Multimodal Transportation Master Plan Addendum

Town of Caledon

Final Report

January 28, 2026



Disclaimer

The material in this report reflects HDR's professional judgment considering the scope, schedule and other limitations stated in the document and in the contract between HDR and the client. The opinions in the document are based on conditions and information existing at the time the document was published and do not consider any subsequent changes. In preparing the document, HDR did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that HDR shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party resulting from decisions made or actions taken based on this document.

In preparing this report, HDR relied, in whole or in part, on data and information provided by the Client and third parties that was current at the time of such usage, which information has not been independently verified by HDR and which HDR has assumed to be accurate, complete, reliable, and current. Therefore, while HDR has utilized its best efforts in preparing this report, HDR does not warrant or guarantee the conclusions set forth in this report which are dependent or based upon data, information or statements supplied by third parties or the client, or that the data and information have not changed since being provided in the report.

Table of Contents

Executive Summary 8
1. Introduction 12
1.1 Project Background 12
1.2 Study Area 15
1.3 Study Objectives 15
1.4 Study Methodology and Approach 16
1.5 Report Structure 17
2. Planning Context 18
2.1 Planning Policies and Initiatives 18
2.1.1 Region of Peel 2024-2027 Business Plan and 2024 Budget 18
2.1.2 Town of Caledon Growth Management Phasing Plan and Financial Impact Assessment (November 2024) Transportation Analysis Report 18
2.1.3 Town of Caledon Multi-Modal Transportation Master Plan (June 2024) 18
2.1.4 Future Caledon Official Plan 18
2.1.5 Region of Peel Official Plan (April 2022) 19
2.1.6 Highway 413 19
2.1.7 Region of Peel Long Range Transportation Plan (2019) 19
2.1.8 Provincial Planning Statement & Bill 23 19
2.2 Proposed Developments within Study Area 20
2.2.1 Mississauga Road to Chinguacousy Road 20
2.2.2 Chinguacousy Road to Hurontario Street-Highway 10 22
2.2.3 Hurontario Street-Highway 10 to Heart Lake Road 22
2.2.4 Heart Lake Road to Dixie Road 24
2.2.5 Dixie Road to Torbram Road 27
2.2.6 Torbram Road to Airport Road 31
2.2.7 Airport Road to Humber Station Road 34
3. Environmental Opportunities and Constraints 35
3.1 Natural Heritage 35
3.2 Source Water Protection 38
3.3 Cultural Heritage 39
3.4 Climate Change 40
4. Transportation Opportunities and Constraints 41

4.1 Planned Network Improvements 43
4.1.1 Highway 413 / GTA West 43
4.1.2 Highway 410 Extension 43
4.1.3 Highway 410 and Hurontario Street Interchange Improvements 43
4.1.4 Town of Caledon Improvements 43
4.1.5 Region of Peel Improvements 49
4.2 Needs Assessment 51
4.2.1 Transit 51
4.2.2 Active Transportation 52
4.2.3 Automobiles 53
4.2.4 Servicing 53
4.2.5 Safety 54
5. Problem Statement 55
6. Alternative Solutions 56
6.1 Description of Alternatives 56
6.2 Evaluation of Collector Road Alternatives 61
6.2.1 Evaluation Criteria and Methodology 61
6.2.2 Evaluation Assessment 62
6.3 Preferred Alternative 84
7. Consultation and Engagement 87
7.1 Public 87
7.2 Indigenous Communities 88
7.3 External Agencies 89
7.4 Developers 89
7.4.1 Construction and Maintenance Costs 90
7.4.2 Roadway Capacity 90
7.4.3 Impacts on Developable Lands 91
7.4.4 Physical Constraints 91
7.4.5 Right-of-Way 91
7.4.6 Heavy Vehicles 91
7.4.7 Natural Heritage 91
8. Design Recommendations 93
9. Implementation 95

9.1 MCEA Process 95
9.2 Phasing....95
9.3 Additional Considerations 95
10. Key Findings & Recommendations 96
10.1 Findings 96
10.2 Recommendations and Next Steps....97
10.2.1 Preferred Alternative 97
10.2.2 Subsequent MCEA Phases....97
10.2.3 Integration with the Planning Act....98
10.2.4 Collector Road Right-of-Way 98
Appendix A – Traffic Analysis....99
Macroscopic Operations....99
Travel Demand Forecasts 101
Synchro Model Development....105
Intersection Geometry....105
Signal Timings 106
Heavy Vehicles 106
Intersection Operations Analysis 106

Tables

Table 4-1: Town of Caledon Road Network Improvements (Source: GMPP, 2024)....44
Table 4-2: Region of Peel Road Network Improvements (Source: 10-Year Capital Program, and 2019 Long Range Transportation Plan) 49
Table 6-1: Description of Collector Road Alternatives 56
Table 6-2: Evaluation Criteria....61
Table 6-3: Ranking Legend....62
Table 6-4: Natural Heritage Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection) 65
Table 6-5: Natural Heritage Evaluation Summary | West of Dixie to Torbram (North Connection) 66
Table 6-6: Natural Heritage Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection) 67
Table 6-7: Socio-Economic Environment Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection) 69
Table 6-8: Socio-Economic Environment Evaluation Summary | West of Dixie to Torbram (North Connection) 70

Table 6-9: Socio-Economic Environment Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection).....71
Table 6-10: Transportation Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection) 74
Table 6-11: Transportation Evaluation Summary | West of Dixie to Torbram (North Connection) 75
Table 6-12: Transportation Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection) 77
Table 6-13: Safety Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection).....81
Table 6-14: Safety Evaluation Summary | West of Dixie to Torbram (North Connection) 81
Table 6-15: Safety Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection) 82
Table 6-16: Evaluation of Alternative Solutions 86
Table 1: Review of Network Metrics | AM Peak.....101
Table 2: Highway Capacity Manual Level of Service Definitions for Intersections 107
Table 3: Turning Movement Operations Summary | 2051 Horizon Year AM Peak Hour.....108
Table 4: Turning Movement Operations Summary | 2051 Horizon Year PM Peak Hour.....110

Figures

Figure 1-1: 2051 New Urban Area (NUA) Lands 14
Figure 1-2: Study Area.....15
Figure 1-3: Caledon Conceptual Collector Road Layout (Source: Caledon MMTMP, 2024).....16
Figure 2-1: Alloa Secondary Plan Tertiary Plan Phase 1 (Source: Alloa Secondary Plan Tertiary Plan – Phase 1, July 2025, red-lined November 2025).....21
Figure 2-2: Alloa Secondary Plan Proposed Road Network (June 2025).....21
Figure 2-3: Mayfield West Phase 2 (Brookvalley) Land Use Plan, December 5, 2024.....22
Figure 2-4: Draft Plan of Subdivision (Source: Newhouse / Kennedy Draft Plan of Subdivision Transportation Study Update and Response to Town Comments, November 1, 2024).....23
Figure 2-5: Preliminary Concept Plan (Source: Mayfield West Phase 1 – Stage 2 Local Official Plan Amendment Updated Transportation Considerations Report, August 2023) 23
Figure 2-6: 12304 Heart Lake - Phase 2 Site Plan (Source: Town of Caledon website, extracted May 1, 2025).....24
Figure 2-7: Proposed Site Plan Tribal North Amazon (Source: Transportation Addendum Letter, LEA 2024).....25
Figure 2-8: 12505 Heart Lake Road Site Plan (Source: Traffic Impact Study for the Proposed Warehouse Development at 12505 Heart Lake Road dated August 8, 2022).....26
Figure 2-9: 12505 Heart Lake Road Site Constraint Sketch, September 23, 2025 26
Figure 2-10: 12861 Dixie Road Site Plan (Source: 12861 Dixie Road Urban Transportation Considerations, December 2023).....27
Figure 2-11: Site Plan 12489 Dixie Road (Source: 12489 Dixie Road Urban Transportation Considerations, December 2023).....28
Figure 2-12: Site Plan Tribal South (Source: 12173 Dixie Road Urban Transportation Considerations, April 2023).....29

Figure 2-13: Mayfield-Tullamore Preliminary Land Use and Transportation Plan 30
Figure 2-14: Mayfield-Tullamore Conceptual Collector Road Network, September 18, 2025.....31
Figure 2-15: West Tullamore Master Development Concept Plan 32
Figure 2-16: West Tullamore East-West Collector Road Option 32
Figure 2-17: Proposed Site Plan Tullamore Lands (Source: Tullamore Industrial GP Limited Tullamore Lands Transportation Impact Study, April 2024) 33
Figure 2-18: Land Use Concept Plan Wildfield Village, June, 2025 34
Figure 3-1: Land Use Designations (Source: Future Caledon Official Plan, October 2025) 37
Figure 3-2: Highly Vulnerable Aquifers 38
Figure 3-3: Significant Groundwater Recharge Area 39
Figure 3-4: Town of Caledon Heritage Registry Map 39
Figure 4-1: MMTMP Conceptual Collector Road Layout (Source: MMTMP, 2024) 41
Figure 4-2: 2051 Network Improvements by Jurisdiction 42
Figure 4-3: Developer-led Network Improvements 42
Figure 4-4: Town of Caledon Road Network Improvements (Source: Caledon Growth Management/Phasing Plan and Financial Impact Assessment, 2024) 45
Figure 4-5: Town of Caledon Active Transportation Network Improvements (Source: Caledon MMTMP, 2024) 46
Figure 4-6: Active Transportation Network Implementation (Source: Caledon Active Transportation Master Plan, 2024) 47
Figure 4-7: Town of Caledon Transit Network Improvements (Source: Caledon MMTMP, 2024) 48
Figure 4-8: Region of Peel Road Network Improvements (Source: Caledon Growth Management/Phasing Plan and Financial Impact Assessment, 2024) 50
Figure 6-1: Alignment Alternatives | Mississauga Road to Torbram Road 60
Figure 6-2: Alignment Alternatives | Torbram Road to Coleraine Drive.....60
Figure 6-3: Preferred Alternatives | Mississauga Road to Torbram Road 85
Figure 6-4: Preferred Alternatives | Torbram Road to Coleraine Drive.....85
Figure 8-1: 26 Metre ROW Neighbourhood Connector Street (Source: 2024 Caledon MMTMP, Appendix F) 93
Figure 0-1: Future Volume Projection – 2051 Baseline AM Peak Hour 103
Figure 0-2: Future Volume Projection – 2051 Baseline PM Peak Hour 103
Figure 0-3: Future Volume Projection – 2051 East-West Connectivity Improvements Scenario AM Peak Hour.....104
Figure 0-4: Future Volume Projection – 2051 East-West Connectivity Improvements Scenario PM Peak Hour.....104

Appendices

Appendix A – Traffic Analysis

Appendix B – Emme Plots

Appendix C – Vertical Profiles

Appendix D – Traffic Data

Appendix E – Synchro Analysis Outputs

Appendix F – Public Consultation Materials

Appendix G – Indigenous Community Consultation

Appendix H – Meeting Minutes

Executive Summary

The Town of Caledon is expecting significant growth, with its population projected to increase from approximately 76,000 residents and 42,000 jobs today to 300,000 residents and 125,000 jobs by 2051. Much of this growth will occur within the 2051 New Urban Area (NUA) lands, which will accommodate new residential, employment, and mixed-use developments. While this growth presents an opportunity to create a modern, multimodal transportation network, it also introduces significant challenges. While a conceptual collector road network for the study area lands was identified in the Town of Caledon's 2024 Multi-Modal Transportation Master Plan (MMTMP), significant gaps in east-west transportation network connectivity remain due to the Highway 410 extension, natural heritage features, and approved development applications. Without new east-west collector roads between Old School Road and Mayfield Road, the network will remain fragmented, resulting in circuitous travel patterns, concentrated traffic at major intersections, and a limited, inconvenient transit and active transportation network that further support reliance on single-occupancy vehicles.

To address these challenges, the Town initiated an Addendum to the 2024 MMTMP. This Addendum satisfies Phases 1 and 2 of the Municipal Class Environmental Assessment (MCEA) process and focuses on evaluating the need, justification, and feasibility of new east-west collector corridors within the NUA lands. The study area is bounded by Old School Road to the north, Coleraine Drive to the east, Mayfield Road to the south, and Mississauga Road to the west. The Addendum builds on the original MMTMP by refining the conceptual collector road network and identifying preferred alignments that balance connectivity, socio-economic and environmental impacts, safety, and costs.

Key Objectives

1. Refine the recommended future transportation network identified in the Conceptual Collector Road Layout from the MMTMP through the planning and integration of a major east-west collector network to improve east-west connectivity and continuity within the NUA lands, while balancing impacts to natural heritage, developable lands, and costs.
2. Satisfy Phase 1 and Phase 2 of the MCEA process by identifying the constraints, opportunities, and solutions for connectivity improvements within the Study Area to service the planned growth.
3. Determine the technical feasibility of the proposed road network bound by Old School Road, Coleraine Drive, Mayfield Road, and Mississauga Road, specifically for the extensions of George Bolton Parkway, Dougall Avenue, and Abbotside Way.
4. Develop functional plan and profiles for high level routing and valley crossings to protect for a 26-metre right-of-way.
5. In collaboration with stakeholders, recommend and document a conceptual road network to inform further requirements for further study and design for individual projects, such as completion of the Municipal Class Environmental Assessment process or implementation through the Planning Act.

Opportunities and Constraints

The study reviewed natural heritage features, source water protection areas, cultural heritage resources, and climate change considerations. Key natural constraints include Ontario Regulation (O Reg. 41/24) regulated features (watercourses, wetlands, flood and natural hazards), woodlands, Species of Conservation Concern (potential and known) habitats, and highly vulnerable aquifers. Physical constraints such as Highway 413 and Highway 410 extension, and internal networks within approved development applications introduce additional complexity. Grade-separated crossings are required at all future highway crossings along with close coordination with the Ministry of Transportation. Significant growth and development are projected within the study area, and there is an opportunity to further improve network connectivity for the long-term health and prosperity of the future neighbourhoods and businesses.

Evaluation of Alternatives

Up to four alignment alternatives were developed and assessed using criteria grouped under natural environment, socio-economic environment, transportation, safety, and cost. Traffic analysis using Emme and Synchro software confirmed that introducing east-west collector roadways between Old School Road and Mayfield Road would improve network performance, reducing total delay within the study area by approximately 8% and mitigating critical conditions at key intersections along Mayfield Road and Old School Road. This includes over 55% reduction in delays at individual critical movements at the intersections of Heart Lake Road with Mayfield Road, Mayfield Road with Dixie Road, and Bramalea Road and Mayfield Road.

The preferred alternative, illustrated below, combines:

- Alternative 1 between Mississauga Road and Creditview Road.
- Alternative 3 from west of Dixie Road and Torbram Road, along the north and south areas, respectively.
- Alternative 1 for segments between Torbram Road and Innis Lake Road and between Airport Road and Humber Station Road.

Consultation

Extensive engagement was undertaken with the public, Indigenous communities, external agencies, and developers. This included several meetings with individual landowners and a formal public open house meeting. Feedback received from stakeholders emphasized the importance of connectivity, mitigation of truck traffic in residential areas, protection of natural heritage features, and minimizing impacts to developable lands. Stakeholder feedback and the ways that they were addressed and incorporated into this MMTMP Addendum are detailed in **Section 7**.

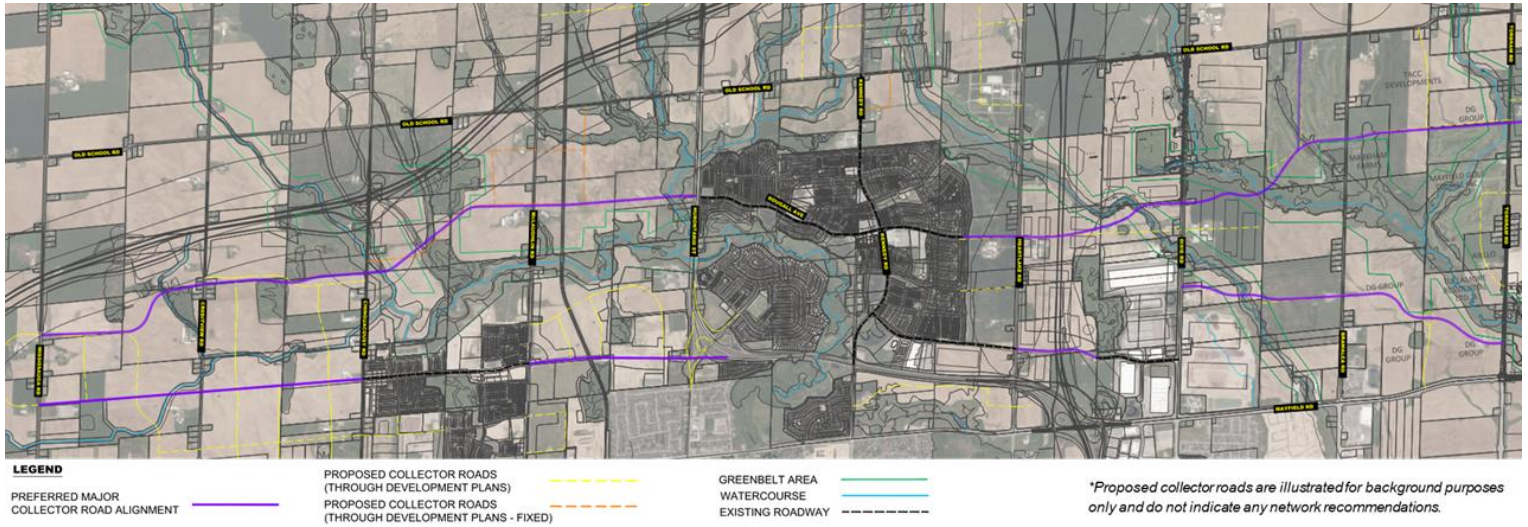


Figure E1: Preferred Alternatives | Mississauga Road to Torbram Road

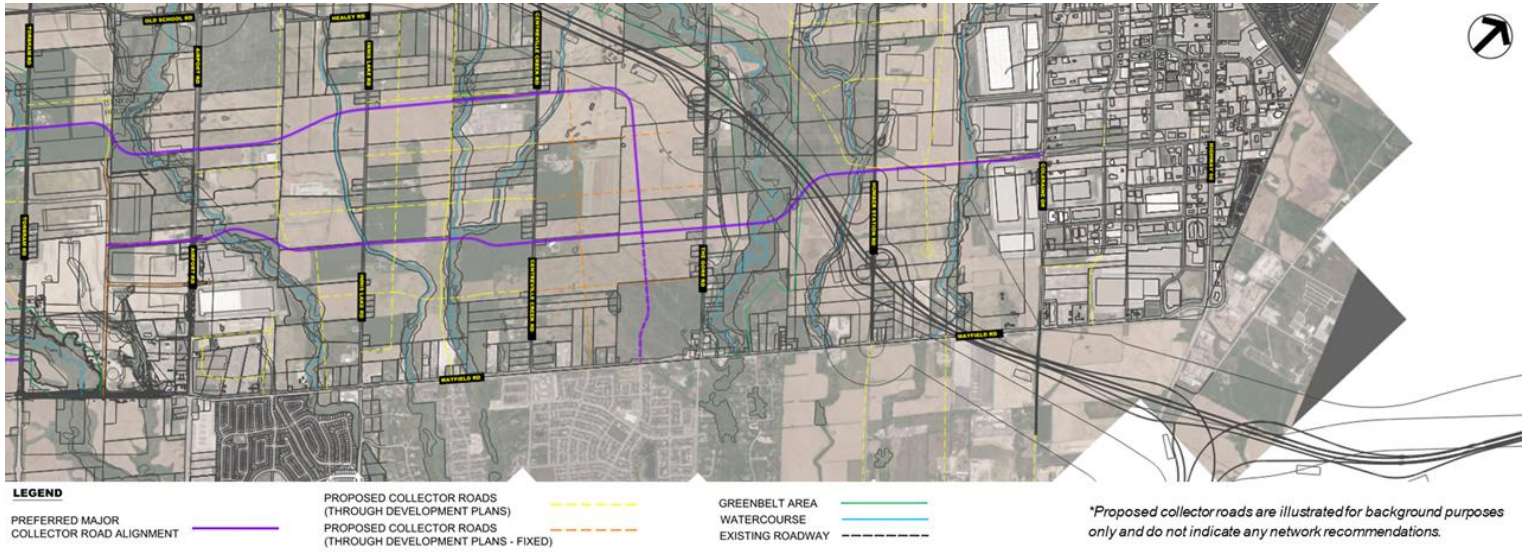


Figure E2: Preferred Alternatives | Torbram Road to Coleraine Drive

Design Recommendations

In alignment with the Future Caledon Official Plan and the Town's Standard Drawings for Urban Collector Roads, a 26-metre right-of-way is recommended for new collector roads to accommodate the needs of active transportation, automobile, and transit modes, as well as landscaping, utilities, operations and maintenance. These design standards support the Town's vision for complete streets and sustainable mobility.

Implementation and Next Steps

The Addendum satisfies Phases 1 and 2 of the MCEA process. Landowners will be responsible for completing Phases 3 and 4 as part of their development applications, including archaeological assessments and mitigation measures for environmental and cultural heritage impacts. Coordination and consultation with the public, Indigenous communities, and agencies such as MTO, applicable Conservation Authority[1], and MECP will remain critical as the studies and designs for the east-west collector roads progress to the subsequent phases. Where applicable, landowners may implement portions of the recommended collector road network through the Planning Act.

To ensure orderly phasing of the recommended collector road network, new east-west connectivity shall be provided between the existing north-south concession roads to maximize interim connectivity until the full build-out of the NUA lands, subject to feasibility including land availability and the satisfaction of Town staff through the development application process. Close coordination between Town staff and landowners is recommended to ensure that the intent of this policy is met.

[1] In October 2025 the Provincial Government announced amalgamating Ontario's 36 Conservation Authorities into seven and creating a new centralized agency called the Ontario Provincial Conservation Authority (OPCA). The administrative process and details are yet to be established and are ongoing. Moving forward for this project, TRCA is replaced with general term Conservation Authority.

1. Introduction

HDR has been retained to undertake an Addendum to the Town of Caledon's *Multi-Modal Transportation Master Plan*, dated June 2024 (also referred to as the MMTMP Addendum or the Study in the subject report) to assess the need and justification and evaluation for east-west connectivity improvements in the area bound by Old School Road to the north, Coleraine Drive to the east, Mayfield Road to the south, and Mississauga Road to the west.

The east-west connectivity improvements include extending the current eastern terminus for Dougall Avenue and for Abbotside Way to connect with George Bolton Parkway, and extending the current western terminus of Dougall Avenue, just east of Highway 10. In total, the east-west corridor between Mississauga Road and Coleraine Drive would be approximately 20 kilometres in length. The subject report reviews the opportunities and constraints along the corridor, identifies whether the improvements are needed to support future communities and businesses in the study area, and evaluates the alignment alternatives to identify the preferred alignment.

The Town's recently adopted MMTMP embeds policy recommendations prioritizing active travel and transit alongside traditional roadway expansion, endorsing a "complete streets" approach to support multi-modal users (cars, pedestrians, cyclists, transit riders) for new corridors to provide mobility choices and a resilient network. Thus any new east-west corridor assessed in this addendum must consider active transportation and transit integration, and such mode considerations should be safeguarded through future design and implementation phases.

The MMTMP Addendum was conducted following Phases 1 and 2 of the Municipal Class Environmental Assessment (MCEA) process. A functional design exercise has also been undertaken to confirm the feasibility of the alignment alternatives and to inform further phases of the MCEA process.

1.1 Project Background

The Region of Peel Official Plan was amended and approved by the Province in November 2022, and it included the NUA lands, which are part of Caledon's new urban area. The NUA lands are illustrated in **Figure 1-1**; it is noted that this figure reflects March 2025 conditions and does not include newer development applications or road network changes.

On November 25, 2024, the Town completed the Growth Management and Phasing Plan (GMPP). The GMPP is a forward-thinking initiative designed to provide clear guidance on where, when, and how Caledon should grow through the 2051 New Urban Area. The latest forecast from GMPP notes that the Town is projected to grow significantly over the next 30 years, with a population reaching 300,000 and 125,000 jobs by 2051. To manage growth effectively, the GMPP offers a strategic, phased approach to development that integrates with existing communities.

The Town has been receiving development applications for the NUA lands which propose internal collectors and local roads which access the existing north-south arterial roads between Old School Road and Mayfield Road, but these developments' networks are not designed for east-west connectivity and continuity and as such include gaps and discontinuous corridors.

Given the over 3-kilometre distance between these two east-west roadways, there is a concern that the lack of east-west connectivity will negatively impact future traffic operations while also impacting the ability to run efficient transit services and provide a well-connected pedestrian and cycling network throughout the NUA lands.

The Caledon MMTMP was approved by the Town Council in 2024, however, the MMTMP study does not account for the most recent proposed land uses adopted through the GMPP study. The MMTMP improvements focus on the Town's arterial road network and suggest identifying collector road network improvements through Secondary Plan studies. As such, while the MMTMP does identify the need for additional east-west capacity, it lacks details on the justification for new east-west collectors. The MMTMP Addendum has been initiated to review the specific multimodal transportation need for a continuous east-west corridor to provide the required connectivity for all travel modes through the NUA lands for the GMPP proposed land uses. Alignments, cross-sections, and multi-modal facilities will be further refined throughout the development application process.

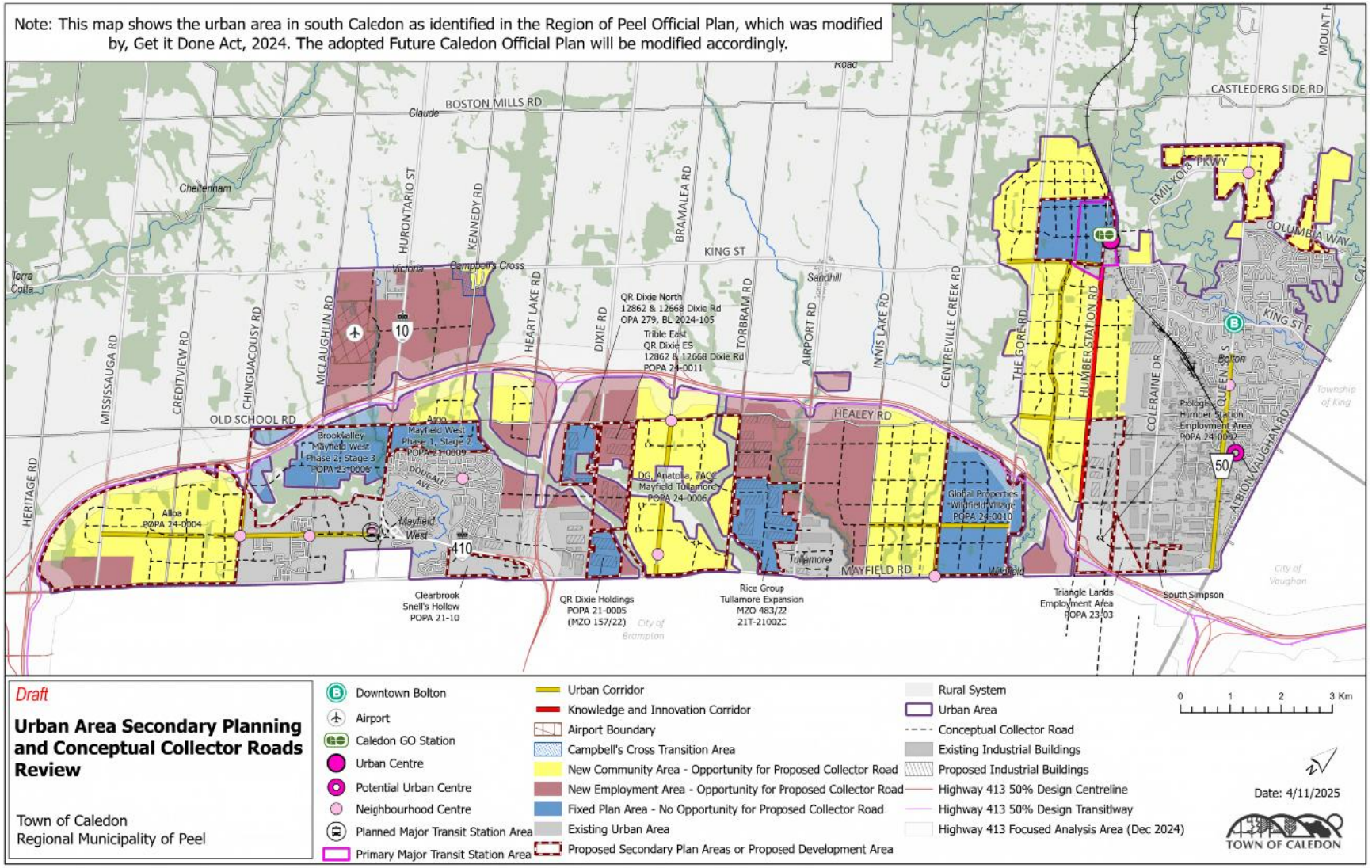


Figure 1-1: 2051 New Urban Area (NUA) Lands

1.2 Study Area

The study area is illustrated in **Figure 1-2** and is bounded by Old School Road-Healey Road to the north, Coleraine Drive to the east, Mayfield Road to the south, and Mississauga Road to the west. Within the study area, Mayfield Road, Coleraine Drive, The Gore Road, Airport Road, Dixie Road, and Mississauga Road fall under the Region of Peel's jurisdiction. Highway 410, Hurontario Street-Highway 10, and the future Highway 413 fall under the Ontario Ministry of Transportation's (MTO's) jurisdiction. All other roads are under the jurisdiction of the Town of Caledon.

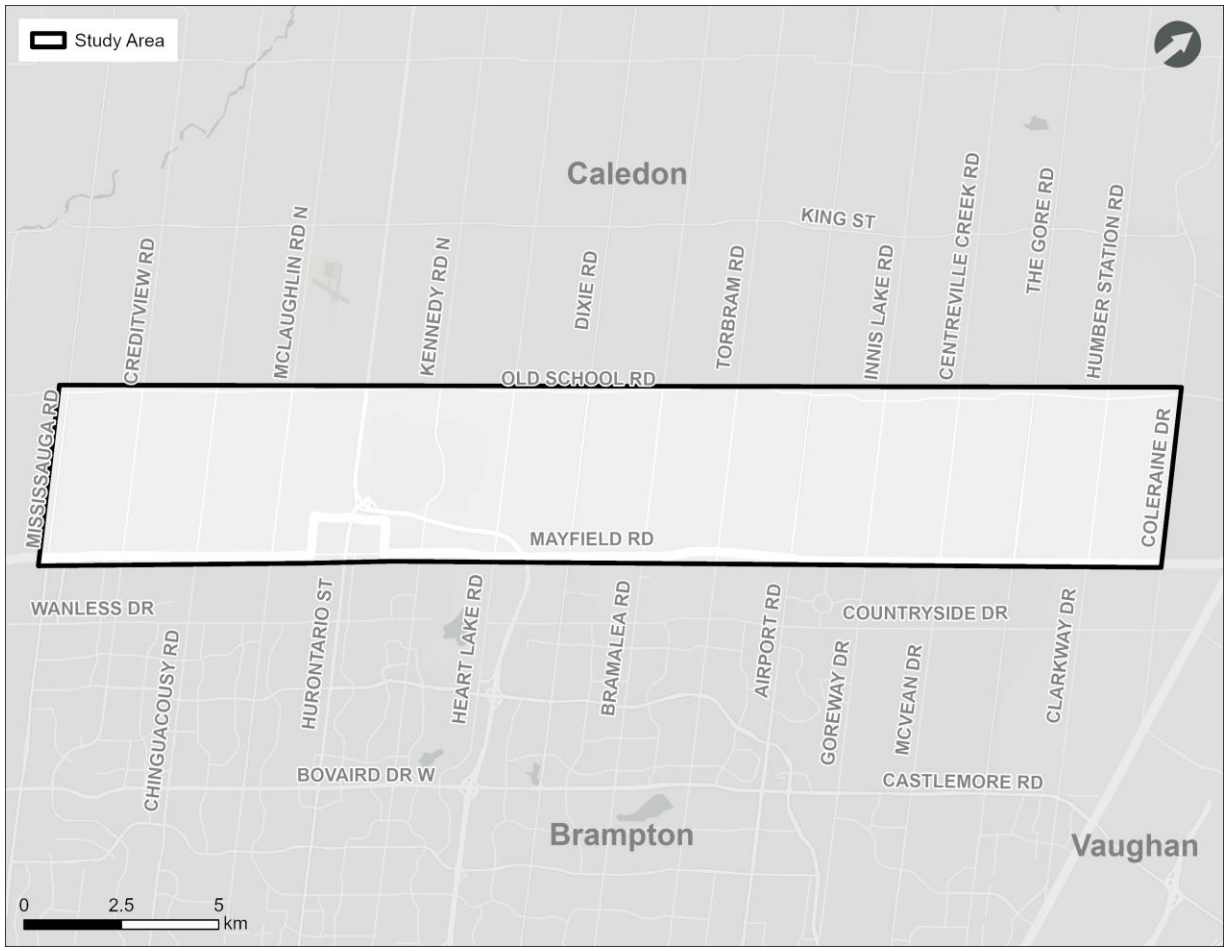


Figure 1-2: Study Area

1.3 Study Objectives

The key objectives of the MMTMP Addendum are as follows:

1. Refine the recommended future transportation network identified in the Conceptual Collector Road Layout from the Caledon MMTMP (illustrated below in **Figure 1-3**) through the planning and integration of a major east-west collector network to improve east-west connectivity and continuity within the NUA lands, while balancing impacts to natural heritage, developable lands, and costs.

2. Satisfy Phase 1 and Phase 2 of the MCEA process by identifying the constraints, opportunities, and solutions for connectivity improvements within the Study Area to service the planned growth.
3. Determine the technical feasibility of the proposed road network bound by Old School Road, Coleraine Drive, Mayfield Road, and Mississauga Road, specifically for the extensions of George Bolton Parkway, Dougall Avenue, and Abbotside Way.
4. In collaboration with stakeholders, recommend and document a conceptual road network to inform further, more detailed study including a potential Municipal Class Environmental Assessment(s).
5. Develop functional plan and profiles for high level routing and valley crossings to protect for a 26-metre right-of-way.

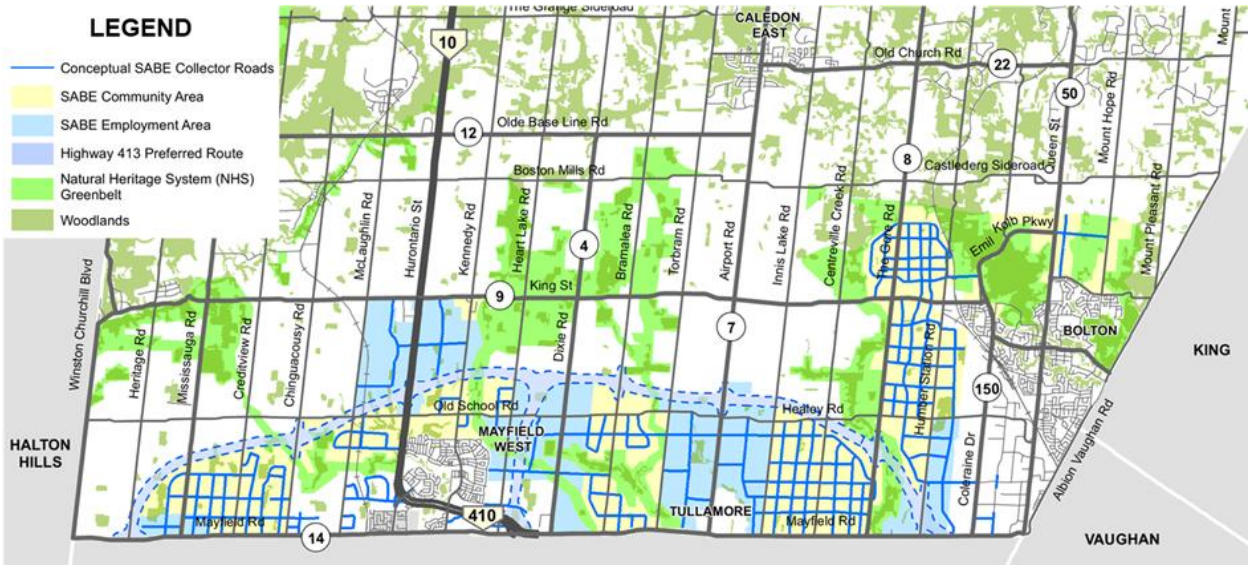


Figure 1-3: Caledon Conceptual Collector Road Layout (Source: Caledon MMTMP, 2024)

1.4 Study Methodology and Approach

The MMTMP Addendum study was undertaken with a combination of qualitative and quantitative network planning approaches.

The transportation and environmental constraints were first identified through the completion of an opportunity and constraints mapping and coordination exercise with the Town. The alignment alternatives were refined based on existing neighbourhoods and businesses, development applications, and natural heritage impacts and constraints. The preliminary collector road options were developed by considering the capacity and connectivity needs for the NUA lands and key planning policies. A functional design exercise was also undertaken to identify the feasibility of the alignments and to facilitate coordination with stakeholders.

The following data was collected from the Town of Caledon:

- Town's Travel Demand Model (EMME) developed for the GMPP.

- Geographical Information System (GIS) files, largely relating to the Town's structure, natural features, and planned network improvements (including the Highway 413 alignment, and internal development networks from applications and Secondary Plans).
- Supporting documentation for proposed developments within the study area, including Traffic Impact Studies, Synchro files, turning movement counts, topographic surveys, and site plans, where available.
- By-laws, planning documents, and other background reports.

Traffic analyses were undertaken using Emme and Synchro software to identify baseline segment and turning movement operations for the 2051 future baseline and with improvements scenarios. The detailed approach and methodology are provided in **Appendix A** for reference.

The MMTMP Addendum study is undertaken in accordance with Approach #1 from the 2023 MCEA study guideline and is intended to satisfy Phase 1 and Phase 2 of the MCEA process by identifying the constraints, opportunities, and alternative solutions for connectivity improvements within the Study Area. Future phases, which will identify the alternative design concepts for the preferred solution, prepare the Environmental Study Report, and, ultimately, the implementation, will be undertaken by developers, or by the Town of Caledon where necessary.

1.5 Report Structure

The study report includes the following sections:

1. **Introduction**: Summarizes the study objectives, study area, and study methodology.
2. **Planning Context**: Informs the relevant planning context within the study area, including planning policies, initiatives, and development applications.
3. **Environmental Opportunities and Constraints**: Describes the environmental opportunities and constraints within the study area, considering natural heritage features, source water protection, cultural heritage, and climate change.
4. **Transportation Opportunities and Constraints**: Informs the planned improvements to the transportation network within the study area, and the constraints presented by on-going developments.
5. **Problem Statement**: Describes the problems and opportunities within the study area.
6. **Alternative Solutions**: Describes and evaluates the alternatives for the east-west collector roads and identifies the preferred alternative.
7. **Consultation and Engagement**: Describes the outreach process undertaken for the study and feedback from stakeholders.
8. **Design Recommendations**: Details the design recommendations, such as the recommended right-of-way and potential facility allocations, for the east-west collector roads.
9. **Implementation**: Describes the MCEA process and next steps, as well as the findings and recommendations

2. Planning Context

2.1 Planning Policies and Initiatives

Provincial, regional, and municipal policy context informed the base network assumptions and the policy direction for the Caledon MMTMP Addendum. Policy themes such as emphasis on increasing active and transit mode share, building climate-resilient and low-carbon infrastructure, and fostering complete communities have been embedded into the evaluation framework and decision-making process for improvements considered in this study. Key policies and plans pertinent to the study are described in the following sections.

2.1.1 Region of Peel 2024-2027 Business Plan and 2024 Budget

The Region of Peel Transportation 2024–2027 Business Plan and 2024 Budget focuses on budgetary needs required to support safe, efficient, and accessible transportation services for the residents and businesses across the Region. The budget allocates funding toward road expansions, intersection improvements, traffic signal upgrades, and active transportation infrastructure. The report also identifies the 10-year capital plan from 2024 to 2033 which will support the identification of near-term improvements for the Caledon MMTMP Addendum.

2.1.2 Town of Caledon Growth Management Phasing Plan and Financial Impact Assessment (November 2024) Transportation Analysis Report

The Growth Management Phasing Plan (GMPP) Transportation Analysis Report undertaken by HDR in November of 2024 was conducted to assess the anticipated development levels for the planning horizon years and reallocate planned growth based on the most current data. The study also aimed to establish a development phasing strategy for the Town. In addition, it evaluated the financial impacts associated with the roadway improvements required to support the projected growth. The EMME travel demand model developed for the GMPP will be used as a base model for the Caledon MMTMP Addendum and will be updated to reflect the latest land use and network assumptions.

2.1.3 Town of Caledon Multi-Modal Transportation Master Plan (June 2024)

The Caledon Multi-Modal Transportation Master Plan (TMP) is a long-range strategic plan that outlines how the Town will address future mobility needs through coordinated infrastructure, services, and policies in response to significant anticipated growth. It aligns with the Town's Official Plan and aims to deliver an environmentally, financially, and operationally sustainable transportation system. It identifies long-term transportation system needs and integrates community feedback collected through multiple engagement channels. The Caledon TMP will inform the planned improvements to the Town's transportation network.

2.1.4 Future Caledon Official Plan

The Future Caledon Official Plan represents the first phase of the replacement of the 1978 Town of Caledon Official Plan. It guides long-term growth and land use planning in the Town to the year 2051.The majority of growth is directed to the 2051 New Urban Area in south Caledon, which surrounds the Mayfield West settlement area and connects to the Bolton settlement area.

2.1.5 Region of Peel Official Plan (April 2022)

Peel Region's Official Plan provides a long-term policy framework for decision-making by setting a regional context for detailed planning. It includes guiding policies for protecting the environment, managing resources, directing growth in all forms and sets the basis for providing regional services in an efficient and effective manner.

2.1.6 Highway 413

Highway 413 is a proposed 59-kilometre highway located in the northwest Greater Toronto Area. The current planned alignment extends from Highway 400 (between Kirby Road and King-Vaughan Road) to the Highway 401/407 interchange area, connecting the municipalities of Vaughan, Caledon, Brampton, and Halton Hills. Throughout the consultation process, the Town of Caledon has been monitoring the project and providing feedback. The extension of George Bolton Parkway through the Highway 413 alignment west of Humber Station Road will be a key constraint for the subject study.

2.1.7 Region of Peel Long Range Transportation Plan (2019)

The Region of Peel Long Range Transportation Plan (LRTP) is a strategic five-year plan with a 2041 horizon that guides transportation infrastructure, policy, and investment decisions in response to significant population and employment growth in the Region. It serves as the basis for capital budget planning, infrastructure programming, and as an input into the Development Charges By-law Update.

The LRTP aims to achieve a 50% sustainable mode share through a balanced approach of road improvements and investments in active and sustainable transportation. It is built around three focus areas: sustainable mobility, safe mobility (Vision Zero), and vehicular mobility and goods movement. The LRTP will also inform the planned improvements to the Region's transportation network for the subject study.

2.1.8 Provincial Planning Statement & Bill 23

The latest Provincial Planning Statement (PPS), which came into effect in October 2024, combined the Places to Grow Act and the previous Provincial Policy Statement. It consolidated the province's land use planning policies, creating a single, streamlined document that applies across Ontario. It also aims to increase housing supply and provide municipalities with more flexibility to plan for growth based on local conditions.

This PPS and the More Homes Built Faster Act, 2022 (Bill 23) are both components of the Ontario government's Housing Supply Action Plan which aims to facilitate the construction of 1.5 million homes in Ontario by 2031. It is noted that these policy initiatives would result in higher population and employment growth compared to those previously projected in the Town of Caledon, increasing population projections from 300k to 342k by 2051 in Caledon, and from 125k to 159k jobs, as identified in the Region of Peel's Regional Growth Forecasts Update 2024. The growth to 300k people and 125k jobs was used in the MMTMP Addendum in alignment with the Town's most recent Official Plan policy.

The PPS provided the following policy direction on transportation systems, which supports the need for improvements within the MMTMP Addendum study area:

1. Transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, are appropriate to address projected needs, and support the use of zero- and low- emission vehicles.
2. Efficient use should be made of existing and planned infrastructure, including through the use of transportation demand management strategies, where feasible.
3. As part of a multimodal transportation system, connectivity within and among transportation systems and modes should be planned for, maintained and, where possible, improved, including connections which cross jurisdictional boundaries.

2.2 Proposed Developments within Study Area

The lands within and around the study area will be subject to significant development, accounting for much of the planned growth within the Town of Caledon by the 2051 horizon year. The study area is projected to account for approximately 132,000 people and 64,000 jobs by 2051; by comparison, the entirety of the Town of Caledon is projected to grow to 300,000 people and 125,000 jobs by the same horizon.

The development applications within the study area are detailed in the following subsections. The developments within the study area are in various stages of approval, with some sites and internal networks being fixed which will introduce constraints for the east-west alignment alternatives. As outlined in Section 2.1, the multi-modal objectives noted in policy documents, such as prioritizing active transportation and transit for new corridors, should be integrated into and protected for as developments are built out. A summary of the proposed developments and constraints from the developments is provided in **Section 2.2**.

2.2.1 Mississauga Road to Chinguacousy Road

2.2.1.1 ALLOA PHASE 1

C.F. Crozier & Associates Inc. prepared a Transportation Impact Study (TIS) in support of the Tertiary Plan application for the Alloa Phase 1 Lands development, which is generally bound by the planned Highway 413 to the north, Mayfield Road to the south, Chinguacousy Road to the east, and Creditview Road to the west. The Official Plan Amendment (OPA) submitted for the site is currently under review.

Per the latest information received from the Town in December of 2025, the development proposes 7,440 residential units, 27,478 m² GFA of major commercial, and 28,125 m^2 GFA of mixed-use. The development proposes several east-west internal roadways which will connect Chinguacousy Road, Creditview Road, and Mississauga Road. The detailed network and land use composition for the Phase 1 development is illustrated in **Figure 2-1**, per the most recent available information provided by the Town of Caledon. The red-lined Street “C” alignment reflects the most recent alignment proposed by the Alloa landowners’ group. The full development road network from Town of Caledon’s By-Law No. 2025-097, enacted by council in October of 2025, is illustrated in **Figure 2-2**.

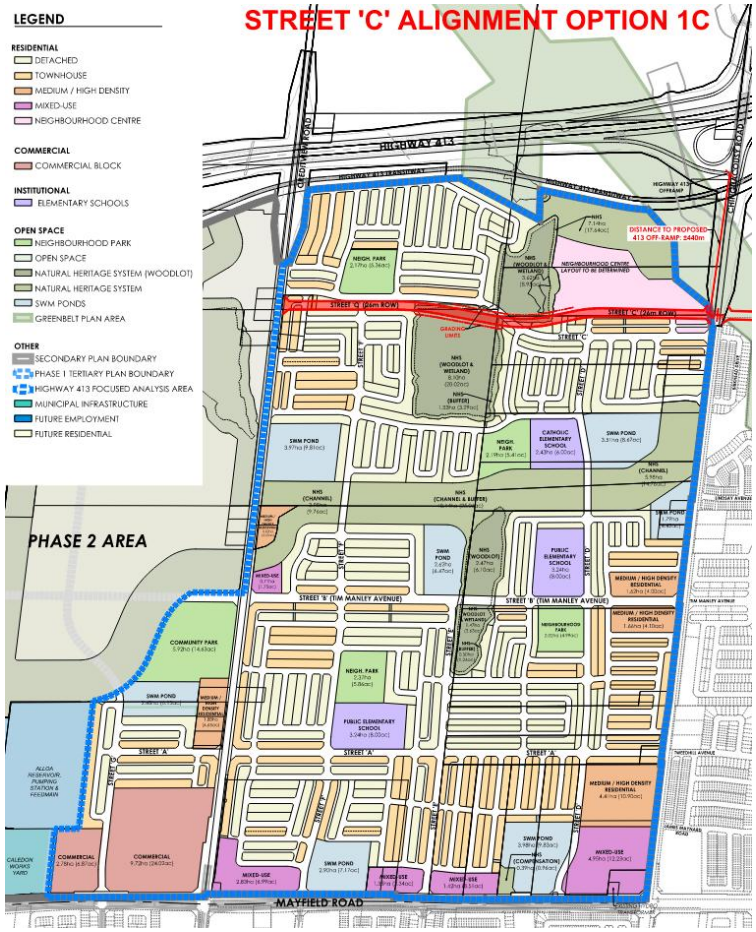


Figure 2-1: Alloa Secondary Plan Tertiary Plan Phase 1 (Source: Alloa Secondary Plan Tertiary Plan – Phase 1, July 2025, red-lined November 2025)

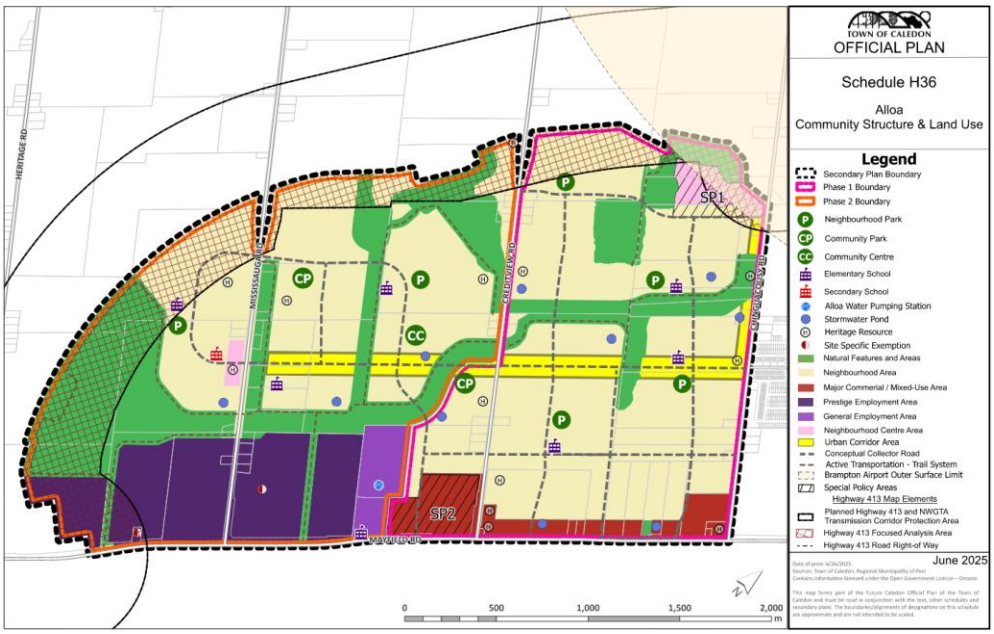


Figure 2-2: Alloa Secondary Plan Proposed Road Network (June 2025)

2.2.2 Chinguacousy Road to Hurontario Street-Highway 10

2.2.2.1 MAYFIELD WEST PHASE 2 (BROOKVALLEY)

The Mayfield West Phase 2 Stage 3 Traffic Impact Study, June 7, 2024, was developed by GHD in support of the development generally bound by Chinguacousy Road to the west, Old School Road to the north, and Hurontario Street to the east. The site's Peel Official Plan Amendment (POPA), Zoning By-law Amendment (ZBA), and Draft Plan of Subdivision (DPoS) were approved by council in late 2024.

The development proposed a total of 4,687 dwelling units, 3 elementary schools, and 14 hectares of general commercial lands. It is noted that the alignment of Highway 413 will impact the developable land and the internal roadway network as shown in the most recent land use plan from December of 2024, illustrated in **Figure 2-3**.

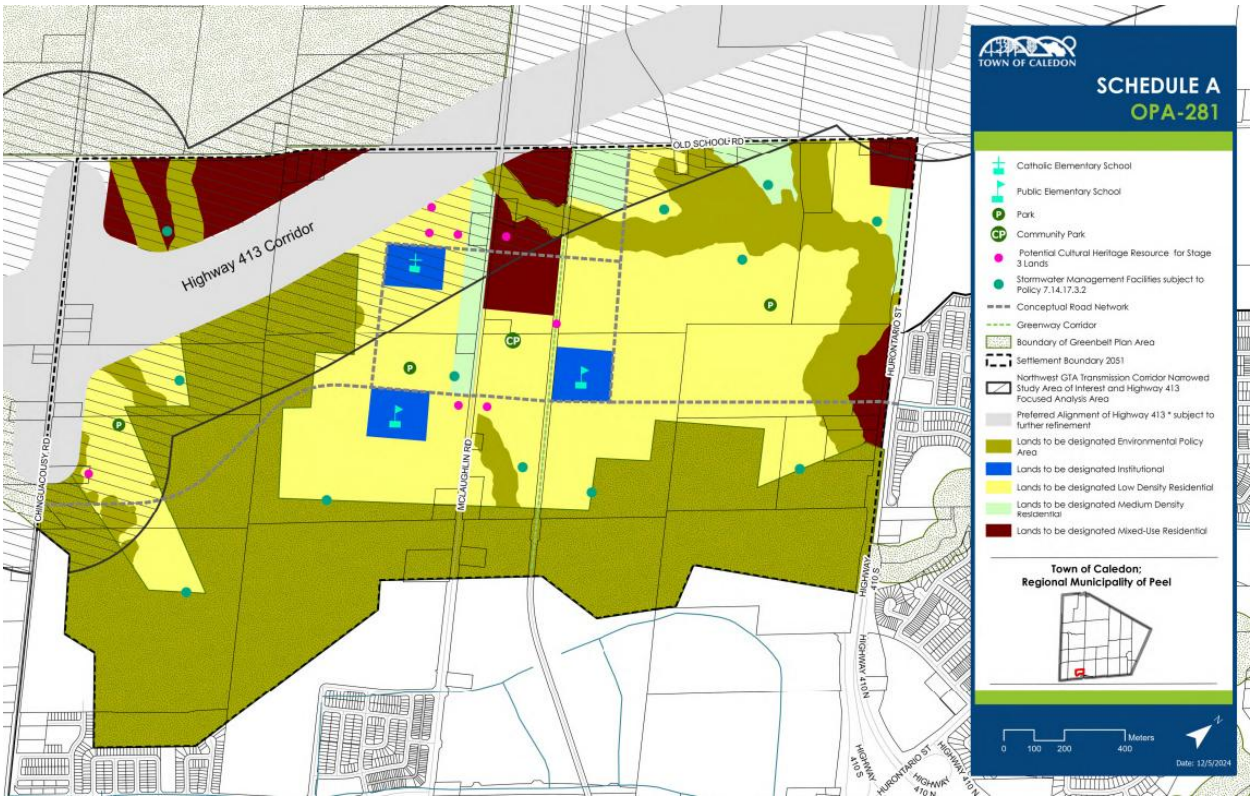


Figure 2-3: Mayfield West Phase 2 (Brookvalley) Land Use Plan, December 5, 2024

2.2.3 Hurontario Street-Highway 10 to Heart Lake Road

2.2.3.1 MAYFIELD WEST PHASE 3

The Mayfield West Phase 3 development is generally bound by Hurontario Street to the west, Old School Road to the north, and the greenbelt boundary located east of Kennedy Road.

The Newhouse / Kennedy Draft Plan of Subdivision Transportation Study Update and Response to Town Comments, November 1, 2024, was prepared by BA Group to support the Draft Plan of Subdivision for the portions of Mayfield West Phase 3 between Hurontario Street and Kennedy

Road. The Draft Plan of Subdivision, illustrated in **Figure 2-4**, proposes a total of 251 townhouse units and 405 detached homes.

BA Group had previously undertaken the Mayfield West Phase 1 – Stage 2 Local Official Plan Amendment Updated Transportation Considerations Report, August 2023, which identified the preliminary concept plan as shown in **Figure 2-5**.

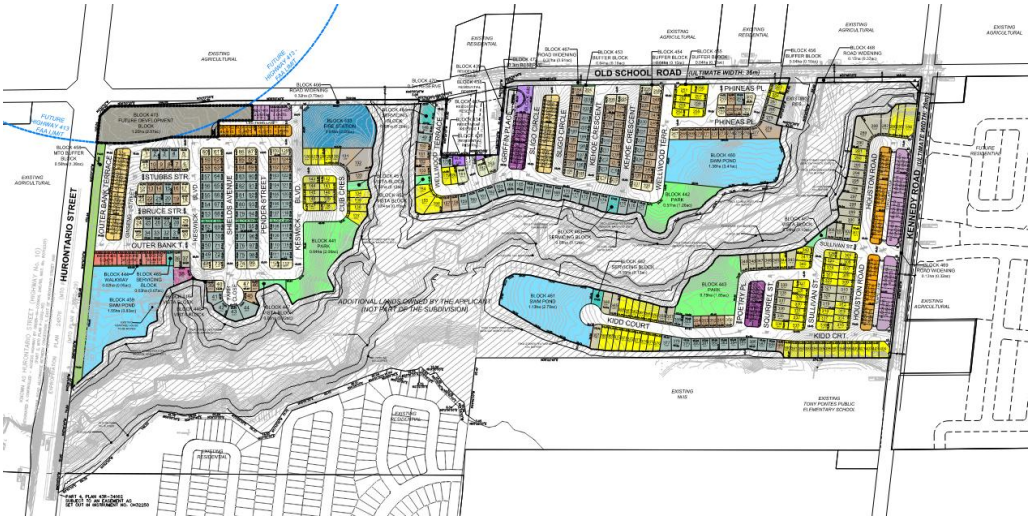


Figure 2-4: Draft Plan of Subdivision (Source: Newhouse / Kennedy Draft Plan of Subdivision Transportation Study Update and Response to Town Comments, November 1, 2024)



Figure 2-5: Preliminary Concept Plan (Source: Mayfield West Phase 1 – Stage 2 Local Official Plan Amendment Updated Transportation Considerations Report, August 2023)

2.2.3.2 12304 HEART LAKE ROAD

12304 Heart Lake Road is located north of Highway 410 and west of Heart Lake Road. An extension of Abbotside Way through the site is currently underway between Heart Lake Road and the current terminus at the intersection with Bonnieglen Farm Boulevard. The application proposes a warehouse to the west of Heart Lake Road, with 28,985.05 m^2 warehouse space and 891.24 m^2 office space. The Phase 2 site plan for the development is illustrated in **Figure 2-6**.

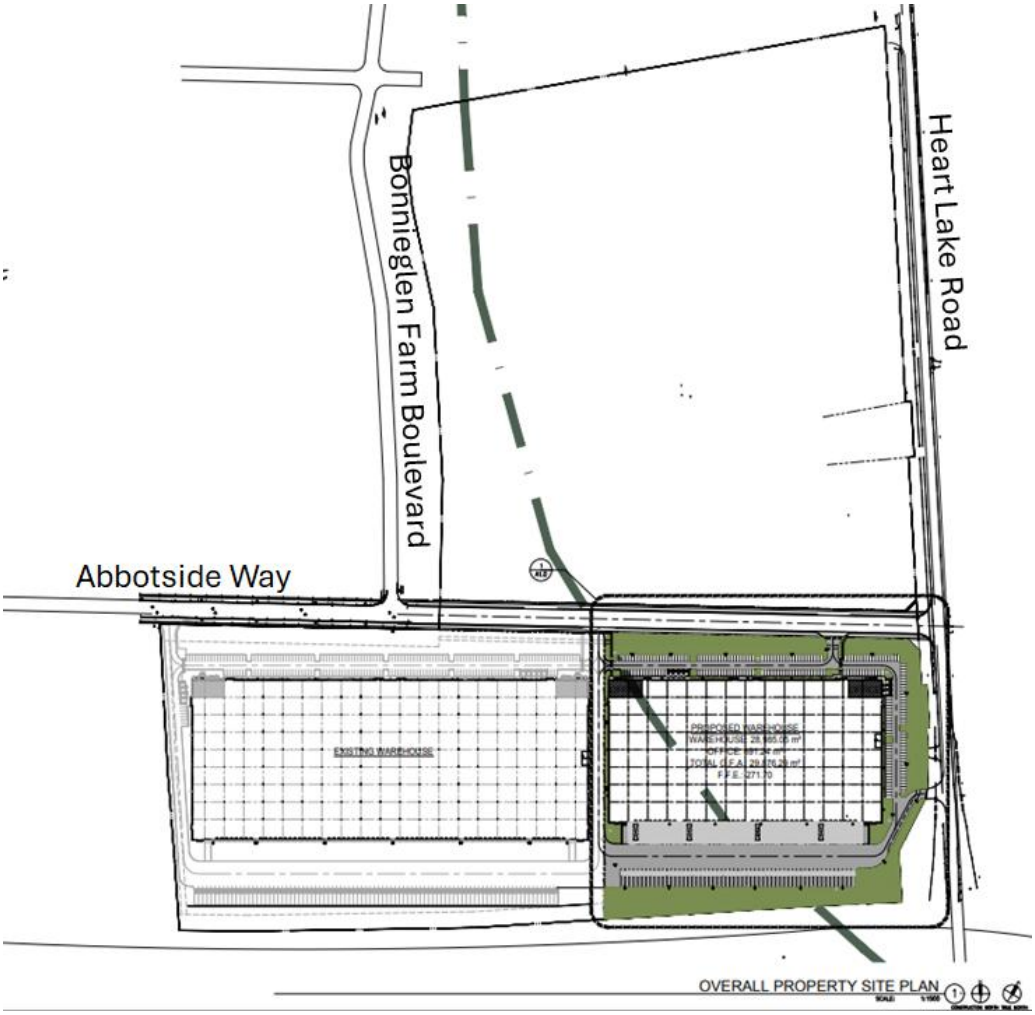


Figure 2-6: 12304 Heart Lake - Phase 2 Site Plan (Source: Town of Caledon website, extracted May 1, 2025)

2.2.4 Heart Lake Road to Dixie Road

2.2.4.1 TRIBAL NORTH AMAZON

LEA Consulting Ltd. had prepared a Transportation Addendum Letter for Proposed Industrial/Employment Development at 12862 Dixie Road, December 16, 2024, in support of a development application at the site. The development proposes constructing an Amazon distribution centre with a GFA of 304,458 m^2 on the south-west quadrant of the intersection of

Old School Road with Dixie Road. One access to Old School Road and to Dixie Road is proposed. The site plan is illustrated in **Figure 2-7.**

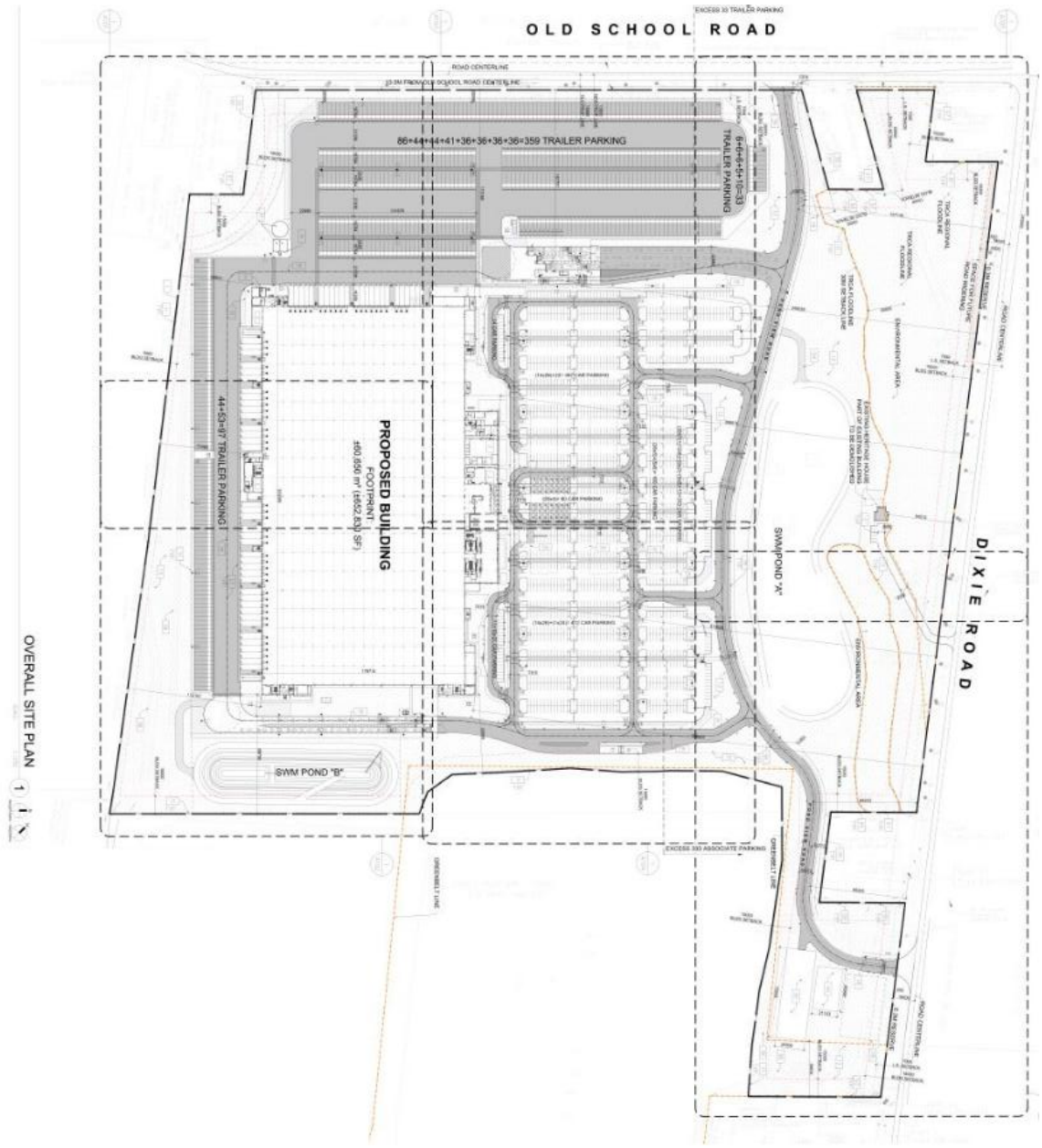


Figure 2-7: Proposed Site Plan Tribal North Amazon (Source: Transportation Addendum Letter, LEA 2024)

2.2.4.2 12505 HEART LAKE ROAD

IBI Group prepared the *Traffic Impact Study for the Proposed Warehouse Development at 12505 Heart Lake Road* dated August 8, 2022, in support of the proposed development located east of Heart Lake Road at 12505 Heart Lake Road. The application proposes constructing six industrial buildings: four to the west of the future Highway 413, and two to the east of Highway 413. The site plan from the *Traffic Impact Study for the Proposed Warehouse Development at 12505 Heart Lake Road*, dated August 8, 2022, is illustrated in **Figure 2-8**. A potential east-west

collector road alignment through the western portion of the site, provided by the applicant team on September 23, 2025, is illustrated in **Figure 2-9**.



Figure 2-8: 12505 Heart Lake Road Site Plan (Source: Traffic Impact Study for the Proposed Warehouse Development at 12505 Heart Lake Road dated August 8, 2022)

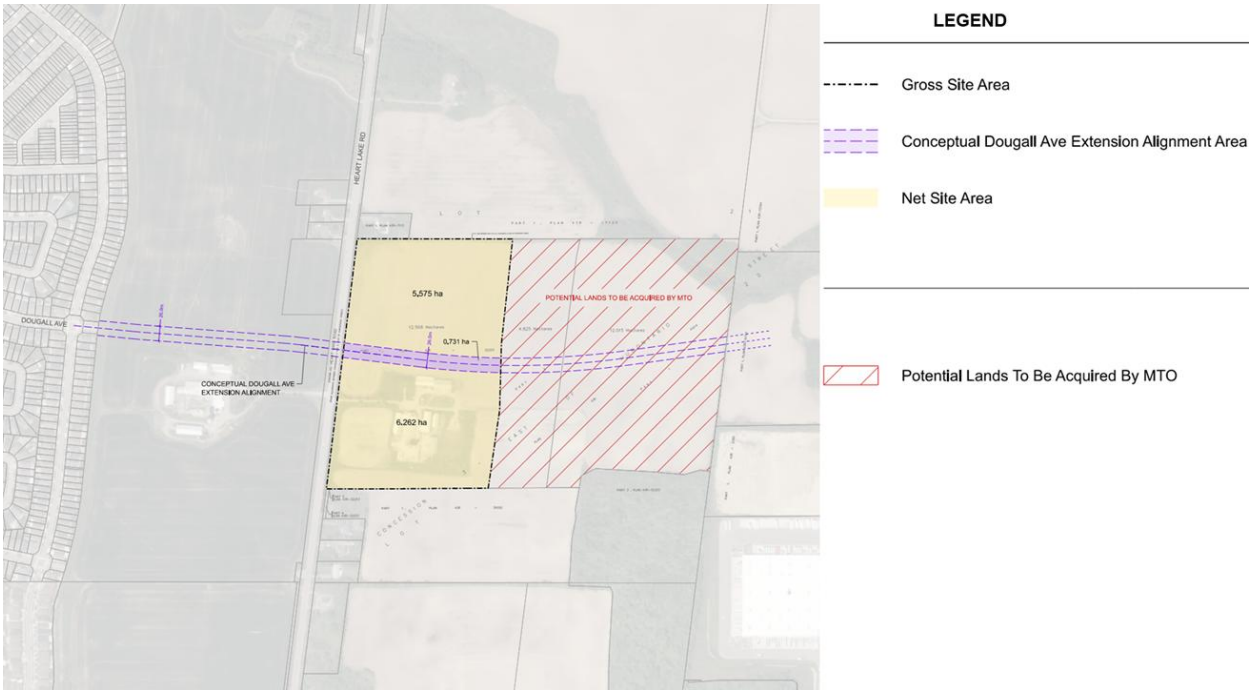


Figure 2-9: 12505 Heart Lake Road Site Constraint Sketch, September 23, 2025

2.2.4.3 HEART LAKE ROAD PORTFOLIO

A development (application ID 21T-08002C) is identified on the Town's development application portal for the lands generally bounded by Heart Lake Road to the west, Mayfield Road and the future Highway 413 to the south, and Dixie Road to the east. The application proposed to create eleven blocks of industrial uses, and it is anticipated that Abbotside Way will be extended through these lands to connect between Heart Lake Road and Dixie Road.

2.2.5 Dixie Road to Torbram Road

2.2.5.1 QUADREAL NORTH (12861 DIXIE ROAD)

BA Group prepared the *12861 Dixie Road Urban Transportation Considerations* report dated December 2023 in support of the development located at 12861 Dixie Road. The site is located south-east of the intersection of Old School Road with Dixie Road. The development proposes two industrial buildings with a total combined floor area of approximately 188,718 square metres. The site proposes an internal road network that loops around the circumference of the site, with connecting driveways and parking lots east-west between the two buildings. The site plan does not identify connectivity beyond the internal site. A signalized intersection is proposed at the easternmost access with Old School Road. The western access on Old School Road, and the access to Dixie Road are proposed to be unsignalized. The site plan from the *12861 Dixie Road Urban Transportation Considerations* report, December 2023, is illustrated in **Figure 2-10**.

