Location and Design of Access

The development proposes two access with 5 driveways to Rossland Avenue, and one access with 6 driveways to Withrow Avenue.

The direct accesses to the development consist of an access approximately 55m from Merivale Road on Withrow Avenue and two accesses to Rossland Avenue approximately 65m and 95m from Merivale Road. None of the accesses connect to an arterial or collector road, and thus, does not have minimum clear throat length requirements. The two driveways on Rossland Avenue are further than 9m apart required by two two-way driveways within the same development. The driveways are also more than 46m of an arterial or major collector

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road, and thus, no additional separation between two-way private approach and other private approaches are required. All driveways and internal aisles adhere to the Private Approach by-laws.

4.4.2. Intersection Control

All accesses will have a STOP-control on to their receiving local roads (Withrow Avenue and Rossland Avenue). The Rossland/Merivale RIRO will maintain a STOP-control on Rossland Avenue. Rossland Avenue which has a very low number of vehicle movements compared to the through movements of Merivale Road would not trigger the warrant for a traffic signal and intersection performance is anticipated to be similar to background conditions as shown in **Table 11**.

4.4.3. Intersection Design

Due to the low number of vehicular parking, and low vehicular volumes on Withrow Avenue and Rossland Avenue, no storage lanes are required for the site accesses. The site access to Withrow Avenue is located further than the eastbound left-turn storage lane at the intersection of Withrow/Merivale. **Section 4.9.3** will review if there are any queueing implications for the storage lanes at the Withrow/Merivale intersection.

4.5. Transportation Demand Management

4.5.1. Context for TDM

Given the lower than recommended vehicle parking ratio, a strong TDM program is encouraged for this development to promote sustainable modes of transportation. The site is located adjacent to transit stops for frequent route #80, and is within 800m of the future Baseline BRT, making it a good candidate to promote transit use for residents and guests to the place of worship alike. The availability of secure bicycle parking can encourage cycling to and from the development should it be provided.

4.5.2. Need and Opportunity

The proposed development will predominantly be accessed by Merivale Road, which is currently operating near capacity. TDM measures could encourage the use of sustainable active mode shares, both to relieve stress on an already congested Merivale Road and to promote environmentally conscious ways of commuting. Additionally, providing a diverse means of transportation modes could ease financial stress on low-income tenants.

4.5.3. TDM Program

The TDM infrastructure and measures checklist have been completed and have been provided in **Appendix I**. Some of the TDM measures that are proposed include:

- Display local area maps with walking/cycling access routes and key destinations at major entrances,
- Display relevant transit schedules and route maps at entrances,
- Provide online links from the worship webpage to OC Transpo information,
- Register the worship space on OttawaRideMatch.com,
- Provide a muti-modal travel option information package to residents, and make available to hotel patrons,
- Unbundle parking costs from rent (residential),
- Explore the opportunity for car sharing during detailed design.

<u>Proposed measures identified in the TDM-supportive Development Design and Infrastructure Checklist are:</u>

- Locate building close to the Merivale streetfront, and do not locate parking areas between the street and building,
- Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations,
- Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort,

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- Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible,
- Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks,
- Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps,
- Through provisions of on-site waking surfaces, include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on- road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians,
- Provide safe, direct and attractive walking routes from building entrances to nearby transit stops,
- Ensure that walking routes to transit stops are secure and lighted wherever possible,
- Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails,
- Bicycle parking will be provided in highly visible and lighted areas. A total of 34 interior bike parking spaces and 12 exterior bike parking spaces will be provided.
- Bike parking will be provided in convenient accessible to main entrance locations.
- Bicycle parking spaces and access aisles will be designed to meet minimum dimensions such as no more than 50% of spaces are vertical spaces and that parking racks are securely anchored,
- The total number of bike parking spaces proposed is equivalent to double of the minimum bike parking required under the Parking By-Laws.
- Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for. The site proposes a reduced parking rate for the tenant parking stalls.,
- Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly. The worship space will share parking with its administrative office space, while making use of the overflow lot to minimize implications on the surrounding community,

4.6. Neighborhood Traffic Management

Exempt, refer to **Table 2**.

4.7. Transit

Exempt, refer to **Table 2**.

4.8. Review of Network Concept

Exempt, the development is anticipated to produce less than 35 people trips total. Refer to **Table 2**.

4.9. Intersection Design

4.9.1. Intersection Control

See **Section 4.4.2**.

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4.9.2. Intersection Design

Multi-Modal Level of Service

As stated in the MMLOS Guidelines, only signalized intersections are considered for the intersection Level of Service measures. The MMLOS analysis is summarized in **Table 15**, with detailed analyses provided in **Appendix H**. Note, Merivale Road is classified an arterial main street from Baseline Road to West Hunt Club Road.

Table 15: MMLOS – Existing and Future Intersections

Intersection Level of Service (LoS)	Pedestrian PLoS		Bicycle (BLoS)		Transit (TLoS)		Truck (TkLoS)	
	PLOS	TARGET	BLOS	TARGET	TLOS	TARGET	TKLOS	TARGET
Clyde/Merivale	F	C	F	C	F	D	B	D
Withrow/Merivale	F	A	F	C	D	D	-	n/a
Emerald Plaza/Merivale	F	C	F	C	C	D	-	n/a
Meadowlands/Merivale	F	C	F	C	F	D	-	n/a

Pedestrian

- No intersection met the pedestrian minimum desirable target of PLoS 'A or C'. All intersections had a PLoS of 'F' predominantly based on the number of lanes that would need to be crossed for pedestrians crossing Merivale Road (note that the number of lanes was determined from dividing the crossing distance by 3.5m and not by actual visible lanes). No mitigation would lower the PLoS to a level close to the desired MMLOS target without significantly reducing the vehicle capacity.

Bicycle

- No intersection met the cyclist minimum desirable target of BLoS 'C' due to the lack of cycling facilities. Even if curb or pocket bike lanes were added, the desired targets could not be met unless 2-stage left-turn boxes were added.

Transit

- Transit TLoS targets were met at Withrow/Merivale and Emerald Plaza/Merivale due to modest intersection delays for north-south through movement.
- Clyde/Merivale and Meadowland/Merivale had certain movements used by buses which surpassed 30 second delays and triggers the TLoS of 'E' or worse, exceeding the desired TLoS target of 'D' or better. Possible transit priority measures, such as a queue jump could reduce bus delays and improve the TLoS, however Merivale Road is not classified as a transit priority corridor.

Truck

- Only Clyde/Merivale intersection has a truck route with possible turning movements. The TkLoS was met.

4.9.3. Future Intersection Performance

Section 3.4 Demand Rationalization examined the background intersection performance and determined that Merivale Road has sufficient capacity for background conditions. The proposed development will general approximately 10 new two-way auto trips which is considered negligible, at approximately a new vehicle trip every 6 minutes. No further intersection performance is required.

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4.9.4. Queueing Analysis

The following **Table 16** summarizes queuing implications at the Withrow/Merivale intersection due to the short storage lengths currently provided. The full buildout volumes which include background volumes plus site generated traffic was used.

Table 16: Queueing Analysis for Withrow/Merivale – Buildout Year

Movement	Weekday AM Peak (PM Peak) Queueing Analysis		
	Capacity	95th % Synchro (meters)	95th % SimTraffic (meters)
Eastbound Left-Turn	25 m	14 (13)	20 (21)
Northbound Left-Turn	60 m	m2 (m16)	12 (36)
m = metered queue by upstream intersection			

As shown in **Table 16**, there are no forecasted queueing implications at Withrow/Merivale intersection with the addition of this development and other area developments layered on top.

5.0 FINDINGS AND RECOMMENDATIONS

Based on the results summarized herein the following findings and recommendations are provided:

Existing Conditions

- The existing site access is currently occupied by a place of worship (Julian of Norwich Anglican Church) and ancillary institutional uses such as New Star Children's Theater (closed) and L'Arche Ottawa Community Center.
- Bus stops for frequent transit route #80 are located directly adjacent to the site for southbound and approximately 30-meter walk for northbound on Merivale Road. Additional local routes are available on Clyde Avenue and Meadowlands Drive.
- Historical collision records confirm elevated incident typical of major urban arterial corridors in the City. Of particular note, Clyde/Merivale and Meadowlands/Merivale experienced a high rate of collision with over 1 collision per million entering vehicles. The site access intersection though not showing high rates of collision has also been considered a sensitive location due to a potential increase in left-turning vehicles at an unsignalized intersection with heavy north-south through volumes.
- Existing study area intersections operate well overall, with LoS 'D' or better but most with critical movements LoS 'E' or better. The Meadowlands/Merivale intersection does experience additional congestion in the morning peak hour. The Rossland/Merivale intersection is also shown to experience peak hour congestion for the stop-controlled movements.

Proposed Development

- The applicant is proposing the construction of 84 affordable housing units, 219 m^2 of institutional/office use and 200m^2 of worship space.
- The development is projected to generate approximately 10 'new' two-way vehicle trips during the weekday morning and afternoon peak hours.
- The development is projected to generate approximately 15 'new' transit trips during the AM and PM peak hour periods, which is expected to be accommodated by existing frequent transit route #80.
- The applicant is proposing a 2m sidewalk along Withrow Avenue and Merivale Road which connects to existing pedestrian infrastructure.
- A drop off layby area is proposed near the church plaza entrance.

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- The development proposes a parking rate of 0.5 stalls/unit for the residential portion of the development, with the balance of stalls being made available to the worship space. The development proposes 71 vehicle parking spaces all located on surface level.
- Overflow parking is to be provided at the off-site school lot for the worship space, which has been an informal agreement for 20-years.
- A total of 46 bike parking spaces are being proposed, which is double the minimum requirement for the site. 34 will be located indoors in a secure area while 12 will be located outdoors and catered predominantly to the place of worship visitors.

Future Conditions

- The 1545A Merivale Road application proposes that the Rossland/Merivale intersection would be converted to a right-in-right-out (RIRO) only intersection. Future background and projected buildout modelling applied a RIRO treatment to this intersection.
- Peak hour traffic volumes from nearby adjacent developments were incorporated into the future traffic volume projections. A background growth rate of 0% on study area intersections was applied.
- The MMLOS road segment analysis demonstrated that Merivale Road does not currently meet PLoS targets given the high number of curbside vehicles and the narrow sidewalks and boulevard treatment. Bicycle BLoS targets were also not met given that cyclists must share the road with vehicles on a road with high posted speed limit. All other MMLOS road segment categories were met.
- The MMLOS intersection analysis showed that all truck target goals were met. Transit targets were met at Capilano Avenue and Emerald Plaza intersections with Merivale Road, the remaining did not due to anticipated approach delays on Merivale Road in the future.

  Bicycle targets were not met at any location given the lack of cycling facilities. Even if cycling facilities were added, the targets would not be met unless 2-stage left-turns were added given the number of lanes on Merivale Road.

  The pedestrian targets were not met at any intersection due to the quantity of lanes required to cross on Merivale Road.
- The eastbound approach queue at the Merivale/Withrow is not anticipated to interfere with the proposed Withrow Avenue access.

Based on the preceding report, the proposed development located at 7 Rossland Avenue is recommended from a transportation perspective.

Prepared By:

Juan Lavin, P. Eng.

Reviewed By:

Jake Berube, P.Eng.

DRAFT

Appendix A:

Screening Form

DRAFT

PARSONS

1223 Michael Street, Suite 100, Ottawa, Ontario, K1J 7T2
P: +1 613.738.4160 | F: +1 613.739.7105 | www.parsons.com

City of Ottawa 2017 TIA Guidelines

TIA Screening Form

Date	14-Apr-22
Project	7 Rossland Avenue
Project Number	909979-10014

Results of Screening	Yes/No
Development Satisfies the Trip Generation Trigger	No
Development Satisfies the Location Trigger	Yes
Development Satisfies the Safety Trigger	Yes

Module 1.1 - Description of Proposed Development	
Municipal Address	1545 Merivale Road
Description of location	Property located west of Merivale Road, south of Withrow Drive and north of Rossland Avenue. Currently occupied by a place of worship and supportive institutional offices.
Land Use	Institutional
Development Size	84 Stacked Townhouse 200 m2 of institutional worship space 220 m2 of supportive office
Number of Accesses and Locations	Existing: 2 access to Rossland Avenue, waste pick up via Withrow. Proposed: 2 accesses to Rossland Avenue, 1 access to Withrow Avenue
Development Phasing	One phase
Buildout Year	2026 (Approximate)
Sketch Plan / Site Plan	See attached

Module 1.2 - Trip Generation Trigger		
Land Use Type	Townhomes or Apartments	
Development Size	84	Units
Trip Generation Trigger Met?	No	

Note: Additional Worship and Ancillary Office uses are anticipated to generate minimum additional weekday peak hour traffic.

Module 1.3 - Location Triggers		
Development Proposes a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit, or Spine Bicycle Networks (See Sheet 3)	No	
Development is in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone. (See Sheet 3)	Yes	Merivale Main Street Secondary Plan and Traditional Main Street
Location Trigger Met?	Yes	

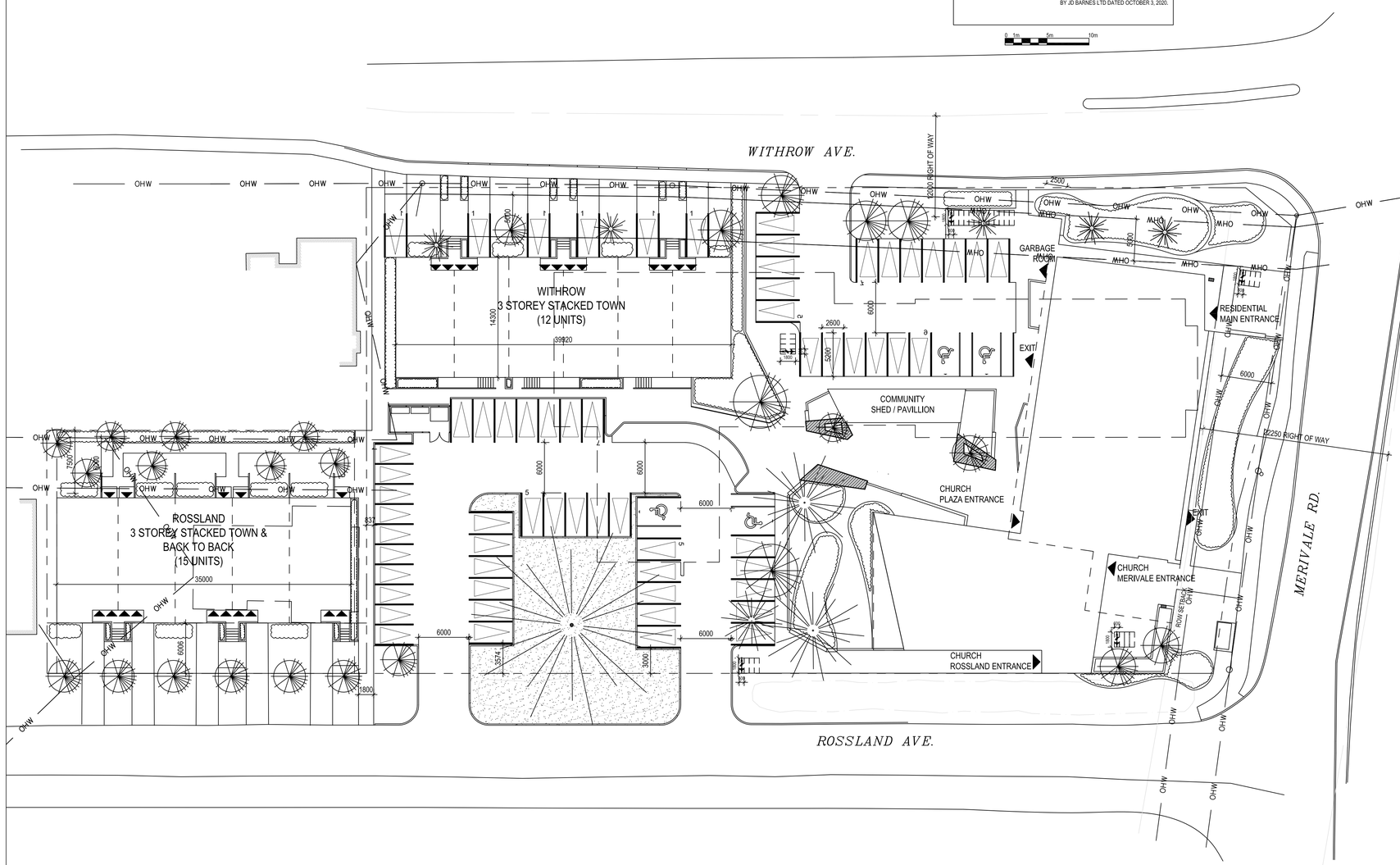
Module 1.4 - Safety Triggers		
Posted Speed Limit on any boundary road	<80	km/h
Horizontal / Vertical Curvature on a boundary street limits sight lines at a proposed driveway	No	
A proposed driveway is within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions) or within auxiliary lanes of an intersection;	Yes	Withrow Access is 55m from Withrow/Merivale
A proposed driveway makes use of an existing median break that serves an existing site	No	
There is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development	Yes	Rossland access to Merivale noted as difficult. There exists a proposal to provide a RI RO.
The development includes a drive-thru facility	No	
Safety Trigger Met?	Yes	

WITHROW
3 STOREY STACKED TOWN

ROSSLAND
3 STOREY STACKED TOWN

NOTE:
A. REFER TO LANDSCAPE PLANS FOR LOCATION OF TREES & PLANTINGS.
B. PROPERTY BOUNDARY INFORMATION DERIVED FROM SURVEY PLAN COMPLETED BY JD BARNES LTD DATED OCTOBER 3, 2020.

0 1m 5m 10m



KEY PLAN

PROPERTY DESCRIPTION

SIX STOREY RESIDENTIAL BUILDING, THREE STOREY TOWNHOUSES & ONE-STOREY CHURCH	
CITY OF OTTAWA PIN NUMBER	XXX
MUNICIPAL ADDRESS	8 Withrow Avenue

SITE INFORMATION

LOT AREA:	6,114 m²
LOT FRONTAGE:	57.9 m
LOT DEPTH:	104.72 m

BUILDING INFORMATION

BUILDING AREA:	TOWNHOUSES: 775 m², APARTMENT BUILDING: 771 m², CHURCH: 535 m²
BUILDING FLOOR AREA:	TOWNHOUSES: 2,325 m², APARTMENT BUILDING: 4,462 m², CHURCH: 535 m²
PROPOSED USE:	APARTMENT DWELLING, MID-RISE, TOWNHOUSES, CHURCH

APARTMENT UNIT BREAKDOWN:

FIRST FLOOR:	6 UNITS	4- STUDIO, 2- 2 BD
SECOND FLOOR:	10 UNITS	4- STUDIO, 2- 1 BD, 4- 2BD
THIRD FLOOR:	10 UNITS	4- STUDIO, 2- 1 BD, 4- 2BD
FOURTH FLOOR:	10 UNITS	4- STUDIO, 2- 1 BD, 4- 2BD
FIFTH FLOOR:	10 UNITS	5- STUDIO, 1- 1BD, 4- 2BD
TOTAL:	46 UNITS	21- STUDIO, 7- 1 BD, 18- 2 BD

ZONING TABLE	R5K [2133] H(20)	
CITY OF OTTAWA ZONING BY-LAW No. 2008-250	REQUIRED	PROPOSED
MINIMUM LOT AREA	450m²	1,139m²
MINIMUM LOT WIDTH	15m	32.92m
FRONT YARD SETBACK	3m	4.76m
HYDRO SETBACK	6m	17.5m
MINIMUM INTERIOR SIDE YARD SETBACK	within 21m of front lot line: <11m building height = 1.5m >11m building height = 2.5m greater than 21m from front lot line: 6m	1.5m - Levels 1 to 3 2.5m - Level 4
MINIMUM REAR YARD SETBACK	7.5m	7.5m
MAXIMUM BUILDING HEIGHT	20m	17.5m
MAXIMUM FLOOR SPACE INDEX	N/A	
LANDSCAPED AREA	30% = 341.7m²	32% = 367m²
VEHICLE PARKING REQUIREMENTS (AREA Y, SCHEDULE 1A)	0 parking spaces for first 12 units Table 101 - Dwelling low-rise apartment 0.5 per dwelling unit = 17 spaces	3 SPACES
VISITOR PARKING REQUIREMENTS (AREA Y, SCHEDULE 1A)	0.1 / DWELLING UNIT AFTER 12 UNITS 3.4 SPACES REQUIRED	3 SPACES
AMENITY AREA REQUIREMENTS	6m² per dwelling unit = 276m² 50% Communal = 138m²	-149m² REAR YARD AMENITY (Including bicycle spaces) -39m² REAR SIDE YARD AMENITY [128m² SOFT LANDSCAPING (77%)] -46m² INTERIOR ROOFTOP AMENITY -43m² BALCONIES TOTAL = 277m²
BICYCLE PARKING SPACES	0.5 per dwelling unit = 23	34 STACKED INTERIOR STORAGE SPACES 12 EXTERIOR SPACES

LEGEND

GRASS
UNIT PAVERS
REFER TO LANDSCAPE
ASPHALT PAVING
CONCRETE
RIVER STONES. REFER TO LANDSCAPE
FIRE ROUTE
EXISTING FENCE
NEW SCREEN FENCE
NEW SOUND FENCE
LOT LINE
SETBACK LINE
DESIGNATED BUILDING ENTRANCE / EXIT
FH NEW FIRE HYDRANT. REFER TO CIVIL
CB CATCH BASIN
MH MANHOLE
FD FLOOR DRAIN
ELECTRICAL POST
L.S. LIGHT STANDARD
DC DEPRESSED CURB

EXISTING TREE TO REMAIN (REFER TO LANDSCAPE DRAWINGS)
NEW TREE (REFER TO LANDSCAPE DRAWINGS)
NEW SHRUBS (REFER TO LANDSCAPE DRAWINGS)
NEW EVERGREEN SHRUB (REFER TO LANDSCAPE DRAWINGS)
XX.XX EXISTING GROUND ELEVATION [TO DETERMINE EXISTING AVERAGE GRADE]
XX.XX PROPOSED GROUND ELEVATION. REFER TO CIVIL

NOTE: 'X'-E INDICATES EXISTING TO REMAIN

No.	Date	Émis pour / Object
1	2021-09-26	FOR COORD.
2		
3		
4		
5		

Planneur / *Planner*

Ingénieur / *Engineer*
(Mécanique & Électricité / *Mechanical & Electrical*)

Ingénieur / *Engineer*
(Structure / *Structure*)

Architecte/ *Architect*
(paysagiste / *Landscape*)

Ingénieur / *Engineer*
(Civil / *Civil*)

Client / *Client*

Architecte / *Architect*
Collectif d'architectes / Architects Collective
fig. 1
5550, Saint-Antoine O.,
Montréal QC H4C 1A9
T. 514 861-5122
fig. 2
190 Somerset St W #206
Ottawa ON K2P 0J4
T. 613 695-6122
figurr architects collective
www.figurr.ca

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Sceau / *Seal*

Notes:

L'entrepreneur doit vérifier toutes les dimensions et informations sur le site et aviser immédiatement l'architecte de toutes erreurs ou omissions.

Contractor shall verify all information and dimensions on site and immediately report any errors or omissions to the architect.

Projet / *Project*

JULIAN OF NORWICH MIXED-USE REDEVELOPMENT

8 WITHROW AVE / 7 ROSSLAND AVE
OTTAWA, ON

Titre / *Title*

SITE PLAN

Dessiné par / *Drawn by*	No. projet / *Project number*	
	2147	
Vérifié par / *Verified by*	No. dessin / *Drawing number*	Révision / *Revision*
RC		0
Échelle / *Scale*		
AS SHOWN		
Date de création du dessin / *Drawing creation date*		
2021-09-29		A-010

Appendix B:

Transit Route Maps

DRAFT

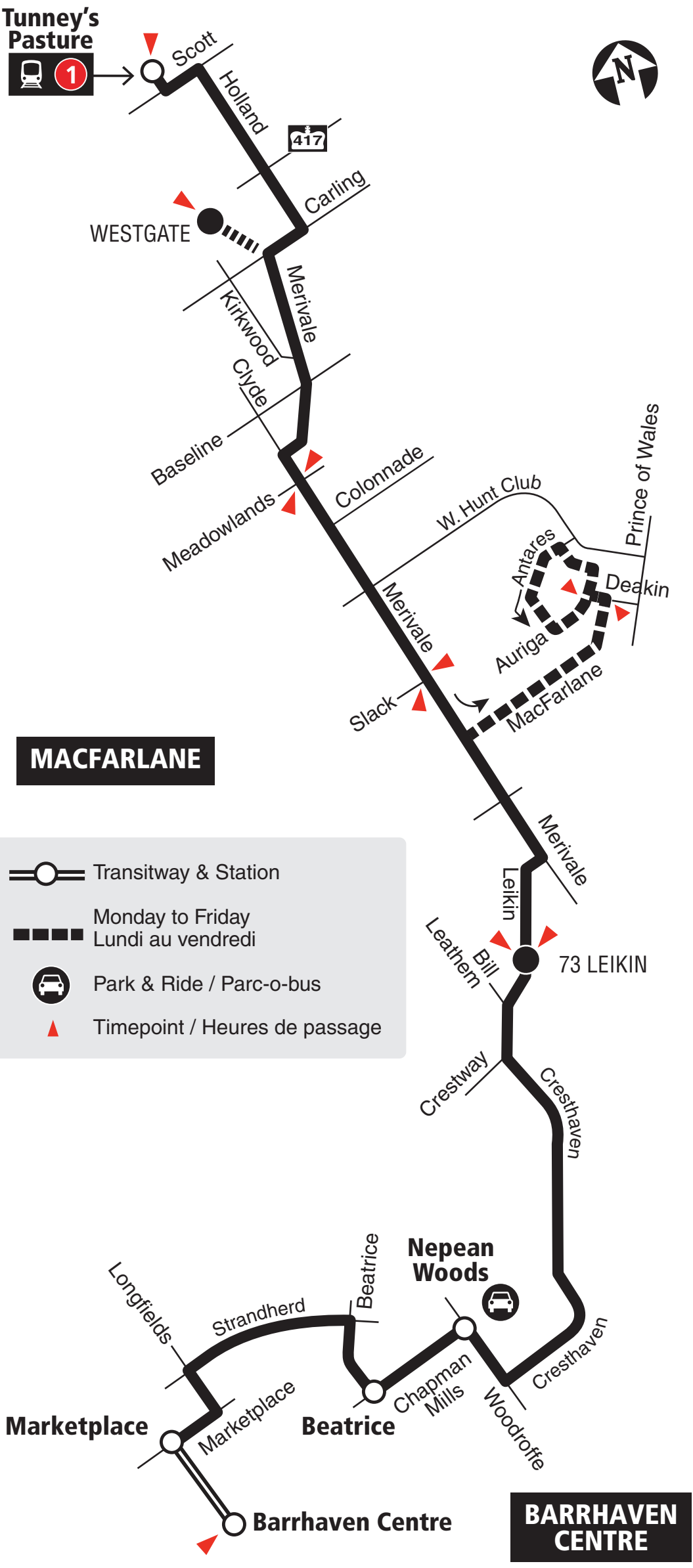
80

Fréquent

BARRHAVEN CENTRE
TUNNEY'S PASTURE

7 days a week / 7 jours par semaine
All day service
Service toute la journée

TUNNEY'S PASTURE



Transitway & Station

Monday to Friday
Lundi au vendredi

Park & Ride / Parc-o-bus

Timepoint / Heures de passage

2018.12

Schedule / Horaire.....613-560-1000
Text / Texto 560560
plus your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Customer Relations
Service à la clientèle **613-842-3600**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité **613-741-2478**

Effective June 24, 2018
En vigueur 24 june 2018

OC Transpo

INFO 613-741-4390
octranspo.com

81

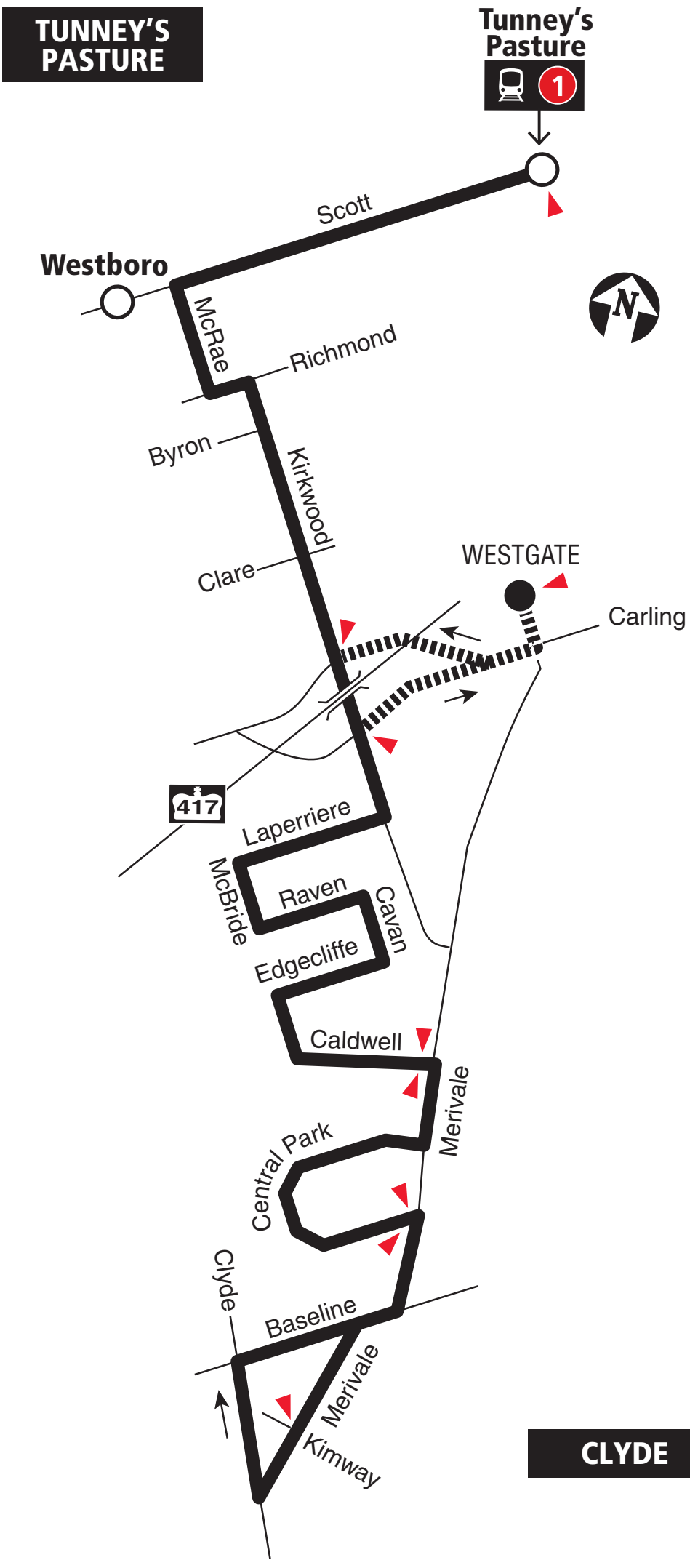
CLYDE

TUNNEY'S PASTURE

Local

7 days a week / 7 jours par semaine

No service in the evening on weekends
Aucun service le soir les fins de semaine



Station

Some trips / Quelques trajets

Timepoint / Heures de passage

2019.07

Future route after O-Train Line 1 is open
Trajet du circuit après l'ouverture de la Ligne 1 de l'O-Train

Lost and Found / Objets perdus..... **613-563-4011**
Security / Sécurité..... **613-741-2478**

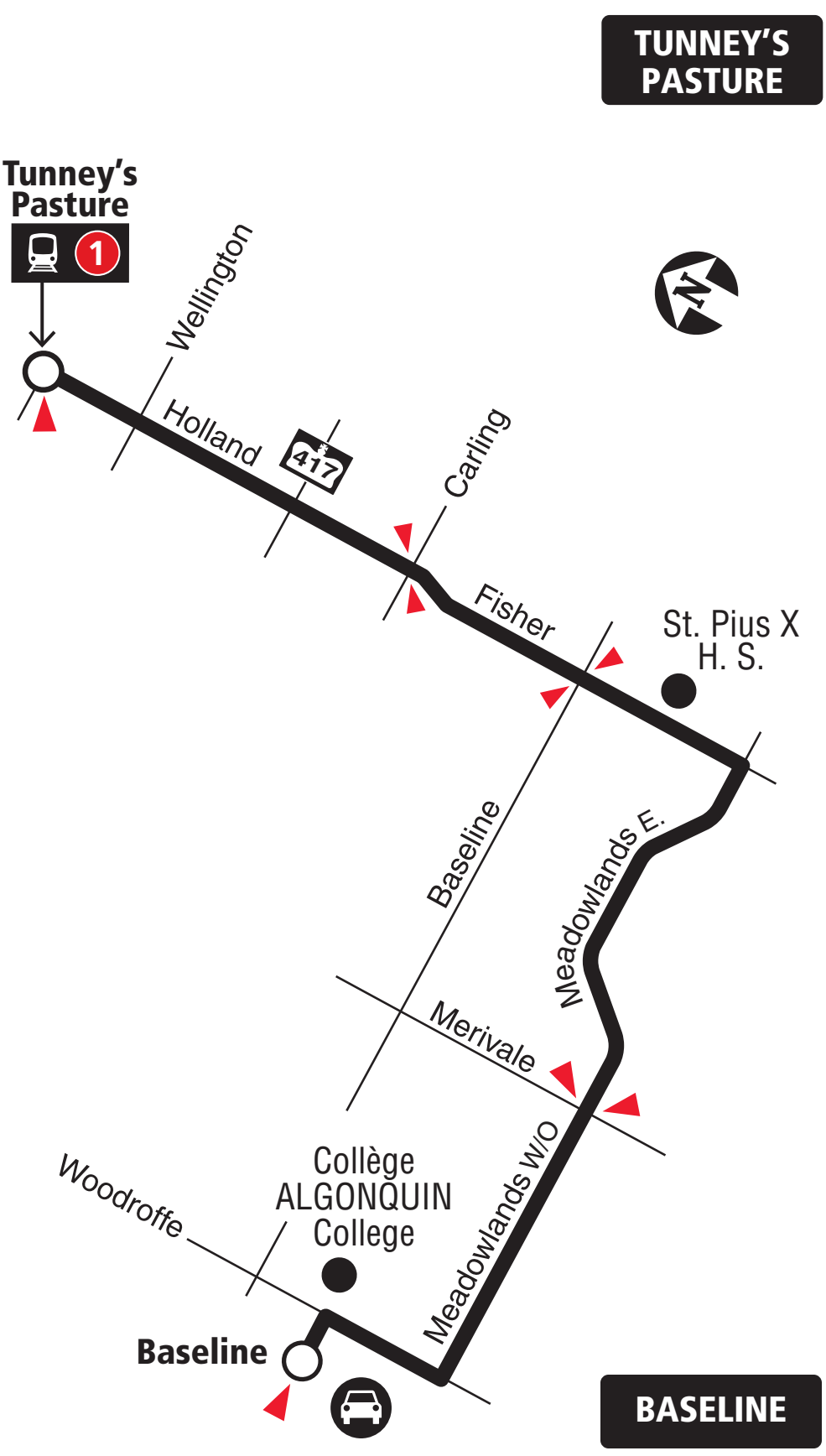
OC Transpo
INFO 613-741-4390
octranspo.com

86 BASELINE

TUNNEY'S PASTURE

7 days a week / 7 jours par semaine

All day service
Service toute la journée



○	Station
	Park & Ride / Parc-o-bus
▲	Timepoint / Heures de passage

2019.07

Future route after O-Train Line 1 is open
Trajet du circuit après l'ouverture de la Ligne 1 de l'O-Train

Lost and Found / Objets perdus..... **613-563-4011**
Security / Sécurité **613-741-2478**

OC Transpo
INFO 613-741-4390
octranspo.com

186

LINCOLN FIELDS

MERIVALE

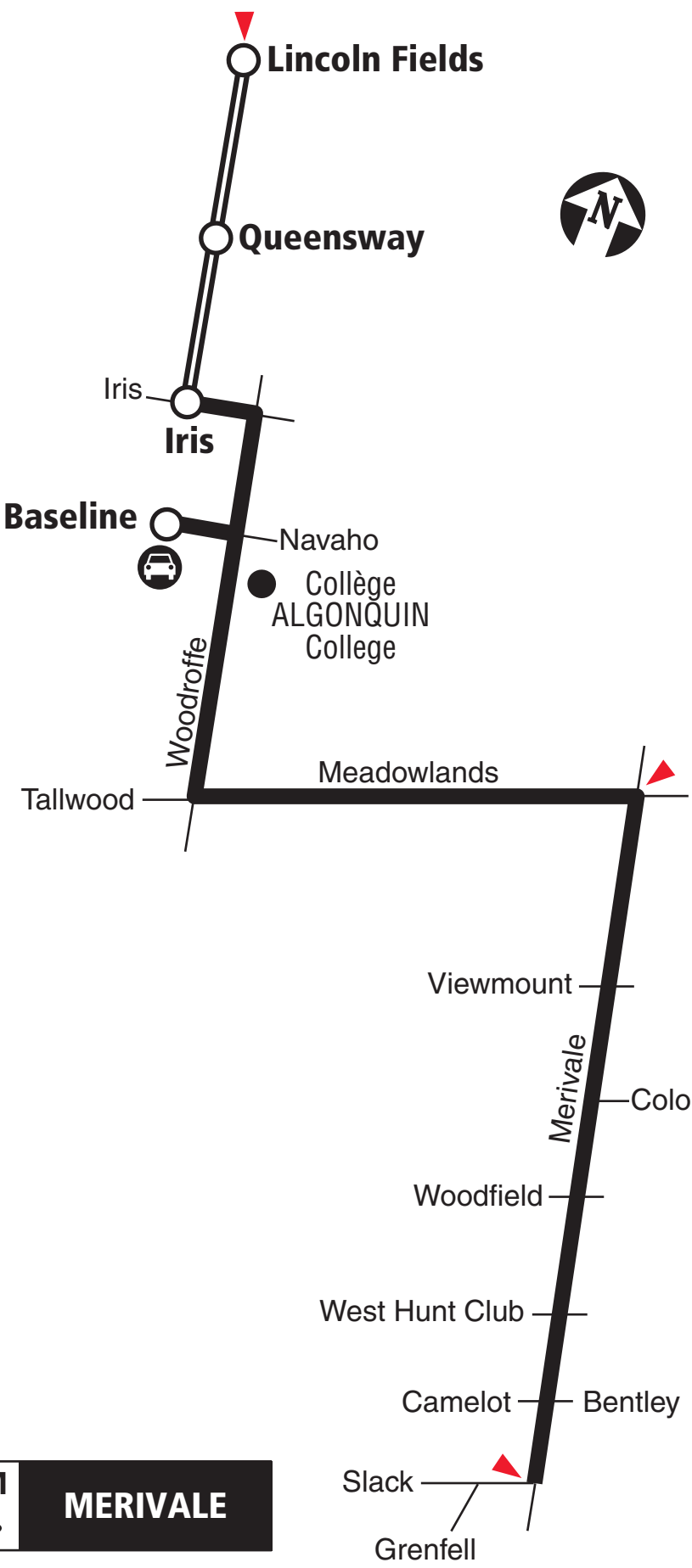
Local

Monday to Friday / Lundi au vendredi

Peak periods only

Périodes de pointe seulement

PM ↑ LINCOLN FIELDS



AM ↓ MERIVALE

Transitway & Station

Park & Ride / Parc-o-bus

Timepoint / Heures de passage

2022.06

Schedule / Horaire 613-560-1000

Text / Texto* 560560

plus your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

*Standard message rates may apply / Les tarifs réguliers de messagerie texte peuvent s'appliquer

Customer Service
Service à la clientèle **613-560-5000**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité **613-741-2478**

Effective June 26, 2022

En vigueur 26 juin 2022

OC Transpo

INFO 613-560-5000
octranspo.com

Appendix C:

Traffic Data

DRAFT

ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count

Summary Report

Including AM and PM Peak Hours

All Vehicles Except Bicycles

Capilano Drive/Withrow Avenue & Merivale Road — Nepean, ON

Survey Date: Thursday, May 04, 2023 **Start Time:** 0700 **AADT Factor:** 0.9

Weather AM: Cloudy 5º C **Survey Duration:** 4 Hrs. **Survey Hours:** 0700-0900 & 1600-1800

Weather PM: Cloudy 10º C **Surveyor(s):** T. Carmody

	Withrow Ave. (Eastbound)					Capilano Dr. (Westbound)						Merivale Rd. (Northbound)					Merivale Rd. (Southbound)						
Time Period	LT	ST	RT	UT	E/B Tot	LT	ST	RT	UT	W/B Tot	Street Total	LT	ST	RT	UT	N/B Tot	LT	ST	RT	UT	S/B Tot	Street Total	Grand Total
0700-0800	12	0	16	0	**28**	18	3	26	0	**47**	**75**	11	921	13	0	**945**	15	869	2	0	**886**	**1831**	**1906**
0800-0900	26	10	19	0	**55**	29	9	40	0	**78**	**133**	20	1405	25	0	**1450**	28	1098	11	0	**1137**	**2587**	**2720**
1600-1700	33	11	25	0	**69**	59	16	44	0	**119**	**188**	42	1422	37	1	**1502**	63	1586	20	2	**1671**	**3173**	**3361**
1700-1800	28	11	21	0	**60**	73	10	49	0	**132**	**192**	44	1483	53	1	**1581**	79	1597	28	4	**1708**	**3289**	**3481**
Totals	**99**	**32**	**81**	**0**	**212**	**179**	**38**	**159**	**0**	**376**	**588**	**117**	**5231**	**128**	**2**	**5478**	**185**	**5150**	**61**	**6**	**5402**	**10880**	**11468**

Equivalent 12 & 24-hour Vehicle Volumes Including the Annual Average Daily Traffic (AADT) Factor Applicable to the Day and Month of the Turning Movement Count

Expansion factors are applied exclusively to standard weekday 8-hour turning movement counts conducted during the hours of 0700h - 1000h, 1130h - 1330h and 1500h - 1800h

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 ➡12 expansion factor of 1.39

Equ. 12 Hr	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	**n/a**	**n/a**

Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 0.9

AADT 12-hr	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	**n/a**	**n/a**

24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 ➡24 expansion factor of 1.31

AADT 24 Hr	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	**n/a**	**n/a**

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor ➡ 0.94												Highest Hourly Vehicle Volume Between 0700h & 0900h											
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
0800-0900	26	10	19	0	**55**	29	9	40	0	**78**	**133**	20	1405	25	0	**1450**	28	1098	11	0	**1137**	**2587**	**2720**

PM Peak Hour Factor ➡ 0.96												Highest Hourly Vehicle Volume Between 1600h & 1800h											
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
1645-1745	24	9	23	0	**56**	72	9	52	0	**133**	**189**	44	1496	52	1	**1593**	67	1613	25	4	**1709**	**3302**	**3491**

Comments:

OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.

Notes:

1. Includes all vehicle types except bicycles, electric bicycles, and electric scooters.
2. When expansion and AADT factors are applied, the results will differ slightly due to rounding.

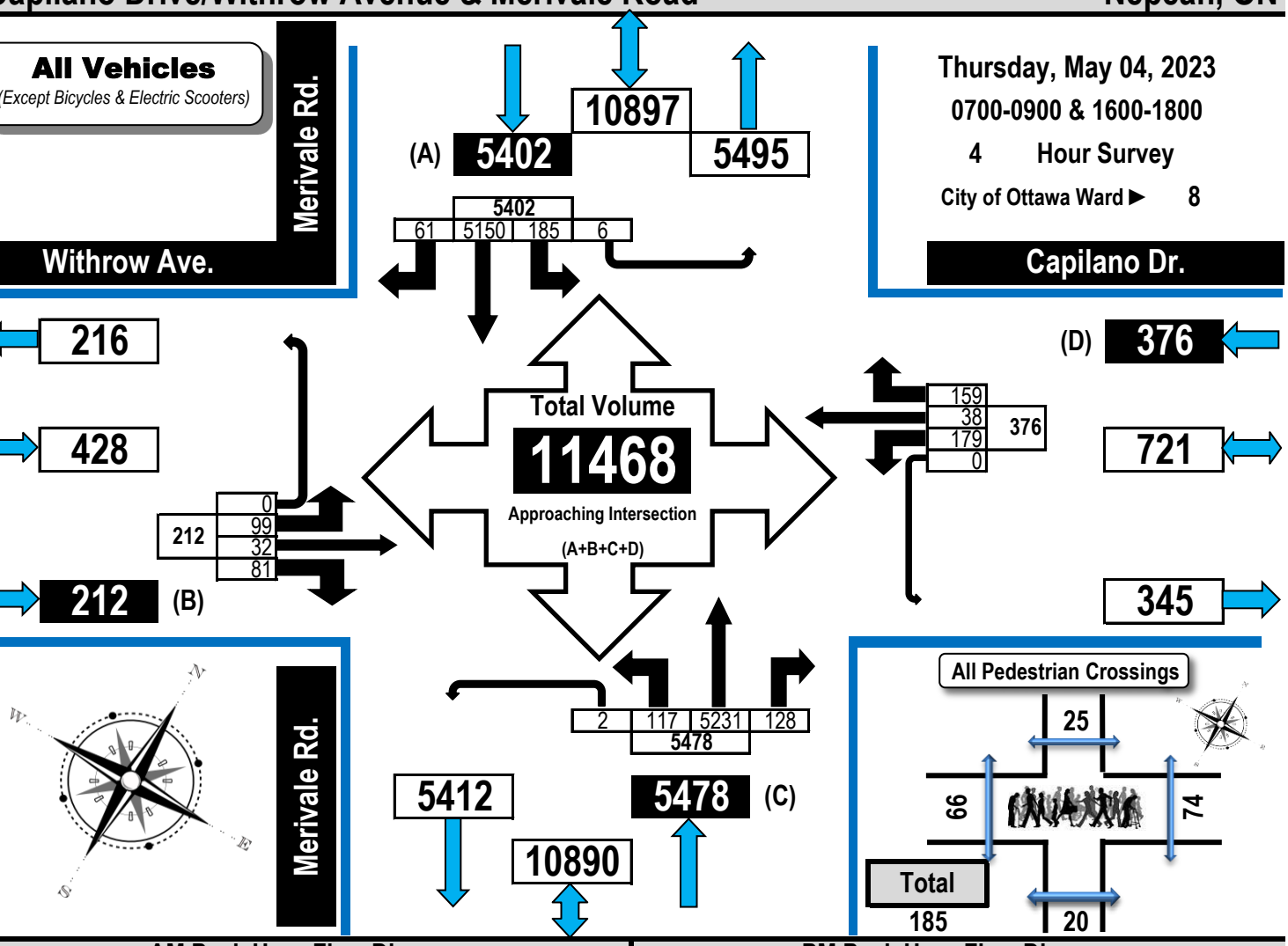
ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams
All Vehicles Except Bicycles

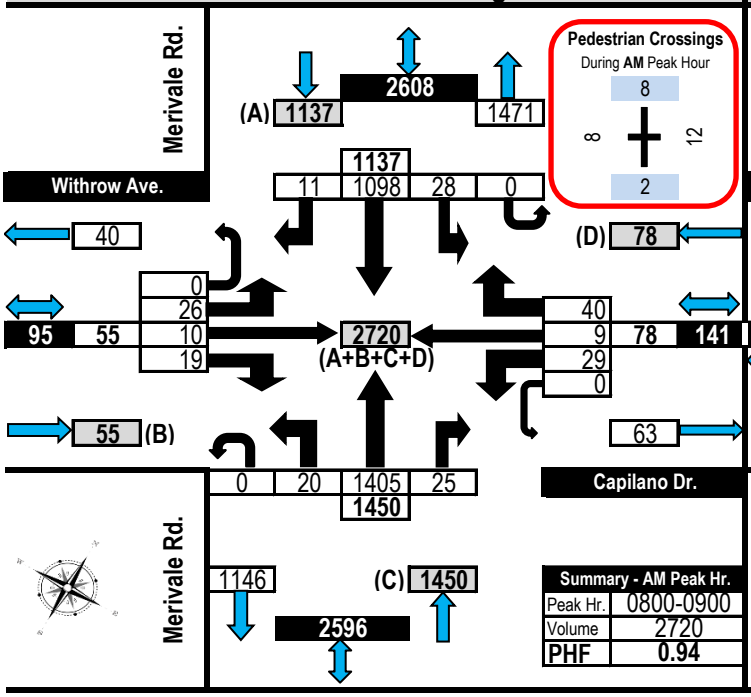
Capilano Drive/Withrow Avenue & Merivale Road — Nepean, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Thursday, May 04, 2023
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 8

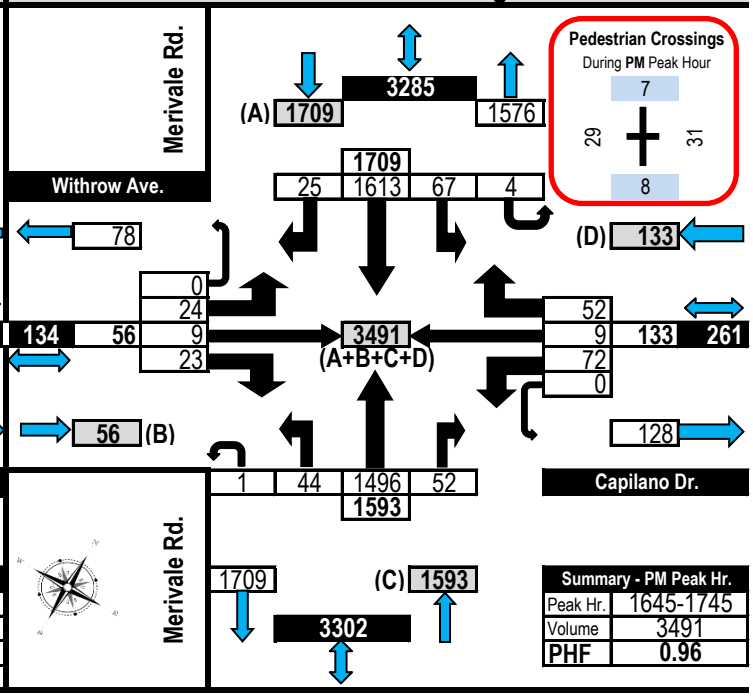


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0800-0900
Volume	2720
PHF	0.94

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1645-1745
Volume	3491
PHF	0.96

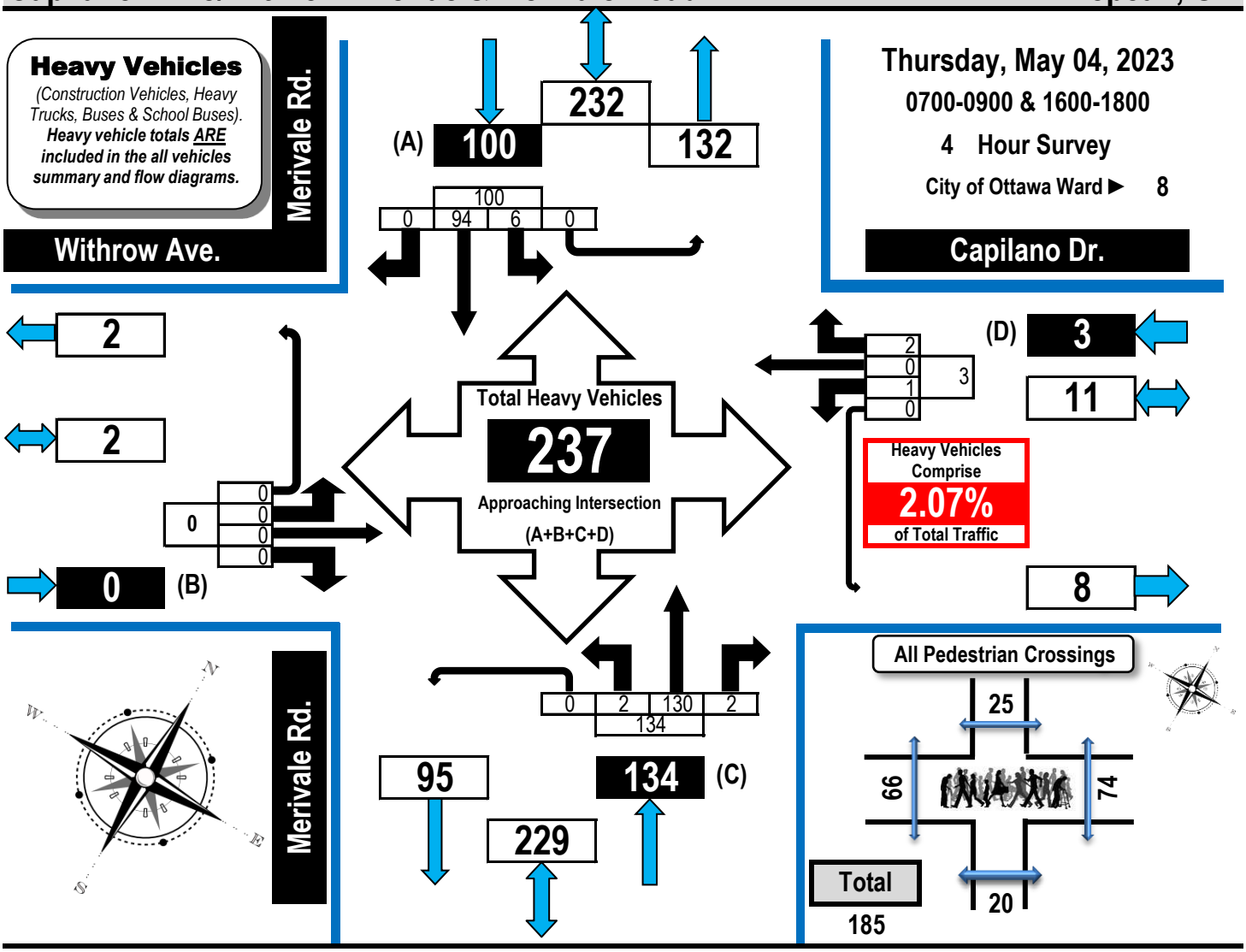
ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count
Heavy Vehicle Summary (FHWA Class 4-13)
Flow Diagram

Capilano Drive/Withrow Avenue & Merivale Road — Nepean, ON

Heavy Vehicles
(Construction Vehicles, Heavy Trucks, Buses & School Buses).
Heavy vehicle totals ARE included in the all vehicles summary and flow diagrams.

Thursday, May 04, 2023
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ► 8



	Withrow Ave.					Capilano Dr.					Merivale Rd.					Merivale Rd.					
	Eastbound					Westbound					Northbound					Southbound					
Time Period	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT	SB Tot	GR Tot
0700-0800	0	0	0	0	0	0	0	0	0	0	1	51	1	0	53	1	19	0	0	20	73
0800-0900	0	0	0	0	0	0	0	1	0	1	1	47	1	0	49	1	29	0	0	30	80
1600-1700	0	0	0	0	0	0	0	1	0	1	0	19	0	0	19	3	24	0	0	27	47
1700-1800	0	0	0	0	0	1	0	0	0	1	0	13	0	0	13	1	22	0	0	23	37
Totals	0	0	0	0	0	1	0	2	0	3	2	130	2	0	134	6	94	0	0	100	237

Comments:
OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.

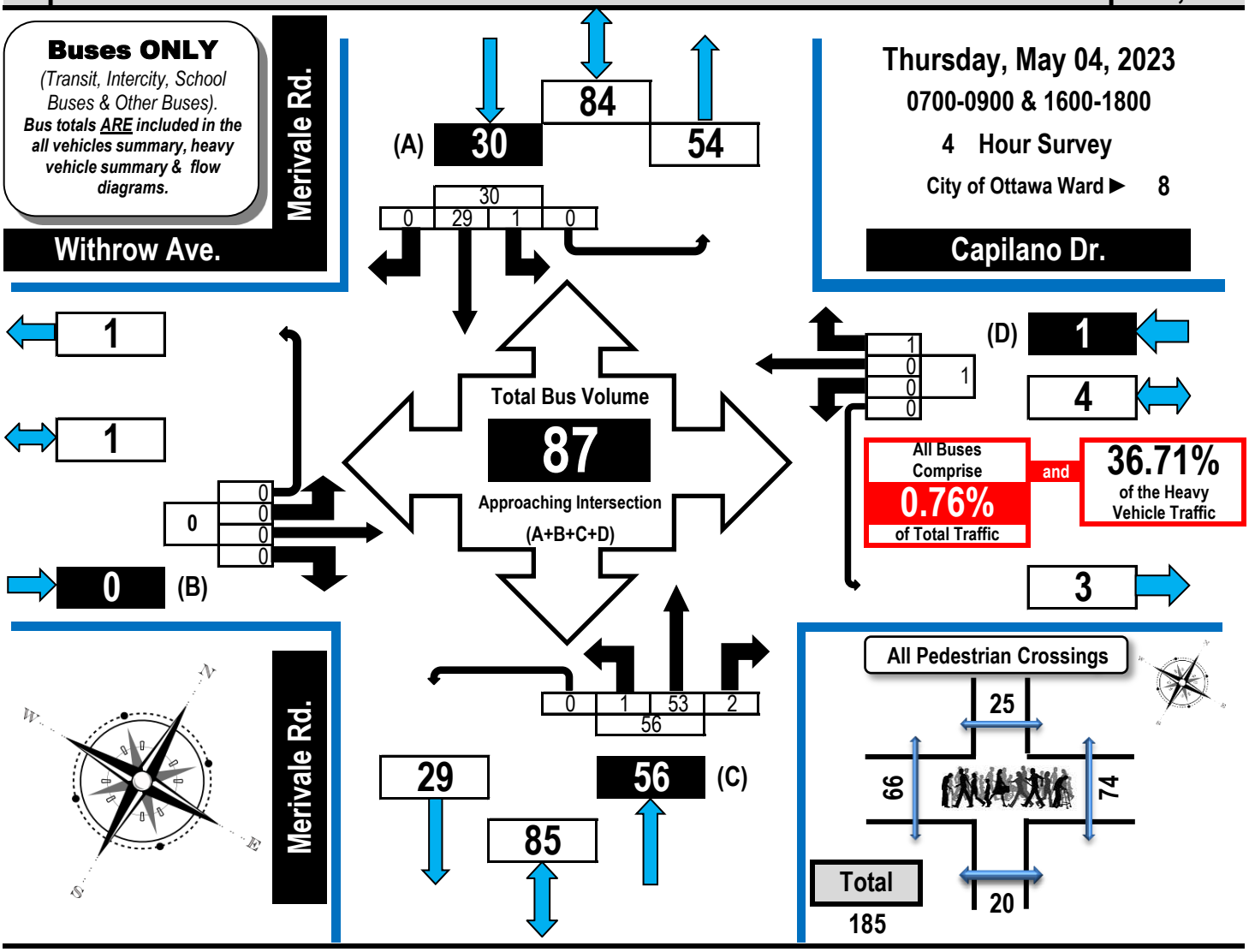
ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count
All Buses Summary (FHWA Class 4 ONLY)
Flow Diagram

Capilano Drive/Withrow Avenue & Merivale Road — Nepean, ON

Buses ONLY
(Transit, Intercity, School Buses & Other Buses).
Bus totals ARE included in the all vehicles summary, heavy vehicle summary & flow diagrams.

Thursday, May 04, 2023
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ► 8



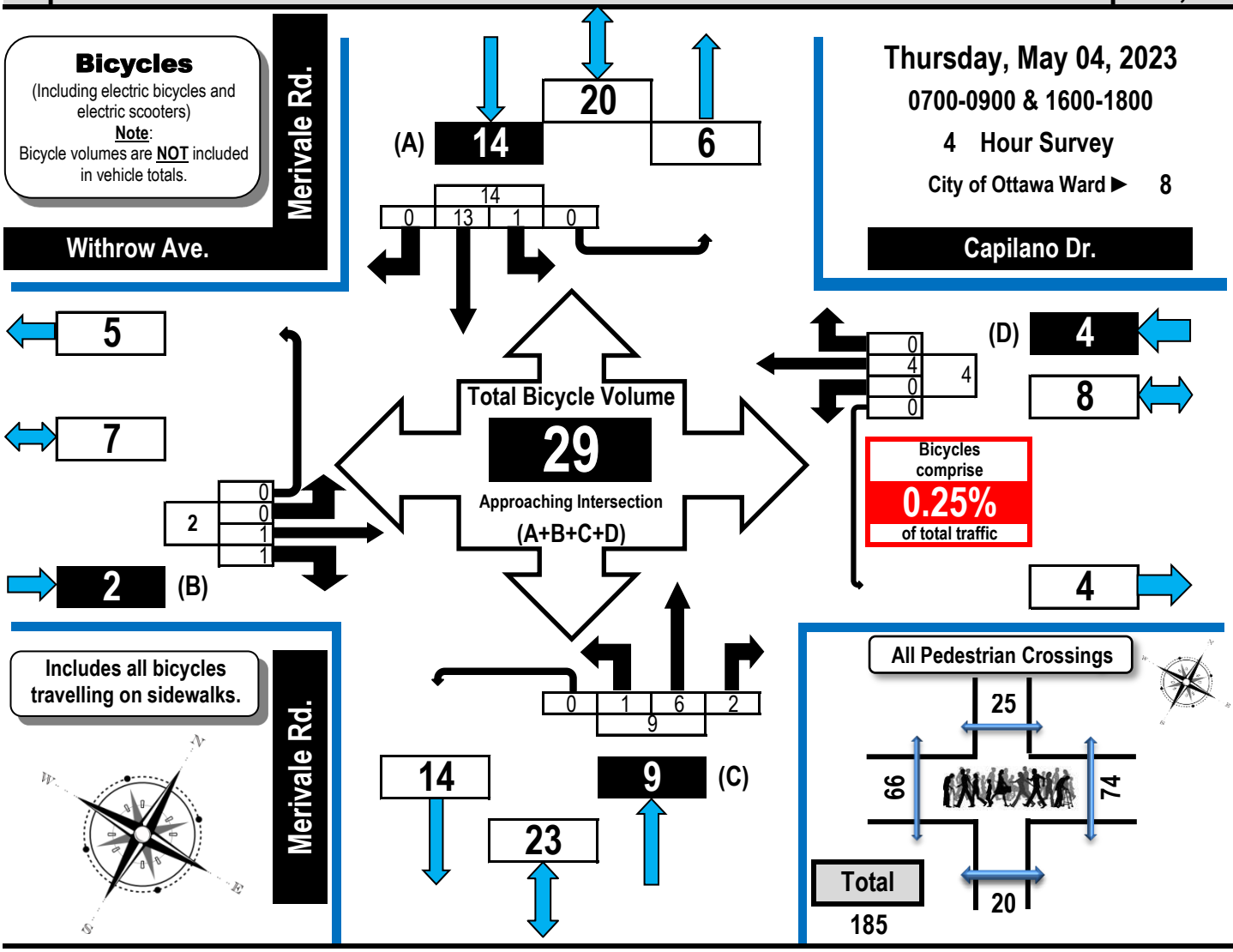
	Withrow Ave.					Capilano Dr.					Merivale Rd.					Merivale Rd.					
	Eastbound					Westbound					Northbound					Southbound					
Time Period	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT	SB Tot	GR Tot
0700-0800	0	0	0	0	0	0	0	0	0	0	1	23	1	0	25	1	8	0	0	9	34
0800-0900	0	0	0	0	0	0	0	1	0	1	0	15	1	0	16	0	8	0	0	8	25
1600-1700	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	6	0	0	6	15
1700-1800	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	7	0	0	7	13
Totals	0	0	0	0	0	0	0	1	0	1	1	53	2	0	56	1	29	0	0	30	87

Comments:

OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.

Turning Movement Count
Bicycle Summary
Flow Diagram

Capilano Drive/Withrow Avenue & Merivale Road — Nepean, ON



	Withrow Ave. Eastbound					Capilano Dr. Westbound					Merivale Rd. Northbound					Merivale Rd. Southbound					
Time Period	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT	SB Tot	GR Tot
0700-0800	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	3	0	0	3	5
0800-0900	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
1600-1700	0	1	1	0	2	0	2	0	0	2	1	1	1	0	3	0	3	0	0	3	10
1700-1800	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	1	5	0	0	6	10
Totals	0	1	1	0	2	0	4	0	0	4	1	6	2	0	9	1	13	0	0	14	29

Comments:

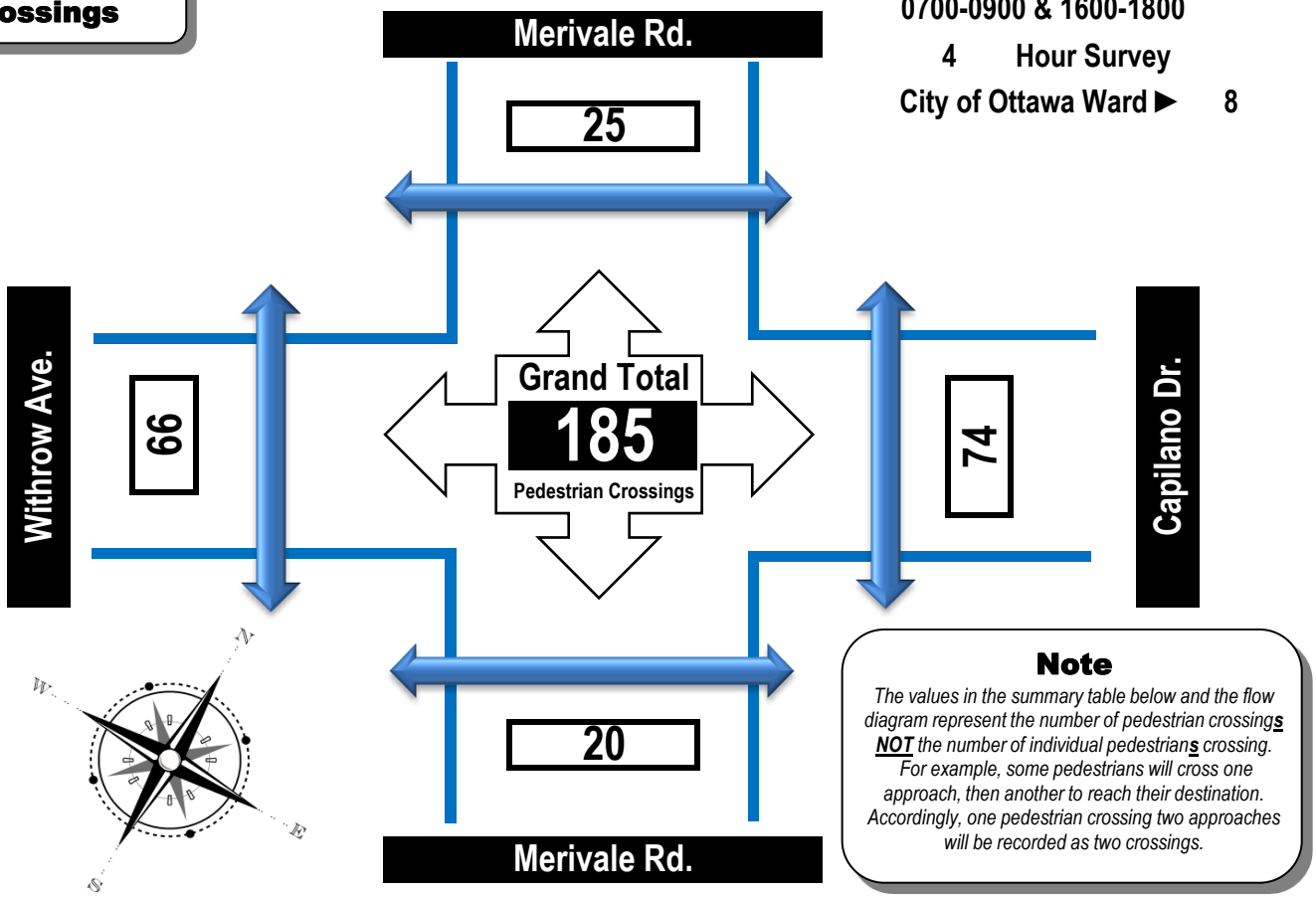
OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.

Turning Movement Count
Pedestrian Crossings Summary and Flow Diagram

Capilano Drive/Withrow Avenue & Merivale Road — Nepean, ON

Pedestrian Crossings

Thursday, May 04, 2023
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ► 8



Note

*The values in the summary table below and the flow diagram represent the number of pedestrian crossing**s** **NOT** the number of individual pedestrian**s** crossing. For example, some pedestrians will cross one approach, then another to reach their destination. Accordingly, one pedestrian crossing two approaches will be recorded as two crossings.*

Time Period	West Side Crossing Withrow Ave.	East Side Crossing Capilano Dr.	Street Total	South Side Crossing Merivale Rd.	North Side Crossing Merivale Rd.	Street Total	Grand Total
0700-0800	8	5	13	1	4	5	18
0800-0900	8	12	20	2	8	10	30
1600-1700	23	29	52	12	3	15	67
1700-1800	27	28	55	5	10	15	70
Totals	**66**	**74**	**140**	**20**	**25**	**45**	**185**

Comments:
OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.