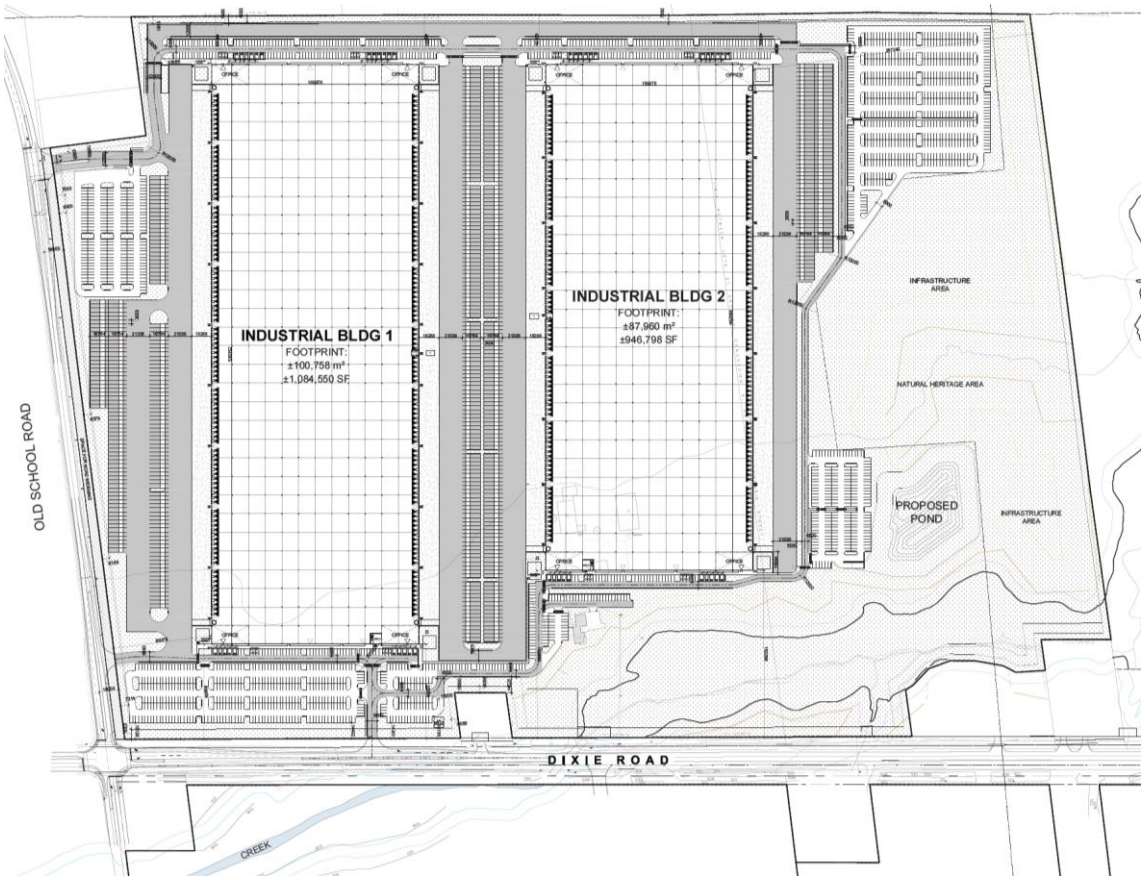


Figure 2-10: 12861 Dixie Road Site Plan (Source: 12861 Dixie Road Urban Transportation Considerations, December 2023)

2.2.5.2 QUADREAL SOUTH (12489 DIXIE ROAD)

BA Group prepared the *12489 Dixie Road Urban Transportation Considerations* report dated December 2023 in support of the development located at 12489 Dixie Road. The site is located east of Dixie Road and is bound by natural features to the north and south. The development proposes three industrial buildings with a total combined floor area of approximately 136,576 square metres. The site proposes an internal road network that loops around the circumference of the site, with connecting driveways and parking lots north-south between buildings. The site plan does not identify connectivity beyond the internal site. A signalized intersection with Dixie Road is proposed at the north access, and an unsignalized intersection at the south access. The site plan from the *12489 Dixie Road Urban Transportation Considerations* report, December 2023, is illustrated in **Figure 2-11**.

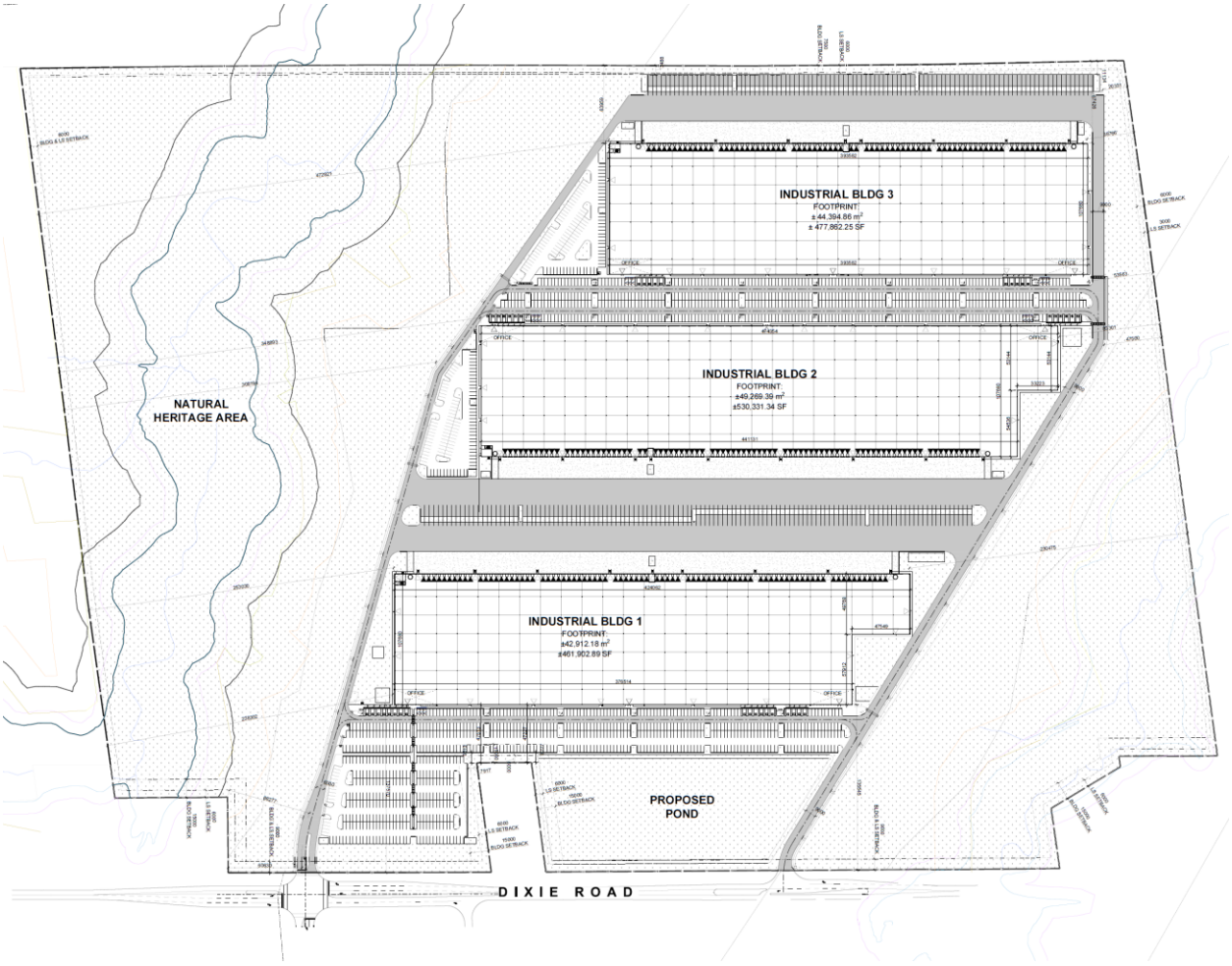


Figure 2-11: Site Plan 12489 Dixie Road (Source: 12489 Dixie Road Urban Transportation Considerations, December 2023)

2.2.5.3 TRIBAL SOUTH (12173 DIXIE ROAD)

BA Group prepared the *12173 Dixie Road Urban Transportation Considerations* report dated April 2023 in support of the development which is located to the north-east of the intersection of Mayfield Road with Dixie Road. The development comprises of two large industrial buildings with a combined floor area of approximately 190,824 m^2. Four site accesses are proposed along

Dixie Road; two of the accesses will connect with the existing intersections of Dixie Road with Spiers Griffin Road and with the UPS facility access. One access opposite Russel Creek Drive is proposed along Mayfield Road. The Site Plan from the *12173 Dixie Road Urban Transportation Considerations* report, April 2023, is illustrated in **Figure 2-12**.

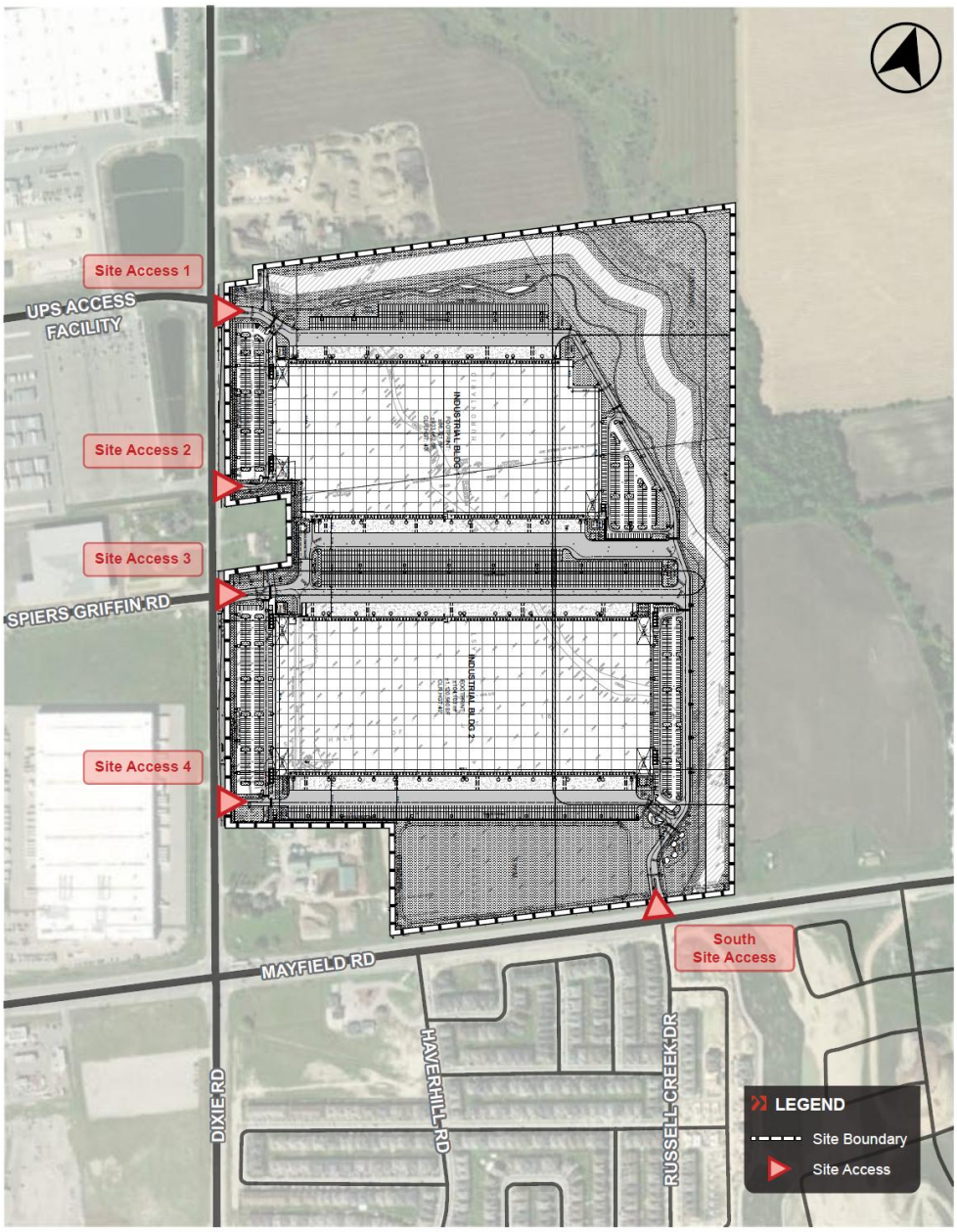


Figure 2-12: Site Plan Tribal South (Source: 12173 Dixie Road Urban Transportation Considerations, April 2023)

2.2.5.4 MAYFIELD-TULLAMORE

BA Group prepared the *Mayfield-Tullamore Community Transportation Study* dated August 2024 in support of the development generally bounded by the future Highway 413 to the north, Torbram Road to the east, Mayfield Road to the south, and approximately midway between

Bramalea Road and Dixie Road to the west. The development proposes a total of 7,806 residential dwelling units which comprise of single-family and semi-detached homes, townhouses, and apartments. Collector roads were proposed internal to the site without new connectivity proposed between Old School Road and Mayfield Road, nor the north-south corridors of Dixie Road and Torbram Road. One new intersection was proposed with Mayfield Road, and two each with Torbram Road and Old School Road. An urban corridor is planned along Bramalea Road, with a gap within the centre between Old School Road and Mayfield Road due to the natural features in the area. The most recent land use and transportation plan shared by the Town in December of 2025 is illustrated in **Figure 2-13**. Through collaboration during the MMTMP Addendum study process, the applicant team updated and shared a conceptual collector road network, illustrated in **Figure 2-14**, that improves network continuity and connectivity.

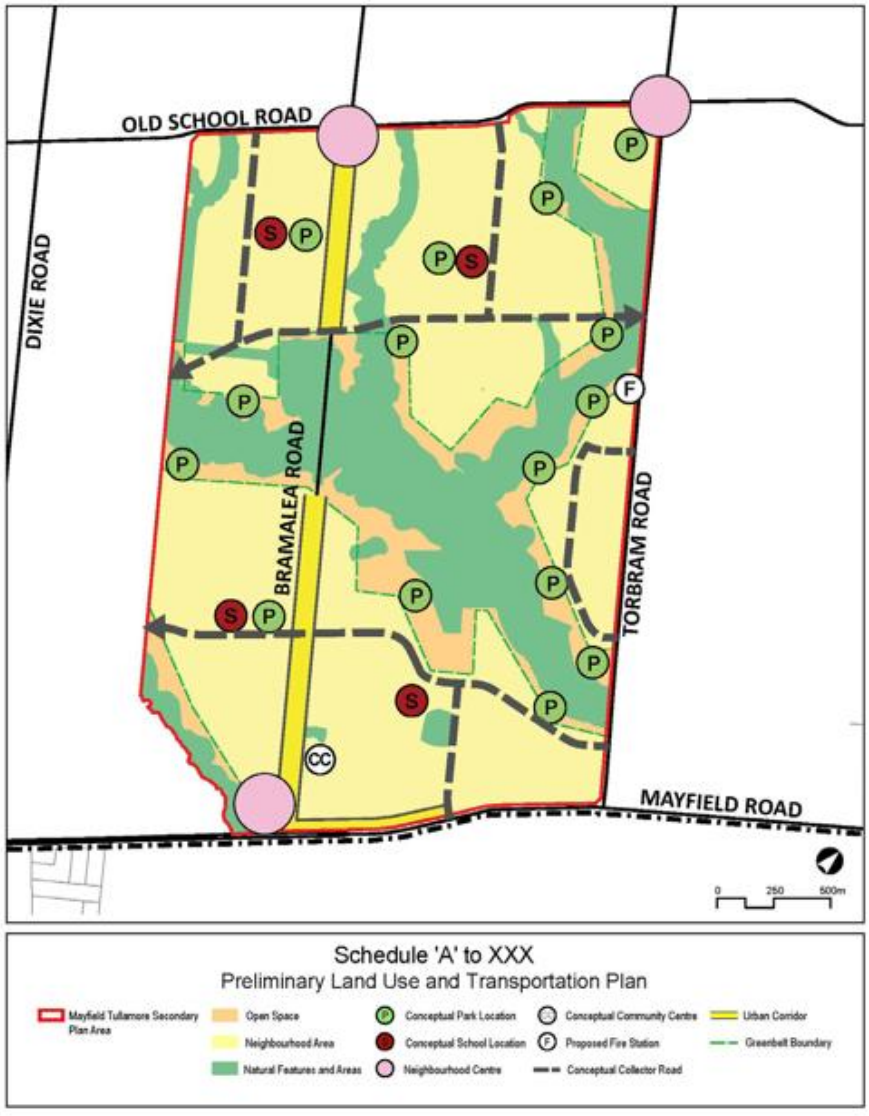


Figure 2-13: Mayfield-Tullamore Preliminary Land Use and Transportation Plan

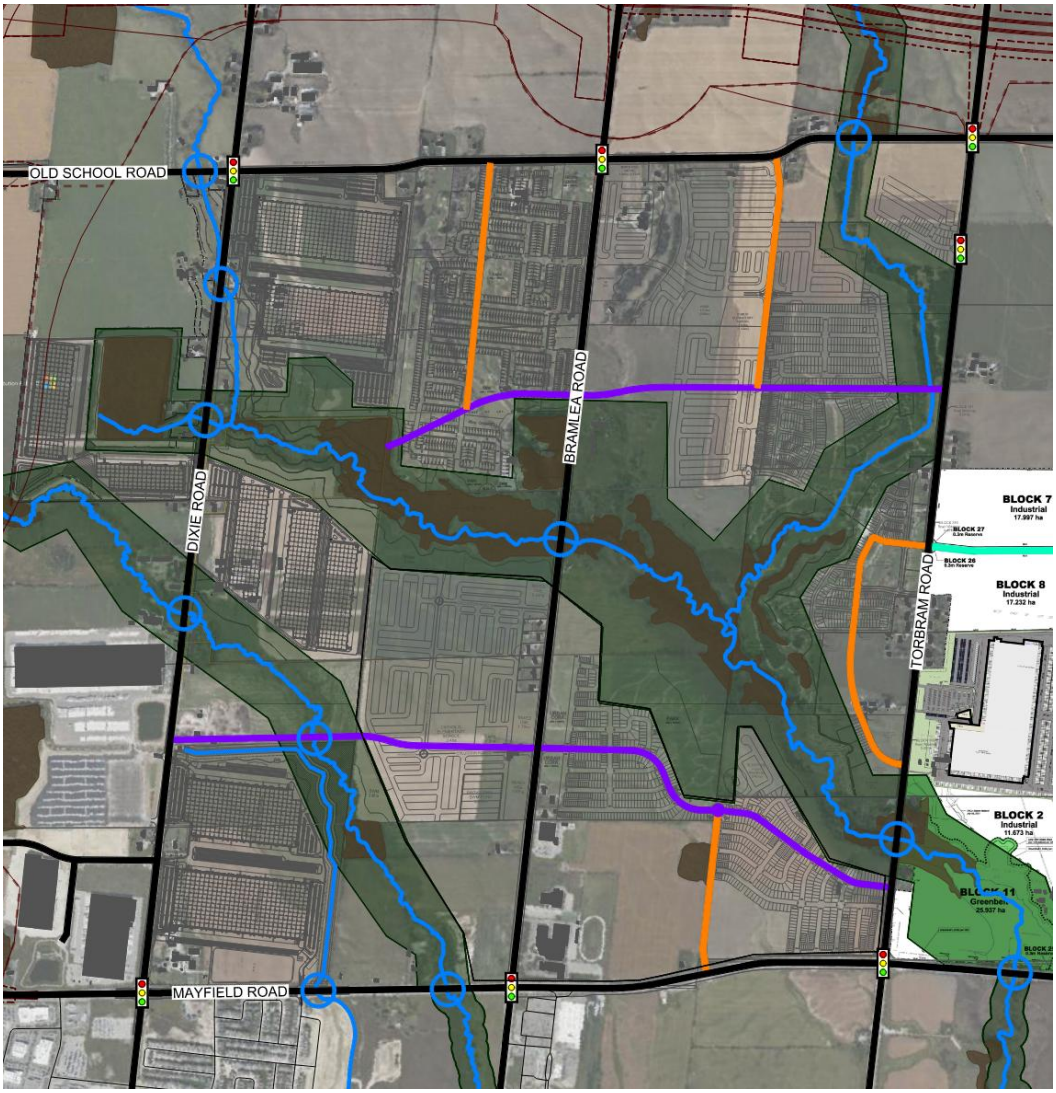


Figure 2-14: Mayfield-Tullamore Conceptual Collector Road Network, September 18, 2025

2.2.6 Torbram Road to Airport Road

2.2.6.1 TULLAMORE NORTHWEST

C.F. Crozier & Associates Inc. prepared a Transportation Study in support of the Tullamore Northwest Employment Area Secondary Plan, May 2025, and the build-out of the lands bound by Old School Road to the north, the Rice Group Tullamore Lands to the south, Airport Road to the east, and Torbram Road to the west. The study analyzes a conceptual build-out of the area into industrial uses. A concept plan shared by the applicant team on July 16, 2025, is illustrated in **Figure 2-15**, and a revised east-west collector road alignment is illustrated in **Figure 2-16** which was shared on September 16, 2025.

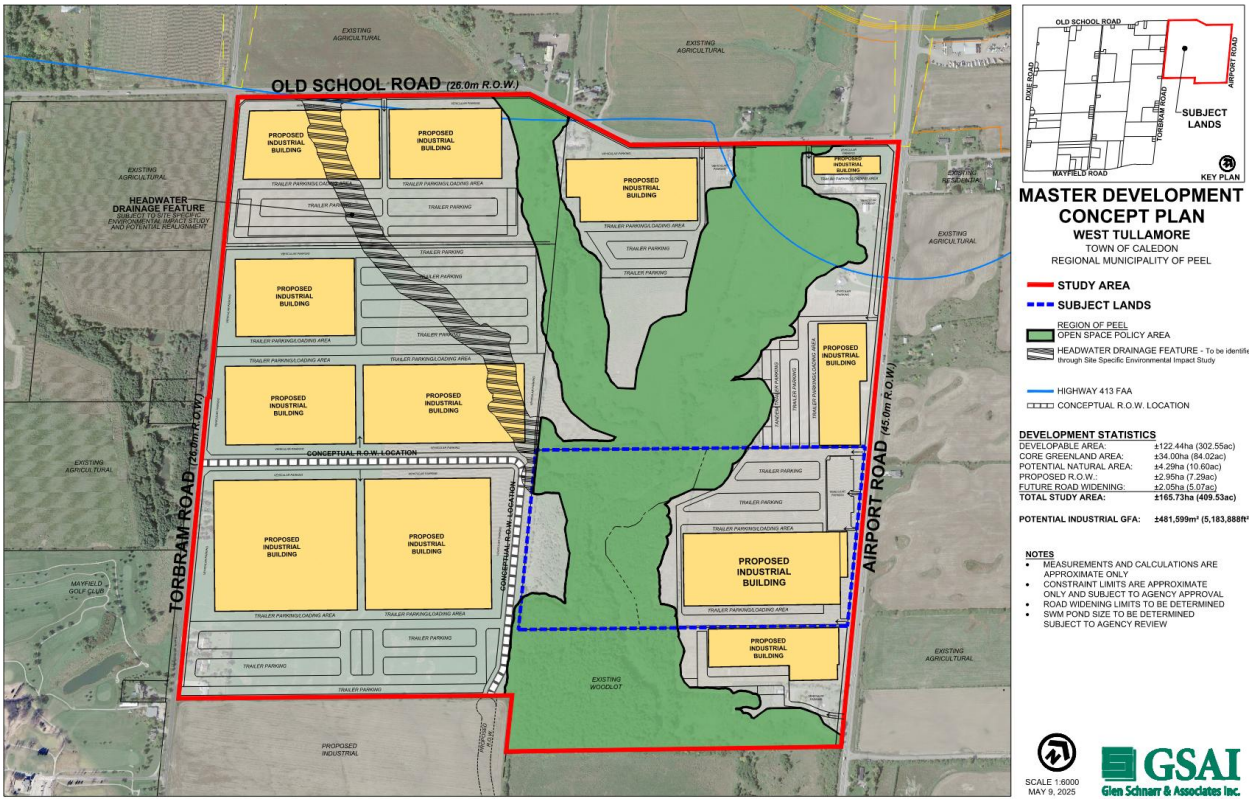


Figure 2-15: West Tullamore Master Development Concept Plan

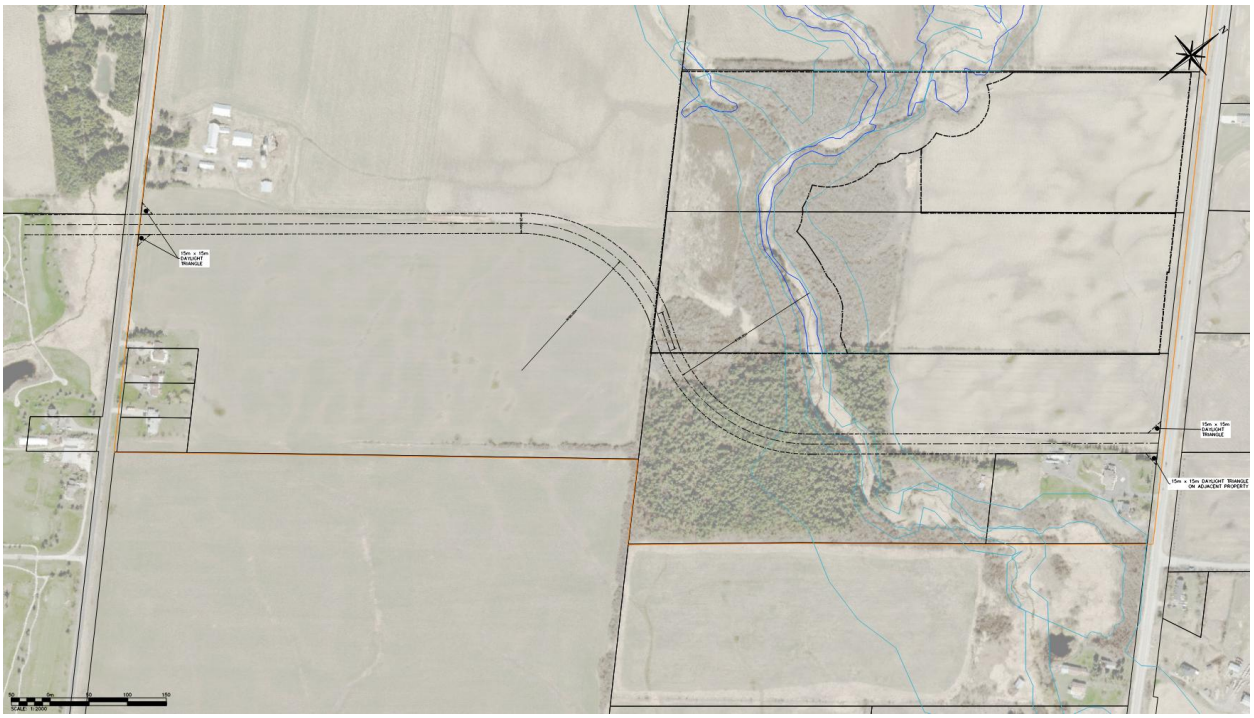


Figure 2-16: West Tullamore East-West Collector Road Option

2.2.6.2 RICE GROUP TULLAMORE LANDS

C.F. Crozier & Associates Inc. prepared the *Tullamore Industrial GP Limited Tullamore Lands Transportation Impact Study*, April 2024, in support of the application for the site which is generally bound by Torbram Road to the west, Mayfield Road to the south, and Airport Road to the east. The development proposes to construct a total of 5,976,891 ft^2 of industrial building GFA across eight buildings. Three internal collector roads are proposed within the site; Street A runs east-west and connects to the existing industrial area's access east of Airport Road, Street B runs north-south throughout the extents of the site midway between Torbram Road and Airport Road, and Street C is located near the northern end of the site. In addition, Block 6 protects for a potential future 26 metre ROW collector roadway just north of Building D. The site plan is illustrated in **Figure 2-17**.

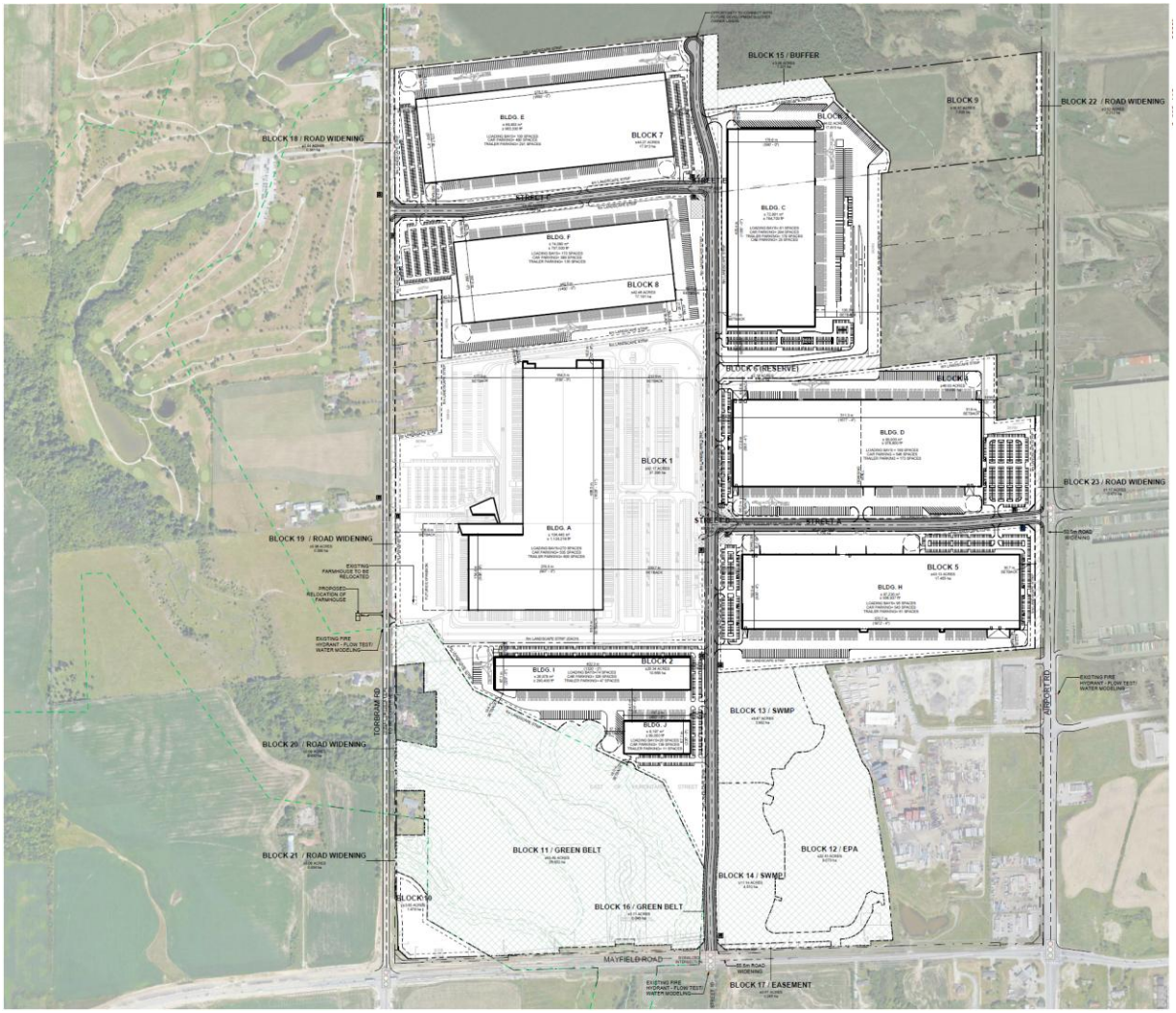


Figure 2-17: Proposed Site Plan Tullamore Lands (Source: Tullamore Industrial GP Limited Tullamore Lands Transportation Impact Study, April 2024)

2.2.7 Airport Road to Humber Station Road

2.2.7.1 WILDFIELD VILLAGE

BA Group prepared the Wildfield Community Transportation Study, November 2024, in support of the development generally bound by Centreville Creek Road to the west, the future Highway 413 to the north, The Gore Road to the east, and Mayfield Road to the south. The development proposes a total of 6,973 residential dwelling units which comprise of single-family homes, townhouses, and apartments. Three east-west collector roads are proposed through the site between Centreville Creek Road and The Gore Road. The middle collector road within the urban corridor will protect for a 26 metre ROW and would best meet the desired ROW for an extended east-west collector corridor. The most recent available Land Use Plan provided by the Town of Caledon, dated June, 2025, is illustrated in **Figure 2-18** for reference. It is noted that a site drawing, dated August 2025, was circulated to HDR; this drawing was used to identify the fixed internal road network in the Wildfield Village site.

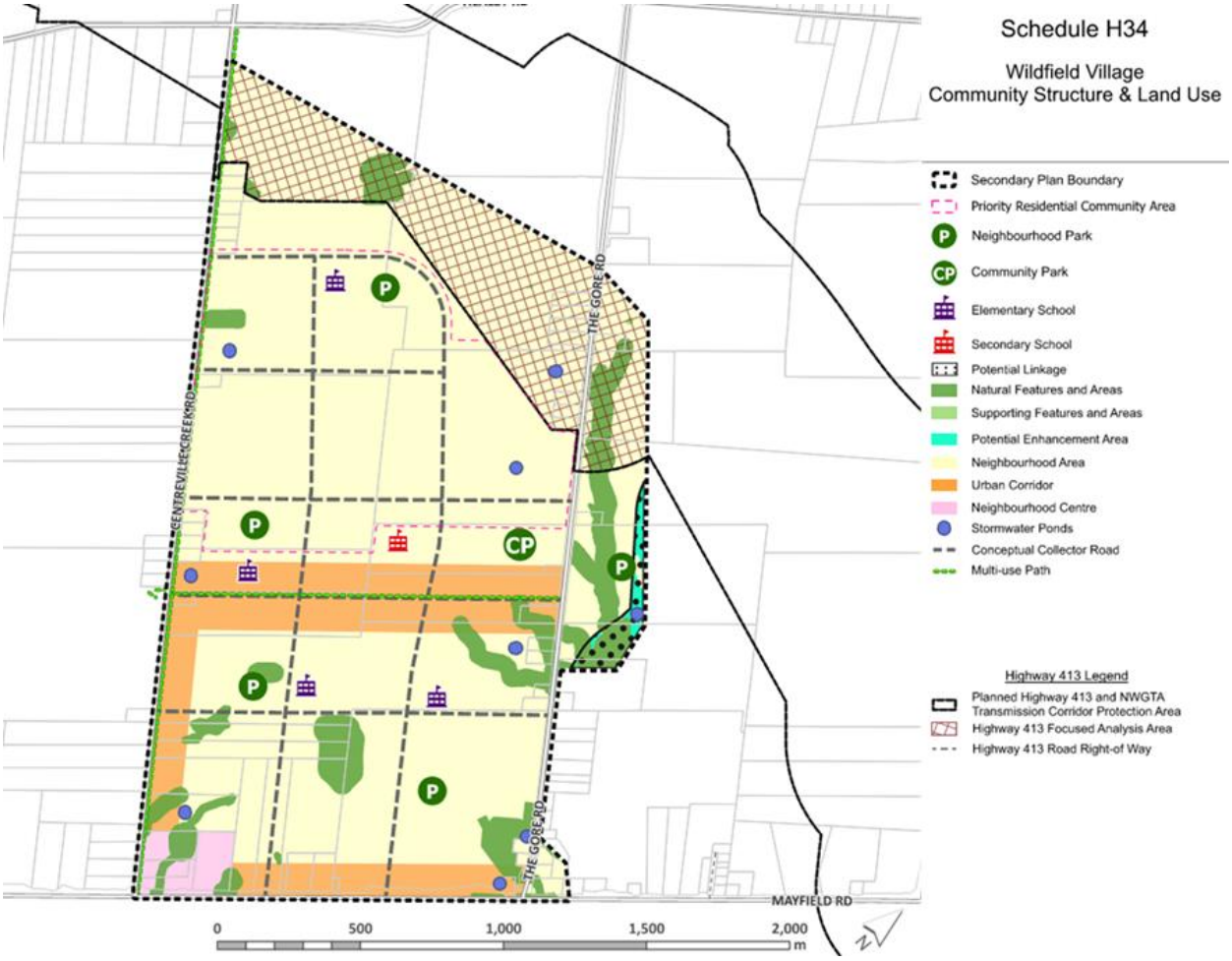


Figure 2-18: Land Use Concept Plan Wildfield Village, June, 2025

3. Environmental Opportunities and Constraints

The MMTMP Addendum reviewed the natural heritage features within the Study Area to inform the selection and evaluation of the alignment alternatives. The review was based on a desktop analysis of available information.

The MMTMP Addendum undertakes a functional design level of detail (i.e. 10% design) for the horizontal alignments, and vertical alignments at crossing locations. Additional technical studies (i.e. natural environment, terrestrial & aquatic biology, cultural & archaeological assessments, stormwater and drainage, fluvial geomorphology, hydrogeology, geotechnical engineering, structural engineering, etc.) will be required to confirm the preferred alignment and to prepare a preliminary design (30%) level of detail and beyond.

The subsections below summarize the review of existing natural heritage conditions.

3.1 Natural Heritage

The study area captures a large portion of southern Caledon, covering approximately 62 square kilometres of land. This land is largely comprised of agricultural uses and includes urban residential neighbourhoods such as those adjacent to Dougall Avenue, and Tim Manley Avenue, as well as rural residential properties.

As shown in **Figure 3-1**, the study area lands are designated as New Community Area and New Employment Area and contain several large natural features. Natural heritage features include tributaries of the West Humber River, Etobicoke Creek, and Salt Creek. These warmwater streams support both baitfish and sportfish communities. TRCA classifies these watercourses as small riverine warmwater systems within Management Zone 4 that targets darter species. Natural Features, hazards, and areas that are regulated under the Conservation Authorities Act and Ontario Regulation 41/24 include the watercourse and wetland features within the project limits.

The valleylands and tableland woodlands found within the study area are identified as “Environmental Policy Area” in the Coleraine West Employment Area (Schedule C-7) of the Caledon Official Plan (April 2018 Consolidation). These Natural Heritage Features provide habitat opportunities for a variety of wildlife including Species of Conservation Concern. Species of Conservation Concern (SCC) collectively include species which are designated Federally under the Species at Risk Act (SARA), provincially under the reformed Species Conservation Act (Formally the Endangered Species Act, 2007), new regulations under Schedule 1 of the Migratory Bird Act Regulations and regional/ locally significant flora and fauna species. Several SCC species were documented within or have known habitat opportunities identified through previous studies (LGL, 2022). As an example, woodland and grassland species (e.g. grassland birds Bobolink (*Dolichonyx oryzivorus*), Eastern Meadowlark (*Sturnella magna*) both Threatened), Barn Swallow (*Hirundo rustica* delisted to Special Concern), and SCC insects (e.g. Monarch Butterfly (*Danaus plexippus)* which is Endangered Federally also have habitats present within the study area. Aquatic SCC which may occur within the four main watercourses

within the project limits include Redside Dace (*Clinostomus elongatus*). Redside Dace (Endangered) habitat has been mapped by the Department of Fisheries and Oceans (Aquatic SAR Mapping updated 2025) as Critical Habitat.

As the project progresses, updates to SCC species will be required. The above examples are not exhaustive. As species statuses may change, and/or as new habitat information becomes available, it will be important to review and update potential habitat. The SCC review should be a living document. For example, the process under the reformed Species Conservation Act 2025 is changing, especially how habitat and impacts are defined. Furthermore, SCC status is also changing. For example, in addition to the existing four species of bats already designated as Endangered, another three species are currently undergoing review thus making seven of the eight bat species occurring in Ontario Endangered. Other species, for example Black Ash (*Fraxinus nigra*) designated as Endangered, and Sch 1 protected cavity trees (e.g. Piliated Woodpecker (*Dryocopus pileatus*)) may also occur. Bats, vegetation and avian SCC species habitats are expected to be associated with woodlands, fallow fields/meadows, wetlands, watercourses and naturalized corridors (Natural Heritage Features) throughout the study area.

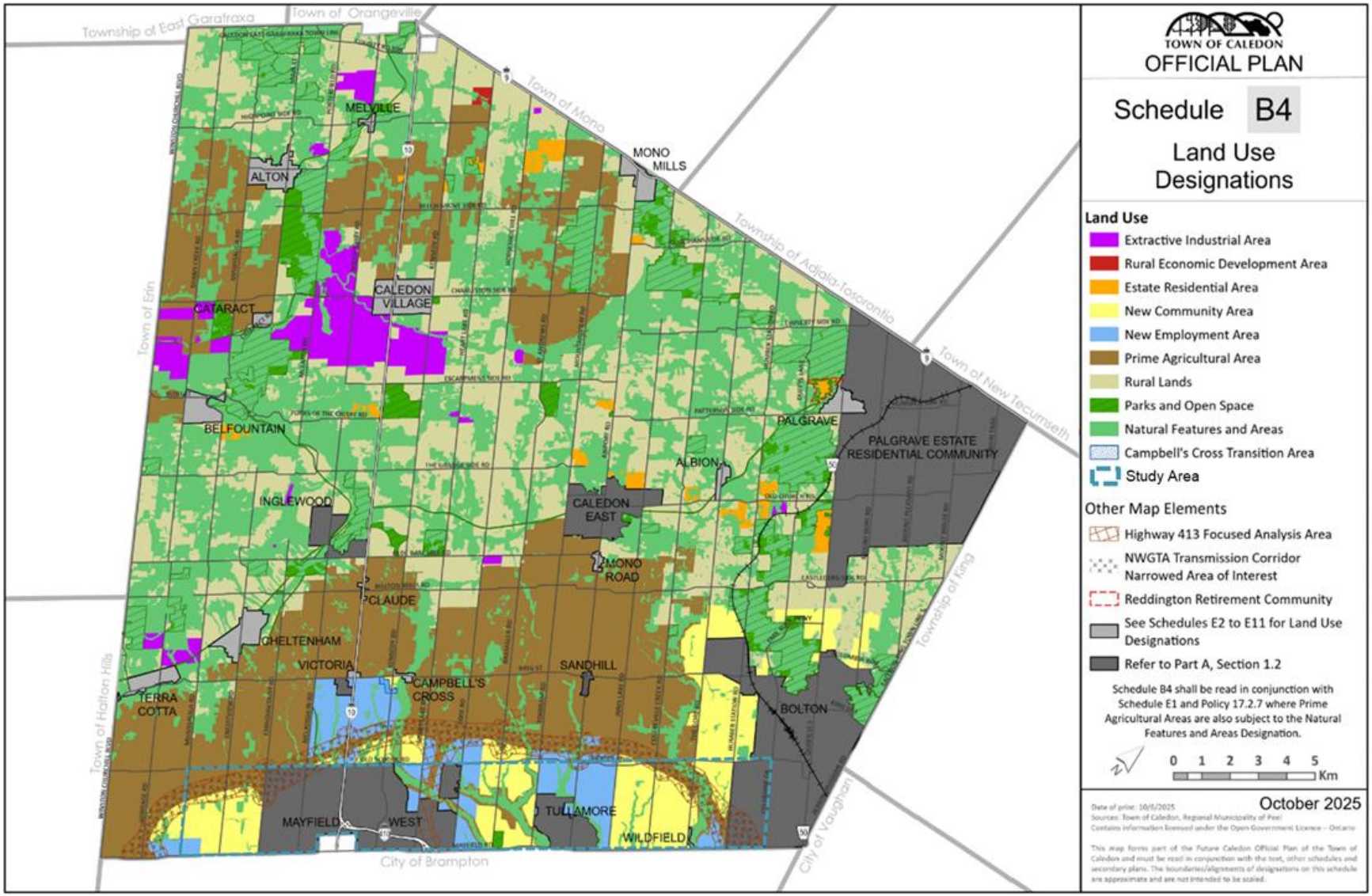


Figure 3-1: Land Use Designations (Source: Future Caledon Official Plan, October 2025)

3.2 Source Water Protection

The Clean Water Act, 2006 (CWA) ensures communities protect their drinking water supplies through prevention by developing collaborative, watershed-based source protection plans that are locally driven and based on science. Based on information retrieved from the Source Protection Information Atlas, the Study Area falls within Highly Vulnerable Aquifers (HVAs) and Significant Groundwater Recharge Areas (SGRAs) as identified under the CWA. The HVAs are illustrated in **Figure 3-2**, and the SGRAs in **Figure 3-3**.

A HVA can be easily changed or affected by contamination from both human activities and human processes as a result of its intrinsic susceptibility (as a function of the thickness and permeability of overlaying layers), or by preferential pathways to the aquifer. A SGRA supplies a community or private residence with drinking water and is characterized by porous soils, which allow water to seep easily into the ground and flow to an aquifer.

Potential threats associated with the new collector roads, per the Clean Water Act, 2006, include:

- The establishment, operation, or maintenance of a system that collects, stores, transmits, treats, or disposes of sewage (limited to stormwater runoff);
- The application of road salt; and
- The storage of snow (limited to roadway clearing operations only).

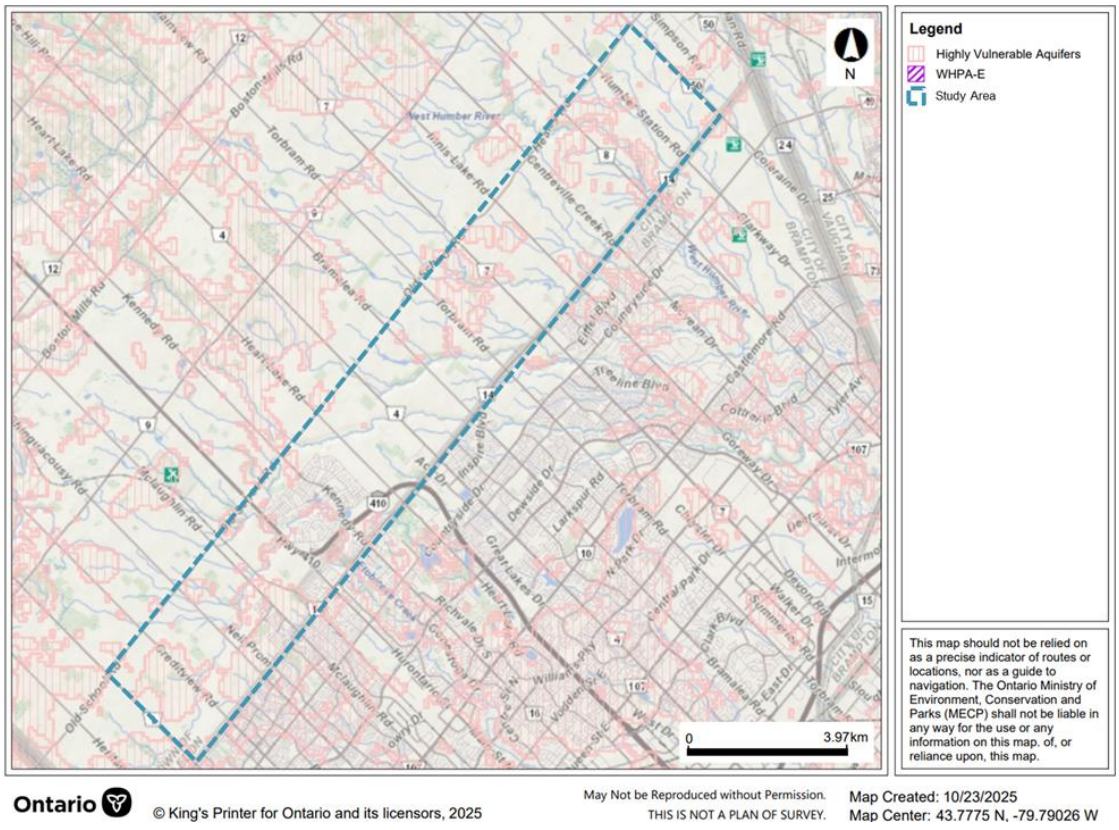


Figure 3-2: Highly Vulnerable Aquifers

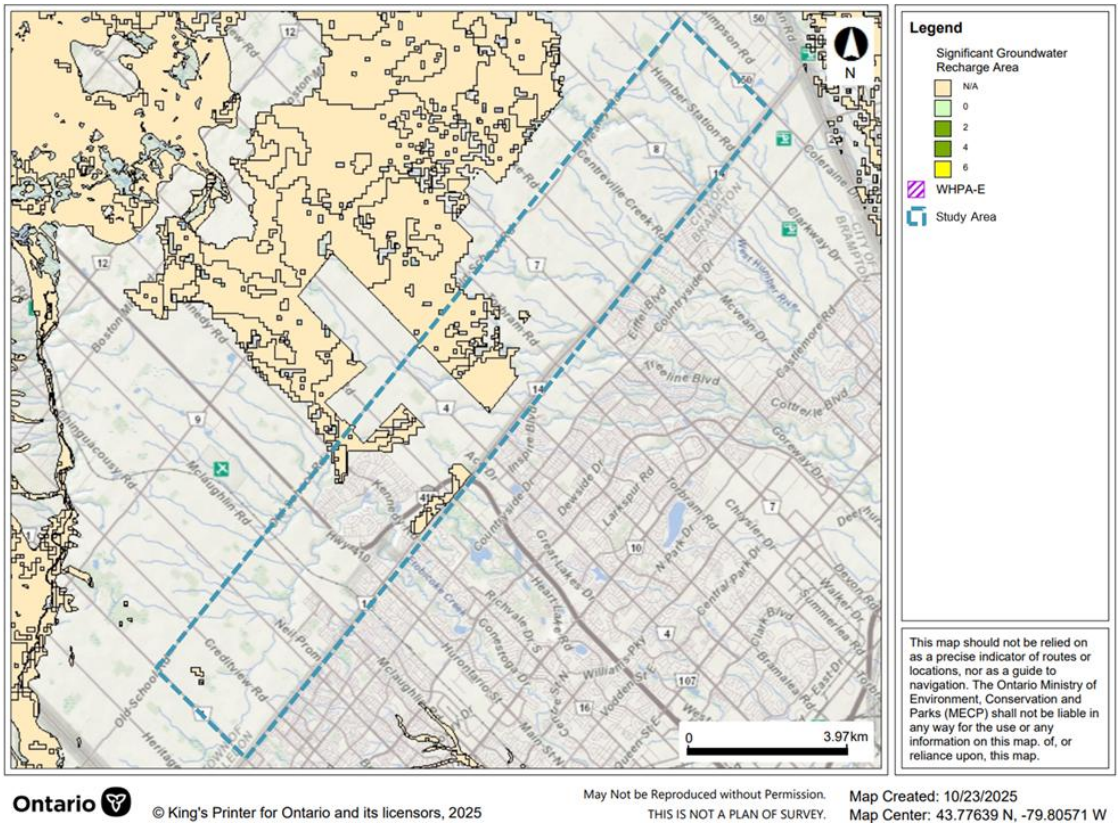


Figure 3-3: Significant Groundwater Recharge Area

3.3 Cultural Heritage

An illustration of the Town of Caledon's Heritage Registry for the study area, as of November 2025, is provided below in **Figure 3-4**. This map shows both properties that are designated under Part IV of the Heritage Act, and properties that are "non-designated" which have been listed on the Town's Municipal Heritage Register but not have yet been formally designated. Part IV of the Heritage Act conveys legal protection and requires heritage permits for any alterations or demolition, while a non-designated listing requires a 60-day notice for demolition to give the Town time to consider designation.

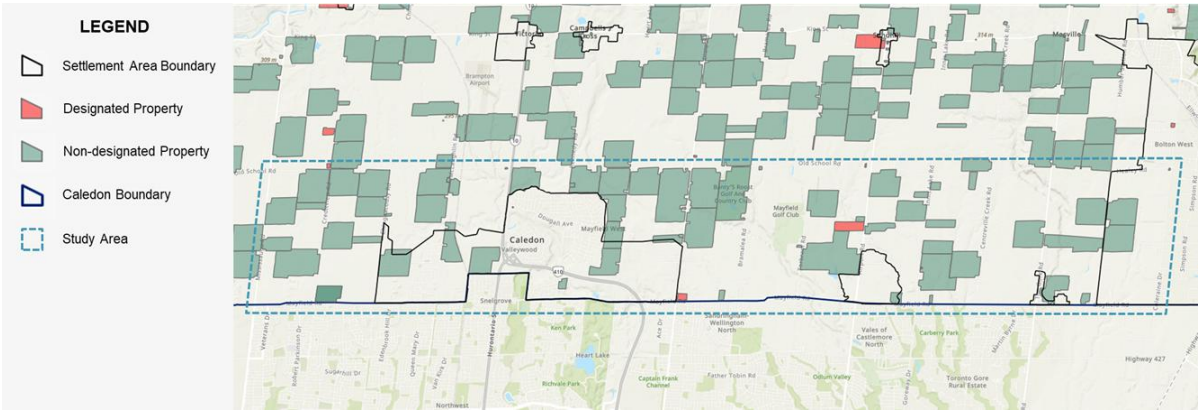


Figure 3-4: Town of Caledon Heritage Registry Map

Designated heritage features within the MMTMP Addendum study include:

- 12542 Airport Road: The Robinson Farmhouse; a rare and early example of a pre-1851 brick dwelling.
- 12295 Innis Lake Road: The Salem United Church structure was built in circa 1862 and was designated due to its architectual and historical value.
- 12035 Dixie Road: The Hearn House; a historical home built between 1847 and 1861, with its historical or associative value found in its direct association with two prominent Chinguacousy families, Hearn and Cation.

Technical cultural heritage studies have not been undertaken as part of this MMTMP Addendum and will be undertaken in subsequent phases of study.

It is expected that archaeological assessments will be undertaken by developers to satisfy MCEA and Indigenous community requirements. These assessments are to be undertaken by an archaeologist licensed under the Ontario Heritage Act. Archaeological assessment reports must be submitted for MCM review prior to the completion of the subsequent environmental assessments and prior to any ground disturbance.

3.4 Climate Change

As communities and infrastructure projects develop, it is important to account for and limit the impact on the natural environment and climate change and ensure that these works are developed to withstand future changes in weather and storm patterns. This study qualitatively considers climate change by aiming to limit impacts on natural heritage features, wildlife, watercourses, as well as mitigating greenhouse gas emissions by reducing vehicle travel times, vehicle hours travelled, and promoting active transportation.

4. Transportation Opportunities and Constraints

This section details the planned improvements to the transportation network. These improvements will provide an opportunity to support the growth in population and employment but will also add new constraints both temporally (when the improvements are implemented) and physically (e.g. the difficulty of creating a crossing of the future Highway 413). These improvements will help inform the future context for the selection of the alignment alternatives and will be incorporated into the 2051 horizon year baseline modelling. The conceptual collector road layout identified in the 2024 MMTMP is illustrated in **Figure 4-1**, which highlights gaps in the network that were imposed by the natural and physical constraints in the study area.

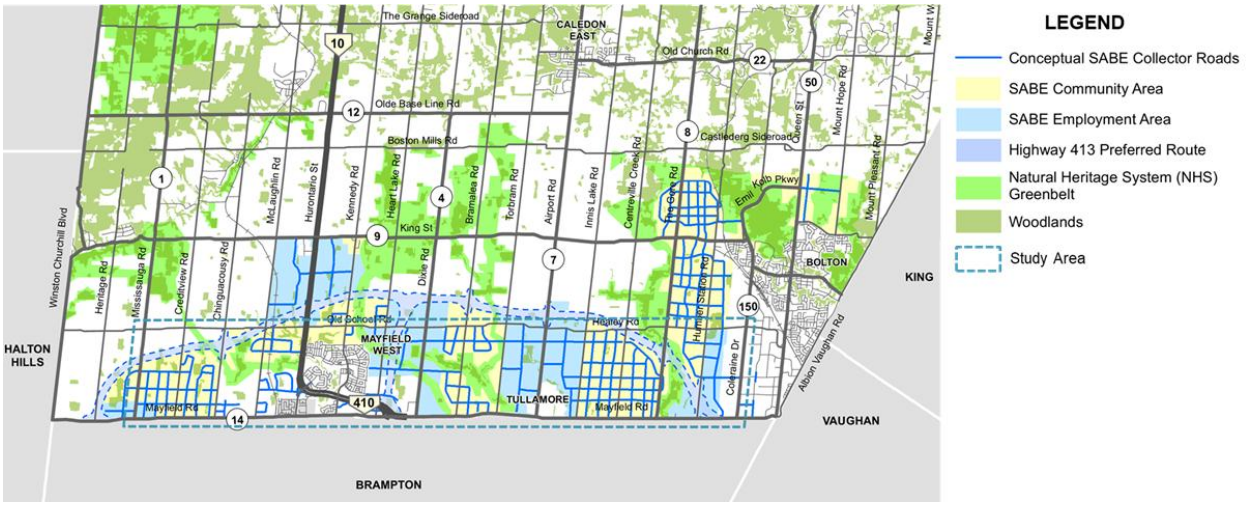


Figure 4-1: MMTMP Conceptual Collector Road Layout (Source: MMTMP, 2024)

The following subsections provide detailed descriptions of the planned improvements. A summary of the 2051 planned network improvements by jurisdiction is illustrated in **Figure 4-2**, with a summary of the developer-led works illustrated in **Figure 4-3**.

It is noted that the Town of Caledon is currently engaged in discussions with the MTO regarding several key items, including the protection of future highway crossings along Dougall Avenue and Abbotside Way past the Highway 410 northerly extension, the westerly extension of George Bolton Parkway past the future Highway 413 alignment, the proposed east-west intersection spacing at Chinguacousy Road between the east-west collector road and the future highway 413 interchange, the downloading of Highway 10 to the Town, and the construction of the Highway 410/Highway 10 and Valleywood interchange. These discussions are currently ongoing, and details are subject to change.

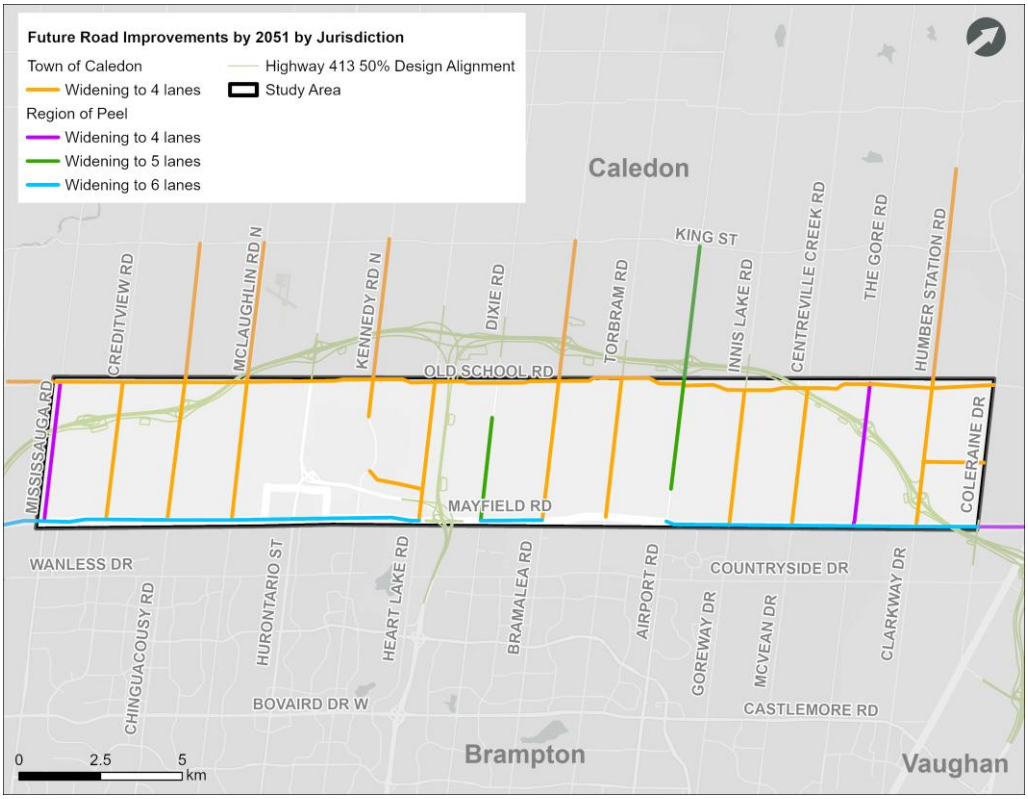


Figure 4-2: 2051 Network Improvements by Jurisdiction

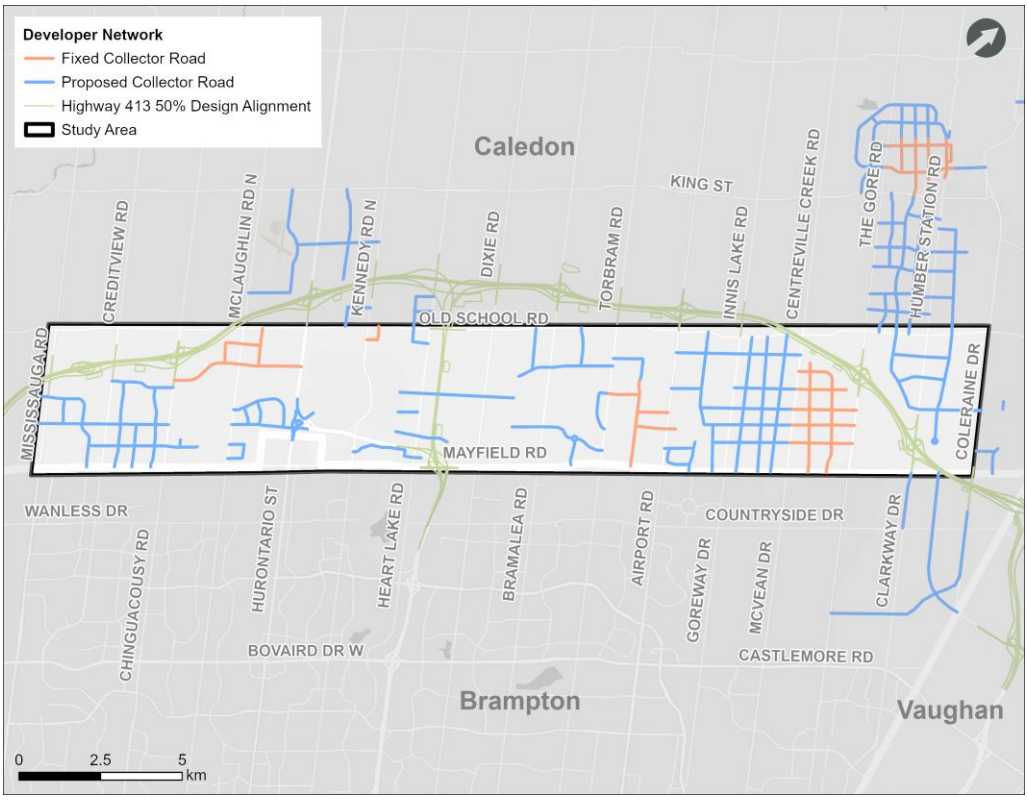


Figure 4-3: Developer-led Network Improvements

4.1 Planned Network Improvements

4.1.1 Highway 413 / GTA West

Highway 413 (or GTA West Corridor) is a proposed 400-series highway connecting Highway 400 north of Kirby Road to the interchange of Highway 407 and Highway 401. Highway 413 interchanges are proposed at Humber Station Road, The Gore Road, Airport Road, Bramalea Road, the Highway 410 extension, Hurontario Street, and Chinguacousy Road within the study area and will serve as a key east-west connection for future residents and workers in the NUA lands.

The alignment of Highway 413 will introduce a constraint for the extension of George Bolton Parkway between Humber Station Road and The Gore Road, as a grade crossing of the highway will be required. In addition, MTO's Highway Corridor Management Manual indicates an 800-metre desirable intersection spacing requirement for intersections adjacent to freeway ramp terminals which may constrain the location of future intersections along the alignment alternatives. Where intersections would not meet the 800-metre threshold, documentation can be provided to justify spacing reductions.

4.1.2 Highway 410 Extension

Highway 410 currently has a northern terminus at Snelcrest Drive, north of Hurontario Street in the Town of Caledon. Highway 410 is proposed to be re-aligned and extended to intersect via an interchange with Highway 413 north of Old School Road, between Heart Lake Road and Dixie Road. Similar to the future Highway 413 alignment, the extension of Highway 410 will introduce new constraints in the study area by requiring a grade crossing for any east-west extensions between Heart Lake Road and Dixie Road, most notably the extensions of Dougall Avenue and Abbotside Way to the east.

4.1.3 Highway 410 and Hurontario Street Interchange Improvements

The Town of Caledon is undertaking improvements at the interchange of Highway 410 with Hurontario Street to support the Mayfield West Phase 2 community. The project includes constructing Tim Manley Avenue and its connection to the existing Highway 410 interchange, reconfiguring the interchange with three new ramp alignments, widening and realigning existing ramps, and realigning Hurontario Street and Valleywood Boulevard. As of the time of writing the MMTMP Addendum report, construction on the interchange improvements project has broken ground.

4.1.4 Town of Caledon Improvements

The June 2024 Town of Caledon Multi-Modal Transportation Master Plan and the GMPP identify many improvements to the transportation network within the study area, including a westerly extension of George Bolton Parkway to Humber Station and the widening to four lanes for Old School Road and nearly all north-south roadways within the Caledon MMTMP Addendum study area that are under the Town's jurisdiction. The future roadway widenings and extensions are shown in **Table 4-1** and **Figure 4-4**.

The Caledon MMTMP and Active Transportation Master Plan also identify future active transportation, as shown in **Figure 4-5** and **Figure 4-6**. Future physically separated active

transportation facilities are identified along the entirety of Old School Road and all north-south corridors within the Addendum study area. The transit improvements include the Bolton GO Rail with a GO station near King Street and Humber Station Road, and proposed transit corridors on Old School Road, Mayfield Road, and all north-south corridors within the study area. The proposed transit network from the Caledon MMTMP is shown in **Figure 4-7**.

A Schedule "C" Municipal Class Environmental Assessment (MCEA) is currently being undertaken by LEA Consulting Ltd. and the Town of Caledon for the extension of George Bolton Parkway from its current terminus west of Coleraine Drive to Humber Station Road.