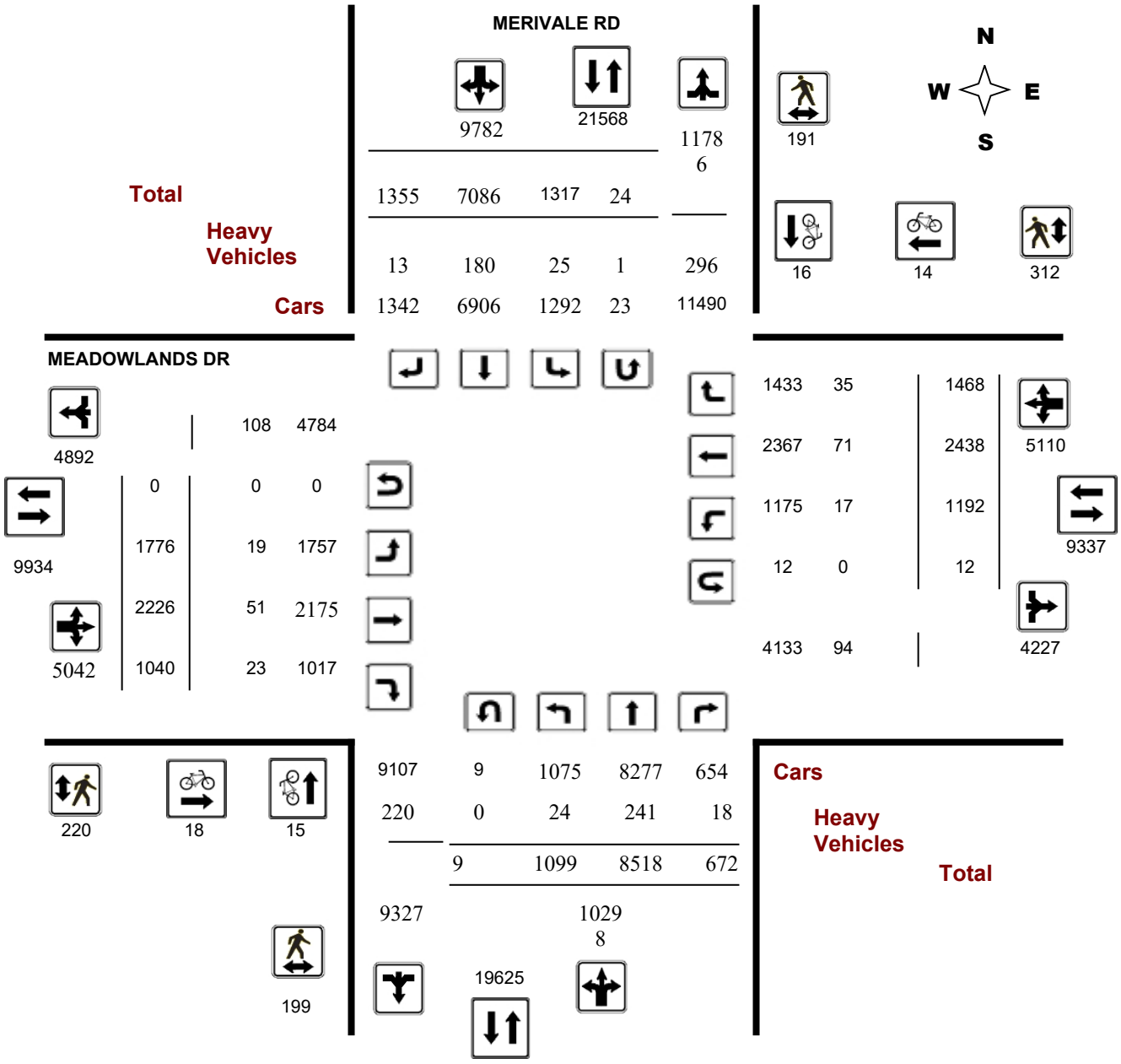
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018
Start Time: 07:00
WO No: 38079
Device: Miovision

Full Study Diagram



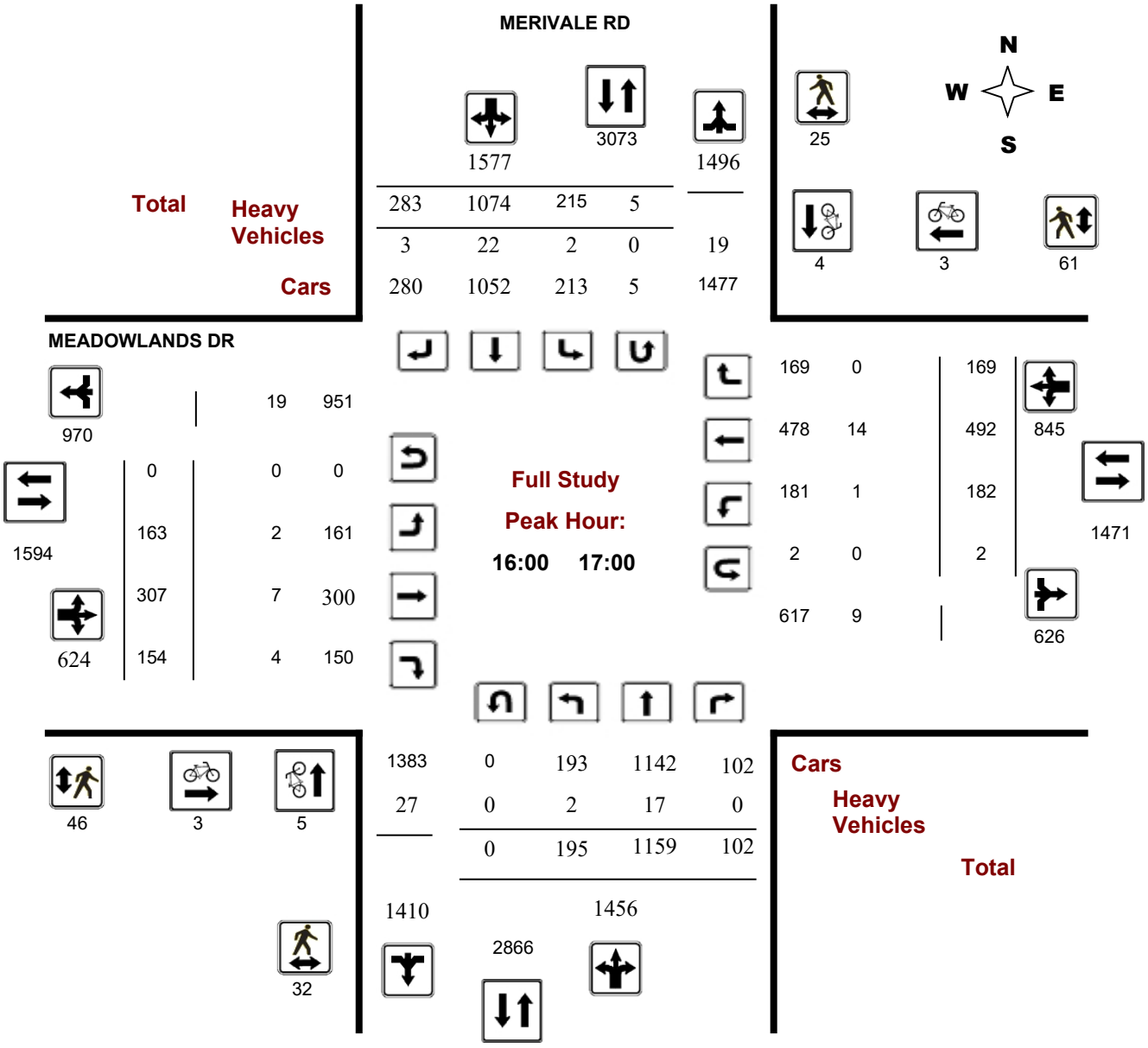
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018
Start Time: 07:00
WO No: 38079
Device: Miovision

Full Study Peak Hour Diagram



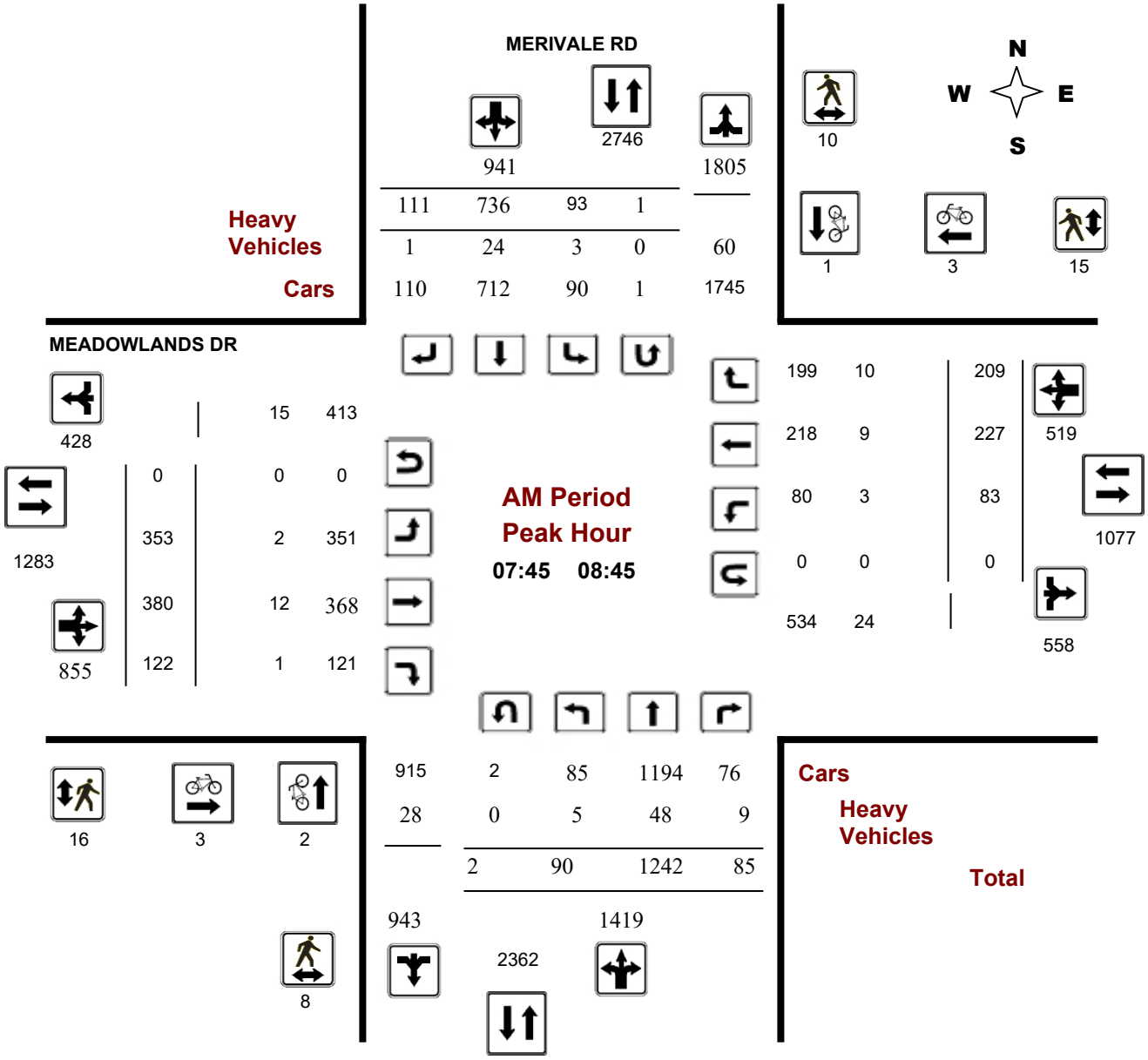
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision



Comments

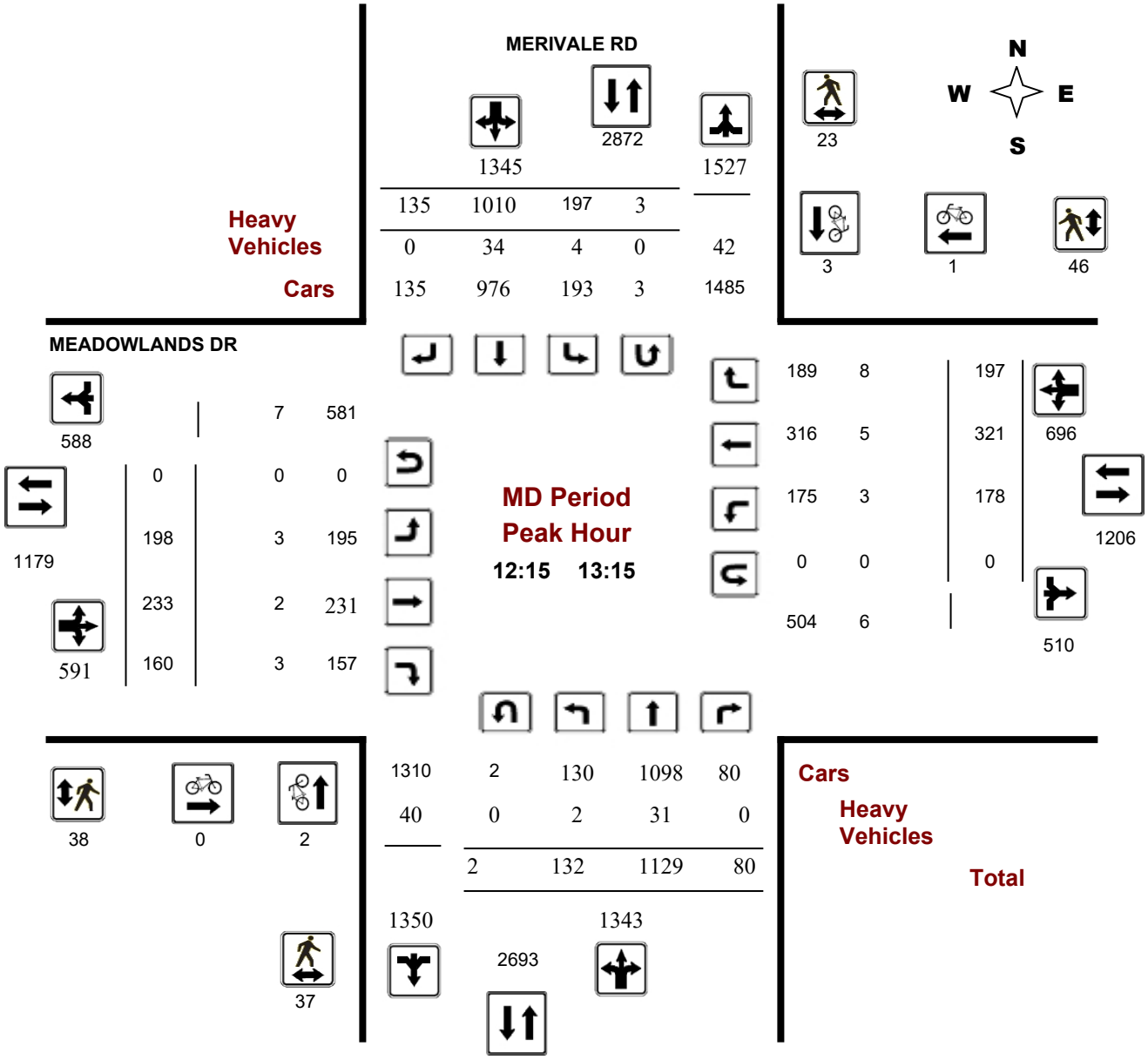
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision



Comments

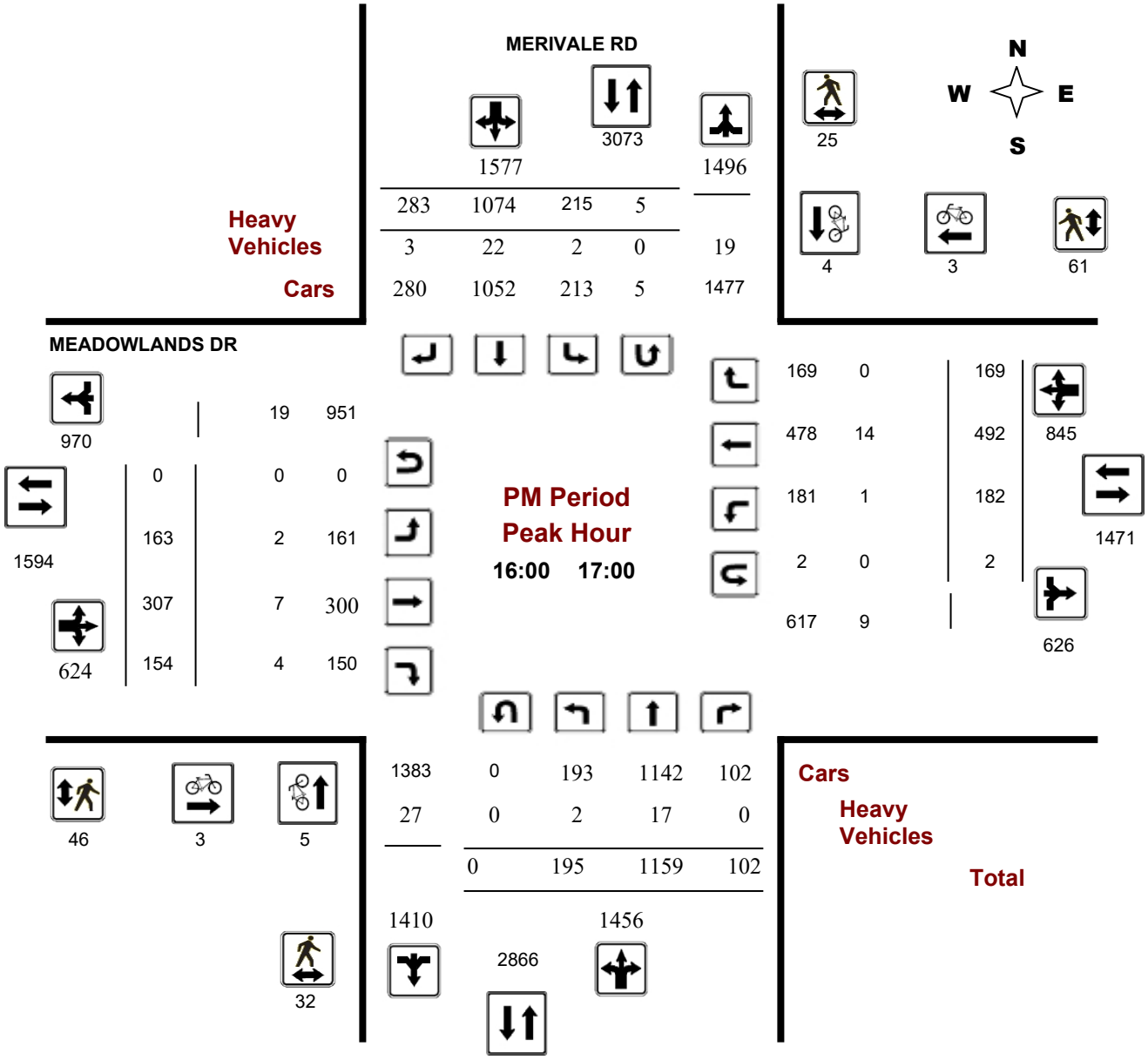
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, November 01, 2018

Total Observed U-Turns

Northbound: 9 Southbound: 24

Eastbound: 0 Westbound: 12

AADT Factor

.90

	MERIVALE RD									MEADOWLANDS DR									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	70	953	70	**1093**	86	628	65	**779**	**1872**	247	217	89	**553**	98	165	170	**433**	**986**	**2858**
08:00 09:00	76	1189	77	**1342**	101	732	116	**949**	**2291**	364	398	117	**879**	96	245	207	**548**	**1427**	**3718**
09:00 10:00	104	862	67	**1033**	123	749	101	**973**	**2006**	235	256	148	**639**	120	194	184	**498**	**1137**	**3143**
11:30 12:30	120	1028	73	**1221**	204	1013	118	**1335**	**2556**	200	237	121	**558**	186	255	188	**629**	**1187**	**3743**
12:30 13:30	151	1144	93	**1388**	192	966	138	**1296**	**2684**	186	210	156	**552**	178	304	184	**666**	**1218**	**3902**
15:00 16:00	178	1116	83	**1377**	182	982	261	**1425**	**2802**	198	276	119	**593**	156	348	177	**681**	**1274**	**4076**
16:00 17:00	195	1159	102	**1456**	215	1074	283	**1572**	**3028**	163	307	154	**624**	182	492	169	**843**	**1467**	**4495**
17:00 18:00	205	1067	107	**1379**	214	942	273	**1429**	**2808**	183	325	136	**644**	176	435	189	**800**	**1444**	**4252**
Sub Total	1099	8518	672	**10289**	1317	7086	1355	**9758**	**20047**	1776	2226	1040	**5042**	1192	2438	1468	**5098**	**10140**	**30187**
U Turns	9			**9**	24			**24**	**33**	**0**			**0**	12			**12**	**12**	**45**
Total	1108	8518	672	**10298**	1341	7086	1355	**9782**	**20080**	1776	2226	1040	**5042**	1204	2438	1468	**5110**	**10152**	**30232**
EQ 12Hr	1540	11840	934	**14314**	1864	9850	1883	**13597**	**27911**	2469	3094	1446	**7009**	1674	3389	2041	**7104**	**14113**	**42024**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	1386	10656	841	**12883**	1678	8865	1695	**12238**	**25121**	2222	2785	1301	**6308**	1507	3050	1837	**6394**	**12702**	**37823**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	1816	13959	1102	**16877**	2198	11613	2220	**16031**	**32908**	2911	3648	1704	**8263**	1974	3996	2406	**8376**	**16639**	**49547**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		MERIVALE RD									MEADOWLANDS DR									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	8	179	11	198	18	131	12	161	**359**	50	39	21	110	21	38	24	83	**193**	**552**
07:15	07:30	15	225	11	251	19	152	15	186	**437**	51	41	15	107	28	28	38	94	**201**	**638**
07:30	07:45	19	245	23	287	25	156	15	196	**483**	74	56	24	154	21	46	48	115	**269**	**752**
07:45	08:00	28	304	25	357	24	189	23	236	**593**	72	81	29	182	28	53	60	141	**323**	**916**
08:00	08:15	24	314	24	362	23	178	31	232	**594**	81	110	31	222	17	56	55	128	**350**	**944**
08:15	08:30	20	317	20	357	26	174	31	231	**588**	95	87	30	212	15	60	43	118	**330**	**918**
08:30	08:45	20	307	16	343	21	195	26	242	**585**	105	102	32	239	23	58	51	132	**371**	**956**
08:45	09:00	14	251	17	282	33	185	28	246	**528**	83	99	24	206	41	71	58	170	**376**	**904**
09:00	09:15	23	225	20	268	34	183	27	244	**512**	78	90	24	192	23	57	52	132	**324**	**836**
09:15	09:30	25	219	15	259	21	171	24	216	**475**	53	69	41	163	31	41	39	111	**274**	**749**
09:30	09:45	28	196	12	236	36	189	26	251	**487**	53	55	37	145	30	56	44	130	**275**	**762**
09:45	10:00	28	222	20	270	34	206	24	264	**534**	51	42	46	139	37	40	49	126	**265**	**799**
11:30	11:45	25	254	18	297	57	253	24	334	**631**	41	52	27	120	50	62	48	160	**280**	**911**
11:45	12:00	33	262	24	319	52	255	26	333	**652**	51	53	30	134	50	75	45	170	**304**	**956**
12:00	12:15	37	237	14	288	50	222	35	307	**595**	52	67	27	146	48	46	41	135	**281**	**876**
12:15	12:30	26	275	17	318	52	283	33	368	**686**	56	65	37	158	41	72	54	167	**325**	**1011**
12:30	12:45	42	280	17	339	52	243	30	325	**664**	49	48	45	142	43	88	42	173	**315**	**979**
12:45	13:00	34	296	21	351	56	231	39	326	**677**	45	49	32	126	51	82	49	182	**308**	**985**
13:00	13:15	32	278	25	335	40	253	33	326	**661**	48	71	46	165	43	79	52	174	**339**	**1000**
13:15	13:30	44	290	30	364	46	239	36	321	**685**	44	42	33	119	42	55	41	138	**257**	**942**
15:00	15:15	46	282	18	346	50	233	51	334	**680**	56	69	40	165	40	91	44	175	**340**	**1020**
15:15	15:30	50	271	19	340	51	256	68	375	**715**	41	69	17	127	49	90	43	182	**309**	**1024**
15:30	15:45	46	295	24	365	40	256	71	367	**732**	44	55	31	130	43	93	40	176	**306**	**1038**
15:45	16:00	36	268	22	326	44	237	71	352	**678**	57	83	31	171	27	74	50	151	**322**	**1000**
16:00	16:15	53	309	26	388	57	273	63	393	**781**	37	87	27	151	34	137	39	210	**361**	**1142**
16:15	16:30	42	277	24	343	56	287	72	415	**758**	43	80	36	159	46	129	52	227	**386**	**1144**
16:30	16:45	51	294	24	369	54	258	81	393	**762**	47	71	35	153	46	108	38	192	**345**	**1107**
16:45	17:00	49	279	28	356	53	256	67	376	**732**	36	69	56	161	58	118	40	216	**377**	**1109**
17:00	17:15	47	312	11	370	54	236	80	370	**740**	41	92	36	169	44	112	44	200	**369**	**1109**
17:15	17:30	52	263	28	343	49	252	63	364	**707**	50	94	28	172	46	104	47	197	**369**	**1076**
17:30	17:45	55	275	33	363	59	222	62	343	**706**	40	70	40	150	56	107	52	215	**365**	**1071**
17:45	18:00	56	217	35	308	55	232	68	355	**663**	52	69	32	153	32	112	46	190	**343**	**1006**
Total:		1108	8518	672	1029	1341	7086	1355	9782	**20080**	1776	2226	1040	5042	1204	2438	1468	5110	**20080**	**30,232**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		MERIVALE RD			MEADOWLANDS DR			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	1	0	**1**	**1**
07:15	07:30	0	1	**1**	2	1	**3**	**4**
07:30	07:45	1	2	**3**	1	0	**1**	**4**
07:45	08:00	1	0	**1**	0	1	**1**	**2**
08:00	08:15	1	0	**1**	1	1	**2**	**3**
08:15	08:30	0	1	**1**	1	0	**1**	**2**
08:30	08:45	0	0	**0**	1	1	**2**	**2**
08:45	09:00	0	0	**0**	2	0	**2**	**2**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	1	0	**1**	**1**
09:30	09:45	1	1	**2**	3	0	**3**	**5**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	1	**1**	0	0	**0**	**1**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	1	**1**	0	0	**0**	**1**
12:30	12:45	0	0	**0**	0	1	**1**	**1**
12:45	13:00	1	1	**2**	0	0	**0**	**2**
13:00	13:15	1	1	**2**	0	0	**0**	**2**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	1	**1**	**1**
15:15	15:30	3	0	**3**	0	2	**2**	**5**
15:30	15:45	0	0	**0**	1	0	**1**	**1**
15:45	16:00	0	0	**0**	0	2	**2**	**2**
16:00	16:15	1	2	**3**	2	0	**2**	**5**
16:15	16:30	2	0	**2**	0	2	**2**	**4**
16:30	16:45	1	0	**1**	1	1	**2**	**3**
16:45	17:00	1	2	**3**	0	0	**0**	**3**
17:00	17:15	0	1	**1**	1	0	**1**	**2**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	1	**1**	0	0	**0**	**1**
17:45	18:00	1	1	**2**	0	1	**1**	**3**
Total		15	16	**31**	18	14	**32**	**63**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	MERIVALE RD			MEADOWLANDS DR			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	**Total**	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	**Total**	**Grand Total**
07:00 07:15	3	2	**5**	3	4	**7**	**12**
07:15 07:30	3	1	**4**	1	2	**3**	**7**
07:30 07:45	4	3	**7**	3	8	**11**	**18**
07:45 08:00	1	3	**4**	4	6	**10**	**14**
08:00 08:15	2	2	**4**	4	2	**6**	**10**
08:15 08:30	2	4	**6**	2	4	**6**	**12**
08:30 08:45	3	1	**4**	6	3	**9**	**13**
08:45 09:00	5	7	**12**	4	11	**15**	**27**
09:00 09:15	5	5	**10**	6	5	**11**	**21**
09:15 09:30	2	3	**5**	1	4	**5**	**10**
09:30 09:45	5	3	**8**	7	6	**13**	**21**
09:45 10:00	1	5	**6**	3	4	**7**	**13**
11:30 11:45	7	4	**11**	9	6	**15**	**26**
11:45 12:00	6	10	**16**	5	17	**22**	**38**
12:00 12:15	6	11	**17**	7	13	**20**	**37**
12:15 12:30	11	12	**23**	9	8	**17**	**40**
12:30 12:45	5	3	**8**	5	14	**19**	**27**
12:45 13:00	16	5	**21**	13	13	**26**	**47**
13:00 13:15	5	3	**8**	11	11	**22**	**30**
13:15 13:30	4	13	**17**	3	9	**12**	**29**
15:00 15:15	11	6	**17**	7	12	**19**	**36**
15:15 15:30	11	9	**20**	4	12	**16**	**36**
15:30 15:45	11	6	**17**	9	8	**17**	**34**
15:45 16:00	11	10	**21**	4	14	**18**	**39**
16:00 16:15	8	8	**16**	13	12	**25**	**41**
16:15 16:30	7	11	**18**	14	22	**36**	**54**
16:30 16:45	7	4	**11**	11	17	**28**	**39**
16:45 17:00	10	2	**12**	8	10	**18**	**30**
17:00 17:15	6	10	**16**	16	18	**34**	**50**
17:15 17:30	12	8	**20**	13	12	**25**	**45**
17:30 17:45	5	11	**16**	9	17	**26**	**42**
17:45 18:00	4	6	**10**	6	8	**14**	**24**
Total	199	191	**390**	220	312	**532**	**922**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		MERIVALE RD									MEADOWLANDS DR									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	14	0	**14**	2	6	0	**8**	**22**	0	1	1	**2**	0	1	0	**1**	**3**	**25**
07:15	07:30	2	12	0	**14**	0	2	0	**2**	**16**	1	1	1	**3**	1	1	0	**2**	**5**	**21**
07:30	07:45	0	12	1	**13**	0	7	0	**7**	**20**	0	2	1	**3**	1	4	0	**5**	**8**	**28**
07:45	08:00	4	18	2	**24**	2	7	0	**9**	**33**	0	2	0	**2**	1	4	3	**8**	**10**	**43**
08:00	08:15	0	14	3	**17**	1	5	1	**7**	**24**	0	2	0	**2**	0	0	3	**3**	**5**	**29**
08:15	08:30	0	8	2	**10**	0	7	0	**7**	**17**	1	2	0	**3**	1	2	2	**5**	**8**	**25**
08:30	08:45	1	8	2	**11**	0	5	0	**5**	**16**	1	6	1	**8**	1	3	2	**6**	**14**	**30**
08:45	09:00	1	10	0	**11**	0	3	1	**4**	**15**	1	3	0	**4**	0	1	3	**4**	**8**	**23**
09:00	09:15	1	7	3	**11**	3	6	1	**10**	**21**	1	3	2	**6**	0	4	1	**5**	**11**	**33**
09:15	09:30	2	9	1	**12**	1	5	1	**7**	**19**	1	1	1	**3**	2	1	0	**3**	**6**	**25**
09:30	09:45	0	7	0	**7**	2	5	1	**8**	**15**	2	1	3	**6**	0	1	0	**1**	**7**	**22**
09:45	10:00	0	12	1	**13**	2	9	0	**11**	**24**	0	0	1	**1**	1	1	1	**3**	**4**	**28**
11:30	11:45	0	10	0	**10**	2	9	0	**11**	**21**	0	2	0	**2**	0	2	3	**5**	**7**	**28**
11:45	12:00	0	10	1	**11**	1	5	2	**8**	**19**	1	1	1	**3**	2	1	1	**4**	**7**	**26**
12:00	12:15	1	12	0	**13**	0	7	0	**7**	**20**	1	2	1	**4**	0	1	0	**1**	**5**	**25**
12:15	12:30	1	11	0	**12**	4	8	0	**12**	**24**	1	0	2	**3**	1	1	0	**2**	**5**	**29**
12:30	12:45	1	6	0	**7**	0	9	0	**9**	**16**	0	0	1	**1**	0	2	6	**8**	**9**	**25**
12:45	13:00	0	8	0	**8**	0	9	0	**9**	**17**	0	1	0	**1**	1	0	2	**3**	**4**	**21**
13:00	13:15	0	6	0	**6**	0	8	0	**8**	**14**	2	1	0	**3**	1	2	0	**3**	**6**	**20**
13:15	13:30	1	4	1	**6**	2	7	0	**9**	**15**	0	0	1	**1**	0	2	2	**4**	**5**	**20**
15:00	15:15	1	1	0	**2**	1	4	0	**5**	**7**	0	1	0	**1**	0	4	1	**5**	**6**	**13**
15:15	15:30	1	9	0	**10**	0	5	1	**6**	**16**	0	2	0	**2**	0	6	3	**9**	**11**	**27**
15:30	15:45	2	2	0	**4**	0	1	1	**2**	**6**	2	2	0	**4**	0	2	0	**2**	**6**	**12**
15:45	16:00	1	4	1	**6**	0	4	0	**4**	**10**	0	1	0	**1**	1	3	0	**4**	**5**	**15**
16:00	16:15	0	5	0	**5**	0	9	0	**9**	**14**	1	2	2	**5**	0	4	0	**4**	**9**	**23**
16:15	16:30	0	3	0	**3**	0	7	1	**8**	**11**	1	3	1	**5**	1	4	0	**5**	**10**	**21**
16:30	16:45	2	5	0	**7**	1	5	1	**7**	**14**	0	0	0	**0**	0	3	0	**3**	**3**	**17**
16:45	17:00	0	4	0	**4**	1	1	1	**3**	**7**	0	2	1	**3**	0	3	0	**3**	**6**	**13**
17:00	17:15	1	2	0	**3**	0	5	0	**5**	**8**	2	2	0	**4**	0	3	0	**3**	**7**	**15**
17:15	17:30	0	2	0	**2**	0	6	0	**6**	**8**	0	1	0	**1**	1	1	1	**3**	**4**	**12**
17:30	17:45	1	2	0	**3**	0	3	0	**3**	**6**	0	3	0	**3**	1	2	1	**4**	**7**	**13**
17:45	18:00	0	4	0	**4**	0	1	1	**2**	**6**	0	1	2	**3**	0	2	0	**2**	**5**	**11**
Total:	None	24	241	18	**283**	25	180	13	**218**	**501**	19	51	23	**93**	17	71	35	**123**	**216**	**718**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018 **WO No:** 38079

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		MERIVALE RD Northbound U-Turn Total	MERIVALE RD Southbound U-Turn Total	MEADOWLANDS DR Eastbound U-Turn Total	MEADOWLANDS DR Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	1	1	0	0	**2**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	1	0	0	0	**1**
08:45	09:00	0	1	0	0	**1**
09:00	09:15	0	2	0	0	**2**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	0	0	1	**1**
11:30	11:45	0	0	0	1	**1**
11:45	12:00	0	3	0	0	**3**
12:00	12:15	0	2	0	2	**4**
12:15	12:30	1	2	0	0	**3**
12:30	12:45	0	1	0	0	**1**
12:45	13:00	0	0	0	0	**0**
13:00	13:15	1	0	0	0	**1**
13:15	13:30	0	1	0	1	**2**
15:00	15:15	0	2	0	2	**4**
15:15	15:30	0	0	0	1	**1**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	1	0	0	**1**
16:00	16:15	0	2	0	1	**3**
16:15	16:30	0	1	0	0	**1**
16:30	16:45	0	1	0	0	**1**
16:45	17:00	0	1	0	1	**2**
17:00	17:15	0	0	0	1	**1**
17:15	17:30	2	2	0	1	**5**
17:30	17:45	2	1	0	0	**3**
17:45	18:00	1	0	0	0	**1**
Total		9	24	0	12	**45**

ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count

Summary Report

Including AM and PM Peak Hours

All Vehicles Except Bicycles

Merivale Road & Rossland Avenue — Nepean, ON

Survey Date: Tuesday, August 02, 2022 **Start Time:** 0700 **AADT Factor:** 0.9

Weather AM: Mostly Cloudy 22º C **Survey Duration:** 4 Hrs. **Survey Hours:** 0700-0900 & 1600-1800

Weather PM: Clear & Sunny 25º C **Surveyor(s):** J. Mousseau

	Rossland Ave. (Eastbound)					Ultramar (S) (Westbound)						Merivale Rd. (Northbound)					Merivale Rd. (Southbound)						
Time Period	LT	ST	RT	UT	E/B Tot	LT	ST	RT	UT	W/B Tot	Street Total	LT	ST	RT	UT	N/B Tot	LT	ST	RT	UT	S/B Tot	Street Total	Grand Total
0700-0800	2	0	10	0	12	0	0	0	0	0	12	2	0	6	1	9	0	0	14	0	14	23	35
0800-0900	2	0	13	0	15	0	0	1	0	1	16	6	0	5	0	11	0	0	9	1	10	21	37
1600-1700	2	0	14	0	16	1	0	4	0	5	21	11	0	26	0	37	3	0	16	0	19	56	77
1700-1800	3	0	15	0	18	3	0	7	0	10	28	16	0	39	1	56	1	0	23	0	24	80	108
Totals	9	0	52	0	61	4	0	12	0	16	77	35	0	76	2	113	4	0	62	1	67	180	257

Equivalent 12 & 24-hour Vehicle Volumes Including the Annual Average Daily Traffic (AADT) Factor Applicable to the Day and Month of the Turning Movement Count

Expansion factors are applied exclusively to standard weekday 8-hour turning movement counts conducted during the hours of 0700h - 1000h, 1130h - 1330h and 1500h - 1800h

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 ➡12 expansion factor of 1.39

Equ. 12 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 0.9

AADT 12-hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 ➡24 expansion factor of 1.31

AADT 24 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor ➡ N/A												Highest Hourly Vehicle Volume Between 0700h & 0900h										
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
0745-0845	2	0	12	0	14	0	0	1	0	1	15	2	0	6	1	9	0	0	13	1	14	23	38

PM Peak Hour Factor ➡ N/A												Highest Hourly Vehicle Volume Between 1600h & 1800h										
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
1700-1800	3	0	15	0	18	3	0	7	0	10	28	16	0	39	1	56	1	0	23	0	24	80	108

Comments:

This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection.The majority of turns to Rossland Avenue turn into the Shell gas station.