Table 4-1: Town of Caledon Road Network Improvements (Source: GMPP, 2024)

Road	From	To	Improvement	Horizon Year
Abbotside Wy	Bonnieglen Farm Blvd	Heart Lake Rd	Extension (4 lanes)	2031
Albion Vaughan Rd	Mayfield Rd	King St	Widen from 2 to 4 lanes	2041
Bramalea Rd	Mayfield Rd	King St	Widen from 2 to 4 lanes	2041
Caledon King Townline	King St	Columbia Wy	Widen from 2 to 4 lanes	2041
Centreville Creek Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2041
Chinguacousy Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2031
Chinguacousy Rd	Old School Rd	King St	Widen from 2 to 4 lanes	2051
Columbia Wy	Regional Rd 50	Caledon King Townline	Widen from 2 to 4 lanes	2041
Creditview Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2051
George Bolton Pkwy	W of Coleraine Dr	Humber Station Rd	Extension (4 lanes)	2031
Healey Rd	The Gore Rd	Coleraine Dr	Widen from 2 to 4 lanes	2031
Healey Rd	Airport Rd	The Gore Rd	Widen from 2 to 4 lanes	2041
Heart Lake Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2051
Heritage Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2051
Humber Station Rd	Mayfield Rd	North of King St	Widen from 2 to 4 lanes	2031
Innis Lake Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2041
Kennedy Rd	Newhouse Blvd	Old School Rd	Widen from 2 to 4 lanes	2031
Kennedy Rd	Old School Rd	King St	Widen from 2 to 4 lanes	2041
McLaughlin Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2031
McLaughlin Rd	Old School Rd	King St	Widen from 2 to 4 lanes	2051
Old School Rd	Winston Churchill Blvd	Airport Rd	Widen from 2 to 4 lanes	2041
Torbram Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2031



Figure 4-4: Town of Caledon Road Network Improvements (Source: Caledon Growth Management/Phasing Plan and Financial Impact Assessment, 2024)

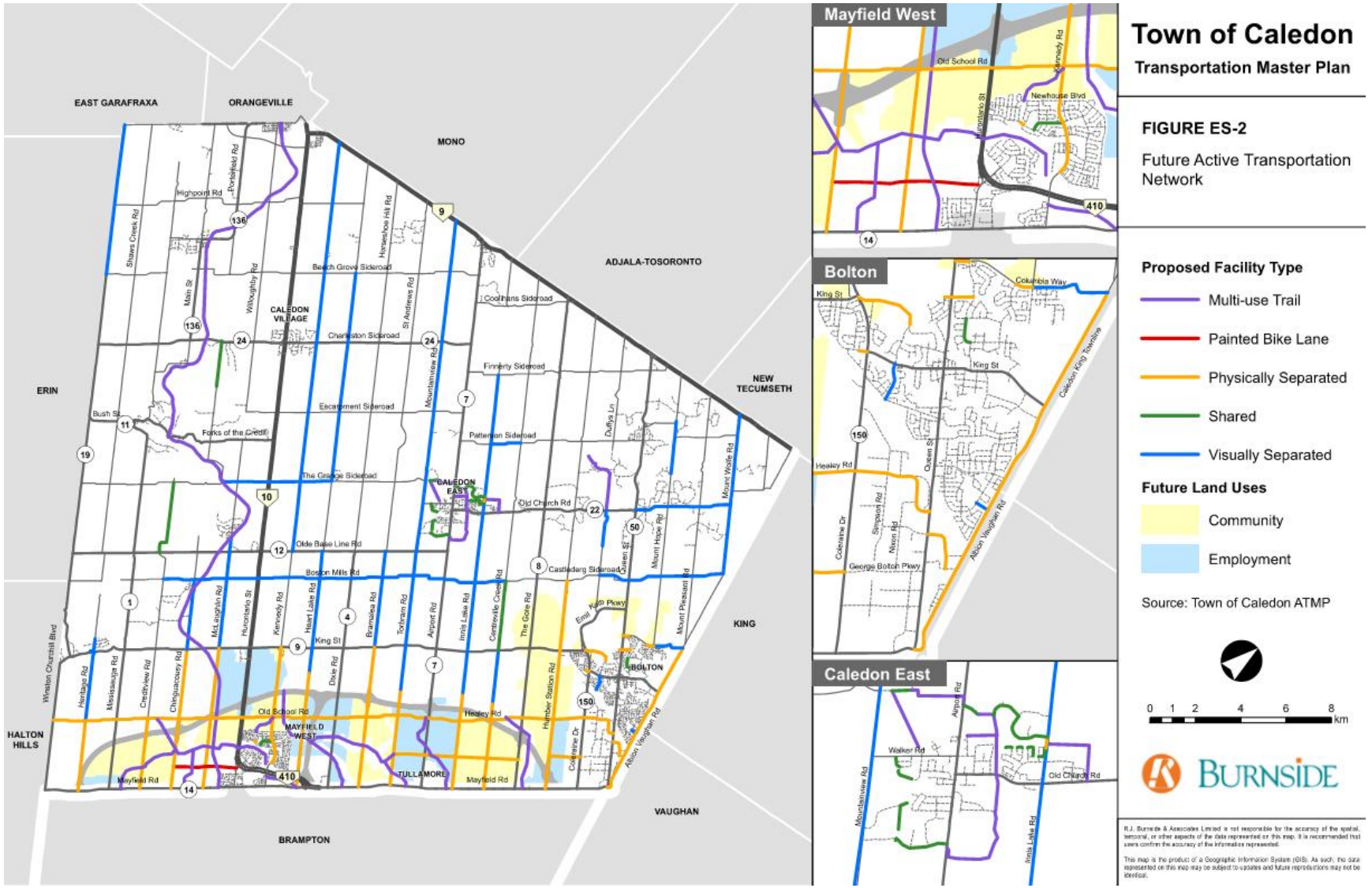


Figure 4-5: Town of Caledon Active Transportation Network Improvements (Source: Caledon MMTMP, 2024)

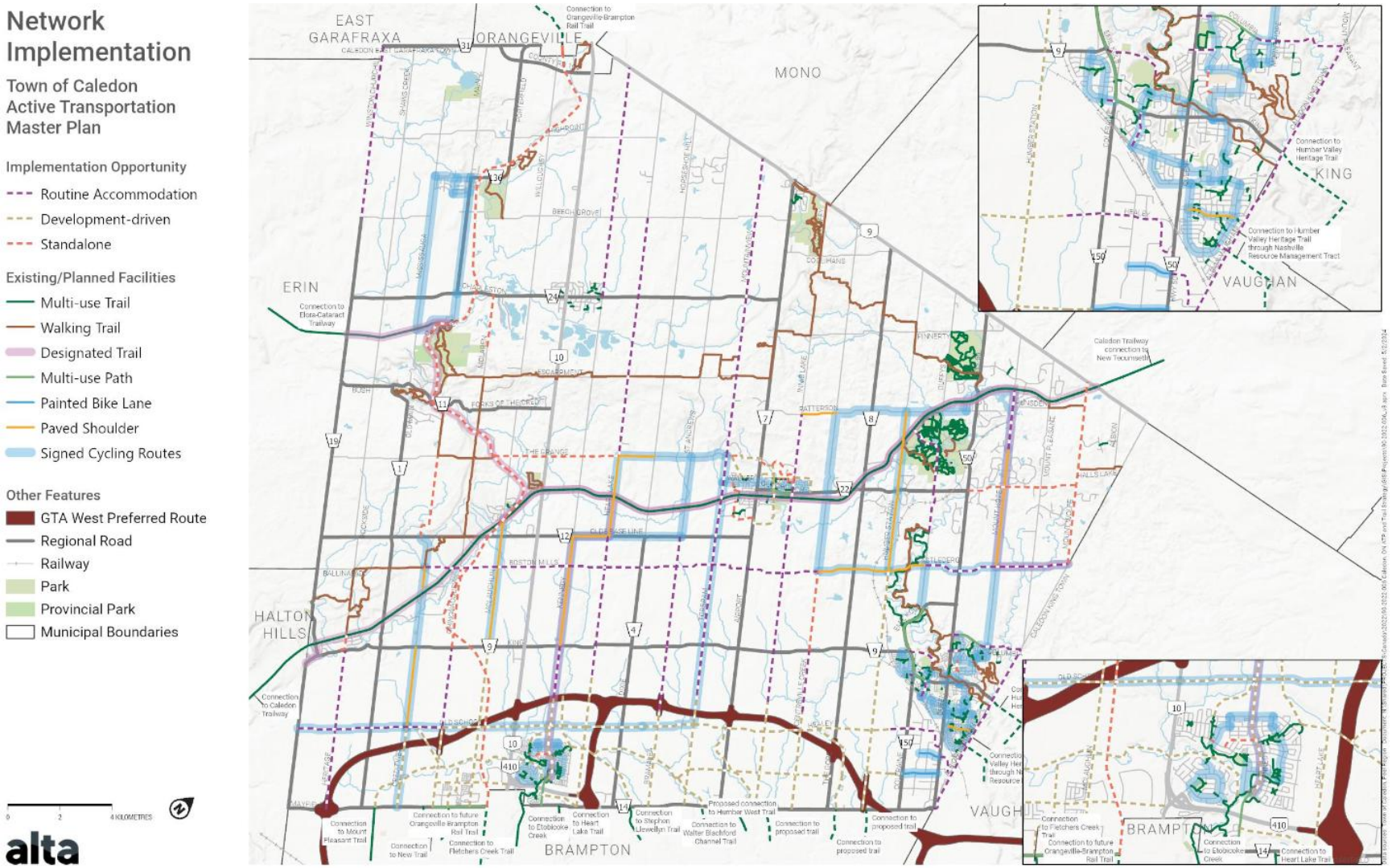


Figure 4-6: Active Transportation Network Implementation (Source: Caledon Active Transportation Master Plan, 2024)

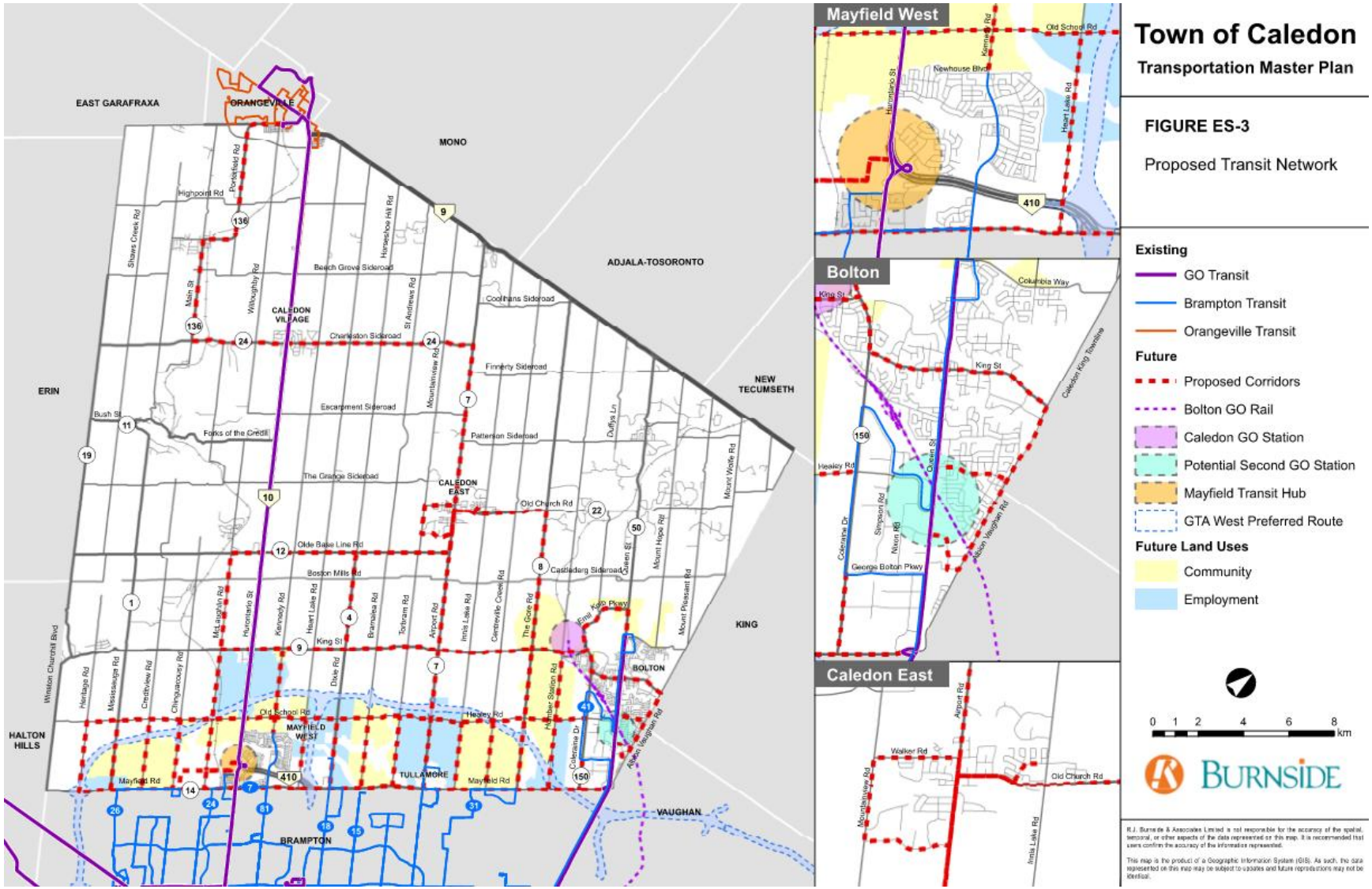


Figure 4-7: Town of Caledon Transit Network Improvements (Source: Caledon MMTMP, 2024)

4.1.5 Region of Peel Improvements

The Long Range Transportation Plan (LRTP), published by the Region of Peel in 2019, identifies the planned widenings along the Region's roads for the 2031 and 2041 horizon years. To capture the most up-to-date information for near-term road widenings, the 10-year capital improvements program from the Region of Peel's 2024-2027 Business Plan and 2024 Budget was used to identify improvements for the 2033 horizon year. All other improvements are from the 2019 LRTP. The 2033 and 2041 horizon year improvements are illustrated in **Figure 4-8** and detailed in **Table 4-2**. The planned improvements include several widenings along Mayfield Road, The Gore Road, Airport Road, and Mississauga Road within the study area.

Table 4-2: Region of Peel Road Network Improvements (Source: 10-Year Capital Program, and 2019 Long Range Transportation Plan)

Road	From	To	Improvement	Horizon Year
Airport Rd	1.0km N of Mayfield Rd	King St	Widen from 2 to 5 lanes	2033
Coleraine Dr	Highway 50	Mayfield Rd	Widen from 2 to 4 lanes	2033
Dixie Rd	Countryside Dr	Mayfield Rd	Widen from 2 to 4 lanes	2033
Dixie Rd	Mayfield Rd	2 km northerly	Widen from 2 to 5 lanes	2033
The Gore Rd	Mayfield Rd	Healey Rd	Widen from 2 to 4 lanes	2041
Highway 50	Castlemore Rd	Mayfield Rd	Widen from 5 to 7 lanes	2033
Mayfield Rd	Coleraine Dr	Highway 50	Widen from 2 to 4 lanes	2033
Mayfield Rd	The Gore Rd	Coleraine Dr	Widen from 2 to 4 lanes	2033
Mayfield Rd	Clarkway Dr	Coleraine Dr	Widen from 4 to 6 lanes	2041
Mayfield Rd	Airport Rd	Clarkway Dr	Widen from 5 to 6 lanes	2033
Mayfield Rd	Airport Rd	The Gore Rd	Widen from 2 to 5 lanes	2033
Mayfield Rd	Dixie Rd	Bramalea Rd	Widen from 5 to 6 lanes	2033
Mayfield Rd	Heart Lake Rd	Hurontario St	Widen from 4 to 6 lanes	2033
Mayfield Rd	Hurontario St	Chinguacousy Rd	Widen from 2 to 6 lanes	2033
Mayfield Rd	Chinguacousy Rd	Mississauga Rd	Widen from 2 to 5 lanes	2033
Mayfield Rd	Chinguacousy Rd	West of Mississauga Rd	Widen from 5 to 6 lanes	2041
Mayfield Rd	Mississauga Rd	Winston Churchill Blvd	Widen from 2 to 4 lanes	2033
Mayfield Rd Ext	Mayfield Rd	Highway 50/Major Mackenzie Dr	Future six (6) lane urban road	2033
Mississauga Rd	Mayfield Rd	Old School Rd	Widen from 2 to 4 lanes	2041
The Gore Rd	Squire Ellis Dr	Mayfield Rd	Widen from 2 to 4 lanes	2033

Note: The 10-year capital improvements program from the Region of Peel's 2024-2027 Business Plan and 2024 Budget was used to identify near-term improvements for the 2033 horizon year, and the 2019 Long Range Transportation Plan was used to identify longer-term improvements to the 2041 horizon year.



Figure 4-8: Region of Peel Road Network Improvements (Source: Caledon Growth Management/Phasing Plan and Financial Impact Assessment, 2024)

4.2 Needs Assessment

This section details the anticipated issues within the study area based on the planned transportation described above, and the benefits that the east-west collector roadways would present through improved connectivity.

4.2.1 Transit

The proposed transit corridors within Caledon and adjacent lands in Brampton and Vaughan are illustrated in **Figure 4-7**. Under the future network identified by the Caledon MMTMP, transit coverage throughout the study area will be limited to Old School Road, Mayfield Road, and the north-south corridors between the two. Any east-west transit links between the north-south corridors will be limited to developments that propose these connections. Other, local routes within neighbourhoods could also be provided, but can result in inefficient transit routes and higher service costs.

The provision of continuous east-west corridors between Old School Road and Mayfield Road would provide the following benefits for transit.

Route Coverage

With improved connectivity from the east-west collector roadway network, better transit coverage can be achieved with fewer routes and vehicles, as more continuous and efficient routes can be provided between the communities within the study area. Without these improvements, transit passengers that are looking to travel within the NUA would need to take more circuitous routes that detour to Old School Road or Mayfield Road first before looping back into the core of the NUA.

Significant demand is expected between the residential and employment lands within the NUA zones (as well as existing neighbourhoods), and provision of transit routes that travel directly between these zones would provide convenient and cheap methods of transportation for residents and workers and help support sustainable modes of transportation and reduce reliance on single occupant vehicles.

A more fine-grained transit network would also better support the residents and employees within the centre of the blocks between the north-south corridors by reducing the distance to transit stops. The proportion of people that are willing or able to walk to a transit stop is highly dependent on the distance to the transit stop. With north-south corridors being spaced approximately 1.5 kilometres apart, provision of more refined transit routes east-west will improve the transit catchment area.

Route Flexibility

Provision of more connections between the north-south corridors between Old School Road and Mayfield Road would give transit providers more options for transit routes while reducing bottlenecking at Mayfield Road and Old School Road when buses need to turn to service the rest of the NUA lands. Requiring all routes servicing the NUA lands to turn at Old School Road or Mayfield Road could exacerbate delays and congestion at intersections. As shown in

Appendix A, turning movements at key intersections with Old School Road and Mayfield Road are projected to experience high delays, and these delays would be experienced by all passengers on the buses.

Transit Transfers

With fewer intersecting transit corridors, it will become harder to facilitate convenient transfers between north-south and east-west routes.

4.2.2 Active Transportation

The 2024 Caledon MMTMP identifies future physically separated active transportation facilities along Old School Road, the north-south corridors, and east-west through some development areas within the MMTMP Addendum study area, as illustrated in **Figure 4-5**. In addition, multi-use trails are also identified through some development lands to provide additional connections between NUA lands. These improvements would increase the safety and adoption of active modes of transportation within the study area but would still result in pedestrians and cyclists potentially having to detour long distances to reach continuous east-west connections and would require them to travel adjacent to busy arterial roadways. Improvements in the connectivity in the east-west collector network have the potential to further increase adoption of active modes of transportation, while improving safety and equity.

Connectivity

Introducing east-west collector roads between Old School Road and Mayfield Road could significantly enhance network connectivity for pedestrians and cyclists. Under the future baseline conditions, active transportation routes would rely on Old School Road, Mayfield Road, and winding multi-use paths, resulting in circuitous and lengthy detours. A fine-grained east-west network would provide more direct and logical connections between residential and employment areas, reducing travel distances and improving route efficiency for daily trips, errands, and recreational travel. This improvement supports the Town's vision for a multimodal network by creating a safer and more convenient alternative to high-volume arterial roads, encouraging mode shift away from single-occupancy vehicles.

Safety

Improved east-west connectivity would reduce active transportation trip reliance on high-speed, high-volume corridors such as Mayfield Road and Old School Road, or trail networks which can be less illuminated and maintained. Collector road corridors with dedicated sidewalks, cycling facilities, and protected crossings would minimize exposure to vehicular conflicts and improve comfort for vulnerable road users. These measures align with Vision Zero principles and support safer conditions for pedestrians, cyclists, and micromobility users.

Equity

A more connected east-west collector network would particularly benefit residents who rely on walking or cycling as their primary mode of transportation, including youth, seniors, and low-income households. By reducing travel distances and improving access to transit stops,

employment areas, and community amenities, the network would promote equitable mobility options and reduce transportation barriers. Enhanced connectivity also supports inclusive community-building by ensuring that active transportation facilities are safe, accessible, and integrated throughout the NUA lands.

4.2.3 Automobiles

As per the baseline road network improvements, the network within the MMTMP Addendum study area will primarily see road widenings and an extension of George Bolton Parkway to Humber Station Road. This would result in the current gap of approximately 3 kilometres being largely maintained in the future, except where developments introduce new east-west collector roads. These developments generally do not collaborate with adjacent developments and property owners, which can result in a discontinuous and inefficient network as the area continues to develop, increasing delays and congestion for automobiles. As shown in **Table 1** in **Appendix A**, the east-west collector road would result in notable improvements in operational metrics across the study area, reducing links with volume to capacity ratios above 0.80 by 3.2%, and reducing the total delay by 68 vehicle hours, or 8%.

Additionally, without mid-block alternatives between Old School Road and Mayfield Road, bottlenecking may occur at the left and right turning movements at the intersections with the north-south corridors. This can be observed through the high demands and delays projected on turning movements at the hotspot intersections analyzed in **Table 3** in **Appendix A**. The Synchro analysis shows that the east-west collector roads are generally expected to improve conditions within the study area and mitigate critical operations along Old School Road-Healey Road and Mayfield Road, as drivers are given a mid-block alternative for east-west travel.

In the future 2051 baseline scenario, the Emme segment volume to capacity ratios are generally characterized by acceptable conditions with v/c ratios below 0.80, but pockets of near capacity conditions (v/c between 0.80 and 1.00) and at-capacity conditions (v/c equal to 1.00 or above) are shown. Within the study area, these pockets are largely focused on the existing portion of Highway 410-Highway 10 between Old School Road and Mayfield Road, with the base portion of Tim Manley Avenue operating with ratios of 0.82 to 1.02. Another hotspot area is projected within and around Bolton, with high ratios along Humber Station Road and Coleraine Drive.

4.2.4 Servicing

Servicing refers to the provision and maintenance of essential municipal infrastructure and operations that support community growth and safety. This includes the extension of water, wastewater, and stormwater systems, as well as winter maintenance activities such as snow clearing and salt application, routine roadway upkeep, and waste collection. These services are a critical consideration as the NUA lands transition from largely rural agricultural lands into urban communities.

As the study area continues to develop, the absence of continuous east-west collector roads between Old School Road and Mayfield Road will create gaps in servicing, which may result in less efficient use of land as utilities are forced to take longer paths or dedicate land to utilities with limited other potential residential and business use opportunities. Winter operations such as snow clearing and salting would require indirect routing, resulting in longer service times,

untreated segments, and may result in reduced roadway safety conditions. Waste collection and routine maintenance would face similar inefficiencies, with service vehicles forced to detour through Old School Road or Mayfield Road to reach disconnected internal networks, increasing travel times and operational expenses.

Introducing east-west collector roads to improve network connectivity and continuity would provide logical corridors for extending water, wastewater, and stormwater infrastructure, enabling efficient and cost-effective servicing. These roadways would facilitate utility installation and future upgrades, while improving operational efficiency for snow clearing, salting, and waste collection by reducing route circuity. These improvements would enhance roadway safety during winter months, lower long-term maintenance costs, and ensure resilient municipal operations that keep pace with Caledon's planned growth.

4.2.5 Safety

Safety is a key concern of the Town of Caledon as gaps in the transportation network will worsen the Town's ability to service emergency calls and maintain the road network in the winter months. These safety considerations would benefit from increased network connectivity by providing emergency responders and salting trucks with alternate routes which are less circuitous or allow them to bypass congestion and blockages.

Improved east-west connectivity reduces response times for fire, ambulance, and police vehicles by providing multiple routing options. This is particularly critical during peak congestion periods or when north-south arterials are blocked due to collisions or construction. Redundancy in the network supports resilience during emergencies, enabling detours without significant delays.

Gaps in the network increase route circuity for snowplows and salting trucks, which can delay clearing and lead to unsafe conditions on local roads. In addition, continuous corridors allow for more efficient plowing patterns and reduce the risk of untreated icy patches, improving overall road safety for all users.

As noted previously, without east-west corridors, pedestrians and cyclists may be forced onto high-volume corridors like Mayfield Road, Old School Road, or the north-south corridors within the study area, which increases conflict risk and reduces comfort. Adding protected crossings and continuous active transportation facilities along new collectors would reduce exposure to high-speed traffic and improve safety for vulnerable road users.

In addition, as presented in **Appendix A**, the lack of mid-block east-west alternatives concentrates turning movements at major intersections with Old School Road and Mayfield Road, which worsens congestion and stop-and-go traffic, potentially resulting in higher collision risk.

5. Problem Statement

The Town of Caledon is expecting significant growth from 76,000 people and 42,000 jobs today to 300,000 people and 125,000 jobs by 2051. The NUA lands in particular are expected to accommodate the majority of this growth, with several development applications already underway. While the MMTMP identified a conceptual collector road network within the study area lands, there remain several gaps in east-west network connectivity which will result in inefficient vehicle movements for both cars and transit, traffic congestion hotspots, and major barriers to active transportation and micromobility.

As such, this MMTMP Addendum has been initiated to identify a preferred multimodal transportation network to guide development applications in alignment with the vision established by the MMTMP: By 2051, the Town will have a transportation system that provides accessible, affordable, safe, and sustainable travel choices for all, and is well-integrated, effective to use, promotes healthy life-styles, and supports economic prosperity, livable communities and climate commitments.

While the implementation of major infrastructure projects such as the proposed Highway 413 and the extension of Highway 410 will improve regional vehicular connectivity, they also introduce new physical constraints in addition to the natural heritage corridors which span the NUA lands, thus further complicating the development of an integrated, fine-grained road and transit network. Additionally, more than six developments in the NUA lands have already been approved, inclusive of collector road networks, that will need to be incorporated into overall transportation network planning. Improving multi-modal connectivity through the NUA area presents an important opportunity to proactively address these emerging issues by providing updated direction to landowners. Providing continuous east-west corridors will improve mobility across all modes by:

- Enabling more direct, efficient, and safe travel for pedestrians and cyclists through expanded active transportation facilities.
- Supporting flexible and efficient east-west transit routes, allowing for better coverage and reduced transfers, and improved routing to future high-order transit services.
- Enhancing north-south corridor performance by dispersing traffic and transit movements across the NUA network, reducing bottlenecks.
- Connecting future residential and employment areas more directly, supporting Caledon's goals for sustainable growth and modal shift away from single-occupancy vehicles.

As population and employment growth accelerates, it is imperative that the transportation network evolves in a way that supports community-building, economic development, and climate goals. In alignment with the MMTMP vision, a strategic and integrated approach to planning east-west connections will help unlock the full potential of the NUA lands by enabling accessible, efficient, and equitable travel for current and future residents, workers, and businesses.

6. Alternative Solutions

6.1 Description of Alternatives

Up to four collector road alternatives were developed based on the opportunities and constraints identified in **Section 4** to improve connectivity throughout the study area, as illustrated in **Figure 6-1** and **Figure 6-2**. Each of these alternatives aims to mitigate the perceived impacts, whether it be to natural heritage, developable lands, costs, etc., and the preferred alternative will be determined based on the comparative evaluation in **Section 1.1**. The alternatives have been refined throughout the course of the MMTMP Addendum study, through close coordination with stakeholders, which includes the member of the public, Indigenous communities, the development community, and external agencies.

The alignments are divided into key areas, as certain segments have limited alignment options due to existing neighbourhoods and approved or active development applications.

Table 6-1: Description of Collector Road Alternatives

Alternative	Description
Mississauga Rd to Chinguacousy Road	
1	The east-west collector road generally follows the internal road network proposed for the Alloa development, which provides a continuous connection between Creditview Road and Chinguacousy Road, and a portion of the area between Mississauga Road and Creditview Road. The alignment connecting to Chinguacousy Road is slightly north of the alignment proposed by Alloa and south of the alignment proposed by the Bookvalley Mayfield West Phase 2, Stage 3 development. This location was selected to skirt the approved development just south of this connection point on Chinguacousy Road, and provide as much distance as possible to the future Highway 413 ramps while maintaining east-west collector road continuity.
2	The alignment for Alternative 2 generally follows that of Alternative 1, but curves to the south between Mississauga Road and Creditview Road to provide a more grid-like network and mitigate the curvature and impacts to developable lands associated with Alternative 1.
Chinguacousy Road to Hurontario Street-Highway 10	
1	The alignment follows the internal road network proposed by the Brookvalley Mayfield West Phase 2, Stage 3 development between Chinguacousy Road to Hurontario Street-Highway 10, connecting to Hurontario Street opposite to the current termination point for Dougall Avenue. Dougall Avenue currently terminates just east of Hurontario Street; as part of the east-west corridor improvements, a four-legged intersection is identified at the intersection of Dougall Avenue with Hurontario Street.
Hurontario Street-Highway 10 to Heart Lake Road	
1	The segment of Dougall Avenue between Hurontario Street and Heart Lake Road passes through an existing residential neighbourhood and terminates just east of the intersection with Bonnieglen Farm Boulevard. Dougall Avenue and Abbotside Way are proposed to be extended east to Heart Lake Road and beyond.

Alternative	Description
Heart Lake Road to Torbram Road	
1	Alternative 1 extends Dougall Avenue and Abbotside Way east from Heart Lake Road to Dixie Road, with grade crossings through the extension of Highway 410. The alignment of the Dougall Avenue extension west of Dixie Road is constrained by a fixed development to the north, and an existing site to the south. Two east-west connections are proposed for Alternative 1 between Dixie Road and Torbram Road. The southern connection extends through the 12668 Dixie Road (QuadReal South) site and curves south to travel along a portion of the internal network proposed by the Mayfield-Tullamore development. The alignment curves south slightly to provide an improved crossing location at the watercourse before curving north to intersect with Torbram Road opposite the intersection proposed by the Rice Group Tullamore Expansion development. The northern connection between Dixie Road and Torbram Road travels through the 12862 Dixie Road (QuadReal North) site and continues through the southern boundary of the Mayfield-Tullamore site, intersecting with a proposed collector in the Tullamore Northwest site. Alternative 1 aligns most closely with the alignments identified in the Town's TMP and Official Plan.
2	Alternative 2 also identifies two east-west roadways. The northern roadway follows Alternative 1 until east of the Highway 410 extension, where it curves north to mitigate the alignment's impact to the QuadReal South development area, traces the southern boundary of the northern Mayfield-Tullamore development area, and intersects the beginning of the northern urban corridor on Bramalea Road to avoid the large valley to the south. East of Bramalea Road, the alignment curves to the south to align with the internal road network proposed by Mayfield-Tullamore, to reduce impacts on developable lands. The southern roadway matches Alternative 1 until the intersection with Dixie Road. East of Dixie Road, the alignment travels along the southern boundary of the QuadReal South development to reduce impacts to the site's developable area, straightens out to the east, intersects the natural crossing at the single stream, and intersects with Torbram Road at the east-west connection to the Rice Group development.
3	The northern roadway follows the same alignment as Alternative 2 from west of Dixie Road to Bramalea Road. The alignment east of Bramalea Road follows that of the northern road in Alternative 1, connecting to the Tullamore Northwest site. This alternative provides the best network continuity as it would not become discontinuous at the Rice Group site. The northern roadway also intersects with an internal north-south collector roadway that is proposed to connect to Old School Road. This north-south connection would allow any trucks using the east-west collector road to avoid the residential core of the Mayfield-Tullamore development.

Alternative	Description
	The south roadway includes a jogged extension of Abbotside Way, just north of the Tribal South fixed site, opposite the southern UPS site access west of Dixie Road. The extension would connect to the southernmost east-west internal collector road proposed in the Mayfield-Tullamore development.
3B	Alternative 3B represents alternative alignments which were developed in consultation with landowners. This includes two schemes; Scheme 05 follows the alignment of Alternative 3 until the Greenbelt to the north of the QuadReal site, at which point it diverges and crosses the valley at a point north-west of Alternative 3. Scheme 02 has the same origin point west of Dixie Road, but curves to the north and has a more northerly crossing of Dixie Road relative to Alternative 3 and Scheme 05.
Torbram Road to Airport Road	
1	Two east-west roadways are identified between Torbram Road and Airport Road. The northern roadway travels through the Tullamore Northwest development, extending the proposed internal east-west link east of Torbram Road. The alignment curves south to the west of the woodlot and watercourse to reduce crossing distances and mitigate impacts to developable lands. The southern roadway travels through the Rice Group Tullamore Expansion development, along the 26 metre ROW that is protected on the east side of the development. The alignment using the 26 metre ROW protected area would provide better connectivity to east of Airport Road, as the southern east-west internal link at the Rice Group site terminates at the existing site north-east of the Mayfield Road and Airport Road.
2	Alternative 2 aligns with Alternative 1 on the southern roadway but shifts the northern roadway further north. This would mitigate impacts to the woodlot in Alternative 1 but would require multiple structures and larger crossing distances.
Airport Road to Humber Station Road	
1	Along the northern roadway segment, Alternative 1 is a continuation of Alternative 1 west of Airport Road, and curves to the north before intersecting with Innis Lake Road. The alignment continues straight beyond Innis Lake Road, and curves to the south to the east of Centreville Creek Road, intersecting with Mayfield Road opposite Martin Byrne Drive. The southern roadway segment curves south slightly between Airport Road and Humber Station Road to utilize the urban corridor with a 26 metre ROW proposed within the Wildfield Village development site east of Centreville Creek Road. East of Wildfield Village, the alignment continues north of the hedgerow east of The Gore Road and past the West Humber River. Beyond the natural crossing, the alignment curves north to intersect with Highway 413 via a grade crossing and to connect with the George Bolton Parkway extension.
2	The northern roadway segment in Alternative 2 is a continuation of Alternative 2 west of Airport Road, and curves to the south before intersecting with Innis Lake Road. East of Innis Lake Road, Alternatives 1 and 2 have the same alignment, continuing east and curving to the south east of Centreville Creek Road before curving south to meet the southern east-west collector roadway.

Alternative	Description
	Alternative 2 along the southern east-west collector roadway uses the 23.5 metre ROW corridor proposed just north of the urban corridor to provide a more direct east-west connection between Airport Road and Humber Station Road.

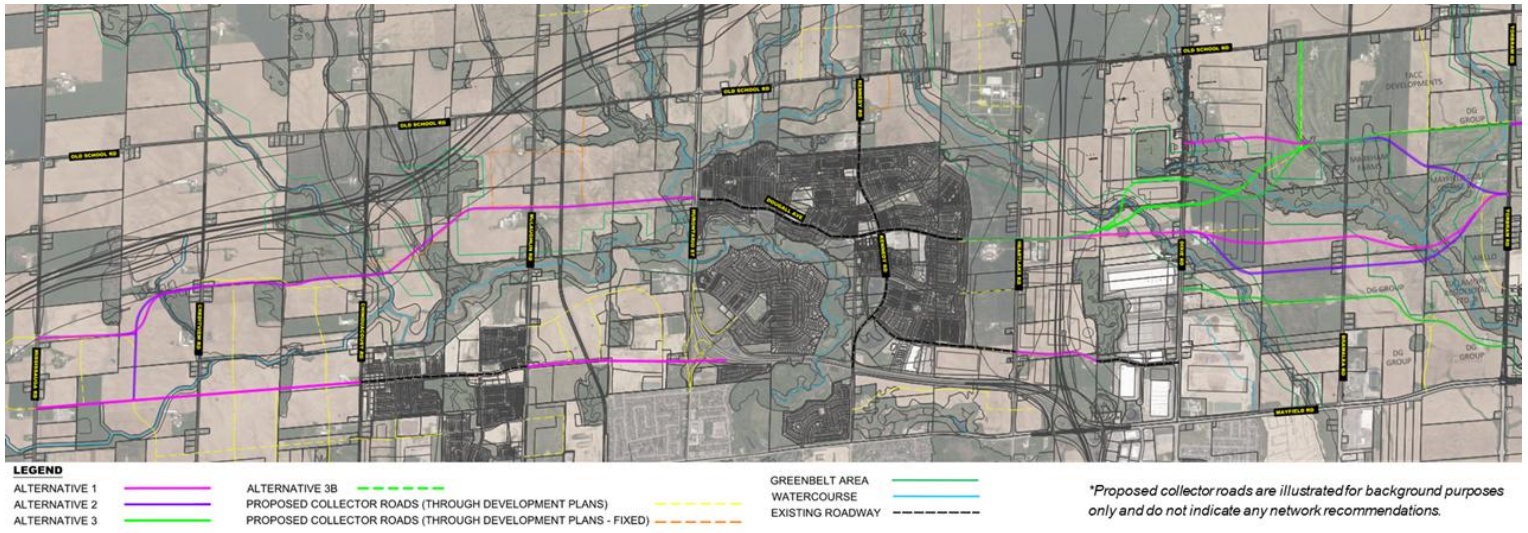


Figure 6-1: Alignment Alternatives | Mississauga Road to Torbram Road

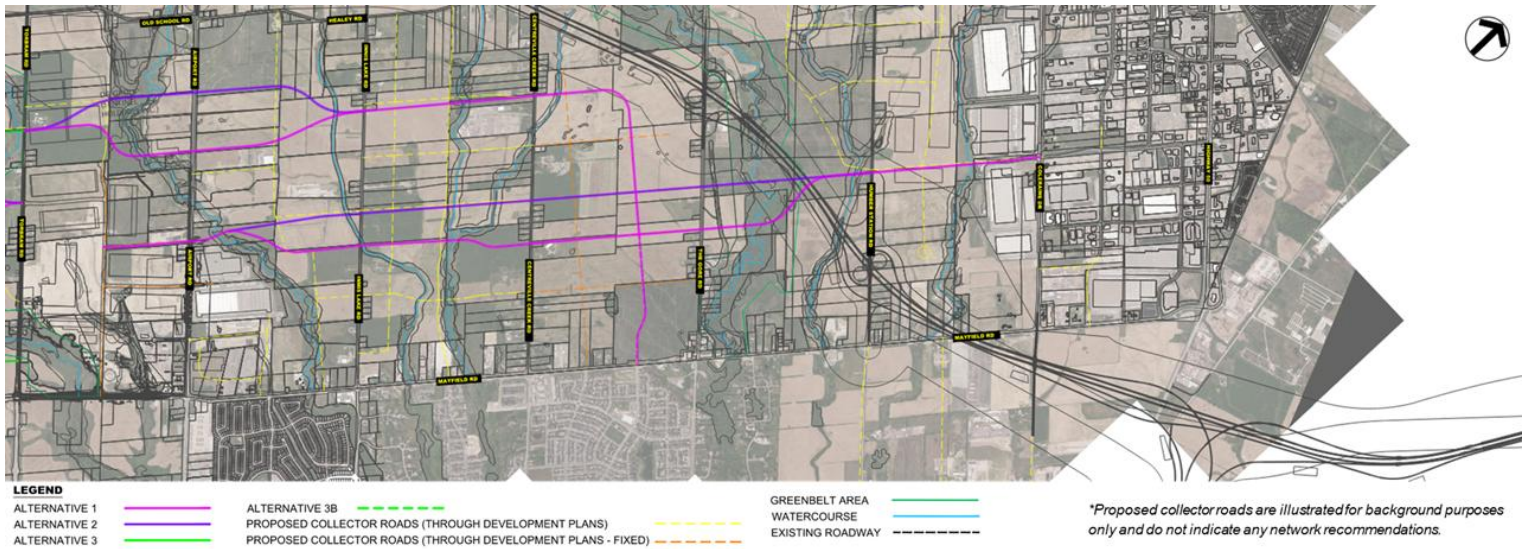


Figure 6-2: Alignment Alternatives | Torbram Road to Coleraine Drive

6.2 Evaluation of Collector Road Alternatives

6.2.1 Evaluation Criteria and Methodology

A comprehensive set of evaluation criteria were developed to assess the alignment alternative options presented in **Section 6.1** to identify the preferred east-west collector roadways. Criteria include both qualitative and quantitative measures and address five category groups, including the natural environment, socio-economic environment, transportation, safety, and costs. The criteria category, criteria, and performance indicators are provided in **Table 6-2**. Most of the indicators are evaluated qualitatively, except for Capital Costs and Vehicle and Goods Movement, which are evaluated quantitatively. Each criterion was evaluated using five ranking options, from the "Most Supportive" to "Least Supportive" in a sliding scale as summarized in **Table 6-3**.

Table 6-2: Evaluation Criteria

Criteria Category	Criteria and Performance Indicator
Natural Environment	**Natural Areas** Qualitative assessment of potential impacts to the Natural Heritage System and Water Resource System traversed and/or occupied, notably crossings of the tributaries of the West Humber River, Etobicoke Creek, and Salt Creek. **Environmental Designated Areas** Qualitative assessment of road improvements adjacent to or within features regulated under O. Reg. 41/24 and other environmentally designated or locally identified areas. **Habitat Areas** Qualitative assessment of the potential impacts to SCCC species, wetlands, wildlife and aquatic habitat areas. **Surface Water / Groundwater / Fluvial Geomorphology** Qualitative impact to groundwater quality and fluvial geomorphology with the tributary crossings.
Socio-economic Environment	**Healthy Communities** Provides direct routes within the study area to increase walking and cycling to and from the site and minimizing greenhouse gases. **Economic Growth** Supports site plan flexibility by maximizing parcel sizes on developable lands, minimizing impact to developable lands.
Transportation	**Network and System Connectivity, Mobility, and Accessibility** Supports the Official Plan (OP) and Multi-Modal Transportation Master Plan (MMTMP) goals to provide high levels of connectivity and directness of trips, for all modes through a compact grid network. **Active Transportation** Supports OP and MMTMP goals to offer active, healthy, and accessible

Criteria Category	Criteria and Performance Indicator
	mobility options connecting all parts of Caledon and providing strong connections within the Region and beyond. **Transit** Supports transit route coverage, efficiency, and flexibility. Reduces circuitous transit routes and facilitates trips between NUA neighbourhoods. **Vehicle and Goods Movement** Minimizes east-west delays and travel times for autos and trucks within the study area. Measures of effectiveness include vehicle-kilometres travelled (VKT) and vehicle-hours travelled (VHT). **Constructability** Is technically feasible, minimizes impacts to other infrastructure projects (Highway 413, Highway 410 Extension, etc.).
Safety	**Emergency Response** Supports direct connections and reduces the travel time for fire trucks, ambulances, and police during emergencies. **Road Safety** Supports network redundancy to accommodate snow clearing, salting, and to maintain safe road conditions.
Costs	**Capital & Maintenance Costs** Comparative evaluation of the network improvement costs, including capital and maintenance costs of required structures.

Table 6-3: Ranking Legend

Least Supportive	Less Supportive	Neutral	More Supportive	Most Supportive

6.2.2 Evaluation Assessment

The following subsections detail the evaluation results and trade-offs between alignment alternatives, considering the evaluation criteria defined above.

6.2.2.1 NATURAL HERITAGE

The natural heritage evaluation results were assessed considering each collector road alternative's impacts on the natural environment. Natural heritage impacts were inherently considered during the development of these alternatives, and each alternative aims to minimize impacts to the extent possible, while also satisfying the need for east-west connectivity improvements within the study area. The detailed summaries for each of the segments are provided in **Table 6-4** to **Table 6-6**. It is noted that due to the numerous tributaries, meander belts, and floodplain boundaries and habitat opportunities for SCCC species within the study area, further technical investigations will be required as redevelopment of the study area lands progresses. These investigations will need to identify appropriate avoidance and mitigation measures, which may include habitat and woodland replacement strategies or the

accommodation of displaced floodplains through engineered solutions such as storm sewers and stormwater management ponds. While many shallow streams and minor meander belts currently function as stormwater conveyance features and may not necessitate full crossing structures, detailed assessments will be required to confirm suitable treatments and minimize environmental impacts. These refinements will be addressed during subsequent stages of design and environmental assessment, including Phases 3 and 4 of the MCEA process, and through developer-led site plan applications to ensure compliance with regulatory requirements and best practices.

Between Mississauga Road and Creditview Road

Alternative 1 results in a lower overall impact to natural heritage relative to Alternative 2 in the area between Mississauga Road and Creditview Road, as Alternative 2 impacts a larger portion of O. Reg. 41/24 regulated features, as well as woodlots and habitat areas adjacent to the crossed watercourse. Both alternatives require the same number of watercourse crossings and are expected to have comparable impacts on groundwater quality and fluvial geomorphology.

West of Dixie Road to Torbram Road (South Connection)

Alternative 3 results in the lowest overall impact to natural heritage features in the southern area between Dixie Road and Torbram Road. This is mainly due to Alternative 3 curving to the south just west of Torbram Road, avoiding a crossing of the watercourse south of the Mayfield Golf Club and crossing through agricultural fields instead of the habitats in / around the watercourse.

West of Dixie Road to Torbram Road (North Connection)

Alternative 1 would result in the lowest overall impact to the natural heritage features in the northern area between Dixie Road and Torbram Road. All alternatives require a comparable number of watercourse crossings, but Alternative 1 crosses a less sensitive watercourse just east of Dixie Road. Alternatives 2 and 3 would have more significant natural heritage impacts as they cross the large valleys running between Mayfield Road and Old School Road. Alternative 3B Scheme 02 is least supportive as it would result in larger natural heritage impacts in the vicinity of the crossings west and east of Dixie Road. Alternative 3B Scheme 05 is generally similar to Alternative 3 but would result in a larger natural heritage impact in the vicinity of the crossing east of Dixie Road, as it impacts a larger portion of the woodlot. All alternatives are noted to cross through the pond in the Banty's Roost Golf Course; however, it is understood that the watercourse that runs through the pond is proposed for realignment with removal of the pond.

Torbram Road to Innis Lake Road (North Connection)

Alternatives 1 and 2 generally have comparable impacts along the northern connection in the area between Torbram Road and Innis Lake Road, but Alternative 1 would result in a smaller portion of O. Reg. 41/24 regulated features being impacted and therefore would have a lower overall impact on natural heritage features.

Airport Road to Humber Station Road (South Connection)

Alternative 1 would result in a lower overall impact to the natural heritage features along the southern connection in the area between Airport Road and Humber Station Road, as it would require fewer watercourse and meander belt crossings, and would impact less O. Reg. 41/24 regulated features.

Table 6-4: Natural Heritage Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection)

Criteria	Performance Indicators	Btwn Mississauga & Creditview		West of Dixie to Torbram (South Connection)		
		Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 3
Natural Areas	Impacts to the Natural Heritage System and Water Resource System.	Requires one (1) crossing of the watercourse west of Creditview Road.	Requires one (1) crossing of the watercourse west of Creditview Road.	Requires two (2) watercourse crossings, located west of Dixie and south of the Mayfield Golf Club.	Requires two (2) watercourse crossings, located west of Dixie and south of the Mayfield Golf Club.	Requires one (1) watercourse crossing, located east of Dixie Rd.
Environmental Designated Areas	Impacts to O. Reg. 41/24 regulated features s and other environmentally designated areas and designated SCCC habitats	Lower impact to O. Reg. 41/24 regulated features and avoids some features west of the watercourse by curving to the south.	Higher impact to O. Reg. 41/24 regulated features.	Impacts O. Reg. 41/24 regulated features. Relative to Alternative 3, it crosses through a larger regulated area west of Dixie Rd and south of the Mayfield Golf Club.	This alternative has impacts to O. Reg. 41/24 regulated features similar to Alternative 1.	Lowest impact on O. Reg. 41/24 regulated features. Avoids the regulated lands south of the Mayfield Golf Club.
Habitat Areas	Potential for effects on SCCC habitats, wetlands, wildlife and fish / aquatic habitat areas.	Lower impact to habitat areas as it avoids the woodlands west of the watercourse crossing. Impacts the edge of the woodlot between Creditview Rd and the watercourse.	Higher impact to habitat areas as it impacts both woodlots adjacent to the watercourse.	The majority of the Alternative 1 alignment traverses through lands that are used for agriculture in existing conditions. Impacts habitats near the watercourse west of Dixie Rd and in the dense woodlands adjacent to the watercourse south of the Mayfield Golf Club.	Similar impacts to habitat areas compared to Alternative 1.	Lowest impact to habitat areas, as it does not cross any dense woodlands. The lands adjacent to the watercourse being crossed in Alternative 3 are expected to host fewer and less significant habitats relative to Alternative 1 and 2.
Surface Water / Groundwater / Fluvial Geomorphology	Impact to groundwater quality and fluvial geomorphology with the tributary crossings.	Comparable to the other alternative, as both require one watercourse crossing at the same crossing location.	Comparable to the other alternative, as both require one watercourse crossing at the same crossing location.	Higher impact relative to Alternative 3, as more watercourses would be crossed.	Higher impact relative to Alternative 3, as more watercourses would be crossed.	Comparable to other alternatives, as the same number of watercourse crossings would be required.
OVERALL NATURAL ENVIRONMENT SCORE		**More Supportive**	**Neutral**	**Less Supportive**	**Less Supportive**	**More Supportive**

Table 6-5: Natural Heritage Evaluation Summary | West of Dixie to Torbram (North Connection)

Criteria	Performance Indicators	West of Dixie to Torbram (North Connection)				
		Alternative 1	Alternative 2	Alternative 3	Alternative 3B (Scheme 02)	Alternative 3B (Scheme 05)
Natural Areas	Impacts to the Natural Heritage System and Water Resource System.	Requires two (2) crossings of watercourses, and one (1) pond within the Banty's Roost Golf Course.	Requires three (3) crossings of watercourses, and one (1) pond within the Banty's Roost Golf Course.	Requires three (3) crossings of watercourses, and one (1) pond within the Banty's Roost Golf Course.	Requires three (3) crossings of watercourses, and one (1) pond within the Banty's Roost Golf Course.	Requires three (3) crossings of watercourses, and one (1) pond within the Banty's Roost Golf Course.
Environmental Designated Areas	Impacts to O. Reg. 41/24 regulated features, other environmentally designated areas and designated SCCC habitats .	Lowest impact to O. Reg. 41/24 regulated features. Avoids the largest portion of the regulated lands around the greenbelt adjacent to Bramalea Rd but would still cross several O. Reg. 41/24 regulated features.	Medium impact to O. Reg. 41/24 regulated features. Relative to Alternative 1, it crosses through a slightly larger regulated area in the vicinity of Bramalea Road and around the watercourse crossings east and west of Dixie Rd.	Impacts are comparable to Alternative 2.	Impacts a larger area of regulated features around the watercourse crossing west of Dixie Road compared to the other Alternative 3 options.	Impacts are comparable to Alternative 2.
Habitat Areas	Potential for effects on SCCC habitats, wetlands, wildlife and fish / aquatic habitat areas	Lowest impact to habitat areas as it does not impact the large woodlands within the greenbelt area. Will impact the habitats at the watercourse just west of Torbram Rd.	Medium impact; this alternative would impact the dense forest lands adjacent to the watercourse within the greenbelt between Dixie Rd and Bramalea Rd.	Larger impact as it crosses the woodlot within the greenbelt, and would cross a more sensitive location of the watercourse just west of Torbram Rd.	Largest impact. Crosses a longer portion of the wetlands west of Dixie Road compared to the other two Alternative 3 options, and impacts the large woodlot to the north-east of the valley east of Dixie Rd.	Impacts are slightly higher than Alternative 3 due to the location of the valley crossing east of Dixie Rd which impacts a larger portion of the woodlot.
Surface Water / Groundwater / Fluvial Geomorphology	Impact to groundwater quality and fluvial geomorphology with the tributary crossings.	Lowest impact as it has the fewest and less significant crossings compared to other alternatives.	Larger impact relative to Alternative 1, as the crossing west of Dixie Rd results in a higher number of watercourse and wetland crossings.	Impacts are comparable to Alternative 2.	Highest impact as it crosses a larger wetland west of Dixie Rd.	Impacts are comparable to Alternative 2.
OVERALL NATURAL ENVIRONMENT SCORE		**More Supportive**	**Neutral**	**Less Supportive**	**Least Supportive**	**Less Supportive**

Table 6-6: Natural Heritage Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection)

Criteria	Performance Indicators	Torbram to Innis Lake (North Connection)		Airport to Humber Station (South Connection)	
		Alternative 1	Alternative 2	Alternative 1	Alternative 2
Natural Areas	Impacts to the Natural Heritage System and Water Resource System.	Requires two (2) crossings of watercourses.	Requires two (2) crossings of watercourses.	Requires three (3) crossings of watercourses.	Requires four (4) crossings of watercourses.
Environmental Designated Areas	Impacts to O. Reg. 41/24 regulated features, other environmentally designated areas and designated SCCC habitats.	Impacts a smaller portion of O. Reg. 41/24 regulated features.	Impacts a larger portion of O. Reg. 41/24 regulated features between Torbram Rd and Airport Rd, specifically at the area in which the meanderbelts and watercourse are located before they combine into one watercourse further south.	Impacts fewer O. Reg. 41/24 regulated features compared to Alternative 2.	Impacts more O. Reg. 41/24 regulated features compared to Alternative 1.
Habitat Areas	Potential for effects on SCCC habitats, wetlands, wildlife and fish / aquatic habitat areas	Impacts the habitat areas located at the watercourses and meanderbelts, and the woodlands located to the west of Airport Rd.	Impacts a larger portion of wetlands north of the woodlands west of Airport Rd relative to Alternative 1, but avoids significant impacts to the woodlands to the south.	The majority of the lands along the alignment are used for agriculture, and the impacts are most significant at the watercourses and meanderbelt crossings. This alternative results in fewer crossings.	Impacts more habitat areas relative to Alternative 1.
Surface Water / Groundwater / Fluvial Geomorphology	Impact to groundwater quality and fluvial geomorphology with the tributary crossings.	Similar impacts to Alternative 2.	Similar impacts to Alternative 1.	Impacts fewer watercourses relative to Alternative 2.	Crosses four (4) watercourses, higher than Alternative 1.
OVERALL NATURAL ENVIRONMENT SCORE		**More Supportive**	**Neutral**	**More Supportive**	**Less Supportive**

6.2.2.2 SOCIO-ECONOMIC ENVIRONMENT

The evaluation of socio-economic environment impacts considered the ability of alignment alternatives to support health communities and future economic growth. The detailed summaries for each of the segments are provided in **Table 6-7** to **Table 6-9**.

Between Mississauga Road and Creditview Road

Alternative 2 overall is more supportive relative to Alternative 1, as it would form a more grid-like network within the Alloa lands and would have a smaller impact on developable lands.

West of Dixie Road to Torbram Road (South Connection)

Alternative 1 would have the largest impact on the QuadReal South lands east of Dixie Road as it would cross through the center of the property. Although Alternative 3 provides a less direct east-west connection, it was found to be the most supportive of the alternatives along the south connection between Dixie Road and Torbram Road as it would best align with the networks proposed by developments in the area and have the greatest potential for economic growth.

West of Dixie Road to Torbram Road (North Connection)

Alternative 3 and 3B (Scheme 05) were found to be the most supportive from a socio-economic environment perspective along the north connection from west of Dixie Road to Torbram Road. These alternatives would provide the best regional and town-wide network connectivity by connecting links east of Torbram Road and west of Dixie Road, which would enable long-distance cycling and walking trips and promote healthy communities. These alternatives also minimize impacts to the developable lands, as they avoid the buildings and parking lots proposed in the QuadReal lands.

Torbram Road to Innis Lake Road (North Connection)

Both Alternatives 1 and 2 were found to support connectivity and regional and town-wide network continuity which would promote healthy communities. Overall, Alternative 2 would be more supportive from a socio-economic perspective, as Alternative 1 would have a more curved and diagonal alignment within these lands and therefore would have a greater impact on developable lands.

Airport Road to Humber Station Road (South Connection)

Although Alternative 1 provides a less direct route east-west through the lands between Airport Road and Humber Station Road, it was found to provide the best socio-economic environment as it would be able to accommodate a 26-metre right-of-way through the Wildfield Village lands and therefore be able to better support active transportation facilities and community health.

Table 6-7: Socio-Economic Environment Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection)

Criteria	Performance Indicators	Btwn Mississauga & Creditview		West of Dixie to Torbram (South Connection)		
		Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 3
Healthy Communities	Provides direct routes within the study area to increase walking and cycling to and from the sites, minimizing greenhouse gases.	Improves community health by providing a refined and more connected network with active transportation facilities which will promote active lifestyles. Is comparable to Alternative 2 as it provides direct connections within the neighbourhood.	Comparable to Alternative 1.	Provides a direct connection from the east of Torbram Road to Mississauga Road, reducing reliance on busy north-south corridors when walking or cycling between neighbourhoods.	Comparable to Alternative 1, but curves further to the south.	A direct connection between Dixie Rd and Torbram Rd such as the one presented in Alternative 3 would continue to support walking and cycling trips within the study area but would require them to travel along Dixie Rd or Torbram Rd when continuing further west or east, which may dissuade some active transportation trips.
Economic Growth	Supports site flexibility by maximizing parcel sizes on developable lands, minimizes impact to developable lands.	Slightly higher impact to parcel sizes and developable lands as the connection is more diagonal compared to Alternative 2.	Network forms a more grid network which would have a smaller impact to developable lands relative to Alternative 1.	Impacts the QuadReal south site by splitting the site and requiring smaller building footprints. Minor impact to the eastern portion of the Mayfield-Tullamore site.	Minor impact to the south-west corner of the QuadReal south site. Minor impact to the eastern portion of Mayfield-Tullamore site.	Avoids impacts to both the QuadReal south site and the Mayfield-Tullamore site.
OVERALL SOCIO-ECONOMIC ENVIRONMENT SCORE		**Neutral**	**More Supportive**	**Less Supportive**	**Neutral**	**More Supportive**

Table 6-8: Socio-Economic Environment Evaluation Summary | West of Dixie to Torbram (North Connection)

Criteria	Performance Indicators	West of Dixie to Torbram (North Connection)				
		Alternative 1	Alternative 2	Alternative 3	Alternative 3B (Scheme 02)	Alternative 3B (Scheme 05)
Healthy Communities	Provides direct routes within the study area to increase walking and cycling to and from the sites, minimizing greenhouse gases.	Provides the most direct east-west connectivity between Dixie Rd and Torbram Rd, but provides less continuity compared to Alternative 3 and 3B, as the no continuity is provided west of Dixie Rd.	Provides comparable connectivity and continuity relative to Alternative 1, as both alternatives form discontinuous connections at either Dixie Rd or Torbram Rd.	Provides the most Town-wide connectivity with a continuous link between Mississauga Rd to east of Centreville Creek Rd. Would enable long-distance cycling and walking between the SABE neighbourhoods.	Results in a winding road around Dixie Road which is less efficient and less direct east-west compared to Alternative 3 and 3B (Scheme 05) but provides better town-wide continuity relative to Alternatives 1 and 2.	Benefits are comparable to Alternative 3.
Economic Growth	Supports site flexibility by maximizing parcel sizes on developable lands, minimizes impact to developable lands.	Minor impact to the south-east corner of the QuadReal north site.	Limits impacts to developable lands. Alignment avoids impacts to buildings and parking lots in QuadReals site east of Dixie Rd.	Comparable to Alternative 2.	Comparable to Alternative 2.	Comparable to Alternative 2.
OVERALL SOCIO-ECONOMIC ENVIRONMENT SCORE		**Less Supportive**	**Neutral**	**More Supportive**	**Neutral**	**More Supportive**

Table 6-9: Socio-Economic Environment Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection)

Criteria	Performance Indicators	Torbram to Innis Lake (North Connection)		Airport to Humber Station (South Connection)	
		Alternative 1	Alternative 2	Alternative 1	Alternative 2
Healthy Communities	Provides direct routes within the study area to increase walking and cycling to and from the sites, minimizing greenhouse gases.	Supports regional continuity in the collector road network while also supporting local connectivity, providing the opportunity to connect to the Rice Group development network to the south. Active transportation facilities on these links will promote healthy communities.	Benefits are comparable to Alternative 1.	Provides a less direct route east-west relative to Alternative 2, but this alternative would be able to accommodate a 26 metre ROW which will be better able to support active transportation facilities and community health.	This alternative would benefit community health but would be limited to a 23.5 metre ROW through the Wildfield Village development, which would not be as supportive of active transportation measures compared to Alternative 1.
Economic Growth	Supports site flexibility by maximizing parcel sizes on developable lands, minimizes impact to developable lands.	Slightly higher impact to developable lands as the segment east of Torbram Road curves south, splitting the parcel at a diagonal.	Lower impact to developable lands.	Comparable to Alternative 2. The majority of the alignment is east-west, with curves that roughly follow boundaries of large natural features and are not anticipated to pose significant impacts to developable lands.	Comparable to Alternative 1.
OVERALL SOCIO-ECONOMIC ENVIRONMENT SCORE		**Neutral**	**More Supportive**	**More Supportive**	**Neutral**

6.2.2.3 TRANSPORTATION

The evaluation considered network and system connectivity, mobility, accessibility, active transportation, transit, vehicle and goods movement, and constructability to identify the preferred alternatives from a transportation perspective. These criteria aim to support the Official Plan and Multi-Modal Transportation Master Plan goals by improving network connectivity, directness of trips, and offering sustainable and healthy alternative modes of transportation. The detailed transportation evaluation summaries for each of the segments are provided in **Table 6-10** to **Table 6-12**.

As presented in **Appendix A**, the traffic analysis findings demonstrate that introducing continuous east-west collector corridors would improve network and intersection performance within the study area. Under the East-West Connectivity Improvements scenario, total network delay during the AM peak hour is projected to decrease by approximately 68 vehicle-hours (8%), while links operating with volume-to-capacity ratios above 0.80 reduce by 3.2%. The intersection analysis confirms operational benefits at critical hotspots along Mayfield Road and Old School Road, with notable reductions in delay and v/c ratios for key through and left of right turning movements. These improvements suggest that the proposed collector roads would accommodate re-distribution of trips internal to the NUA lanes and alleviate congestion at turns to and from Old School Road and Mayfield Road.

Based on the volume to capacity ratios projected for the 2051 horizon year using Emme, the east-west collector roadways would benefit the following segments:

- Westbound on Mayfield Road west of Creditview Road, reducing v/c from 0.82 in the baseline to 0.77 with improvements.
- Eastbound on Mayfield Road west of Dixie Road, reducing v/c from 1.13 to 1.04.
- Southbound on Dixie Road south of Old School Road, reducing v/c from 1.02 to 0.79.
- Northbound Chinguacousy Road north of Mayfield Road, reducing v/c from 0.82 to 0.76.
- Minor improvement southbound Coleraine Drive north of Mayfield Road, reducing v/c from 0.81 to 0.79.

Between Mississauga Road and Creditview Road

Alternative 1 was found to be more supportive of the transportation criteria relative to Alternative 2, as it would provide a more direct east-west connection which would be used by all modes without needing to switch corridors within the Alloa site.

West of Dixie Road to Torbram Road (South Connection)

Alternative 1 would best support the transportation goals along the south connection between Dixie Road and Torbram Road, as it would provide a continuous link between Dixie Road and Torbram Road, and beyond. Alternative 1 would require a crossing span of approximately 160 metres at the watercourse crossing south of the Mayfield Golf Club, compared to 225 metres in Alternative 2. Alternative 3 would require a crossing span of approximately 140 metres at a watercourse crossing just east of Dixie Road but would not cross the more significant valley and watercourse just west of Torbram Road. Alternative 3 would provide the least benefit from a

transportation perspective, as it would form discontinuous tee-intersections at Dixie Road and Torbram Road, and would intersect with Torbram Road near its intersection with Mayfield Road.

West of Dixie Road to Torbram Road (North Connection)

Alternative 3 was found to be most supportive of the transportation criteria between Dixie Road and Torbram Road along the north connection, with Alternative 3B (Scheme 05) being “more supportive”. Alternative 3 and 3B (Scheme 05) both provide improved town-wide network continuity and would allow for a direct connection between Mississauga Road and Centreville Creek Road. Alternative 3B (Scheme 05) crosses the valley east of Dixie Road at a wider point which would require a larger span, resulting in a slightly worse constructability scoring relative to Alternative 3. Alternatives 1 and 3 have similar crossing span distance requirements of approximately 140 metres at the western watercourse crossing and 100 metres at the eastern watercourse crossing, but due to the deeper valley Alternatives 3 is anticipated to have worse constructability. Alternative 2 would have the same western span distance, but an eastern span distance of approximately 295 metres.

Torbram Road to Innis Lake Road (North Connection)

Alternative 1 would be more supportive relative to Alternative 2 from a transportation perspective between Torbram Road and Innis Lake Road along the northern connection. Alternative 1 generally provides comparable benefits to network connectivity and active transportation but would better accommodate transit services due to the improved spacing between the east-west collector road and Old School Road. In addition, Alternative 1 would require fewer and less significant crossing spans across watercourses, meander belts, and floodplains.

Airport Road to Humber Station Road (South Connection)

Alternative 1 was found to be most supportive of the transportation criteria between Airport Road and Humber Station Road along the southern connection, as it would be able to accommodate a wider right-of-way of 26 metres relative to the 23.5 metres from Alternative 2. This wider right-of-way would provide improved options for multi-modal facilities, potentially resulting in increased facility widths, buffer widths, in-boulevard features such as street trees, and more options for transit stop configurations and amenities. In addition, Alternative 1 would require fewer and less significant span distances, with an estimated span of approximately 240 metres required at the valley east of The Gore Road, relative to the approximately 370 metre span required in Alternative 2.

Table 6-10: Transportation Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection)

Criteria	Performance Indicators	Btwn Mississauga & Creditview		West of Dixie to Torbram (South Connection)		
		Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 3
Network & System Connectivity, Mobility, Accessibility	Supports OP and MMTMP goals to provide high level of connectivity and directness of trips, for all modes through a compact grid network.	Improves network and system connectivity, mobility and accessibility. Provides comparable benefits to Alternative 2.	Comparable to Alternative 1.	Aligns with the policies from the Caledon OP and MMTMP by increasing connectivity within the study area with a continuous link between Mississauga Rd and Torbram Rd.	This alternative provides a similar level of connectivity to Alternative 1 but the south connection curves further south, which would reduce trip directness and increase travel times east-west.	Provides the least benefit, as the connection does not provide continuity beyond Dixie Rd and Torbram Rd, and the segment runs relatively close to Mayfield Rd which does not provide the desired collector road and intersection spacing for a compact grid network.
Active Transportation	Supports OP and MMTMP goals to offer active, healthy, and accessible mobility options that connect all parts of Caledon.	Provides opportunities to expand the active transportation network east-west as well as south into the Alloa development.	Comparable to Alternative 1.	Provides a direct connection from the east of Torbram Road to Mississauga Road, reducing reliance on busy north-south corridors when walking or cycling between neighbourhoods.	Comparable to Alternative 1.	A direct connection between Dixie Rd and Torbram Rd such as the one presented in Alternative 3 would continue to support walking and cycling trips within the study area but would require them to travel along Dixie Rd or Torbram Rd when continuing further west or east, which may dissuade some active transportation trips.
Transit	Supports transit route coverage, efficiency, and flexibility. Reduces circuitous transit routes and facilitates trips between NUA neighbourhoods.	Best supports transit by providing a direct east-west connection between Mississauga Rd and Creditview Rd.	Improves transit coverage and flexibility but would require transit vehicles to turn to continue east-west through the intersection internal to the Alloa site.	Facilitates transit connectivity and flexibility between Dixie Rd and Torbram Rd, as well as to the north to Old School Rd. Would allow for transit routes to connect to the Rice Group site to the east and to the neighbourhoods to the west without diverting	Comparable to Alternative 1.	Would allow transit routes to travel through the site between Dixie Rd and Torbram Rd, but transit vehicles would need to divert through the north-south corridors to continue further west or east.

Criteria	Performance Indicators	Btwn Mississauga & Creditview		West of Dixie to Torbram (South Connection)		
		Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 3
				through north-south roadways.		
Vehicle & Goods Movement	Minimizes delay impacts for autos and trucks, including the vehicle-kilometres travelled (VKT) and vehicle-hours travelled (VHT).	Facilitates improved network connectivity between Mississauga Rd and Creditview Rd which would mitigate diversions and VKT / VHT.	Comparable to Alternative 1.	This alternative provides good connectivity between Dixie Rd and Torbram Rd and the broader proposed collector road network to the west.	Comparable to Alternative 1.	Would benefit autos entering and exiting the Mayfield-Tullamore site but would not be as beneficial as Alternative 1 and 2 due to the lower continuity.
Constructability	Is technically feasible, minimizes impacts to other infrastructure projects (Hwy 413, 410 extension).	Requires structures to cross the watercourse west of Creditview Rd and may require additional structures to span the floodplains identified by the Conservation Authority.	Comparable to Alternative 1.	Requires spans of approximately 80 metres at the watercourse west of Dixie Rd and 160 metres south of the Mayfield Golf Course. The vertical profile of the roadway outside of the crossing is generally flat.	Follows the same crossing west of Dixie Rd and requires the largest crossing span of approximately 225 metres at the watercourse south of the Mayfield Golf Course.	Requires one span of approximately 140 metres and crosses through a shallower valley than Alternative 1 and 2.
OVERALL TRANSPORTATION SCORE		**More Supportive**	**Neutral**	**More Supportive**	**Neutral**	**Neutral**

Table 6-11: Transportation Evaluation Summary | West of Dixie to Torbram (North Connection)

Criteria	Performance Indicators	West of Dixie to Torbram (North Connection)				
		Alternative 1	Alternative 2	Alternative 3	Alternative 3B (Scheme 02)	Alternative 3B (Scheme 05)
Network & System Connectivity, Mobility, Accessibility	Supports OP and MMTMP goals to provide high level of connectivity and directness of trips, for all modes through a compact grid network.	Aligns with the policies from the Caledon OP and MMTMP by increasing connectivity within the study area with a direct link from Dixie Rd to east of Centreville Creek Rd.	Provides increased continuity relative to Alternative 1 with a direct connection from Mississauga Rd to east of Torbram Rd, but less than Alternative 3.	Provides the most Town-wide connectivity with a continuous link between Mississauga Rd to east of Centreville Creek Rd.	Provides Town-wide continuity similar to Alternative 3, but the winding road in the vicinity of Dixie Rd would be less efficient and less direct as an east-west connection.	Benefits are comparable to Alternative 3.
Active Transportation	Supports OP and MMTMP goals to offer active,	Provides opportunities to expand the active transportation network	Provides an increased level of connectivity for active transportation	Provides the most Town-wide connectivity	Generally similar benefits as Alternative 3, but the increased	Benefits are comparable to Alternative 3.

Criteria	Performance Indicators	West of Dixie to Torbram (North Connection)				
		Alternative 1	Alternative 2	Alternative 3	Alternative 3B (Scheme 02)	Alternative 3B (Scheme 05)
	healthy, and accessible mobility options that connect all parts of Caledon.	along the east-west collector road but would be discontinuous at Dixie Rd for trips further west.	trips, allowing direct trips to and from the Rice Group development.	for cyclists and pedestrians.	circuity from the roadway curvature may deter some trips.	
Transit	Supports transit route coverage, efficiency, and flexibility. Reduces circuitous transit routes and facilitates trips between NUA neighbourhoods.	Facilitates increased transit connectivity and flexibility between Dixie Rd and Torbram Rd, as well as to the north to Old School Rd, but does not have continuous Town-wide connectivity.	Provides slightly more flexibility for transit routing by allowing routes to travel through the Rice Group development, the lands between Dixie Rd and Torbram Rd, and the neighbourhoods to the west via the east-west collector road.	Best supports transit by providing the most Town-wide east-west continuity, which would best accommodate trips between SABE land communities and facilitate flexibility in transit route planning.	Generally similar benefits as Alternative 3, but less efficient and less direct as an east-west connection.	Benefits are comparable to Alternative 3.
Vehicle & Goods Movement	Minimizes delay impacts for autos and trucks, including the vehicle-kilometres travelled (VKT) and vehicle-hours travelled (VHT).	This alternative provides good connectivity between Dixie Rd and Torbram Rd and the broader proposed collector road network. The north-south connection to Old School Rd to the east of Dixie Rd would provide alternative access to the QuadReal north site. A connection to the Amazon site west of Dixie Rd would also provide alternative ingress and egress for that site. Truck restrictions and roadway design considerations may need to be	Provides additional routing options for autos and trucks which are expected to reduce delays, VKT, and VHT. This alternative improves access to the Rice Group site but does not have direct access to the future Amazon site.	Provides the most direct routing and minimizes the need for detours through north-south corridors for east-west travel. The improved continuity of the east-west collector is offset by worse connectivity for goods movement due to the lack of the direct connection to the Amazon site west of Dixie Rd. As heavy vehicles will be prohibited through residential neighbourhoods, this alternative is slightly worse for goods movement.	The less direct east-west connection is offset by increased connectivity to planned industrial development along the northerly connection to Dixie Rd.	Benefits are comparable to Alternative 3.

Criteria	Performance Indicators	West of Dixie to Torbram (North Connection)				
		Alternative 1	Alternative 2	Alternative 3	Alternative 3B (Scheme 02)	Alternative 3B (Scheme 05)
		implemented that prohibit and dissuade trucks from travelling through residential neighbourhoods.				
Constructability	Is technically feasible, minimizes impacts to other infrastructure projects (Hwy 413, 410 extension).	Requires two spans of approximately 140 metres east of Dixie and 100 metres west of Torbram and avoids the deep and wide valleys in the area, resulting in the highest constructability.	Requires the highest number and largest crossing spans of approximately 100 metres west of Dixie Rd, 140 metres at the greenbelt east of Dixie Rd, and 295 metres at the east watercourse west of Torbram Rd.	Alternative 3 follows the same crossings as Alternative 2 at the two western watercourses, and has a smaller crossing west of Torbram Rd.	Requires larger crossing spans at both crossings west of Dixie Road and east of Dixie Road relative to Alternative 3.	Follows the alignment from Alternative 3, but would require a larger span at the crossing east of Dixie Rd.
OVERALL TRANSPORTATION SCORE		**Less Supportive**	**Less Supportive**	**Most Supportive**	**Neutral**	**More Supportive**

Table 6-12: Transportation Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection)

Criteria	Performance Indicators	Torbram to Innis Lake (North Connection)		Airport to Humber Station (South Connection)	
		Alternative 1	Alternative 2	Alternative 1	Alternative 2
Network & System Connectivity, Mobility, Accessibility	Supports OP and MMTMP goals to provide high level of connectivity and directness of trips, for all modes through a compact grid network.	Aligns with the policies from the Caledon OP and MMTMP by increasing connectivity within the study area.	Benefits are comparable to Alternative 1.	Aligns with the policies from the Caledon OP and MMTMP by increasing connectivity and continuity, with a continuous link between Airport Rd to Humber Station Rd and beyond.	Provides a similar level of connectivity and continuity as Alternative 1 with better east-west directness but would not be as supportive of all modes due to the 23.5 metre ROW.

Criteria	Performance Indicators	Torbram to Innis Lake (North Connection)		Airport to Humber Station (South Connection)	
		Alternative 1	Alternative 2	Alternative 1	Alternative 2
Active Transportation	Supports OP and MMTMP goals to offer active, healthy, and accessible mobility options that connect all parts of Caledon.	Provides opportunities to expand the active transportation network between Torbram Rd and Innis Lake Rd which will support regional and local trips.	Benefits are comparable to Alternative 1.	More supportive of active transportation as there would be more options available for active transportation facilities and buffers due to the wider ROW.	Less supportive of active transportation trips relative to Alternative 1.
Transit	Supports transit route coverage, efficiency, and flexibility. Reduces circuitous transit routes and facilitates trips between NUA neighbourhoods.	Facilitates regional and local transit connectivity and flexibility with the direct connection between Torbram Rd and Innis Lake Rd.	Supports transit, but due to the proximity to Old School Rd, this alternative would not provide as much balance between the northern and southern portions of the study area.	The wider ROW available on this alternative would present more options for transit improvements, such as bus bays.	This alternative would benefit transit through improved route flexibility and coverage but would be more constrained for physical improvements with the 23.5 metre ROW relative to Alternative 1.
Vehicle & Goods Movement	Minimizes delay impacts for autos and trucks, including the vehicle-kilometres travelled (VKT) and vehicle-hours travelled (VHT).	This alternative provides good connectivity between Torbram Rd and Innis Lake Rd and the broader proposed collector road network. The continuity would support trips to and from the Highway 413 interchange proposed on Airport Rd. Truck restrictions and roadway design considerations may need to be implemented that prohibit and dissuade trucks from travelling through residential neighbourhoods.	Supports vehicle and goods movement similar to Alternative 1, but due to the proximity to Old School Rd, this alternative does not provide the desired spacing between Old School Rd and Mayfield Rd, as it would have a distance of 2.4 kilometres to Mayfield Rd.	The wider ROW available on this alternative would present more options for roadway configurations, such as two-way left-turn lanes and auxiliary right-turn lanes, to meet the needs of the communities.	Would benefit autos and trucks with the continuous link but provides less benefit relative to Alternative 1.

Criteria	Performance Indicators	Torbram to Innis Lake (North Connection)		Airport to Humber Station (South Connection)	
		Alternative 1	Alternative 2	Alternative 1	Alternative 2
Constructability	Is technically feasible, minimizes impacts to other infrastructure projects (Hwy 413, 410 extension).	Requires structures to cross the watercourses, meander belts, and floodplains. A crossing span of approximately 140 metres will be required at the watercourse west of Airport Rd.	Requires more significant crossing structures due to the watercourse and two meander belts located along the alignment west of Airport Rd. Two spans of approximately 100 metres and 240 metres would be required at the natural crossings west of Airport Rd.	Required fewer and less significant span distances relative to Alternative 2. An estimated span of approximately 240 metres would be required for the valley crossing east of The Gore Road.	Requires more crossings relative to Alternative 1, and the crossings require larger spans. An estimated span of approximately 370 metres would be required for the valley crossing east of The Gore Road.
OVERALL TRANSPORTATION SCORE		**More Supportive**	**Neutral**	**Most Supportive**	**More Supportive**

6.2.2.4 SAFETY

The evaluation results of safety, as shown in **Table 6-13** to **Table 6-15**, were developed considering benefits to response time for emergency vehicles such as fire trucks, ambulances, and police, and network redundancy to accommodate access during emergencies and to allow for snow clearing, salting, and maintaining safe roadway conditions.

Between Mississauga Road and Creditview Road

Alternatives 1 and 2 would provide comparable benefits to safety, as they would both provide a good level of network connectivity and access which would help accommodate direct emergency service vehicle access as well as snow clearing and salting during winter months by reducing route circuity.

West of Dixie Road to Torbram Road (South Connection)

Along the southern connection between Dixie Road and Torbram Road, Alternatives 1 and 2 were found to have comparable benefits to safety overall. Alternative 3 would provide less benefits to safety due to the disconnect east-west at the intersections with Dixie Road and Torbram Road which could result in higher network circuity for winter servicing vehicles.

West of Dixie Road to Torbram Road (North Connection)

Alternative 3 and 3B (Scheme 05) would provide the best overall benefits from a safety perspective as they provide the highest continuity and directness east-west which would in turn best accommodate the movement of emergency service vehicles, snowplows and salting trucks between NUA communities.

Torbram Road to Innis Lake Road (North Connection)

Alternatives 1 and 2 would provide comparable benefits to safety, as they would both provide a good level of network connectivity and access which would help accommodate direct emergency service vehicle access as well as snow clearing and salting during winter months by reducing route circuity.

Airport Road to Humber Station Road (South Connection)

Alternatives 1 and 2 would provide comparable benefits to safety, as they would both provide a good level of network connectivity and access which would help accommodate direct emergency service vehicle access as well as snow clearing and salting during winter months by reducing route circuity.

Table 6-13: Safety Evaluation Summary | Between Mississauga Rd & Creditview Rd and Dixie Rd to Torbram Rd (South Connection)

Criteria	Performance Indicators	Btwn Mississauga & Creditview		West of Dixie to Torbram (South Connection)		
		Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 3
Emergency Response	Supports direct connections and reduces the travel time for fire trucks, ambulances, and police during emergencies.	This alternative provides a good level of connectivity which would accommodate emergency vehicles for direct trips and route redundancy in the event of closures.	Comparable to Alternative 1.	This alternative provides a good level of connectivity which would accommodate emergency vehicles for direct trips and route redundancy in the event of closures.	This alternative provides a similar level of support for emergency access compared to Alternative 1.	Provides a similar level of support for emergency access through the area.
Road Safety	Supports network redundancy to accommodate snow clearing, salting, to maintain safe road conditions.	The added connectivity by the new collector roads would accommodate snow clearing and salting trucks to maintain safe road conditions during winter months. The increased connectivity would reduce the route circuity for accessing the neighbourhoods and provide route redundancy in the event of closures.	Comparable to Alternative 1.	The added connectivity in this alternative would accommodate snow clearing and salting trucks to maintain safe road conditions during winter months. The increased connectivity would reduce the route circuity for accessing the networks internal to the NUA communities and provide route redundancy in the event of closures.	This alternative provides a similar level of support for snowplows and salting trucks compared to Alternative 1.	Provides less roadway continuity compared to Alternative 1 and 2, which may slow down snow clearing and salting.
OVERALL SAFETY SCORE		**More Supportive**	**More Supportive**	**More Supportive**	**More Supportive**	**Neutral**

Table 6-14: Safety Evaluation Summary | West of Dixie to Torbram (North Connection)

Criteria	Performance Indicators	West of Dixie to Torbram (North Connection)				
		Alternative 1	Alternative 2	Alternative 3	Alternative 3B (Scheme 02)	Alternative 3B (Scheme 05)
Emergency Response	Supports direct connections and reduces the travel time for fire trucks, ambulances, and police during emergencies.	This alternative provides a good level of connectivity which would accommodate emergency vehicles trips and support route redundancy in the event of closures.	This alternative provides a similar level of support for emergency access compared to Alternative 1.	The high connectivity and collector continuity provides the best access for emergency vehicles within the area.	Provides a similar level of connectivity as other options which would support emergency response, but the increased circuity would be less favourable compared to Alternative 3 and 3B (Scheme 05).	Benefits are comparable to Alternative 3.

Criteria	Performance Indicators	West of Dixie to Torbram (North Connection)				
		Alternative 1	Alternative 2	Alternative 3	Alternative 3B (Scheme 02)	Alternative 3B (Scheme 05)
Road Safety	Supports network redundancy to accommodate snow clearing, salting, to maintain safe road conditions.	The added connectivity in this alternative would accommodate snow clearing and salting trucks to maintain safe road conditions during winter months. The increased connectivity would reduce the route circuity for accessing the networks internal to the SABE communities and provide route redundancy in the event of closures.	This alternative provides a similar level of support for snowplows and salting trucks compared to Alternative 1.	This alternative provides the highest continuity east-west which would best accommodate the movement of snowplows and salting trucks between SABE communities.	Provides a similar level of connectivity as other options which would support roadway services, but the increased circuity would be less favourable compared to the Alternative 3 and 3B (Scheme 05).	Benefits are comparable to Alternative 3.
OVERALL SAFETY SCORE		**More Supportive**	**More Supportive**	**Most Supportive**	**More Supportive**	**Most Supportive**

Table 6-15: Safety Evaluation Summary | Torbram Rd to Innis Lake Rd (North Connection) and Airport Rd to Humber Station Rd (South Connection)

Criteria	Performance Indicators	Torbram to Innis Lake (North Connection)		Airport to Humber Station (South Connection)	
		Alternative 1	Alternative 2	Alternative 1	Alternative 2
Emergency Response	Supports direct connections and reduces the travel time for fire trucks, ambulances, and police during emergencies.	This alternative provides a good level of connectivity which would accommodate emergency vehicles for direct trips and route redundancy in the event of closures.	This alternative provides a similar level of support for emergency access compared to Alternative 1.	This alternative provides a good level of connectivity which would accommodate emergency vehicles for direct trips and route redundancy in the event of closures.	This alternative provides a similar level of support for emergency access compared to Alternative 1.
Road Safety	Supports network redundancy to accommodate snow clearing, salting, to maintain safe road conditions.	The added connectivity in this alternative would accommodate snow clearing and salting trucks to maintain safe road conditions during winter months. The increased connectivity would reduce the route circuity for accessing the networks internal to the NUA communities and provide route redundancy in the event of closures.	This alternative provides a similar level of support for snowplows and salting trucks compared to Alternative 1.	The added connectivity in this alternative would accommodate snow clearing and salting trucks to maintain safe road conditions during winter months. The increased connectivity would reduce the route circuity for accessing the networks internal to the NUA communities and provide route redundancy in the event of closures.	This alternative provides a similar level of support for snowplows and salting trucks compared to Alternative 1.
OVERALL SAFETY SCORE		**More Supportive**	**More Supportive**	**More Supportive**	**More Supportive**

6.2.2.5 COSTS

Costs were evaluated comparatively between alignment alternatives. Structure costs at crossings were estimated based on the MTO 2016 Parametric Guide for “New Structures” to inform the comparative evaluation. It is noted that this cost estimation methodology is high-level and is based solely on the length of the span and right-of-way required along the structure, and these costs can significantly vary depending on the type of structure and the features of the crossing (i.e. depth of the valley, accessibility, woodlot clearing, natural heritage and geological mitigation measures). In addition, it is expected that some cost efficiencies can be realized at the MTO crossings by designing for the extensions of Dougall Avenue, Abbotside Way, and George Bolton Parkway at the outset of the design. The Town of Caledon has been coordinating closely with the MTO to ensure that these extensions are incorporated into Highway 413 and Highway 410 extension designs.

Between Mississauga Road and Creditview Road

The costs of alternatives 1 and 2 between Mississauga Road and Creditview Road are expected to be largely comparable, as the alignments generally follow the same paths and cross the watercourses in the same locations.

West of Dixie Road to Torbram Road (South Connection)

Alternative 3 is expected to require the lowest cost of the alignments along the south connection between Dixie Road and Torbram Road, as it would require the shortest span length and the span structure would be crossing a shallower and less forested valley compared to alternatives 1 and 2. Alternatives 1 and 2 would also require structures through the watercourse just west of Dixie Road, and Alternative 2 would require the longest span at approximately 225 metres, which would result in the highest capital and maintenance cost.

West of Dixie Road to Torbram Road (North Connection)

Alternative 1 is expected to require the lowest cost along the northern connection between Dixie Road and Torbram Road as it would require the shallowest and fewest number of crossings. Alternative 2 would have the highest cost, as it would require two significant spans between Dixie Road and Torbram Road, as well as a short span west of Dixie Road.

Torbram Road to Innis Lake Road (North Connection)

Alternative 1 is expected to require the lowest cost along the segment between Torbram Road and Innis Lake Road, as alternative 2 would require a higher number of crossing structures at more significant crossing locations relative to alternative 1.

Airport Road to Humber Station Road (South Connection)

Alternative 1 is expected to require the lowest cost along the segment between Airport Road and Humber Station Road as it would require fewer and less significant span lengths relative to alternative 2.

6.3 Preferred Alternative

The summary of the evaluation findings is presented in **Table 6-16**, and the preferred alignment illustrated in **Figure 6-3** and **Figure 6-4**. As shown, the evaluation summary finds the best overall rating for Alternative 1 between Mississauga Road and Creditview Road and the northern alignment from west of Dixie Road to Torbram Road, Alternative 3 along the south alignment from west of Dixie Road to Torbram Road, and Alternative 1 for the segments between Torbram Road and Innis Lake Road and between Airport Road and Humber Station Road. These alternatives with the best overall ratings comprise the preferred alternative for the study area improvements.

The following describes the selected alternatives for each area:

- **Between Mississauga Road and Creditview Road:** Alternative 1 was found to provide the best overall performance along this segment as it best satisfies the goals of improving network connectivity, supporting active transportation, transit, and automobile movement, while requiring a comparable cost to that of Alternative 2.
- **From west of Dixie Road to Torbram Road (north alignments):** Alternative 3 would provide the best town-wide network connectivity and continuity which would support healthy communities, all modes of transportation, and safety, while limiting impacts to developable lands and achieving a balance of costs relative to Alternatives 1 and 2. Alternative 3B (Scheme 05) was found to provide the same benefits as Alternative 3, but is expected to have a higher cost and impact to natural heritage features. This alignment also proposes a north-south connection to Old School Road which would allow trucks on the east-west collector road to avoid the residential core of the Mayfield-Tullamore neighborhood.
- **From west of Dixie Road to Torbram Road (south alignments):** Alternative 3 achieves the best overall performance as it minimizes impacts to developable lands and the natural environment, while achieving the lowest cost.
- **Torbram Road to Innis Lake Road:** Alternative 1 achieves the best overall performance as it limits impacts and costs associated with the watercourse crossings, and best supports the transportation goals of providing a mid-block connection between Old School Road and Mayfield Road by providing better spacing from Old School Road relative to Alternative 2.
- **Airport Road to Humber Station Road:** Alternative 1 is preferred as it would be able to achieve the Town's goal of a 26 metre right-of-way along the corridor, which would best accommodate the desired multi-modal facilities and support healthy communities.

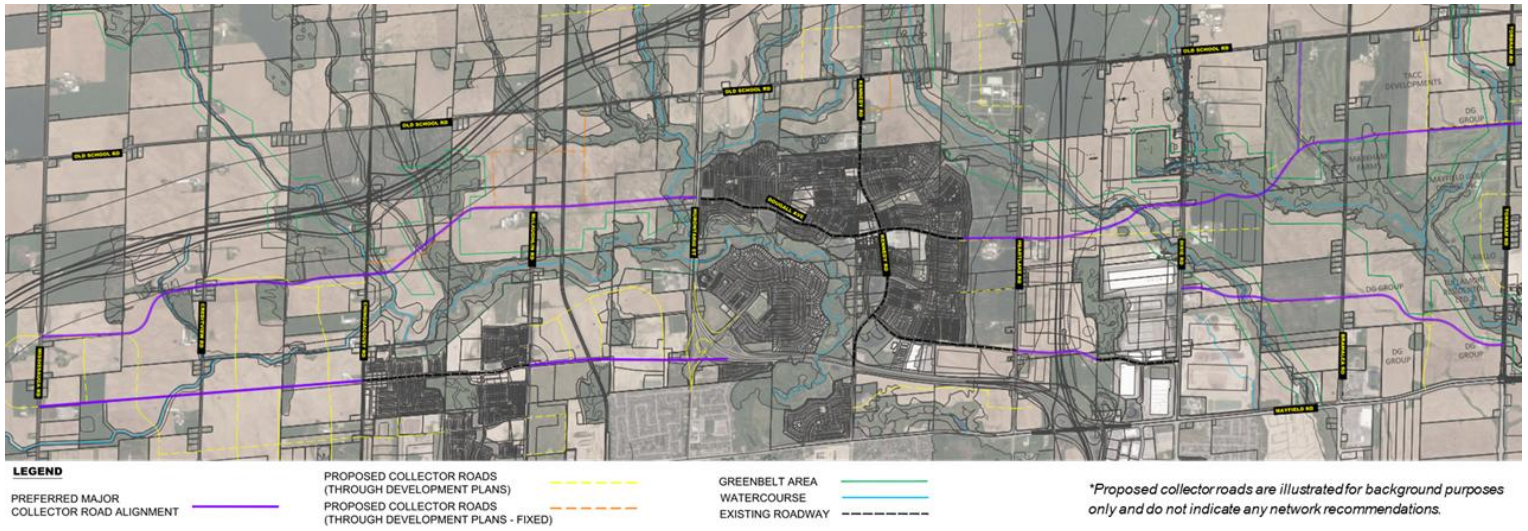


Figure 6-3: Preferred Alternatives | Mississauga Road to Torbram Road

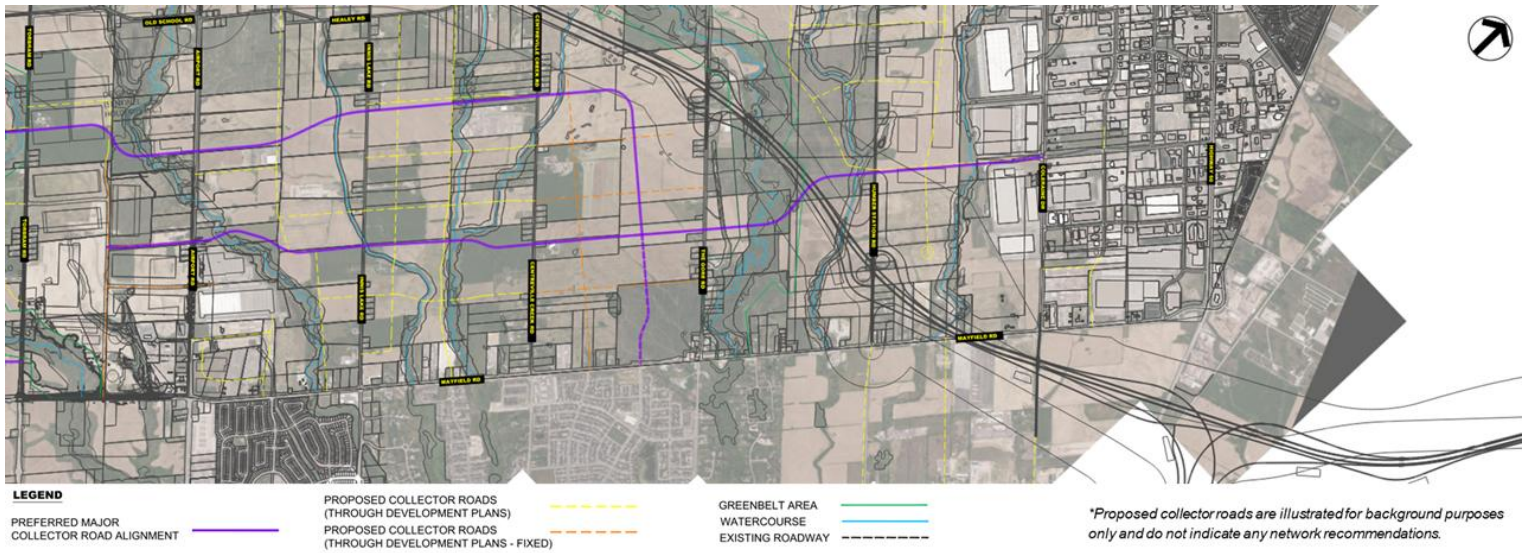
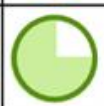


Figure 6-4: Preferred Alternatives | Torbram Road to Coleraine Drive

Table 6-16: Evaluation of Alternative Solutions

Criteria	Btwn Mississauga & Creditview		W of Dixie to Torbram (North Alignments)					W of Dixie to Torbram (South Alignments)			Torbram to Innis Lake		Airport to Humber Station	
	Alt 1	Alt 2	Alt 1	Alt 2	Alt 3	Alt 3B 02	Alt 3B 05	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 1	Alt 2
Natural Environment														
Socio-Economic Environment														
Transportation														
Safety														
Preliminary Cost	$	$	$	$$$	$$	$$$	$$	$$	$$$	$	$$	$$$	$	$$
Overall														

Legend:

7. Consultation and Engagement

A thorough public and private consultation process was undertaken throughout the MMTMP Addendum to ensure that all stakeholders were engaged early in the study process and provided several opportunities to provide feedback or concerns. A Notice of Commencement and Public Consultation Centre were circulated to all stakeholders on September 17th, 2025. For consistency, all contacts from the original MMTMP were contacted during the outreach for the MMTMP Addendum, as detailed in the following subsections.

7.1 Public

Members of the public were engaged by mail and email notices of the Notice to Proceed and Public Consultation Centre, and a project website was posted to share background information, updates, dates for public consultation, and project documentation for review, as well as contact information for the project team to address any feedback or concerns.

A two-week notice period was provided between the Notice of Public Consultation Centre (PIC) and the PIC, which was held on September 30th, 2025, to solicit feedback from the public on the preferred alternative. The PIC presentation materials are available in **Appendix E** for reference.

Two comments were received via the physical comment sheets during the PIC. The first comment shared concerns regarding vehicle operating speeds on Highway 10 at the future connection to Dougall Avenue, as vehicles travel at high speeds coming from the transition between Highway 410 and Highway 10. This concern is acknowledged and will need to be addressed as the design of the intersection and connecting roadway segments develops. As ownership of this portion of Highway 10 is expected to be handed off to the Town of Caledon following the extension of Highway 410 to the north to the future Highway 413, there is an opportunity to implement designs which help to reduce travel speeds, such as smaller lane widths.

The second physical comment received noted that where possible, road design should be built in support of an efficient grid to minimize the additional cost of a wider roadway allowance and public right-of-way to accommodate curving roads (e.g. between Creditview Road and Mississauga Road), and noted that it is good to hear the Town planning for complete streets and active transportation, but the Town should also be planning for powered personal mobility (e-scooters, bikes, and low speed vehicles). Feedback on the curvature is acknowledged, and the evaluation criteria aim to promote direct roadway segments to reduce travel times and impacts to developable lands; the curvature shown between Creditview Road and Mississauga Road is mainly due to physical constraints imposed by the Highway 413 alignment. The MMTMP Addendum aims to promote all sustainable modes of transportation, including bikes, e-scooters, and low speed vehicles. The target right-of-way of 26 metres will allow the Town to design a multi-modal corridor which accommodates all modes of transportation. Currently, low speed vehicles are only allowed on roadways with posted speeds of up to 50 km/h which is in line with the expected posted speed limit of 50 or 60 km/h for the new east-west collector roads.

A concern received in conversation during the PIC was regarding the costs of the project, and if building the new east-west collector roads would result in increased property taxes. Property taxes will not be increased to construct the collector roadways; Development Charge (DC) fees will be collected from the developers to fund improvements associated with servicing the developments, and through the proposed approach in this MMTMP Addendum, developers will take charge of completing remaining studies required and constructing the portions of the collector roads that cross through their sites, as they construct their developments.

Another member of the public expressed concerns about the industrial uses in the NUA area, as they live near the PIC venue in the residential neighbourhood close to the existing portion of Dougall Avenue. A similar concern was shared by a PIC attendee representing a private developer within the study area, about the number of trucks that will use the new collector roads due to the mixing of residential and industrial traffic. A proposed mitigation measure is to provide a north-south collector road connection between Old School Road and the new east-west collector road between Dixie Road and Bramalea Road; this connection would be located between the transition point between industrial uses and the Mayfield-Tullamore development, and would allow trucks to travel between the industrial sites and the future Highway 413 interchange on Bramalea Road without entering the residential neighbourhood. In addition, truck restriction signage will be posted at the entrances to residential neighbourhoods to prohibit industrial use. Enforcement may also be necessary; where trucks are found to be violating the truck prohibitions, law enforcement can be used to enforce the restrictions and levy fines.

Another PIC attendee representing a private developer asked whether improvements to Old School Road are within scope for this MMTMP Addendum. They noted that their hope is that Old School Road improvements would accommodate truck traffic and eliminate existing jogs, pointing specifically to the jog at the intersection with Airport Road, where Old School Road transitions to Healey Road. Improvements to Old School Road are not a focus of this study, and as a baseline assumption, Old School Road is assumed to be widened to four lanes with the elimination of jogged intersections.

Other feedback received was that the connectivity being achieved with the preferred alternative is very encouraging, especially if it results in improved transit options.

7.2 Indigenous Communities

The Indigenous communities of Mississaugas of the Credit First Nation, Six Nations of the Grand River, Nation Huronne-Wendat, Haudenosaunee Confederacy, and Métis Nation of Ontario were contacted through multiple attempts to provide opportunities for feedback or to identify any concerns. All communities were contacted on September 17th, 2025, with the Notice of Commencement and PIC. A detailed tracking log of all communications with Indigenous communities is available in **Appendix F**.

To-date, no specific feedback or concerns have been identified by the Indigenous communities. A letter provided by the Mississaugas of the Credit First Nation noted that this project has been flagged for further review by their Department of Consultation and Accommodation, and that

until the review has been completed and any questions or concerns have been satisfactorily addressed, the project must not receive approval or proceed with any ground-altering activities.

The Six Nations of the Grand River had requested a copy of the draft report to review once available. A copy of the draft was circulated to the Indigenous communities for clarity and to provide additional opportunities for feedback.

An introductory meeting was held with the Mississaugas of the Credit First Nation's (MCFN) Department of Consultation and Accommodation (DOCA) on November 27th, 2025. During the meeting, MCFN DOCA had expressed interest in continued consultation throughout the MMTMP Addendum study process.

7.3 External Agencies

The following external agencies were contacted during the Notice of Commencement and PIC and will be engaged again at the Notice of Completion milestone to provide time for review and feedback: Infrastructure Ontario (IO); Metrolinx; Ministry of the Environment, Conservation and Parks (MECP); Ministry of Municipal Affairs and Housing (MMAH); Ministry of Natural Resources and Forestry (MNRF); Ministry of Citizenship and Multiculturalism (MCM); MTO; Niagara Escarpment Commission; Region of Peel; York Region; Halton Region; Dufferin County; Simcoe County; Wellington County; Region of Waterloo; Brampton Transit; City of Vaughan; King Township; Town of Halton Hills; Town of East Garafraxa; Town of Orangeville; Town of Mono; Town of Adjala-Tosorontio; Town of New Tecumseth; Town of Erin; OPP Caledon Detachment; Peel Regional Paramedic Services; Caledon Fire and Emergency Services; Credit Valley Conservation Authority; TRCA (Toronto Region Conservation Authority); Nottawasaga Valley Conservation Authority; Bolton Business Improvement Association (BIA); Caledon Chamber of Commerce; Bruce Trail Conservancy; Caledon Hills Bruce Trail Club; ecoCaledon; Humber Valley Heritage Trail Association; Oak Ridges Trail Association; Caledon Cycling Club; Hike Ontario; Dufferin-Peel Catholic District School Board; Canadian Pacific Railway; and Peel District School Board.

Formal response letters were provided by MECP, TRCA, and MCM. To facilitate clear coordination, HDR prepared and shared response letters back to MECP and TRCA to confirm the scope and next steps for the MMTMP Addendum. The recommendations from the MCM letter, namely, to include existing conditions related to cultural heritage resources and to note the subsequent works required for archaeological assessments have been included in this report.

7.4 Developers

The following meetings were held with developers to present the project background, opportunities and constraints, and the alignment alternatives through their sites:

- June 3rd, 2025: QuadReal
- July 9th, 2025: Mayfield-Tullamore
- July 16th, 2025: QuadReal
- July 24th, 2025: Broccolini / West Tullamore

- August 21st, 2025: Mayfield-Tullamore
- September 2nd, 2025: Mayfield-Tullamore
- September 19th, 2025: Alloa
- September 19th, 2025: 12505 Heart Lake Road
- September 25th, 2025: September Community Builders Roundtable Session

In addition, other meetings were held between the Town and development teams directly without involvement from HDR. Meeting minutes for the meetings listed above are attached in **Appendix H** for reference. General concerns and feedback raised during the meetings with developer teams are summarized below, along with details on how concerns have been accounted for in the MMTMP Addendum.

Throughout discussions with the development teams, the Town of Caledon pressed the need for a closely collaborative process in order to reduce impacts to the development sites while also maintaining network continuity and connectivity. Flexibility in alignments within the sites was emphasized, while certain constraints, such as approved developments, the Highway 413 interchanges, or natural valleys and watercourses, presented fixed connection points in the network.

7.4.1 Construction and Maintenance Costs

Cost implications for developers and municipalities were discussed throughout the meetings, focusing on the high costs associated with crossings of natural valleys and the future Highway 410 extension. Comparative order of magnitude costs between alignment alternatives are compared and factored into the evaluation of alternatives. Through the discussions, it was emphasized that there are costs no matter the direction chosen, either as a cost of giving up network connectivity, costs of impacted lands, or direct costs associated with construction.

The goal is to align the planned improvements with the 2031 DC charges to stay within the associated bucket of funds. The works will need to be put forward to the Town council, and a re-prioritization of roads will likely be needed with approval from Town council.

7.4.2 Roadway Capacity

During the engagement process, the QuadReal and 12505 Heart Lake Road teams expressed that they believe the east-west collector roads are not needed from a capacity perspective, and that the planned widenings within the study area would suffice. It is worth noting that capacity within the study area is one consideration in the evaluation of the east-west collector roads, and that a lack of a mid-block east-west connection between Old School Road and Mayfield Road would result in worse conditions for active transportation and transit operations. It is also acknowledged that while planned improvements throughout the study area as identified in the original MMTMP and Official Plan have been selected to alleviate congestion concerns associated with NUA lands development, these studies had not considered zone disaggregation and the associated travel pattern changes, and have not looked at the detailed intersection turning movement operations which are considered in this study which may provide additional context to traffic operations in the future with and without the east-west collector roads.

7.4.3 Impacts on Developable Lands

Developer teams expressed concerns with regards to impacts that new roadways would have on developable lands. New roadways through their sites would split parcels, reduce the maximum building footprints that could be built, and thereby impacting the types of tenants that can occupy the buildings. It is acknowledged that the new roadways would impact developable lands, and the evaluation criteria aim to reduce these impacts to the extent possible while balancing the need for network connectivity. This can be achieved by aligning the MMTMP Addendum corridors with internal site roadways that are proposed by developers, running the alignment away from buildings and parking lots that are being proposed, or along the property boundaries.

7.4.4 Physical Constraints

During discussions, it was noted by the developer teams that the Highway 410 extension would pose a significant physical constraint in the area, and it would be expensive to construct crossings for the collector roads. The Town of Caledon have identified that they've received approval from the MTO to construct both crossings at Dougall Avenue and Abbotside Way. There is also an opportunity to design and build both the Highway 410 extensions as well as the collector road extensions at the same time to find efficiencies and reduce costs. Payment mechanisms are also to be determined through further study and coordination with the MTO, but there is an opportunity to share the expenses with the MTO.

7.4.5 Right-of-Way

In some areas, reduced right-of-ways (ROWs) were proposed through sites, below the targeted 26 metre right-of-way. Reduced ROWs may be considered by the Town in some areas if justified and consistent with neighbouring areas, but the Town's goal is to achieve a 26 metre ROW in order to facilitate complete street features and accommodate all modes of transportation.

7.4.6 Heavy Vehicles

A common concern from both the development teams and public community is the mixing of industrial traffic and residential traffic along the new collector roadways. As noted above, proposed mitigation measures include provision of a north-south connection to Old School Road to divert heavy vehicle traffic, placing truck restrictions at entrances to residential neighbourhoods, law enforcement, and influencing behaviours through design by narrowing traffic lanes and making heavy vehicle use less comfortable.

7.4.7 Natural Heritage

During discussions with developers' team, it was noted that the northern portion of the Mayfield-Tullamore site within the green belt has a redside dace habitat. To clarify, Redside Dace Critical Habitat mapped by the Department of Fisheries and Oceans (DFO) is an overview based on known or historical observations. Consultation through the proponent driven process under the reformed Species Conservation Act, 2025 and Environment and Climate Change Canada under

SARA[2] will be required to refine and develop watercourse specific permitting (if required) and impact evaluation processes. Additionally, there are identified PSW designations within the woodlot on Alloa's site that may be impacted by the alignments. Close coordination with applicable reviewing and other agencies is being undertaken throughout the MMTMP Addendum process. Feedback is ongoing and will be incorporated as required. Through the project review process, as the design of the roadways progresses, the required processes and applicable permits will need to be evaluated and initiated.

[2] The reformed Species Conservation Act, 2025, updated the agency review process for designated provincial species. For example, changing regulatory authority for avian species also designated under the Migratory Bird Act (Sch 1 SARA) and Aquatic provincially designated species to the Federal ECCC and away from MECP (removing previous provincial memorandums of understandings (MOU).

8. Design Recommendations

As the design of the east-west collector roads continues to progress, it will be imperative that sufficient right-of-way be allocated to accommodate the near- and long-term needs of the NUA communities. To this end, the Town of Caledon is targeting a 26-metre right-of-way on these new major collector roads, to accommodate facilities that work for all modes of transportation and promote the use of active transportation and transit trips within Caledon. An example of a 26-metre right-of-way allocation is shown in **Figure 8-1**, showing the potential to accommodate dedicated sidewalks, bicycle lanes, on-street parking, as well as buffers and landscaping and utility areas with street trees that would provide shade to nearby facilities.

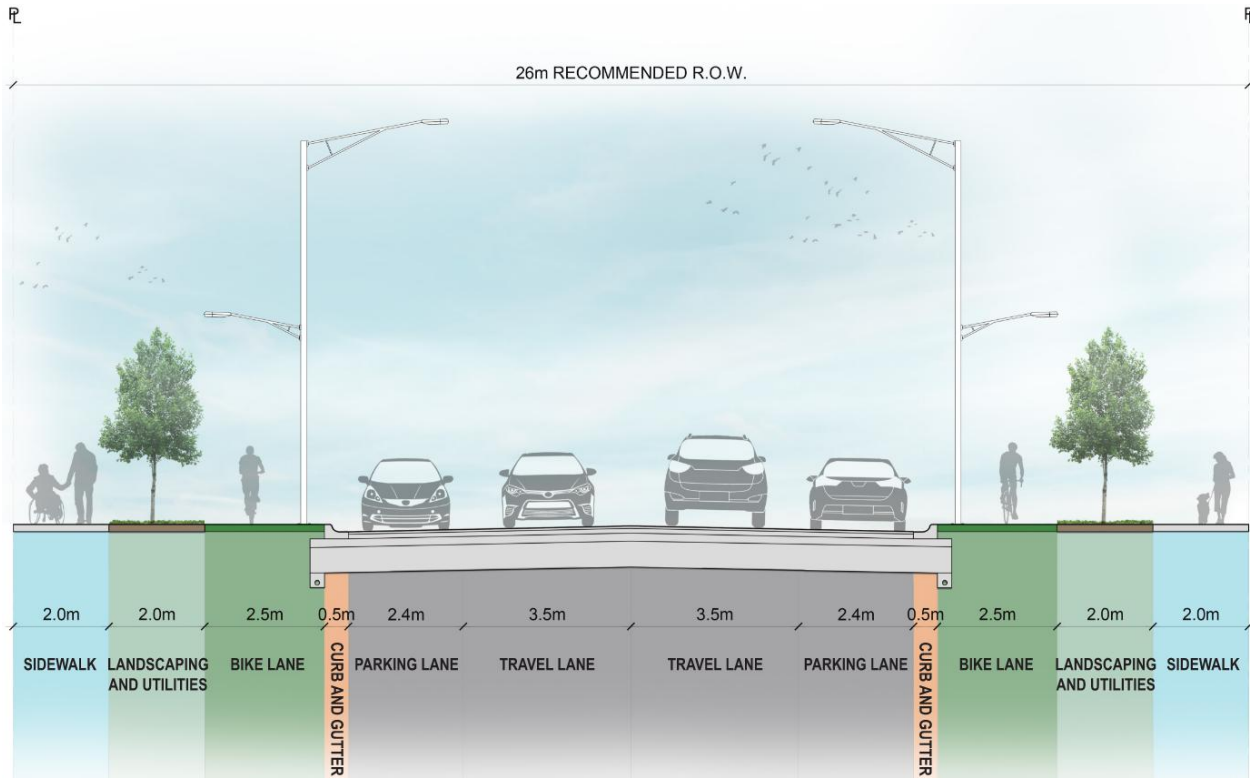


Figure 8-1: 26 Metre ROW Neighbourhood Connector Street (Source: 2024 Caledon MMTMP, Appendix F)

The MMTMP Addendum also recommends that the Town incorporate Official Plan policy regarding intersection design at major intersections. Specifically, at major intersections (collector-to-collector and collector-to-arterial), left- and right-turn lanes shall be planned and protected for in accordance with the following requirements:

- Intersections shall be constructed to their ultimate configuration where feasible, and where not feasible, interim plans shall identify necessary land requirements for future implementation
- A dedicated left-turn lane shall be provided on each approach, and the feasibility of dedicated right-turn lanes on each approach shall be evaluated

- Where full ultimate lane configuration cannot be implemented initially, a preliminary design shall be prepared in consultation with Town staff to identify ultimate intersection geometry, flaring requirements, and associated land protection needs

This policy will ensure that major intersections are designed to accommodate future growth and operational requirements while protecting necessary land in advance of full build-out.

9. Implementation

9.1 MCEA Process

The study, design, and implementation of the east-west collector roads identified in the MMTMP Addendum will follow the Municipal Class Environmental Assessment (MCEA) process. The Addendum satisfies Phases 1 and 2 of the MCEA by establishing the problem and opportunity statement, identifying and evaluating alternative solutions, and recommending a preferred alternative. Subsequent phases, Phase 3 (alternative design concepts) and Phase 4 (Environmental Study Report), will generally be the responsibility of landowners as part of their development applications.

Developers will be expected to complete the remaining EA requirements and construct the collector road segments within their lands. Where applicable, such as through an application for a plan of subdivision, the completion of MCEA requirements should be integrated with the Planning Act to avoid duplication and ensure improved environmental protection. This approach is intended to expedite approvals and allow development to proceed without delays. Where necessary, the Town of Caledon may undertake the EA and implementation for portions of the improvements to bridge gaps in the network implementation.

9.2 Phasing

To ensure orderly phasing of the recommended collector road network, new east-west connectivity shall be provided between the existing north-south concession roads to maximize interim connectivity until the full build-out of the NUA lands, subject to feasibility including land availability and the satisfaction of Town staff through the development application process. Close coordination between Town staff and landowners is recommended to ensure that the intent of this policy is met.

9.3 Additional Considerations

It is noted that the evaluation of alternatives in this Addendum may eliminate the need for a full Schedule C EA for the corridors, provided that archaeological assessments are completed. Archaeology undertaken by developers can be used to satisfy these requirements. Where crossings of water courses are involved, Schedule B studies would typically be required if undertaken by the Town, but a Schedule B study may not be required if undertaken by developers. Developers should consult with an EA planning process specialist to ensure that the MCEA requirements are satisfied with their proposed project.

The Town will continue to provide oversight and guidance to ensure consistency with the preferred network and design recommendations outlined in this report. Developers will be required to demonstrate compliance with the MCEA process and incorporate mitigation measures for environmental, cultural, and archaeological impacts as part of their site plan applications. Coordination with agencies such as MTO, the Conservation Authority, and MECP will remain critical, particularly for crossings of Highway 410, Highway 413, and regulated watercourses.

10. Key Findings & Recommendations

10.1 Findings

The study area is expected to experience unprecedented growth, increasing from approximately 76,000 residents and 42,000 jobs today to 300,000 residents and 125,000 jobs by 2051. Much of this growth will occur within the NUA lands, where several development applications are already underway. While this growth presents an opportunity to build a modern, multimodal transportation network, it also introduces significant challenges. Physical constraints such as the future Highway 413 and the extension of Highway 410, combined with natural heritage features (e.g. tributaries, floodplains, regulated woodlands, wetlands and SCCC habitats), limit alignment flexibility and complicate connectivity. Without new east-west collector roads between Old School Road and Mayfield Road, the network will remain fragmented, resulting in circuitous travel patterns, concentrating traffic at major intersections, and creating barriers to efficient transit and active transportation. These gaps risk worsening congestion, reducing safety, and undermining the Town's vision for sustainable mobility and complete communities.

The MMTMP Addendum has identified a preferred east-west collector road network that addresses critical gaps in connectivity between Old School Road and Mayfield Road. The evaluation of alternatives concluded that the following alignments provide the best overall performance: Alternative 1 between Mississauga Road and Creditview Road, Alternative 3 from west of Dixie Road to Torbram Road along the north segment and Alternative 3 along the south segment, and Alternative 1 along the segments from Torbram Road to Innis Lake Road, and Airport Road to Humber Station Road. The overall findings, as presented in **Section 6.3**, are detailed below.

- **Between Mississauga Road and Creditview Road:** Alternative 1 was found to provide the best overall performance along this segment as it best satisfies the goals of improving network connectivity, supporting active transportation, transit, and automobile movement, while requiring a comparable cost to that of Alternative 2.
- **From west of Dixie Road to Torbram Road (north alignments):** Alternative 3 would provide the best town-wide network connectivity and continuity which would support healthy communities, all modes of transportation, and safety, while limiting impacts to developable lands and achieving a balance of costs relative to Alternatives 1 and 2.
- **From west of Dixie Road to Torbram Road (south alignments):** Alternative 3 achieves the best overall performance as it minimizes impacts to developable lands and the natural environment, while achieving the lowest cost.
- **Torbram Road to Innis Lake Road:** Alternative 1 achieves the best overall performance as it limits impacts and costs associated with the watercourse crossings, and best supports the transportation goals of providing a mid-block connection between Old School Road and Mayfield Road by providing better spacing from Old School Road relative to Alternative 2.

- **Airport Road to Humber Station Road:** Alternative 1 is preferred as it would be able to achieve the Town's goal of a 26 metre right-of-way along the corridor, which would best accommodate the desired multi-modal facilities and support healthy communities.

Traffic analysis using Emme and Synchro confirms that the east-west collector road improvements will reduce congestion and delay for vehicles on the network and mitigate some critical conditions that are projected. Total delay within the study area is projected to decrease by approximately 8%, and critical movements at intersections with Mayfield Road and Old School Road show notable reductions in volume-to-capacity ratios and delays.

10.2 Recommendations and Next Steps

10.2.1 Preferred Alternative

It is recommended to carry forward the identified preferred alternative as the recommended collector roadway network in the Town of Caledon's Multi-Modal Transportation Master Plan. The preferred alternative is identified as Alternative 1 between Mississauga Road and Creditview Road, Alternative 3A from west of Dixie Road to Torbram Road along the north segment and Alternative 3 along the south segment, and Alternative 1 along the segments from Torbram Road to Innis Lake Road, and Airport Road to Humber Station Road.

10.2.2 Subsequent MCEA Phases

The MMTMP Addendum satisfies Phases 1 and 2 of the MCEA process. Landowners will be responsible for completing Phases 3 and 4 to support their development applications, including archaeological assessments and mitigation measures for environmental and cultural heritage impacts.

Specific permitting, registration and mitigation, avoidance details are considered a high-level review as part of alternative and impact evaluation processes. Once the preferred alternative is chosen and forthcoming detailed design process is initiated, regulatory permitting consultation will be required through the respective agencies ECCC, MECP, Conservation Authority, DFO etc. Additional studies are expected to be required to define impact measures, mitigation, permitting and/or registration conditions and compensation (as required). Applications, registrations and requests for reviews will need to be prepared and submitted for regulated and designated features (woodlands, PSW wetlands, watercourse, unevaluated wetlands, fish habitat, SCC species habitats and candidate and or confirmed Significant Wildlife Habitat) and features under Provincial Planning Statement Section 4.1 Natural Heritage and Section 5.2 Natural Hazards, and features outlined if impacted. Demonstration in accordance with provincial and federal requirements (SARA, Fisheries Act, Migratory Bird Act and Sch 1 Regulations, Species Conservation Act, 2025, Conservation Authorities Act (O. Reg 41/24 7), local tree and woodland removal by-laws etc. will be refined. A detailed review of the Critical Habitat mapped by the DFO for Redside Dace will need to be undertaken. Furthermore, determination of habitat and species protection strategies as the road corridor is built out through the proponent driven process under the reformed Species Conservation Act, 2025 and Environment and Climate Change Canada under SARA for SCC species and habitats will be required. Coordination with existing and proposed future development applications is necessary. While individual developments will be responsible for completing Phases 3 and 4 to support their development

applications, consideration for compounding effects on natural heritage features as a whole, and their functions within the broader landscape for species and habitat protection will support project permit / registration needs. Details on permitting and registration requirements (if required) will be finalized with approving agencies with consideration and regard for currently in force legislative policies, pending new changes as they become available (for example process for obtaining a permit through the proposed new centralized Ontario Conservation Authority amalgamation).

Future studies should consider truck restrictions and design treatments to minimize conflicts between industrial and residential traffic.

10.2.3 Integration with the Planning Act

Where applicable, such as through an application for a plan of subdivision, the completion of MCEA requirements should be integrated with the Planning Act to avoid duplication and ensure improved environmental protection.

10.2.4 Collector Road Right-of-Way

It is recommended to protect for a 26-metre right-of-way wherever it is feasible to accommodate multimodal facilities, landscaping, and utilities.

Appendix A – Traffic Analysis

The following sections detail the approach, methodology, and findings of the traffic analysis work. Both Emme and Synchro were used to evaluate future conditions on roadway segments and at intersections within the study area.

Macroscopic Operations

Macroscopic traffic operations were assessed using the 2051 Emme model developed for the Town's Growth Management Phasing Plan (GMPP) Study. This Emme model simulates AM peak hour conditions and incorporates the most recent land use data for the Town. The model has been updated to reflect:

- The Highway 413 alignment based on the 50% design plan;
- The Highway 410 extension and Hurontario Street Interchange improvements;
- Planned roadway improvements identified in the GMPP Study, including both the Regional and Town Roads improvements; and
- Fixed collector road improvements supporting planned developments.

The Emme model was further refined to include disaggregated traffic analysis zones and corresponding demands based on Small Geographic Unit (SGU) boundaries. This enhancement improves trip distribution within the study area by assigning traffic production and attraction to specific planned development locations, rather than concentrating trips at a few zone centroids.

Macroscopic operations were assessed using the updated 2051 Emme model under two scenarios:

- Baseline Scenario: Without additional east-west connection corridors; and
- East-West Connectivity Improvements Scenario: With east-west connection corridors between Old School Road and Mayfield Road (as presented in **Section 6.3**).

The East-West Connectivity Improvements Scenario reflects the preliminary preferred alignment alternative that was identified and presented during the Public Consultation Centre. The goal of this Emme evaluation is to identify the impacts or opportunities associated with the new east-west collector roads, and the preliminary preferred alignment provides the best network continuity and connectivity. As such, it has been incorporated into the East-West Connectivity Improvements Emme scenario to best represent the best-case scenario for improved east-west connectivity, and to account for any gaps or jogged east-west connections that would remain due to physical and natural constraints in the area (e.g. the jogged east-west connection through the Rice Group site is included in the Emme model). The use of the preliminary preferred alignment does not preclude further refinement of the alignment alternatives.

Emme model outputs are provided in **Appendix B**, including split zones based on SGU boundaries, assigned auto-driver volumes, v/c ratios, and comparative volume plots between the two scenarios.

Preliminary analysis findings from the Emme results indicate that, in both scenarios, most east-west roadway segments are expected to operate under capacity (with v/c < 1.00). This outcome is consistent with expectations since the model includes roadway improvements identified through the GMPP Study, which address major capacity constraints.

The future Baseline and East-West Connectivity Improvements Scenario Emme volume to capacity plots are illustrated in **Appendix B**. In both scenarios, relatively high volumes and v/c ratios (0.80 to 1.00) were observed on Tim Manley Avenue and along Mayfield Road in the eastbound direction between Chinguacousy Road and Dixie Road. Compared to the Baseline Scenario, the East-West Connectivity Improvements Scenario shows traffic diversions from Old School Road and Mayfield Road to the new east-west corridors, up to 550 veh/h per direction. This suggests that the new corridors could provide meaningful alternative routes for east-west travel, reducing reliance and congestion on Old School Road and Mayfield Road. Based on the volume to capacity ratios projected for the 2051 horizon year, the east-west collector roadways would benefit the following segments:

- Westbound on Mayfield Road west of Creditview Road, reducing v/c from 0.82 in the baseline to 0.77 with improvements.
- Eastbound on Mayfield Road west of Dixie Road, reducing v/c from 1.13 to 1.04.
- Southbound on Dixie Road south of Old School Road, reducing v/c from 1.02 to 0.79.
- Northbound Chinguacousy Road north of Mayfield Road, reducing v/c from 0.82 to 0.76.
- Minor improvement southbound Coleraine Drive north of Mayfield Road, reducing v/c from 0.81 to 0.79.

In addition, the future Baseline and East-West Connectivity Improvements Scenario Emme link delay and link speed plots are illustrated in **Appendix B**. The link delays were established based on the difference between free-flow travel times and reported link travel times. The Emme model does not consider potential delays at intersections. From the link delay plots it is observed that link delays are generally slightly reduced within the study area and beyond following the improved east-west connectivity. Similarly, link speeds generally increased slightly with the improvements in place.

To further compare the two scenarios, network performance metrics were derived for the study area bounded by Mississauga Road (west), Coleraine Drive (east), Old School Road (north), and Mayfield Road (south). The indicators include vehicle-kilometres travelled (VKT), vehicle-hours travelled (VHT), total network delay, and total lane-kilometres for links with v/c > 0.80. The total network delay was estimated based on average vehicular delays (i.e., simulated travel time minus free-flow travel time) and number of travelling vehicles recorded on each network link. The network performance results are summarized in **Table 1**.

Overall, the network metrics indicate that under the East-West Connectivity Improvements Scenario, VKT is expected to increase slightly, while VHT and total network delay are expected to decrease. Specifically, total delay is reduced by approximately 68 veh-hours (about 8%), and the lane-kilometres operating with v/c > 0.80 are expected to decrease from 59.4 to 49.9. The network metrics confirm that introducing additional east–west corridors would enhance network

efficiency by reducing total travel delay and congestion, while distributing traffic more evenly across the roadway network.

Table 1: Review of Network Metrics | AM Peak

Scenario	Length (lane-km)	VKT (veh-km)	VHT (veh-hour)	Total Delay (veh-h)	Links with V/C Ratio >1.00		Links with V/C Ratio >0.90		Links with V/C Ratio >0.80	
					lane-km	%	lane-km	%	lane-km	%
2051 Baseline	461	205,925	3,635	847	15.9	3.4%	25.2	5.5%	59.4	12.9 %
2051 E-W Improve	514	206,523	3,604	779	13.8	2.7%	24.8	4.8%	49.9	9.7%
Diff. (in %)	**53 (+11%)**	**598 (+0.2%)**	**-31 (-0.9%)**	**-68 (-8.0%)**	**-2.0**	**-0.7%**	**-0.4**	**-0.6%**	**-9.5**	**-3.2%**

Travel Demand Forecasts

Future intersection turning movement volumes were estimated for both Baseline and East-West Connectivity Improvements scenarios based on forecast link volumes generated by the Emme model and bi-proportional balancing, considering existing turning movement counts (TMCs) and patterns and future Emme model link volumes. Emme model is generally developed and calibrated at a screenline level, so the demand at the corridor level may be appropriate for a high-level planning study but not for detailed analysis or intersection design. This approach has been undertaken for this study as it is intended to identify planning-level changes in travel patterns and operations for a long-range forecast, but it is expected that detailed analyses informing intersection designs will re-assess projected demands on shorter timescales. The Emme model used in this study was developed based on the Town's MMTMP model and incorporates planned roadway improvements from the GMPP Study. As such, it may serve as a useful starting point for other Town studies, but this model was not designed and developed to generate future traffic volume projections for studies beyond this assignment. These projections may not be suitable for other applications due to differences in study objectives, modelling extents, and required levels of detail. Any consultant using these travel demand projections for future traffic demand forecasting should conduct their own due diligence and validation to ensure the model inputs and outputs are appropriate for their specific study.

The MMTMP Addendum focuses on the 2051 horizon year, as the Addendum evaluates the ultimate need and justification of the east-west collector roadways and alternative alignments. Interim horizon years should be considered as the design for the collector roadways progresses to identify suitable types of intersection control and intersection lane configurations.

During this process, vehicular link volumes for the intersection legs (i.e. approach and departure volumes at each intersection leg) were extracted from the future Emme model scenarios. The traffic volume differences between the existing volumes and future link volumes were calculated for each intersection leg. The traffic volume differences (in absolute values) were then applied to the existing TMCs to estimate the "target" total approach and departure volumes for each

intersection leg. Future turning movement volumes were then estimated via a multi-iteration calculation process. In each iteration, new turning movement volumes were proportionally calculated using the previous iteration's volumes and the target total volumes for all approach and departure segments. One exception is noted at the intersection of Mayfield Road with Heart Lake Road where no existing turning movement counts were available; as a result, the projected demands were directly assigned at this intersection using dummy volumes as a seed for the iterative adjustment process.

Since the Emme model only simulates the AM peak hour condition, PM peak hour traffic volumes were estimated by reversing the AM directional flows. For example, southbound volumes during the AM peak hour were assumed to represent northbound volumes during the PM peak hour, and vice versa. Additionally, based on existing turning movement count data, it was found that PM peak hour intersection volumes are on average 13% higher than AM peak hour volumes. This factor was applied to the volumes to best reflect the PM peak hour conditions.

The estimated traffic volumes are presented in **Figure 1** to **Figure 4**, for the Baseline and East-West Connectivity Improvements Scenarios during the AM and PM peak hours, respectively. Some left-turn volumes are projected to be unusually high (exceeding 500 veh/h), primarily due to the absence of constraints on turning volumes in the Emme modelling parameters, which leads to inflated link volumes on both the approach and departure legs of these left-turn movements. This is an inherent limitation of assigning Emme link volumes to turning movement level volumes, but to avoid influencing the travel patterns and, as a result, the comparative evaluation, these volumes were not manually adjusted.

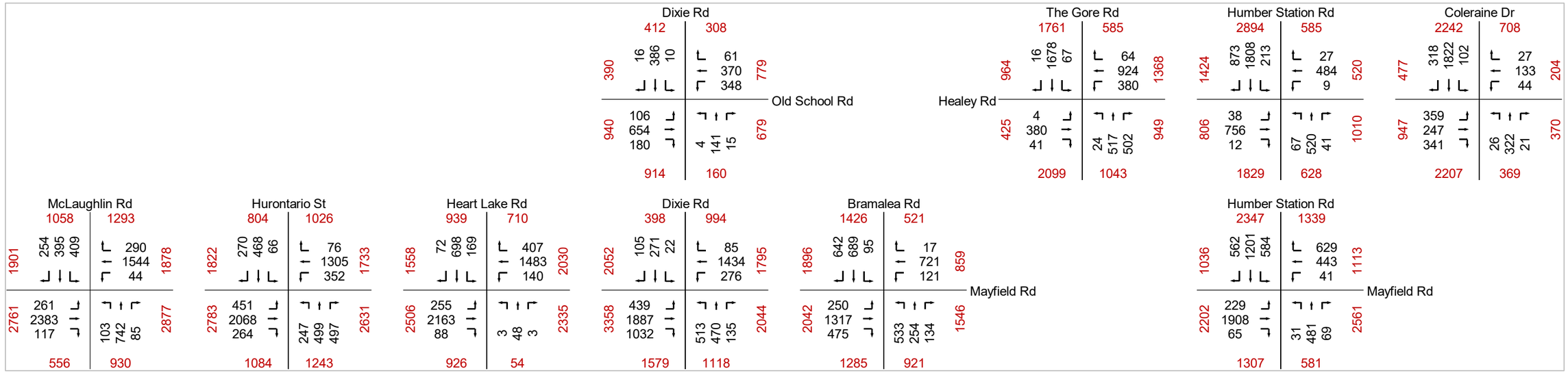


Figure 1: Future Volume Projection – 2051 Baseline AM Peak Hour

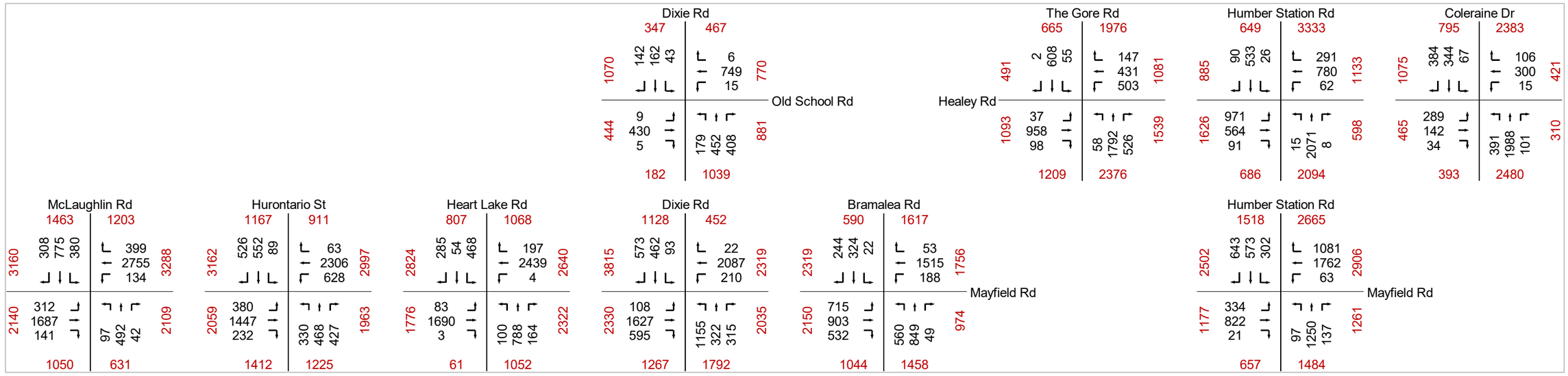


Figure 2: Future Volume Projection – 2051 Baseline PM Peak Hour

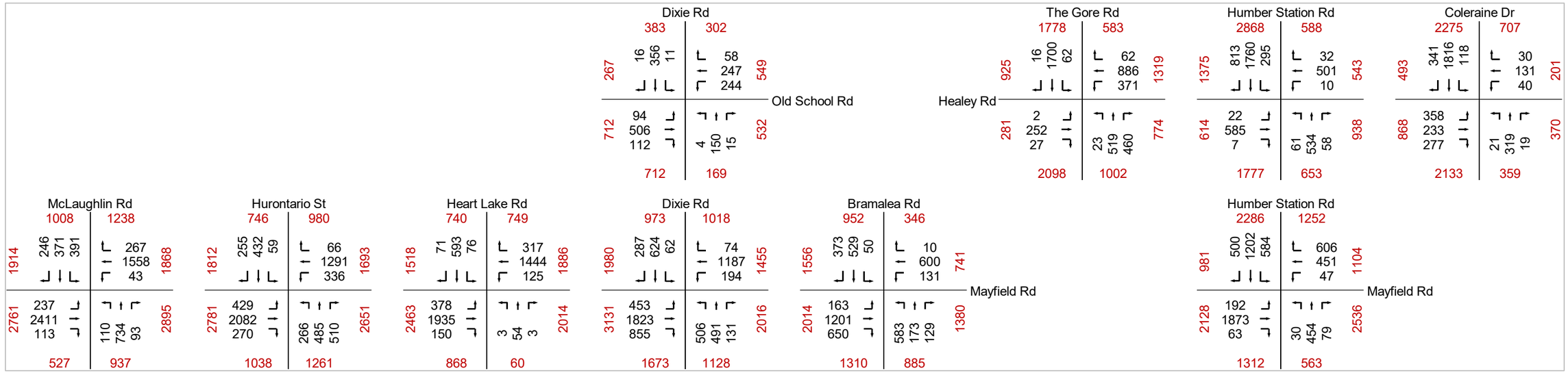


Figure 3: Future Volume Projection – 2051 East-West Connectivity Improvements Scenario AM Peak Hour

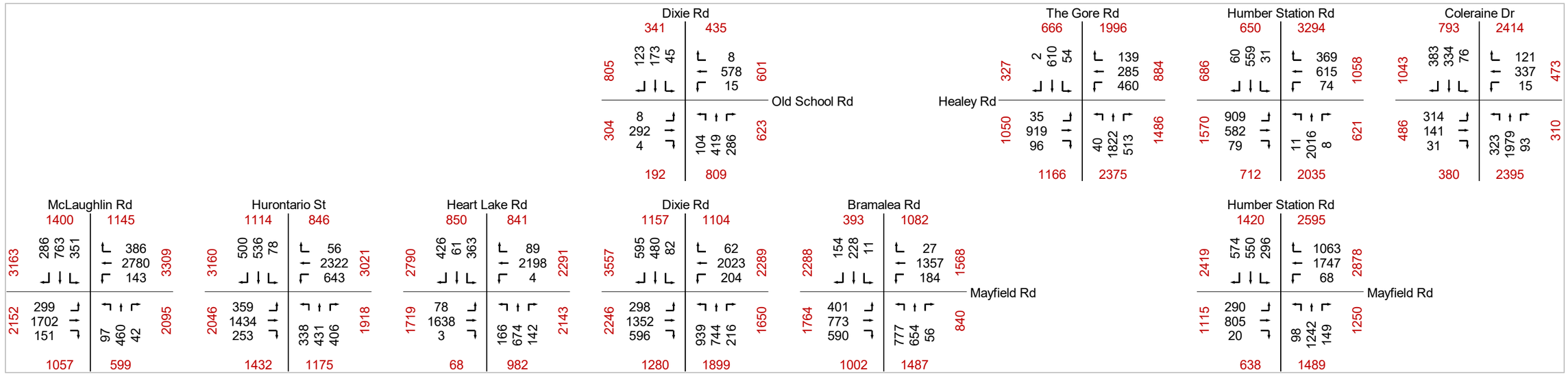


Figure 4: Future Volume Projection – 2051 East-West Connectivity Improvements Scenario PM Peak Hour

Synchro Model Development

The following intersections were identified as key hotspots along Old School Road-Healey Road and Mayfield Road based on the volume to capacity conditions in Emme, and were coded in Synchro to evaluate the projected operations on intersection turning movements:

1. Healey Road & Coleraine Drive
2. Healey Road & Humber Station Road
3. Healey Road & The Gore Road
4. Old School Road & Dixie Road
5. Mayfield Road & Humber Station Road
6. Mayfield Road & Bramalea Road
7. Mayfield Road & Dixie Road
8. Mayfield Road & Heart Lake Road
9. Mayfield Road & Hurontario Street
10. Mayfield Road & McLaughlin Road

Intersection Geometry

The intersection geometries used in the Synchro models capture the planned network improvements detailed in **Section 4.1**, with inputs from the transportation impact assessments undertaken by nearby developments, where applicable.

The lane configurations along Healey Road at the intersections with Coleraine Drive, Humber Station Road, and The Gore Road were assumed to have auxiliary left turn lanes and shared through-right curb lanes on all approaches. These turning lane assumptions are in line with common practice which adds auxiliary left turn lanes for safety purposes, while auxiliary or dedicated right turn lanes are considered on an as-needed operational basis to improve active transportation safety by reducing crossing distances for pedestrians and cyclists.

The lane configurations at the intersection of Old School Road with Dixie Road are generally consistent with the Mayfield-Tullamore Secondary Plan, however, as the widening of Dixie Road through this area has not yet been confirmed, as a conservative assumption it has not been included in the analysis. Auxiliary left turns have been provided on all approaches, and auxiliary right turns provided on the eastbound and northbound approaches.

The configurations at the intersection of Mayfield Road with Bramalea Road are also generally consistent with the Mayfield-Tullamore Secondary Plan, however, the dual eastbound left and channelized dual southbound right turn lanes have been converted to single turn lanes in the MMTMP Addendum analysis as a conservative assumption, as municipalities have been shifting away from these configurations where possible to improve active transportation comfort and safety. Auxiliary left turns have been provided on all approaches. Auxiliary right turns are provided on the eastbound and westbound approaches, consistent with existing conditions.

The intersection of Mayfield Road with Dixie Road is consistent with the Mayfield-Tullamore Secondary Plan, with four lanes along Dixie Road, six lanes along Mayfield Road, auxiliary left turn lanes on all approaches, and auxiliary right turn lanes east-west.

The intersections of Mayfield Road with Humber Station Road, Heart Lake Road, and McLaughlin Road incorporate the planned improvements which widen the north-south corridors to four lanes, and Mayfield Road to six lanes. Auxiliary left turn lanes have been assumed on all approaches.

At the intersection of Mayfield Road with Hurontario Street, the existing north-south lane configurations were maintained as widening of Hurontario Street is not anticipated. The widening of Mayfield Road to six lanes was included, and as a conservative assumption, the dual westbound left turn was reduced to a single westbound left turn lane to reflect prioritization of active transportation modes.

Signal Timings
Signal timings applied to the Synchro models are generally consistent with the transportation impact assessments undertaken by nearby development applications. General signal parameters of 4 seconds for yellow times, 2 seconds for all-red, 7 seconds walk, and 11 seconds of flashing don't walk were applied to all intersections. This yellow time is slightly higher than those observed in the background studies and would fall between the posted speed range of 60 km/h to 70 km/h from the Ontario Traffic Manual Book 12, July 2024, Table 4 guidance. Cycle lengths of 120 seconds with optimized offsets and signal splits were applied.

Heavy Vehicles
Default heavy vehicle proportions (i.e. 2%) were applied to all movements, as any existing proportions would not be applicable to future conditions due to the significant development projected. This is consistent with the approach applied to the traffic analyses in the study area.

Intersection Operations Analysis

To assess the traffic operations at the key intersections listed above, a transportation analysis was conducted using the software program Synchro Traffic Signal Coordination Software Version 11. Synchro can analyze both signalized and unsignalized intersections in a road corridor or network considering the spacing, interaction, queues, and operations between intersections.

AM and PM peak hour Synchro models were developed for the hotspot intersections using the forecasted turning movement volumes in the Travel Demand Forecasts section above. The signalized intersection analysis considers two separate measures of performance:

- The capacity of all intersection movements, which is based on a volume-to-capacity ratio (v/c); and
- The level of service (LOS) for all intersection movements, which is based on the average control delay per vehicle for each of the various movements through the intersection, and the overall intersection.

The level of service is based on the average control delay per vehicle for a given movement. Delay is an indicator of how long a vehicle must wait to complete a movement and is represented by a level of service grade between "A" and "F", with "F" being the longest delay. The level of service is based on the scale shown in **Table 2**. The v/c ratio is a measure of the

degree of capacity utilized at an intersection over the 1-hour analysis period.

Table 2: Highway Capacity Manual Level of Service Definitions for Intersections

Level of Service (LOS)	Signalized Control Delay per Vehicle (s)	Unsignalized Control Delay per Vehicle (s)	LOS Recommendations
A	≤ 10	≤ 10	Ideal
B	> 10 and ≤ 20	> 10 and ≤ 15	Acceptable
C	> 20 and ≤ 35	> 15 and ≤ 25	Acceptable
D	> 35 and ≤ 55	> 25 and ≤ 35	Somewhat undesirable
E	> 55 and ≤ 80	> 35 and ≤ 50	Undesirable
F	> 80	> 50	Unacceptable

The turning movement results for the study area intersections for the AM and PM peak hours in the baseline and with east-west collector scenarios are detailed below in **Table 3** and **Table 4**, respectively. Movements operating at LOS “F” or with volume to capacity (v/c) ratios of 1.00 or higher are highlighted in red. These intersections focus on operations at hotspot intersections along Old School Road-Healey Road and along Mayfield Road in the 2051 horizon year before and after the implementation of the east-west collector roads. The baseline condition is noted to include internal collector road networks within “fixed” development applications. For comparison purposes, the signal timings were not adjusted in the East-West Connectivity Improvements scenarios. Further optimization of signal timings is expected to provide additional benefits to the operations in the East-West Connectivity Improvements scenario. While overall net benefits are expected, these optimizations and re-allocation of green time would naturally result in some movements operating better at the expense of others.

As shown in the table, many of the hotspot intersections are projected to operate with at-capacity movements and high delays. The PM peak hour is projected to experience worse operations relative to the AM peak hour. Generally, the East-West Connectivity Improvements scenario experiences reduced delays and volume to capacity ratios. During the AM peak hour, critical volume to capacity ratios reduced from 30 critical movements in the baseline to 22 in the improved scenario, and critical delays reduced from 16 critical movements to 14. During the PM peak hour, critical delays reduced from 42 to 40 movements from the baseline to improved scenarios.

The largest improvements are observed in the following movements due to changes in travel patterns in the East-West Connectivity Improvements scenario:

- **McLaughlin Road & Mayfield Road:** The eastbound left turn improves from 1.09 v/c and 121 seconds delay in baseline to 0.99 v/c and 91 seconds during the AM. During the PM, the northbound left improves from 1.56 v/c and 362 seconds delay in the baseline to 1.41 v/c and 292 seconds.
- **Heart Lake Road & Mayfield Road:** The westbound through movement improves from 1.23 v/c and 127 seconds delay in the PM baseline to 1.06 v/c and 51 seconds delay.
- **Mayfield Road & Dixie Road:** The eastbound right turn improves from 1.19 v/c and

134 seconds delay in the baseline to 0.91 v/c and 76 seconds delay in the improvement scenario during the AM peak hour. Similarly, the westbound left turn improves from a 1.15 v/c and 129 seconds delay to 0.84 v/c and 54 seconds delay during the AM.

- **Bramalea Road & Mayfield Road:** The southbound right turn improves from a 1.06 v/c and 106 seconds delay in the baseline to 0.42 v/c and 44 seconds delay in the improvement scenario during the AM. During the PM, the eastbound left improves from a 1.42 v/c and 246 seconds delay to 0.91 v/c and 67 seconds delay.
- **Humber Station Road & Healey Road:** The eastbound through movement improves from a 1.13 v/c and 121 seconds delay in the baseline condition to 0.90 v/c and 66 seconds delay in the improvement condition during the AM peak hour.

As shown, the east-west collector roads are generally expected to improve conditions within the study area and mitigate critical operations along Old School Road-Healey Road and Mayfield Road, as drivers are given a mid-block alternative for east-west travel.

It is also shown that many critical conditions will remain throughout the network. As the purpose of this analysis is to identify comparative benefits or impacts from the introduction of the east-west collector road between Old School Road-Healey Road and Mayfield Road, further mitigation measures were not explored. The subject analysis reflects a long-range forecast for the 2051 horizon year, and it is expected that refinements to intersection configurations and signal timings will be identified as part of the development applications process and Environmental Assessments.