Notes:

1. Includes all vehicle types except bicycles, electric bicycles, and electric scooters.
2. When expansion and AADT factors are applied, the results will differ slightly due to rounding.

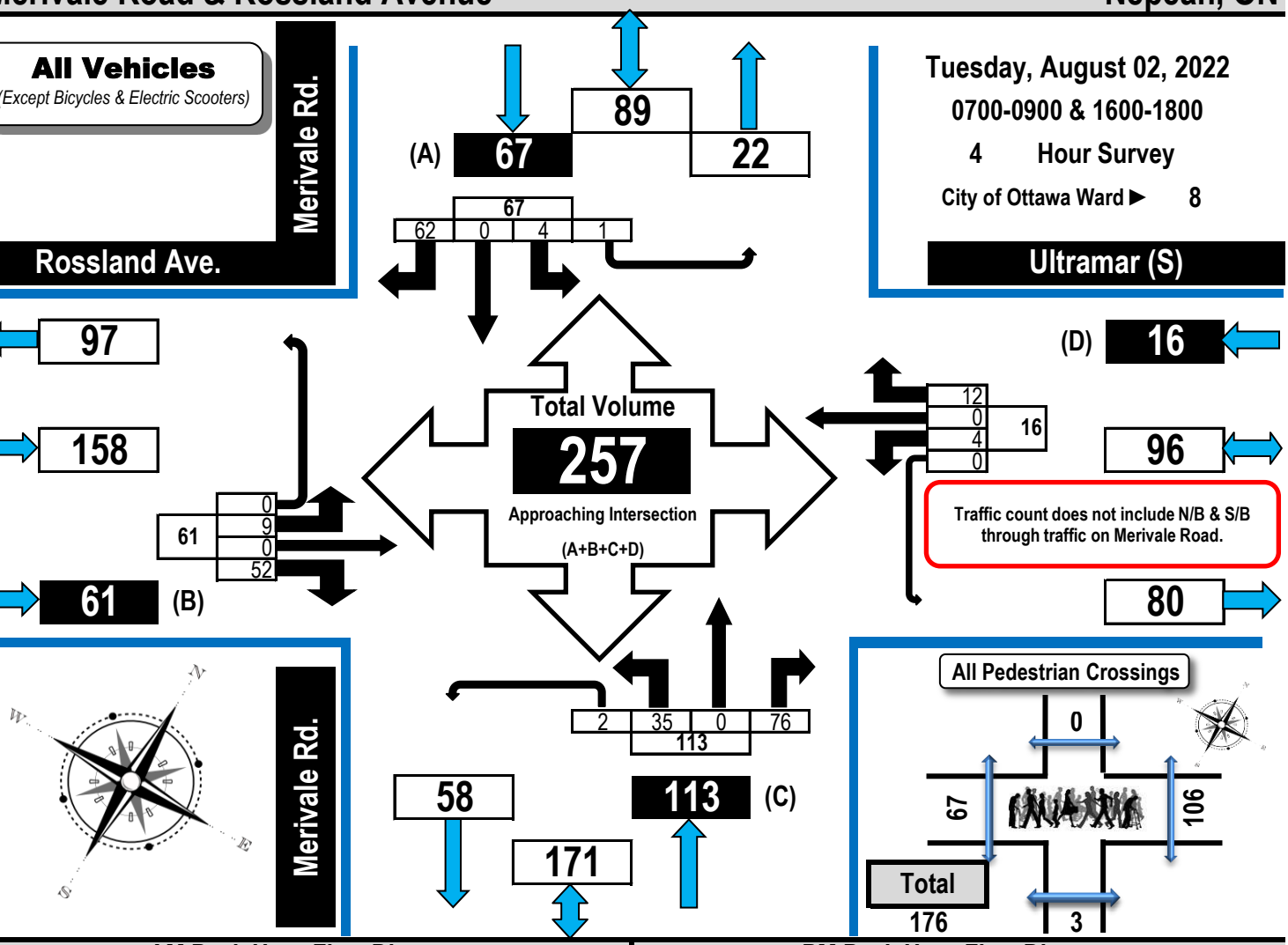
ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams
All Vehicles Except Bicycles

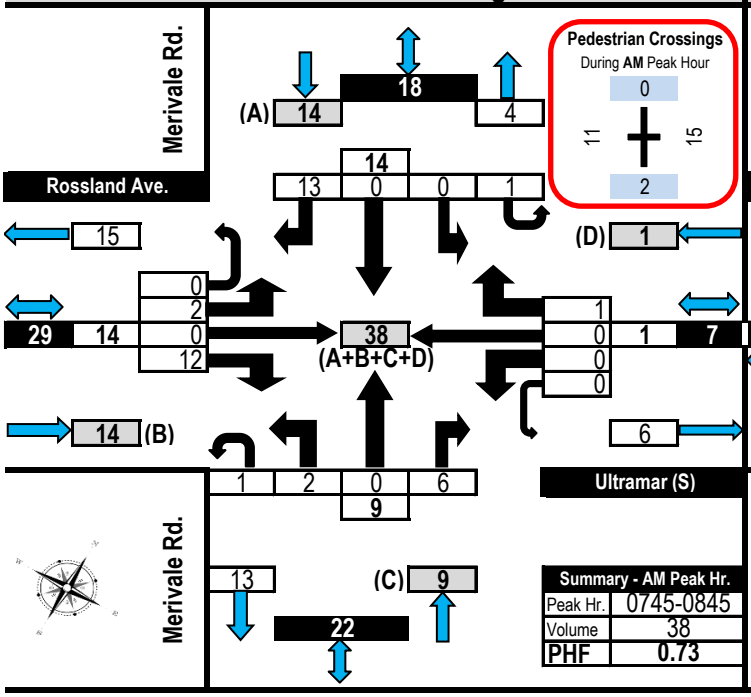
Merivale Road & Rossland Avenue — Nepean, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Tuesday, August 02, 2022
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 8

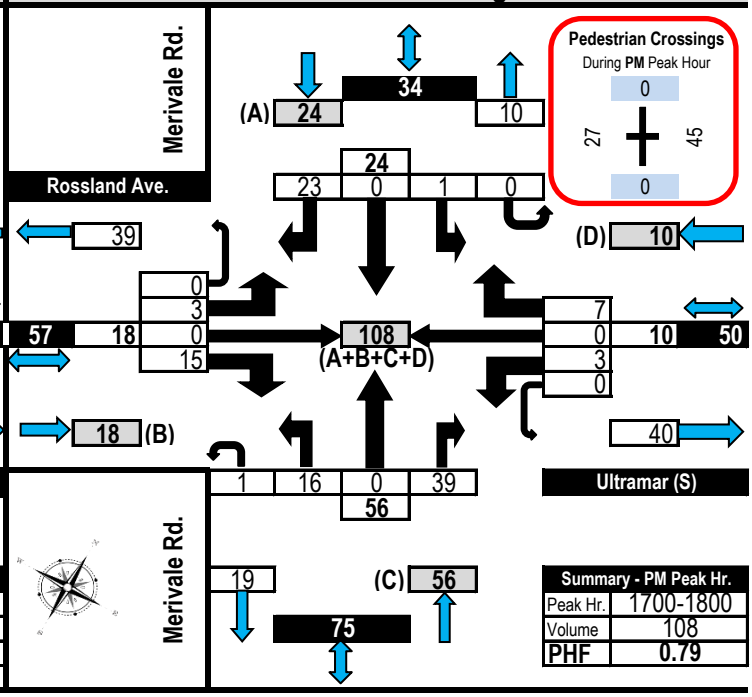


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0745-0845
Volume	38
PHF	0.73

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1700-1800
Volume	108
PHF	0.79

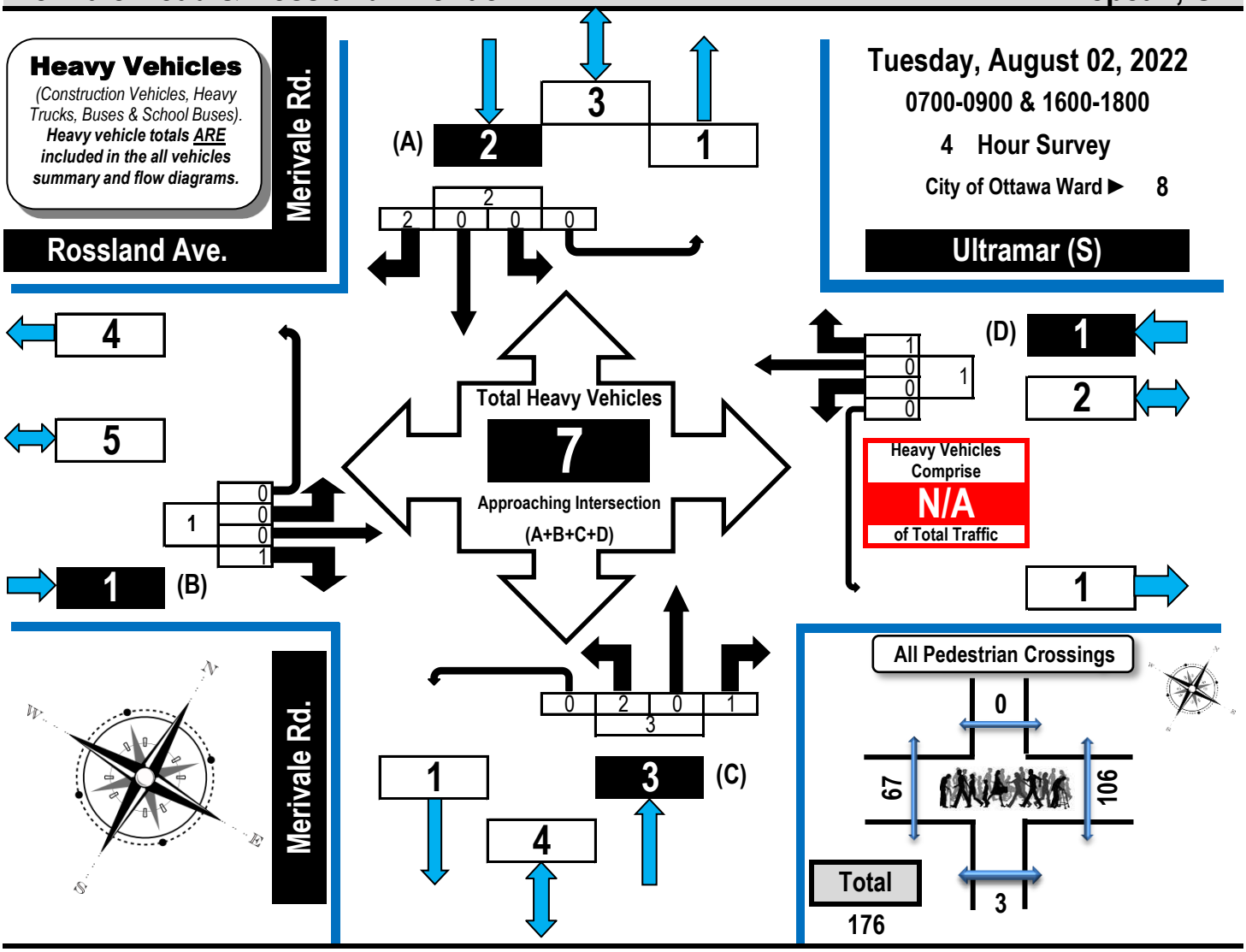
ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count
Heavy Vehicle Summary (FHWA Class 4-13)
Flow Diagram

Merivale Road & Rossland Avenue — Nepean, ON

Heavy Vehicles
(Construction Vehicles, Heavy Trucks, Buses & School Buses).
Heavy vehicle totals ARE included in the all vehicles summary and flow diagrams.

Tuesday, August 02, 2022
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ► 8



	Rossland Ave.					Ultramar (S)					Merivale Rd.					Merivale Rd.					
	Eastbound					Westbound					Northbound					Southbound					
Time Period	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT	SB Tot	GR Tot
0700-0800	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
0800-0900	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2
1600-1700	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
1700-1800	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Totals	0	0	1	0	1	0	0	1	0	1	2	0	1	0	3	0	0	2	0	2	7

Traffic count does not include N/B & S/B through traffic on Merivale Road.

Comments:

This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection.The majority of turns to Rossland Avenue turn into the Shell gas station.

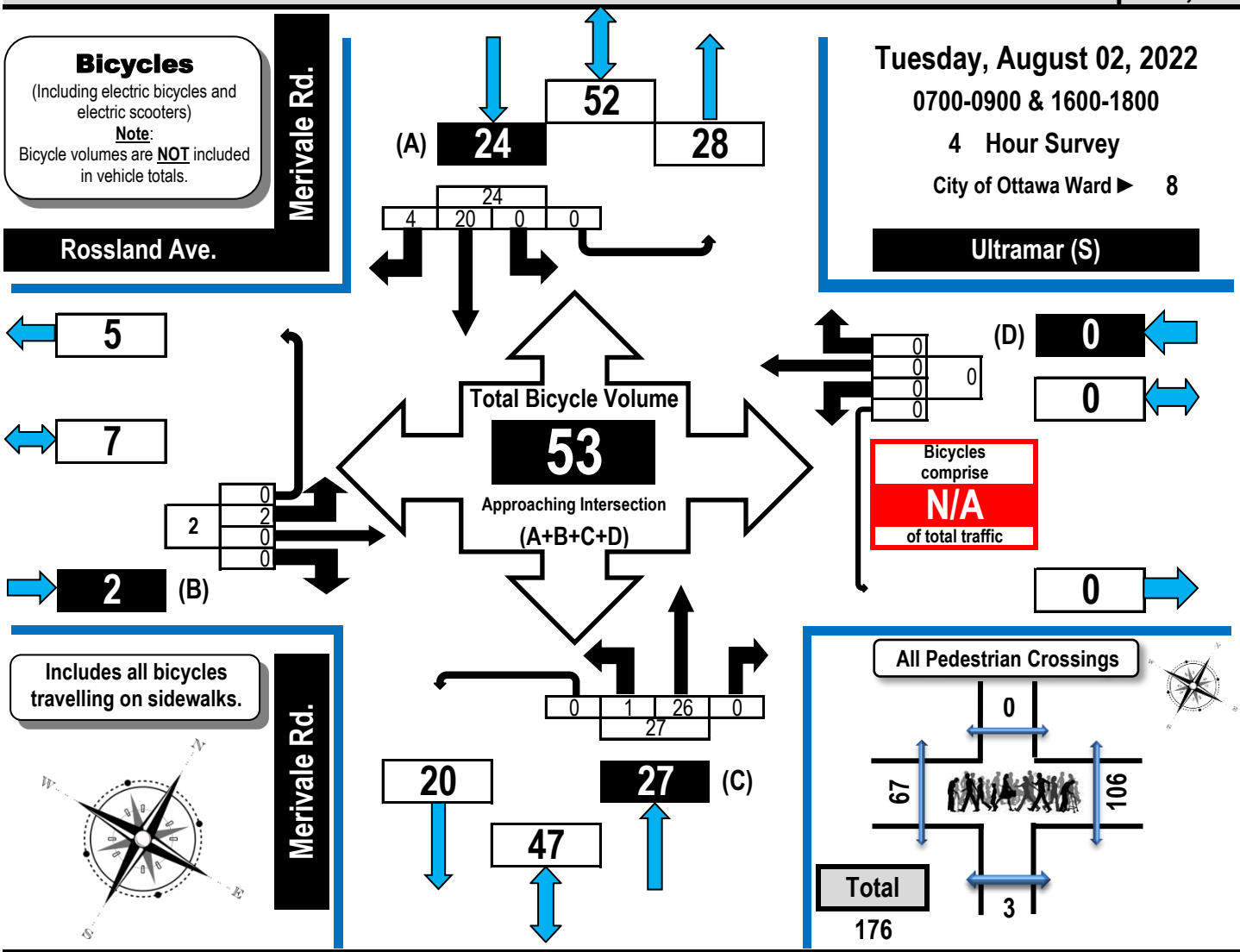
ACCURATE TRUSTED TRAFFIC DATA

Turning Movement Count
Bicycle Summary
Flow Diagram

Merivale Road & Rossland Avenue — Nepean, ON

Bicycles
(Including electric bicycles and electric scooters)
Note:
Bicycle volumes are **NOT** included in vehicle totals.

Tuesday, August 02, 2022
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ► 8



	Rossland Ave. Eastbound					Ultramar (S) Westbound					Merivale Rd. Northbound					Merivale Rd. Southbound					
Time Period	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT	SB Tot	GR Tot
0700-0800	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	4	1	0	5	11
0800-0900	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	6
1600-1700	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	7	0	0	7	19
1700-1800	0	0	0	0	0	0	0	0	0	0	1	8	0	0	9	0	6	2	0	8	17
Totals	2	0	0	0	2	0	0	0	0	0	1	26	0	0	27	0	20	4	0	24	53

Comments:

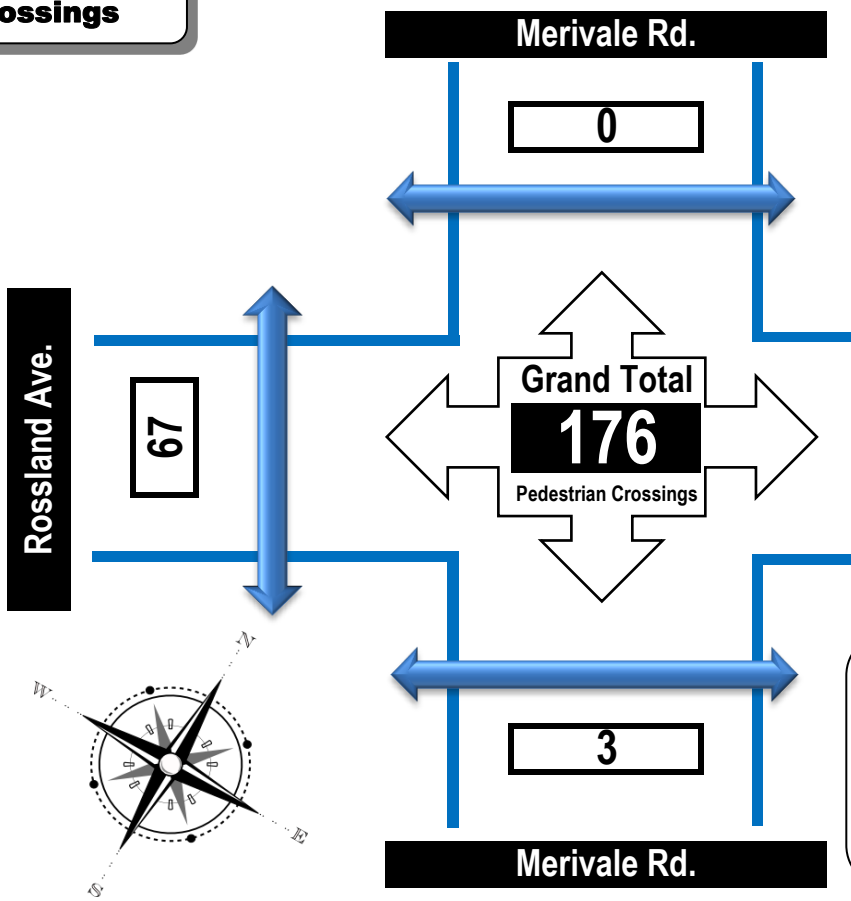
This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection.The majority of turns to Rossland Avenue turn into the Shell gas station.

Turning Movement Count
Pedestrian Crossings Summary and Flow Diagram

Merivale Road & Rossland Avenue — Nepean, ON

Pedestrian Crossings

Tuesday, August 02, 2022
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ► 8



Note

*The values in the summary table below and the flow diagram represent the number of pedestrian crossing**s** **NOT** the number of individual pedestrian**s** crossing. For example, some pedestrians will cross one approach, then another to reach their destination. Accordingly, one pedestrian crossing two approaches will be recorded as two crossings.*

Time Period	West Side Crossing Rossland Ave.	East Side Crossing Ultramar (S)	Street Total	South Side Crossing Merivale Rd.	North Side Crossing Merivale Rd.	Street Total	Grand Total
0700-0800	10	11	21	2	0	2	23
0800-0900	8	16	24	1	0	1	25
1600-1700	22	34	56	0	0	0	56
1700-1800	27	45	72	0	0	0	72
Totals	**67**	**106**	**173**	**3**	**0**	**3**	**176**

Comments:
This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection.The majority of turns to Rossland Avenue turn into the Shell gas station.

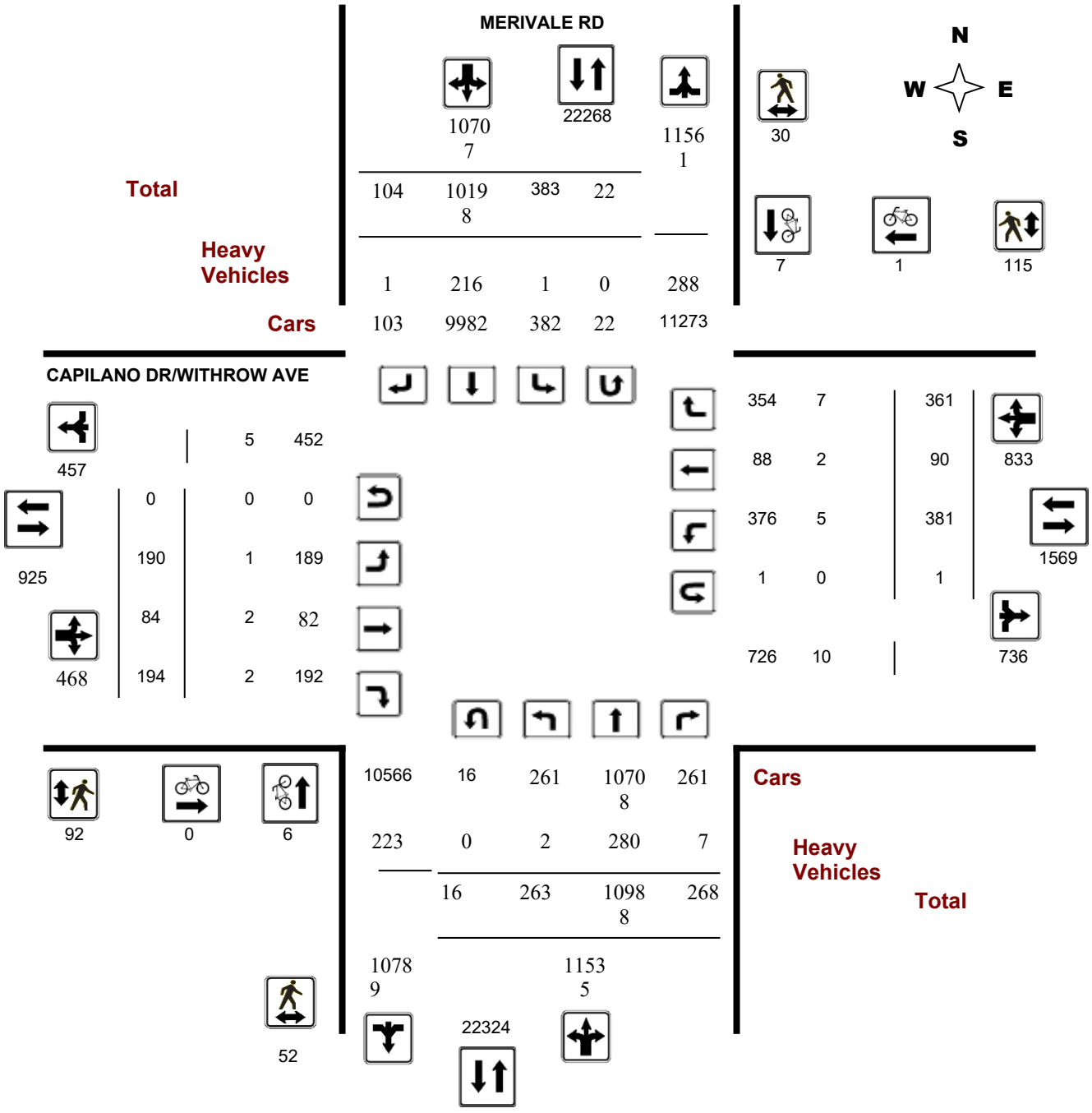
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018
Start Time: 07:00
WO No: 37551
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

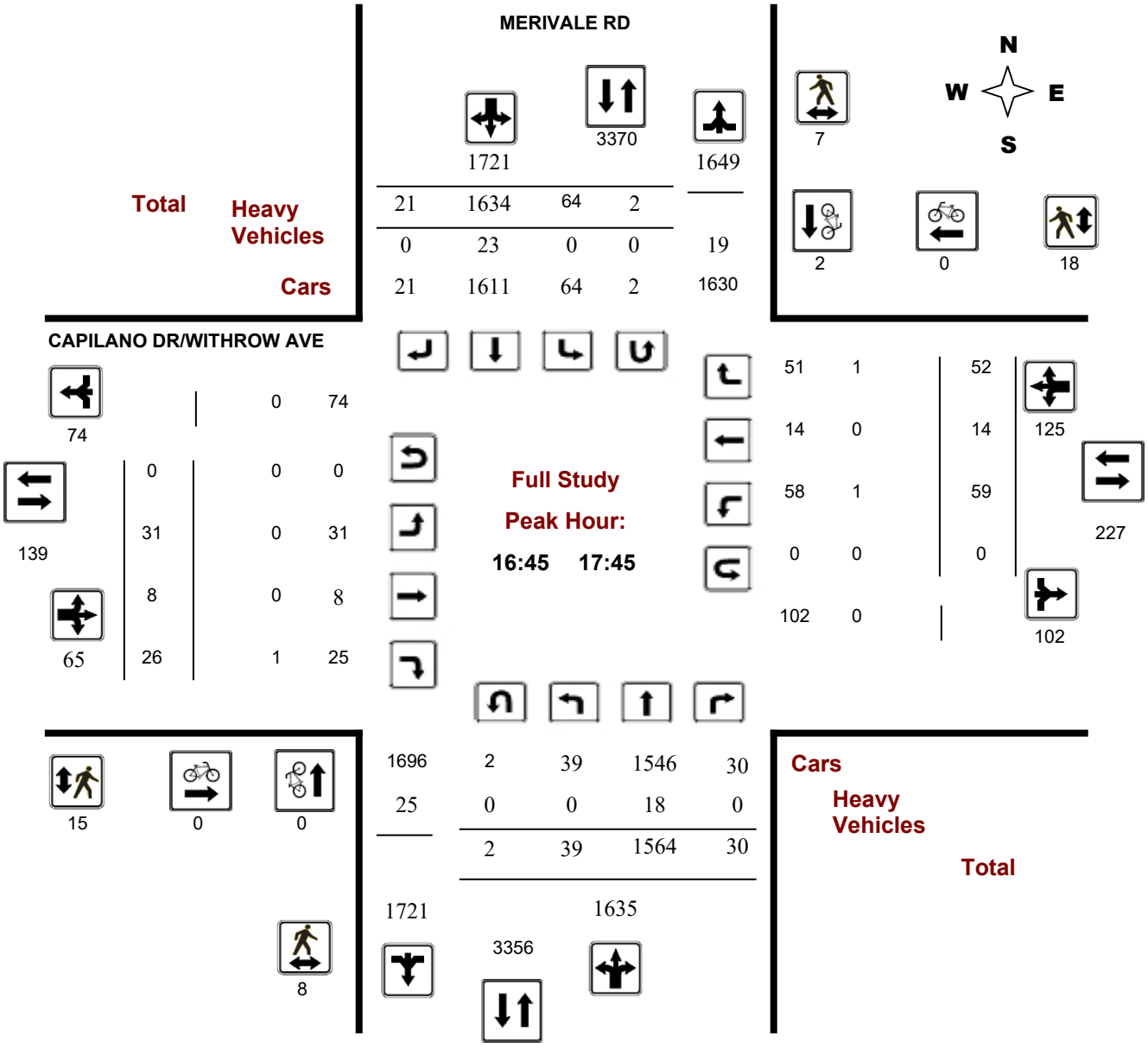
Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



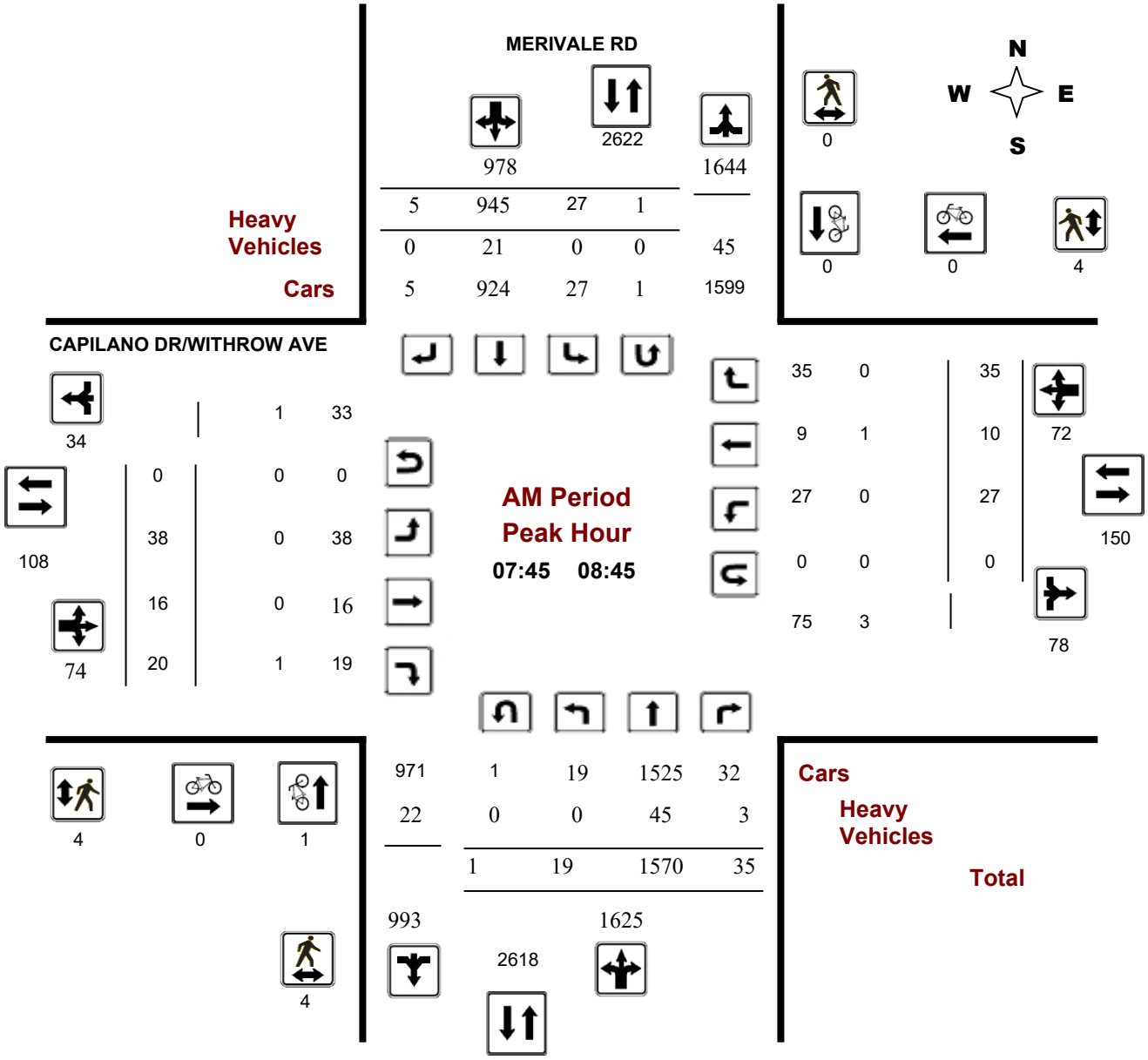
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision



Comments

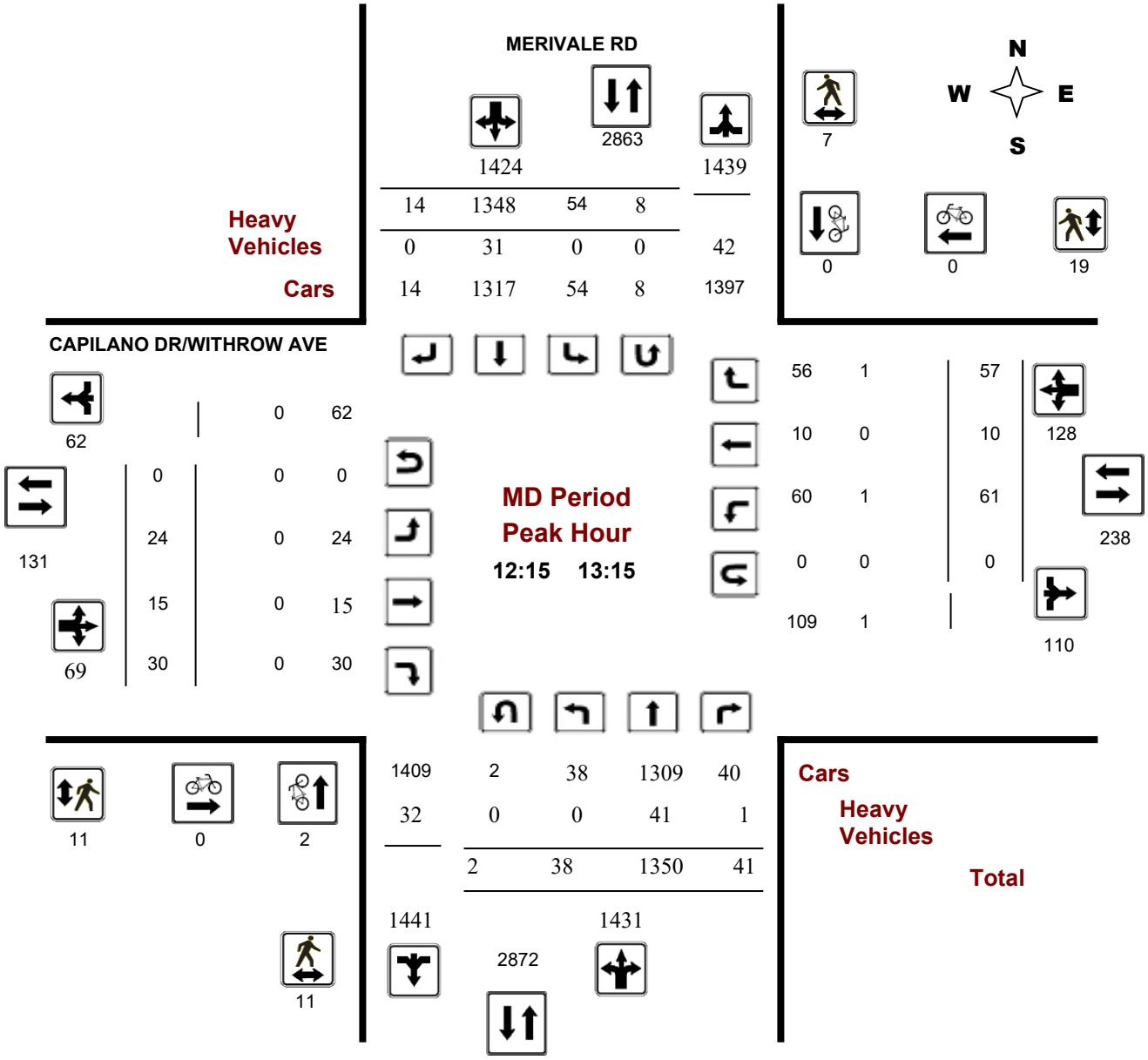
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018
Start Time: 07:00

WO No: 37551
Device: Miovision



Comments

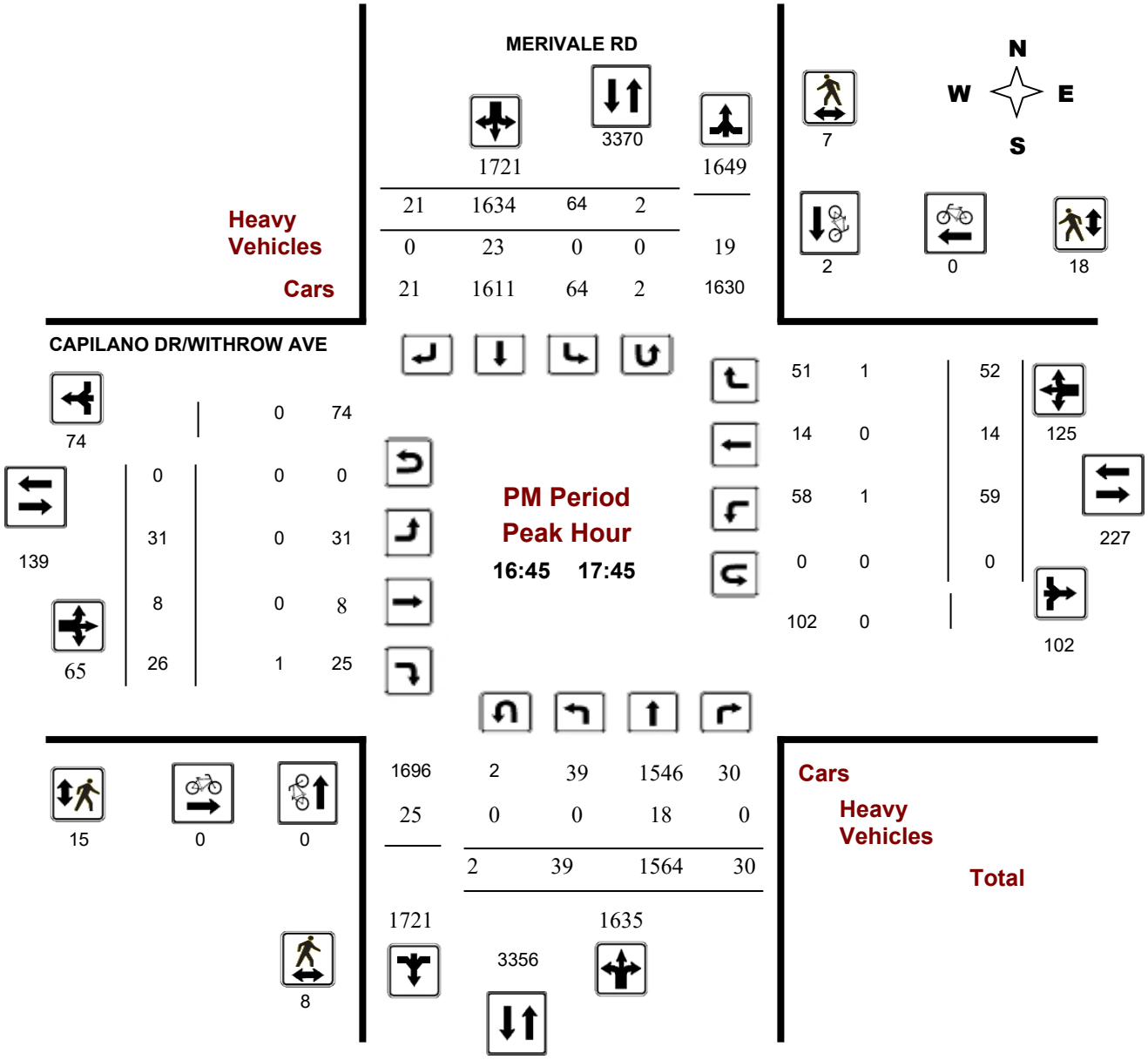
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, February 21, 2018

Total Observed U-Turns

Northbound: 16 Southbound: 22

Eastbound: 0 Westbound: 1

AADT Factor

1.00

	MERIVALE RD									CAPILANO DR/WITHROW AVE									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	12	1278	23	**1313**	17	807	4	**828**	**2141**	24	4	20	**48**	20	1	25	**46**	**94**	**2235**
08:00 09:00	22	1525	29	**1576**	32	976	4	**1012**	**2588**	33	18	18	**69**	21	15	32	**68**	**137**	**2725**
09:00 10:00	16	1084	24	**1124**	44	1113	13	**1170**	**2294**	17	8	27	**52**	37	7	44	**88**	**140**	**2434**
11:30 12:30	48	1324	36	**1408**	60	1384	12	**1456**	**2864**	16	15	33	**64**	67	4	37	**108**	**172**	**3036**
12:30 13:30	37	1336	37	**1410**	45	1281	17	**1343**	**2753**	23	12	26	**61**	56	14	64	**134**	**195**	**2948**
15:00 16:00	41	1448	42	**1531**	62	1474	14	**1550**	**3081**	22	8	19	**49**	64	16	54	**134**	**183**	**3264**
16:00 17:00	45	1480	44	**1569**	55	1591	24	**1670**	**3239**	27	12	26	**65**	60	17	56	**133**	**198**	**3437**
17:00 18:00	42	1513	33	**1588**	68	1572	16	**1656**	**3244**	28	7	25	**60**	56	16	49	**121**	**181**	**3425**
Sub Total	263	10988	268	**11519**	383	10198	104	**10685**	**22204**	190	84	194	**468**	381	90	361	**832**	**1300**	**23504**
U Turns	16			**16**	22			**22**	**38**	**0**			**0**	1			**1**	**1**	**39**
Total	279	10988	268	**11535**	405	10198	104	**10707**	**22242**	190	84	194	**468**	382	90	361	**833**	**1301**	**23543**
EQ 12Hr	388	15273	373	**16034**	563	14175	145	**14883**	**30917**	264	117	270	**651**	531	125	502	**1158**	**1809**	**32726**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	388	15273	373	**16034**	563	14175	145	**14883**	**30917**	264	117	270	**651**	531	125	502	**1158**	**1809**	**32726**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.00**					
AVG 24Hr	508	20008	489	**21005**	738	18569	190	**19497**	**40502**	346	153	354	**853**	696	164	658	**1518**	**2371**	**42873**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		MERIVALE RD									CAPILANO DR/WITHROW AVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	2	258	4	264	3	168	0	171	**435**	1	0	3	4	3	0	4	7	**11**	**446**
07:15	07:30	2	288	4	294	3	198	2	203	**497**	3	0	5	8	2	0	4	6	**14**	**511**
07:30	07:45	4	338	5	347	7	209	1	217	**564**	8	1	5	14	5	1	7	13	**27**	**591**
07:45	08:00	4	394	10	408	5	232	1	238	**646**	12	3	7	22	10	0	10	20	**42**	**688**
08:00	08:15	7	393	10	410	6	220	1	227	**637**	11	7	6	24	4	2	9	15	**39**	**676**
08:15	08:30	6	412	6	424	9	252	2	263	**687**	10	3	4	17	10	4	2	16	**33**	**720**
08:30	08:45	3	371	9	383	8	241	1	250	**633**	5	3	3	11	3	4	14	21	**32**	**665**
08:45	09:00	7	349	4	360	10	263	0	273	**633**	7	5	5	17	4	5	7	16	**33**	**666**
09:00	09:15	6	278	4	288	16	255	4	275	**563**	5	4	9	18	11	3	6	20	**38**	**601**
09:15	09:30	6	280	8	294	10	277	2	289	**583**	1	1	6	8	7	3	12	22	**30**	**613**
09:30	09:45	5	259	5	269	9	283	1	293	**562**	8	2	5	15	11	0	14	25	**40**	**602**
09:45	10:00	3	267	7	277	10	298	6	314	**591**	3	1	7	11	9	1	12	22	**33**	**624**
11:30	11:45	10	353	6	369	15	326	1	342	**711**	7	3	9	19	13	3	11	27	**46**	**757**
11:45	12:00	17	318	14	349	18	334	2	354	**703**	4	6	9	19	18	0	12	30	**49**	**752**
12:00	12:15	12	304	5	321	13	357	5	375	**696**	3	2	6	11	14	0	6	20	**31**	**727**
12:15	12:30	11	349	11	371	17	367	4	388	**759**	2	4	9	15	22	1	8	31	**46**	**805**
12:30	12:45	9	327	12	348	12	326	4	342	**690**	9	6	8	23	17	5	9	31	**54**	**744**
12:45	13:00	9	324	11	344	17	326	5	348	**692**	7	3	7	17	10	3	15	28	**45**	**737**
13:00	13:15	11	350	7	368	16	329	1	346	**714**	6	2	6	14	12	1	25	38	**52**	**766**
13:15	13:30	10	335	7	352	7	300	7	314	**666**	1	1	5	7	17	5	15	37	**44**	**710**
15:00	15:15	11	380	12	403	16	376	1	393	**796**	4	3	5	12	15	3	21	39	**51**	**847**
15:15	15:30	15	377	6	398	13	355	4	372	**770**	6	1	7	14	17	5	15	37	**51**	**821**
15:30	15:45	10	366	13	389	21	386	5	412	**801**	7	1	1	9	14	2	7	23	**32**	**833**
15:45	16:00	8	325	11	344	15	357	4	376	**720**	5	3	6	14	18	6	11	35	**49**	**769**
16:00	16:15	16	337	14	367	17	391	5	413	**780**	8	1	7	16	14	5	12	31	**47**	**827**
16:15	16:30	13	400	10	423	8	400	10	418	**841**	4	6	6	16	15	5	13	33	**49**	**890**
16:30	16:45	9	372	10	391	21	383	3	407	**798**	7	3	10	20	12	3	20	35	**55**	**853**
16:45	17:00	10	371	10	391	12	417	6	435	**826**	8	2	3	13	19	4	11	34	**47**	**873**
17:00	17:15	7	395	6	408	21	407	8	436	**844**	6	2	7	15	12	3	17	32	**47**	**891**
17:15	17:30	12	399	7	418	19	433	5	457	**875**	10	1	10	21	12	4	13	29	**50**	**925**
17:30	17:45	12	399	7	418	14	377	2	393	**811**	7	3	6	16	16	3	11	30	**46**	**857**
17:45	18:00	12	320	13	345	17	355	1	373	**718**	5	1	2	8	16	6	8	30	**38**	**756**
Total:		279	1098	268	1153	405	10198	104	10707	**22242**	190	84	194	468	382	90	361	833	**22242**	**23,543**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		MERIVALE RD			CAPILANO DR/WITHROW AVE			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	1	0	**1**	0	0	**0**	**1**
07:15	07:30	0	0	**0**	0	0	**0**	**0**
07:30	07:45	0	0	**0**	0	0	**0**	**0**
07:45	08:00	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	1	0	**1**	0	0	**0**	**1**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	0	0	**0**	**0**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	0	**0**	**0**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	1	**1**	0	0	**0**	**1**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	1	0	**1**	0	0	**0**	**1**
12:45	13:00	1	0	**1**	0	0	**0**	**1**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	0	0	**0**	**0**
15:30	15:45	1	0	**1**	0	0	**0**	**1**
15:45	16:00	0	1	**1**	0	0	**0**	**1**
16:00	16:15	0	2	**2**	0	0	**0**	**2**
16:15	16:30	0	0	**0**	0	0	**0**	**0**
16:30	16:45	1	1	**2**	0	1	**1**	**3**
16:45	17:00	0	1	**1**	0	0	**0**	**1**
17:00	17:15	0	0	**0**	0	0	**0**	**0**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	1	**1**	0	0	**0**	**1**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		6	7	**13**	0	1	**1**	**14**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	MERIVALE RD			CAPILANO DR/WITHROW AVE			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	**Total**	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	**Total**	**Grand Total**
07:00 07:15	0	0	**0**	2	2	**4**	**4**
07:15 07:30	0	0	**0**	0	2	**2**	**2**
07:30 07:45	2	0	**2**	2	3	**5**	**7**
07:45 08:00	0	0	**0**	2	1	**3**	**3**
08:00 08:15	1	0	**1**	0	0	**0**	**1**
08:15 08:30	2	0	**2**	2	2	**4**	**6**
08:30 08:45	1	0	**1**	0	1	**1**	**2**
08:45 09:00	0	0	**0**	0	0	**0**	**0**
09:00 09:15	0	0	**0**	0	3	**3**	**3**
09:15 09:30	1	0	**1**	1	6	**7**	**8**
09:30 09:45	1	0	**1**	3	0	**3**	**4**
09:45 10:00	4	0	**4**	4	1	**5**	**9**
11:30 11:45	1	0	**1**	3	2	**5**	**6**
11:45 12:00	1	2	**3**	9	2	**11**	**14**
12:00 12:15	0	0	**0**	4	2	**6**	**6**
12:15 12:30	6	1	**7**	5	3	**8**	**15**
12:30 12:45	1	0	**1**	0	9	**9**	**10**
12:45 13:00	3	4	**7**	5	3	**8**	**15**
13:00 13:15	1	2	**3**	1	4	**5**	**8**
13:15 13:30	0	1	**1**	4	4	**8**	**9**
15:00 15:15	0	3	**3**	9	5	**14**	**17**
15:15 15:30	2	0	**2**	4	4	**8**	**10**
15:30 15:45	1	1	**2**	4	6	**10**	**12**
15:45 16:00	1	2	**3**	1	4	**5**	**8**
16:00 16:15	7	3	**10**	5	13	**18**	**28**
16:15 16:30	4	3	**7**	4	10	**14**	**21**
16:30 16:45	3	0	**3**	3	2	**5**	**8**
16:45 17:00	2	2	**4**	6	6	**12**	**16**
17:00 17:15	2	3	**5**	2	6	**8**	**13**
17:15 17:30	1	2	**3**	4	5	**9**	**12**
17:30 17:45	3	0	**3**	3	1	**4**	**7**
17:45 18:00	1	1	**2**	0	3	**3**	**5**
Total	52	30	**82**	92	115	**207**	**289**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		MERIVALE RD									CAPILANO DR/WITHROW AVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	14	0	**14**	0	7	0	**7**	**21**	0	0	0	**0**	0	0	0	**0**	**0**	**21**
07:15	07:30	0	11	1	**12**	0	9	1	**10**	**22**	0	0	0	**0**	1	0	0	**1**	**1**	**23**
07:30	07:45	0	11	0	**11**	0	8	0	**8**	**19**	0	1	0	**1**	0	0	0	**0**	**1**	**20**
07:45	08:00	0	10	1	**11**	0	3	0	**3**	**14**	0	0	0	**0**	0	0	0	**0**	**0**	**14**
08:00	08:15	0	8	1	**9**	0	5	0	**5**	**14**	0	0	0	**0**	0	0	0	**0**	**0**	**14**
08:15	08:30	0	13	0	**13**	0	7	0	**7**	**20**	0	0	0	**0**	0	0	0	**0**	**0**	**20**
08:30	08:45	0	14	1	**15**	0	6	0	**6**	**21**	0	0	1	**1**	0	1	0	**1**	**2**	**23**
08:45	09:00	0	9	0	**9**	0	5	0	**5**	**14**	0	0	0	**0**	0	0	0	**0**	**0**	**14**
09:00	09:15	0	15	0	**15**	0	11	0	**11**	**26**	0	0	0	**0**	0	0	0	**0**	**0**	**26**
09:15	09:30	0	12	1	**13**	0	11	0	**11**	**24**	0	0	0	**0**	2	0	0	**2**	**2**	**26**
09:30	09:45	1	9	0	**10**	0	6	0	**6**	**16**	0	0	0	**0**	0	0	2	**2**	**2**	**18**
09:45	10:00	0	5	0	**5**	0	11	0	**11**	**16**	0	0	0	**0**	0	0	0	**0**	**0**	**16**
11:30	11:45	0	9	0	**9**	0	2	0	**2**	**11**	1	0	0	**1**	0	0	0	**0**	**1**	**12**
11:45	12:00	0	9	0	**9**	0	12	0	**12**	**21**	0	1	0	**1**	0	0	0	**0**	**1**	**22**
12:00	12:15	0	5	0	**5**	0	9	0	**9**	**14**	0	0	0	**0**	0	0	1	**1**	**1**	**15**
12:15	12:30	0	6	0	**6**	0	9	0	**9**	**15**	0	0	0	**0**	0	0	0	**0**	**0**	**15**
12:30	12:45	0	12	1	**13**	0	5	0	**5**	**18**	0	0	0	**0**	0	0	1	**1**	**1**	**19**
12:45	13:00	0	11	0	**11**	0	8	0	**8**	**19**	0	0	0	**0**	1	0	0	**1**	**1**	**20**
13:00	13:15	0	12	0	**12**	0	9	0	**9**	**21**	0	0	0	**0**	0	0	0	**0**	**0**	**21**
13:15	13:30	0	10	0	**10**	0	8	0	**8**	**18**	0	0	0	**0**	0	0	0	**0**	**0**	**18**
15:00	15:15	0	9	0	**9**	1	6	0	**7**	**16**	0	0	0	**0**	0	0	0	**0**	**0**	**16**
15:15	15:30	0	13	0	**13**	0	2	0	**2**	**15**	0	0	0	**0**	0	1	0	**1**	**1**	**16**
15:30	15:45	0	5	0	**5**	0	4	0	**4**	**9**	0	0	0	**0**	0	0	1	**1**	**1**	**10**
15:45	16:00	0	8	1	**9**	0	6	0	**6**	**15**	0	0	0	**0**	0	0	0	**0**	**0**	**15**
16:00	16:15	1	7	0	**8**	0	7	0	**7**	**15**	0	0	0	**0**	0	0	0	**0**	**0**	**15**
16:15	16:30	0	3	0	**3**	0	9	0	**9**	**12**	0	0	0	**0**	0	0	1	**1**	**1**	**13**
16:30	16:45	0	5	0	**5**	0	5	0	**5**	**10**	0	0	0	**0**	0	0	0	**0**	**0**	**10**
16:45	17:00	0	3	0	**3**	0	4	0	**4**	**7**	0	0	1	**1**	1	0	0	**1**	**2**	**9**
17:00	17:15	0	6	0	**6**	0	6	0	**6**	**12**	0	0	0	**0**	0	0	1	**1**	**1**	**13**
17:15	17:30	0	1	0	**1**	0	7	0	**7**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
17:30	17:45	0	8	0	**8**	0	6	0	**6**	**14**	0	0	0	**0**	0	0	0	**0**	**0**	**14**
17:45	18:00	0	7	0	**7**	0	3	0	**3**	**10**	0	0	0	**0**	0	0	0	**0**	**0**	**10**
Total:	None	2	280	7	**289**	1	216	1	**218**	**507**	1	2	2	**5**	5	2	7	**14**	**19**	**526**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018 **WO No:** 37551

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		MERIVALE RD		CAPILANO DR/WITHROW AVE		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	1	0	0	**1**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	1	0	0	0	**1**
08:15	08:30	0	1	0	0	**1**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	3	0	0	1	**4**
09:15	09:30	1	0	0	0	**1**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	1	0	0	**1**
11:30	11:45	0	1	0	0	**1**
11:45	12:00	2	0	0	0	**2**
12:00	12:15	0	1	0	0	**1**
12:15	12:30	0	1	0	0	**1**
12:30	12:45	0	3	0	0	**3**
12:45	13:00	0	1	0	0	**1**
13:00	13:15	2	3	0	0	**5**
13:15	13:30	0	0	0	0	**0**
15:00	15:15	1	0	0	0	**1**
15:15	15:30	1	1	0	0	**2**
15:30	15:45	1	2	0	0	**3**
15:45	16:00	0	0	0	0	**0**
16:00	16:15	1	2	0	0	**3**
16:15	16:30	1	0	0	0	**1**
16:30	16:45	0	1	0	0	**1**
16:45	17:00	1	0	0	0	**1**
17:00	17:15	0	1	0	0	**1**
17:15	17:30	1	0	0	0	**1**
17:30	17:45	0	1	0	0	**1**
17:45	18:00	0	1	0	0	**1**
Total		16	22	0	1	**39**

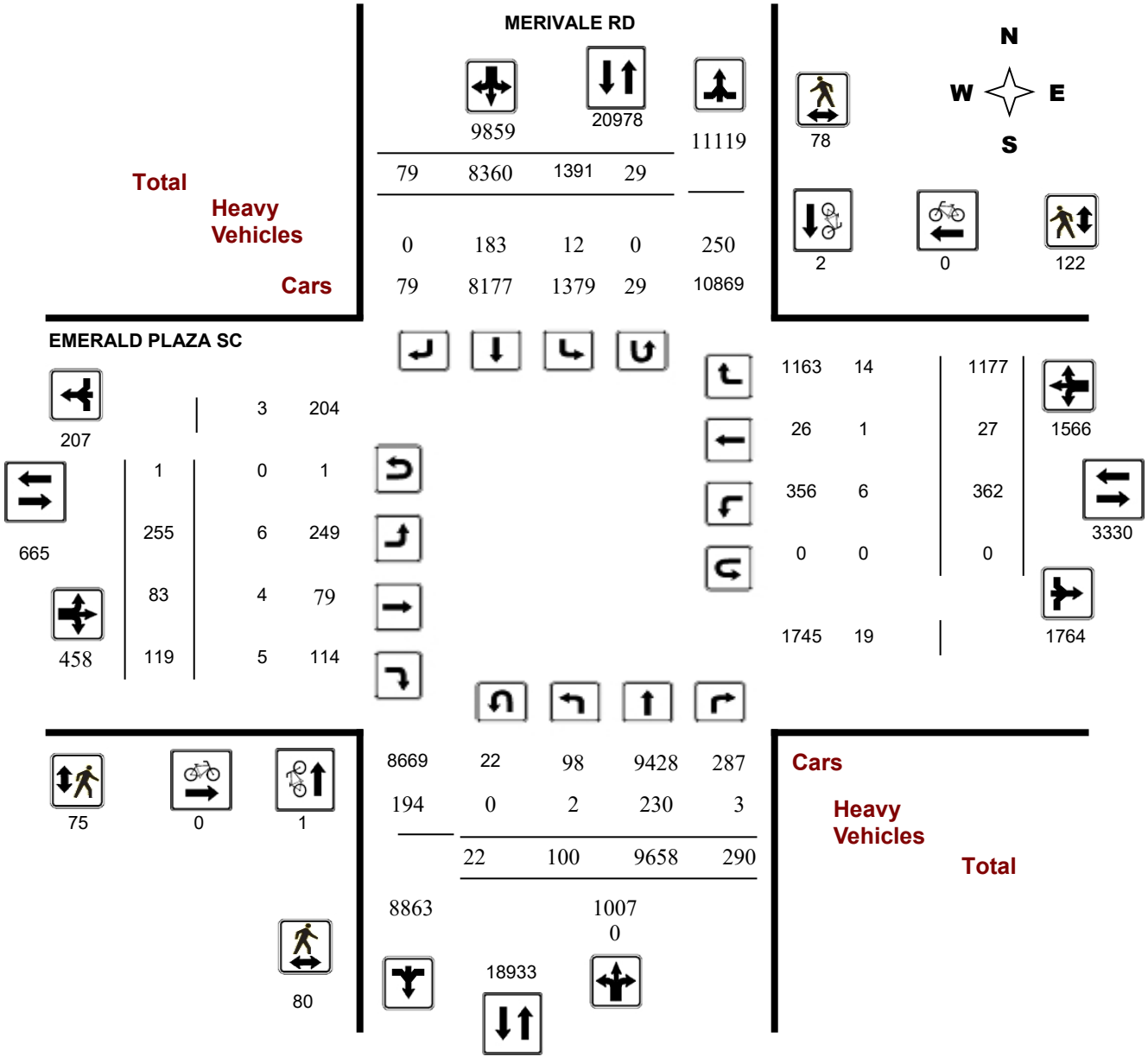
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020
Start Time: 07:00
WO No: 39430
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

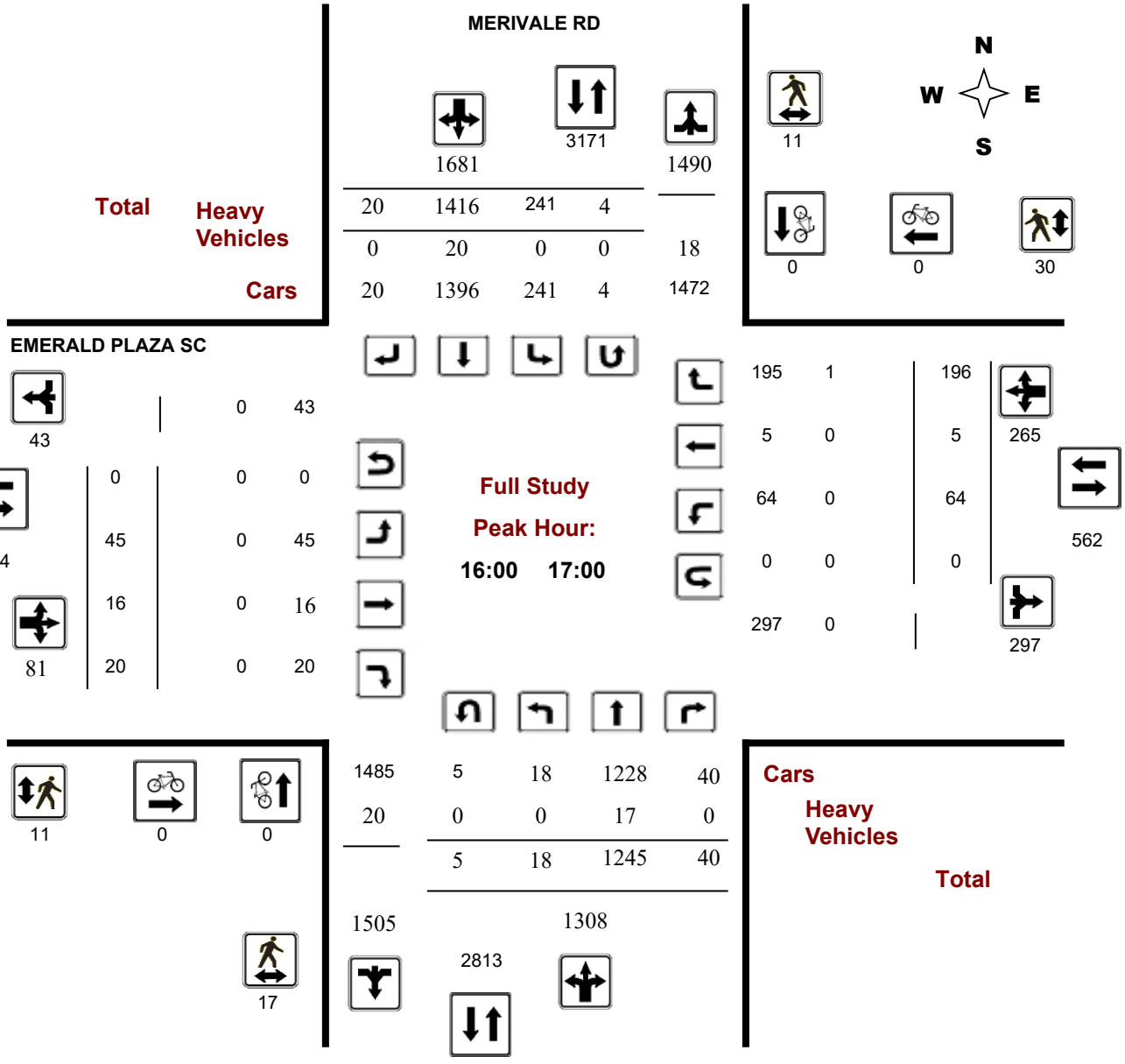
Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



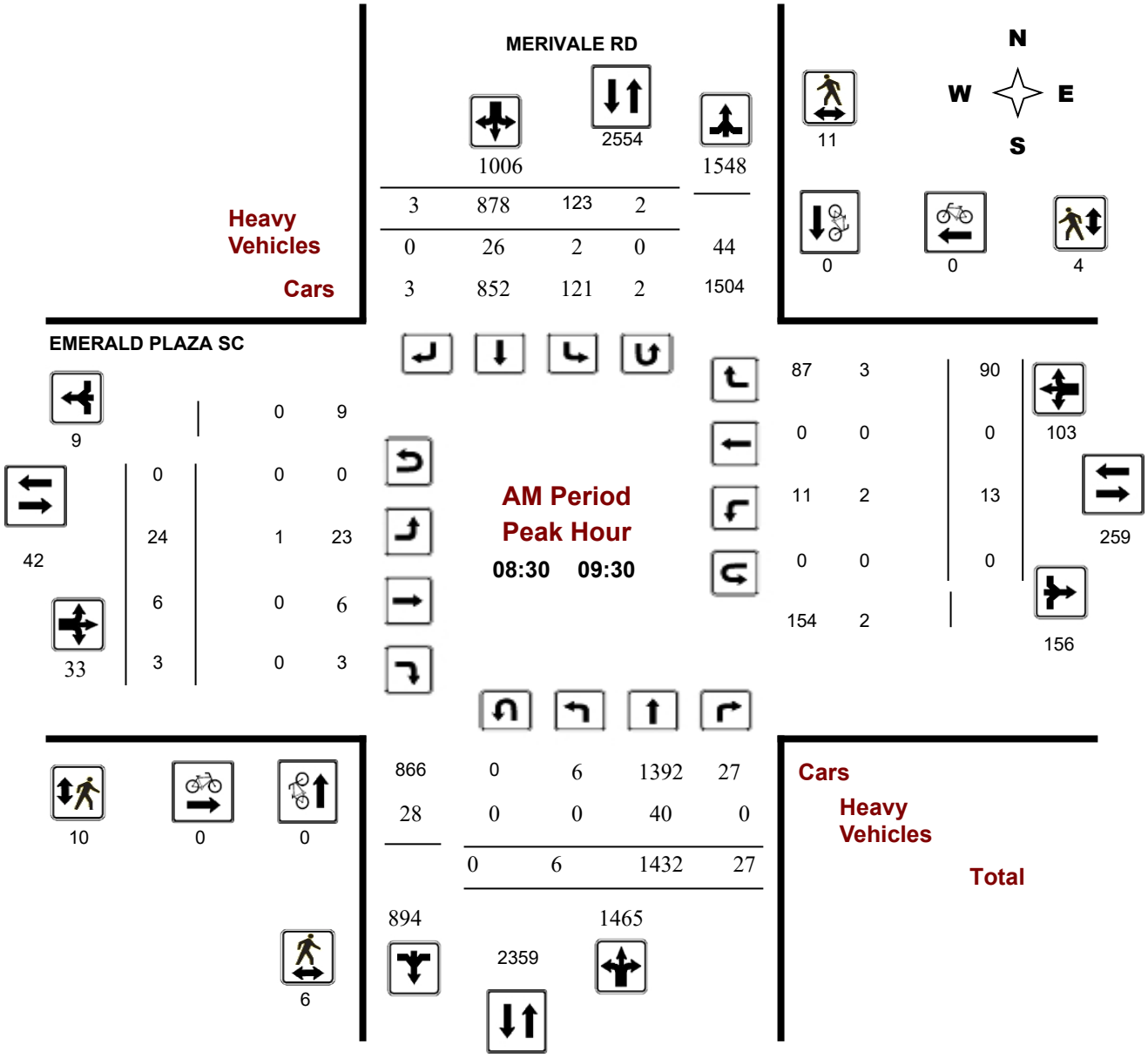
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision



Comments

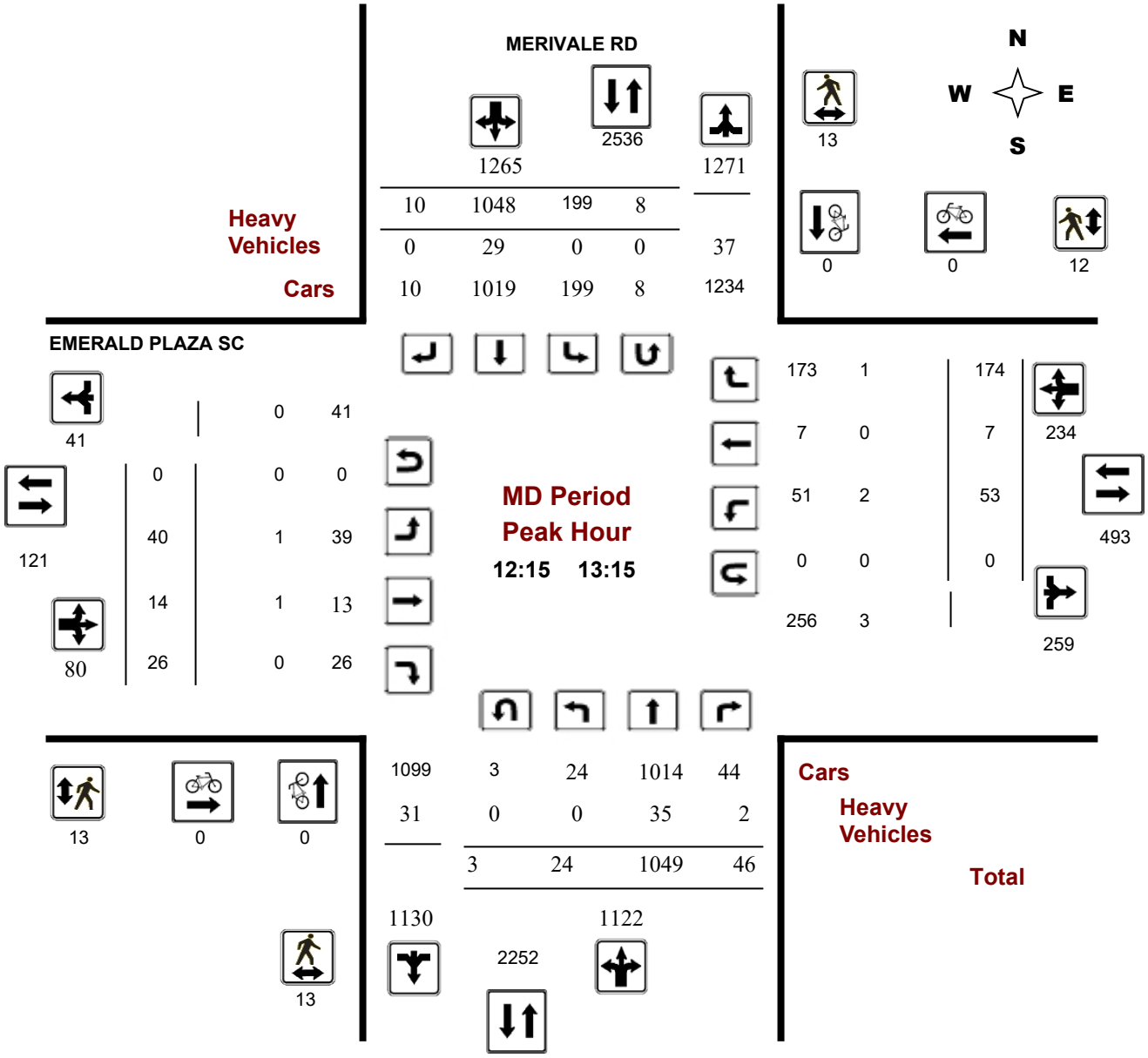
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision



Comments

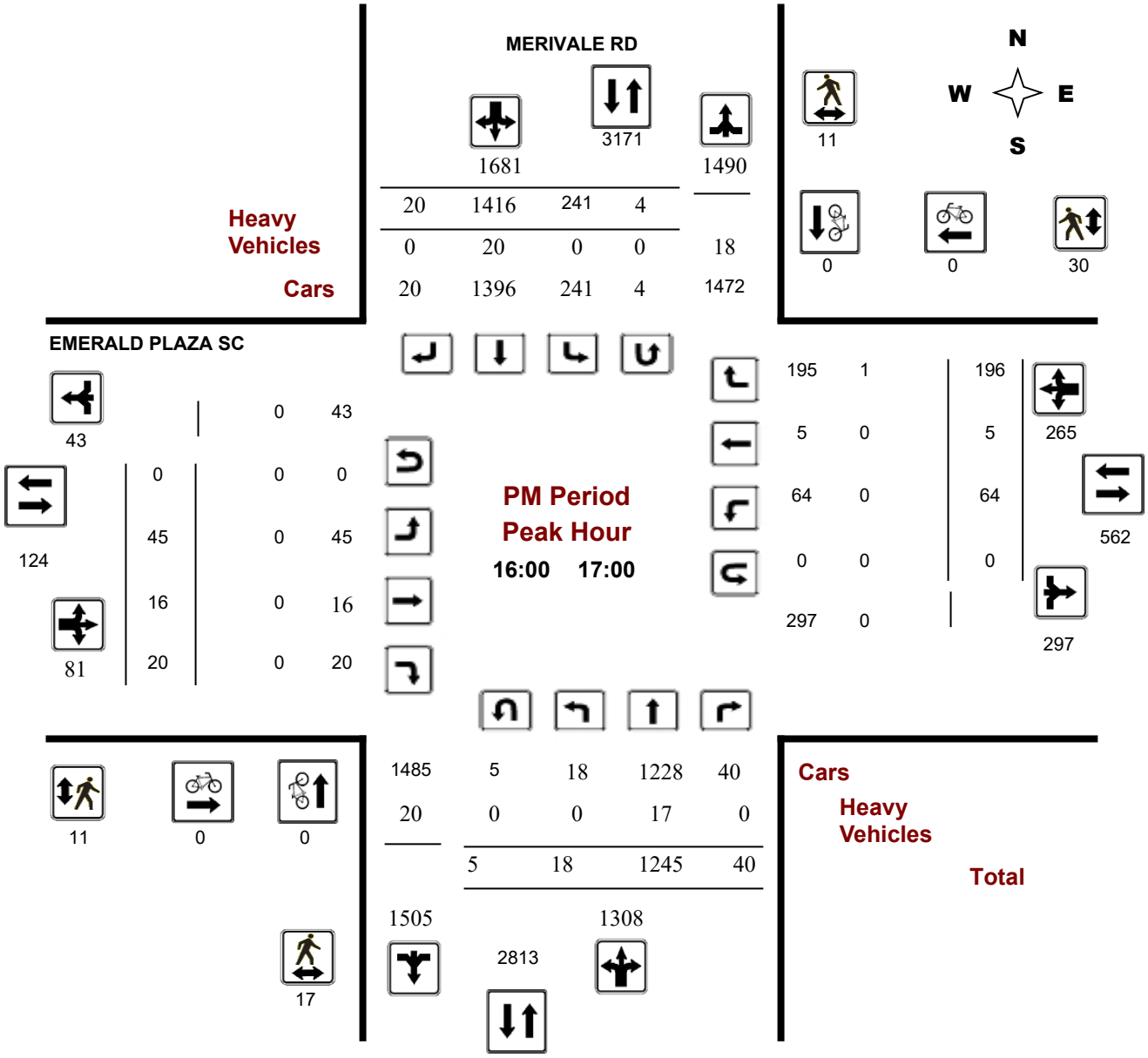
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Monday, February 10, 2020

Total Observed U-Turns

Northbound: 22 Southbound: 29

Eastbound: 1 Westbound: 0

AADT Factor

1.00

	MERIVALE RD									EMERALD PLAZA SC									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	0	1253	5	**1258**	69	673	4	**746**	**2004**	8	3	3	**14**	6	0	46	**52**	**66**	**2070**
08:00 09:00	1	1459	15	**1475**	91	886	3	**980**	**2455**	32	7	1	**40**	9	0	86	**95**	**135**	**2590**
09:00 10:00	11	1298	47	**1356**	149	816	3	**968**	**2324**	19	4	7	**30**	24	1	96	**121**	**151**	**2475**
11:30 12:30	18	998	47	**1063**	193	1064	2	**1259**	**2322**	32	13	22	**67**	60	2	159	**221**	**288**	**2610**
12:30 13:30	29	1041	35	**1105**	192	1031	11	**1234**	**2339**	41	16	26	**83**	51	10	178	**239**	**322**	**2661**
15:00 16:00	7	1147	48	**1202**	211	1210	24	**1445**	**2647**	32	17	22	**71**	64	5	202	**271**	**342**	**2989**
16:00 17:00	18	1245	40	**1303**	241	1416	20	**1677**	**2980**	45	16	20	**81**	64	5	196	**265**	**346**	**3326**
17:00 18:00	16	1217	53	**1286**	245	1264	12	**1521**	**2807**	46	7	18	**71**	84	4	214	**302**	**373**	**3180**
Sub Total	100	9658	290	**10048**	1391	8360	79	**9830**	**19878**	255	83	119	**457**	362	27	1177	**1566**	**2023**	**21901**
U Turns	22			**22**	29			**29**	**51**	**1**			**1**	0			**0**	**1**	**52**
Total	122	9658	290	**10070**	1420	8360	79	**9859**	**19929**	256	83	119	**458**	362	27	1177	**1566**	**2024**	**21953**
EQ 12Hr	170	13425	403	**13998**	1974	11620	110	**13704**	**27702**	356	115	165	**636**	503	38	1636	**2177**	**2813**	**30515**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	170	13425	403	**13998**	1974	11620	110	**13704**	**27702**	356	115	165	**636**	503	38	1636	**2177**	**2813**	**30515**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.00**					
AVG 24Hr	223	17587	528	**18338**	2586	15222	144	**17952**	**36290**	466	151	216	**833**	659	50	2143	**2852**	**3685**	**39975**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		MERIVALE RD			EMERALD PLAZA SC			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	0	0	**0**	**0**
07:15	07:30	0	0	**0**	0	0	**0**	**0**
07:30	07:45	0	0	**0**	0	0	**0**	**0**
07:45	08:00	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	0	0	**0**	0	0	**0**	**0**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	0	0	**0**	**0**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	0	**0**	**0**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	1	0	**1**	0	0	**0**	**1**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	1	**1**	0	0	**0**	**1**
15:30	15:45	0	0	**0**	0	0	**0**	**0**
15:45	16:00	0	1	**1**	0	0	**0**	**1**
16:00	16:15	0	0	**0**	0	0	**0**	**0**
16:15	16:30	0	0	**0**	0	0	**0**	**0**
16:30	16:45	0	0	**0**	0	0	**0**	**0**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	0	0	**0**	0	0	**0**	**0**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	0	**0**	0	0	**0**	**0**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		1	2	**3**	0	0	**0**	**3**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	MERIVALE RD			EMERALD PLAZA SC			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	**Total**	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	**Total**	**Grand Total**
07:00 07:15	0	0	**0**	1	1	**2**	**2**
07:15 07:30	0	0	**0**	0	2	**2**	**2**
07:30 07:45	0	2	**2**	1	1	**2**	**4**
07:45 08:00	0	2	**2**	0	1	**1**	**3**
08:00 08:15	0	1	**1**	2	0	**2**	**3**
08:15 08:30	1	2	**3**	2	0	**2**	**5**
08:30 08:45	0	0	**0**	0	0	**0**	**0**
08:45 09:00	2	7	**9**	8	0	**8**	**17**
09:00 09:15	1	2	**3**	1	4	**5**	**8**
09:15 09:30	3	2	**5**	1	0	**1**	**6**
09:30 09:45	1	2	**3**	3	2	**5**	**8**
09:45 10:00	8	6	**14**	5	5	**10**	**24**
11:30 11:45	3	2	**5**	1	3	**4**	**9**
11:45 12:00	2	4	**6**	1	3	**4**	**10**
12:00 12:15	2	6	**8**	4	2	**6**	**14**
12:15 12:30	6	3	**9**	1	5	**6**	**15**
12:30 12:45	0	1	**1**	1	1	**2**	**3**
12:45 13:00	3	4	**7**	3	3	**6**	**13**
13:00 13:15	4	5	**9**	8	3	**11**	**20**
13:15 13:30	3	1	**4**	3	7	**10**	**14**
15:00 15:15	3	2	**5**	3	5	**8**	**13**
15:15 15:30	2	2	**4**	3	9	**12**	**16**
15:30 15:45	4	1	**5**	1	13	**14**	**19**
15:45 16:00	2	5	**7**	4	3	**7**	**14**
16:00 16:15	3	0	**3**	1	8	**9**	**12**
16:15 16:30	0	0	**0**	6	6	**12**	**12**
16:30 16:45	3	5	**8**	1	9	**10**	**18**
16:45 17:00	11	6	**17**	3	7	**10**	**27**
17:00 17:15	3	1	**4**	1	3	**4**	**8**
17:15 17:30	5	2	**7**	3	7	**10**	**17**
17:30 17:45	1	0	**1**	3	7	**10**	**11**
17:45 18:00	4	2	**6**	0	2	**2**	**8**
Total	80	78	**158**	75	122	**197**	**355**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		MERIVALE RD									EMERALD PLAZA SC									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	9	0		0	4	0		**13**	0	0	0		0	0	0		**0**	**13**
07:15	07:30	0	10	0		0	4	0		**14**	0	0	1		0	0	0		**1**	**15**
07:30	07:45	0	6	0		0	4	0		**10**	0	1	0		0	0	0		**1**	**11**
07:45	08:00	0	10	0		0	5	0		**15**	1	0	1		0	0	1		**3**	**18**
08:00	08:15	0	6	0		1	5	0		**12**	0	0	0		0	0	0		**0**	**12**
08:15	08:30	0	12	1		0	3	0		**16**	0	0	0		0	0	1		**1**	**17**
08:30	08:45	0	4	0		0	5	0		**9**	0	0	0		0	0	1		**1**	**10**
08:45	09:00	0	12	0		0	11	0		**23**	1	0	0		0	0	2		**3**	**26**
09:00	09:15	0	12	0		1	5	0		**18**	0	0	0		1	0	0		**1**	**19**
09:15	09:30	0	12	0		1	5	0		**18**	0	0	0		1	0	0		**1**	**19**
09:30	09:45	0	14	0		1	5	0		**20**	0	1	0		0	0	1		**2**	**22**
09:45	10:00	1	5	0		0	9	0		**15**	0	0	2		0	0	1		**3**	**18**
11:30	11:45	0	15	0		0	7	0		**22**	1	0	0		0	0	0		**1**	**23**
11:45	12:00	0	3	0		0	9	0		**12**	0	0	0		0	0	0		**0**	**12**
12:00	12:15	0	6	0		0	8	0		**14**	0	0	0		0	0	0		**0**	**14**
12:15	12:30	0	5	0		0	5	0		**10**	0	0	0		0	0	1		**1**	**11**
12:30	12:45	0	7	1		0	9	0		**17**	0	1	0		0	0	0		**1**	**18**
12:45	13:00	0	9	1		0	9	0		**19**	0	0	0		2	0	0		**2**	**21**
13:00	13:15	0	14	0		0	6	0		**20**	1	0	0		0	0	0		**1**	**21**
13:15	13:30	1	9	0		1	4	0		**15**	1	0	0		0	0	0		**1**	**16**
15:00	15:15	0	2	0		4	9	0		**15**	0	0	0		1	0	0		**1**	**16**
15:15	15:30	0	6	0		0	5	0		**11**	0	0	1		0	0	1		**2**	**13**
15:30	15:45	0	4	0		2	6	0		**12**	0	1	0		0	1	1		**3**	**15**
15:45	16:00	0	4	0		1	8	0		**13**	0	0	0		0	0	3		**3**	**16**
16:00	16:15	0	4	0		0	8	0		**12**	0	0	0		0	0	0		**0**	**12**
16:15	16:30	0	5	0		0	2	0		**7**	0	0	0		0	0	1		**1**	**8**
16:30	16:45	0	4	0		0	4	0		**8**	0	0	0		0	0	0		**0**	**8**
16:45	17:00	0	4	0		0	6	0		**10**	0	0	0		0	0	0		**0**	**10**
17:00	17:15	0	5	0		0	2	0		**7**	0	0	0		0	0	0		**0**	**7**
17:15	17:30	0	6	0		0	4	0		**10**	1	0	0		0	0	0		**1**	**11**
17:30	17:45	0	3	0		0	4	0		**7**	0	0	0		0	0	0		**0**	**7**
17:45	18:00	0	3	0		0	3	0		**6**	0	0	0		1	0	0		**1**	**7**
Total:	None	2	230	3	**0**	12	183	0	**0**	**430**	6	4	5	**0**	6	1	14	**0**	**36**	**466**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020 **WO No:** 39430

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		MERIVALE RD		EMERALD PLAZA SC		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	2	0	0	**2**
07:15	07:30	0	1	0	0	**1**
07:30	07:45	1	0	0	0	**1**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	0	0	**0**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	1	0	0	**1**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	1	0	0	**1**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	2	0	0	0	**2**
09:45	10:00	1	0	0	0	**1**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	1	1	0	0	**2**
12:00	12:15	0	2	0	0	**2**
12:15	12:30	0	3	0	0	**3**
12:30	12:45	1	3	0	0	**4**
12:45	13:00	0	1	0	0	**1**
13:00	13:15	2	1	0	0	**3**
13:15	13:30	2	0	0	0	**2**
15:00	15:15	0	2	0	0	**2**
15:15	15:30	0	0	0	0	**0**
15:30	15:45	3	0	0	0	**3**
15:45	16:00	0	0	1	0	**1**
16:00	16:15	2	1	0	0	**3**
16:15	16:30	1	0	0	0	**1**
16:30	16:45	1	1	0	0	**2**
16:45	17:00	1	2	0	0	**3**
17:00	17:15	1	1	0	0	**2**
17:15	17:30	0	1	0	0	**1**
17:30	17:45	1	2	0	0	**3**
17:45	18:00	2	3	0	0	**5**
Total		22	29	1	0	**52**

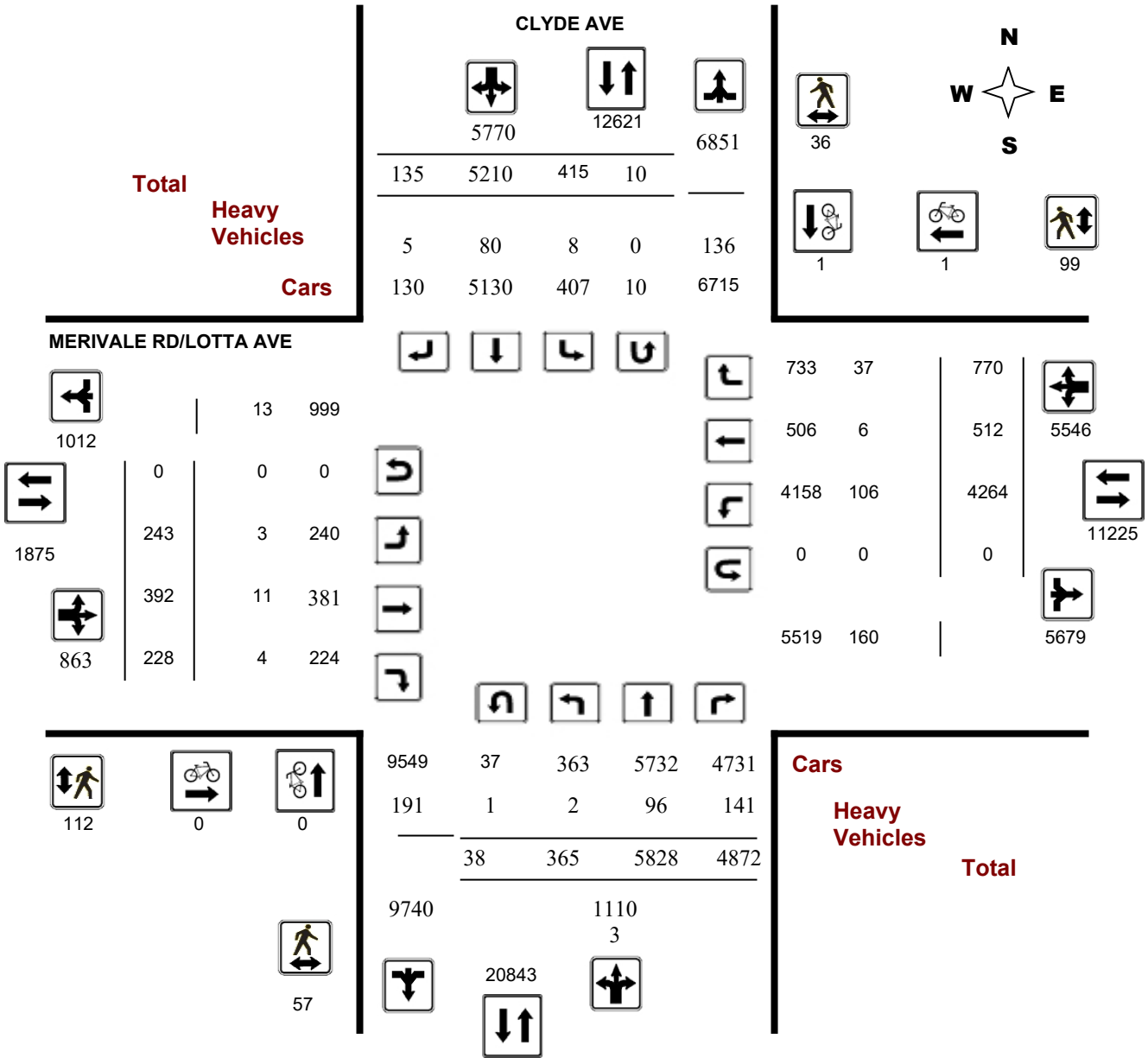
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020
Start Time: 07:00
WO No: 39436
Device: Miovision

Full Study Diagram



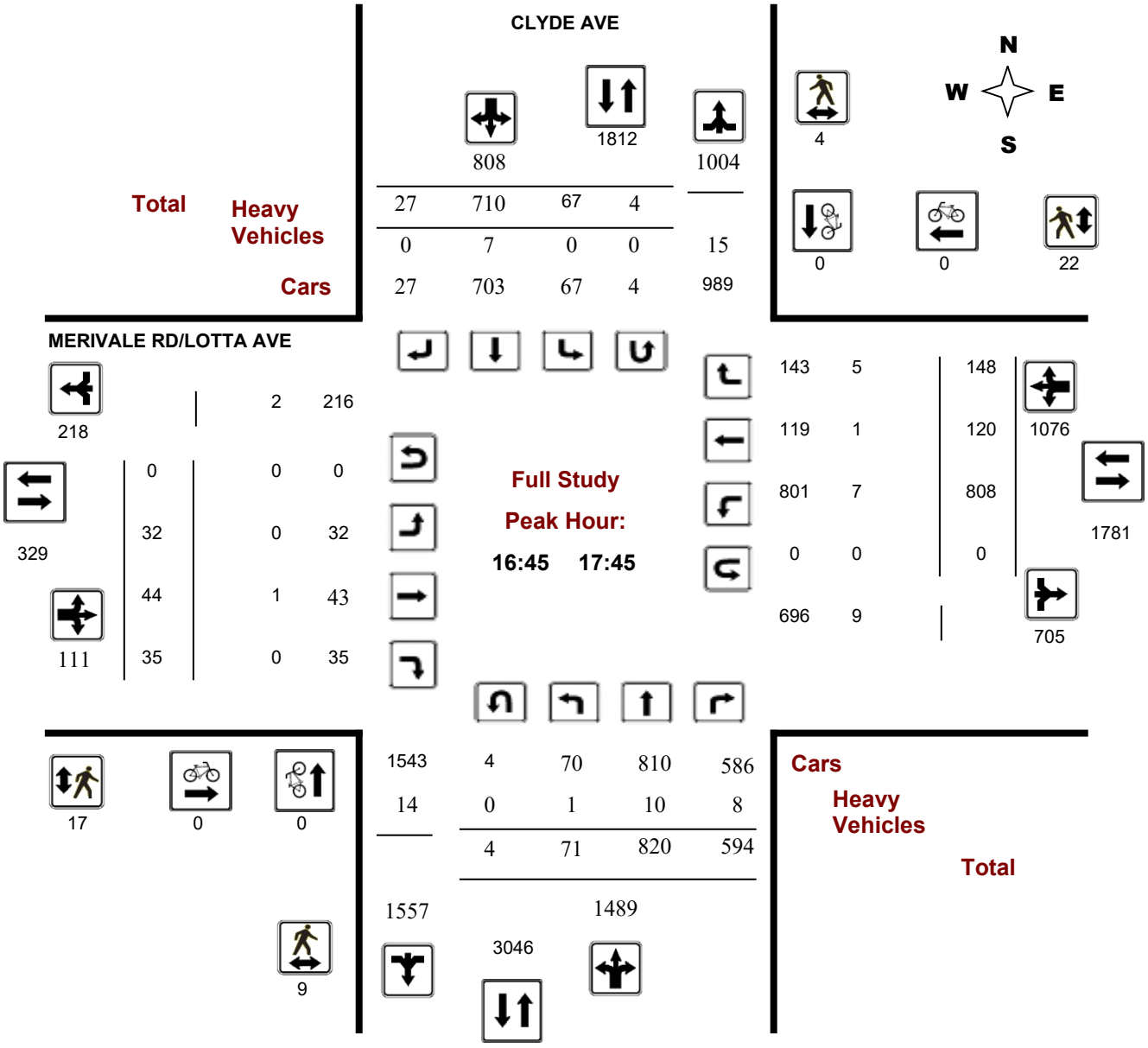
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020
Start Time: 07:00
WO No: 39436
Device: Miovision

Full Study Peak Hour Diagram



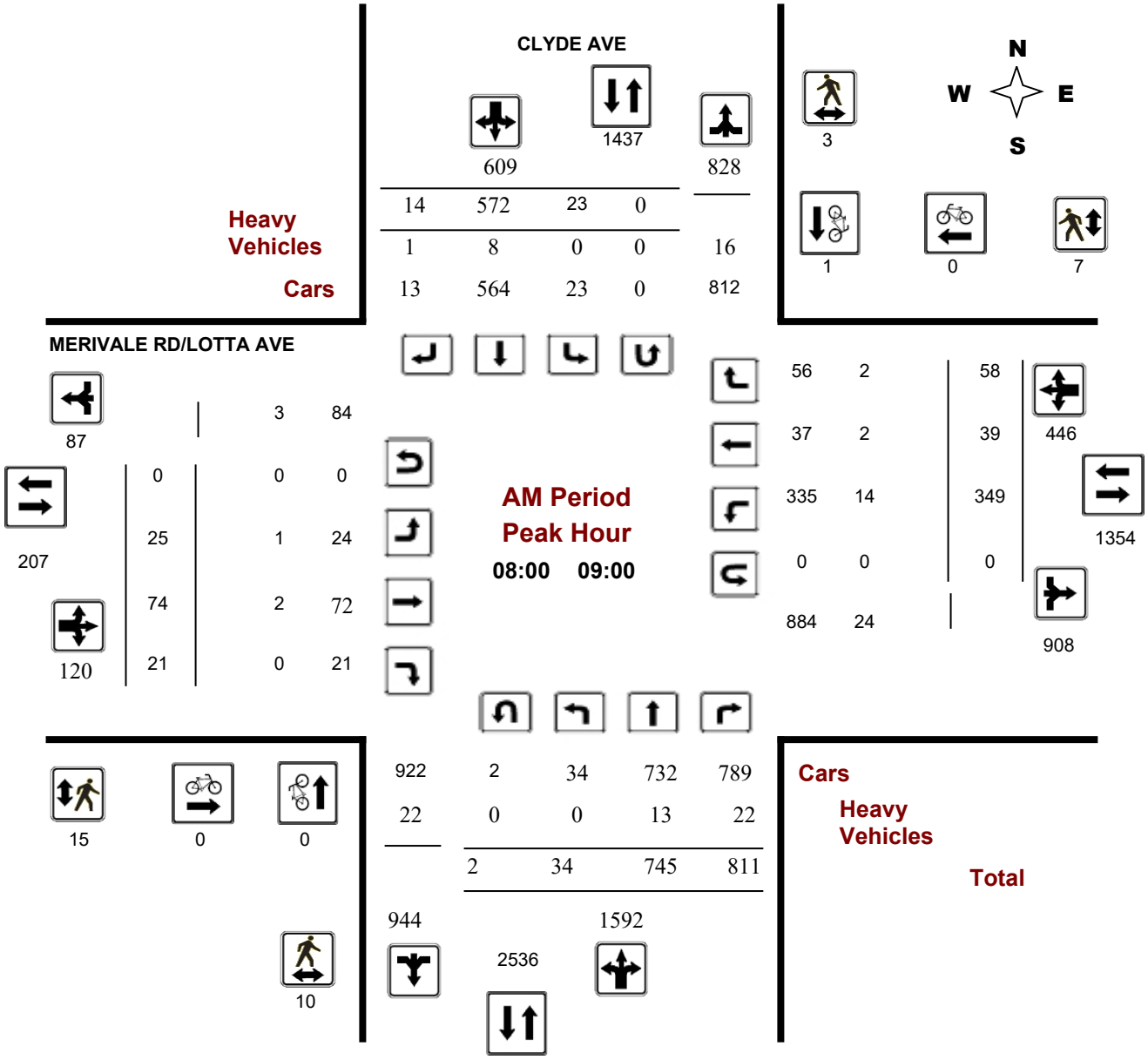
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision



Comments

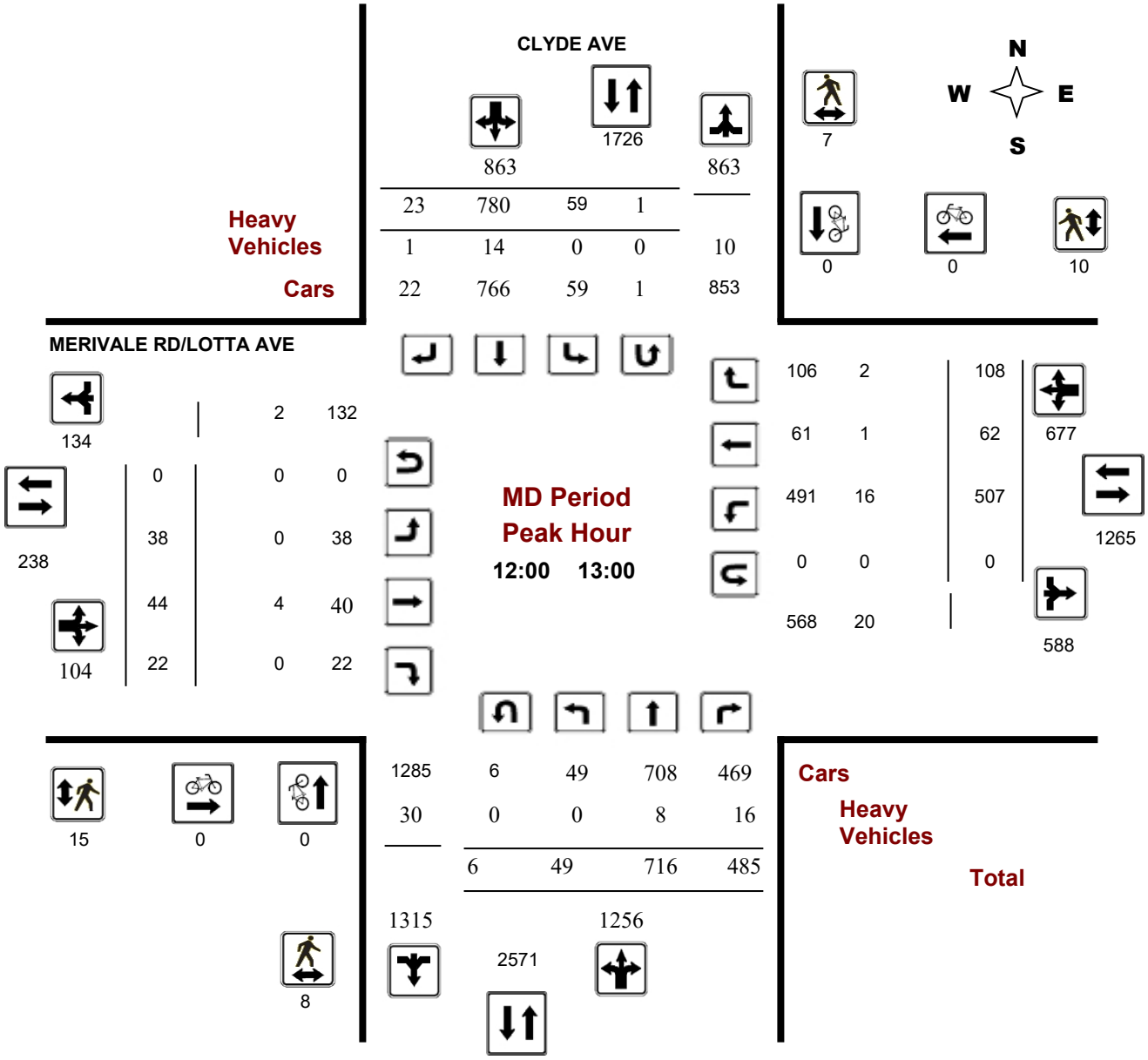
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision



Comments

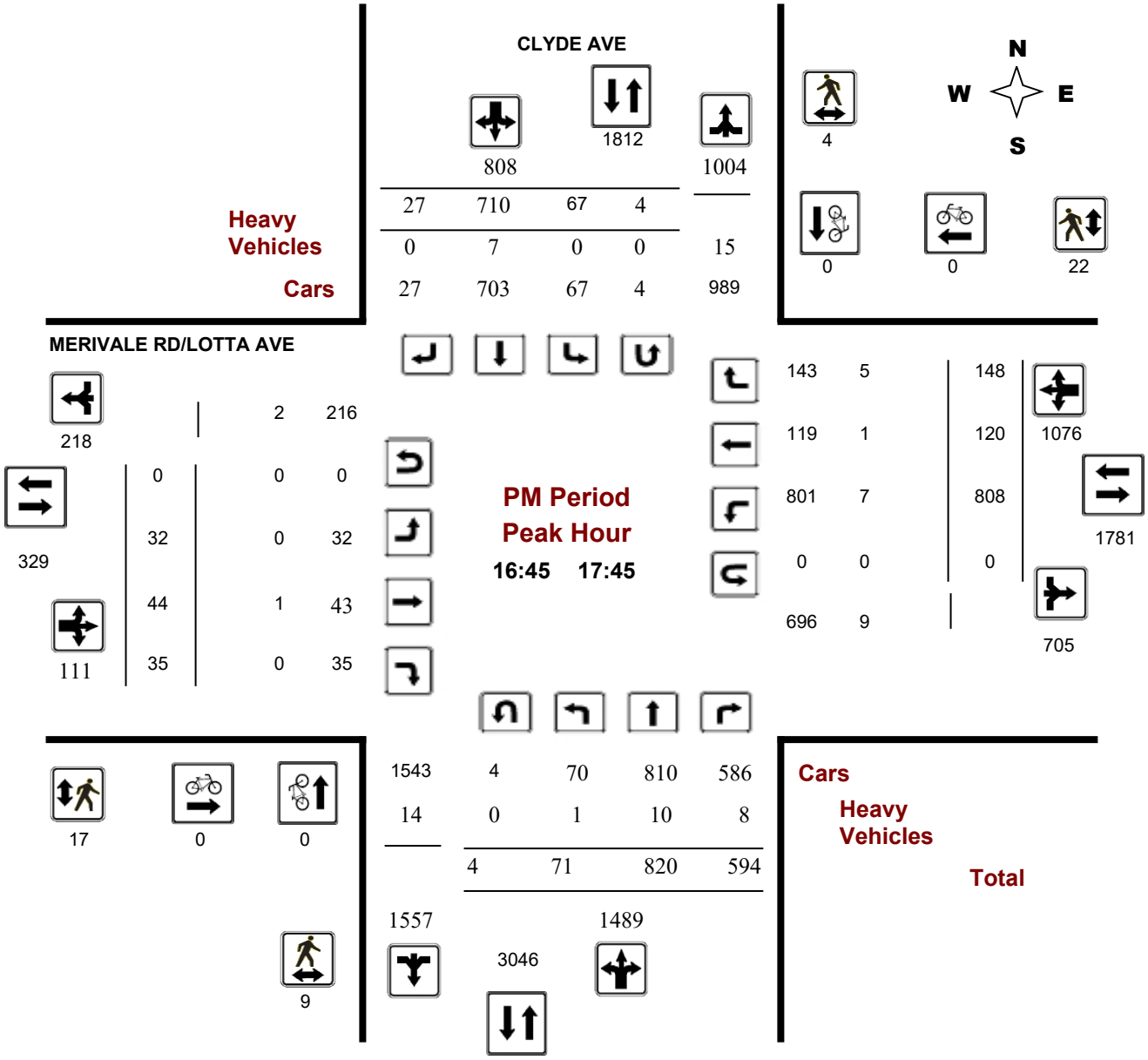
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Monday, February 10, 2020

Total Observed U-Turns

Northbound: 38 Southbound: 10

Eastbound: 0 Westbound: 0

AADT Factor

1.00

	CLYDE AVE								MERIVALE RD/LOTTA AVE									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	17	618	708	**1343**	23	429	8	**460**	**1803**	18	40	19	**77**	265	11	36	**312**	**389**	**2192**
08:00 09:00	34	745	811	**1590**	23	572	14	**609**	**2199**	25	74	21	**120**	349	39	58	**446**	**566**	**2765**
09:00 10:00	37	709	654	**1400**	46	548	20	**614**	**2014**	25	40	31	**96**	353	36	58	**447**	**543**	**2557**
11:30 12:30	48	665	467	**1180**	58	771	35	**864**	**2044**	37	41	38	**116**	504	50	88	**642**	**758**	**2802**
12:30 13:30	48	744	492	**1284**	64	755	10	**829**	**2113**	30	45	21	**96**	481	49	118	**648**	**744**	**2857**
15:00 16:00	52	790	584	**1426**	63	657	11	**731**	**2157**	38	51	29	**118**	711	105	115	**931**	**1049**	**3206**
16:00 17:00	59	738	593	**1390**	66	741	13	**820**	**2210**	34	50	40	**124**	855	109	139	**1103**	**1227**	**3437**
17:00 18:00	70	819	563	**1452**	72	737	24	**833**	**2285**	36	51	29	**116**	746	113	158	**1017**	**1133**	**3418**
Sub Total	365	5828	4872	**11065**	415	5210	135	**5760**	**16825**	243	392	228	**863**	4264	512	770	**5546**	**6409**	**23234**
U Turns				**38**				**10**	**48**				**0**				**0**	**0**	**48**
Total	365	5828	4872	**11103**	415	5210	135	**5770**	**16873**	243	392	228	**863**	4264	512	770	**5546**	**6409**	**23282**
EQ 12Hr	507	8101	6772	**15433**	577	7242	188	**8020**	**23453**	338	545	317	**1200**	5927	712	1070	**7709**	**8909**	**32362**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	478	7635	6382	**14545**	544	6825	177	**7559**	**23453**	318	514	299	**1131**	5586	671	1009	**7265**	**8909**	**32362**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1**					
AVG 24Hr	626	10001	8361	**19054**	712	8941	232	**9902**	**28956**	417	673	391	**1481**	7317	879	1321	**9517**	**10998**	**39954**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		CLYDE AVE									MERIVALE RD/LOTTA AVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	4	115	125	244	8	100	2	110	11	2	5	0	7	55	3	8	66	11	427
07:15	07:30	6	151	185	342	5	83	2	91	14	6	10	3	19	63	1	12	76	14	528
07:30	07:45	2	169	204	376	1	115	0	116	7	4	11	7	22	53	6	8	67	7	581
07:45	08:00	5	183	194	382	9	131	4	144	17	6	14	9	29	94	1	8	103	17	658
08:00	08:15	5	201	177	383	7	137	3	147	10	4	17	6	27	69	13	13	95	10	652
08:15	08:30	8	183	218	410	4	134	3	141	9	4	23	3	30	81	6	16	103	9	684
08:30	08:45	10	171	209	391	4	146	2	152	10	10	17	6	33	114	10	13	137	10	713
08:45	09:00	11	190	207	408	8	155	6	169	15	7	17	6	30	85	10	16	111	15	718
09:00	09:15	7	196	167	371	12	128	2	142	12	3	11	12	26	86	12	10	108	12	647
09:15	09:30	8	181	186	375	12	136	4	152	15	7	13	6	26	85	3	13	101	15	654
09:30	09:45	14	172	166	353	7	136	4	147	17	3	7	7	17	93	6	14	113	17	630
09:45	10:00	8	160	135	303	15	148	10	173	15	12	9	6	27	89	15	21	125	15	628
11:30	11:45	16	147	117	281	14	186	10	211	17	10	15	12	37	111	7	21	139	17	668
11:45	12:00	9	164	110	286	15	203	6	225	12	4	9	12	25	127	12	20	159	12	695
12:00	12:15	11	165	123	300	12	197	8	217	14	11	10	4	25	155	17	26	198	14	740
12:15	12:30	12	189	117	320	17	185	11	213	7	12	7	10	29	111	14	21	146	7	708
12:30	12:45	12	194	107	315	15	207	1	224	10	5	13	3	21	120	19	27	166	10	726
12:45	13:00	14	168	138	321	15	191	3	209	8	10	14	5	29	121	12	34	167	8	726
13:00	13:15	12	186	124	325	14	171	2	187	11	8	10	8	26	124	8	31	163	11	701
13:15	13:30	10	196	123	329	20	186	4	210	16	7	8	5	20	116	10	26	152	16	711
15:00	15:15	14	193	159	370	14	181	2	197	12	13	9	5	27	148	21	30	199	12	793
15:15	15:30	14	199	133	347	17	166	4	188	6	10	15	9	34	196	22	19	237	6	806
15:30	15:45	10	215	169	395	18	157	2	177	8	8	14	11	33	194	27	28	249	8	854
15:45	16:00	14	183	123	322	14	153	3	170	12	7	13	4	24	173	35	38	246	12	762
16:00	16:15	16	180	142	338	16	202	1	220	7	13	14	6	33	202	29	37	268	7	859
16:15	16:30	13	200	148	363	12	175	2	189	7	7	13	10	30	226	23	31	280	7	862
16:30	16:45	14	155	141	314	23	206	3	232	5	9	17	15	41	204	26	38	268	5	855
16:45	17:00	16	203	162	381	15	158	7	182	7	5	6	9	20	223	31	33	287	7	870
17:00	17:15	21	223	138	384	17	170	6	193	7	9	8	9	26	197	29	40	266	7	869
17:15	17:30	14	198	146	358	18	183	8	210	7	9	11	6	26	200	40	38	278	7	872
17:30	17:45	20	196	148	366	17	199	6	223	5	9	19	11	39	188	20	37	245	5	873
17:45	18:00	15	202	131	350	20	185	4	209	3	9	13	3	25	161	24	43	228	3	812
Total:		365	5828	4872	1110	415	5210	135	5770	333	243	392	228	863	4264	512	770	5546	333	23,282

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		CLYDE AVE			MERIVALE RD/LOTTA AVE			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	0	0	0	0
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	1	1	0	0	0	1
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	1	1	1
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
Total		0	1	**1**	0	1	1	2

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	CLYDE AVE			MERIVALE RD/LOTTA AVE			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	**Total**	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	**Total**	**Grand Total**
07:00 07:15	0	0	**0**	2	0	**2**	**2**
07:15 07:30	1	0	**1**	3	0	**3**	**4**
07:30 07:45	1	0	**1**	1	3	**4**	**5**
07:45 08:00	3	0	**3**	3	0	**3**	**6**
08:00 08:15	3	1	**4**	3	3	**6**	**10**
08:15 08:30	5	1	**6**	4	1	**5**	**11**
08:30 08:45	1	1	**2**	5	0	**5**	**7**
08:45 09:00	1	0	**1**	3	3	**6**	**7**
09:00 09:15	0	1	**1**	2	1	**3**	**4**
09:15 09:30	0	1	**1**	6	1	**7**	**8**
09:30 09:45	1	0	**1**	3	1	**4**	**5**
09:45 10:00	1	1	**2**	1	4	**5**	**7**
11:30 11:45	2	2	**4**	2	8	**10**	**14**
11:45 12:00	0	1	**1**	2	0	**2**	**3**
12:00 12:15	0	3	**3**	4	2	**6**	**9**
12:15 12:30	1	1	**2**	6	3	**9**	**11**
12:30 12:45	3	1	**4**	3	1	**4**	**8**
12:45 13:00	4	2	**6**	2	4	**6**	**12**
13:00 13:15	1	2	**3**	5	10	**15**	**18**
13:15 13:30	4	1	**5**	4	7	**11**	**16**
15:00 15:15	1	0	**1**	6	0	**6**	**7**
15:15 15:30	4	1	**5**	4	4	**8**	**13**
15:30 15:45	2	3	**5**	4	3	**7**	**12**
15:45 16:00	1	1	**2**	3	3	**6**	**8**
16:00 16:15	2	5	**7**	5	5	**10**	**17**
16:15 16:30	3	2	**5**	3	4	**7**	**12**
16:30 16:45	1	1	**2**	4	4	**8**	**10**
16:45 17:00	3	1	**4**	6	4	**10**	**14**
17:00 17:15	4	1	**5**	7	4	**11**	**16**
17:15 17:30	1	1	**2**	0	12	**12**	**14**
17:30 17:45	1	1	**2**	4	2	**6**	**8**
17:45 18:00	2	0	**2**	2	2	**4**	**6**
Total	57	36	**93**	112	99	**211**	**304**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		CLYDE AVE									MERIVALE RD/LOTTA AVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	3	5	**8**	1	2	0	**3**	**11**	0	0	0	**0**	1	0	1	**2**	**2**	**13**
07:15	07:30	0	5	6	**11**	1	2	0	**3**	**14**	0	0	1	**1**	4	0	0	**4**	**5**	**19**
07:30	07:45	0	2	4	**6**	0	1	0	**1**	**7**	0	0	0	**0**	3	0	1	**4**	**4**	**11**
07:45	08:00	0	4	10	**14**	0	1	2	**3**	**17**	0	0	0	**0**	4	0	1	**5**	**5**	**22**
08:00	08:15	0	3	3	**6**	0	3	1	**4**	**10**	1	1	0	**2**	2	0	1	**3**	**5**	**15**
08:15	08:30	0	1	7	**8**	0	1	0	**1**	**9**	0	0	0	**0**	2	0	0	**2**	**2**	**11**
08:30	08:45	0	4	4	**8**	0	2	0	**2**	**10**	0	0	0	**0**	4	0	1	**5**	**5**	**15**
08:45	09:00	0	5	8	**13**	0	2	0	**2**	**15**	0	1	0	**1**	6	2	0	**8**	**9**	**24**
09:00	09:15	0	3	7	**10**	0	2	0	**2**	**12**	0	1	0	**1**	2	0	1	**3**	**4**	**16**
09:15	09:30	0	5	7	**12**	1	2	0	**3**	**15**	0	2	0	**2**	5	0	1	**6**	**8**	**23**
09:30	09:45	0	5	7	**13**	0	3	1	**4**	**17**	1	0	1	**2**	2	0	1	**3**	**5**	**22**
09:45	10:00	0	7	5	**12**	2	1	0	**3**	**15**	0	0	1	**1**	4	0	1	**5**	**6**	**21**
11:30	11:45	0	6	8	**14**	0	3	0	**3**	**17**	0	0	1	**1**	3	0	3	**6**	**7**	**24**
11:45	12:00	1	2	2	**5**	0	7	0	**7**	**12**	0	0	0	**0**	6	0	1	**7**	**7**	**19**
12:00	12:15	0	1	8	**9**	0	4	1	**5**	**14**	0	0	0	**0**	3	0	1	**4**	**4**	**18**
12:15	12:30	0	2	3	**5**	0	2	0	**2**	**7**	0	2	0	**2**	3	1	0	**4**	**6**	**13**
12:30	12:45	0	2	3	**5**	0	5	0	**5**	**10**	0	1	0	**1**	4	0	1	**5**	**6**	**16**
12:45	13:00	0	3	2	**5**	0	3	0	**3**	**8**	0	1	0	**1**	6	0	0	**6**	**7**	**15**
13:00	13:15	0	5	3	**8**	0	3	0	**3**	**11**	0	0	0	**0**	4	0	4	**8**	**8**	**19**
13:15	13:30	0	4	8	**12**	0	4	0	**4**	**16**	0	0	0	**0**	1	1	1	**3**	**3**	**19**
15:00	15:15	0	1	4	**5**	0	7	0	**7**	**12**	0	0	0	**0**	7	0	1	**8**	**8**	**20**
15:15	15:30	0	2	1	**3**	0	3	0	**3**	**6**	0	0	0	**0**	0	0	1	**1**	**1**	**7**
15:30	15:45	0	1	3	**4**	2	2	0	**4**	**8**	0	0	0	**0**	6	1	1	**8**	**8**	**16**
15:45	16:00	0	6	4	**10**	0	2	0	**2**	**12**	1	0	0	**1**	4	0	2	**6**	**7**	**19**
16:00	16:15	0	0	3	**3**	1	3	0	**4**	**7**	0	0	0	**0**	5	0	2	**7**	**7**	**14**
16:15	16:30	0	3	3	**6**	0	1	0	**1**	**7**	0	0	0	**0**	2	0	3	**5**	**5**	**12**
16:30	16:45	0	0	4	**4**	0	1	0	**1**	**5**	0	1	0	**1**	3	0	0	**3**	**4**	**9**
16:45	17:00	0	3	2	**5**	0	2	0	**2**	**7**	0	0	0	**0**	2	0	2	**4**	**4**	**11**
17:00	17:15	0	3	2	**5**	0	2	0	**2**	**7**	0	0	0	**0**	1	0	1	**2**	**2**	**9**
17:15	17:30	1	2	3	**6**	0	1	0	**1**	**7**	0	0	0	**0**	3	0	1	**4**	**4**	**11**
17:30	17:45	0	2	1	**3**	0	2	0	**2**	**5**	0	1	0	**1**	1	1	1	**3**	**4**	**9**
17:45	18:00	0	1	1	**2**	0	1	0	**1**	**3**	0	0	0	**0**	3	0	2	**5**	**5**	**8**
Total:	None	2	96	141	**240**	8	80	5	**93**	**333**	3	11	4	**18**	106	6	37	**149**	**167**	**500**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020 **WO No:** 39436

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		CLYDE AVE Northbound U-Turn Total	CLYDE AVE Southbound U-Turn Total	MERIVALE RD/LOTTA AVE Eastbound U-Turn Total	MERIVALE RD/LOTTA AVE Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	1	0	0	1
07:30	07:45	1	0	0	0	1
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	1	0	0	0	1
08:30	08:45	1	0	0	0	1
08:45	09:00	0	0	0	0	0
09:00	09:15	1	0	0	0	1
09:15	09:30	0	0	0	0	0
09:30	09:45	1	0	0	0	1
09:45	10:00	0	0	0	0	0
11:30	11:45	1	1	0	0	2
11:45	12:00	3	1	0	0	4
12:00	12:15	1	0	0	0	1
12:15	12:30	2	0	0	0	2
12:30	12:45	2	1	0	0	3
12:45	13:00	1	0	0	0	1
13:00	13:15	3	0	0	0	3
13:15	13:30	0	0	0	0	0
15:00	15:15	4	0	0	0	4
15:15	15:30	1	1	0	0	2
15:30	15:45	1	0	0	0	1
15:45	16:00	2	0	0	0	2
16:00	16:15	0	1	0	0	1
16:15	16:30	2	0	0	0	2
16:30	16:45	4	0	0	0	4
16:45	17:00	0	2	0	0	2
17:00	17:15	2	0	0	0	2
17:15	17:30	0	1	0	0	1
17:30	17:45	2	1	0	0	3
17:45	18:00	2	0	0	0	2
Total		38	10	0	0	48

Appendix D:

Existing Synchro Analysis

DRAFT

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	2	0	12	0	0	1	2	1498	6	1	1081	13
Future Vol, veh/h	2	0	12	0	0	1	2	1498	6	1	1081	13
Conflicting Peds, #/hr	0	0	2	2	0	0	11	0	15	15	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	12	0	0	1	2	1498	6	1	1081	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1854	2624	560	2065	2627	767	1105	0	0	1519	0	0
Stage 1	1101	1101	-	1520	1520	-	-	-	-	-	-	-
Stage 2	753	1523	-	545	1107	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	46	24	472	32	23	345	628	-	-	435	-	-
Stage 1	226	286	-	124	179	-	-	-	-	-	-	-
Stage 2	368	179	-	490	284	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	45	23	467	30	22	341	622	-	-	429	-	-
Mov Cap-2 Maneuver	143	107	-	96	107	-	-	-	-	-	-	-
Stage 1	219	282	-	120	173	-	-	-	-	-	-	-
Stage 2	360	173	-	474	280	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	15.6	0.1	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	622	-	-	353	341	429	-	-
HCM Lane V/C Ratio	0.003	-	-	0.04	0.003	0.002	-	-
HCM Control Delay (s)	10.8	0.1	-	15.6	15.6	13.4	0	-
HCM Lane LOS	B	A	-	C	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	15	3	0	7	16	1539	39	1	1803	23
Future Vol, veh/h	3	0	15	3	0	7	16	1539	39	1	1803	23
Conflicting Peds, #/hr	0	0	0	0	0	0	27	0	45	45	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	15	3	0	7	16	1539	39	1	1803	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2646	3499	940	2540	3491	834	1853	0	0	1623	0	0
Stage 1	1844	1844	-	1636	1636	-	-	-	-	-	-	-
Stage 2	802	1655	-	904	1855	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	11	6	265	14	6	311	323	-	-	397	-	-
Stage 1	77	124	-	105	157	-	-	-	-	-	-	-
Stage 2	344	154	-	298	122	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	7	3	259	8	3	299	316	-	-	382	-	-
Mov Cap-2 Maneuver	34	47	-	46	44	-	-	-	-	-	-	-
Stage 1	43	121	-	58	87	-	-	-	-	-	-	-
Stage 2	193	85	-	281	119	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.2	39.9	3.5	0
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	316	-	-	123	113	382	-	-
HCM Lane V/C Ratio	0.051	-	-	0.146	0.088	0.003	-	-
HCM Control Delay (s)	17	3.5	-	39.2	39.9	14.4	0	-
HCM Lane LOS	C	A	-	E	E	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.3	0	-	-

Appendix E:

Collision Data

DRAFT

Accident Year	Accident Date	Accident Time	Location	Environment_Condition	Light	Classification_of_Accident	Initial_Impact_Type	No__of_Pedestrians
2016	10/6/2016	12:43 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	10/15/2016	1:33 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	10/4/2016	9:43 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	10/5/2016	1:15 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/27/2016	12:12 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	10/21/2016	4:07 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/3/2016	3:58 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/6/2016	11:17 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2016	11/10/2016	9:25 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	11/13/2016	1:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	11/13/2016	12:28 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/14/2016	2:01 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	11/10/2016	1:46 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2016	11/18/2016	10:58 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2016	11/30/2016	3:15 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	11/30/2016	3:40 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	11/24/2016	11:00 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/25/2016	8:58 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2016	12/3/2016	5:07 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	11/16/2016	5:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2016	12/8/2016	1:53 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	12/19/2016	1:39 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	12/8/2016	9:52 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	07 - SMV other	0
2016	12/9/2016	5:35 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	1/27/2016	8:13 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2016	12/17/2016	5:34 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2016	12/24/2016	12:14 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	2/10/2016	2:54 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	12/26/2016	1:58 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	12/27/2016	7:08 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	04 - Freezing Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	2/12/2016	4:36 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2016	2/5/2016	8:44 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	12/29/2016	12:15 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	12/21/2016	4:19 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2016	12/21/2016	7:51 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	1/6/2016	4:15 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2016	2/18/2016	11:44 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	2/25/2016	8:24 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	04 - Freezing Rain	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	1/6/2016	1:44 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	2/13/2016	3:08 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2016	2/13/2016	7:57 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2016	3/22/2016	12:49 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	2/26/2016	11:53 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	3/11/2016	11:21 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	3/26/2016	11:20 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	3/24/2016	12:27 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	04 - Freezing Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	3/28/2016	5:55 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	4/7/2016	11:54 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	07 - SMV other	0
2016	4/8/2016	4:45 PM	CAPILANO DR btwn WITHROW AVE & KERRY CRES (__3ZBOK5)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	4/8/2016	8:41 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	4/29/2016	1:29 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	5/15/2016	11:30 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	5/13/2016	5:34 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	03 - Dawn	02 - Non-fatal injury	03 - Rear end	0
2016	4/21/2016	11:43 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	5/9/2016	12:38 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	6/10/2016	10:20 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	5/30/2016	12:45 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	5/23/2016	7:47 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0

2016	6/2/2016	7:48 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	5/23/2016	12:34 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	6/4/2016	12:15 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	5/24/2016	5:59 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	6/11/2016	6:57 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	6/12/2016	3:45 PM	RITA AVE @ MERIVALE RD (0001750)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	6/13/2016	6:43 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	6/30/2016	3:31 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2016	7/2/2016	2:20 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	7/13/2016	8:43 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	1/16/2016	4:25 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	7/13/2016	3:39 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	7/22/2016	9:59 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	7/29/2016	5:29 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	1/18/2016	12:37 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	7/18/2016	2:45 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/16/2016	1:08 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/12/2016	10:00 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/12/2016	10:14 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/6/2016	10:23 AM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2016	8/9/2016	3:08 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/20/2016	12:30 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/22/2016	4:44 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/1/2016	6:03 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/3/2016	12:44 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	0
2016	9/17/2016	3:50 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/12/2016	6:07 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/15/2016	2:43 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/7/2017	11:53 AM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/14/2017	10:00 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/14/2017	12:27 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/7/2017	5:00 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/5/2017	10:58 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	10/8/2017	1:01 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	01 - Approaching	0
2017	10/11/2017	7:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	1/26/2017	2:34 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	07 - SMV other	0
2017	11/11/2017	3:18 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	11/12/2017	1:56 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/12/2017	8:12 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	02 - Angle	0
2017	10/27/2017	8:51 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	11/3/2017	6:03 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	11/7/2017	5:24 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	07 - Dark	02 - Non-fatal injury	07 - SMV other	1
2017	11/7/2017	8:50 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/8/2017	4:38 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	04 - Sideswipe	0
2017	11/21/2017	5:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/16/2017	3:01 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2017	1/30/2017	6:20 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/24/2017	5:07 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	11/28/2017	7:59 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	07 - Dark	03 - P.D. only	99 - Other	0
2017	11/29/2017	2:20 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	11/20/2017	12:50 PM	RITA AVE @ MERIVALE RD (0001750)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	2/2/2017	12:56 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/12/2017	8:12 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2017	1/31/2017	8:44 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/16/2017	3:02 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/5/2017	6:08 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	12/6/2017	10:43 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/6/2017	3:20 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/7/2017	12:40 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0

2017	12/8/2017	4:45 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2017	12/18/2017	11:49 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/29/2017	6:49 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	12/20/2017	4:53 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	12/21/2017	12:04 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	1
2017	12/27/2017	5:07 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	07 - SMV other	0
2017	12/30/2017	9:29 AM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	2/6/2017	7:15 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	12/26/2017	1:39 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/26/2017	12:24 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/27/2017	11:03 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2017	12/22/2017	5:30 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	07 - SMV other	0
2017	2/15/2017	5:58 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	2/15/2017	9:00 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	2/17/2017	1:42 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	2/18/2017	3:55 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	1/7/2017	12:36 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	3/8/2017	7:48 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	3/3/2017	2:30 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	3/17/2017	10:36 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	3/15/2017	5:36 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	3/10/2017	12:01 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	3/11/2017	9:43 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	3/26/2017	1:03 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/1/2017	2:21 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/4/2017	1:45 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/4/2017	1:46 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	4/11/2017	10:11 AM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2017	1/9/2017	6:33 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	03 - Snow	07 - Dark	03 - P.D. only	02 - Angle	0
2017	4/15/2017	8:41 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2017	4/27/2017	11:03 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	02 - Non-fatal injury	02 - Angle	0
2017	4/28/2017	4:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	1/10/2017	5:30 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	05 - Dusk	03 - P.D. only	05 - Turning movement	0
2017	4/21/2017	8:24 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	4/21/2017	9:43 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	4/23/2017	6:15 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	4/19/2017	10:21 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/21/2017	11:49 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	6/7/2017	5:38 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	5/31/2017	1:35 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	1/13/2017	4:02 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2017	7/3/2017	1:06 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	6/30/2017	11:30 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	6/30/2017	3:38 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	6/22/2017	1:51 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	6/26/2017	12:16 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	6/18/2017	10:46 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	6/23/2017	8:40 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2017	7/7/2017	4:30 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	7/7/2017	4:58 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	7/17/2017	9:05 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	7/14/2017	5:00 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	7/11/2017	4:28 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	07 - SMV other	0
2017	8/22/2017	7:22 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2017	8/1/2017	2:58 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	8/15/2017	11:28 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/8/2017	10:12 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	8/21/2017	12:21 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/8/2017	8:12 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0

2017	8/16/2017	4:14 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	8/12/2017	6:15 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/24/2017	11:30 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/24/2017	5:08 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/28/2017	12:43 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	9/1/2017	3:29 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/11/2017	3:13 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	9/11/2017	10:47 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	9/3/2017	2:53 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2017	9/5/2017	4:17 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/7/2017	2:02 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/7/2017	2:30 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	9/8/2017	11:45 AM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	9/29/2017	11:50 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/24/2017	3:30 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	9/29/2018	9:36 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2018	1/19/2018	12:00 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/19/2018	12:38 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/10/2018	12:15 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/10/2018	12:48 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/19/2018	1:19 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/19/2018	1:42 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	1/18/2018	7:40 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	10/17/2018	3:38 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/31/2018	6:54 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2018	11/1/2018	12:04 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	10/17/2018	5:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	10/18/2018	11:48 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2018	11/5/2018	2:52 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	10/19/2018	10:23 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	10/19/2018	2:40 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/20/2018	11:30 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/26/2018	2:30 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/30/2018	5:07 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	1/22/2018	1:02 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/15/2018	2:29 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/16/2018	10:21 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/16/2018	9:01 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	11/21/2018	1:55 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	11/22/2018	10:30 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/23/2018	3:00 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	11/17/2018	3:26 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/17/2018	4:23 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2018	12/11/2018	12:04 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/24/2018	1:07 PM	MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/24/2018	10:34 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	12/7/2018	5:19 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	11/28/2018	9:46 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/1/2018	1:15 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/20/2018	3:15 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/11/2018	5:57 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	12/21/2018	7:30 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	12/21/2018	8:35 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	12/23/2018	4:04 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	02 - Non-fatal injury	05 - Turning movement	0
2018	12/30/2018	12:15 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/13/2018	7:49 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	12/13/2018	8:03 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	2/7/2018	5:13 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	05 - Dusk	02 - Non-fatal injury	05 - Turning movement	0
2018	2/8/2018	1:06 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	04 - Sideswipe	0

2018	12/31/2018	1:10 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	2/2/2018	12:24 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2018	2/13/2018	6:33 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	2/13/2018	7:27 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	12/31/2018	7:36 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2018	2/5/2018	7:30 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	2/5/2018	7:43 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	3/5/2018	2:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/5/2018	8:23 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/6/2018	5:30 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/5/2018	5:25 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2018	2/28/2018	11:13 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/8/2018	6:40 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	2/18/2018	6:00 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	04 - Sideswipe	0
2018	3/21/2018	4:59 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	3/26/2018	6:24 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	1/7/2018	12:24 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2018	4/6/2018	5:37 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	4/7/2018	4:58 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	3/11/2018	2:07 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/21/2018	9:09 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	3/23/2018	5:47 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/12/2018	11:19 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	3/12/2018	12:59 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/13/2018	1:15 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	5/8/2018	4:49 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/1/2018	11:07 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	5/1/2018	9:14 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/2/2018	7:32 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2018	5/3/2018	2:41 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/5/2018	12:36 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	4/16/2018	5:34 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2018	5/25/2018	5:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/18/2018	4:44 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/11/2018	5:58 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	5/12/2018	3:30 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/8/2018	8:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	5/30/2018	3:20 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/22/2018	1:15 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/1/2018	11:32 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	6/8/2018	12:38 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	6/8/2018	2:37 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	6/6/2018	3:43 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/11/2018	8:52 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/23/2018	4:49 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/23/2018	6:18 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	6/15/2018	11:37 AM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/16/2018	11:26 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	7/7/2018	12:16 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	7/20/2018	8:08 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	7/14/2018	1:32 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	7/12/2018	5:51 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	7/11/2018	2:18 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/12/2018	3:16 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/28/2018	7:47 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	7/30/2018	10:02 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2018	7/30/2018	11:52 AM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	7/31/2018	3:38 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	8/1/2018	1:08 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0

2018	8/11/2018	7:20 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2018	8/8/2018	3:48 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	7/22/2018	12:39 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	7/23/2018	6:33 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	9/4/2018	3:55 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	8/21/2018	1:03 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	1
2018	8/24/2018	8:43 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	8/27/2018	5:38 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	8/28/2018	10:33 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2018	9/2/2018	2:32 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	8/29/2018	11:33 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	9/23/2018	10:12 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	9/23/2018	9:52 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2018	9/21/2018	11:02 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2019	1/20/2019	5:35 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	03 - Snow	05 - Dusk	03 - P.D. only	02 - Angle	0
2019	9/6/2019	3:47 PM	MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	8/21/2019	9:44 AM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	9/2/2019	2:45 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	1/21/2019	3:21 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	9/23/2019	7:53 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	9/19/2019	4:39 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	9/26/2019	7:33 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2019	10/3/2019	9:39 AM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/4/2019	11:50 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/12/2019	12:41 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/12/2019	8:02 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	10/10/2019	8:24 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/19/2019	7:10 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	10/20/2019	11:40 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2019	10/8/2019	7:45 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/9/2019	4:25 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/9/2019	9:35 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	10/3/2019	2:14 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	10/1/2019	2:30 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	1/23/2019	11:09 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/21/2019	1:55 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/29/2019	3:00 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	11/1/2019	12:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/29/2019	7:49 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2019	10/30/2019	4:36 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	02 - Non-fatal injury	02 - Angle	1
2019	1/22/2019	5:44 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	11/1/2019	9:45 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	11/15/2019	2:57 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	11/21/2019	10:05 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2019	11/22/2019	10:33 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	11/17/2019	2:58 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	11/18/2019	10:49 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	04 - Sideswipe	0
2019	11/16/2019	12:19 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	11/20/2019	8:24 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2019	11/23/2019	12:32 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	11/13/2019	11:49 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2019	12/4/2019	6:00 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	12/9/2019	11:44 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	11/28/2019	4:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	11/28/2019	4:57 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	1/25/2019	7:30 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	11/29/2019	9:00 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	12/7/2019	12:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	12/8/2019	12:02 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0