Table 3: Turning Movement Operations Summary | 2051 Horizon Year AM Peak Hour

Intersection	Movement	AM Baseline				AM Preferred			
		LOS	Delay (s)	V/C	95th Q	LOS	Delay (s)	V/C	95th Q
McLaughlin Road & Mayfield Rd	EBL	F	121	1.09	110	F	91	0.99	96
	EBT	E	55	1.02	271	E	58	1.03	276
	WBL	E	67	0.72	9	E	71	0.70	10
	WBT	E	59	1.04	198	E	63	1.04	195
	NBL	D	53	0.66	50	D	55	0.68	53
	NBT	F	123	1.13	166	F	123	1.13	166
	SBL	F	113	1.10	161	F	97	1.05	151
	SBT	C	25	0.41	62	C	24	0.38	56
	Overall	**E**	**68**	**1.16**	**-**	**E**	**68**	**1.11**	**-**
Hurontario Street & Mayfield Rd	EBL	E	68	1.01	101	E	62	0.97	94
	EBT	E	74	1.09	218	E	75	1.10	221
	WBL	F	109	1.08	141	F	95	1.03	132
	WBT	D	37	0.76	128	D	36	0.74	125
	NBL	F	107	1.04	95	F	112	1.06	99
	NBT	D	35	0.48	71	D	35	0.47	69
	NBR	D	39	0.61	88	D	40	0.64	94
	SBL	D	47	0.46	31	D	46	0.40	28
	SBT	E	55	0.79	80	D	52	0.73	73
	SBR	D	43	0.17	24	D	43	0.16	24
	Overall	**E**	**61**	**1.11**	**-**	**E**	**60**	**1.11**	**-**
	EBL	D	54	0.84	75	E	68	0.94	147
	EBT	C	29	0.86	198	C	25	0.77	174

Intersection	Movement	AM Baseline				AM Preferred			
		LOS	Delay (s)	V/C	95th Q	LOS	Delay (s)	V/C	95th Q
Heart Lake Road & Mayfield Road	WBL	D	50	0.70	20	C	29	0.64	19
	WBT	B	17	0.81	150	C	24	0.84	60
	NBL	D	46	0.04	4	D	42	0.03	4
	NBT	D	46	0.10	11	D	42	0.09	12
	SBL	D	37	0.47	54	D	35	0.24	27
	SBT	D	47	0.82	118	D	44	0.73	99
	Overall	**C**	**29**	**0.90**	**-**	**C**	**30**	**0.94**	**-**
Mayfield Road & Dixie Road	EBL	**F**	**89**	**1.06**	150	**F**	**92**	**1.09**	175
	EBT	D	41	0.97	207	D	49	0.93	195
	EBR	**F**	**134**	**1.19**	300	E	76	0.91	212
	WBL	**F**	**129**	**1.15**	76	D	54	0.84	47
	WBT	D	52	**1.00**	126	D	46	0.82	110
	WBR	E	64	0.05	3	C	31	0.05	1
	NBL	**F**	**133**	**1.18**	187	**F**	**192**	**1.31**	212
	NBT	C	29	0.44	72	C	29	0.46	74
	SBL	D	41	0.17	10	D	50	0.48	29
	SBT	D	45	0.61	58	**F**	**292**	**1.54**	204
	Overall	**E**	**71**	**1.22**	**-**	**F**	**97**	**1.26**	**-**
Bramalea Road & Mayfield Road	EBL	B	12	0.73	19	B	19	0.43	42
	EBT	E	68	**1.10**	196	**F**	**92**	**1.10**	221
	WBL	**F**	**88**	0.90	52	D	38	0.67	65
	WBT	D	44	0.62	77	C	33	0.38	61
	WBR	D	35	0.01	0	C	28	0.01	0
	NBL	**F**	**124**	**1.15**	202	**F**	**148**	**1.22**	213
	NBT	B	17	0.20	28	B	19	0.15	20
	SBL	C	34	0.39	27	C	33	0.23	15
	SBT	D	43	0.78	97	D	42	0.73	66
	SBR	**F**	**106**	**1.06**	187	D	44	0.42	34
	Overall	**E**	**65**	**1.15**	**-**	**E**	**72**	**1.16**	**-**
Humber Station Road & Mayfield Road	EBL	D	54	0.87	83	D	41	0.76	61
	EBT	E	55	0.99	216	D	50	0.97	209
	WBL	**F**	**85**	0.66	30	**F**	**100**	0.76	35
	WBT	D	47	**1.05**	87	D	45	**1.01**	87
	NBL	D	48	0.50	22	D	47	0.48	21
	NBT	D	47	0.72	86	D	47	0.70	83
	SBL	**F**	**84**	**1.05**	112	**F**	**85**	**1.05**	132
	SBT	D	46	**1.00**	157	D	44	0.97	161
	Overall	**D**	**53**	**1.10**	**-**	**D**	**51**	**1.08**	**-**
Dixie Road & Old School Road	EBL	B	20	0.24	36	B	15	0.17	28
	EBT	C	21	0.39	89	B	16	0.27	58
	EBR	B	18	0.11	16	B	14	0.07	11
	WBL	B	13	0.63	60	A	9	0.40	39
	WBT	A	9	0.19	33	A	8	0.13	21
	NBL	C	35	0.04	1	C	27	0.04	1
	NBT	D	37	0.28	32	C	29	0.32	30
	NBR	C	32	0.01	0	C	34	0.01	0
	SBL	C	32	0.03	6	C	34	0.04	6
	SBT	D	50	0.81	119	D	51	0.79	111
	Overall	**C**	**23**	**0.70**	**-**	**C**	**22**	**0.52**	**-**
	EBL	D	40	0.04	4	D	40	0.02	3

Intersection	Movement	AM Baseline				AM Preferred			
		LOS	Delay (s)	V/C	95th Q	LOS	Delay (s)	V/C	95th Q
The Gore Road & Healey Road	EBT	D	49	0.62	68	D	44	0.41	46
	WBL	C	33	0.87	80	C	29	0.75	81
	WBT	C	31	0.70	107	C	30	0.68	109
	NBL	C	22	0.39	14	C	21	0.37	13
	NBT	B	20	0.52	80	B	19	0.50	76
	SBL	B	19	0.37	23	B	17	0.31	20
	SBT	D	36	0.93	257	D	37	0.94	260
	Overall	**C**	**32**	**0.92**	**-**	**C**	**31**	**0.88**	**-**
Humber Station Road & Healey Road	EBL	D	55	0.44	16	D	54	0.30	12
	EBT	F	121	1.13	157	E	66	0.90	104
	WBL	D	42	0.15	4	D	44	0.16	4
	WBT	D	50	0.76	74	D	52	0.81	76
	NBL	F	143	1.08	27	F	127	0.98	27
	NBT	B	11	0.25	42	B	16	0.26	55
	SBL	A	7	0.37	23	A	8	0.52	32
	SBT	E	78	1.12	445	E	56	1.07	415
	Overall	**E**	**72**	**1.17**	**-**	**D**	**50**	**1.07**	**-**
Coleraine Drive & Healey Road	EBL	E	72	0.91	91	E	75	0.91	118
	EBT	D	55	0.58	75	D	50	0.50	78
	WBL	D	51	0.33	22	D	48	0.28	20
	WBT	D	45	0.25	27	D	45	0.25	27
	NBL	B	18	0.42	18	B	16	0.34	12
	NBT	B	11	0.16	26	B	11	0.16	26
	SBL	B	11	0.17	20	B	12	0.20	23
	SBT	E	56	1.04	345	E	59	1.05	349
	Overall	**D**	**51**	**1.03**	**-**	**D**	**52**	**1.03**	**-**

Table 4: Turning Movement Operations Summary | 2051 Horizon Year PM Peak Hour

Intersection	Movement	PM Baseline				PM Preferred			
		LOS	Delay (s)	V/C	95th Q	LOS	Delay (s)	V/C	95th Q
McLaughlin Road & Mayfield Rd	EBL	F	281	1.49	149	F	255	1.43	142
	EBT	D	35	0.85	168	D	36	0.86	171
	WBL	B	17	0.71	16	B	17	0.75	17
	WBT	F	267	1.51	340	F	269	1.51	344
	NBL	F	362	1.56	70	F	292	1.41	68
	NBT	D	38	0.55	77	D	37	0.52	72
	SBL	F	255	1.44	187	F	183	1.27	156
	SBT	D	40	0.84	153	D	39	0.82	146
	Overall	**F**	**158**	**1.53**	**-**	**F**	**154**	**1.46**	**-**
Hurontario Street & Mayfield Rd	EBL	F	141	1.22	114	F	115	1.15	104
	EBT	D	43	0.98	164	D	44	0.98	174
	WBL	F	236	1.41	267	F	251	1.44	274
	WBT	F	97	1.12	279	F	98	1.13	280
	NBL	F	199	1.30	146	F	212	1.34	151
	NBT	C	33	0.43	65	C	33	0.40	59
	NBR	C	32	0.33	37	C	32	0.29	30
	SBL	D	52	0.59	42	D	48	0.50	35
	SBT	E	72	0.94	107	E	67	0.91	102

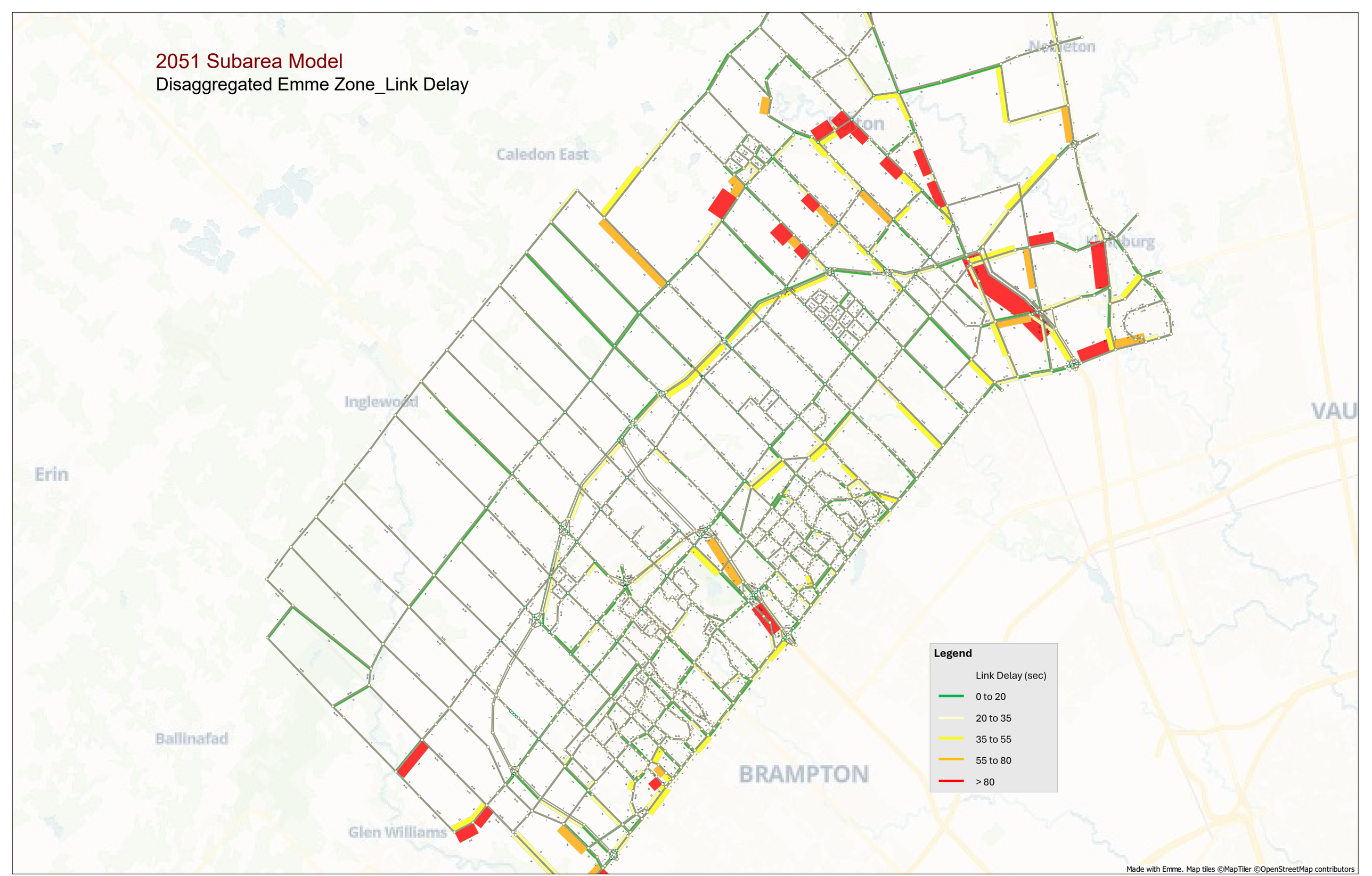
Intersection	Movement	PM Baseline				PM Preferred			
		LOS	Delay (s)	V/C	95th Q	LOS	Delay (s)	V/C	95th Q
	SBR	F	170	1.20	163	F	135	1.10	148
	Overall	**F**	**98**	**1.45**	**-**	**F**	**97**	**1.48**	**-**
Heart Lake Road & Mayfield Road	EBL	D	36	0.63	21	C	34	0.59	19
	EBT	C	24	0.67	129	C	23	0.65	123
	WBL	B	19	0.06	0	B	18	0.05	0
	WBT	F	127	1.23	85	D	51	1.06	76
	NBL	D	42	0.45	40	E	77	0.87	82
	NBT	F	173	1.26	197	F	102	1.07	158
	SBL	F	246	1.43	207	F	118	1.11	147
	SBT	C	24	0.22	30	C	25	0.34	47
	Overall	**F**	**107**	**1.34**	**-**	**D**	**53**	**1.10**	**-**
Mayfield Road & Dixie Road	EBL	E	64	0.80	28	F	617	2.21	146
	EBT	F	148	1.20	183	E	75	1.00	150
	EBR	F	145	0.45	72	F	214	0.38	84
	WBL	F	235	1.40	55	F	216	1.36	45
	WBT	F	275	1.49	215	F	253	1.45	227
	WBR	C	32	0.01	0	F	218	0.04	3
	NBL	F	490	2.00	517	F	324	1.62	401
	NBT	B	15	0.32	45	B	18	0.50	88
	SBL	E	57	0.54	41	E	71	0.66	45
	SBT	F	211	1.37	210	F	233	1.41	220
	Overall	**F**	**232**	**1.87**	**-**	**F**	**205**	**1.86**	**-**
Bramalea Road & Mayfield Road	EBL	F	246	1.42	197	E	67	0.91	101
	EBT	D	48	0.69	86	D	48	0.64	92
	WBL	D	40	0.76	52	C	35	0.72	47
	WBT	F	123	1.15	193	D	50	0.90	163
	WBR	C	33	0.03	0	C	29	0.02	0
	NBL	F	209	1.35	213	F	359	1.70	355
	NBT	D	35	0.71	124	C	32	0.56	93
	SBL	D	40	0.22	8	D	39	0.09	4
	SBT	D	43	0.55	48	D	41	0.39	35
	SBR	E	55	0.15	21	D	49	0.10	15
	Overall	**F**	**104**	**1.47**	**-**	**F**	**93**	**1.30**	**-**
Humber Station Road & Mayfield Road	EBL	F	326	1.60	162	F	236	1.39	136
	EBT	B	18	0.33	54	B	18	0.32	53
	WBL	C	28	0.27	23	C	29	0.29	25
	WBT	F	264	1.55	377	F	256	1.52	371
	NBL	F	361	1.56	70	F	264	1.34	68
	NBT	F	210	1.36	284	F	212	1.36	284
	SBL	F	321	1.56	147	F	310	1.53	143
	SBT	C	28	0.84	159	C	22	0.77	80
	Overall	**F**	**188**	**1.66**	**-**	**F**	**180**	**1.53**	**-**
Dixie Road & Old School Road	EBL	B	17	0.04	5	B	16	0.02	4
	EBT	B	19	0.25	49	B	18	0.17	33
	EBR	A	0	0.00	0	A	0	0.00	0
	WBL	B	17	0.04	7	B	16	0.03	7
	WBT	C	21	0.44	90	B	20	0.34	67
	NBL	C	23	0.43	35	C	21	0.25	16
	NBT	C	24	0.56	88	C	23	0.52	56
	NBR	B	19	0.39	38	B	19	0.18	0

Intersection	Movement	PM Baseline				PM Preferred			
		LOS	Delay (s)	V/C	95th Q	LOS	Delay (s)	V/C	95th Q
	SBL	D	39	0.21	18	D	39	0.22	19
	SBT	D	51	0.73	88	D	51	0.73	87
	Overall	**C**	**25**	**0.55**	**-**	**C**	**25**	**0.48**	**-**
The Gore Road & Healey Road	EBL	D	37	0.18	17	D	36	0.15	16
	EBT	**F**	**147**	**1.20**	211	**F**	**128**	**1.16**	199
	WBL	**F**	**203**	**1.41**	129	**F**	**155**	**1.29**	122
	WBT	B	11	0.38	43	B	11	0.28	29
	NBL	B	18	0.18	18	B	18	0.13	13
	NBT	**F**	**221**	**1.41**	450	**F**	**226**	**1.42**	454
	SBL	**F**	**103**	0.89	41	**F**	**98**	0.87	40
	SBT	C	20	0.36	63	C	20	0.36	64
	Overall	**F**	**153**	**1.44**	**-**	**F**	**151**	**1.39**	**-**
Humber Station Road & Healey Road	EBL	**F**	**450**	**1.87**	254	**F**	**397**	**1.75**	238
	EBT	B	12	0.35	27	B	12	0.35	28
	WBL	D	38	0.34	18	D	38	0.41	24
	WBT	**F**	**181**	**1.30**	219	**F**	**142**	**1.21**	197
	NBL	C	23	0.07	2	C	22	0.05	1
	NBT	**F**	**308**	**1.60**	220	**F**	**288**	**1.56**	217
	SBL	C	33	0.43	18	D	36	0.51	22
	SBT	C	30	0.48	78	C	30	0.48	78
	Overall	**F**	**237**	**1.81**	**-**	**F**	**210**	**1.72**	**-**
Coleraine Drive & Healey Road	EBL	E	76	0.99	94	**F**	**129**	**1.16**	121
	EBT	B	17	0.15	17	B	17	0.15	17
	WBL	D	43	0.08	10	D	43	0.08	10
	WBT	D	53	0.68	65	E	58	0.78	75
	NBL	D	36	0.89	87	C	20	0.74	53
	NBT	D	45	**1.00**	329	D	43	**1.00**	324
	SBL	**F**	**171**	**1.08**	50	**F**	**228**	**1.25**	42
	SBT	C	22	0.38	51	C	22	0.37	49
	Overall	**D**	**44**	**1.08**	**-**	**D**	**48**	**1.22**	**-**

Appendix B – Emme Plots

2051 Subarea Model

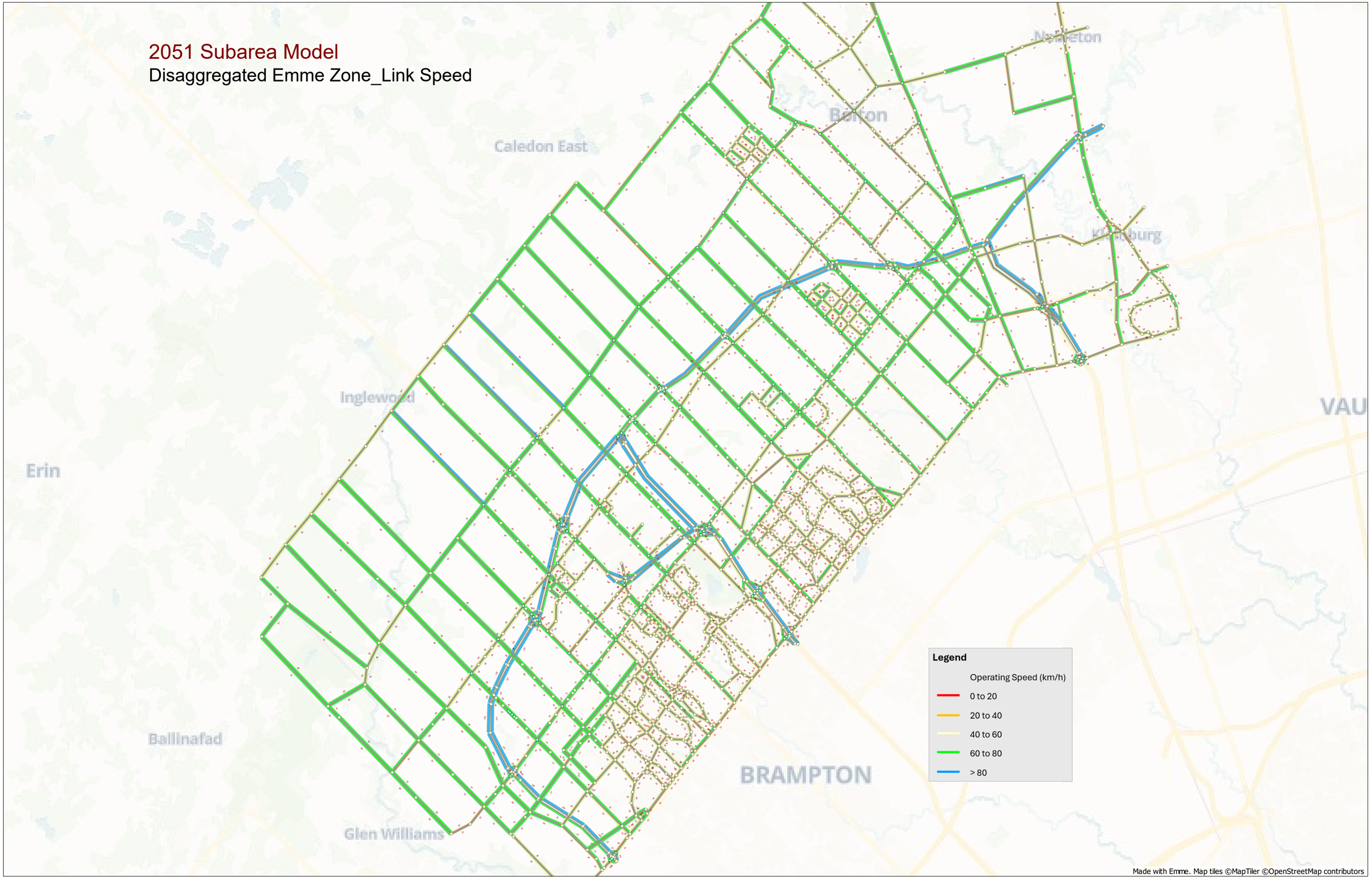
Disaggregated Emme Zone_Link Delay



Made with Emme. Map tiles ©MapTiler ©OpenStreetMap contributors

2051 Subarea Model

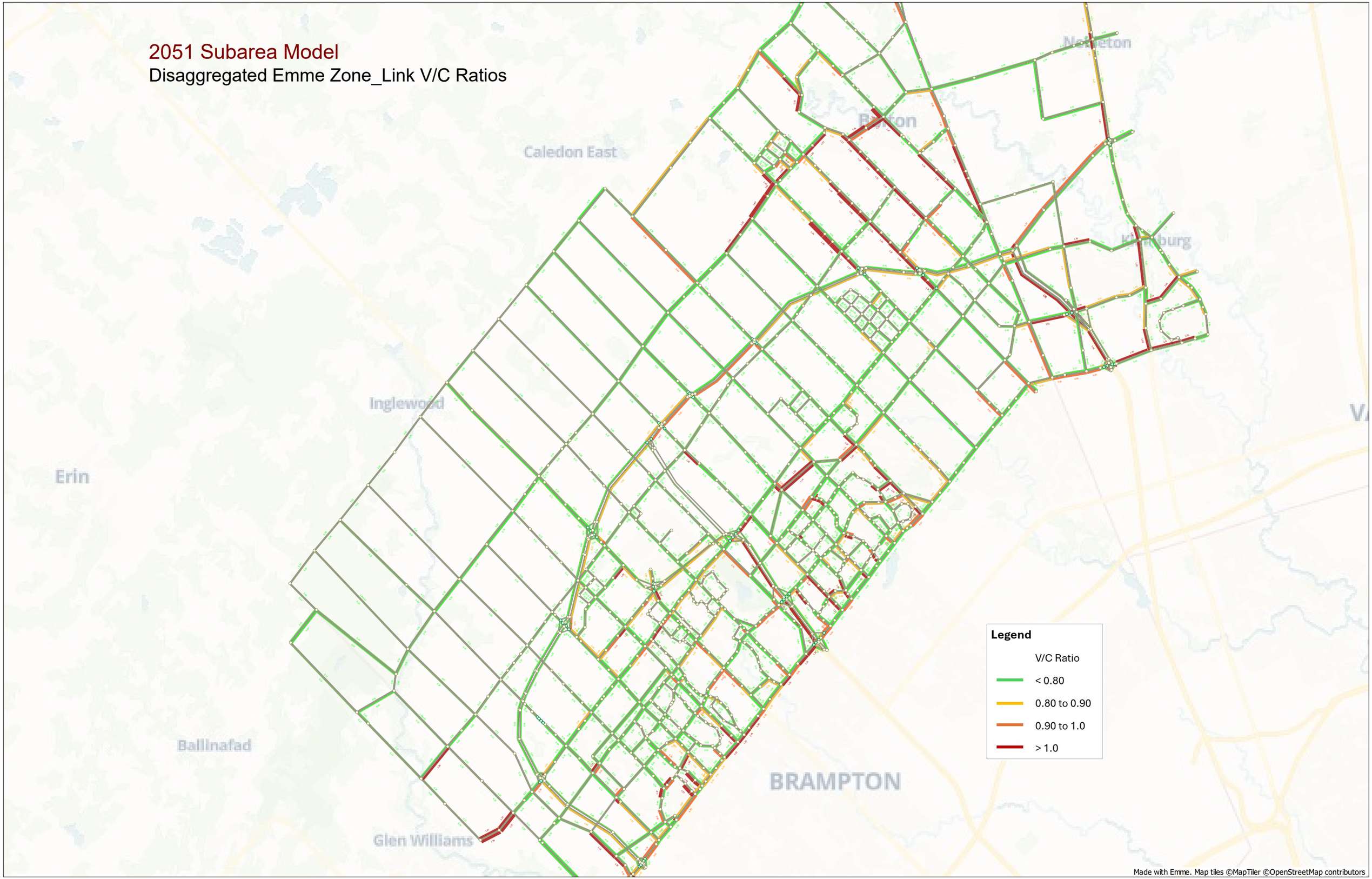
Disaggregated Emme Zone_Link Speed



Made with Emme. Map tiles ©MapTiler ©OpenStreetMap contributors

2051 Subarea Model

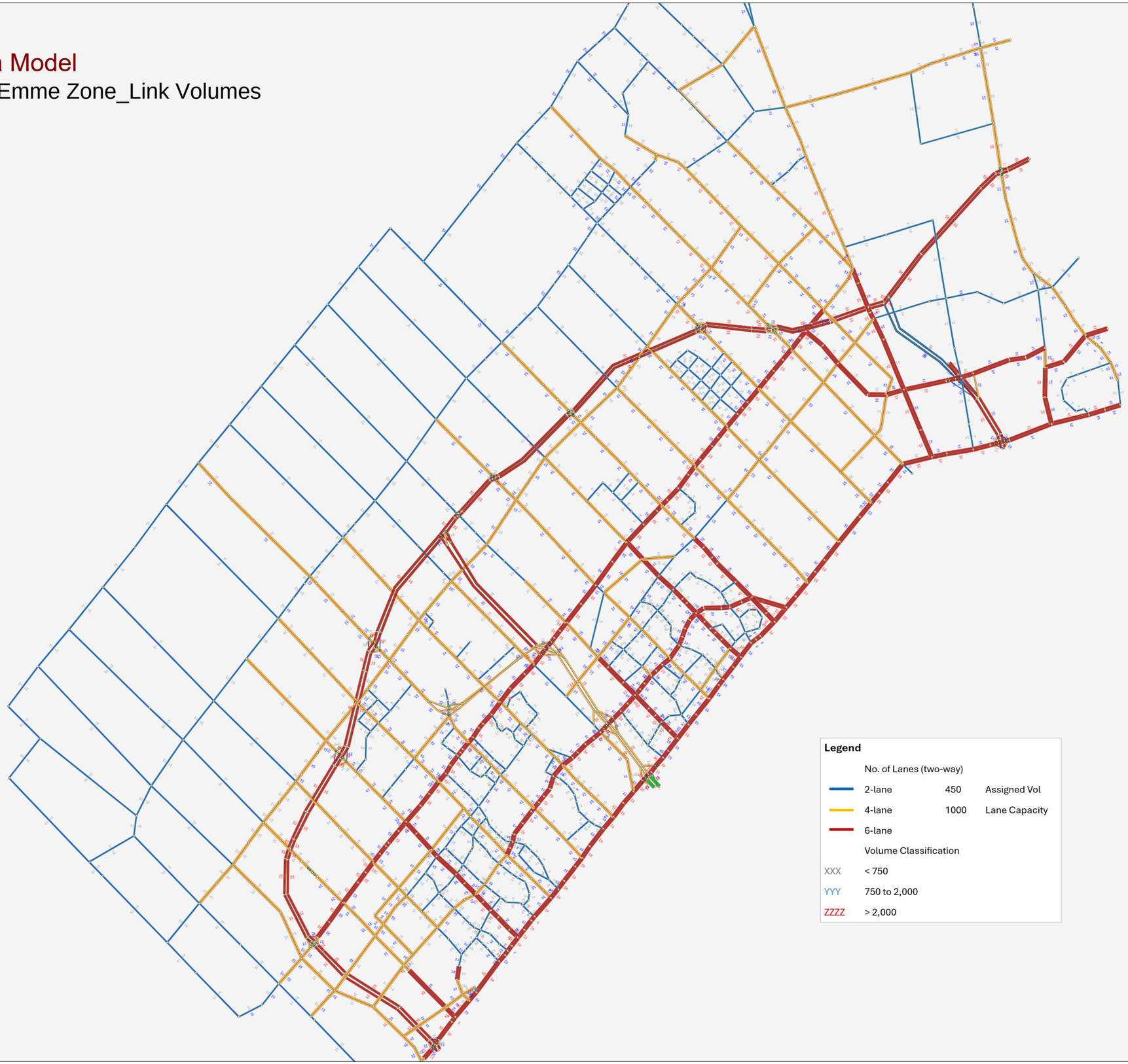
Disaggregated Emme Zone_Link V/C Ratios



Made with Emme. Map tiles ©MapTiler ©OpenStreetMap contributors

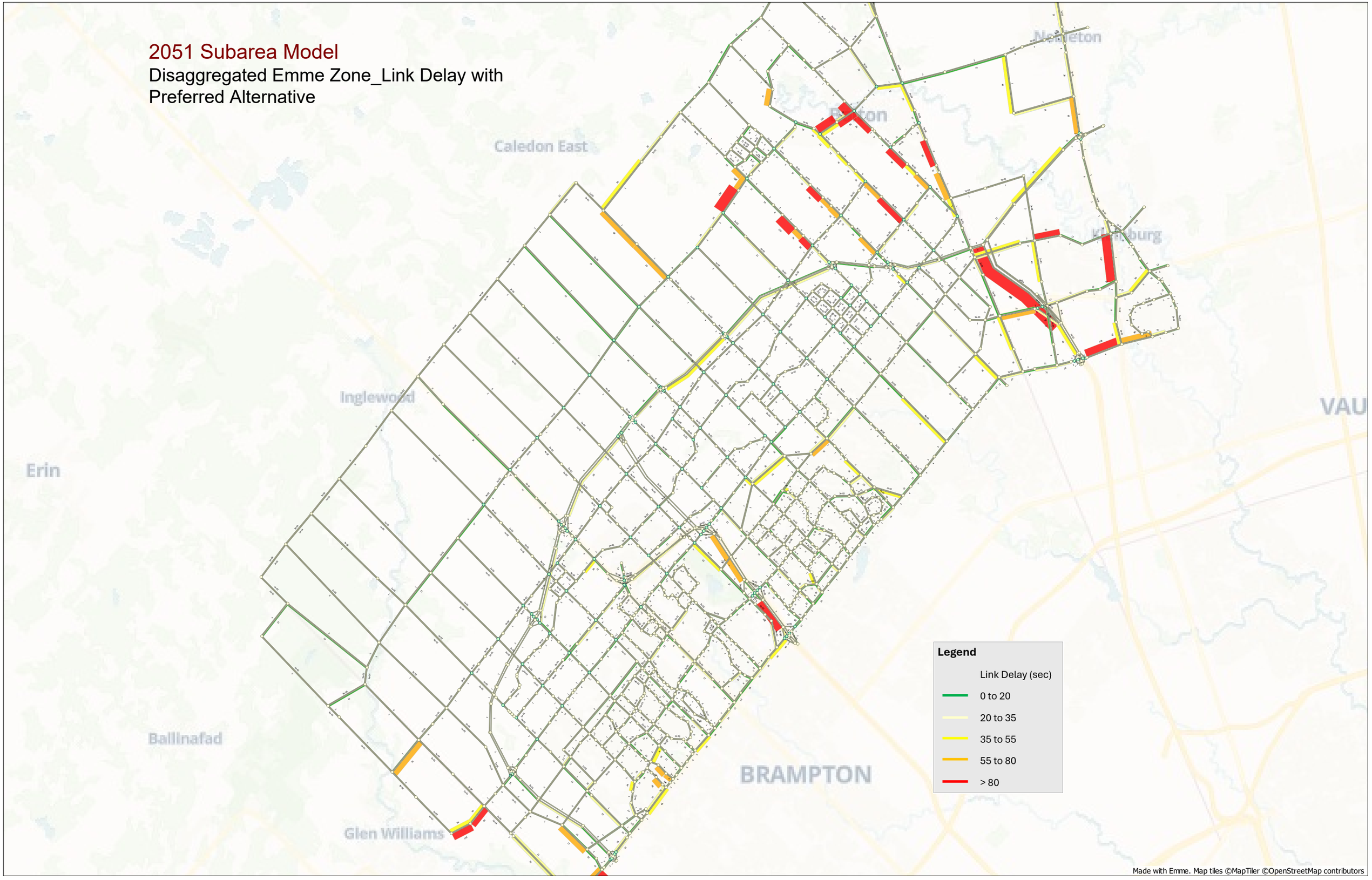
2051 Subarea Model

Disaggregated Emme Zone_Link Volumes



2051 Subarea Model

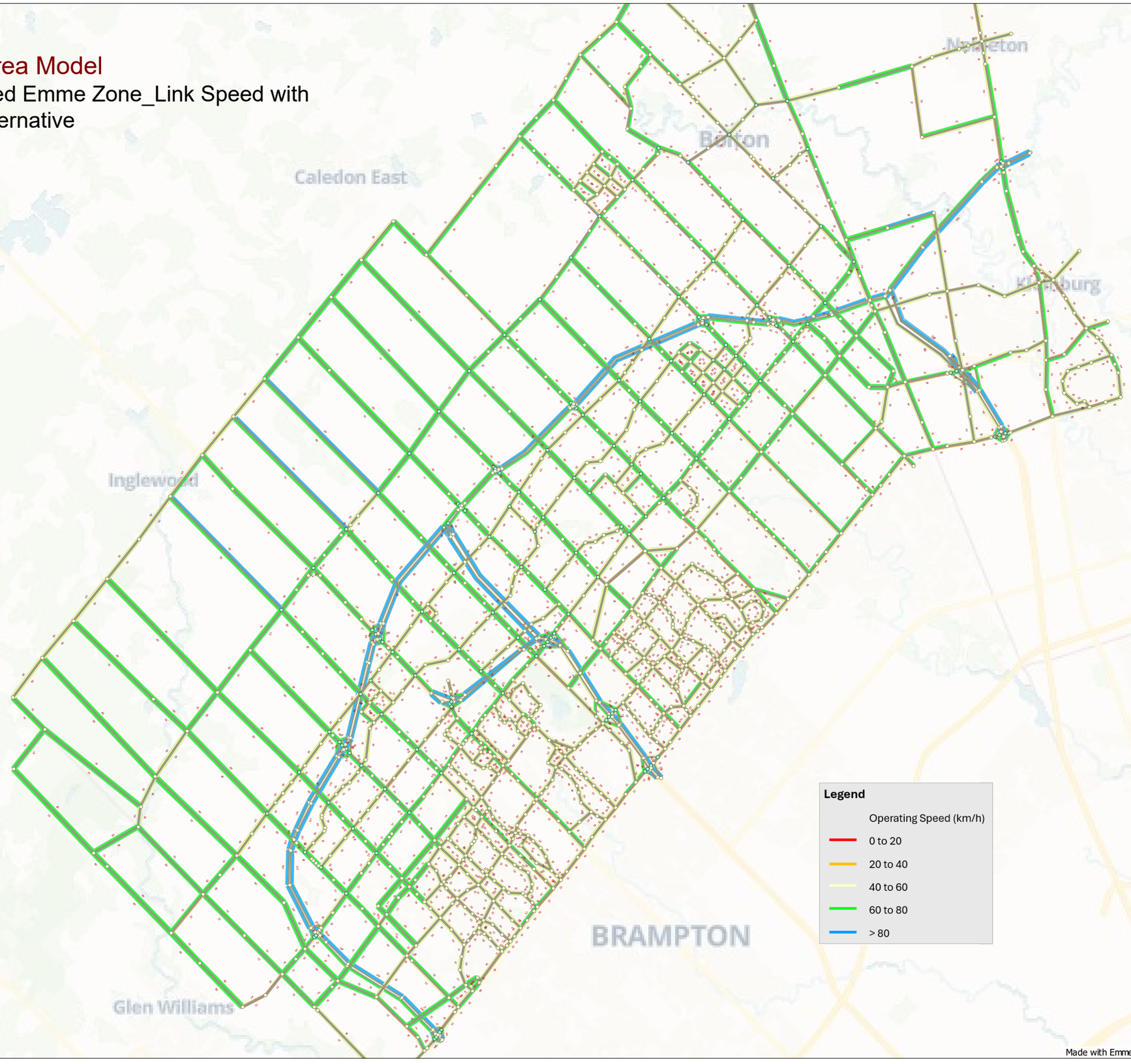
Disaggregated Emme Zone_Link Delay with Preferred Alternative



Made with Emme. Map tiles ©MapTiler ©OpenStreetMap contributors

2051 Subarea Model

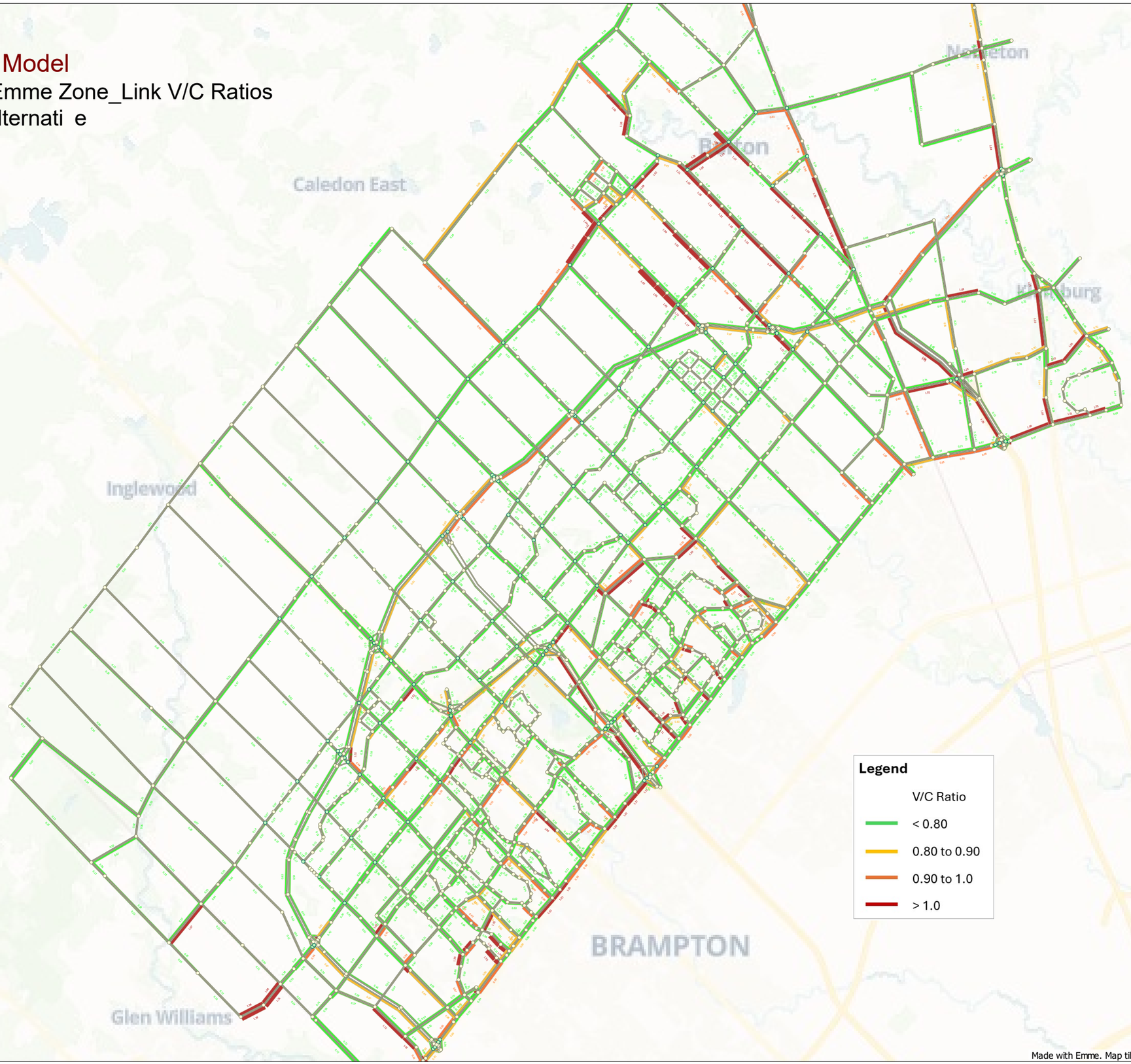
Disaggregated Emme Zone_Link Speed with
Preferred Alternative



Made with Emme. Map tiles ©MapTiler ©OpenStreetMap contributors

2051 Subarea Model

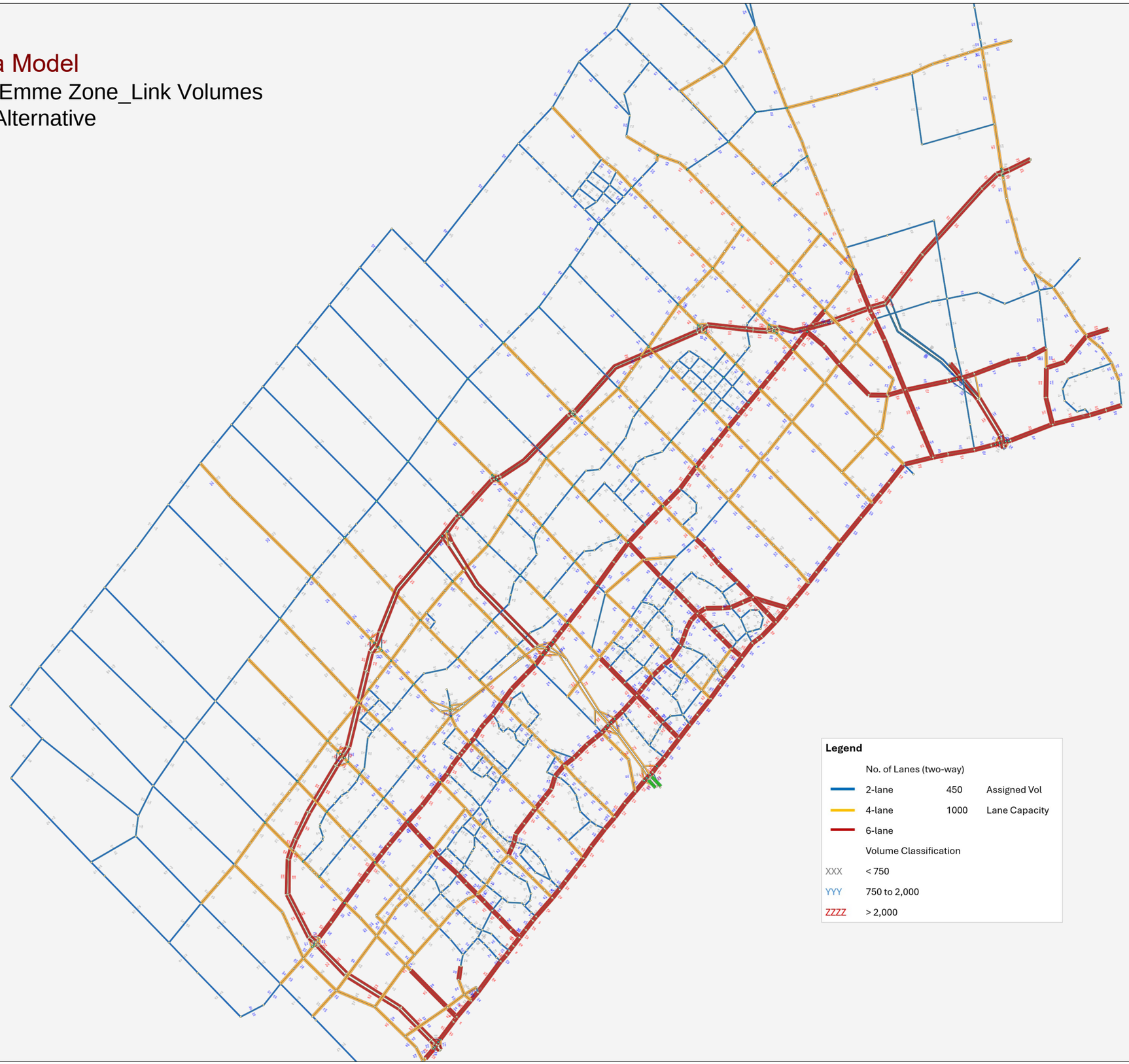
Disaggregated Emme Zone_Link V/C Ratios
with Preferred Alternati e



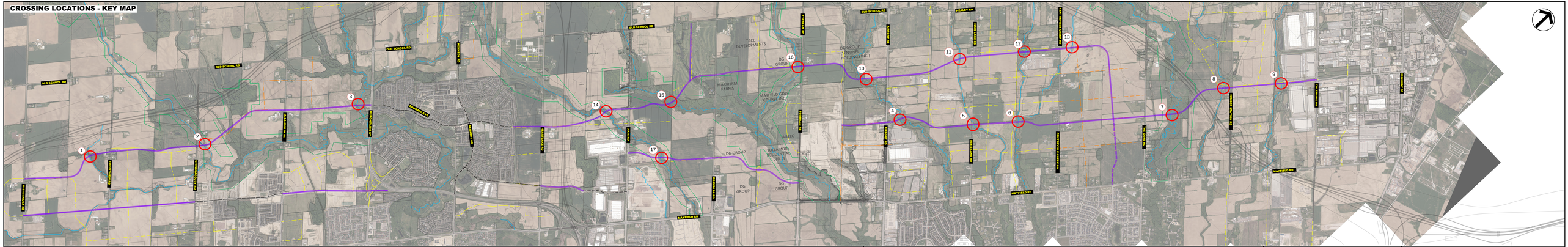
Made with Emme. Map tiles ©MapTiler ©OpenStreetMap contributors

2051 Subarea Model

Disaggregated Emme Zone_Link Volumes
with Preferred Alternative



Appendix C – Vertical Profiles



LEGEND

- PREFERRED MAJOR COLLECTOR ROAD ALIGNMENT
- PROPOSED COLLECTOR ROADS (THROUGH DEVELOPMENT PLANS)
- PROPOSED COLLECTOR ROADS (THROUGH DEVELOPMENT PLANS - FIXED)
- GREENBELT AREA
- WATERCOURSE
- EXISTING ROADWAY

TOWN OF CALEDON

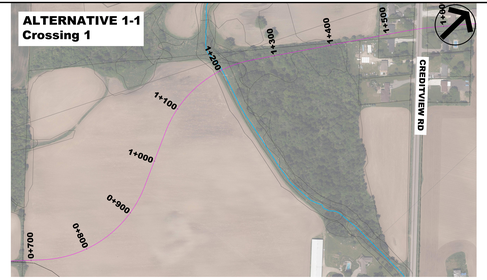
HDR

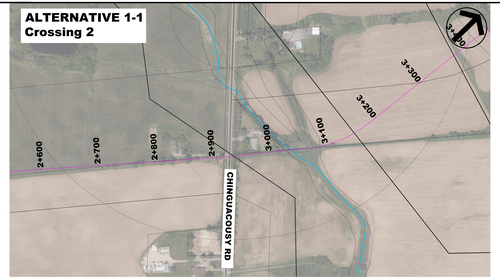
CALEDON MULTIMODAL TMP ADDENDUM

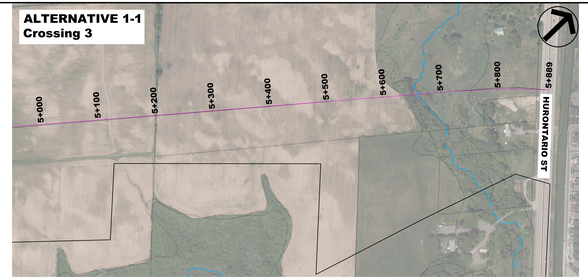
PREFERRED ALTERNATIVE ALIGNMENTS

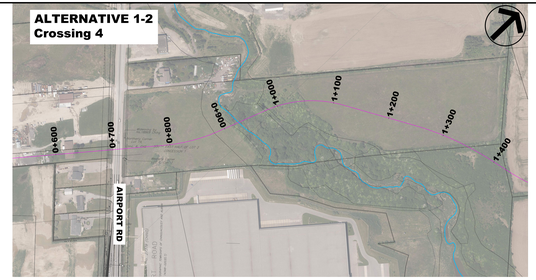
SCALE: 1:5000

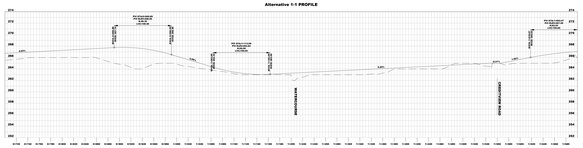
DATE: JANUARY 2025

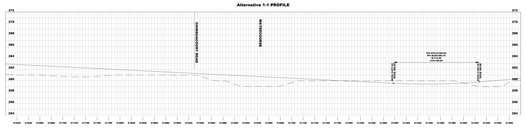


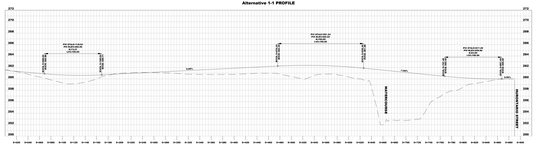


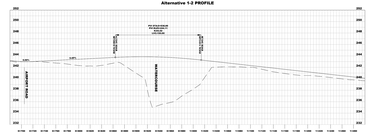












LEGEND

ALTERNATIVE 1

ALTERNATIVE 3

WATERCOURSE

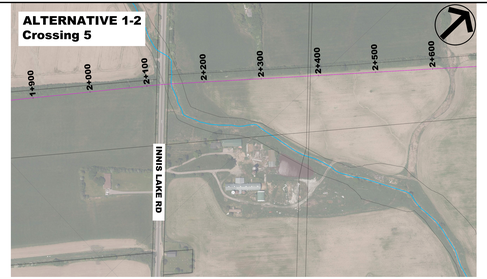
TOWN OF CALEDON

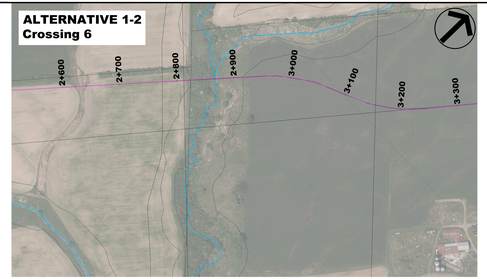
CALEDON MULTIMODAL TMP

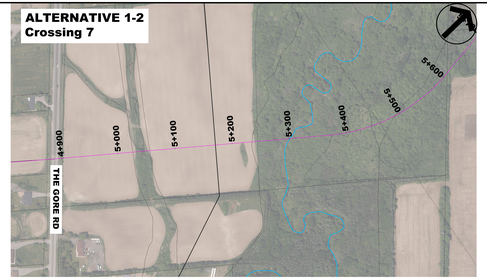
PROFILES AT CROSSINGS

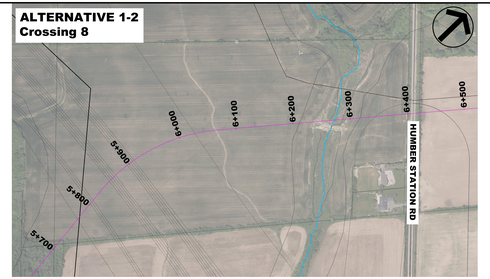
SCALE: 1:1000

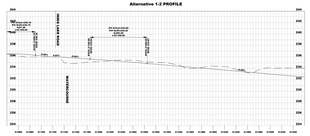
DATE: JAN 2026

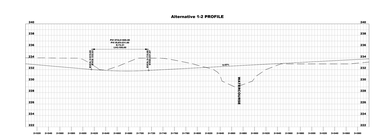


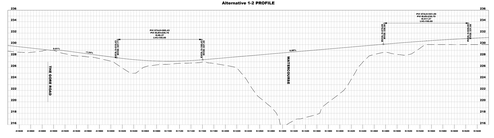


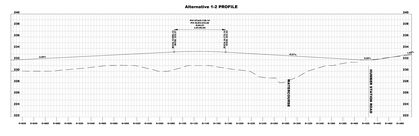












LEGEND

ALTERNATIVE 1

ALTERNATIVE 3

WATERCOURSE

TOWN OF CALEDON

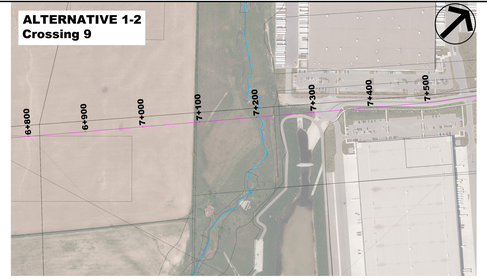
HDR

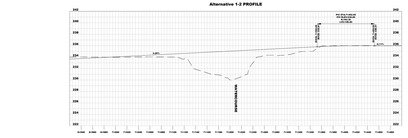
CALEDON MULTIMODAL TMP

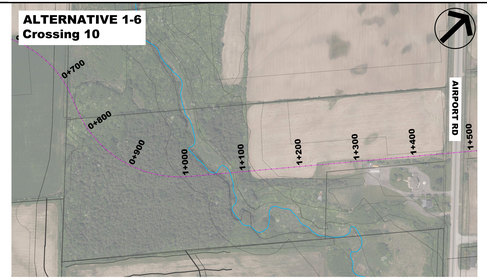
PROFILES AT CROSSINGS

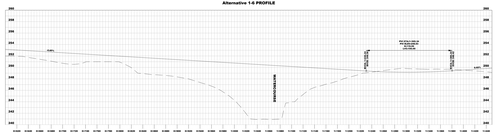
SCALE: 1:1000

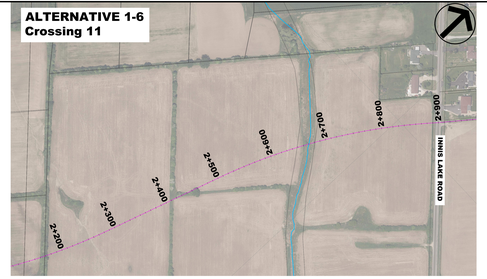
DATE: JAN 2026

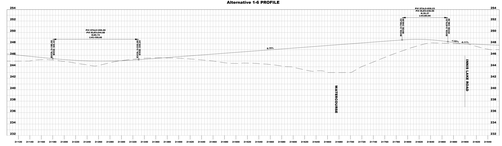


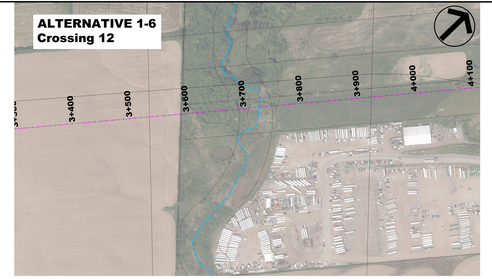


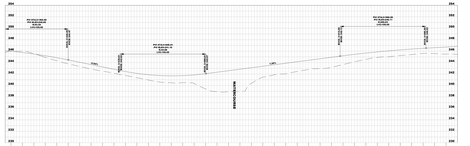












LEGEND

ALTERNATIVE 1

ALTERNATIVE 3

WATERCOURSE

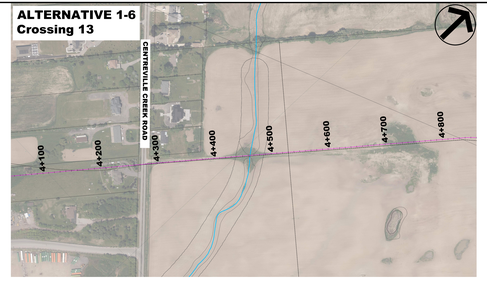
TOWN OF CALEDON

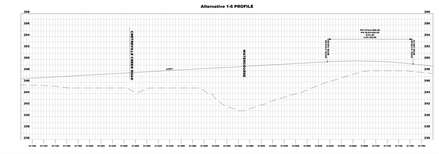
CALEDON MULTIMODAL TMP

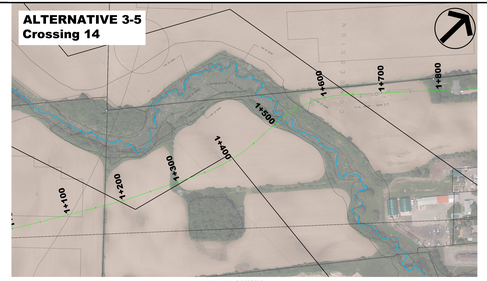
PROFILES AT CROSSINGS

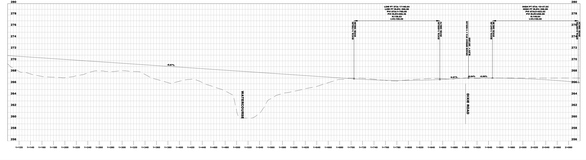
SCALE: 1:1000

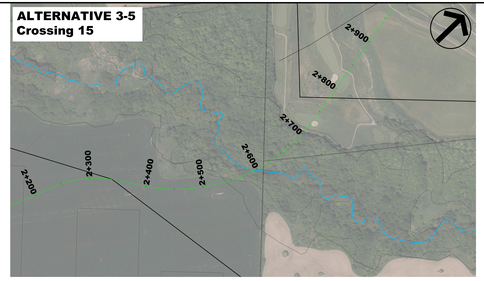
DATE: JAN 2026

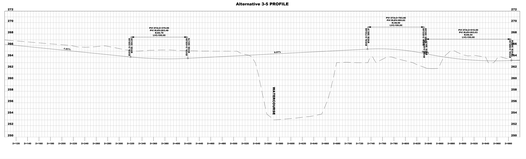


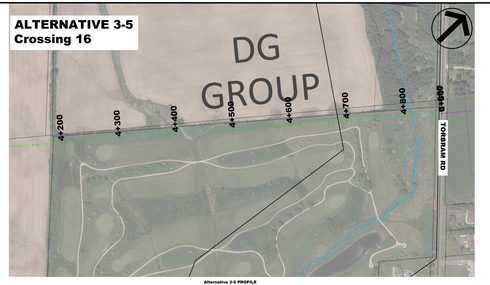


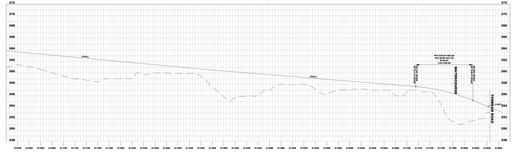












LEGEND

ALTERNATIVE 1

ALTERNATIVE 3

WATERCOURSE

TOWN OF CALEDON

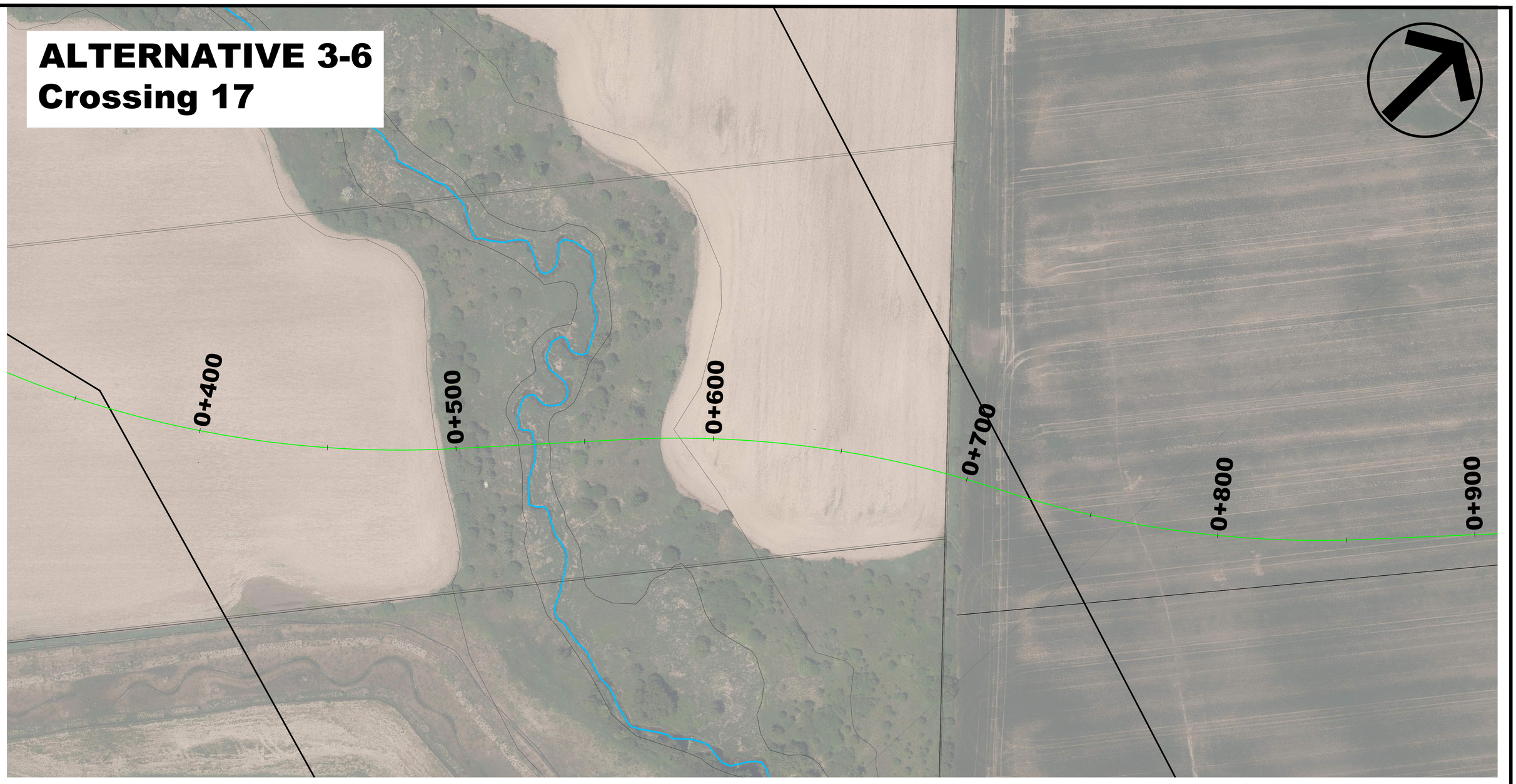
CALEDON MULTIMODAL TMP

PROFILES AT CROSSINGS

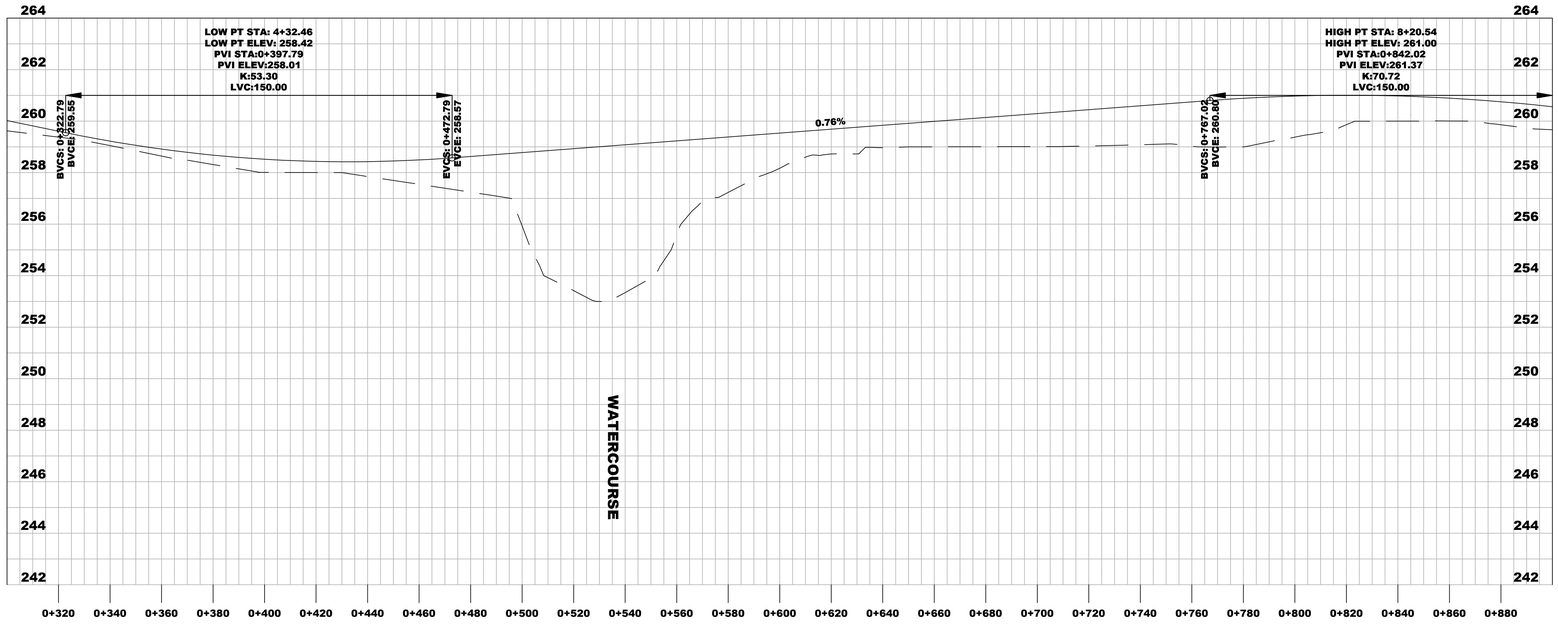
SCALE: 1:1000

DATE: JAN 2026

ALTERNATIVE 3-6
Crossing 17



Alternative 3-6 PROFILE



LEGEND

ALTERNATIVE 1

ALTERNATIVE 3

WATERCOURSE

TOWN OF CALEDON

HDR

CALEDON MULTIMODAL TMP

PROFILES AT CROSSINGS

SCALE: 1:1000

DATE: JAN 2026

Appendix D – Traffic Data

Turning Movement Count (16 . CHINGUACOUSY RD & OLD SCHOOL RD)

Start Time	N Approach CHINGUACOUSY RD						E Approach OLD SCHOOL RD						S Approach CHINGUACOUSY RD						W Approach OLD SCHOOL RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	0	2	2	0	0	4	0	9	2	0	0	11	5	13	1	0	0	19	1	19	0	0	0	20	54	
06:15:00	0	7	1	0	0	8	1	21	1	0	0	23	19	15	1	0	0	35	1	32	1	0	0	34	100	
06:30:00	1	5	2	0	0	8	1	18	4	0	0	23	11	10	0	0	0	21	0	28	0	0	0	28	80	
06:45:00	1	12	1	0	0	14	0	23	7	0	0	30	15	10	2	0	0	27	0	31	0	0	0	31	102	336
07:00:00	2	8	2	0	0	12	0	23	3	0	0	26	8	17	1	0	0	26	1	43	2	0	0	46	110	392
07:15:00	0	17	0	0	0	17	0	27	6	0	0	33	18	9	0	0	0	27	3	54	0	0	0	57	134	426
07:30:00	3	20	3	0	0	26	1	42	6	0	0	49	17	10	0	0	0	27	2	73	2	0	0	77	179	525
07:45:00	4	26	1	0	0	31	0	22	15	0	0	37	22	15	2	0	0	39	2	42	1	0	0	45	152	575
08:00:00	2	27	2	0	1	31	1	41	7	0	0	49	13	10	2	0	0	25	2	55	0	0	0	57	162	627
08:15:00	1	26	3	0	0	30	1	30	10	0	0	41	17	13	1	0	0	31	2	50	0	0	0	52	154	647
08:30:00	1	14	4	0	0	19	1	43	7	0	0	51	11	9	0	0	0	20	5	31	3	0	0	39	129	597
08:45:00	0	8	1	0	2	9	0	26	5	0	0	31	8	14	1	0	1	23	4	37	0	0	0	41	104	549
09:00:00	2	4	2	0	0	8	0	28	5	0	0	33	12	13	5	0	0	30	0	28	1	0	0	29	100	487
09:15:00	1	13	4	0	0	18	1	22	3	0	0	26	8	8	1	0	0	17	0	24	0	0	0	24	85	418
09:30:00	0	3	0	0	0	3	1	26	1	0	0	28	7	11	0	0	0	18	0	25	0	0	0	25	74	363
09:45:00	2	7	2	0	0	11	1	18	2	0	0	21	11	16	2	0	0	29	0	27	0	0	0	27	88	347
BREAK																										
15:00:00	2	12	1	0	0	15	2	54	11	0	0	67	11	15	1	0	0	27	1	30	1	0	0	32	141	
15:15:00	2	9	0	0	0	11	3	76	12	0	0	91	11	27	0	0	0	38	5	33	2	0	0	40	180	
15:30:00	0	12	2	0	0	14	4	63	14	0	0	81	13	26	3	0	0	42	3	50	1	0	0	54	191	
15:45:00	2	18	1	0	0	21	2	57	22	0	0	81	11	13	1	0	0	25	2	39	5	0	0	46	173	685
16:00:00	1	13	1	0	0	15	3	69	15	0	0	87	12	21	2	0	0	35	1	64	0	0	0	65	202	746
16:15:00	2	16	0	0	0	18	2	85	15	0	0	102	13	12	2	0	0	27	0	46	2	0	0	48	195	761
16:30:00	3	16	0	0	0	19	2	60	16	0	0	78	8	24	3	0	0	35	4	33	0	0	0	37	169	739
16:45:00	0	15	1	0	0	16	0	85	20	0	0	105	6	18	4	0	0	28	3	41	0	0	0	44	193	759
17:00:00	0	23	1	0	0	24	1	64	21	0	0	86	14	22	2	0	0	38	1	48	1	0	0	50	198	755
17:15:00	0	22	1	0	0	23	1	61	16	0	0	78	8	9	0	0	0	17	1	59	1	0	0	61	179	739
17:30:00	0	31	3	0	0	34	0	62	21	0	0	83	13	17	2	0	0	32	1	63	2	0	0	66	215	785
17:45:00	2	27	0	0	0	29	2	44	19	0	0	65	13	13	1	0	0	27	1	38	0	0	0	39	160	752
18:00:00	1	16	0	0	0	17	2	45	16	0	0	63	10	14	2	0	0	26	0	41	1	0	0	42	148	702
18:15:00	2	15	2	0	0	19	2	46	15	0	0	63	10	12	2	0	0	24	2	38	1	0	0	41	147	670
18:30:00	0	16	0	0	0	16	1	46	11	0	0	58	10	13	2	0	0	25	0	33	0	0	0	33	132	587
18:45:00	2	14	1	0	0	17	4	28	19	0	0	51	9	9	3	0	0	21	2	42	1	0	0	45	134	561
Grand Total	39	474	44	0	3	557	40	1364	347	0	0	1751	374	458	49	0	1	881	50	1297	28	0	0	1375	**4564**	-
Approach%	7%	85.1%	7.9%	0%		-	2.3%	77.9%	19.8%	0%		-	42.5%	52%	5.6%	0%		-	3.6%	94.3%	2%	0%		-	-	-
Totals %	0.9%	10.4%	1%	0%		12.2%	0.9%	29.9%	7.6%	0%		38.4%	8.2%	10%	1.1%	0%		19.3%	1.1%	28.4%	0.6%	0%		30.1%	-	-
Heavy	2	15	6	0		-	4	31	8	0		-	9	14	2	0		-	4	36	4	0		-	-	-
Heavy %	5.1%	3.2%	13.6%	0%		-	10%	2.3%	2.3%	0%		-	2.4%	3.1%	4.1%	0%		-	8%	2.8%	14.3%	0%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & HEALEY RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Turning Movement Count (96 . AIRPORT RD & HEALEY RD) CustID: 00720469 MioID:

Start Time	N Approach AIRPORT RD					E Approach HEALEY RD					S Approach AIRPORT RD					Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	UTurn N:N	Peds N:	Approach Total	Left E:S	Right E:N	UTurn E:E	Peds E:	Approach Total	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total		
07:00:00	43	166	0	0	209	10	20	0	0	30	59	15	0	0	74	313	
07:15:00	41	157	0	0	198	11	21	0	0	32	130	11	0	0	141	371	
07:30:00	47	188	0	0	235	6	24	0	0	30	37	12	0	0	49	314	
07:45:00	65	159	0	0	224	14	39	0	0	53	55	11	0	0	66	343	1341
08:00:00	32	179	0	0	211	11	21	0	0	32	36	11	0	0	47	290	1318
08:15:00	50	144	0	0	194	11	11	0	0	22	42	11	0	0	53	269	1216
08:30:00	35	116	0	0	151	7	12	0	0	19	30	12	0	0	42	212	1114
08:45:00	44	124	0	0	168	15	17	0	0	32	39	11	0	0	50	250	1021
BREAK																	
11:00:00	8	58	0	0	66	9	8	0	0	17	51	8	0	0	59	142	
11:15:00	3	70	0	0	73	11	8	0	0	19	47	5	0	0	52	144	
11:30:00	8	70	0	0	78	3	10	0	0	13	39	8	0	0	47	138	
11:45:00	9	56	0	0	65	8	10	0	0	18	43	7	0	0	50	133	557
12:00:00	14	43	0	0	57	12	16	0	0	28	41	6	0	0	47	132	547
12:15:00	15	47	0	0	62	9	14	0	0	23	39	4	0	0	43	128	531
12:30:00	9	44	0	0	53	9	8	0	0	17	34	2	0	0	36	106	499
12:45:00	9	41	0	0	50	9	14	0	0	23	51	5	0	0	56	129	495
13:00:00	13	50	0	0	63	8	13	0	0	21	47	3	0	0	50	134	497
13:15:00	12	54	0	0	66	6	14	0	0	20	47	4	0	0	51	137	506
13:30:00	14	52	0	0	66	6	13	0	0	19	61	9	0	0	70	155	555
13:45:00	14	51	0	0	65	5	14	0	0	19	57	7	0	0	64	148	574
BREAK																	
15:00:00	29	52	0	0	81	7	23	0	0	30	118	6	0	0	124	235	
15:15:00	29	43	0	0	72	13	35	0	0	48	115	13	0	0	128	248	
15:30:00	30	57	0	0	87	18	45	0	0	63	96	14	0	0	110	260	
15:45:00	30	50	0	0	80	16	43	0	0	59	104	7	0	0	111	250	993
16:00:00	22	55	0	0	77	24	63	0	0	87	153	12	0	0	165	329	1087
16:15:00	28	61	0	0	89	26	79	0	0	105	136	13	0	0	149	343	1182
16:30:00	31	55	0	0	86	13	54	0	0	67	157	10	0	0	167	320	1242
16:45:00	30	52	0	0	82	20	76	0	0	96	150	8	0	0	158	336	1328
17:00:00	15	64	0	0	79	21	59	0	0	80	149	9	0	0	158	317	1316
17:15:00	21	49	0	0	70	16	76	0	0	92	162	5	0	0	167	329	1302
17:30:00	15	59	0	0	74	18	62	0	0	80	148	11	0	0	159	313	1295
17:45:00	22	54	0	0	76	12	55	0	0	67	137	8	0	0	145	288	1247

Grand Total	787	2520	0	0	3307	384	977	0	0	1361	2610	278	0	0	2888	**7556**	-
Approach%	23.8%	76.2%	0%		-	28.2%	71.8%	0%		-	90.4%	9.6%	0%		-	**-**	-
Totals %	10.4%	33.4%	0%		43.8%	5.1%	12.9%	0%		18%	34.5%	3.7%	0%		38.2%	**-**	-
Heavy	12	293	0		-	34	16	0		-	231	39	0		-	**-**	-
Heavy %	1.5%	11.6%	0%		-	8.9%	1.6%	0%		-	8.9%	14%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & HEALEY RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 07:00 AM - 08:00 AM Weather: Moderate Rain (9.08 °C)

Start Time	N Approach AIRPORT RD					E Approach HEALEY RD					S Approach AIRPORT RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	43	166	0	0	209	10	20	0	0	30	59	15	0	0	74	313
07:15:00	41	157	0	0	198	11	21	0	0	32	130	11	0	0	141	371
07:30:00	47	188	0	0	235	6	24	0	0	30	37	12	0	0	49	314
07:45:00	65	159	0	0	224	14	39	0	0	53	55	11	0	0	66	343
Grand Total	196	670	0	0	866	41	104	0	0	145	281	49	0	0	330	**1341**
Approach%	22.6%	77.4%	0%		-	28.3%	71.7%	0%		-	85.2%	14.8%	0%		-	**-**
Totals %	14.6%	50%	0%		64.6%	3.1%	7.8%	0%		10.8%	21%	3.7%	0%		24.6%	**-**
PHF	0.75	0.89	0		0.92	0.73	0.67	0		0.68	0.54	0.82	0		0.59	**-**
Heavy	3	27	0		30	5	1	0		6	47	3	0		50	**-**
Heavy %	1.5%	4%	0%		3.5%	12.2%	1%	0%		4.1%	16.7%	6.1%	0%		15.2%	**-**
Lights	193	643	0		836	36	103	0		139	234	46	0		280	**-**
Lights %	98.5%	96%	0%		96.5%	87.8%	99%	0%		95.9%	83.3%	93.9%	0%		84.8%	**-**
Single-Unit Trucks	0	13	0		13	0	0	0		0	15	0	0		15	**-**
Single-Unit Trucks %	0%	1.9%	0%		1.5%	0%	0%	0%		0%	5.3%	0%	0%		4.5%	**-**
Buses	3	1	0		4	0	1	0		1	12	2	0		14	**-**
Buses %	1.5%	0.1%	0%		0.5%	0%	1%	0%		0.7%	4.3%	4.1%	0%		4.2%	**-**
Articulated Trucks	0	13	0		13	5	0	0		5	20	1	0		21	**-**
Articulated Trucks %	0%	1.9%	0%		1.5%	12.2%	0%	0%		3.4%	7.1%	2%	0%		6.4%	**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & HEALEY RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (9.06 °C)

Start Time	N Approach AIRPORT RD					E Approach HEALEY RD					S Approach AIRPORT RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
13:00:00	13	50	0	0	63	8	13	0	0	21	47	3	0	0	50	134
13:15:00	12	54	0	0	66	6	14	0	0	20	47	4	0	0	51	137
13:30:00	14	52	0	0	66	6	13	0	0	19	61	9	0	0	70	155
13:45:00	14	51	0	0	65	5	14	0	0	19	57	7	0	0	64	148
Grand Total	53	207	0	0	260	25	54	0	0	79	212	23	0	0	235	**574**
Approach%	20.4%	79.6%	0%		-	31.6%	68.4%	0%		-	90.2%	9.8%	0%		-	**-**
Totals %	9.2%	36.1%	0%		45.3%	4.4%	9.4%	0%		13.8%	36.9%	4%	0%		40.9%	**-**
PHF	0.95	0.96	0		0.98	0.78	0.96	0		0.94	0.87	0.64	0		0.84	**-**
Heavy	2	33	0		35	6	0	0		6	26	6	0		32	**-**
Heavy %	3.8%	15.9%	0%		13.5%	24%	0%	0%		7.6%	12.3%	26.1%	0%		13.6%	**-**
Lights	51	174	0		225	19	54	0		73	186	17	0		203	**-**
Lights %	96.2%	84.1%	0%		86.5%	76%	100%	0%		92.4%	87.7%	73.9%	0%		86.4%	**-**
Single-Unit Trucks	1	17	0		18	0	0	0		0	9	3	0		12	**-**
Single-Unit Trucks %	1.9%	8.2%	0%		6.9%	0%	0%	0%		0%	4.2%	13%	0%		5.1%	**-**
Buses	1	3	0		4	1	0	0		1	8	0	0		8	**-**
Buses %	1.9%	1.4%	0%		1.5%	4%	0%	0%		1.3%	3.8%	0%	0%		3.4%	**-**
Articulated Trucks	0	13	0		13	5	0	0		5	9	3	0		12	**-**
Articulated Trucks %	0%	6.3%	0%		5%	20%	0%	0%		6.3%	4.2%	13%	0%		5.1%	**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & HEALEY RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

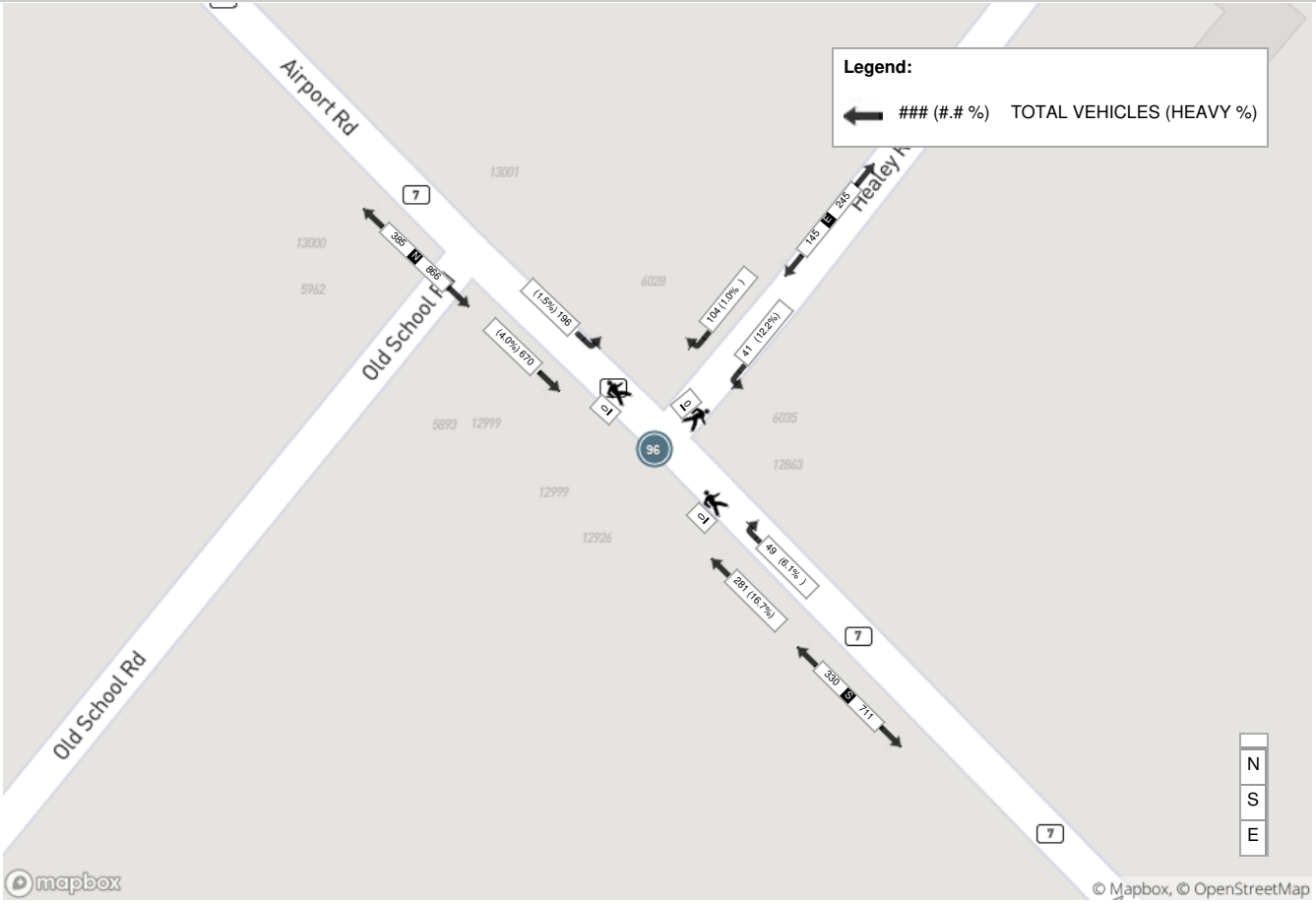
Peak Hour: 04:00 PM - 05:00 PM Weather: Light Rain (10.54 °C)

Start Time	N Approach AIRPORT RD					E Approach HEALEY RD					S Approach AIRPORT RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
16:00:00	22	55	0	0	77	24	63	0	0	87	153	12	0	0	165	329
16:15:00	28	61	0	0	89	26	79	0	0	105	136	13	0	0	149	343
16:30:00	31	55	0	0	86	13	54	0	0	67	157	10	0	0	167	320
16:45:00	30	52	0	0	82	20	76	0	0	96	150	8	0	0	158	336
Grand Total	111	223	0	0	334	83	272	0	0	355	596	43	0	0	639	**1328**
Approach%	33.2%	66.8%	0%		-	23.4%	76.6%	0%		-	93.3%	6.7%	0%		-	**-**
Totals %	8.4%	16.8%	0%		25.2%	6.3%	20.5%	0%		26.7%	44.9%	3.2%	0%		48.1%	**-**
PHF	0.9	0.91	0		0.94	0.8	0.86	0		0.85	0.95	0.83	0		0.96	**-**
Heavy	0	51	0		51	3	6	0		9	43	9	0		52	**-**
Heavy %	0%	22.9%	0%		15.3%	3.6%	2.2%	0%		2.5%	7.2%	20.9%	0%		8.1%	**-**
Lights	111	172	0		283	80	266	0		346	553	34	0		587	**-**
Lights %	100%	77.1%	0%		84.7%	96.4%	97.8%	0%		97.5%	92.8%	79.1%	0%		91.9%	**-**
Single-Unit Trucks	0	14	0		14	0	5	0		5	21	2	0		23	**-**
Single-Unit Trucks %	0%	6.3%	0%		4.2%	0%	1.8%	0%		1.4%	3.5%	4.7%	0%		3.6%	**-**
Buses	0	19	0		19	3	1	0		4	1	1	0		2	**-**
Buses %	0%	8.5%	0%		5.7%	3.6%	0.4%	0%		1.1%	0.2%	2.3%	0%		0.3%	**-**
Articulated Trucks	0	18	0		18	0	0	0		0	21	6	0		27	**-**
Articulated Trucks %	0%	8.1%	0%		5.4%	0%	0%	0%		0%	3.5%	14%	0%		4.2%	**-**

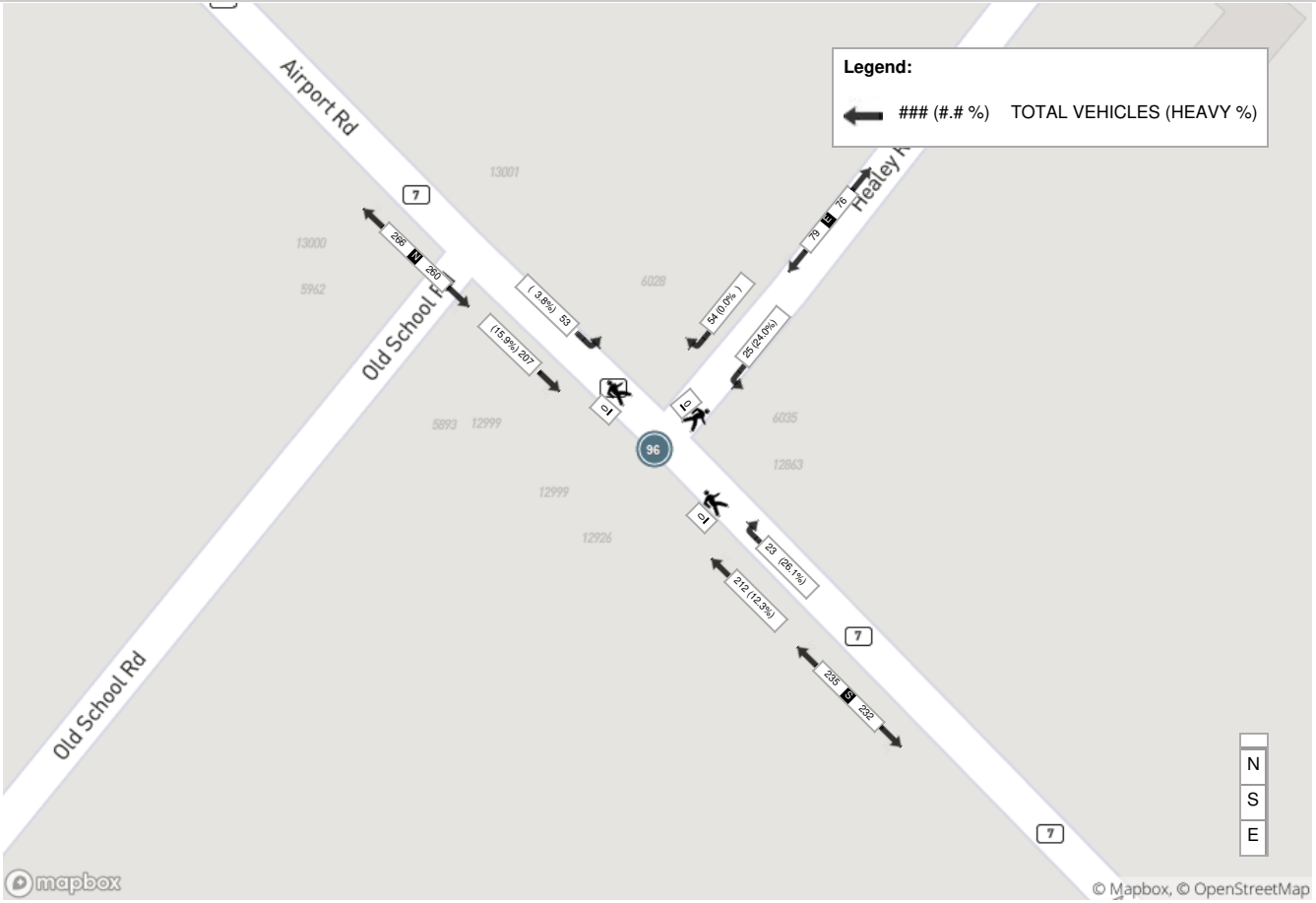
Spectrum

Turning Movement Count
Location Name: AIRPORT RD & HEALEY RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 07:00 AM - 08:00 AM Weather: Moderate Rain (9.08 °C)



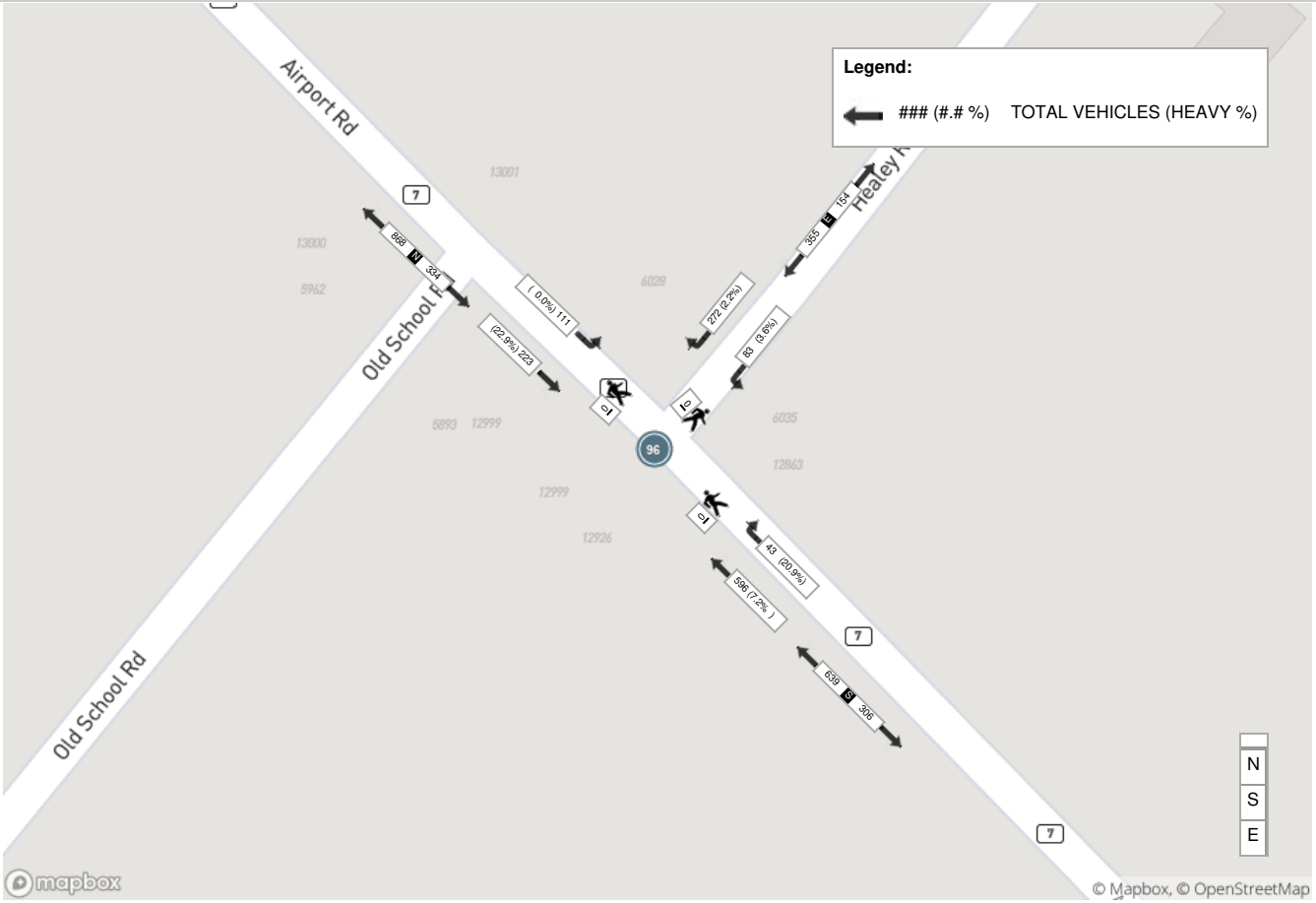
Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (9.06 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & HEALEY RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 04:00 PM - 05:00 PM Weather: Light Rain (10.54 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & MAYFIELD RD
Date: Wed, Jun 22, 2016 Deployment Lead: Chris Koukaras

Turning Movement Count (1 . AIRPORT RD & MAYFIELD RD) CustID: 00717433 MioID: 327722

Start Time	N Approach AIRPORT RD						E Approach MAYFIELD RD						S Approach AIRPORT RD						W Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	U-Turn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	U-Turn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	U-Turn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	U-Turn W:W	Peds W:	Approach Total		
07:00:00	20	178	46	1	2	245	23	131	3	0	0	157	20	58	36	0	1	114	23	123	30	0	1	176	692	
07:15:00	29	172	21	2	2	224	26	134	8	0	0	168	24	51	38	0	1	113	22	145	42	0	0	209	714	
07:30:00	23	178	35	1	0	237	33	121	7	0	0	161	28	51	48	0	0	127	26	147	41	0	0	214	739	
07:45:00	25	177	22	1	0	225	36	101	6	0	0	143	26	68	61	0	0	155	29	143	46	0	2	218	741	2886
08:00:00	20	141	12	0	1	173	29	132	12	0	1	173	31	63	44	0	3	138	34	105	38	0	3	177	661	2855
08:15:00	19	142	28	1	0	190	34	95	4	0	0	133	31	55	55	0	1	141	34	126	44	1	0	205	669	2810
08:30:00	22	121	28	0	0	171	27	113	11	0	1	151	31	56	47	0	2	134	32	112	34	0	0	178	634	2705
08:45:00	28	109	12	1	1	150	33	121	12	0	2	166	39	57	39	0	0	135	32	124	36	0	0	192	643	2607
BREAK																										
11:00:00	25	62	15	2	0	104	18	79	7	0	0	104	27	36	31	0	0	94	26	78	22	0	0	126	428	
11:15:00	18	73	27	0	0	118	34	85	14	0	0	133	19	62	20	0	0	101	20	83	18	0	0	121	473	
11:30:00	20	55	27	0	0	102	23	101	4	0	0	128	21	46	44	0	1	111	20	85	27	0	0	132	473	
11:45:00	22	66	13	0	1	101	27	87	11	0	0	125	27	72	36	0	0	135	23	83	22	0	1	128	489	1863
12:00:00	13	65	24	2	0	104	27	92	4	0	2	123	23	52	31	0	0	106	22	89	19	0	0	130	463	1898
12:15:00	18	59	20	0	0	97	15	102	11	0	0	128	22	69	28	0	0	119	22	91	22	0	0	135	479	1904
12:30:00	20	56	23	0	0	99	24	99	9	0	0	132	33	46	33	0	0	112	15	78	23	0	0	116	459	1890
12:45:00	12	74	30	1	1	117	26	97	10	0	1	133	29	65	18	0	0	112	26	78	16	0	0	120	482	1883
13:00:00	23	58	18	0	4	99	25	89	14	0	0	128	17	55	29	0	0	101	25	89	16	0	4	130	458	1878
13:15:00	15	59	23	1	10	98	27	92	8	0	3	127	22	78	23	0	1	123	23	84	17	0	0	124	472	1871
13:30:00	19	64	28	0	0	111	32	66	13	0	0	111	22	53	48	0	0	123	24	100	29	0	0	153	498	1910
13:45:00	18	63	26	0	4	107	29	78	14	0	0	121	26	72	28	0	1	126	14	92	23	0	1	129	483	1911
BREAK																										
15:00:00	14	85	61	1	1	161	36	134	12	0	1	182	24	143	48	0	3	215	30	121	29	0	1	180	738	
15:15:00	15	64	32	0	0	111	38	123	4	0	0	165	35	110	50	0	1	195	30	136	26	0	0	192	663	
15:30:00	13	78	16	0	0	107	31	107	11	0	2	149	45	133	61	0	0	239	24	130	24	0	1	178	673	
15:45:00	10	80	29	0	2	119	41	146	13	0	0	200	31	159	52	0	1	242	30	145	28	0	1	203	764	2838
16:00:00	17	53	32	1	0	103	39	137	15	0	0	191	46	138	46	0	0	230	27	141	27	0	0	195	719	2819
16:15:00	13	101	32	2	0	148	27	167	10	0	0	204	38	184	48	0	2	270	31	146	28	0	1	205	827	2983
16:30:00	21	72	35	0	1	128	35	166	9	0	2	210	57	171	39	0	1	267	22	134	22	0	2	178	783	3093
16:45:00	18	75	26	1	0	120	41	145	9	0	0	195	46	144	49	0	1	239	37	153	37	0	0	227	781	3110
17:00:00	14	80	42	3	1	139	40	151	8	0	1	199	47	160	44	0	0	251	29	116	56	0	0	201	790	3181
17:15:00	14	88	32	1	1	135	29	161	5	0	0	195	40	168	45	0	1	253	23	127	43	0	0	193	776	3130
17:30:00	18	57	30	1	2	106	30	156	4	0	1	190	55	147	32	0	1	234	23	169	32	0	1	224	754	3101
17:45:00	16	54	31	0	1	101	26	158	5	0	4	189	45	133	44	0	0	222	24	121	28	0	2	173	685	3005
Grand Total	592	2859	876	23	35	4350	961	3766	287	0	21	5014	1027	2955	1295	0	22	5277	822	3694	945	1	21	5462	**20103**	-
Approach%	13.6%	65.7%	20.1%	0.5%		-	19.2%	75.1%	5.7%	0%		-	19.5%	56%	24.5%	0%		-	15%	67.6%	17.3%	0%		-	-	-
Totals %	2.9%	14.2%	4.4%	0.1%		21.6%	4.8%	18.7%	1.4%	0%		24.9%	5.1%	14.7%	6.4%	0%		26.2%	4.1%	18.4%	4.7%	0%		27.2%	-	-
Heavy	156	367	272	0		-	121	538	147	0		-	70	383	195	0		-	255	535	88	0		-	-	-
Heavy %	26.4%	12.8%	31.1%	0%		-	12.6%	14.3%	51.2%	0%		-	6.8%	13%	15.1%	0%		-	31%	14.5%	9.3%	0%		-	-	-
Bicycles	0	1	0	0		-	0	0	1	0		-	0	0	0	0		-	0	1	0	0		-	-	-
Bicycle %	0%	0%	0%	0%		-	0%	0%	0.3%	0%		-	0%	0%	0%	0%		-	0%	0%	0%	0%		-	-	-

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & MAYFIELD RD
Date: Wed, Jun 22, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 07:00 AM - 08:00 AM Weather: Partly Cloudy (12.5 °C)

Start Time	N Approach AIRPORT RD						E Approach MAYFIELD RD						S Approach AIRPORT RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	
07:00:00	20	178	46	1	2	245	23	131	3	0	0	157	20	58	36	0	1	114	23	123	30	0	1	176	692
07:15:00	29	172	21	2	2	224	26	134	8	0	0	168	24	51	38	0	1	113	22	145	42	0	0	209	714
07:30:00	23	178	35	1	0	237	33	121	7	0	0	161	28	51	48	0	0	127	26	147	41	0	0	214	739
07:45:00	25	177	22	1	0	225	36	101	6	0	0	143	26	68	61	0	0	155	29	143	46	0	2	218	741
Grand Total	97	705	124	5	4	931	118	487	24	0	0	629	98	228	183	0	2	509	100	558	159	0	3	817	**2886**
Approach%	10.4%	75.7%	13.3%	0.5%		-	18.8%	77.4%	3.8%	0%		-	19.3%	44.8%	36%	0%		-	12.2%	68.3%	19.5%	0%		-	**-**
Totals %	3.4%	24.4%	4.3%	0.2%		32.3%	4.1%	16.9%	0.8%	0%		21.8%	3.4%	7.9%	6.3%	0%		17.6%	3.5%	19.3%	5.5%	0%		28.3%	**-**
PHF	0.84	0.99	0.67	0.63		0.95	0.82	0.91	0.75	0		0.94	0.88	0.84	0.75	0		0.82	0.86	0.95	0.86	0		0.94	**-**
Heavy	28	53	37	0		118	13	78	8	0		99	6	31	32	0		69	22	59	10	0		91	**-**
Heavy %	28.9%	7.5%	29.8%	0%		12.7%	11%	16%	33.3%	0%		15.7%	6.1%	13.6%	17.5%	0%		13.6%	22%	10.6%	6.3%	0%		11.1%	**-**
Lights	69	652	87	5		813	105	409	16	0		530	92	197	151	0		440	78	499	149	0		726	**-**
Lights %	71.1%	92.5%	70.2%	100%		87.3%	89%	84%	66.7%	0%		84.3%	93.9%	86.4%	82.5%	0%		86.4%	78%	89.4%	93.7%	0%		88.9%	**-**
Single-Unit Trucks	6	13	9	0		28	7	37	8	0		52	2	10	12	0		24	8	23	1	0		32	**-**
Single-Unit Trucks %	6.2%	1.8%	7.3%	0%		3%	5.9%	7.6%	33.3%	0%		8.3%	2%	4.4%	6.6%	0%		4.7%	8%	4.1%	0.6%	0%		3.9%	**-**
Buses	16	29	18	0		63	0	2	0	0		2	0	8	13	0		21	0	4	1	0		5	**-**
Buses %	16.5%	4.1%	14.5%	0%		6.8%	0%	0.4%	0%	0%		0.3%	0%	3.5%	7.1%	0%		4.1%	0%	0.7%	0.6%	0%		0.6%	**-**
Articulated Trucks	6	11	10	0		27	6	39	0	0		45	4	13	7	0		24	14	32	8	0		54	**-**
Articulated Trucks %	6.2%	1.6%	8.1%	0%		2.9%	5.1%	8%	0%	0%		7.2%	4.1%	5.7%	3.8%	0%		4.7%	14%	5.7%	5%	0%		6.6%	**-**
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	3	-	**-**
Pedestrians%	-	-	-	-	44.4%		-	-	-	-	0%		-	-	-	-	11.1%		-	-	-	-	33.3%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	11.1%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & MAYFIELD RD
Date: Wed, Jun 22, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 01:00 PM - 02:00 PM Weather: Partly Cloudy (18.5 °C)

Start Time	N Approach AIRPORT RD						E Approach MAYFIELD RD						S Approach AIRPORT RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	
13:00:00	23	58	18	0	4	99	25	89	14	0	0	128	17	55	29	0	0	101	25	89	16	0	4	130	458
13:15:00	15	59	23	1	10	98	27	92	8	0	3	127	22	78	23	0	1	123	23	84	17	0	0	124	472
13:30:00	19	64	28	0	0	111	32	66	13	0	0	111	22	53	48	0	0	123	24	100	29	0	0	153	498
13:45:00	18	63	26	0	4	107	29	78	14	0	0	121	26	72	28	0	1	126	14	92	23	0	1	129	483
Grand Total	75	244	95	1	18	415	113	325	49	0	3	487	87	258	128	0	2	473	86	365	85	0	5	536	**1911**
Approach%	18.1%	58.8%	22.9%	0.2%		-	23.2%	66.7%	10.1%	0%		-	18.4%	54.5%	27.1%	0%		-	16%	68.1%	15.9%	0%		-	**-**
Totals %	3.9%	12.8%	5%	0.1%		21.7%	5.9%	17%	2.6%	0%		25.5%	4.6%	13.5%	6.7%	0%		24.8%	4.5%	19.1%	4.4%	0%		28%	**-**
PHF	0.82	0.95	0.85	0.25		0.93	0.88	0.88	0.88	0		0.95	0.84	0.83	0.67	0		0.94	0.86	0.91	0.73	0		0.88	**-**
Heavy	23	50	41	0		114	20	62	25	0		107	10	42	25	0		77	28	74	12	0		114	**-**
Heavy %	30.7%	20.5%	43.2%	0%		27.5%	17.7%	19.1%	51%	0%		22%	11.5%	16.3%	19.5%	0%		16.3%	32.6%	20.3%	14.1%	0%		21.3%	**-**
Lights	52	194	54	1		301	93	263	24	0		380	77	216	103	0		396	58	291	73	0		422	**-**
Lights %	69.3%	79.5%	56.8%	100%		72.5%	82.3%	80.9%	49%	0%		78%	88.5%	83.7%	80.5%	0%		83.7%	67.4%	79.7%	85.9%	0%		78.7%	**-**
Single-Unit Trucks	17	19	15	0		51	13	26	17	0		56	5	17	11	0		33	12	34	9	0		55	**-**
Single-Unit Trucks %	22.7%	7.8%	15.8%	0%		12.3%	11.5%	8%	34.7%	0%		11.5%	5.7%	6.6%	8.6%	0%		7%	14%	9.3%	10.6%	0%		10.3%	**-**
Buses	1	10	8	0		19	0	0	1	0		1	0	4	4	0		8	5	0	0	0		5	**-**
Buses %	1.3%	4.1%	8.4%	0%		4.6%	0%	0%	2%	0%		0.2%	0%	1.6%	3.1%	0%		1.7%	5.8%	0%	0%	0%		0.9%	**-**
Articulated Trucks	5	21	18	0		44	7	36	7	0		50	5	21	10	0		36	11	40	3	0		54	**-**
Articulated Trucks %	6.7%	8.6%	18.9%	0%		10.6%	6.2%	11.1%	14.3%	0%		10.3%	5.7%	8.1%	7.8%	0%		7.6%	12.8%	11%	3.5%	0%		10.1%	**-**
Pedestrians	-	-	-	-	18	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	3	-	**-**
Pedestrians%	-	-	-	-	64.3%		-	-	-	-	10.7%		-	-	-	-	7.1%		-	-	-	-	10.7%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	7.1%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & MAYFIELD RD
Date: Wed, Jun 22, 2016 Deployment Lead: Chris Koukaras

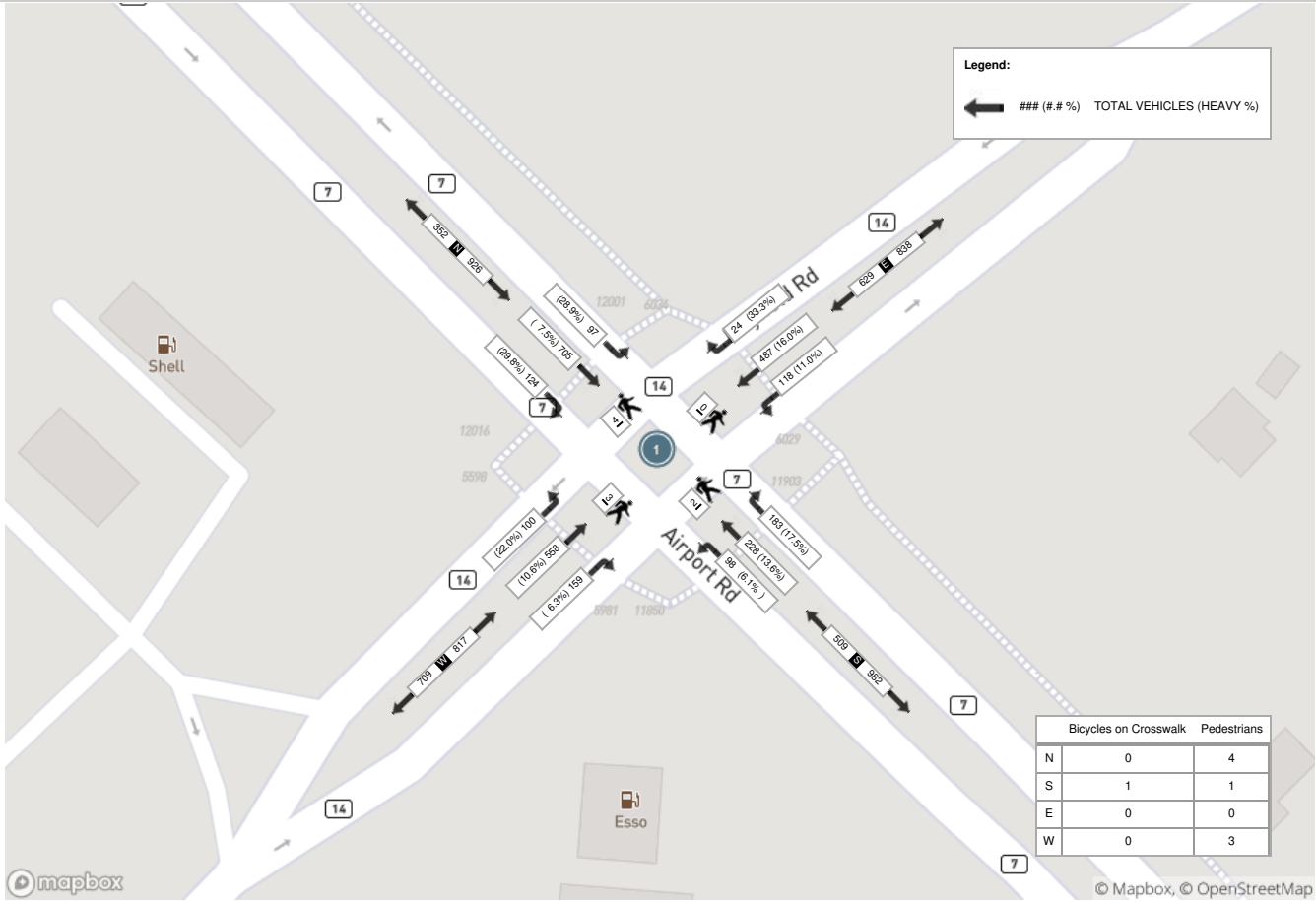
Peak Hour: 04:15 PM - 05:15 PM Weather: Partly Cloudy (21.6 °C)

Start Time	N Approach AIRPORT RD						E Approach MAYFIELD RD						S Approach AIRPORT RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	
16:15:00	13	101	32	2	0	148	27	167	10	0	0	204	38	184	48	0	2	270	31	146	28	0	1	205	827
16:30:00	21	72	35	0	1	128	35	166	9	0	2	210	57	171	39	0	1	267	22	134	22	0	2	178	783
16:45:00	18	75	26	1	0	120	41	145	9	0	0	195	46	144	49	0	1	239	37	153	37	0	0	227	781
17:00:00	14	80	42	3	1	139	40	151	8	0	1	199	47	160	44	0	0	251	29	116	56	0	0	201	790
Grand Total	66	328	135	6	2	535	143	629	36	0	3	808	188	659	180	0	4	1027	119	549	143	0	3	811	**3181**
Approach%	12.3%	61.3%	25.2%	1.1%		-	17.7%	77.8%	4.5%	0%		-	18.3%	64.2%	17.5%	0%		-	14.7%	67.7%	17.6%	0%		-	**-**
Totals %	2.1%	10.3%	4.2%	0.2%		16.8%	4.5%	19.8%	1.1%	0%		25.4%	5.9%	20.7%	5.7%	0%		32.3%	3.7%	17.3%	4.5%	0%		25.5%	**-**
PHF	0.79	0.81	0.8	0.5		0.9	0.87	0.94	0.9	0		0.96	0.82	0.9	0.92	0		0.95	0.8	0.9	0.64	0		0.89	**-**
Heavy	14	33	24	0		71	11	44	25	0		80	10	59	22	0		91	45	73	13	0		131	**-**
Heavy %	21.2%	10.1%	17.8%	0%		13.3%	7.7%	7%	69.4%	0%		9.9%	5.3%	9%	12.2%	0%		8.9%	37.8%	13.3%	9.1%	0%		16.2%	**-**
Lights	52	295	111	6		464	132	585	11	0		728	178	600	158	0		936	74	476	130	0		680	**-**
Lights %	78.8%	89.9%	82.2%	100%		86.7%	92.3%	93%	30.6%	0%		90.1%	94.7%	91%	87.8%	0%		91.1%	62.2%	86.7%	90.9%	0%		83.8%	**-**
Single-Unit Trucks	6	13	7	0		26	6	24	10	0		40	7	10	3	0		20	8	36	5	0		49	**-**
Single-Unit Trucks %	9.1%	4%	5.2%	0%		4.9%	4.2%	3.8%	27.8%	0%		5%	3.7%	1.5%	1.7%	0%		1.9%	6.7%	6.6%	3.5%	0%		6%	**-**
Buses	0	6	6	0		12	1	4	4	0		9	0	19	9	0		28	16	0	2	0		18	**-**
Buses %	0%	1.8%	4.4%	0%		2.2%	0.7%	0.6%	11.1%	0%		1.1%	0%	2.9%	5%	0%		2.7%	13.4%	0%	1.4%	0%		2.2%	**-**
Articulated Trucks	8	14	11	0		33	4	16	11	0		31	3	30	10	0		43	21	37	6	0		64	**-**
Articulated Trucks %	12.1%	4.3%	8.1%	0%		6.2%	2.8%	2.5%	30.6%	0%		3.8%	1.6%	4.6%	5.6%	0%		4.2%	17.6%	6.7%	4.2%	0%		7.9%	**-**
Pedestrians	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	3	-	**-**
Pedestrians%	-	-	-	-	16.7%		-	-	-	-	25%		-	-	-	-	33.3%		-	-	-	-	25%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & MAYFIELD RD
Date: Wed, Jun 22, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 07:00 AM - 08:00 AM **Weather: Partly Cloudy (12.5 °C)**

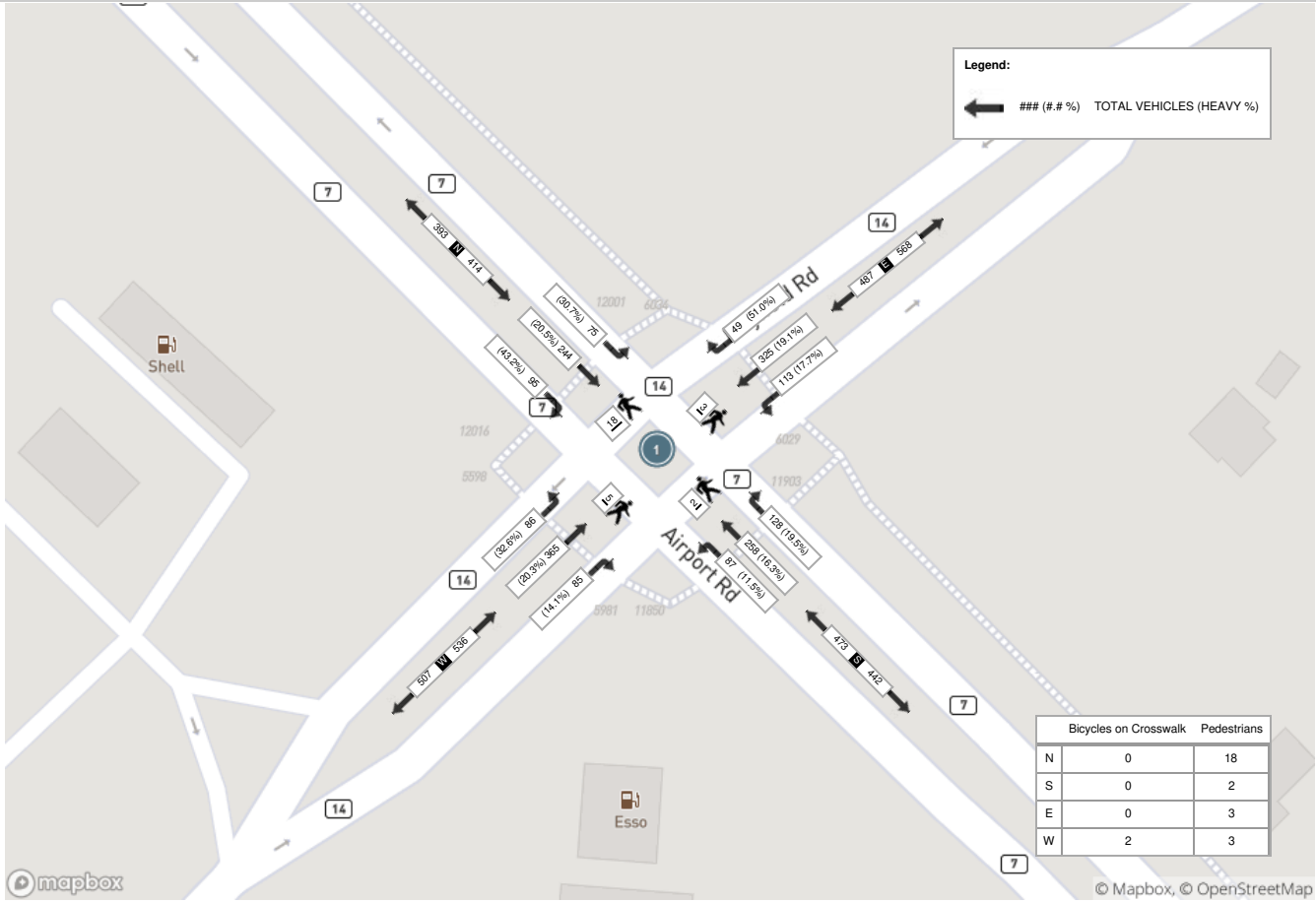


	Bicycles on Crosswalk	Pedestrians
N	0	4
S	1	1
E	0	0
W	0	3

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & MAYFIELD RD
Date: Wed, Jun 22, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 01:00 PM - 02:00 PM Weather: Partly Cloudy (18.5 °C)

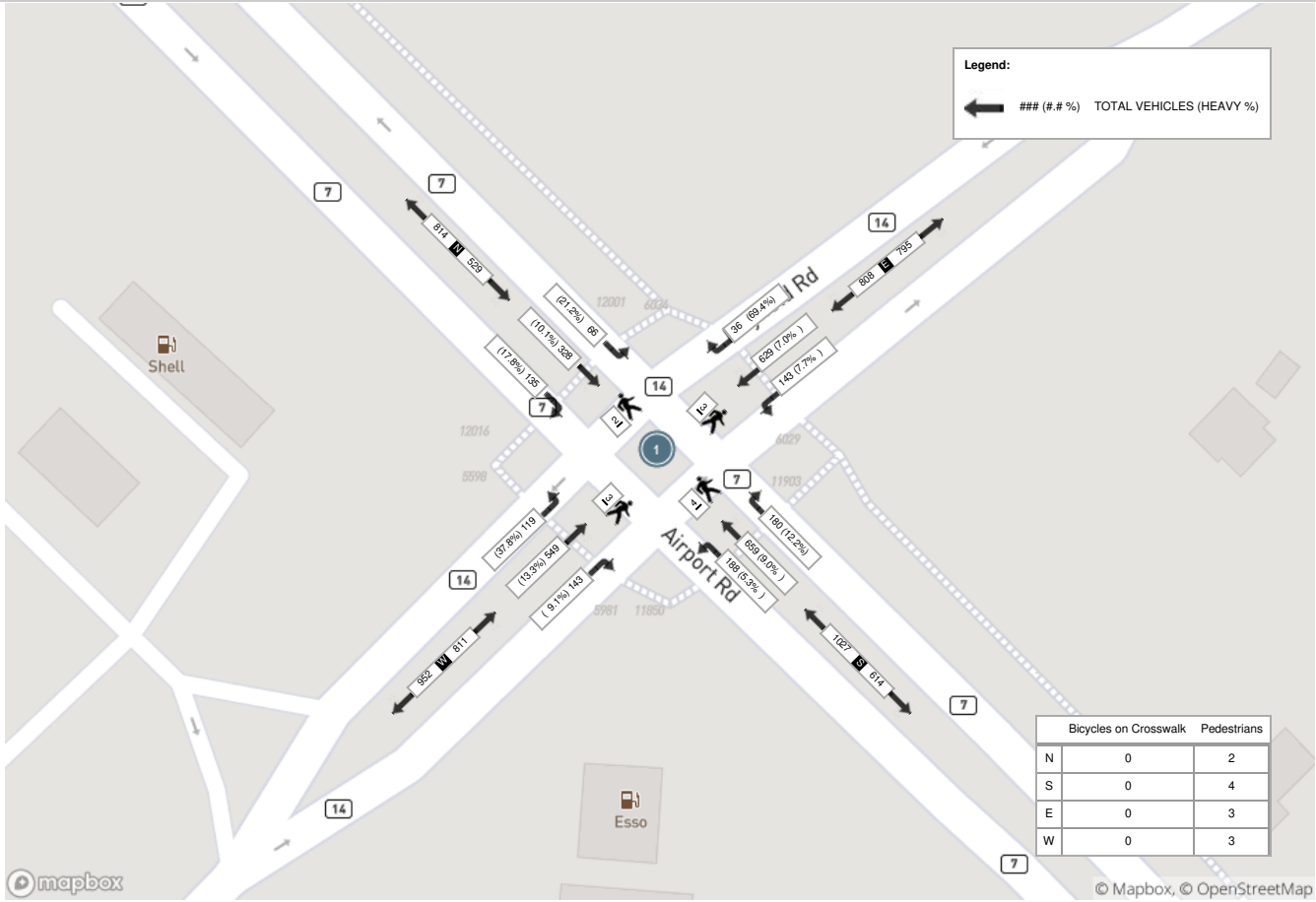


	Bicycles on Crosswalk	Pedestrians
N	0	18
S	0	2
E	0	3
W	2	3

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & MAYFIELD RD
Date: Wed, Jun 22, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 04:15 PM - 05:15 PM **Weather: Partly Cloudy (21.6 °C)**



	Bicycles on Crosswalk	Pedestrians
N	0	2
S	0	4
E	0	3
W	0	3

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD SCHOOL RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Turning Movement Count (97 . AIRPORT RD & OLD SCHOOL RD) CustID: 00720510 MioID:

Start Time	N Approach AIRPORT RD					S Approach AIRPORT RD					W Approach OLD SCHOOL RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru N:S	Right N:W	UTurn N:N	Peds N:	Approach Total	Left S:W	Thru S:N	UTurn S:S	Peds S:	Approach Total	Left W:N	Right W:S	UTurn W:W	Peds W:	Approach Total		
07:00:00	162	1	0	0	163	23	36	0	0	59	3	43	0	0	46	268	
07:15:00	161	4	0	0	165	21	40	0	0	61	3	43	0	0	46	272	
07:30:00	179	4	0	0	183	26	38	0	0	64	4	46	0	0	50	297	
07:45:00	142	2	0	0	144	38	60	0	0	98	6	73	0	0	79	321	1158
08:00:00	174	0	0	0	174	16	38	0	0	54	2	40	0	0	42	270	1160
08:15:00	143	3	0	0	146	10	38	0	0	48	4	50	0	0	54	248	1136
08:30:00	131	2	0	0	133	9	37	0	0	46	3	37	0	0	40	219	1058
08:45:00	108	3	0	0	111	14	44	0	0	58	5	52	0	0	57	226	963
BREAK																	
11:00:00	50	1	0	0	51	12	49	0	0	61	0	9	0	0	9	121	
11:15:00	68	1	0	0	69	9	46	0	0	55	5	10	0	0	15	139	
11:30:00	65	2	0	0	67	11	43	0	0	54	7	10	0	0	17	138	
11:45:00	50	2	0	0	52	8	38	0	0	46	2	11	0	0	13	111	509
12:00:00	50	3	0	0	53	16	47	0	0	63	8	12	0	0	20	136	524
12:15:00	44	0	0	0	44	12	40	0	0	52	2	14	0	0	16	112	497
12:30:00	40	0	0	0	40	9	37	0	0	46	3	10	0	0	13	99	458
12:45:00	42	2	0	0	44	14	54	0	0	68	2	11	0	0	13	125	472
13:00:00	52	0	0	0	52	12	55	0	0	67	4	12	0	0	16	135	471
13:15:00	52	1	0	0	53	14	53	0	0	67	4	15	0	0	19	139	498
13:30:00	52	1	0	0	53	12	59	0	0	71	1	15	0	0	16	140	539
13:45:00	52	3	0	0	55	13	68	0	0	81	2	14	0	0	16	152	566
BREAK																	
15:00:00	49	8	0	0	57	29	139	0	0	168	5	31	0	0	36	261	
15:15:00	48	1	0	0	49	36	107	0	0	143	3	29	0	0	32	224	
15:30:00	56	5	0	0	61	48	106	0	0	154	6	30	0	0	36	251	
15:45:00	48	2	0	0	50	63	104	0	0	167	8	33	0	0	41	258	994
16:00:00	57	3	0	0	60	64	155	0	0	219	1	27	0	0	28	307	1040
16:15:00	59	3	0	0	62	78	135	0	0	213	4	28	0	0	32	307	1123
16:30:00	56	4	0	0	60	58	169	0	0	227	8	33	0	0	41	328	1200
16:45:00	49	5	0	0	54	83	147	0	0	230	12	35	0	0	47	331	1273
17:00:00	63	3	0	0	66	57	161	0	0	218	7	18	0	0	25	309	1275
17:15:00	54	5	0	0	59	88	148	0	0	236	5	24	0	0	29	324	1292
17:30:00	54	0	0	0	54	70	150	0	0	220	5	18	0	0	23	297	1261
17:45:00	57	5	0	0	62	62	140	0	0	202	1	22	0	0	23	287	1217

Grand Total	2467	79	0	0	2546	1035	2581	0	0	3616	135	855	0	0	990	**7152**	-
Approach%	96.9%	3.1%	0%		-	28.6%	71.4%	0%		-	13.6%	86.4%	0%		-	**-**	-
Totals %	34.5%	1.1%	0%		35.6%	14.5%	36.1%	0%		50.6%	1.9%	12%	0%		13.8%	**-**	-
Heavy	291	4	0		-	14	255	0		-	7	14	0		-	**-**	-
Heavy %	11.8%	5.1%	0%		-	1.4%	9.9%	0%		-	5.2%	1.6%	0%		-	**-**	-
Bicycles	0	0	0		-	0	0	0		-	0	0	1		-	**-**	-
Bicycle %	0%	0%	0%		-	0%	0%	0%		-	0%	0%	0%		-	**-**	-

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD SCHOOL RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 07:15 AM - 08:15 AM Weather: Moderate Rain (9.08 °C)

Start Time	N Approach AIRPORT RD					S Approach AIRPORT RD					W Approach OLD SCHOOL RD					Int. Total (15 min)
	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	
07:15:00	161	4	0	0	165	21	40	0	0	61	3	43	0	0	46	272
07:30:00	179	4	0	0	183	26	38	0	0	64	4	46	0	0	50	297
07:45:00	142	2	0	0	144	38	60	0	0	98	6	73	0	0	79	321
08:00:00	174	0	0	0	174	16	38	0	0	54	2	40	0	0	42	270
Grand Total	656	10	0	0	666	101	176	0	0	277	15	202	0	0	217	**1160**
Approach%	98.5%	1.5%	0%		-	36.5%	63.5%	0%		-	6.9%	93.1%	0%		-	**-**
Totals %	56.6%	0.9%	0%		57.4%	8.7%	15.2%	0%		23.9%	1.3%	17.4%	0%		18.7%	**-**
PHF	0.92	0.63	0		0.91	0.66	0.73	0		0.71	0.63	0.69	0		0.69	**-**
Heavy	31	0	0		31	3	26	0		29	1	1	0		2	**-**
Heavy %	4.7%	0%	0%		4.7%	3%	14.8%	0%		10.5%	6.7%	0.5%	0%		0.9%	**-**
Lights	625	10	0		635	98	150	0		248	14	201	0		215	**-**
Lights %	95.3%	100%	0%		95.3%	97%	85.2%	0%		89.5%	93.3%	99.5%	0%		99.1%	**-**
Single-Unit Trucks	12	0	0		12	0	8	0		8	0	0	0		0	**-**
Single-Unit Trucks %	1.8%	0%	0%		1.8%	0%	4.5%	0%		2.9%	0%	0%	0%		0%	**-**
Buses	1	0	0		1	3	5	0		8	1	1	0		2	**-**
Buses %	0.2%	0%	0%		0.2%	3%	2.8%	0%		2.9%	6.7%	0.5%	0%		0.9%	**-**
Articulated Trucks	18	0	0		18	0	13	0		13	0	0	0		0	**-**
Articulated Trucks %	2.7%	0%	0%		2.7%	0%	7.4%	0%		4.7%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	%		-	-	-	%		-	-	-	%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD SCHOOL RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (9.06 °C)

Start Time	N Approach AIRPORT RD					S Approach AIRPORT RD					W Approach OLD SCHOOL RD					Int. Total (15 min)
	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	
13:00:00	52	0	0	0	52	12	55	0	0	67	4	12	0	0	16	135
13:15:00	52	1	0	0	53	14	53	0	0	67	4	15	0	0	19	139
13:30:00	52	1	0	0	53	12	59	0	0	71	1	15	0	0	16	140
13:45:00	52	3	0	0	55	13	68	0	0	81	2	14	0	0	16	152
Grand Total	208	5	0	0	213	51	235	0	0	286	11	56	0	0	67	**566**
Approach%	97.7%	2.3%	0%		-	17.8%	82.2%	0%		-	16.4%	83.6%	0%		-	**-**
Totals %	36.7%	0.9%	0%		37.6%	9%	41.5%	0%		50.5%	1.9%	9.9%	0%		11.8%	**-**
PHF	1	0.42	0		0.97	0.91	0.86	0		0.88	0.69	0.93	0		0.88	**-**
Heavy	33	1	0		34	0	32	0		32	2	2	0		4	**-**
Heavy %	15.9%	20%	0%		16%	0%	13.6%	0%		11.2%	18.2%	3.6%	0%		6%	**-**
Lights	175	4	0		179	51	203	0		254	9	54	0		63	**-**
Lights %	84.1%	80%	0%		84%	100%	86.4%	0%		88.8%	81.8%	96.4%	0%		94%	**-**
Single-Unit Trucks	18	1	0		19	0	16	0		16	2	2	0		4	**-**
Single-Unit Trucks %	8.7%	20%	0%		8.9%	0%	6.8%	0%		5.6%	18.2%	3.6%	0%		6%	**-**
Buses	3	0	0		3	0	8	0		8	0	0	0		0	**-**
Buses %	1.4%	0%	0%		1.4%	0%	3.4%	0%		2.8%	0%	0%	0%		0%	**-**
Articulated Trucks	12	0	0		12	0	8	0		8	0	0	0		0	**-**
Articulated Trucks %	5.8%	0%	0%		5.6%	0%	3.4%	0%		2.8%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	%		-	-	-	%		-	-	-	%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD SCHOOL RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

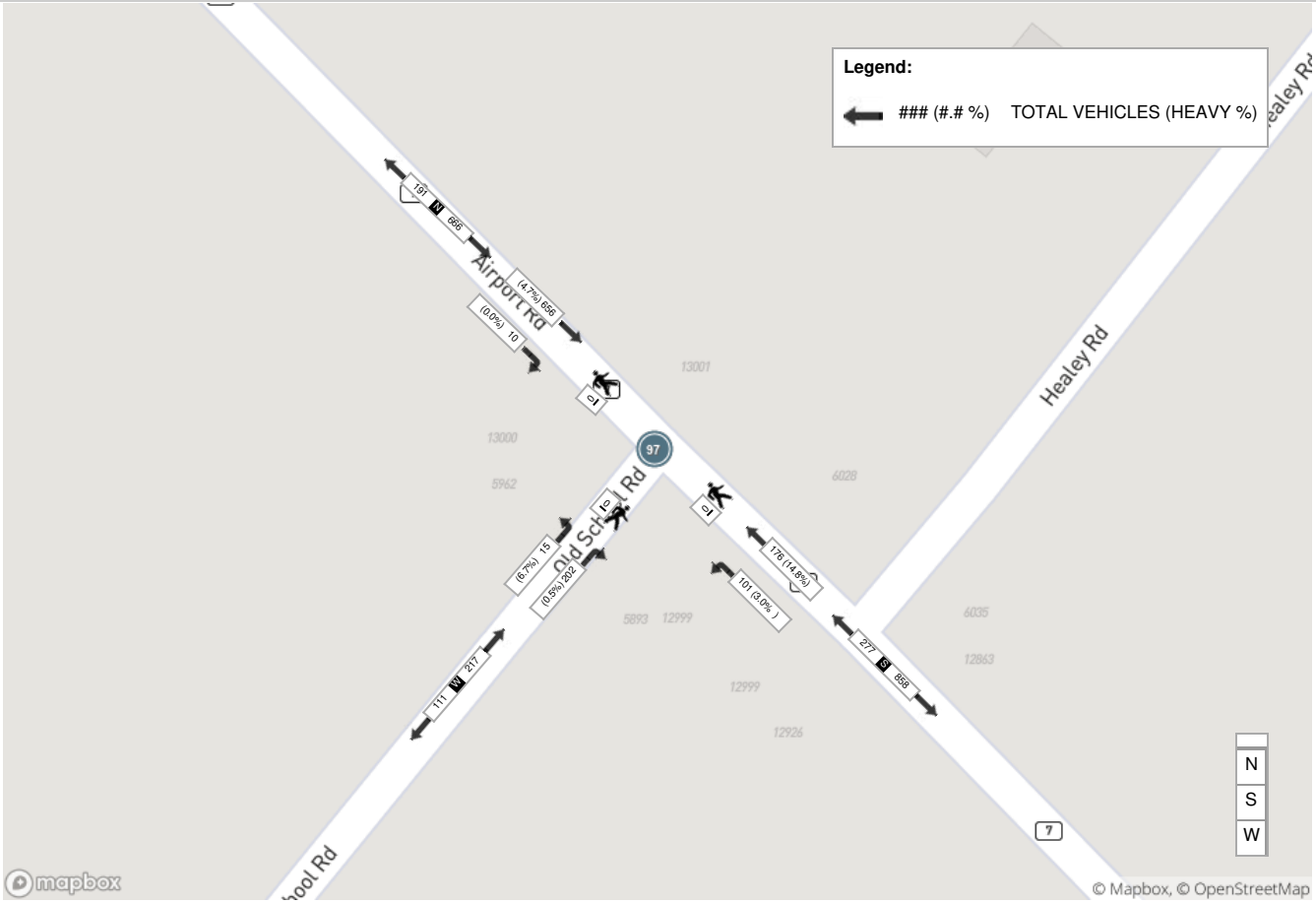
Peak Hour: 04:30 PM - 05:30 PM Weather: Light Rain (10.54 °C)

Start Time	N Approach AIRPORT RD					S Approach AIRPORT RD					W Approach OLD SCHOOL RD					Int. Total (15 min)
	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	
16:30:00	56	4	0	0	60	58	169	0	0	227	8	33	0	0	41	328
16:45:00	49	5	0	0	54	83	147	0	0	230	12	35	0	0	47	331
17:00:00	63	3	0	0	66	57	161	0	0	218	7	18	0	0	25	309
17:15:00	54	5	0	0	59	88	148	0	0	236	5	24	0	0	29	324
Grand Total	222	17	0	0	239	286	625	0	0	911	32	110	0	0	142	**1292**
Approach%	92.9%	7.1%	0%		-	31.4%	68.6%	0%		-	22.5%	77.5%	0%		-	**-**
Totals %	17.2%	1.3%	0%		18.5%	22.1%	48.4%	0%		70.5%	2.5%	8.5%	0%		11%	**-**
PHF	0.88	0.85	0		0.91	0.81	0.92	0		0.97	0.67	0.79	0		0.76	**-**
Heavy	41	0	0		41	1	39	0		40	2	2	0		4	**-**
Heavy %	18.5%	0%	0%		17.2%	0.3%	6.2%	0%		4.4%	6.3%	1.8%	0%		2.8%	**-**
Lights	181	17	0		198	285	586	0		871	30	108	0		138	**-**
Lights %	81.5%	100%	0%		82.8%	99.7%	93.8%	0%		95.6%	93.8%	98.2%	0%		97.2%	**-**
Single-Unit Trucks	13	0	0		13	1	18	0		19	1	0	0		1	**-**
Single-Unit Trucks %	5.9%	0%	0%		5.4%	0.3%	2.9%	0%		2.1%	3.1%	0%	0%		0.7%	**-**
Buses	9	0	0		9	0	1	0		1	1	2	0		3	**-**
Buses %	4.1%	0%	0%		3.8%	0%	0.2%	0%		0.1%	3.1%	1.8%	0%		2.1%	**-**
Articulated Trucks	19	0	0		19	0	20	0		20	0	0	0		0	**-**
Articulated Trucks %	8.6%	0%	0%		7.9%	0%	3.2%	0%		2.2%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	%		-	-	-	%		-	-	-	%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD SCHOOL RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

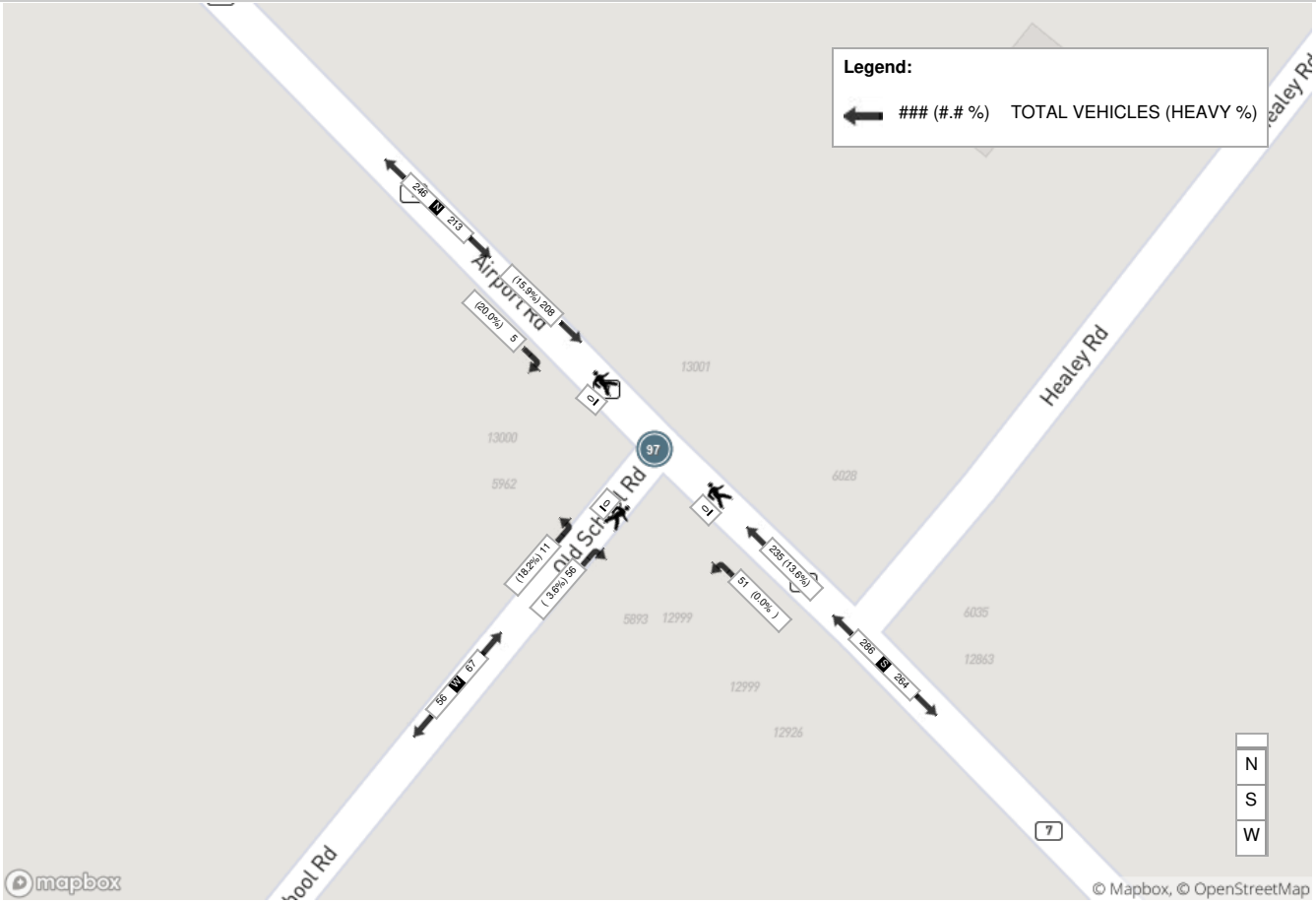
Peak Hour: 07:15 AM - 08:15 AM Weather: Moderate Rain (9.08 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD SCHOOL RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

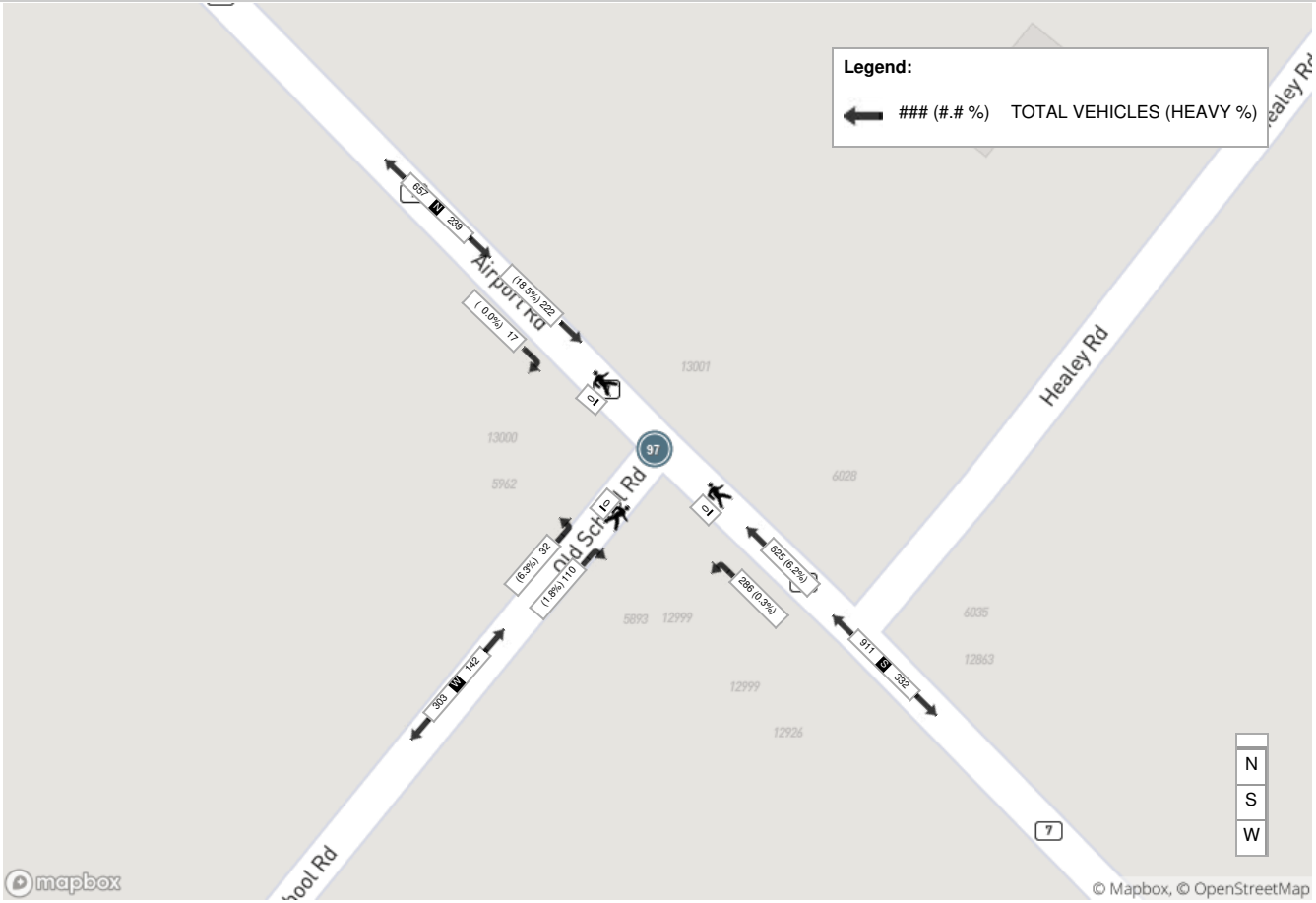
Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (9.06 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD SCHOOL RD
Date: Thu, Oct 03, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 04:30 PM - 05:30 PM Weather: Light Rain (10.54 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Turning Movement Count (47 . AIRPORT RD & PERDUE CRT / DAVIS LN) CustID: 00717933 MioID:

Start Time	N Approach AIRPORT RD						E Approach PERDUE CT						S Approach AIRPORT RD						W Approach PERDUE CT						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	UTurn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	UTurn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
06:00:00	0	111	0	0	0	111	9	0	2	0	2	11	12	32	8	0	0	52	0	0	7	0	0	7	181	
06:15:00	0	121	2	1	0	124	7	0	4	0	2	11	7	47	20	0	0	74	0	0	15	0	0	15	224	
06:30:00	2	163	0	0	0	165	15	0	5	0	1	20	7	66	20	0	0	93	2	0	10	0	0	12	290	
06:45:00	3	178	0	0	0	181	10	0	4	0	3	14	15	98	31	0	0	144	0	0	6	2	0	8	347	1042
BREAK																										
07:00:00	1	188	1	0	0	190	23	0	8	0	0	31	4	55	15	0	0	74	2	0	10	0	0	12	307	
07:15:00	0	184	1	0	0	185	21	0	1	0	0	22	9	58	12	0	0	79	2	0	4	0	1	6	292	
07:30:00	0	187	1	0	0	188	9	0	0	0	3	9	13	74	8	0	0	95	1	0	10	0	0	11	303	
07:45:00	1	170	3	0	0	174	9	0	3	0	2	12	15	63	9	0	0	87	3	0	6	0	0	9	282	1184
08:00:00	1	161	2	0	0	164	9	0	2	0	0	11	30	58	5	0	0	93	1	0	15	0	0	16	284	1161
08:15:00	6	139	2	0	0	147	3	0	0	0	0	3	20	65	15	0	0	100	0	0	10	0	0	10	260	1129
08:30:00	0	151	1	0	0	152	8	0	2	0	2	10	20	59	20	0	0	99	3	0	6	0	1	9	270	1096
08:45:00	3	138	4	0	0	145	11	0	2	0	0	13	13	59	21	0	0	93	0	0	7	0	1	7	258	1072
BREAK																										
11:00:00	1	81	0	0	0	82	5	0	3	0	0	8	12	43	2	0	0	57	0	0	11	0	0	11	158	
11:15:00	1	70	6	0	0	77	6	0	2	0	0	8	4	52	3	0	0	59	0	0	15	0	0	15	159	
11:30:00	0	64	1	0	0	65	3	0	1	0	2	4	9	52	2	0	0	63	1	0	10	0	0	11	143	
11:45:00	10	70	0	0	0	80	5	0	2	0	0	7	20	63	5	0	0	88	0	0	7	1	0	8	183	643
12:00:00	7	75	0	0	0	82	13	0	0	0	1	13	10	57	8	0	0	75	1	0	13	1	0	15	185	670
12:15:00	1	57	0	0	0	58	3	0	2	0	1	5	12	74	6	0	0	92	1	0	12	0	0	13	168	679
12:30:00	1	58	1	0	0	60	7	0	3	0	0	10	10	60	8	0	0	78	2	1	14	0	1	17	165	701
12:45:00	3	75	1	0	0	79	8	0	3	0	0	11	15	67	9	0	0	91	1	0	10	0	0	11	192	710
13:00:00	2	63	1	0	0	66	10	0	0	0	0	10	23	71	6	0	0	100	1	0	10	0	0	11	187	712
13:15:00	0	72	1	0	0	73	12	0	2	1	0	15	13	54	18	0	0	85	4	0	13	0	0	17	190	734
13:30:00	1	67	1	0	0	69	18	0	9	0	0	27	13	63	26	0	0	102	0	0	20	0	0	20	218	787
13:45:00	0	64	0	0	0	64	29	0	2	0	0	31	10	66	23	0	0	99	1	0	9	0	0	10	204	799
BREAK																										
14:00:00	0	53	0	0	0	53	32	0	3	0	1	35	16	72	19	0	0	107	0	0	10	0	0	10	205	
BREAK																										
15:00:00	1	121	1	0	0	123	9	0	0	0	5	9	5	116	7	0	0	128	0	0	7	0	0	7	267	
15:15:00	0	75	0	1	0	76	7	0	0	0	1	7	8	110	3	0	0	121	1	0	13	0	0	14	218	
15:30:00	2	85	2	0	0	89	9	0	0	0	4	9	12	135	6	0	0	153	1	0	7	0	1	8	259	
15:45:00	3	78	2	0	0	83	10	0	5	0	1	15	7	140	14	0	0	161	0	0	9	0	0	9	268	1012
16:00:00	5	76	1	1	0	83	16	0	1	0	0	17	17	157	26	0	0	200	2	0	14	0	0	16	316	1061
16:15:00	1	71	1	1	0	74	25	0	3	0	0	28	8	199	30	0	0	237	3	0	14	0	0	17	356	1199
16:30:00	7	96	2	1	0	106	30	0	2	0	2	32	12	194	14	0	0	220	0	0	18	0	0	18	376	1316
16:45:00	5	80	1	3	0	89	20	0	0	0	0	20	17	177	7	0	0	201	1	0	8	0	1	9	319	1367
17:00:00	0	91	5	7	0	103	9	0	2	0	1	11	10	182	13	0	0	205	7	0	22	0	1	29	348	1399
17:15:00	1	83	0	0	0	84	10	0	3	0	0	13	17	169	9	0	0	195	2	0	12	0	0	14	306	1349
17:30:00	0	71	3	1	0	75	13	0	1	0	0	14	11	122	8	0	0	141	2	0	17	0	0	19	249	1222
17:45:00	0	85	2	0	0	87	8	0	2	0	0	10	13	129	6	0	0	148	0	0	12	0	0	12	257	1160
Grand Total	69	3772	49	16	0	3906	451	0	84	1	34	536	469	3358	462	0	0	4289	45	1	413	4	7	463	**9194**	-
Approach%	1.8%	96.6%	1.3%	0.4%		-	84.1%	0%	15.7%	0.2%		-	10.9%	78.3%	10.8%	0%		-	9.7%	0.2%	89.2%	0.9%		-	-	-
Totals %	0.8%	41%	0.5%	0.2%		42.5%	4.9%	0%	0.9%	0%		5.8%	5.1%	36.5%	5%	0%		46.6%	0.5%	0%	4.5%	0%		5%	-	-

Heavy	53	535	21	0	-	224	0	54	1	-	259	479	206	0	-	28	1	202	4	-	-	-	
Heavy %	76.8%	14.2%	42.9%	0%	-	49.7%	0%	64.3%	100%	-	55.2%	14.3%	44.6%	0%	-	62.2%	100%	48.9%	100%	-	-	-	
Bicycles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycle %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 06:00 AM - 07:00 AM Weather:

Start Time	N Approach AIRPORT RD						E Approach PERDUE CT						S Approach AIRPORT RD						W Approach PERDUE CT						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
06:00:00	0	111	0	0	0	111	9	0	2	0	2	11	12	32	8	0	0	52	0	0	7	0	0	7	181
06:15:00	0	121	2	1	0	124	7	0	4	0	2	11	7	47	20	0	0	74	0	0	15	0	0	15	224
06:30:00	2	163	0	0	0	165	15	0	5	0	1	20	7	66	20	0	0	93	2	0	10	0	0	12	290
06:45:00	3	178	0	0	0	181	10	0	4	0	3	14	15	98	31	0	0	144	0	0	6	2	0	8	347
Grand Total	5	573	2	1	0	581	41	0	15	0	8	56	41	243	79	0	0	363	2	0	38	2	0	42	**1042**
Approach%	0.9%	98.6%	0.3%	0.2%		-	73.2%	0%	26.8%	0%		-	11.3%	66.9%	21.8%	0%		-	4.8%	0%	90.5%	4.8%		-	**-**
Totals %	0.5%	55%	0.2%	0.1%		55.8%	3.9%	0%	1.4%	0%		5.4%	3.9%	23.3%	7.6%	0%		34.8%	0.2%	0%	3.6%	0.2%		4%	**-**
PHF	0.42	0.8	0.25	0.25		0.8	0.68	0	0.75	0		0.7	0.68	0.62	0.64	0		0.63	0.25	0	0.63	0.25		0.7	**-**
Heavy	1	62	0	0		63	36	0	14	0		50	13	24	5	0		42	2	0	32	2		36	**-**
Heavy %	20%	10.8%	0%	0%		10.8%	87.8%	0%	93.3%	0%		89.3%	31.7%	9.9%	6.3%	0%		11.6%	100%	0%	84.2%	100%		85.7%	**-**
Lights	4	511	2	1		518	5	0	1	0		6	28	219	74	0		321	0	0	6	0		6	**-**
Lights %	80%	89.2%	100%	100%		89.2%	12.2%	0%	6.7%	0%		10.7%	68.3%	90.1%	93.7%	0%		88.4%	0%	0%	15.8%	0%		14.3%	**-**
Single-Unit Trucks	0	29	0	0		29	1	0	0	0		1	11	9	1	0		21	0	0	24	2		26	**-**
Single-Unit Trucks %	0%	5.1%	0%	0%		5%	2.4%	0%	0%	0%		1.8%	26.8%	3.7%	1.3%	0%		5.8%	0%	0%	63.2%	100%		61.9%	**-**
Buses	1	0	0	0		1	27	0	14	0		41	0	2	2	0		4	0	0	0	0		0	**-**
Buses %	20%	0%	0%	0%		0.2%	65.9%	0%	93.3%	0%		73.2%	0%	0.8%	2.5%	0%		1.1%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	33	0	0		33	8	0	0	0		8	2	13	2	0		17	2	0	8	0		10	**-**
Articulated Trucks %	0%	5.8%	0%	0%		5.7%	19.5%	0%	0%	0%		14.3%	4.9%	5.3%	2.5%	0%		4.7%	100%	0%	21.1%	0%		23.8%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	100%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 07:00 AM - 08:00 AM Weather:

Start Time	N Approach AIRPORT RD						E Approach PERDUE CT						S Approach AIRPORT RD						W Approach PERDUE CT						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	1	188	1	0	0	190	23	0	8	0	0	31	4	55	15	0	0	74	2	0	10	0	0	12	307
07:15:00	0	184	1	0	0	185	21	0	1	0	0	22	9	58	12	0	0	79	2	0	4	0	1	6	292
07:30:00	0	187	1	0	0	188	9	0	0	0	3	9	13	74	8	0	0	95	1	0	10	0	0	11	303
07:45:00	1	170	3	0	0	174	9	0	3	0	2	12	15	63	9	0	0	87	3	0	6	0	0	9	282
Grand Total	2	729	6	0	0	737	62	0	12	0	5	74	41	250	44	0	0	335	8	0	30	0	1	38	**1184**
Approach%	0.3%	98.9%	0.8%	0%		-	83.8%	0%	16.2%	0%		-	12.2%	74.6%	13.1%	0%		-	21.1%	0%	78.9%	0%		-	**-**
Totals %	0.2%	61.6%	0.5%	0%		62.2%	5.2%	0%	1%	0%		6.3%	3.5%	21.1%	3.7%	0%		28.3%	0.7%	0%	2.5%	0%		3.2%	**-**
PHF	0.5	0.97	0.5	0		0.97	0.67	0	0.38	0		0.6	0.68	0.84	0.73	0		0.88	0.67	0	0.75	0		0.79	**-**
Heavy	0	58	1	0		59	58	0	10	0		68	18	41	6	0		65	8	0	27	0		35	**-**
Heavy %	0%	8%	16.7%	0%		8%	93.5%	0%	83.3%	0%		91.9%	43.9%	16.4%	13.6%	0%		19.4%	100%	0%	90%	0%		92.1%	**-**
Lights	2	671	5	0		678	4	0	2	0		6	23	209	38	0		270	0	0	3	0		3	**-**
Lights %	100%	92%	83.3%	0%		92%	6.5%	0%	16.7%	0%		8.1%	56.1%	83.6%	86.4%	0%		80.6%	0%	0%	10%	0%		7.9%	**-**
Single-Unit Trucks	0	24	1	0		25	1	0	0	0		1	13	21	0	0		34	3	0	15	0		18	**-**
Single-Unit Trucks %	0%	3.3%	16.7%	0%		3.4%	1.6%	0%	0%	0%		1.4%	31.7%	8.4%	0%	0%		10.1%	37.5%	0%	50%	0%		47.4%	**-**
Buses	0	3	0	0		3	51	0	9	0		60	0	5	3	0		8	0	0	0	0		0	**-**
Buses %	0%	0.4%	0%	0%		0.4%	82.3%	0%	75%	0%		81.1%	0%	2%	6.8%	0%		2.4%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	31	0	0		31	6	0	1	0		7	5	15	3	0		23	5	0	12	0		17	**-**
Articulated Trucks %	0%	4.3%	0%	0%		4.2%	9.7%	0%	8.3%	0%		9.5%	12.2%	6%	6.8%	0%		6.9%	62.5%	0%	40%	0%		44.7%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	83.3%		-	-	-	-	0%		-	-	-	-	16.7%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (23.38 °C)

Start Time	N Approach AIRPORT RD						E Approach PERDUE CT						S Approach AIRPORT RD						W Approach PERDUE CT						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
13:00:00	2	63	1	0	0	66	10	0	0	0	0	10	23	71	6	0	0	100	1	0	10	0	0	11	187
13:15:00	0	72	1	0	0	73	12	0	2	1	0	15	13	54	18	0	0	85	4	0	13	0	0	17	190
13:30:00	1	67	1	0	0	69	18	0	9	0	0	27	13	63	26	0	0	102	0	0	20	0	0	20	218
13:45:00	0	64	0	0	0	64	29	0	2	0	0	31	10	66	23	0	0	99	1	0	9	0	0	10	204
Grand Total	3	266	3	0	0	272	69	0	13	1	0	83	59	254	73	0	0	386	6	0	52	0	0	58	**799**
Approach%	1.1%	97.8%	1.1%	0%		-	83.1%	0%	15.7%	1.2%		-	15.3%	65.8%	18.9%	0%		-	10.3%	0%	89.7%	0%		-	**-**
Totals %	0.4%	33.3%	0.4%	0%		34%	8.6%	0%	1.6%	0.1%		10.4%	7.4%	31.8%	9.1%	0%		48.3%	0.8%	0%	6.5%	0%		7.3%	**-**
PHF	0.38	0.92	0.75	0		0.93	0.59	0	0.36	0.25		0.67	0.64	0.89	0.7	0		0.95	0.38	0	0.65	0		0.73	**-**
Heavy	2	65	1	0		68	54	0	12	1		67	39	65	15	0		119	5	0	36	0		41	**-**
Heavy %	66.7%	24.4%	33.3%	0%		25%	78.3%	0%	92.3%	100%		80.7%	66.1%	25.6%	20.5%	0%		30.8%	83.3%	0%	69.2%	0%		70.7%	**-**
Lights	1	201	2	0		204	15	0	1	0		16	20	189	58	0		267	1	0	16	0		17	**-**
Lights %	33.3%	75.6%	66.7%	0%		75%	21.7%	0%	7.7%	0%		19.3%	33.9%	74.4%	79.5%	0%		69.2%	16.7%	0%	30.8%	0%		29.3%	**-**
Single-Unit Trucks	0	28	0	0		28	3	0	0	0		3	24	29	1	0		54	4	0	19	0		23	**-**
Single-Unit Trucks %	0%	10.5%	0%	0%		10.3%	4.3%	0%	0%	0%		3.6%	40.7%	11.4%	1.4%	0%		14%	66.7%	0%	36.5%	0%		39.7%	**-**
Buses	2	4	0	0		6	43	0	12	1		56	0	0	7	0		7	0	0	0	0		0	**-**
Buses %	66.7%	1.5%	0%	0%		2.2%	62.3%	0%	92.3%	100%		67.5%	0%	0%	9.6%	0%		1.8%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	33	1	0		34	8	0	0	0		8	15	36	7	0		58	1	0	17	0		18	**-**
Articulated Trucks %	0%	12.4%	33.3%	0%		12.5%	11.6%	0%	0%	0%		9.6%	25.4%	14.2%	9.6%	0%		15%	16.7%	0%	32.7%	0%		31%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 06:00 AM - 07:00 AM Weather:

Start Time	N Approach AIRPORT RD						E Approach PERDUE CT						S Approach AIRPORT RD						W Approach PERDUE CT						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
06:00:00	0	111	0	0	0	111	9	0	2	0	2	11	12	32	8	0	0	52	0	0	7	0	0	7	181
06:15:00	0	121	2	1	0	124	7	0	4	0	2	11	7	47	20	0	0	74	0	0	15	0	0	15	224
06:30:00	2	163	0	0	0	165	15	0	5	0	1	20	7	66	20	0	0	93	2	0	10	0	0	12	290
06:45:00	3	178	0	0	0	181	10	0	4	0	3	14	15	98	31	0	0	144	0	0	6	2	0	8	347
Grand Total	5	573	2	1	0	581	41	0	15	0	8	56	41	243	79	0	0	363	2	0	38	2	0	42	**1042**
Approach%	0.9%	98.6%	0.3%	0.2%		-	73.2%	0%	26.8%	0%		-	11.3%	66.9%	21.8%	0%		-	4.8%	0%	90.5%	4.8%		-	**-**
Totals %	0.5%	55%	0.2%	0.1%		55.8%	3.9%	0%	1.4%	0%		5.4%	3.9%	23.3%	7.6%	0%		34.8%	0.2%	0%	3.6%	0.2%		4%	**-**
PHF	0.42	0.8	0.25	0.25		0.8	0.68	0	0.75	0		0.7	0.68	0.62	0.64	0		0.63	0.25	0	0.63	0.25		0.7	**-**
Heavy	1	62	0	0		63	36	0	14	0		50	13	24	5	0		42	2	0	32	2		36	**-**
Heavy %	20%	10.8%	0%	0%		10.8%	87.8%	0%	93.3%	0%		89.3%	31.7%	9.9%	6.3%	0%		11.6%	100%	0%	84.2%	100%		85.7%	**-**
Lights	4	511	2	1		518	5	0	1	0		6	28	219	74	0		321	0	0	6	0		6	**-**
Lights %	80%	89.2%	100%	100%		89.2%	12.2%	0%	6.7%	0%		10.7%	68.3%	90.1%	93.7%	0%		88.4%	0%	0%	15.8%	0%		14.3%	**-**
Single-Unit Trucks	0	29	0	0		29	1	0	0	0		1	11	9	1	0		21	0	0	24	2		26	**-**
Single-Unit Trucks %	0%	5.1%	0%	0%		5%	2.4%	0%	0%	0%		1.8%	26.8%	3.7%	1.3%	0%		5.8%	0%	0%	63.2%	100%		61.9%	**-**
Buses	1	0	0	0		1	27	0	14	0		41	0	2	2	0		4	0	0	0	0		0	**-**
Buses %	20%	0%	0%	0%		0.2%	65.9%	0%	93.3%	0%		73.2%	0%	0.8%	2.5%	0%		1.1%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	33	0	0		33	8	0	0	0		8	2	13	2	0		17	2	0	8	0		10	**-**
Articulated Trucks %	0%	5.8%	0%	0%		5.7%	19.5%	0%	0%	0%		14.3%	4.9%	5.3%	2.5%	0%		4.7%	100%	0%	21.1%	0%		23.8%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	100%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

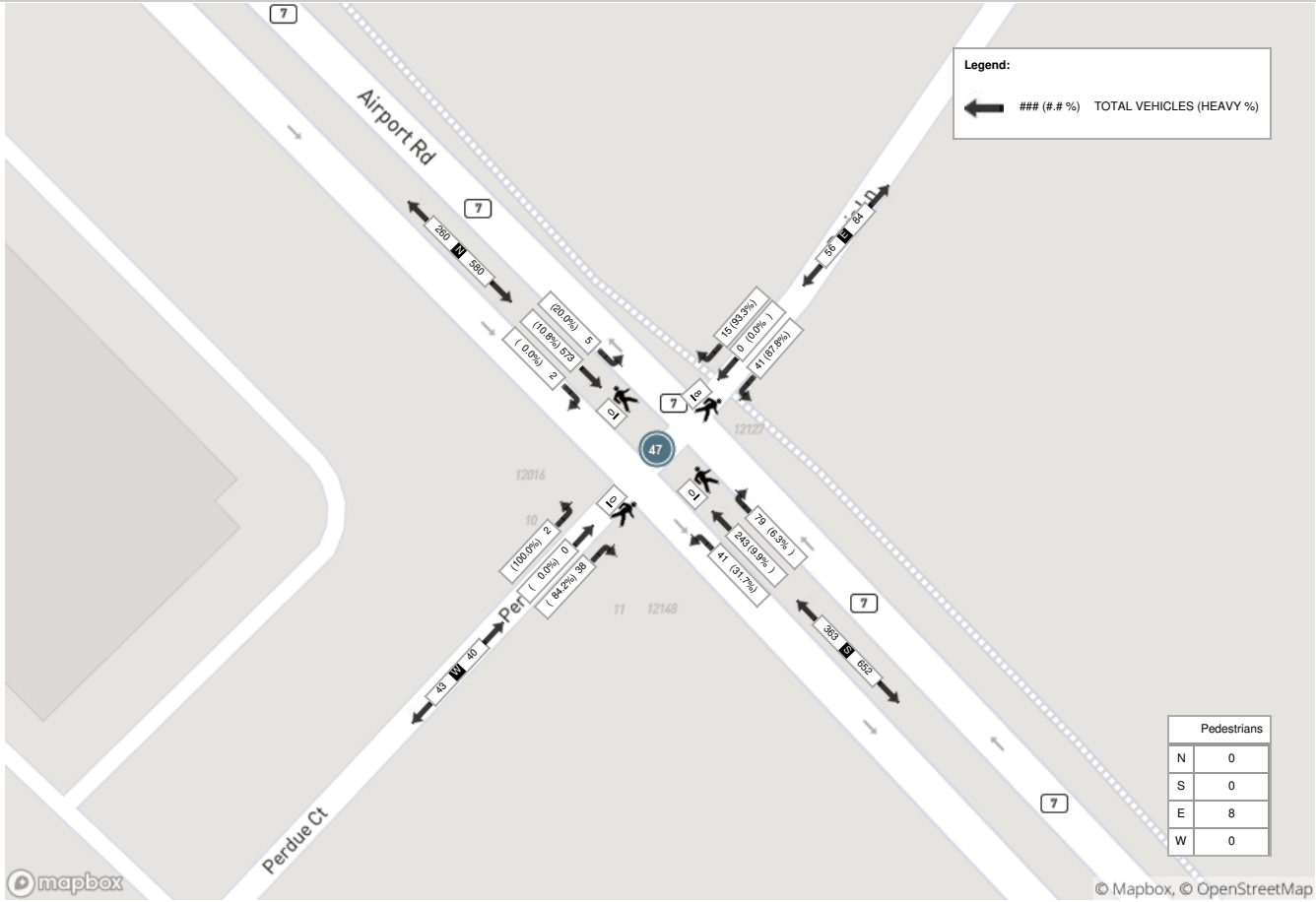
Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (25.35 °C)

Start Time	N Approach AIRPORT RD						E Approach PERDUE CT						S Approach AIRPORT RD						W Approach PERDUE CT						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
16:15:00	1	71	1	1	0	74	25	0	3	0	0	28	8	199	30	0	0	237	3	0	14	0	0	17	356
16:30:00	7	96	2	1	0	106	30	0	2	0	2	32	12	194	14	0	0	220	0	0	18	0	0	18	376
16:45:00	5	80	1	3	0	89	20	0	0	0	0	20	17	177	7	0	0	201	1	0	8	0	1	9	319
17:00:00	0	91	5	7	0	103	9	0	2	0	1	11	10	182	13	0	0	205	7	0	22	0	1	29	348
Grand Total	13	338	9	12	0	372	84	0	7	0	3	91	47	752	64	0	0	863	11	0	62	0	2	73	**1399**
Approach%	3.5%	90.9%	2.4%	3.2%		-	92.3%	0%	7.7%	0%		-	5.4%	87.1%	7.4%	0%		-	15.1%	0%	84.9%	0%		-	**-**
Totals %	0.9%	24.2%	0.6%	0.9%		26.6%	6%	0%	0.5%	0%		6.5%	3.4%	53.8%	4.6%	0%		61.7%	0.8%	0%	4.4%	0%		5.2%	**-**
PHF	0.46	0.88	0.45	0.43		0.88	0.7	0	0.58	0		0.71	0.69	0.94	0.53	0		0.91	0.39	0	0.7	0		0.63	**-**
Heavy	11	54	6	0		71	6	0	0	0		6	41	69	54	0		164	2	0	8	0		10	**-**
Heavy %	84.6%	16%	66.7%	0%		19.1%	7.1%	0%	0%	0%		6.6%	87.2%	9.2%	84.4%	0%		19%	18.2%	0%	12.9%	0%		13.7%	**-**
Lights	2	284	3	12		301	78	0	7	0		85	6	683	10	0		699	9	0	54	0		63	**-**
Lights %	15.4%	84%	33.3%	100%		80.9%	92.9%	0%	100%	0%		93.4%	12.8%	90.8%	15.6%	0%		81%	81.8%	0%	87.1%	0%		86.3%	**-**
Single-Unit Trucks	0	27	1	0		28	1	0	0	0		1	11	26	2	0		39	0	0	3	0		3	**-**
Single-Unit Trucks %	0%	8%	11.1%	0%		7.5%	1.2%	0%	0%	0%		1.1%	23.4%	3.5%	3.1%	0%		4.5%	0%	0%	4.8%	0%		4.1%	**-**
Buses	11	2	0	0		13	1	0	0	0		1	0	0	44	0		44	0	0	0	0		0	**-**
Buses %	84.6%	0.6%	0%	0%		3.5%	1.2%	0%	0%	0%		1.1%	0%	0%	68.8%	0%		5.1%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	25	5	0		30	4	0	0	0		4	30	43	8	0		81	2	0	5	0		7	**-**
Articulated Trucks %	0%	7.4%	55.6%	0%		8.1%	4.8%	0%	0%	0%		4.4%	63.8%	5.7%	12.5%	0%		9.4%	18.2%	0%	8.1%	0%		9.6%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	60%		-	-	-	-	0%		-	-	-	-	40%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

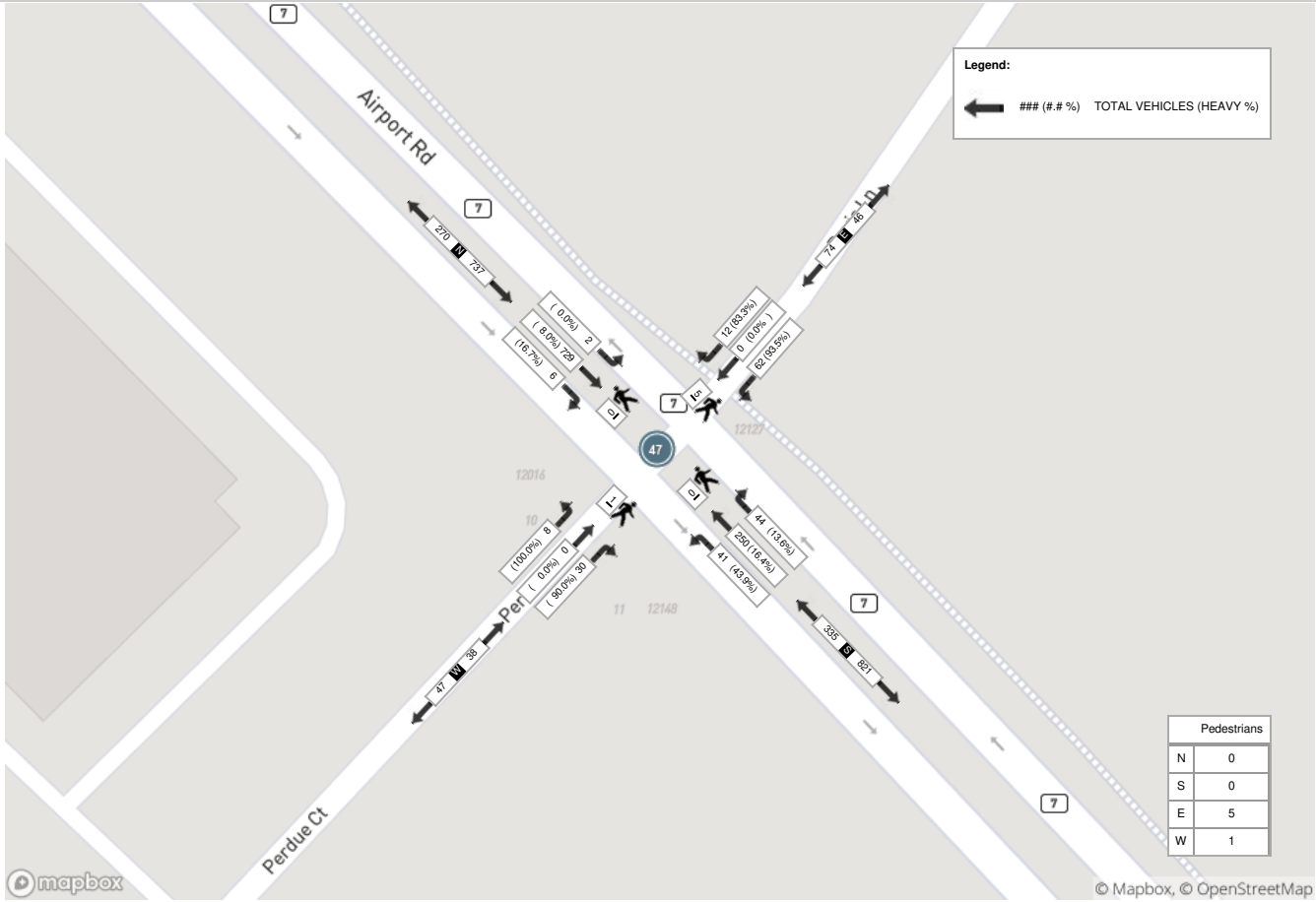
Peak Hour: 06:00 AM - 07:00 AM Weather:



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

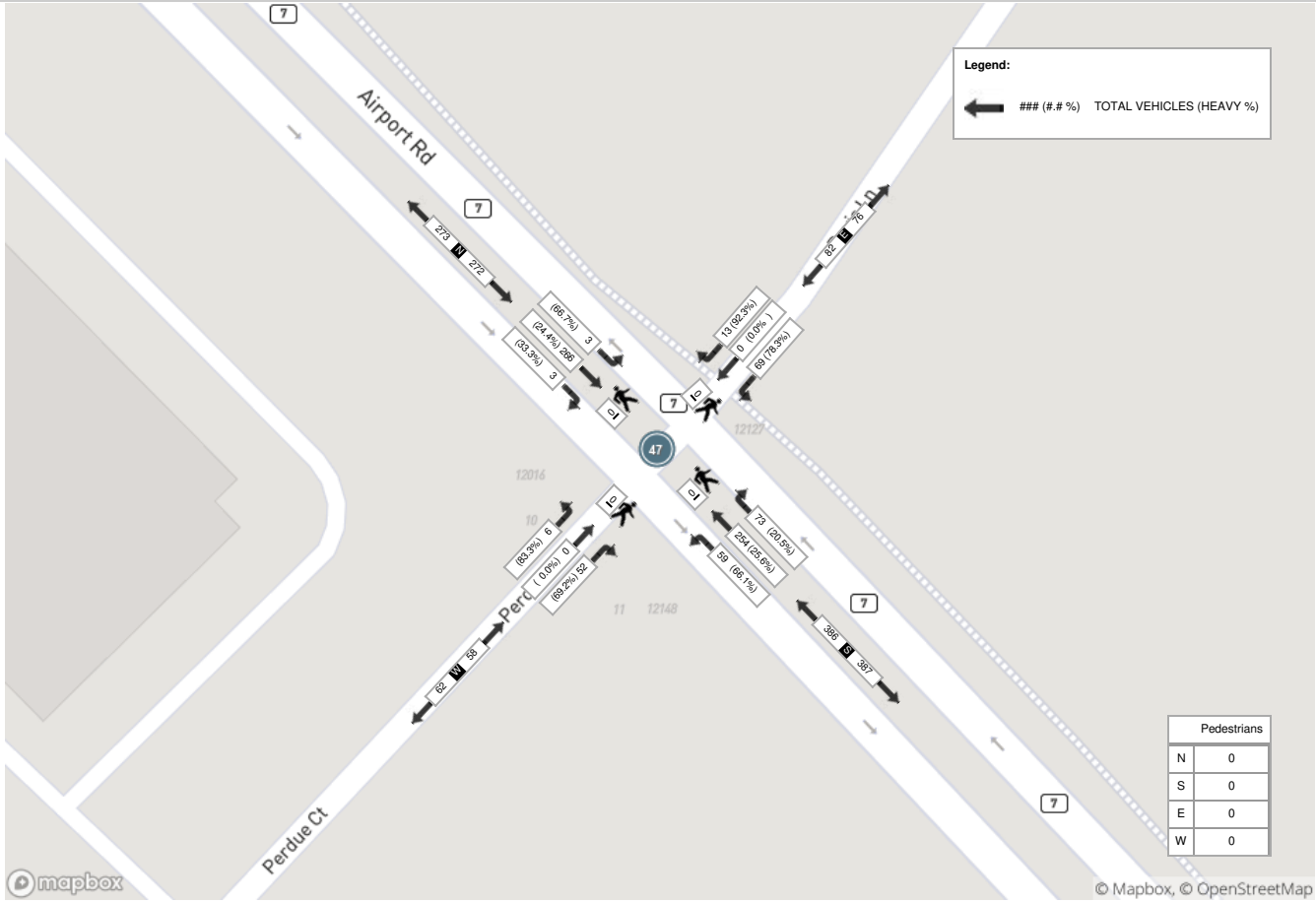
Peak Hour: 07:00 AM - 08:00 AM Weather:



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

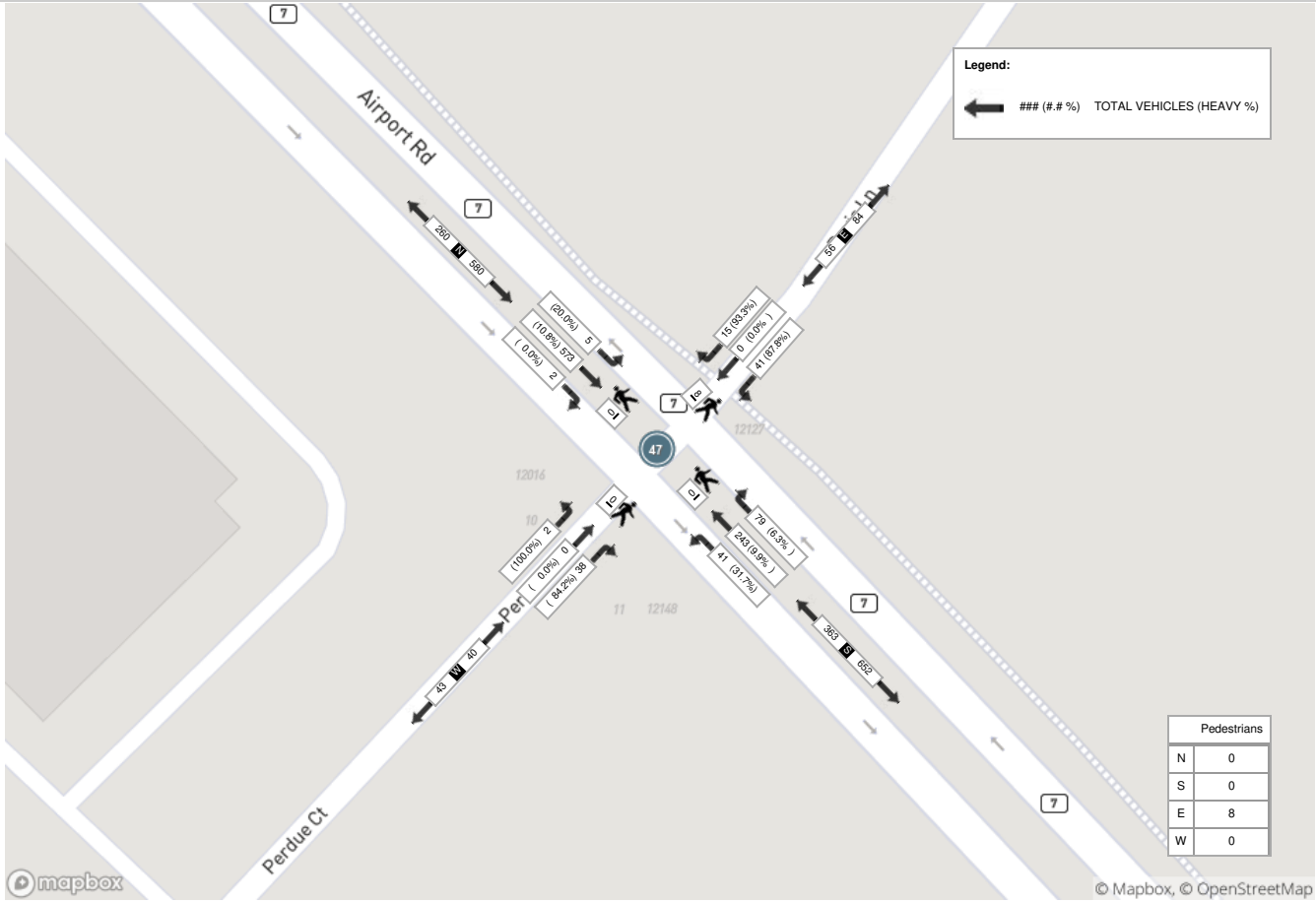
Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (23.38 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

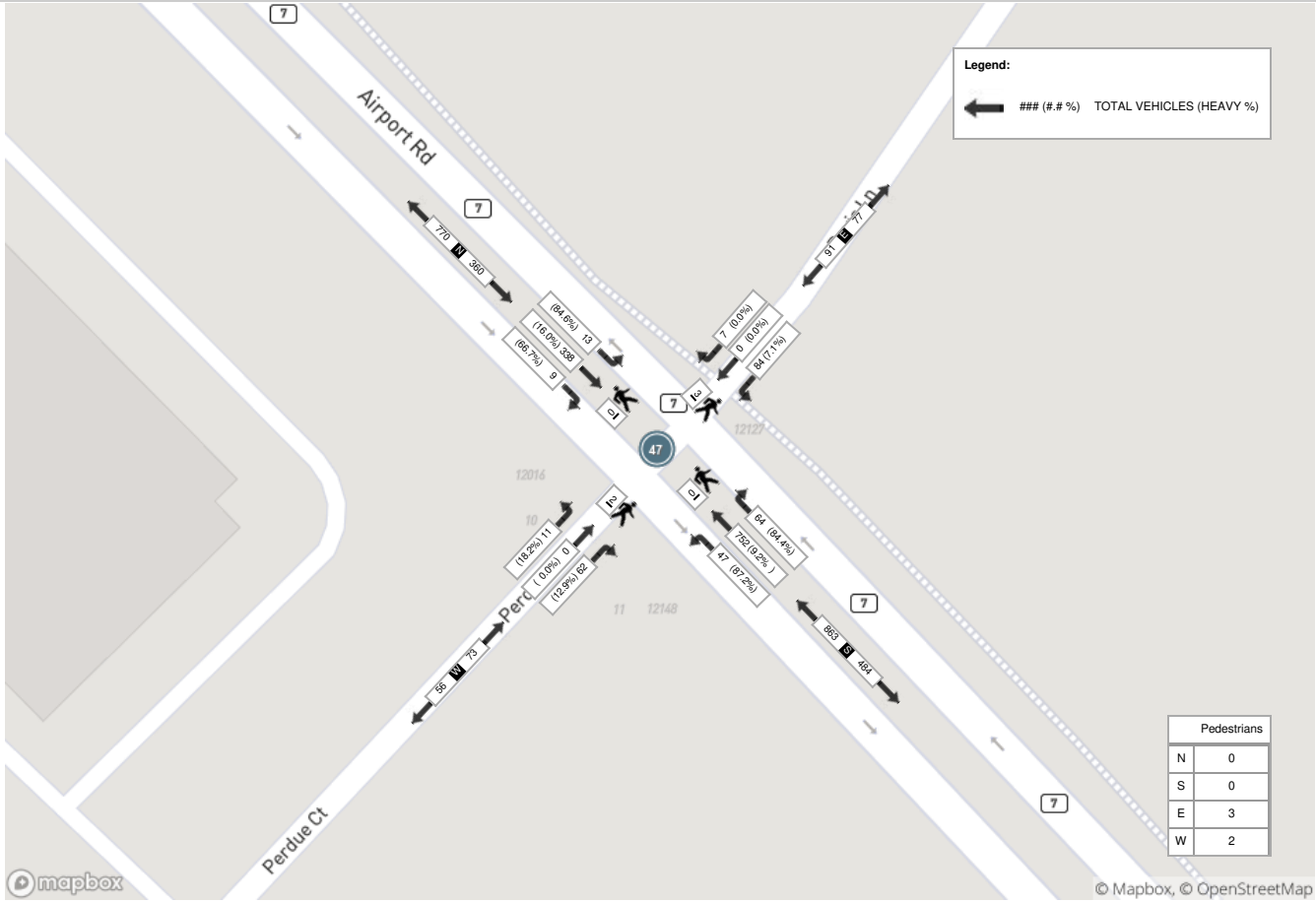
Peak Hour: 06:00 AM - 07:00 AM Weather:



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & PERDUE CRT / DAVIS LN
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (25.35 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & STREET A
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Turning Movement Count (46 . AIRPORT RD & STREET A) CustID: 00718361 MioID:

Start Time	N Approach AIRPORT RD					E Approach STREET A					S Approach AIRPORT RD					Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	UTurn N:N	Peds N:	Approach Total	Left E:S	Right E:N	UTurn E:E	Peds E:	Approach Total	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total		
07:00:00	2	150	0	0	152	39	3	0	1	42	51	5	0	0	56	250	
07:15:00	0	177	0	0	177	6	2	0	0	8	50	4	0	0	54	239	
07:30:00	1	186	0	0	187	4	1	0	1	5	65	6	0	0	71	263	
07:45:00	1	184	0	0	185	2	2	0	1	4	62	11	0	0	73	262	1014
08:00:00	0	163	0	0	163	1	1	0	0	2	49	3	0	0	52	217	981
08:15:00	0	159	0	1	159	2	0	0	0	2	59	10	0	0	69	230	972
08:30:00	1	147	0	0	148	5	2	0	0	7	46	3	0	0	49	204	913
08:45:00	0	132	0	0	132	9	0	0	0	9	63	2	0	0	65	206	857
BREAK																	
11:00:00	0	72	0	0	72	9	0	0	0	9	46	4	0	0	50	131	
11:15:00	1	66	0	0	67	5	0	0	0	5	43	5	0	0	48	120	
11:30:00	2	61	0	0	63	9	1	0	1	10	50	4	0	0	54	127	
11:45:00	0	74	0	0	74	4	1	0	1	5	50	6	0	0	56	135	513
12:00:00	0	68	0	0	68	10	1	0	1	11	50	10	0	0	60	139	521
12:15:00	2	54	0	0	56	7	3	0	0	10	68	8	0	0	76	142	543
12:30:00	0	51	0	0	51	3	0	0	0	3	56	7	0	0	63	117	533
12:45:00	1	73	1	0	75	8	1	0	0	9	64	7	0	0	71	155	553
13:00:00	0	60	0	0	60	6	4	0	0	10	60	10	0	0	70	140	554
13:15:00	0	63	0	0	63	7	0	0	0	7	51	11	0	0	62	132	544
13:30:00	0	60	0	0	60	6	1	0	0	7	70	2	0	0	72	139	566
13:45:00	1	51	0	0	52	7	1	0	0	8	62	6	1	0	69	129	540
BREAK																	
15:00:00	2	62	0	0	64	60	10	0	0	70	112	6	0	0	118	252	
15:15:00	1	52	0	0	53	15	3	0	0	18	118	5	0	0	123	194	
15:30:00	0	61	0	0	61	18	3	0	0	21	122	7	0	0	129	211	
15:45:00	1	69	0	0	70	10	0	0	1	10	120	7	0	0	127	207	864
16:00:00	1	66	0	0	67	14	5	0	0	19	170	13	0	0	183	269	881
16:15:00	0	72	0	0	72	6	2	0	0	8	185	6	0	0	191	271	958
16:30:00	1	78	0	0	79	16	1	0	0	17	167	13	0	0	180	276	1023
16:45:00	3	67	1	0	71	10	3	0	0	13	183	6	0	0	189	273	1089
17:00:00	1	66	0	0	67	21	3	0	0	24	178	6	0	0	184	275	1095
17:15:00	2	77	0	0	79	4	1	0	0	5	155	9	0	0	164	248	1072
17:30:00	0	67	0	0	67	9	0	0	0	9	140	2	0	0	142	218	1014
17:45:00	0	74	0	0	74	9	2	0	0	11	125	5	0	0	130	215	956

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & STREET A
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Grand Total	24	2862	2	1	2888	341	57	0	7	398	2890	209	1	0	3100	**6386**	-
Approach%	0.8%	99.1%	0.1%		-	85.7%	14.3%	0%		-	93.2%	6.7%	0%		-	**-**	-
Totals %	0.4%	44.8%	0%		45.2%	5.3%	0.9%	0%		6.2%	45.3%	3.3%	0%		48.5%	**-**	-
Heavy	11	386	0		-	139	15	0		-	373	133	0		-	**-**	-
Heavy %	45.8%	13.5%	0%		-	40.8%	26.3%	0%		-	12.9%	63.6%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & STREET A
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 07:00 AM - 08:00 AM Weather: Mist (13.18 °C)

Start Time	N Approach AIRPORT RD					E Approach STREET A					S Approach AIRPORT RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	2	150	0	0	152	39	3	0	1	42	51	5	0	0	56	250
07:15:00	0	177	0	0	177	6	2	0	0	8	50	4	0	0	54	239
07:30:00	1	186	0	0	187	4	1	0	1	5	65	6	0	0	71	263
07:45:00	1	184	0	0	185	2	2	0	1	4	62	11	0	0	73	262
Grand Total	4	697	0	0	701	51	8	0	3	59	228	26	0	0	254	**1014**
Approach%	0.6%	99.4%	0%		-	86.4%	13.6%	0%		-	89.8%	10.2%	0%		-	**-**
Totals %	0.4%	68.7%	0%		69.1%	5%	0.8%	0%		5.8%	22.5%	2.6%	0%		25%	**-**
PHF	0.5	0.94	0		0.94	0.33	0.67	0		0.35	0.88	0.59	0		0.87	**-**
Heavy	0	49	0		49	8	0	0		8	44	10	0		54	**-**
Heavy %	0%	7%	0%		7%	15.7%	0%	0%		13.6%	19.3%	38.5%	0%		21.3%	**-**
Lights	4	648	0		652	43	8	0		51	184	16	0		200	**-**
Lights %	100%	93%	0%		93%	84.3%	100%	0%		86.4%	80.7%	61.5%	0%		78.7%	**-**
Single-Unit Trucks	0	27	0		27	1	0	0		1	12	5	0		17	**-**
Single-Unit Trucks %	0%	3.9%	0%		3.9%	2%	0%	0%		1.7%	5.3%	19.2%	0%		6.7%	**-**
Buses	0	2	0		2	0	0	0		0	14	0	0		14	**-**
Buses %	0%	0.3%	0%		0.3%	0%	0%	0%		0%	6.1%	0%	0%		5.5%	**-**
Articulated Trucks	0	20	0		20	7	0	0		7	18	5	0		23	**-**
Articulated Trucks %	0%	2.9%	0%		2.9%	13.7%	0%	0%		11.9%	7.9%	19.2%	0%		9.1%	**-**
Pedestrians	-	-	-	0	-	-	-	-	3	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	100%		-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & STREET A
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (23.38 °C)

Start Time	N Approach AIRPORT RD					E Approach STREET A					S Approach AIRPORT RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
12:45:00	1	73	1	0	75	8	1	0	0	9	64	7	0	0	71	155
13:00:00	0	60	0	0	60	6	4	0	0	10	60	10	0	0	70	140
13:15:00	0	63	0	0	63	7	0	0	0	7	51	11	0	0	62	132
13:30:00	0	60	0	0	60	6	1	0	0	7	70	2	0	0	72	139
Grand Total	1	256	1	0	258	27	6	0	0	33	245	30	0	0	275	**566**
Approach%	0.4%	99.2%	0.4%		-	81.8%	18.2%	0%		-	89.1%	10.9%	0%		-	**-**
Totals %	0.2%	45.2%	0.2%		45.6%	4.8%	1.1%	0%		5.8%	43.3%	5.3%	0%		48.6%	**-**
PHF	0.25	0.88	0.25		0.86	0.84	0.38	0		0.83	0.88	0.68	0		0.95	**-**
Heavy	1	52	0		53	20	3	0		23	60	21	0		81	**-**
Heavy %	100%	20.3%	0%		20.5%	74.1%	50%	0%		69.7%	24.5%	70%	0%		29.5%	**-**
Lights	0	204	1		205	7	3	0		10	185	9	0		194	**-**
Lights %	0%	79.7%	100%		79.5%	25.9%	50%	0%		30.3%	75.5%	30%	0%		70.5%	**-**
Single-Unit Trucks	1	20	0		21	9	3	0		12	25	6	0		31	**-**
Single-Unit Trucks %	100%	7.8%	0%		8.1%	33.3%	50%	0%		36.4%	10.2%	20%	0%		11.3%	**-**
Buses	0	8	0		8	0	0	0		0	11	0	0		11	**-**
Buses %	0%	3.1%	0%		3.1%	0%	0%	0%		0%	4.5%	0%	0%		4%	**-**
Articulated Trucks	0	24	0		24	11	0	0		11	24	15	0		39	**-**
Articulated Trucks %	0%	9.4%	0%		9.3%	40.7%	0%	0%		33.3%	9.8%	50%	0%		14.2%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & STREET A
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

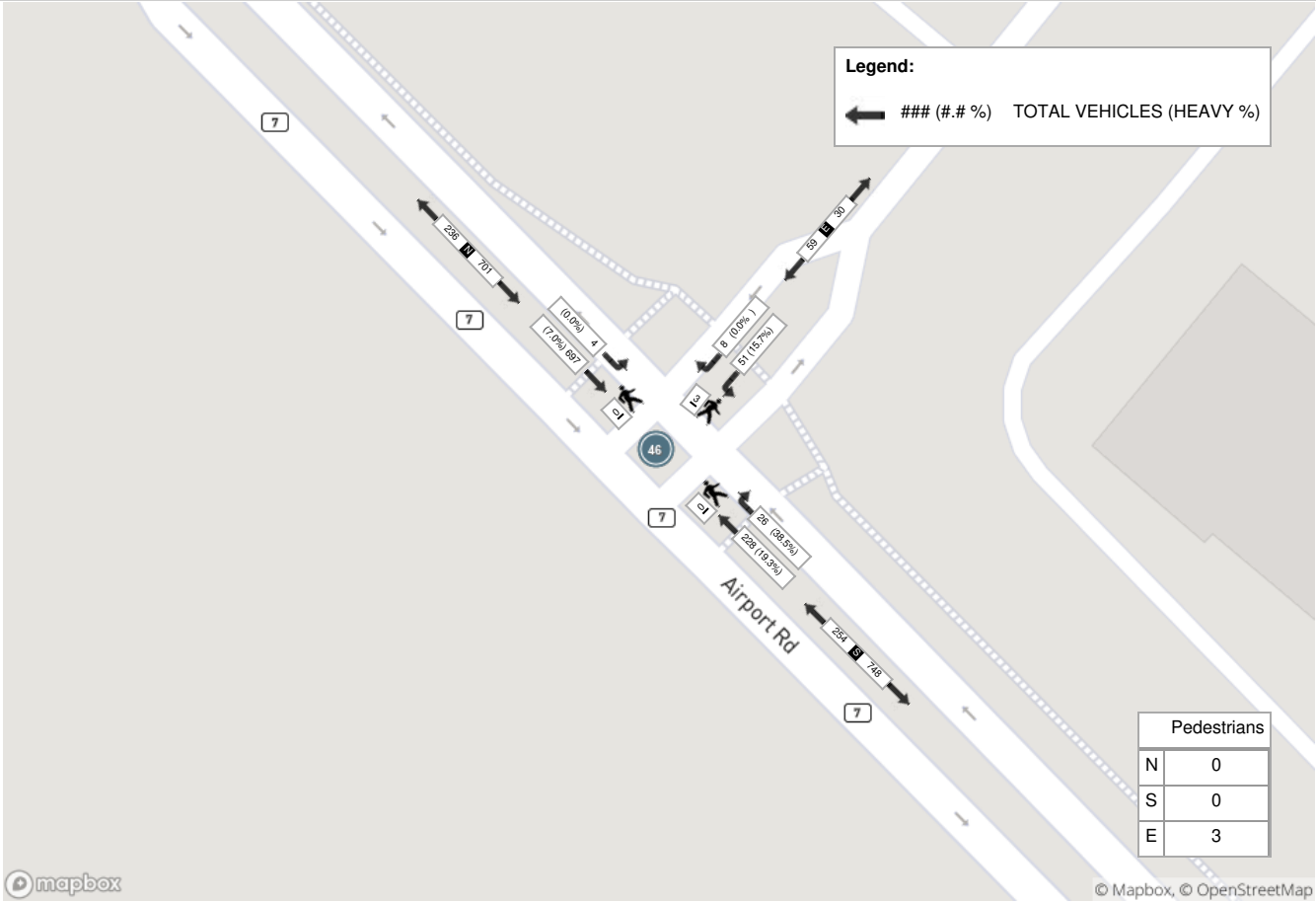
Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (25.35 °C)

Start Time	N Approach AIRPORT RD					E Approach STREET A					S Approach AIRPORT RD					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
16:15:00	0	72	0	0	72	6	2	0	0	8	185	6	0	0	191	271
16:30:00	1	78	0	0	79	16	1	0	0	17	167	13	0	0	180	276
16:45:00	3	67	1	0	71	10	3	0	0	13	183	6	0	0	189	273
17:00:00	1	66	0	0	67	21	3	0	0	24	178	6	0	0	184	275
Grand Total	5	283	1	0	289	53	9	0	0	62	713	31	0	0	744	**1095**
Approach%	1.7%	97.9%	0.3%		-	85.5%	14.5%	0%		-	95.8%	4.2%	0%		-	**-**
Totals %	0.5%	25.8%	0.1%		26.4%	4.8%	0.8%	0%		5.7%	65.1%	2.8%	0%		67.9%	**-**
PHF	0.42	0.91	0.25		0.91	0.63	0.75	0		0.65	0.96	0.6	0		0.97	**-**
Heavy	3	55	0		58	22	2	0		24	53	19	0		72	**-**
Heavy %	60%	19.4%	0%		20.1%	41.5%	22.2%	0%		38.7%	7.4%	61.3%	0%		9.7%	**-**
Lights	2	228	1		231	31	7	0		38	660	12	0		672	**-**
Lights %	40%	80.6%	100%		79.9%	58.5%	77.8%	0%		61.3%	92.6%	38.7%	0%		90.3%	**-**
Single-Unit Trucks	1	18	0		19	10	2	0		12	20	1	0		21	**-**
Single-Unit Trucks %	20%	6.4%	0%		6.6%	18.9%	22.2%	0%		19.4%	2.8%	3.2%	0%		2.8%	**-**
Buses	0	22	0		22	0	0	0		0	0	0	0		0	**-**
Buses %	0%	7.8%	0%		7.6%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Articulated Trucks	2	15	0		17	12	0	0		12	33	18	0		51	**-**
Articulated Trucks %	40%	5.3%	0%		5.9%	22.6%	0%	0%		19.4%	4.6%	58.1%	0%		6.9%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

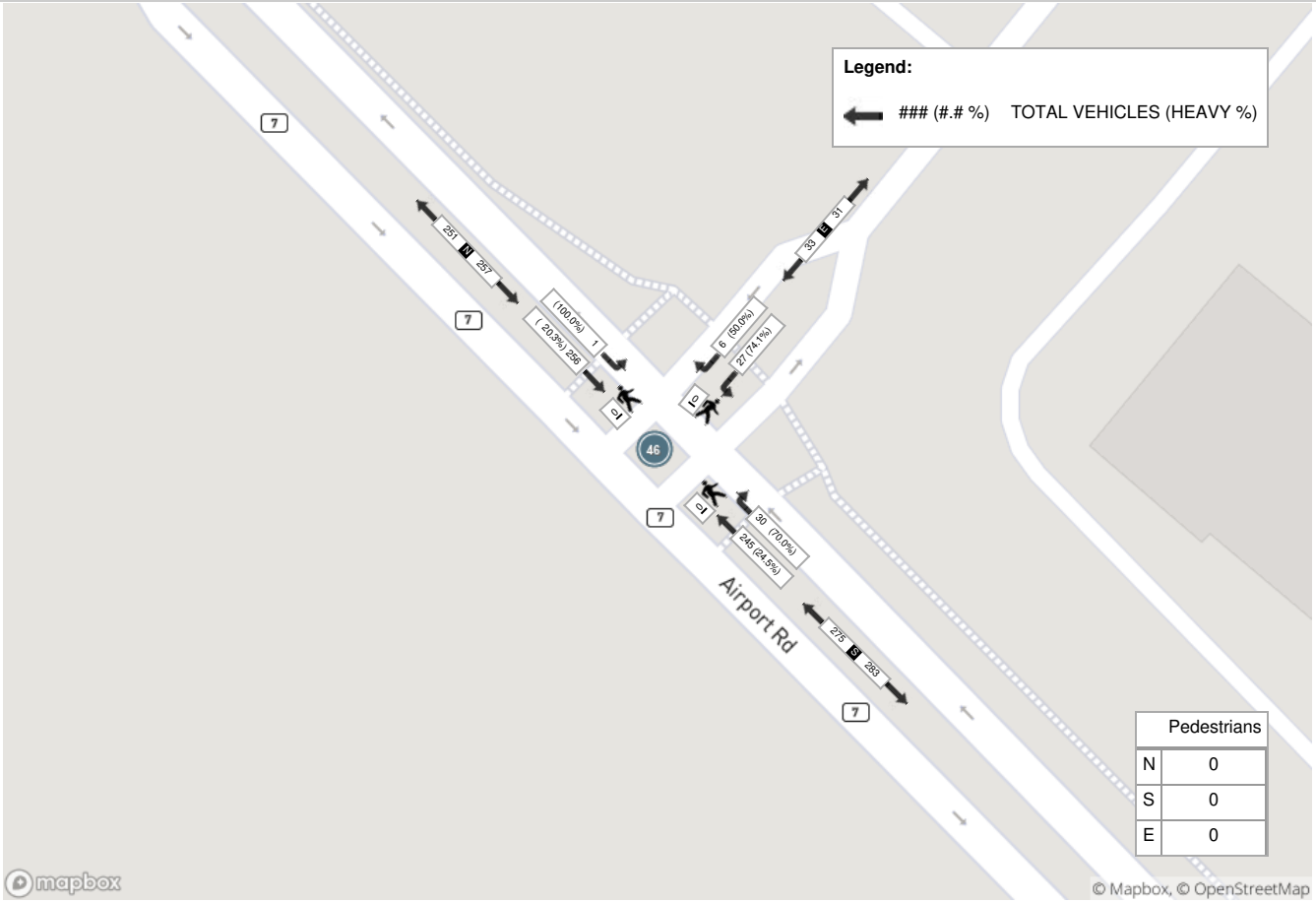
Spectrum

Turning Movement Count
Location Name: AIRPORT RD & STREET A
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 07:00 AM - 08:00 AM Weather: Mist (13.18 °C)



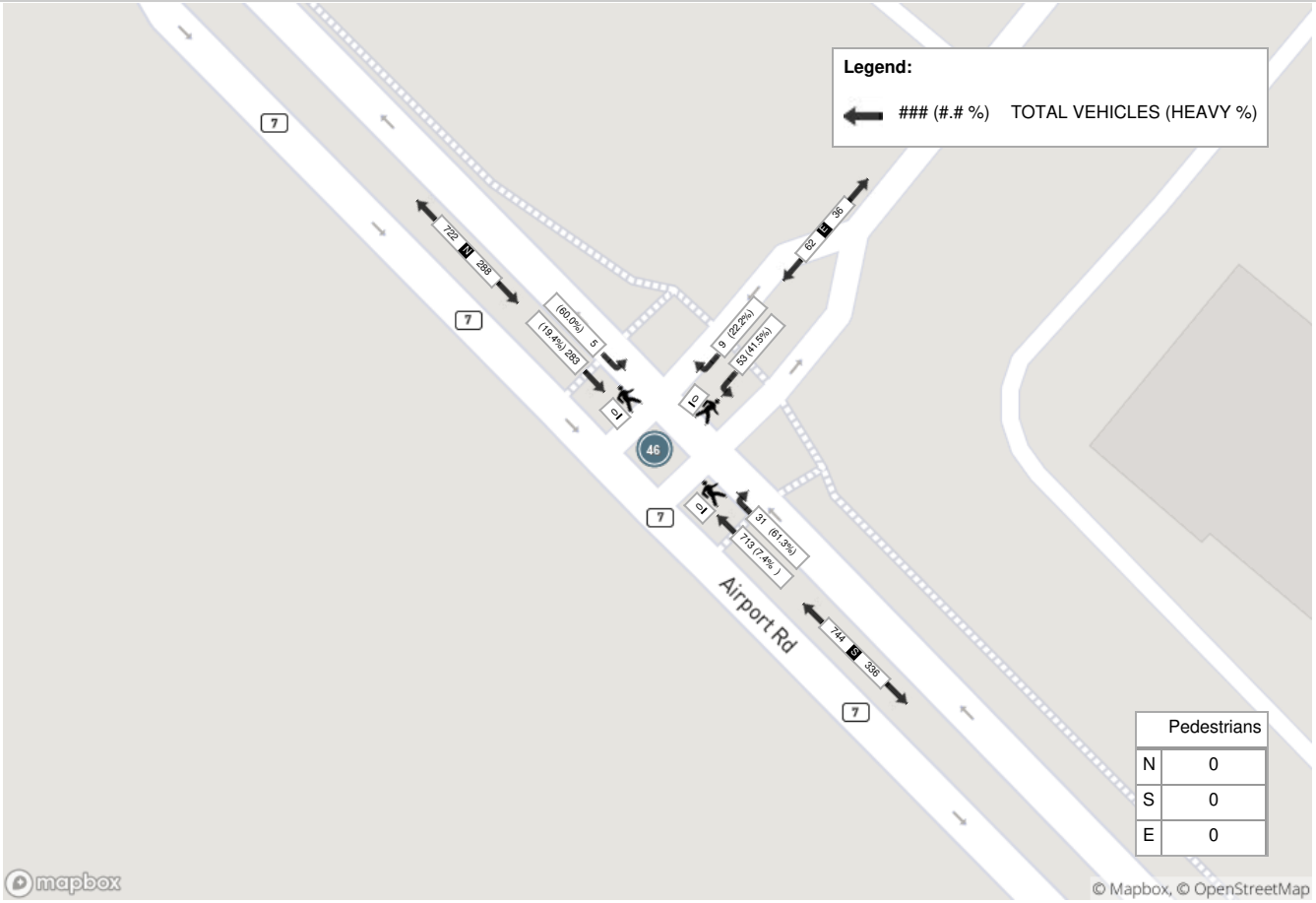
Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (23.38 °C)



Spectrum

Turning Movement Count
Location Name: AIRPORT RD & STREET A
Date: Wed, Sep 25, 2019 Deployment Lead: Patrick Filopoulos

Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (25.35 °C)



Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & TORBRAM RD
Date: Thu, Nov 24, 2016 Deployment Lead: Chris Koukaras

Turning Movement Count (33 . MAYFIELD RD & TORBRAM RD) CustID: 01409611 MioID: 368469

Start Time	N Approach TORBRAM RD						E Approach MAYFIELD RD						S Approach TORBRAM RD						W Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	U-Turn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	U-Turn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	U-Turn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	U-Turn W:W	Peds W:	Approach Total		
07:00:00	0	21	2	0	0	23	9	141	1	0	0	151	4	7	3	0	0	14	0	171	8	0	0	179	367	
07:15:00	0	26	1	0	0	27	13	147	2	0	0	162	3	9	4	0	0	16	8	188	7	0	0	203	408	
07:30:00	2	45	10	0	0	57	14	153	1	0	0	168	5	4	3	0	0	12	3	193	9	0	0	205	442	
07:45:00	1	30	6	0	0	37	11	178	1	0	0	190	7	9	4	0	0	20	3	205	7	0	0	215	462	1679
08:00:00	1	35	3	0	0	39	10	147	1	0	0	158	12	2	6	0	0	20	2	211	25	0	0	238	455	1767
08:15:00	3	26	2	0	0	31	11	148	2	0	0	161	2	6	9	0	0	17	7	215	7	0	0	229	438	1797
08:30:00	3	20	4	0	0	27	9	135	3	0	0	147	3	6	10	0	0	19	3	180	13	0	0	196	389	1744
08:45:00	2	21	0	0	0	23	9	144	2	0	0	155	2	3	9	0	0	14	4	179	12	0	0	195	387	1669
BREAK																										
11:00:00	0	3	0	0	0	3	6	113	2	0	0	121	1	0	3	0	0	4	3	98	4	0	0	105	233	
11:15:00	2	6	0	0	0	8	9	99	2	0	0	110	2	5	7	0	0	14	4	115	7	0	0	126	258	
11:30:00	2	5	2	0	0	9	5	114	1	0	0	120	7	6	7	0	0	20	1	112	7	0	0	120	269	
11:45:00	1	7	2	0	0	10	6	119	7	0	0	132	3	8	8	0	0	19	4	106	4	0	0	114	275	1035
12:00:00	0	5	0	0	0	5	3	144	2	0	0	149	2	1	7	0	0	10	6	137	3	0	0	146	310	1112
12:15:00	0	3	2	0	0	5	8	102	1	0	0	111	2	7	3	0	0	12	5	106	7	0	0	118	246	1100
12:30:00	2	3	4	0	0	9	6	112	3	0	0	121	2	7	3	0	0	12	4	115	10	0	0	129	271	1102
12:45:00	0	8	1	0	0	9	5	130	1	0	0	136	2	4	3	0	0	9	5	116	2	0	0	123	277	1104
13:00:00	0	6	2	0	0	8	5	90	4	0	0	99	2	1	6	0	0	9	5	118	6	0	0	129	245	1039
13:15:00	0	2	5	0	0	7	7	104	3	0	0	114	6	5	4	0	0	15	2	132	8	0	0	142	278	1071
13:30:00	0	7	2	0	0	9	5	100	2	0	0	107	5	8	11	0	0	24	5	139	5	0	0	149	289	1089
13:45:00	2	5	2	0	0	9	3	132	3	0	0	138	4	7	8	0	0	19	7	146	4	0	0	157	323	1135
BREAK																										
15:00:00	1	5	1	0	0	7	13	178	4	0	0	195	9	21	7	0	0	37	5	152	9	0	0	166	405	
15:15:00	0	4	2	0	0	6	8	191	5	0	0	204	12	32	5	0	0	49	11	167	9	0	0	187	446	
15:30:00	0	4	1	0	0	5	6	197	2	0	0	205	5	27	16	0	0	48	17	184	10	0	0	211	469	
15:45:00	0	10	0	0	0	10	6	194	3	0	0	203	9	31	11	0	0	51	9	163	11	0	0	183	447	1767
16:00:00	0	7	2	0	0	9	13	194	6	0	0	213	9	37	12	0	0	58	8	180	13	0	0	201	481	1843
16:15:00	0	8	7	0	0	15	10	221	7	0	0	238	9	26	6	0	0	41	7	183	3	0	0	193	487	1884
16:30:00	1	4	3	0	0	8	5	221	5	0	0	231	7	30	9	0	0	46	7	193	6	0	0	206	491	1906
16:45:00	1	5	1	0	0	7	9	215	7	0	0	231	17	36	3	0	0	56	7	170	17	0	0	194	488	1947
17:00:00	0	4	0	0	0	4	9	213	4	0	0	226	13	28	6	0	0	47	8	190	10	0	0	208	485	1951
17:15:00	2	8	0	0	0	10	12	225	9	0	0	246	6	23	6	0	0	35	12	171	6	0	0	189	480	1944
17:30:00	0	7	1	0	0	8	6	200	5	0	0	211	7	22	7	0	0	36	10	183	7	0	0	200	455	1908
17:45:00	0	7	1	0	0	8	9	199	2	0	0	210	6	16	8	0	0	30	10	145	6	0	0	161	409	1829
Grand Total	26	357	69	0	0	452	260	5000	103	0	0	5363	185	434	214	0	0	833	192	5063	262	0	0	5517	**12165**	-
Approach%	5.8%	79%	15.3%	0%		-	4.8%	93.2%	1.9%	0%		-	22.2%	52.1%	25.7%	0%		-	3.5%	91.8%	4.7%	0%		-	-	-
Totals %	0.2%	2.9%	0.6%	0%		3.7%	2.1%	41.1%	0.8%	0%		44.1%	1.5%	3.6%	1.8%	0%		6.8%	1.6%	41.6%	2.2%	0%		45.4%	-	-
Heavy	1	7	2	0		-	6	689	8	0		-	5	8	12	0		-	6	732	7	0		-	-	-
Heavy %	3.8%	2%	2.9%	0%		-	2.3%	13.8%	7.8%	0%		-	2.7%	1.8%	5.6%	0%		-	3.1%	14.5%	2.7%	0%		-	-	-
Bicycles	0	0	0	0		-	0	0	0	0		-	0	0	0	0		-	0	1	0	0		-	-	-
Bicycle %	0%	0%	0%	0%		-	0%	0%	0%	0%		-	0%	0%	0%	0%		-	0%	0%	0%	0%		-	-	-

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & TORBRAM RD
Date: Thu, Nov 24, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 07:30 AM - 08:30 AM Weather: Light Rain (-0.1 °C)