2019	12/9/2019	6:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	1/24/2019	5:19 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	05 - Dusk	02 - Non-fatal injury	03 - Rear end	0
2019	11/27/2019	6:40 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	02 - Rain	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	11/28/2019	11:57 AM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	11/26/2019	5:35 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	12/24/2019	10:45 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	12/24/2019	9:58 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	12/14/2019	5:31 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	12/14/2019	7:36 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	12/28/2019	3:45 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2019	12/28/2019	4:07 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	05 - Dusk	02 - Non-fatal injury	03 - Rear end	0
2019	12/20/2019	5:48 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2019	12/12/2019	6:50 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	12/19/2019	7:50 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2019	12/18/2019	1:30 PM	CAPILANO DR btwn WITHROW AVE & KERRY CRES (__3ZBOK5)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	1/30/2019	7:50 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2019	2/2/2019	6:20 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	2/17/2019	2:36 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	2/20/2019	12:35 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	3/12/2019	7:51 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	3/14/2019	1:01 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2019	3/15/2019	2:24 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2019	3/3/2019	11:42 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	3/24/2019	3:10 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	4/12/2019	3:26 PM	MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	1
2019	4/13/2019	1:35 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/13/2019	4:46 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/9/2019	1:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	04 - Freezing Rain	01 - Daylight	03 - P.D. only	07 - SMV other	0
2019	5/3/2019	8:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	5/5/2019	8:26 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2019	5/2/2019	8:00 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/16/2019	2:15 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	5/8/2019	6:04 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2019	4/28/2019	12:45 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	4/30/2019	11:13 AM	MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/17/2019	4:56 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/20/2019	3:15 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/26/2019	6:54 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	5/21/2019	4:53 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	5/21/2019	5:50 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	5/27/2019	8:20 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	5/17/2019	12:40 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	5/18/2019	4:09 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	01 - Fatal injury	05 - Turning movement	0
2019	5/30/2019	12:00 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	1/14/2019	2:45 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	6/15/2019	11:00 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/5/2019	4:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/13/2019	12:22 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	6/19/2019	4:15 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/11/2019	8:53 AM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	1/17/2019	10:17 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2019	7/8/2019	2:35 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/27/2019	5:46 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	7/2/2019	9:18 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	1/17/2019	12:22 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2019	6/28/2019	2:57 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	1/2/2019	8:26 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	7/10/2019	5:24 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	7/5/2019	6:12 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0

2019	7/20/2019	1:43 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	7/23/2019	3:31 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2019	7/20/2019	6:50 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	7/21/2019	2:50 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	07 - SMV other	0
2019	8/14/2019	10:20 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	8/14/2019	12:08 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	8/11/2019	11:37 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	8/17/2019	12:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	1/23/2020	1:09 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	1/23/2020	1:52 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	1/24/2020	2:05 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	1/1/2020	1:49 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	1/5/2020	2:20 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	2/19/2020	5:09 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	2/10/2020	9:54 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	07 - SMV other	0
2020	2/12/2020	7:31 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2020	2/22/2020	10:40 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	2/12/2020	7:33 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	2/10/2020	8:12 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	2/28/2020	11:00 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	2/29/2020	9:35 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/11/2020	9:00 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2020	4/15/2020	1:26 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/14/2020	4:23 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	4/30/2020	11:17 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	4/30/2020	12:33 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	5/22/2020	2:50 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	5/1/2020	9:16 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	5/14/2020	12:17 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/23/2020	11:21 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/23/2020	9:02 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2020	1/10/2020	10:54 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	6/20/2020	10:31 AM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/20/2020	12:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/22/2020	1:06 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	5/27/2020	1:06 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2020	5/27/2020	9:30 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	5/28/2020	9:09 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	5/29/2020	11:55 AM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	5/30/2020	7:59 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2020	6/12/2020	1:28 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/15/2020	10:36 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	6/15/2020	2:00 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	7/1/2020	9:20 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	7/5/2020	5:18 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	6/5/2020	12:39 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	6/6/2020	12:00 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	6/18/2020	11:55 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	6/9/2020	5:44 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/9/2020	9:55 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	6/10/2020	6:08 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	8/9/2020	8:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	02 - Angle	0
2020	7/31/2020	10:36 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	07 - Dark	03 - P.D. only	99 - Other	0
2020	7/23/2020	8:20 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	7/27/2020	8:56 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	8/4/2020	9:29 AM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	8/21/2020	3:12 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	8/21/2020	4:06 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	99 - Other	0
2020	9/16/2020	7:10 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0

2020	8/17/2020	11:11 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2020	9/6/2020	3:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	8/31/2020	6:30 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	9/10/2020	9:11 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2020	10/29/2020	1:05 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	1/3/2020	5:33 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2020	10/1/2020	8:13 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	9/22/2020	2:22 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	10/3/2020	9:44 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2020	10/13/2020	5:11 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2020	10/13/2020	5:30 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	02 - Non-fatal injury	04 - Sideswipe	0
2020	10/14/2020	1:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	11/16/2020	9:45 AM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2020	11/12/2020	5:27 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2020	1/18/2020	6:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2020	11/24/2020	2:54 PM	MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	11/20/2020	12:04 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	11/15/2020	6:26 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2020	11/4/2020	1:05 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	1/18/2020	3:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	10/31/2020	3:00 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/15/2020	5:53 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2020	12/17/2020	3:29 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	12/5/2020	3:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/24/2020	2:27 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2020	12/24/2020	7:30 AM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	03 - Dawn	03 - P.D. only	05 - Turning movement	0
2020	1/19/2020	7:11 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	03 - Dawn	03 - P.D. only	03 - Rear end	0
2020	11/28/2020	2:16 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/1/2020	6:19 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2020	12/18/2020	11:27 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/2/2020	2:29 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	1/20/2020	2:50 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	12/29/2020	4:50 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0

Appendix F:

Historic Background Growth

DRAFT

TRANS Regional Model

Version 2.15 - Assigned June 16, 2020

AM Peak Hour Total Traffic Volume

Baseline/Meadowlands

2011 Model - Basecase

N/A

User Initials: KN
Plot Prepared: Aug 17, 2022
EMME Scenario: 21713

TRANS

Legend

AM Peak Hour Total Traffic Volume

1000 2000 3000 4000 5000

N

Distance (m)

100 200 300 400 500

Wading Pool - Agincourt

SKYLINE

CITY VIEW

ST CLAIRE GARDENS

ORCHARD PARK

PARKWOOD HILLS

STEWART FARM

The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.

As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

TRANS Regional Model

Version 2.15 - Assigned June 16, 2020

AM Peak Hour Total Traffic Volume

BaselineMeadowlands

2031 Model - Basecase

N/A

User Initials: KN
Plot Prepared: Aug 17, 2022
EMME Scenario: 21715

TRANS

Legend

AM Peak Hour Total Traffic Volume

1000 2000 3000 4000 5000

N

Distance (m)

200 400 600 800

The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.

As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

Appendix G:

SimTraffic and Synchro Analysis

DRAFT

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	0	0	18	0	0	15	0	1520	55	0	1151	13
Future Vol, veh/h	0	0	18	0	0	15	0	1520	55	0	1151	13
Conflicting Peds, #/hr	0	0	2	2	0	0	11	0	15	15	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	18	0	0	15	0	1520	55	0	1151	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1929	2759	595	2141	2738	803	1175	0	0	1590	0	0
Stage 1	1169	1169	-	1563	1563	-	-	-	-	-	-	-
Stage 2	760	1590	-	578	1175	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	40	19	447	28	20	326	590	-	-	409	-	-
Stage 1	205	265	-	117	171	-	-	-	-	-	-	-
Stage 2	364	166	-	468	264	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	38	19	442	26	20	322	585	-	-	404	-	-
Mov Cap-2 Maneuver	133	100	-	91	102	-	-	-	-	-	-	-
Stage 1	203	263	-	115	169	-	-	-	-	-	-	-
Stage 2	347	164	-	448	262	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	16.7	0	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	585	-	-	442	322	404	-	-
HCM Lane V/C Ratio	-	-	-	0.041	0.047	-	-	-
HCM Control Delay (s)	0	-	-	13.5	16.7	0	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	0	0	34	0	0	51	0	1599	56	0	1847	23
Future Vol, veh/h	0	0	34	0	0	51	0	1599	56	0	1847	23
Conflicting Peds, #/hr	0	0	0	0	0	0	27	0	45	45	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	34	0	0	51	0	1599	56	0	1847	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2686	3586	962	2596	3569	873	1897	0	0	1700	0	0
Stage 1	1886	1886	-	1672	1672	-	-	-	-	-	-	-
Stage 2	800	1700	-	924	1897	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	10	5	256	12	6	293	310	-	-	371	-	-
Stage 1	73	118	-	100	151	-	-	-	-	-	-	-
Stage 2	345	146	-	290	116	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	8	5	250	10	6	282	303	-	-	357	-	-
Mov Cap-2 Maneuver	54	60	-	67	61	-	-	-	-	-	-	-
Stage 1	71	115	-	96	145	-	-	-	-	-	-	-
Stage 2	283	140	-	251	113	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.7	20.6	0	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	303	-	-	250	282	357	-	-
HCM Lane V/C Ratio	-	-	-	0.136	0.181	-	-	-
HCM Control Delay (s)	0	-	-	21.7	20.6	0	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.6	0	-	-

Intersection: 1: Merivale & Lotta & Clyde

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	L	TR	L	T	T	L	T	TR
Maximum Queue (m)	26.6	49.4	67.3	75.4	26.1	18.0	65.4	72.0	21.2	58.7	76.3
Average Queue (m)	7.3	22.5	37.7	48.3	8.3	4.8	27.4	29.7	6.4	27.2	37.0
95th Queue (m)	19.3	41.2	62.4	69.4	20.7	12.8	52.2	59.2	16.1	52.8	65.0
Link Distance (m)		218.8		452.2	452.2		272.2	272.2		394.0	394.0
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (m)	40.0		95.0			85.0			80.0		
Storage Blk Time (%)		2					0				
Queuing Penalty (veh)		0					0				

Intersection: 2: Merivale & Withrow/Capilano

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (m)	24.4	20.0	28.4	20.9	16.4	65.7	68.7	22.1	22.1	125.4	143.4	0.0
Average Queue (m)	8.3	6.1	9.4	7.0	4.0	32.1	50.8	2.0	4.6	33.3	55.1	0.0
95th Queue (m)	20.3	15.8	21.5	17.2	11.7	62.1	77.0	11.7	22.4	94.9	120.8	0.0
Link Distance (m)		189.7		219.0	61.8	61.8	61.8			272.2	272.2	272.2
Upstream Blk Time (%)						1	7					
Queuing Penalty (veh)						6	34					
Storage Bay Dist (m)	25.0		35.0					15.0	100.0			
Storage Blk Time (%)	1	0	0				22	0	0	0		
Queuing Penalty (veh)	0	0	0				6	0	0	0		

Intersection: 3: Merivale & Rossland

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (m)	12.8	10.6	25.6	137.6	5.2	28.0
Average Queue (m)	4.2	3.0	0.9	33.6	0.2	1.7
95th Queue (m)	11.7	9.3	17.6	108.5	2.4	13.6
Link Distance (m)	121.4	94.8	127.1	127.1	61.8	61.8
Upstream Blk Time (%)			0	1		0
Queuing Penalty (veh)			0	6		0
Storage Bay Dist (m)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Merivale & Emerald Plaza

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	TR
Maximum Queue (m)	36.4	10.8	17.0	46.9	248.6	281.8	305.2	29.7	35.7	60.3	61.4
Average Queue (m)	14.2	2.3	3.9	17.9	26.0	248.6	292.2	10.9	19.9	21.9	24.6
95th Queue (m)	29.4	8.6	12.5	35.9	143.4	330.5	319.2	24.2	32.4	49.6	54.5
Link Distance (m)	66.7	66.7	216.2	216.2	280.7	280.7	280.7		127.1	127.1	127.1
Upstream Blk Time (%)					0	0	38				
Queuing Penalty (veh)					0	3	236				
Storage Bay Dist (m)								100.0			
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 5: Merivale & Meadowlands

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (m)	107.4	176.6	102.1	37.3	42.2	45.5	58.1	92.4	116.4	112.8	101.4	36.3
Average Queue (m)	101.9	135.4	50.5	15.9	24.3	25.1	18.3	28.6	96.8	105.6	41.9	16.3
95th Queue (m)	125.6	228.8	80.6	30.8	37.9	39.7	52.7	85.2	136.1	110.1	123.7	31.1
Link Distance (m)		173.4	173.4		236.6	236.6			101.4	101.4		
Upstream Blk Time (%)		21							31	61	0	
Queuing Penalty (veh)		59							222	435	0	
Storage Bay Dist (m)	100.0			130.0			105.0	85.0			95.0	140.0
Storage Blk Time (%)	67	0						0	36	72	0	
Queuing Penalty (veh)	126	1						0	33	62	2	

Intersection: 5: Merivale & Meadowlands

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (m)	65.4	71.0	5.9
Average Queue (m)	33.1	36.4	0.3
95th Queue (m)	57.2	62.5	3.7
Link Distance (m)	280.7	280.7	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			175.0
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Meadowlands

Movement	EB	WB	WB
Directions Served	T	T	T
Maximum Queue (m)	211.5	15.9	51.8
Average Queue (m)	97.8	2.0	3.2
95th Queue (m)	318.1	9.6	29.1
Link Distance (m)	367.8	173.4	173.4
Upstream Blk Time (%)	6		0
Queuing Penalty (veh)	0		0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Merivale

Movement	NB	NB	SB
Directions Served	T	T	T
Maximum Queue (m)	286.4	288.4	2.7
Average Queue (m)	267.5	270.8	0.1
95th Queue (m)	333.2	329.1	1.6
Link Distance (m)	272.4	272.4	101.4
Upstream Blk Time (%)	45	85	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Meadowlands

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	LR
Maximum Queue (m)	38.8	44.5	58.3	20.6	26.0	30.5	46.2
Average Queue (m)	16.0	18.3	22.2	6.8	12.8	13.9	19.0
95th Queue (m)	31.8	36.4	43.8	17.0	22.7	24.8	36.6
Link Distance (m)	236.6	236.6	236.6		504.5	504.5	358.0
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)				50.0			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 1232

Intersection: 1: Merivale & Lotta & Clyde

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	L	TR	L	T	T	L	T	TR
Maximum Queue (m)	28.2	43.3	102.5	465.4	466.2	63.5	100.7	107.1	87.3	128.8	139.3
Average Queue (m)	8.7	18.0	101.8	451.7	441.8	13.3	65.4	70.3	21.4	72.1	85.6
95th Queue (m)	21.2	36.4	110.7	512.0	569.1	36.1	94.9	100.1	60.2	115.3	129.5
Link Distance (m)		218.8		452.2	452.2		272.2	272.2		394.0	394.0
Upstream Blk Time (%)				87	67						
Queuing Penalty (veh)				0	0						
Storage Bay Dist (m)	40.0		95.0			85.0			80.0		
Storage Blk Time (%)		1	25	78			2		0	6	
Queuing Penalty (veh)		0	108	327			1		0	6	

Intersection: 2: Merivale & Withrow/Capilano

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (m)	23.0	23.0	38.5	33.7	35.7	67.5	70.8	22.2	107.1	288.8	284.5	168.4
Average Queue (m)	7.3	7.5	15.3	10.6	15.0	47.5	58.6	4.1	22.0	263.1	271.1	12.4
95th Queue (m)	18.9	18.5	31.3	23.4	30.1	71.9	76.9	16.8	80.3	312.1	296.7	91.9
Link Distance (m)		189.7		219.0	61.8	61.8	61.8			272.2	272.2	272.2
Upstream Blk Time (%)						3	11			8	15	0
Queuing Penalty (veh)						19	59			42	82	0
Storage Bay Dist (m)	25.0		35.0					15.0	100.0			
Storage Blk Time (%)	1	0	1	0			28	0	0	13		
Queuing Penalty (veh)	0	0	1	0			15	1	0	11		

Intersection: 3: Merivale & Rossland

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (m)	22.5	31.7	85.7	136.3	24.6	83.8
Average Queue (m)	7.2	9.9	3.6	47.9	1.3	13.0
95th Queue (m)	16.7	22.5	37.9	132.7	12.1	52.6
Link Distance (m)	121.4	94.8	127.1	127.1	61.8	61.8
Upstream Blk Time (%)			0	1	0	1
Queuing Penalty (veh)			1	10	0	6
Storage Bay Dist (m)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Merivale & Emerald Plaza

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	TR
Maximum Queue (m)	36.5	20.0	37.5	71.4	251.7	281.2	302.9	43.2	50.0	89.3	97.2
Average Queue (m)	14.8	7.2	14.4	36.8	33.0	244.2	286.9	21.0	28.3	59.9	69.8
95th Queue (m)	29.4	16.8	30.5	62.3	160.1	343.4	321.3	38.4	44.0	82.7	91.9
Link Distance (m)	66.7	66.7	216.2	216.2	280.7	280.7	280.7		127.1	127.1	127.1
Upstream Blk Time (%)					0	0	24				
Queuing Penalty (veh)					1	2	123				
Storage Bay Dist (m)								100.0			
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 5: Merivale & Meadowlands

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (m)	92.2	75.9	67.9	74.7	89.4	86.8	51.9	92.4	114.1	112.2	101.4	55.6
Average Queue (m)	46.4	30.6	39.4	35.5	53.3	51.0	6.0	45.8	98.7	105.2	43.2	29.4
95th Queue (m)	83.8	62.6	61.1	64.0	78.1	76.2	30.0	102.0	130.7	109.2	125.3	50.5
Link Distance (m)		173.4	173.4		236.6	236.6			101.4	101.4		
Upstream Blk Time (%)									35	63	1	
Queuing Penalty (veh)									250	450	0	
Storage Bay Dist (m)	100.0			130.0			105.0	85.0			95.0	140.0
Storage Blk Time (%)	1					0	0	0	36	72	0	
Queuing Penalty (veh)	2					0	0	0	69	74	2	

Intersection: 5: Merivale & Meadowlands

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (m)	85.6	88.3	33.5
Average Queue (m)	48.7	52.6	6.5
95th Queue (m)	71.9	76.1	22.8
Link Distance (m)	280.7	280.7	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			175.0
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Meadowlands

Movement	EB	WB	WB
Directions Served	T	T	T
Maximum Queue (m)	6.9	6.0	78.1
Average Queue (m)	1.0	0.2	4.7
95th Queue (m)	6.9	2.8	51.6
Link Distance (m)	367.8	173.4	173.4
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Merivale

Movement	NB	NB
Directions Served	T	T
Maximum Queue (m)	287.1	288.8
Average Queue (m)	273.4	276.6
95th Queue (m)	307.8	303.3
Link Distance (m)	272.4	272.4
Upstream Blk Time (%)	49	85
Queuing Penalty (veh)	0	0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Meadowlands

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	LR
Maximum Queue (m)	37.9	39.2	41.8	21.9	27.8	25.9	40.0
Average Queue (m)	14.6	16.7	19.0	6.3	14.9	11.6	18.2
95th Queue (m)	27.9	31.7	34.7	16.7	24.7	21.9	34.6
Link Distance (m)	236.6	236.6	236.6		504.5	504.5	358.0
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)				50.0			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 1664

Appendix H:

MMLOS Analysis

DRAFT

Multi-Modal Level of Service - Segments Form

Consultant	**Parsons**	**Project**	**478377**
Scenario	**1545A Merivale Road**	**Date**	**26-Oct-22**
Comments			

SEGMENTS		Street A	Merivale Rd	Section	Mitigation	Section	Section	Section	Section	Section	Section
			1	2	3	4	5	6	7	8	9
Pedestrian	Sidewalk Width Boulevard Width	-	1.5 m 0.5 - 2 m		≥ 2 m > 2 m						
	Avg Daily Curb Lane Traffic Volume		> 3000		> 3000						
	Operating Speed On-Street Parking		> 60 km/h no		≤ 30 km/h no						
	Exposure to Traffic PLoS		**E**	-	**A**	-	-	-	-	-	-
	Effective Sidewalk Width										
	Pedestrian Volume										
	Crowding PLoS		-	-	-	-	-	-	-	-	-
	Level of Service		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Bicycle	Type of Cycling Facility	F	Mixed Traffic		Curbside Bike Lane						
	Number of Travel Lanes		4-5 lanes total		2 ea. dir. (w median)						
	Operating Speed		≥ 60 km/h		>50 to 70 km/h						
	# of Lanes & Operating Speed LoS		**F**	-	**C**	-	-	-	-	-	-
	Bike Lane (+ Parking Lane) Width				≥ 1.8 m						
	Bike Lane Width LoS		-	-	**A**	-	-	-	-	-	-
	Bike Lane Blockages				Rare						
	Blockage LoS		-	-	**A**	-	-	-	-	-	-
	Median Refuge Width (no median = < 1.8 m)		< 1.8 m refuge		< 1.8 m refuge						
	No. of Lanes at Unsignalized Crossing		≤ 3 lanes		≤ 3 lanes						
	Sidestreet Operating Speed		>40 to 50 km/h		>40 to 50 km/h						
	Unsignalized Crossing - Lowest LoS		**B**	-	**B**	-	-	-	-	-	-
	Level of Service		**F**	**-**	**C**	**-**	**-**	**-**	**-**	**-**	**-**
Transit	Facility Type	D	Mixed Traffic								
	Friction or Ratio Transit:Posted Speed		Vt/Vp ≥ 0.8								
	Level of Service		**D**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Truck	Truck Lane Width	A	> 3.7 m								
	Travel Lanes per Direction		> 1								
	Level of Service		**A**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Multi-Modal Level of Service - Intersections Form

Consultant	Parsons	**Project**	478377
Scenario	1545A Merivale Road	**Date**	Oct. 26, 2022
Comments			

Unlocked Rows for Replicating

INTERSECTIONS		Clyde/Merivale				Capilano/Merivale				Emerald Plaza/Merivale				Meadowland/Merivale			
Crossing Side		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Pedestrian	Lanes	7	8	7	7	10+	9	7	6	8	8	7	7	8	8	7	7
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
	Conflicting Left Turns	Protected	Protected	Protected/ Permissive	Protected/ Permissive	Permissive	Permissive	Protected/ Permissive	Protected/ Permissive	Permissive	Permissive	Protected	Protected	Protected/ Permissive	Protected/ Permissive	Protected/ Permissive	Protected/ Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
	Ped Signal Leading Interval?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Right Turn Channel	No Channel	Conventional with Receiving Lane	Conventional with Receiving Lane	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane
	Corner Radius	10-15m	>25m	>25m	10-15m	5-10m	5-10m	5-10m	5-10m	10-15m	10-15m	10-15m	10-15m	15-25m	15-25m	15-25m	15-25m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings
	PETSI Score	**12**	**-6**	**2**	**4**	**-41**	**-25**	**8**	**21**	**-9**	**-9**	**12**	**12**	**-7**	**-10**	**9**	**6**
	Ped. Exposure to Traffic LoS	**F**	**F**	**F**	**F**	**#N/A**	**#N/A**	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
	Cycle Length	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
	Effective Walk Time	27	27	24	24	36	36	27	27	29	29	25	25	24	24	32	32
	Average Pedestrian Delay	**41**	**41**	**43**	**43**	**34**	**34**	**41**	**41**	**39**	**39**	**42**	**42**	**43**	**43**	**37**	**37**
	Pedestrian Delay LoS	**E**	**E**	**E**	**E**	**D**	**D**	**E**	**E**	**D**	**D**	**E**	**E**	**E**	**E**	**D**	**D**
	Level of Service	**F**	**F**	**F**	**F**	**#N/A**	**#N/A**	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
		F				**#N/A**				**F**				**F**			
Approach From		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Right Turn Lane Configuration	≤ 50 m	> 50 m	≤ 50 m	≤ 50 m	> 50 m	≤ 50 m	≤ 50 m	≤ 50 m	≤ 50 m	≤ 50 m	≤ 50 m	≤ 50 m	> 50 m	> 50 m	> 50 m	> 50 m
	Right Turning Speed	≤ 25 km/h	>25 km/h	>25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h
	Cyclist relative to RT motorists	**D**	**F**	**E**	**D**	**F**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**F**	**F**	**F**	**F**
	Separated or Mixed Traffic	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed
	Operating Speed	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≥ 60 km/h	≥ 60 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h
	Left Turning Cyclist	**F**	**F**	**F**	**F**	**F**	**F**	**D**	**D**	**F**	**F**	**D**	**D**	**F**	**F**	**F**	**F**
	Level of Service	**F**	**F**	**F**	**F**	**F**	**F**	**D**	**D**	**F**	**F**	**D**	**D**	**F**	**F**	**F**	**F**
		F				**F**				**F**				**F**			
Transit	Average Signal Delay	> 40 sec	> 40 sec	≤ 10 sec		≤ 20 sec	≤ 30 sec			≤ 20 sec	≤ 20 sec			> 40 sec	≤ 40 sec	> 40 sec	> 40 sec
	Level of Service	**F**	**F**	**B**	**-**	**C**	**D**	**-**	**-**	**C**	**C**	**-**	**-**	**F**	**E**	**F**	**F**
		F				**D**				**C**				**F**			
Truck	Effective Corner Radius	10 - 15 m	> 15 m	> 15 m	10 - 15 m	< 10 m	< 10 m	< 10 m	< 10 m	10 - 15 m	10 - 15 m	10 - 15 m	10 - 15 m	> 15 m	> 15 m	> 15 m	> 15 m
	Number of Receiving Lanes on Departure from Intersection		≥ 2	≥ 2	≥ 2			≥ 2	≥ 2			≥ 2	≥ 2			≥ 2	≥ 2
	Level of Service	**-**	**A**	**A**	**B**	**-**	**-**	**D**	**D**	**-**	**-**	**B**	**B**	**-**	**-**	**A**	**A**
		B				**D**				**B**				**A**			
Auto	Volume to Capacity Ratio																
	Level of Service	**-**				**-**				**-**				**-**			

Appendix I:

TDM Measures and Infrastructure Design Checklist

DRAFT

TDM Measures Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

* — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		1. TDM PROGRAM MANAGEMENT	
		1.1 Program coordinator	
BASIC	*	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☐
		1.2 Travel surveys	
BETTER		1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
		2. WALKING AND CYCLING	
		2.1 Information on walking/cycling routes & destinations	
BASIC		2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances	☒ Signs/maps to be installed in main lobby.
		2.2 Bicycle skills training	
		Commuter travel	
BETTER	*	2.2.1 Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
		2.3 Valet bike parking	
		Visitor travel	
BETTER		2.3.1 Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		3. TRANSIT	
		3.1 Transit information	
BASIC		3.1.1 Display relevant transit schedules and route maps at entrances	☒ Signs/maps to be installed in main lobby.
BASIC		3.1.2 Provide online links to OC Transpo and STO information	☒ Link to be provide to worship webpage
BETTER		3.1.3 Provide real-time arrival information display at entrances	☐
		3.2 Transit fare incentives	
		Commuter travel	
BETTER		3.2.1 Offer preloaded PRESTO cards to encourage commuters to use transit	☐
BETTER	*	3.2.2 Subsidize or reimburse monthly transit pass purchases by employees	☐
		Visitor travel	
BETTER		3.2.3 Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	☐
		3.3 Enhanced public transit service	
		Commuter travel	
BETTER		3.3.1 Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	☐
		Visitor travel	
BETTER		3.3.2 Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	☐
		3.4 Private transit service	
		Commuter travel	
BETTER		3.4.1 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	☐
		Visitor travel	
BETTER		3.4.2 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	☐

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		4. RIDESHARING	
		4.1 Ridematching service	
		Commuter travel	
BASIC	*	4.1.1 Provide a dedicated ridematching portal at OttawaRideMatch.com	☒ Proponent intends to register Worship space
		4.2 Carpool parking price incentives	
		Commuter travel	
BETTER		4.2.1 Provide discounts on parking costs for registered carpools	☐
		4.3 Vanpool service	
		Commuter travel	
BETTER		4.3.1 Provide a vanpooling service for long-distance commuters	☐
		5. CARSHARING & BIKESHARING	
		5.1 Bikeshare stations & memberships	
BETTER		5.1.1 Contract with provider to install on-site bikeshare station for use by commuters and visitors	☐
		Commuter travel	
BETTER		5.1.2 Provide employees with bikeshare memberships for local business travel	☐
		5.2 Carshare vehicles & memberships	
		Commuter travel	
BETTER		5.2.1 Contract with provider to install on-site carshare vehicles and promote their use by tenants	☐
BETTER		5.2.2 Provide employees with carshare memberships for local business travel	☐
		6. PARKING	
		6.1 Priced parking	
		Commuter travel	
BASIC	*	6.1.1 Charge for long-term parking (daily, weekly, monthly)	☐
BASIC		6.1.2 Unbundle parking cost from lease rates at multi-tenant sites	☐
		Visitor travel	
BETTER		6.1.3 Charge for short-term parking (hourly)	☐

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		7. TDM MARKETING & COMMUNICATIONS	
		7.1 Multimodal travel information	
		Commuter travel	
BASIC	*	7.1.1 Provide a multimodal travel option information package to new/relocating employees and students	☒ To be provided to employees and available to patrons
		Visitor travel	
BETTER	*	7.1.2 Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)	☐
		7.2 Personalized trip planning	
		Commuter travel	
BETTER	*	7.2.1 Offer personalized trip planning to new/relocating employees	☐
		7.3 Promotions	
		Commuter travel	
BETTER		7.3.1 Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes	☐
		8. OTHER INCENTIVES & AMENITIES	
		8.1 Emergency ride home	
		Commuter travel	
BETTER	*	8.1.1 Provide emergency ride home service to non-driving commuters	☐
		8.2 Alternative work arrangements	
		Commuter travel	
BASIC	*	8.2.1 Encourage flexible work hours	☐
BETTER		8.2.2 Encourage compressed workweeks	☐
BETTER	*	8.2.3 Encourage telework	☐
		8.3 Local business travel options	
		Commuter travel	
BASIC	*	8.3.1 Provide local business travel options that minimize the need for employees to bring a personal car to work	☐
		8.4 Commuter incentives	
		Commuter travel	
BETTER		8.4.1 Offer employees a taxable, mode-neutral commuting allowance	☐
		8.5 On-site amenities	
		Commuter travel	
BETTER		8.5.1 Provide on-site amenities/services to minimize mid-day or mid-commute errands	☐

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

* — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

	TDM measures: *Residential developments*	Check if proposed & add descriptions
	1. TDM PROGRAM MANAGEMENT	
	1.1 Program coordinator	
BASIC *	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☐
	1.2 Travel surveys	
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
	2. WALKING AND CYCLING	
	2.1 Information on walking/cycling routes & destinations	
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances *(multi-family, condominium)*	☒ Signs/maps to be installed in main lobby.
	2.2 Bicycle skills training	
BETTER	2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses	☐

		TDM measures: *Residential developments*	Check if proposed & add descriptions
		3. TRANSIT	
		3.1 Transit information	
BASIC		3.1.1 Display relevant transit schedules and route maps at entrances *(multi-family, condominium)*	☒ Signs/maps to be installed in main lobby.
BETTER		3.1.2 Provide real-time arrival information display at entrances *(multi-family, condominium)*	☐
		3.2 Transit fare incentives	
BASIC	*	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	☐ To be explored at site plan control
BETTER		3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	☐
		3.3 Enhanced public transit service	
BETTER	*	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels *(subdivision)*	☐
		3.4 Private transit service	
BETTER		3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	☐
		4. CARSHARING & BIKESHARING	
		4.1 Bikeshare stations & memberships	
BETTER		4.1.1 Contract with provider to install on-site bikeshare station (*multi-family)*	☐
BETTER		4.1.2 Provide residents with bikeshare memberships, either free or subsidized *(multi-family)*	☐
		4.2 Carshare vehicles & memberships	
BETTER		4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	☐
BETTER		4.2.2 Provide residents with carshare memberships, either free or subsidized	☐
		5. PARKING	
		5.1 Priced parking	
BASIC	*	5.1.1 Unbundle parking cost from purchase price *(condominium)*	☐
BASIC	*	5.1.2 Unbundle parking cost from monthly rent *(multi-family)*	☒ Parking to be unbundled

		TDM measures: *Residential developments*	Check if proposed & add descriptions
		6. TDM MARKETING & COMMUNICATIONS	
		6.1 Multimodal travel information	
BASIC	*	6.1.1 Provide a multimodal travel option information package to new residents	☒ To be provided to residents
		6.2 Personalized trip planning	
BETTER	*	6.2.1 Offer personalized trip planning to new residents	☐

TDM-Supportive Development Design and Infrastructure Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	✓
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	✓
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	✓
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	✓
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	✓

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	✓
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	✓
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	✓
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	✓
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	✓
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	✓
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	✓
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	✓

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	✓
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	✓
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	✓
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	✓
BETTER	2.1.5	Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	✓
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	✓
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	✓
	2.3	**Shower & change facilities**	
BASIC	2.3.1	Provide shower and change facilities for the use of active commuters	☐
BETTER	2.3.2	In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	☐
	2.4	**Bicycle repair station**	
BETTER	2.4.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	✓
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	✓
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
	4.2	**Carpool parking**	
BASIC	4.2.1	Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	☐
BETTER	4.2.2	At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces *(see Zoning By-law Section 94)*	☐ Carshare to be explored during SPC
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	✓
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	✓
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	✓
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa)	☐
	7.	**OTHER**	
	7.1	**On-site amenities to minimize off-site trips**	
BETTER	7.1.1	Provide on-site amenities to minimize mid-day or mid-commute errands	☐

TDM-Supportive Development Design and Infrastructure Checklist:
Residential Developments (multi-family or condominium)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	✓
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	✓
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	✓
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☐
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	✓

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	✓
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	✓
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	✓
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	✓
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	✓
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	✓
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	✓
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	✓

	TDM-supportive design & infrastructure measures: *Residential developments*		Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	✓
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	✓
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	✓
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	✓
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	✓
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	✓ At minimum, 57 stalls inside of the multi-storey residential for tenant use.
	2.3	**Bicycle repair station**	
BETTER	2.3.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	✓
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	✓
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses *(see Zoning By-law Section 94)*	✓ Rideshare to be explored
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	✓ Proposed parking of 0.5 spaces/dwelling for tenants
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	✓
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	✓ Shared parking between worship and office space, make use of overflow lot.
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	☐