Start Time	N Approach TORBRAM RD						E Approach MAYFIELD RD						S Approach TORBRAM RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	
07:30:00	2	45	10	0	0	57	14	153	1	0	0	168	5	4	3	0	0	12	3	193	9	0	0	205	442
07:45:00	1	30	6	0	0	37	11	178	1	0	0	190	7	9	4	0	0	20	3	205	7	0	0	215	462
08:00:00	1	35	3	0	0	39	10	147	1	0	0	158	12	2	6	0	0	20	2	211	25	0	0	238	455
08:15:00	3	26	2	0	0	31	11	148	2	0	0	161	2	6	9	0	0	17	7	215	7	0	0	229	438
Grand Total	7	136	21	0	0	164	46	626	5	0	0	677	26	21	22	0	0	69	15	824	48	0	0	887	**1797**
Approach%	4.3%	82.9%	12.8%	0%		-	6.8%	92.5%	0.7%	0%		-	37.7%	30.4%	31.9%	0%		-	1.7%	92.9%	5.4%	0%		-	**-**
Totals %	0.4%	7.6%	1.2%	0%		9.1%	2.6%	34.8%	0.3%	0%		37.7%	1.4%	1.2%	1.2%	0%		3.8%	0.8%	45.9%	2.7%	0%		49.4%	**-**
PHF	0.58	0.76	0.53	0		0.72	0.82	0.88	0.63	0		0.89	0.54	0.58	0.61	0		0.86	0.54	0.96	0.48	0		0.93	**-**
Heavy	0	2	0	0		2	1	82	1	0		84	1	2	2	0		5	1	91	1	0		93	**-**
Heavy %	0%	1.5%	0%	0%		1.2%	2.2%	13.1%	20%	0%		12.4%	3.8%	9.5%	9.1%	0%		7.2%	6.7%	11%	2.1%	0%		10.5%	**-**
Lights	7	134	21	0		162	45	544	4	0		593	25	19	20	0		64	14	733	47	0		794	**-**
Lights %	100%	98.5%	100%	0%		98.8%	97.8%	86.9%	80%	0%		87.6%	96.2%	90.5%	90.9%	0%		92.8%	93.3%	89%	97.9%	0%		89.5%	**-**
Single-Unit Trucks	0	1	0	0		1	1	42	1	0		44	0	1	1	0		2	0	38	1	0		39	**-**
Single-Unit Trucks %	0%	0.7%	0%	0%		0.6%	2.2%	6.7%	20%	0%		6.5%	0%	4.8%	4.5%	0%		2.9%	0%	4.6%	2.1%	0%		4.4%	**-**
Buses	0	1	0	0		1	0	11	0	0		11	1	1	1	0		3	1	13	0	0		14	**-**
Buses %	0%	0.7%	0%	0%		0.6%	0%	1.8%	0%	0%		1.6%	3.8%	4.8%	4.5%	0%		4.3%	6.7%	1.6%	0%	0%		1.6%	**-**
Articulated Trucks	0	0	0	0		0	0	29	0	0		29	0	0	0	0		0	0	40	0	0		40	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	4.6%	0%	0%		4.3%	0%	0%	0%	0%		0%	0%	4.9%	0%	0%		4.5%	**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		**-**

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & TORBRAM RD
Date: Thu, Nov 24, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 01:00 PM - 02:00 PM Weather: Light Drizzle (1 °C)

Start Time	N Approach TORBRAM RD						E Approach MAYFIELD RD						S Approach TORBRAM RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	
13:00:00	0	6	2	0	0	8	5	90	4	0	0	99	2	1	6	0	0	9	5	118	6	0	0	129	245
13:15:00	0	2	5	0	0	7	7	104	3	0	0	114	6	5	4	0	0	15	2	132	8	0	0	142	278
13:30:00	0	7	2	0	0	9	5	100	2	0	0	107	5	8	11	0	0	24	5	139	5	0	0	149	289
13:45:00	2	5	2	0	0	9	3	132	3	0	0	138	4	7	8	0	0	19	7	146	4	0	0	157	323
Grand Total	2	20	11	0	0	33	20	426	12	0	0	458	17	21	29	0	0	67	19	535	23	0	0	577	**1135**
Approach%	6.1%	60.6%	33.3%	0%		-	4.4%	93%	2.6%	0%		-	25.4%	31.3%	43.3%	0%		-	3.3%	92.7%	4%	0%		-	**-**
Totals %	0.2%	1.8%	1%	0%		2.9%	1.8%	37.5%	1.1%	0%		40.4%	1.5%	1.9%	2.6%	0%		5.9%	1.7%	47.1%	2%	0%		50.8%	**-**
PHF	0.25	0.71	0.55	0		0.92	0.71	0.81	0.75	0		0.83	0.71	0.66	0.66	0		0.7	0.68	0.92	0.72	0		0.92	**-**
Heavy	0	1	0	0		1	1	88	0	0		89	1	2	0	0		3	1	101	0	0		102	**-**
Heavy %	0%	5%	0%	0%		3%	5%	20.7%	0%	0%		19.4%	5.9%	9.5%	0%	0%		4.5%	5.3%	18.9%	0%	0%		17.7%	**-**
Lights	2	19	11	0		32	19	338	12	0		369	16	19	29	0		64	18	434	23	0		475	**-**
Lights %	100%	95%	100%	0%		97%	95%	79.3%	100%	0%		80.6%	94.1%	90.5%	100%	0%		95.5%	94.7%	81.1%	100%	0%		82.3%	**-**
Single-Unit Trucks	0	0	0	0		0	1	25	0	0		26	1	2	0	0		3	0	46	0	0		46	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	5%	5.9%	0%	0%		5.7%	5.9%	9.5%	0%	0%		4.5%	0%	8.6%	0%	0%		8%	**-**
Buses	0	1	0	0		1	0	19	0	0		19	0	0	0	0		0	0	2	0	0		2	**-**
Buses %	0%	5%	0%	0%		3%	0%	4.5%	0%	0%		4.1%	0%	0%	0%	0%		0%	0%	0.4%	0%	0%		0.3%	**-**
Articulated Trucks	0	0	0	0		0	0	44	0	0		44	0	0	0	0		0	1	53	0	0		54	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	10.3%	0%	0%		9.6%	0%	0%	0%	0%		0%	5.3%	9.9%	0%	0%		9.4%	**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		**-**

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & TORBRAM RD
Date: Thu, Nov 24, 2016 Deployment Lead: Chris Koukaras

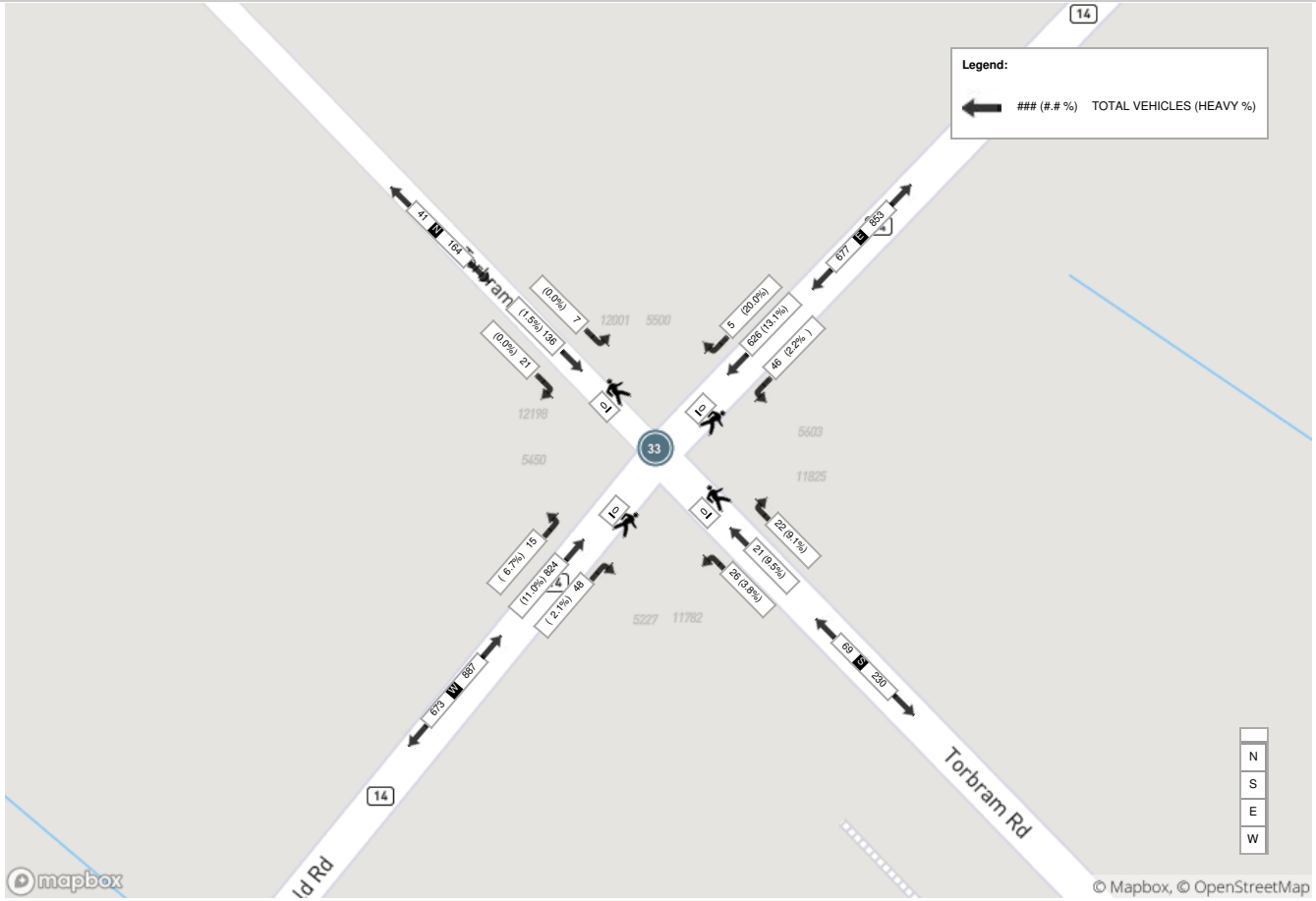
Peak Hour: 04:15 PM - 05:15 PM Weather: Light Drizzle (2.9 °C)

Start Time	N Approach TORBRAM RD						E Approach MAYFIELD RD						S Approach TORBRAM RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	Left	Thru	Right	U-Turn	Peds	Approach Total	
16:15:00	0	8	7	0	0	15	10	221	7	0	0	238	9	26	6	0	0	41	7	183	3	0	0	193	487
16:30:00	1	4	3	0	0	8	5	221	5	0	0	231	7	30	9	0	0	46	7	193	6	0	0	206	491
16:45:00	1	5	1	0	0	7	9	215	7	0	0	231	17	36	3	0	0	56	7	170	17	0	0	194	488
17:00:00	0	4	0	0	0	4	9	213	4	0	0	226	13	28	6	0	0	47	8	190	10	0	0	208	485
Grand Total	2	21	11	0	0	34	33	870	23	0	0	926	46	120	24	0	0	190	29	736	36	0	0	801	**1951**
Approach%	5.9%	61.8%	32.4%	0%		-	3.6%	94%	2.5%	0%		-	24.2%	63.2%	12.6%	0%		-	3.6%	91.9%	4.5%	0%		-	**-**
Totals %	0.1%	1.1%	0.6%	0%		1.7%	1.7%	44.6%	1.2%	0%		47.5%	2.4%	6.2%	1.2%	0%		9.7%	1.5%	37.7%	1.8%	0%		41.1%	**-**
PHF	0.5	0.66	0.39	0		0.57	0.83	0.98	0.82	0		0.97	0.68	0.83	0.67	0		0.85	0.91	0.95	0.53	0		0.96	**-**
Heavy	0	0	1	0		1	0	76	1	0		77	0	0	1	0		1	1	86	0	0		87	**-**
Heavy %	0%	0%	9.1%	0%		2.9%	0%	8.7%	4.3%	0%		8.3%	0%	0%	4.2%	0%		0.5%	3.4%	11.7%	0%	0%		10.9%	**-**
Lights	2	21	10	0		33	33	794	22	0		849	46	120	23	0		189	28	650	36	0		714	**-**
Lights %	100%	100%	90.9%	0%		97.1%	100%	91.3%	95.7%	0%		91.7%	100%	100%	95.8%	0%		99.5%	96.6%	88.3%	100%	0%		89.1%	**-**
Single-Unit Trucks	0	0	0	0		0	0	29	0	0		29	0	0	0	0		0	1	27	0	0		28	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	3.3%	0%	0%		3.1%	0%	0%	0%	0%		0%	3.4%	3.7%	0%	0%		3.5%	**-**
Buses	0	0	1	0		1	0	12	1	0		13	0	0	1	0		1	0	18	0	0		18	**-**
Buses %	0%	0%	9.1%	0%		2.9%	0%	1.4%	4.3%	0%		1.4%	0%	0%	4.2%	0%		0.5%	0%	2.4%	0%	0%		2.2%	**-**
Articulated Trucks	0	0	0	0		0	0	35	0	0		35	0	0	0	0		0	0	41	0	0		41	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	4%	0%	0%		3.8%	0%	0%	0%	0%		0%	0%	5.6%	0%	0%		5.1%	**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		-	-	-	-	%		**-**

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & TORBRAM RD
Date: Thu, Nov 24, 2016 Deployment Lead: Chris Koukaras

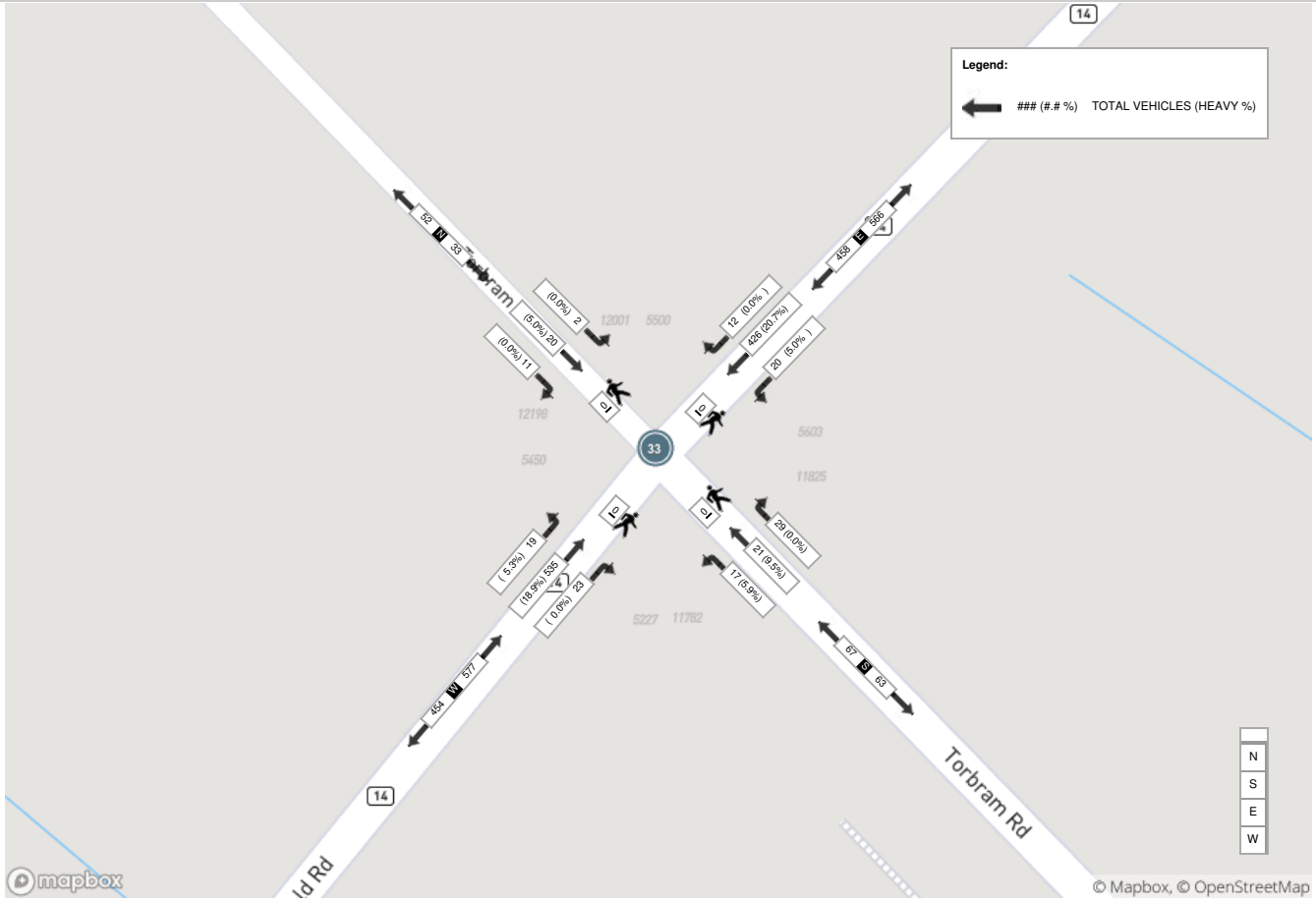
Peak Hour: 07:30 AM - 08:30 AM Weather: Light Rain (-0.1 °C)



Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & TORBRAM RD
Date: Thu, Nov 24, 2016 Deployment Lead: Chris Koukaras

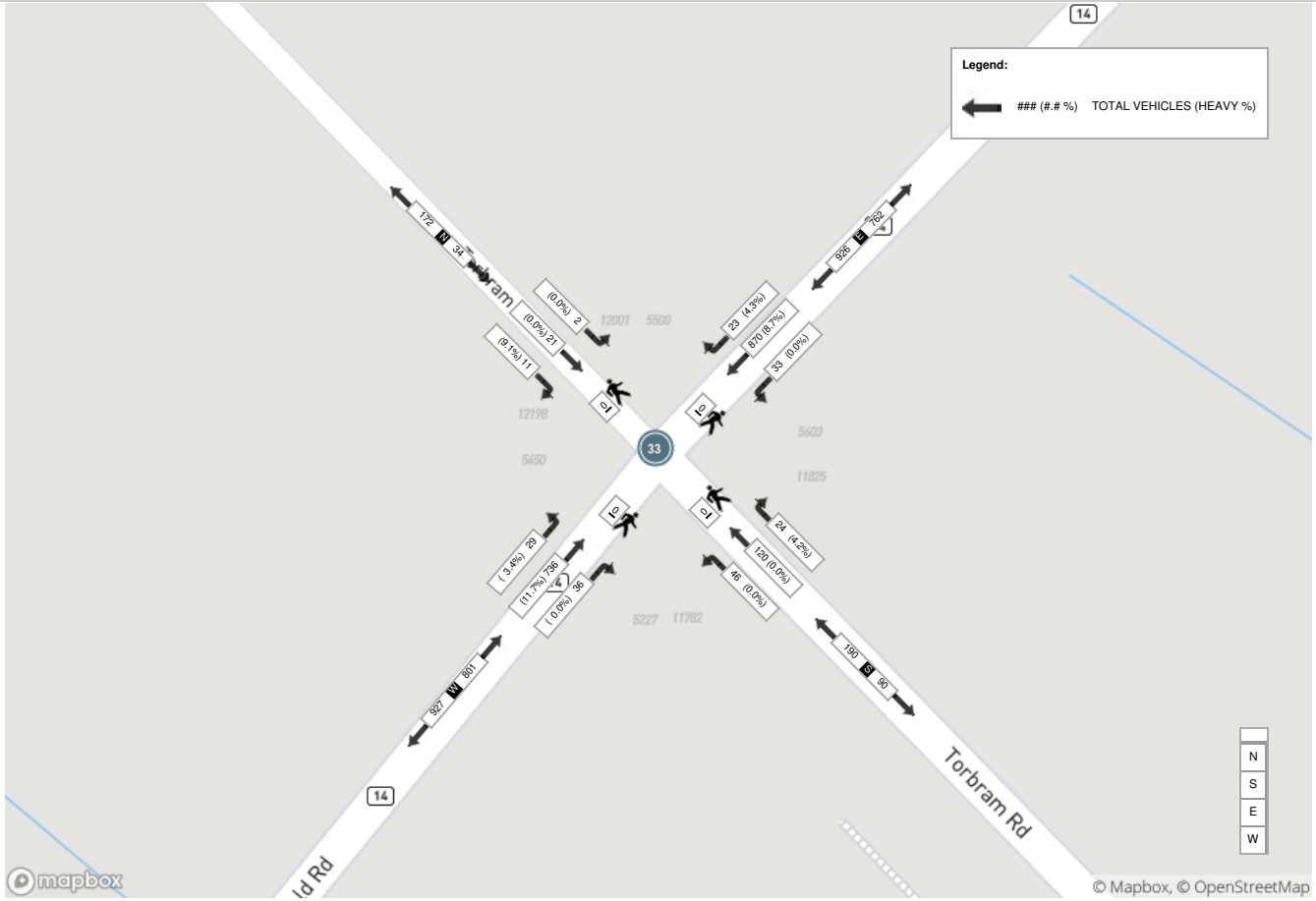
Peak Hour: 01:00 PM - 02:00 PM Weather: Light Drizzle (1 °C)



Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & TORBRAM RD
Date: Thu, Nov 24, 2016 Deployment Lead: Chris Koukaras

Peak Hour: 04:15 PM - 05:15 PM Weather: Light Drizzle (2.9 °C)



Turning Movements Report - AM Period

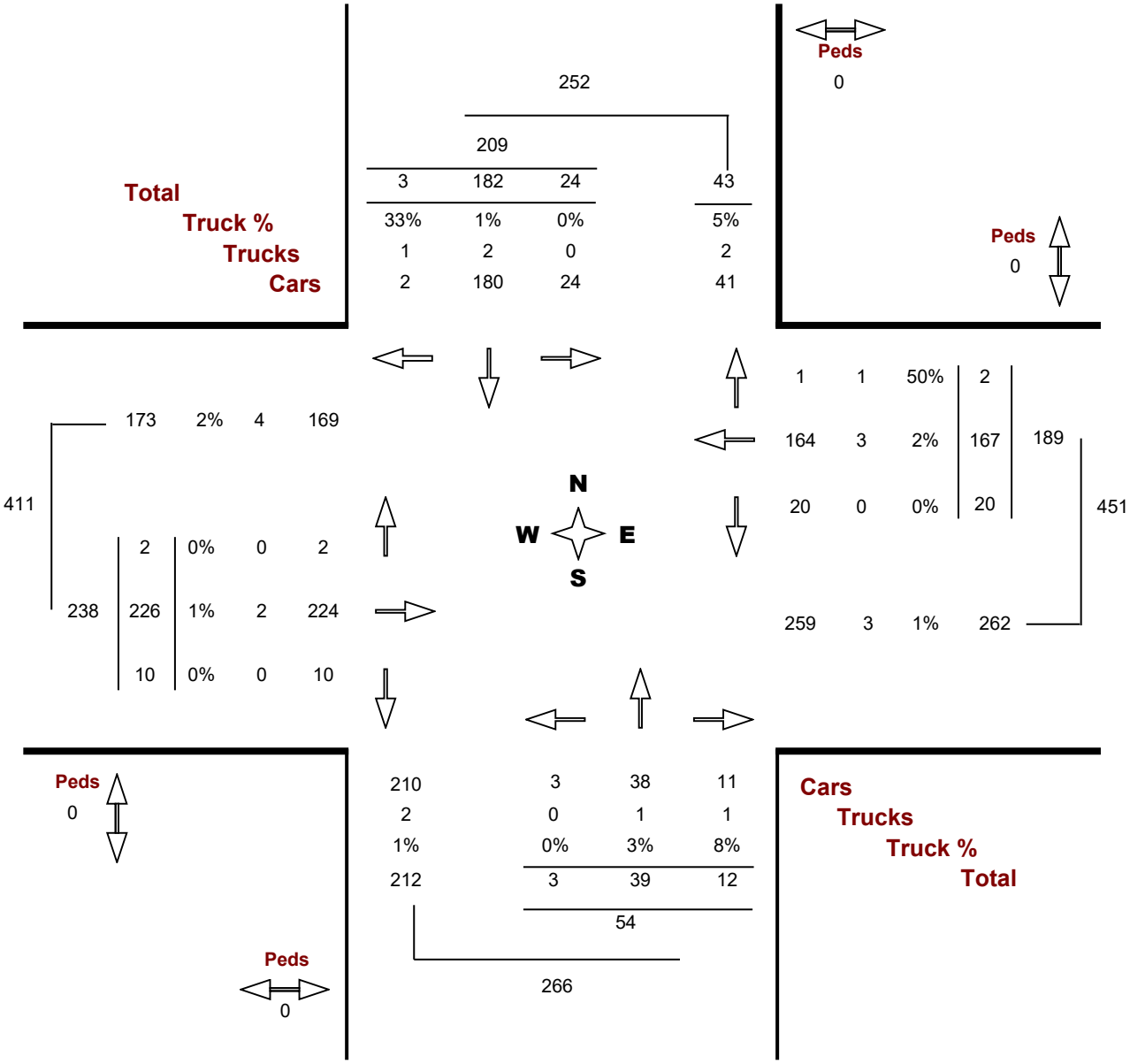
Location..... TORBRAM RD @ OLD SCHOOL RD

Municipality..... Caledon

GeoID..... 25493

Count Date..... Thursday, 07 September, 2017

Peak Hour..... 07:15 AM — 08:15 AM



Turning Movements Report - PM Period

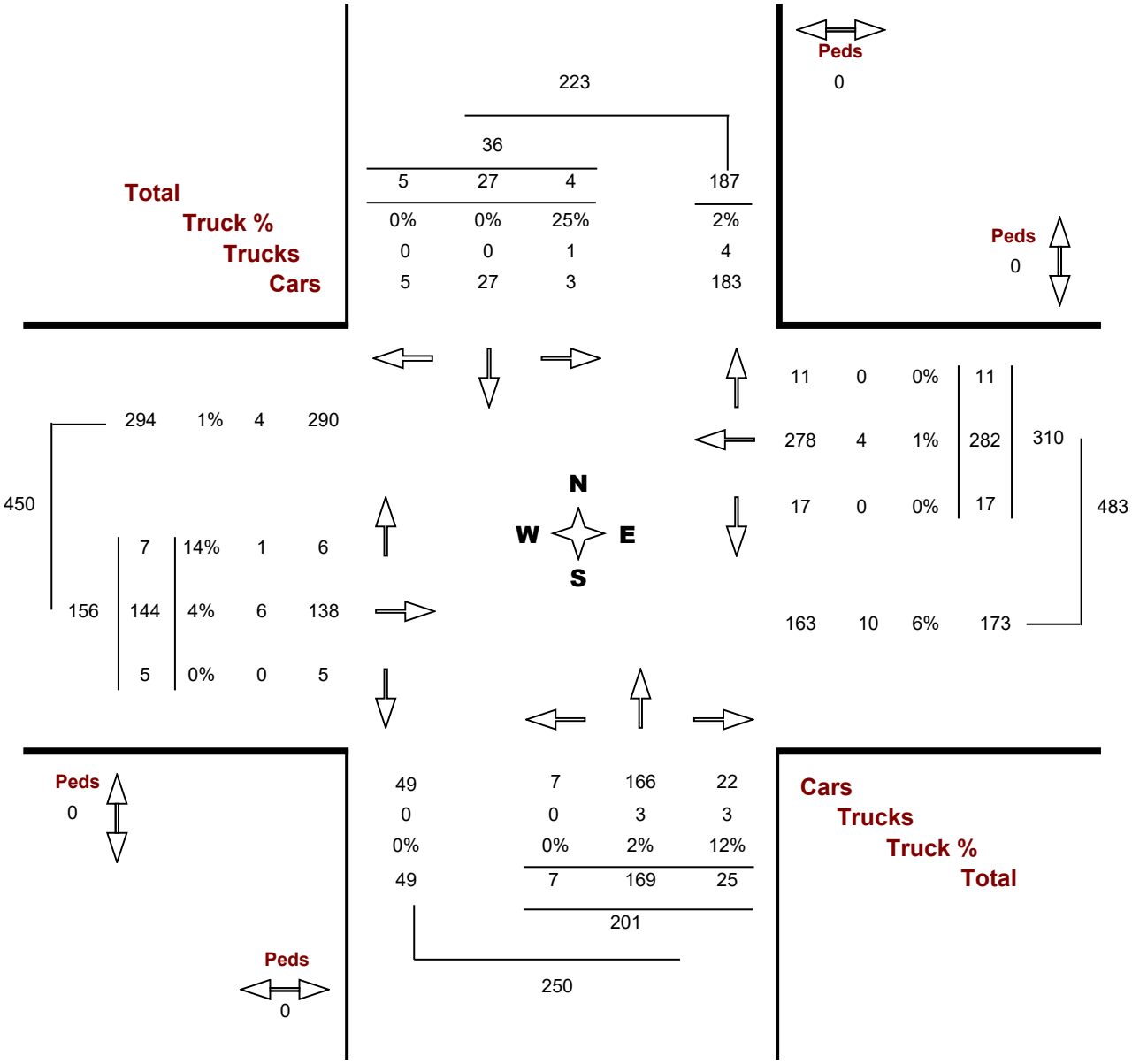
Location..... TORBRAM RD @ OLD SCHOOL RD

Municipality..... Caledon

GeoID..... 25493

Count Date..... Thursday, 07 September, 2017

Peak Hour..... 04:30 PM — 05:30 PM



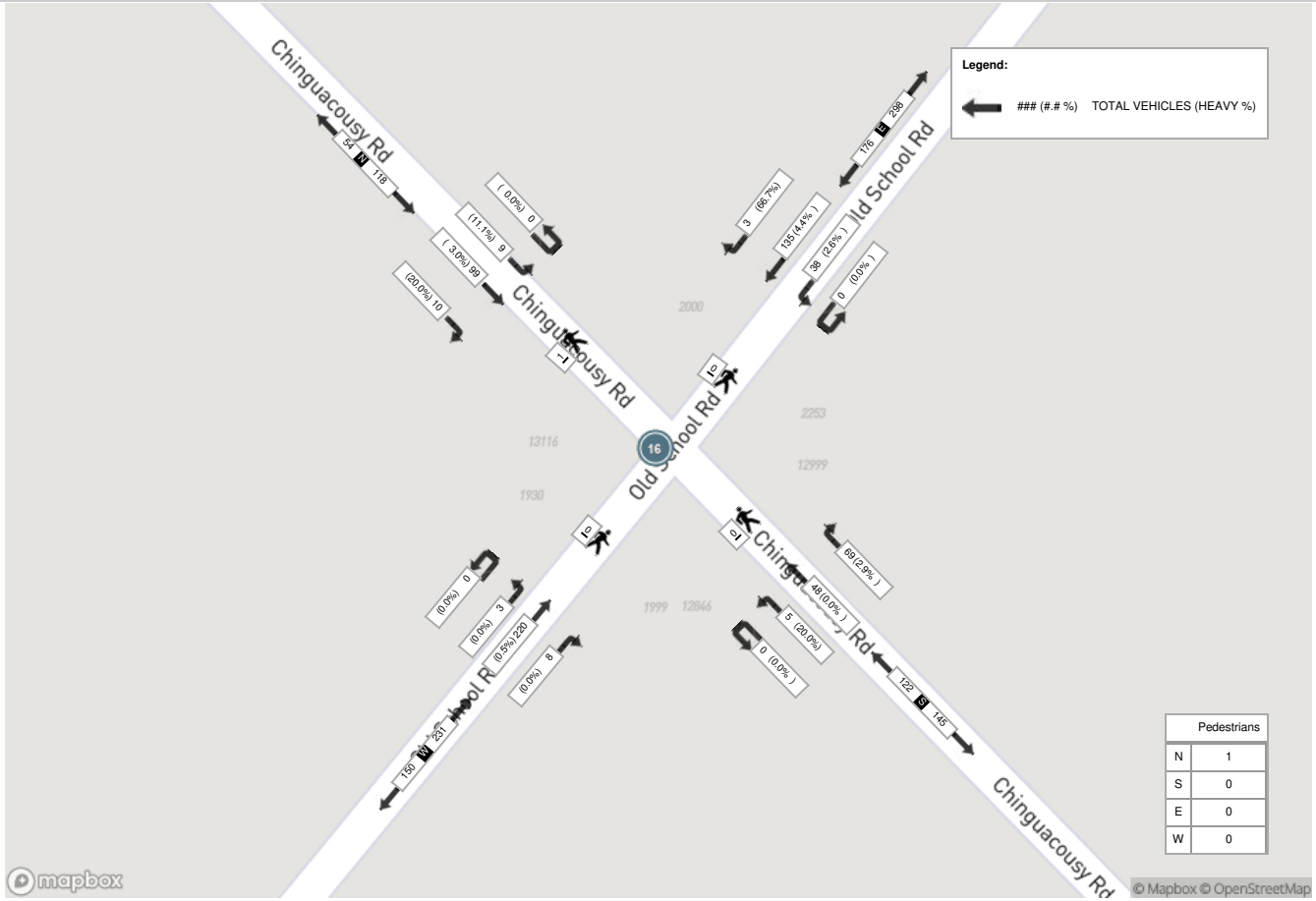
Peak Hour: 07:30 AM - 08:30 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach OLD SCHOOL RD						S Approach CHINGUACOUSY RD						W Approach OLD SCHOOL RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:30:00	3	20	3	0	0	26	1	42	6	0	0	49	17	10	0	0	0	27	2	73	2	0	0	77	179
07:45:00	4	26	1	0	0	31	0	22	15	0	0	37	22	15	2	0	0	39	2	42	1	0	0	45	152
08:00:00	2	27	2	0	1	31	1	41	7	0	0	49	13	10	2	0	0	25	2	55	0	0	0	57	162
08:15:00	1	26	3	0	0	30	1	30	10	0	0	41	17	13	1	0	0	31	2	50	0	0	0	52	154
Grand Total	10	99	9	0	1	118	3	135	38	0	0	176	69	48	5	0	0	122	8	220	3	0	0	231	**647**
Approach%	8.5%	83.9%	7.6%	0%		-	1.7%	76.7%	21.6%	0%		-	56.6%	39.3%	4.1%	0%		-	3.5%	95.2%	1.3%	0%		-	**-**
Totals %	1.5%	15.3%	1.4%	0%		18.2%	0.5%	20.9%	5.9%	0%		27.2%	10.7%	7.4%	0.8%	0%		18.9%	1.2%	34%	0.5%	0%		35.7%	**-**
PHF	0.63	0.92	0.75	0		0.95	0.75	0.8	0.63	0		0.9	0.78	0.8	0.63	0		0.78	1	0.75	0.38	0		0.75	**-**
Heavy	2	3	1	0		6	2	6	1	0		9	2	0	1	0		3	0	1	0	0		1	**-**
Heavy %	20%	3%	11.1%	0%		5.1%	66.7%	4.4%	2.6%	0%		5.1%	2.9%	0%	20%	0%		2.5%	0%	0.5%	0%	0%		0.4%	**-**
Lights	8	96	8	0		112	1	129	37	0		167	67	48	4	0		119	8	219	3	0		230	**-**
Lights %	80%	97%	88.9%	0%		94.9%	33.3%	95.6%	97.4%	0%		94.9%	97.1%	100%	80%	0%		97.5%	100%	99.5%	100%	0%		99.6%	**-**
Single-Unit Trucks	0	1	0	0		1	0	3	0	0		3	0	0	1	0		1	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	1%	0%	0%		0.8%	0%	2.2%	0%	0%		1.7%	0%	0%	20%	0%		0.8%	0%	0%	0%	0%		0%	**-**
Buses	2	2	1	0		5	2	2	1	0		5	2	0	0	0		2	0	1	0	0		1	**-**
Buses %	20%	2%	11.1%	0%		4.2%	66.7%	1.5%	2.6%	0%		2.8%	2.9%	0%	0%	0%		1.6%	0%	0.5%	0%	0%		0.4%	**-**
Articulated Trucks	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.7%	0%	0%		0.6%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	100%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

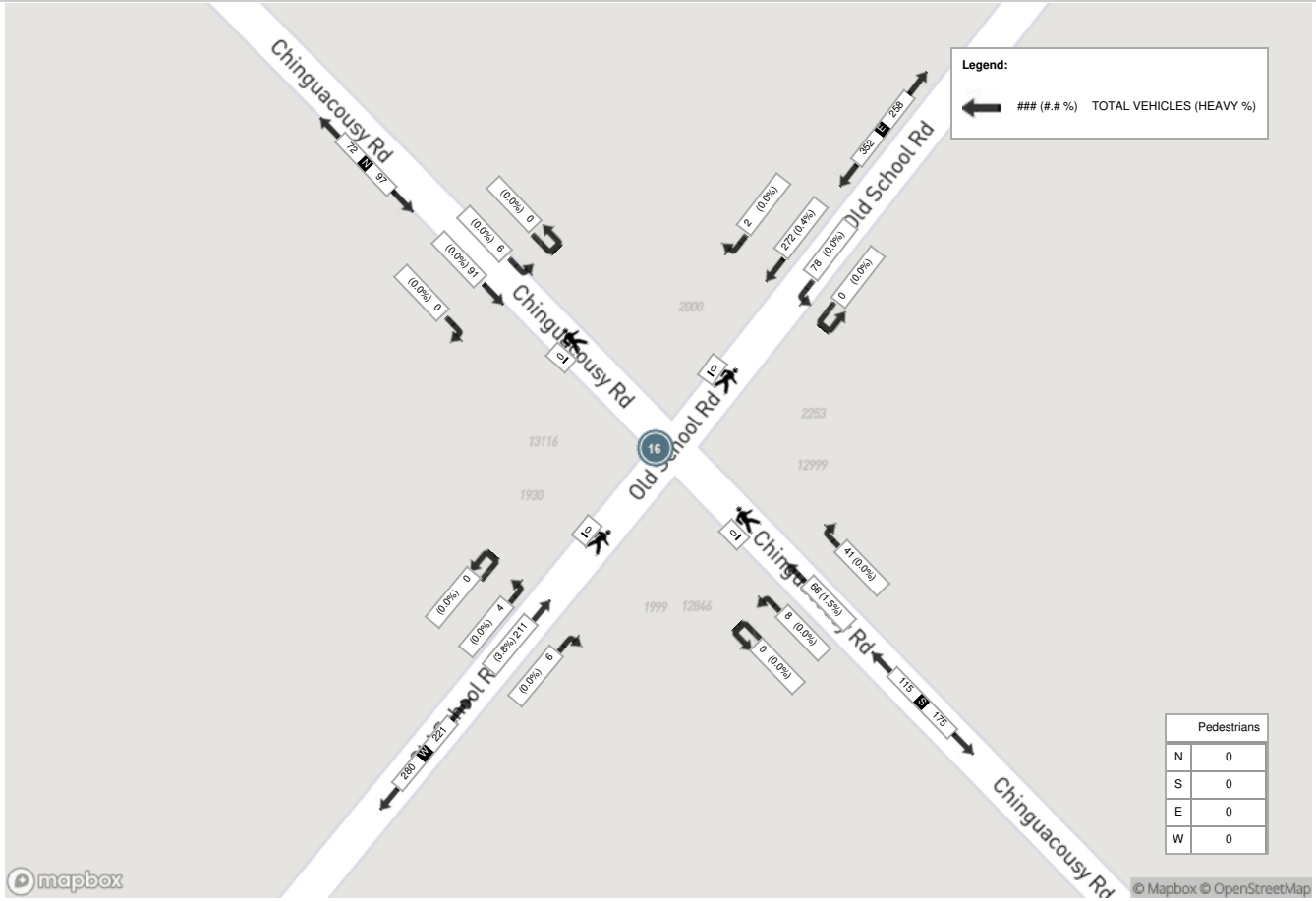
Peak Hour: 04:45 PM - 05:45 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach OLD SCHOOL RD						S Approach CHINGUACOUSY RD						W Approach OLD SCHOOL RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
16:45:00	0	15	1	0	0	16	0	85	20	0	0	105	6	18	4	0	0	28	3	41	0	0	0	44	193
17:00:00	0	23	1	0	0	24	1	64	21	0	0	86	14	22	2	0	0	38	1	48	1	0	0	50	198
17:15:00	0	22	1	0	0	23	1	61	16	0	0	78	8	9	0	0	0	17	1	59	1	0	0	61	179
17:30:00	0	31	3	0	0	34	0	62	21	0	0	83	13	17	2	0	0	32	1	63	2	0	0	66	215
Grand Total	0	91	6	0	0	97	2	272	78	0	0	352	41	66	8	0	0	115	6	211	4	0	0	221	**785**
Approach%	0%	93.8%	6.2%	0%		-	0.6%	77.3%	22.2%	0%		-	35.7%	57.4%	7%	0%		-	2.7%	95.5%	1.8%	0%		-	**-**
Totals %	0%	11.6%	0.8%	0%		12.4%	0.3%	34.6%	9.9%	0%		44.8%	5.2%	8.4%	1%	0%		14.6%	0.8%	26.9%	0.5%	0%		28.2%	**-**
PHF	0	0.73	0.5	0		0.71	0.5	0.8	0.93	0		0.84	0.73	0.75	0.5	0		0.76	0.5	0.84	0.5	0		0.84	**-**
Heavy	0	0	0	0		0	0	1	0	0		1	0	1	0	0		1	0	8	0	0		8	**-**
Heavy %	0%	0%	0%	0%		0%	0%	0.4%	0%	0%		0.3%	0%	1.5%	0%	0%		0.9%	0%	3.8%	0%	0%		3.6%	**-**
Lights	0	91	6	0		97	2	271	78	0		351	41	65	8	0		114	6	203	4	0		213	**-**
Lights %	0%	100%	100%	0%		100%	100%	99.6%	100%	0%		99.7%	100%	98.5%	100%	0%		99.1%	100%	96.2%	100%	0%		96.4%	**-**
Single-Unit Trucks	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	6	0	0		6	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0.4%	0%	0%		0.3%	0%	0%	0%	0%		0%	0%	2.8%	0%	0%		2.7%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	0	2	0	0		2	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	1.5%	0%	0%		0.9%	0%	0.9%	0%	0%		0.9%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 07:30 AM - 08:30 AM **Weather: Overcast Clouds (7.73 °C)**



Peak Hour: 04:45 PM - 05:45 PM Weather: Overcast Clouds (14.32 °C)



Spectrum

Turning Movement Count
Location Name: CHINGUACOUSY RD & TIM MANLEY AVE
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Turning Movement Count (6 . CHINGUACOUSY RD & TIM MANLEY AVE)

Start Time	N Approach CHINGUACOUSY RD						E Approach TIM MANLEY AVE						S Approach CHINGUACOUSY RD						W Approach WEST DRIVEWAY						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	0	3	1	0	0	4	0	0	9	0	0	9	1	19	0	0	0	20	0	0	0	0	0	0	33	
06:15:00	0	11	0	0	0	11	1	0	4	0	0	5	4	32	0	0	0	36	0	0	0	0	0	0	52	
06:30:00	0	6	2	0	0	8	3	0	5	0	0	8	7	23	0	0	0	30	0	0	0	0	0	0	46	
06:45:00	0	15	5	0	0	20	0	0	6	0	0	6	6	24	0	0	0	30	0	0	0	0	0	0	56	187
07:00:00	0	9	2	0	0	11	2	0	14	0	0	16	15	28	0	0	0	43	0	0	0	0	0	0	70	224
07:15:00	1	20	4	0	0	25	0	0	7	0	0	7	7	27	0	0	0	34	0	0	0	0	0	0	66	238
07:30:00	0	21	2	0	0	23	0	0	11	0	0	11	8	25	0	0	0	33	0	0	0	0	0	0	67	259
07:45:00	0	47	1	0	0	48	2	0	13	0	0	15	0	34	0	0	0	34	0	0	1	0	0	1	98	301
08:00:00	0	35	1	0	0	36	0	0	12	0	0	12	14	24	1	0	0	39	0	0	0	0	0	0	87	318
08:15:00	0	31	1	0	0	32	0	0	16	0	0	16	13	32	0	0	0	45	0	0	1	0	0	1	94	346
08:30:00	0	29	6	0	0	35	2	0	20	0	0	22	12	20	0	0	0	32	0	0	0	0	0	0	89	368
08:45:00	1	17	0	0	0	18	3	0	17	0	0	20	14	22	0	0	0	36	0	0	0	0	0	0	74	344
09:00:00	0	9	2	0	0	11	2	0	8	0	0	10	17	23	0	0	0	40	0	0	1	0	0	1	62	319
09:15:00	0	14	0	0	0	14	0	0	5	0	0	5	9	18	0	0	0	27	0	0	0	0	0	0	46	271
09:30:00	0	8	0	0	0	8	5	0	9	0	0	14	6	15	0	0	0	21	0	0	0	0	0	0	43	225
09:45:00	0	9	0	0	0	9	2	0	12	0	2	14	14	25	0	0	0	39	0	0	0	0	0	0	62	213
BREAK																										
15:00:00	0	25	0	0	0	25	1	0	9	0	0	10	4	27	0	0	0	31	0	0	0	0	0	0	66	
15:15:00	0	25	5	0	0	30	1	0	15	0	0	16	23	40	0	0	0	63	0	0	0	0	0	0	109	
15:30:00	0	27	2	0	0	29	2	0	10	0	0	12	15	37	0	0	0	52	0	0	0	0	0	0	93	
15:45:00	0	36	5	0	0	41	1	0	13	0	0	14	26	28	0	0	0	54	0	0	0	0	0	0	109	377
16:00:00	0	31	1	0	0	32	2	0	17	0	0	19	7	35	0	0	0	42	0	0	0	0	0	0	93	404
16:15:00	0	32	0	0	0	32	0	0	13	0	0	13	3	24	0	0	0	27	0	0	0	0	0	0	72	367
16:30:00	1	35	1	0	0	37	1	0	12	0	0	13	10	35	0	0	0	45	0	0	2	0	0	2	97	371
16:45:00	0	30	2	0	0	32	3	0	14	0	0	17	14	23	0	0	0	37	0	0	1	0	0	1	87	349
17:00:00	0	47	2	0	0	49	4	0	14	0	0	18	16	30	0	0	0	46	0	0	0	0	0	0	113	369
17:15:00	0	35	1	0	0	36	1	0	14	0	0	15	12	20	0	0	0	32	0	0	0	0	0	0	83	380
17:30:00	0	50	4	0	0	54	1	0	9	0	0	10	14	27	0	0	0	41	0	0	0	0	0	0	105	388
17:45:00	0	46	0	0	0	46	1	0	7	0	0	8	17	29	0	0	0	46	0	0	0	0	0	0	100	401
18:00:00	1	33	0	0	0	34	0	0	13	0	0	13	16	24	0	0	0	40	0	0	0	0	0	0	87	375
18:15:00	0	32	2	0	0	34	0	0	7	0	0	7	17	23	0	0	0	40	1	0	0	0	0	1	82	374
18:30:00	0	25	2	0	0	27	0	0	15	0	0	15	15	24	0	0	0	39	0	0	0	0	0	0	81	350
18:45:00	0	35	0	0	0	35	1	0	13	0	0	14	13	24	0	0	0	37	0	0	0	0	0	0	86	336
Grand Total	4	828	54	0	0	886	41	0	363	0	2	404	369	841	1	0	0	1211	1	0	6	0	0	7	**2508**	-
Approach%	0.5%	93.5%	6.1%	0%		-	10.1%	0%	89.9%	0%		-	30.5%	69.4%	0.1%	0%		-	14.3%	0%	85.7%	0%		-	-	-
Totals %	0.2%	33%	2.2%	0%		35.3%	1.6%	0%	14.5%	0%		16.1%	14.7%	33.5%	0%	0%		48.3%	0%	0%	0.2%	0%		0.3%	-	-
Heavy	0	20	9	0		-	8	0	57	0		-	56	19	0	0		-	0	0	1	0		-	-	-
Heavy %	0%	2.4%	16.7%	0%		-	19.5%	0%	15.7%	0%		-	15.2%	2.3%	0%	0%		-	0%	0%	16.7%	0%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach TIM MANLEY AVE						S Approach CHINGUACOUSY RD						W Approach WEST DRIVEWAY						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:45:00	0	47	1	0	0	48	2	0	13	0	0	15	0	34	0	0	0	34	0	0	1	0	0	1	98
08:00:00	0	35	1	0	0	36	0	0	12	0	0	12	14	24	1	0	0	39	0	0	0	0	0	0	87
08:15:00	0	31	1	0	0	32	0	0	16	0	0	16	13	32	0	0	0	45	0	0	1	0	0	1	94
08:30:00	0	29	6	0	0	35	2	0	20	0	0	22	12	20	0	0	0	32	0	0	0	0	0	0	89
Grand Total	0	142	9	0	0	151	4	0	61	0	0	65	39	110	1	0	0	150	0	0	2	0	0	2	**368**
Approach%	0%	94%	6%	0%		-	6.2%	0%	93.8%	0%		-	26%	73.3%	0.7%	0%		-	0%	0%	100%	0%		-	**-**
Totals %	0%	38.6%	2.4%	0%		41%	1.1%	0%	16.6%	0%		17.7%	10.6%	29.9%	0.3%	0%		40.8%	0%	0%	0.5%	0%		0.5%	**-**
PHF	0	0.76	0.38	0		0.79	0.5	0	0.76	0		0.74	0.7	0.81	0.25	0		0.83	0	0	0.5	0		0.5	**-**
Heavy	0	2	3	0		5	2	0	9	0		11	15	2	0	0		17	0	0	1	0		1	**-**
Heavy %	0%	1.4%	33.3%	0%		3.3%	50%	0%	14.8%	0%		16.9%	38.5%	1.8%	0%	0%		11.3%	0%	0%	50%	0%		50%	**-**
Lights	0	140	6	0		146	2	0	52	0		54	24	108	1	0		133	0	0	1	0		1	**-**
Lights %	0%	98.6%	66.7%	0%		96.7%	50%	0%	85.2%	0%		83.1%	61.5%	98.2%	100%	0%		88.7%	0%	0%	50%	0%		50%	**-**
Single-Unit Trucks	0	0	1	0		1	1	0	7	0		8	12	0	0	0		12	0	0	1	0		1	**-**
Single-Unit Trucks %	0%	0%	11.1%	0%		0.7%	25%	0%	11.5%	0%		12.3%	30.8%	0%	0%	0%		8%	0%	0%	50%	0%		50%	**-**
Buses	0	2	2	0		4	0	0	2	0		2	3	2	0	0		5	0	0	0	0		0	**-**
Buses %	0%	1.4%	22.2%	0%		2.6%	0%	0%	3.3%	0%		3.1%	7.7%	1.8%	0%	0%		3.3%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	1	0	0	0		1	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	25%	0%	0%	0%		1.5%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

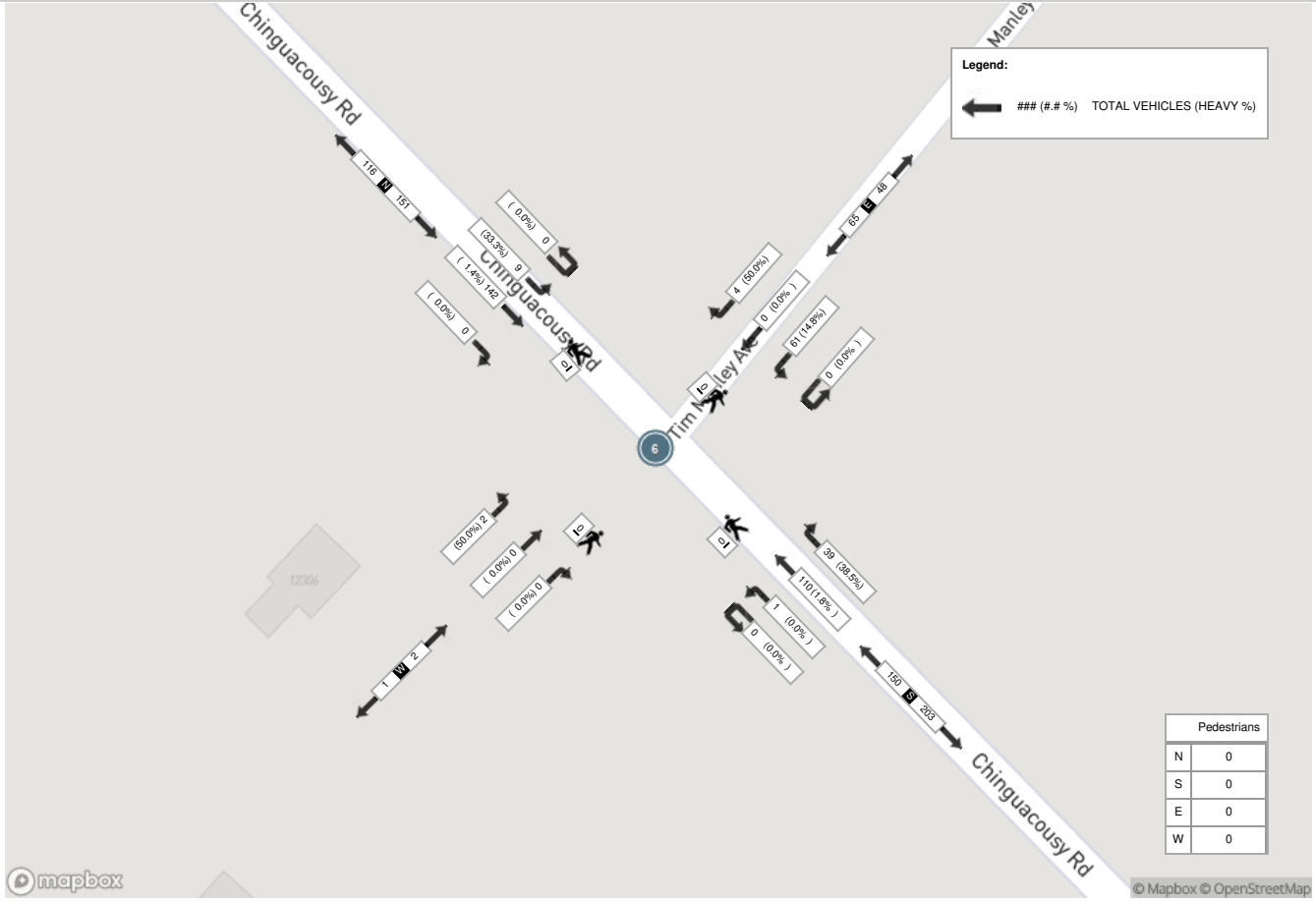
Turning Movement Count
Location Name: CHINGUACOUSY RD & TIM MANLEY AVE
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

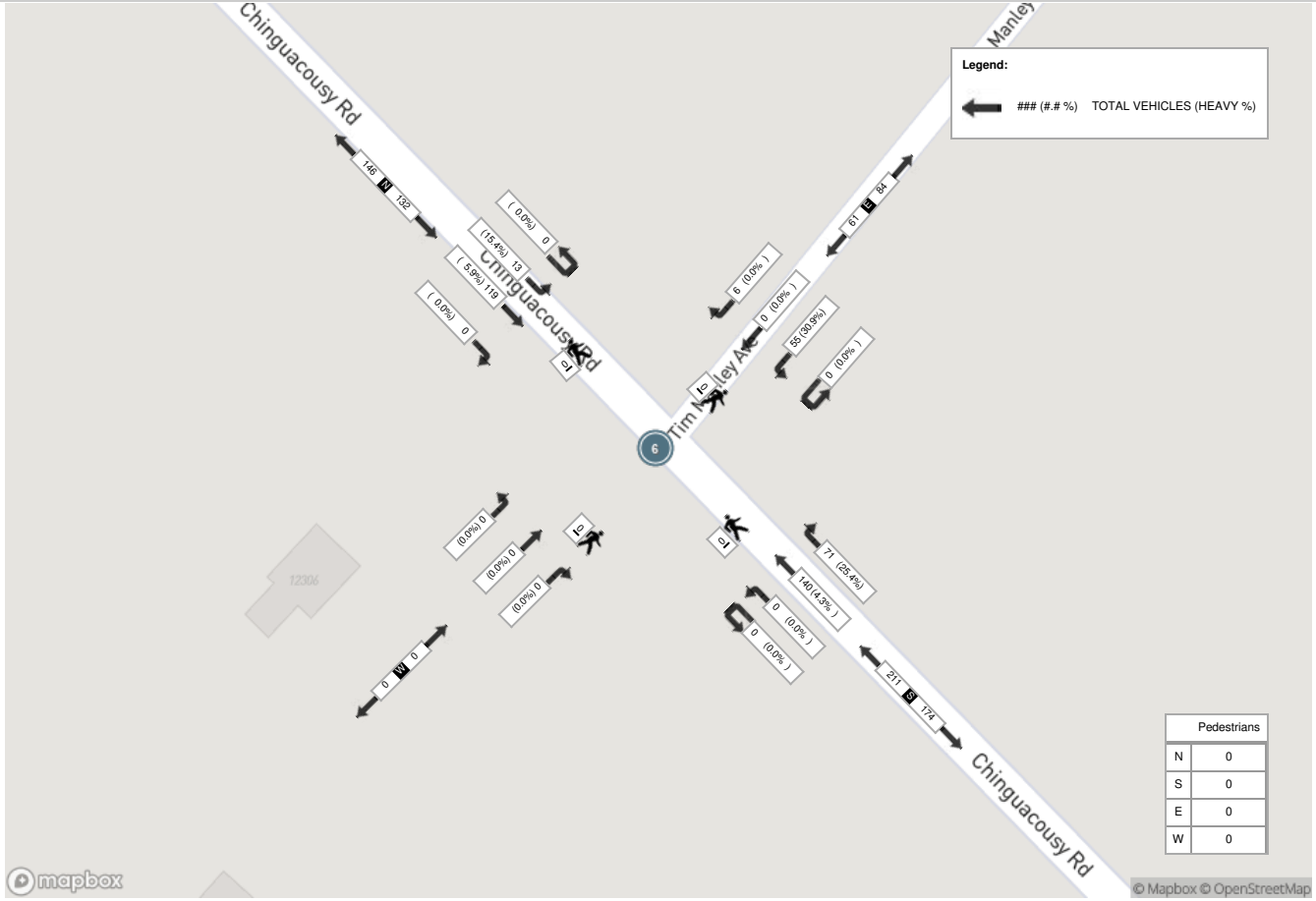
Peak Hour: 03:15 PM - 04:15 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach TIM MANLEY AVE						S Approach CHINGUACOUSY RD						W Approach WEST DRIVEWAY						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
15:15:00	0	25	5	0	0	30	1	0	15	0	0	16	23	40	0	0	0	63	0	0	0	0	0	0	109
15:30:00	0	27	2	0	0	29	2	0	10	0	0	12	15	37	0	0	0	52	0	0	0	0	0	0	93
15:45:00	0	36	5	0	0	41	1	0	13	0	0	14	26	28	0	0	0	54	0	0	0	0	0	0	109
16:00:00	0	31	1	0	0	32	2	0	17	0	0	19	7	35	0	0	0	42	0	0	0	0	0	0	93
Grand Total	0	119	13	0	0	132	6	0	55	0	0	61	71	140	0	0	0	211	0	0	0	0	0	0	**404**
Approach%	0%	90.2%	9.8%	0%		-	9.8%	0%	90.2%	0%		-	33.6%	66.4%	0%	0%		-	0%	0%	0%	0%		-	**-**
Totals %	0%	29.5%	3.2%	0%		32.7%	1.5%	0%	13.6%	0%		15.1%	17.6%	34.7%	0%	0%		52.2%	0%	0%	0%	0%		0%	**-**
PHF	0	0.83	0.65	0		0.8	0.75	0	0.81	0		0.8	0.68	0.88	0	0		0.84	0	0	0	0		0	**-**
Heavy	0	7	2	0		9	0	0	17	0		17	18	6	0	0		24	0	0	0	0		0	**-**
Heavy %	0%	5.9%	15.4%	0%		6.8%	0%	0%	30.9%	0%		27.9%	25.4%	4.3%	0%	0%		11.4%	0%	0%	0%	0%		0%	**-**
Lights	0	112	11	0		123	6	0	38	0		44	53	134	0	0		187	0	0	0	0		0	**-**
Lights %	0%	94.1%	84.6%	0%		93.2%	100%	0%	69.1%	0%		72.1%	74.6%	95.7%	0%	0%		88.6%	0%	0%	0%	0%		0%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	12	0		12	13	0	0	0		13	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	21.8%	0%		19.7%	18.3%	0%	0%	0%		6.2%	0%	0%	0%	0%		0%	**-**
Buses	0	7	2	0		9	0	0	5	0		5	5	5	0	0		10	0	0	0	0		0	**-**
Buses %	0%	5.9%	15.4%	0%		6.8%	0%	0%	9.1%	0%		8.2%	7%	3.6%	0%	0%		4.7%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.7%	0%	0%		0.5%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)



Peak Hour: 03:15 PM - 04:15 PM Weather: Overcast Clouds (14.32 °C)



Spectrum

Turning Movement Count
Location Name: CREDITVIEW RD & OLD SCHOOL RD
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Turning Movement Count (15 . CREDITVIEW RD & OLD SCHOOL RD)

Start Time	N Approach CREDITVIEW RD						E Approach OLD SCHOOL RD						S Approach CREDITVIEW RD						W Approach OLD SCHOOL RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	0	6	5	0	0	11	0	7	3	0	0	10	7	4	1	0	0	12	0	11	3	0	0	14	47	
06:15:00	1	10	2	0	0	13	0	14	3	0	0	17	11	10	2	0	0	23	0	19	3	0	0	22	75	
06:30:00	4	6	1	0	0	11	1	21	3	0	0	25	8	11	0	0	0	19	0	19	1	0	0	20	75	
06:45:00	2	11	0	0	0	13	1	18	9	0	0	28	7	6	2	0	0	15	1	25	0	0	0	26	82	279
07:00:00	1	17	3	0	0	21	0	14	10	0	0	24	10	19	2	0	0	31	1	32	5	0	0	38	114	346
07:15:00	2	18	2	0	0	22	1	20	7	0	0	28	9	9	0	0	0	18	3	46	0	0	0	49	117	388
07:30:00	1	17	2	0	0	20	4	24	17	0	0	45	18	16	0	0	0	34	1	58	1	0	0	60	159	472
07:45:00	0	13	5	0	2	18	4	17	7	0	2	28	4	11	5	0	0	20	2	37	0	0	0	39	105	495
08:00:00	7	22	0	0	0	29	0	27	15	0	0	42	19	12	0	0	0	31	1	37	1	0	0	39	141	522
08:15:00	2	12	2	0	0	16	0	28	8	0	0	36	20	8	2	0	0	30	0	27	1	0	0	28	110	515
08:30:00	2	11	3	0	0	16	0	35	12	0	0	47	8	13	1	0	0	22	2	26	1	0	0	29	114	470
08:45:00	0	6	2	0	0	8	2	18	6	0	0	26	10	8	3	0	0	21	1	30	6	0	0	37	92	457
09:00:00	1	7	2	0	0	10	2	27	5	0	0	34	7	8	2	0	0	17	0	19	1	0	0	20	81	397
09:15:00	1	7	2	0	0	10	1	22	4	0	0	27	9	9	0	0	0	18	1	12	1	0	0	14	69	356
09:30:00	2	6	6	0	0	14	3	20	5	0	0	28	6	5	3	0	0	14	0	16	0	0	0	16	72	314
09:45:00	1	8	2	0	0	11	0	20	3	0	0	23	4	8	1	0	0	13	1	21	0	0	0	22	69	291
BREAK																										
15:00:00	4	5	2	0	0	11	3	42	10	0	1	55	11	15	1	0	0	27	4	22	1	0	0	27	120	
15:15:00	0	7	1	0	0	8	4	57	14	0	0	75	8	20	1	0	0	29	1	28	0	0	0	29	141	
15:30:00	0	7	3	0	0	10	2	49	12	0	0	63	13	12	1	1	0	27	0	36	6	0	0	42	142	
15:45:00	0	16	2	0	0	18	2	45	20	0	0	67	8	15	1	0	0	24	2	36	1	0	0	39	148	551
16:00:00	0	20	5	0	0	25	4	48	14	0	0	66	16	19	2	0	0	37	2	46	4	0	0	52	180	611
16:15:00	1	13	1	0	0	15	4	58	23	0	0	85	10	17	1	0	0	28	4	39	3	0	0	46	174	644
16:30:00	0	10	1	0	0	11	2	52	18	0	0	72	8	13	2	0	0	23	1	29	2	0	0	32	138	640
16:45:00	4	13	4	0	0	21	7	63	22	0	0	92	5	20	2	0	0	27	4	34	2	0	0	40	180	672
17:00:00	2	22	1	0	0	25	2	50	10	0	0	62	7	15	4	0	0	26	0	46	3	0	0	49	162	654
17:15:00	0	15	3	0	0	18	1	45	18	0	0	64	16	12	5	0	0	33	0	45	4	0	0	49	164	644
17:30:00	1	16	4	0	0	21	2	44	16	0	0	62	11	9	4	0	0	24	2	48	0	0	0	50	157	663
17:45:00	0	17	2	0	0	19	3	27	13	0	0	43	7	7	2	0	0	16	0	29	4	0	0	33	111	594
18:00:00	2	9	1	0	0	12	1	34	17	0	0	52	13	16	0	0	0	29	1	32	1	0	0	34	127	559
18:15:00	0	11	2	0	0	13	2	23	24	0	0	49	9	11	1	0	0	21	1	30	2	0	0	33	116	511
18:30:00	0	12	1	0	0	13	2	31	17	0	0	50	12	8	3	0	0	23	2	20	1	0	0	23	109	463
18:45:00	3	7	2	0	0	12	3	21	10	0	0	34	13	11	0	0	0	24	2	29	2	0	0	33	103	455
Grand Total	44	377	74	0	2	495	63	1021	375	0	3	1459	324	377	54	1	0	756	40	984	60	0	0	1084	**3794**	-
Approach%	8.9%	76.2%	14.9%	0%		-	4.3%	70%	25.7%	0%		-	42.9%	49.9%	7.1%	0.1%		-	3.7%	90.8%	5.5%	0%		-	-	-
Totals %	1.2%	9.9%	2%	0%		13%	1.7%	26.9%	9.9%	0%		38.5%	8.5%	9.9%	1.4%	0%		19.9%	1.1%	25.9%	1.6%	0%		28.6%	-	-
Heavy	3	12	5	0		-	1	28	7	0		-	11	5	3	0		-	3	31	4	0		-	-	-
Heavy %	6.8%	3.2%	6.8%	0%		-	1.6%	2.7%	1.9%	0%		-	3.4%	1.3%	5.6%	0%		-	7.5%	3.2%	6.7%	0%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

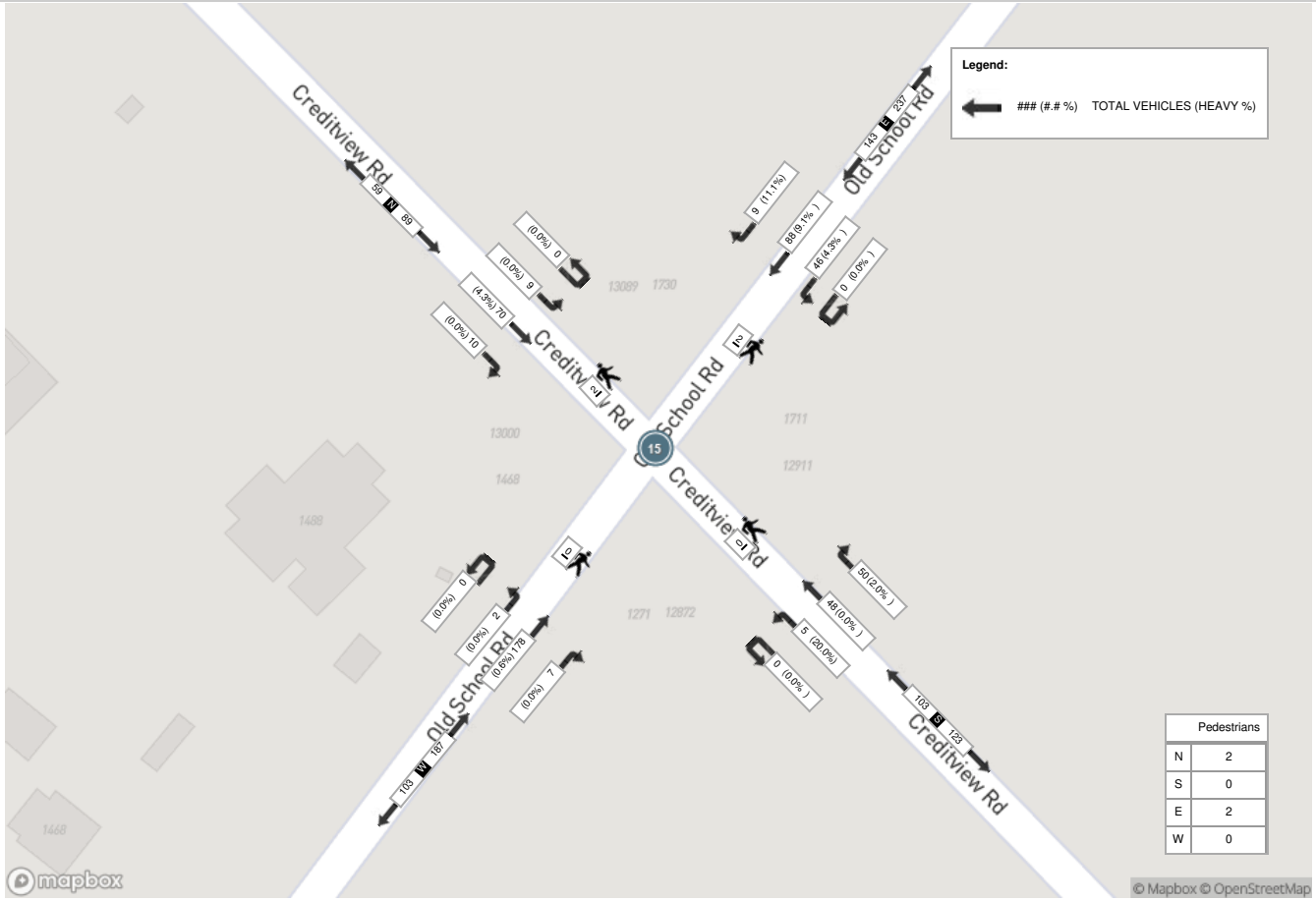
Peak Hour: 07:15 AM - 08:15 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach CREDITVIEW RD						E Approach OLD SCHOOL RD						S Approach CREDITVIEW RD						W Approach OLD SCHOOL RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:15:00	2	18	2	0	0	22	1	20	7	0	0	28	9	9	0	0	0	18	3	46	0	0	0	49	117
07:30:00	1	17	2	0	0	20	4	24	17	0	0	45	18	16	0	0	0	34	1	58	1	0	0	60	159
07:45:00	0	13	5	0	2	18	4	17	7	0	2	28	4	11	5	0	0	20	2	37	0	0	0	39	105
08:00:00	7	22	0	0	0	29	0	27	15	0	0	42	19	12	0	0	0	31	1	37	1	0	0	39	141
Grand Total	10	70	9	0	2	89	9	88	46	0	2	143	50	48	5	0	0	103	7	178	2	0	0	187	**522**
Approach%	11.2%	78.7%	10.1%	0%		-	6.3%	61.5%	32.2%	0%		-	48.5%	46.6%	4.9%	0%		-	3.7%	95.2%	1.1%	0%		-	**-**
Totals %	1.9%	13.4%	1.7%	0%		17%	1.7%	16.9%	8.8%	0%		27.4%	9.6%	9.2%	1%	0%		19.7%	1.3%	34.1%	0.4%	0%		35.8%	**-**
PHF	0.36	0.8	0.45	0		0.77	0.56	0.81	0.68	0		0.79	0.66	0.75	0.25	0		0.76	0.58	0.77	0.5	0		0.78	**-**
Heavy	0	3	0	0		3	1	8	2	0		11	1	0	1	0		2	0	1	0	0		1	**-**
Heavy %	0%	4.3%	0%	0%		3.4%	11.1%	9.1%	4.3%	0%		7.7%	2%	0%	20%	0%		1.9%	0%	0.6%	0%	0%		0.5%	**-**
Lights	10	67	9	0		86	8	80	44	0		132	49	48	4	0		101	7	177	2	0		186	**-**
Lights %	100%	95.7%	100%	0%		96.6%	88.9%	90.9%	95.7%	0%		92.3%	98%	100%	80%	0%		98.1%	100%	99.4%	100%	0%		99.5%	**-**
Single-Unit Trucks	0	1	0	0		1	0	4	0	0		4	0	0	0	0		0	0	1	0	0		1	**-**
Single-Unit Trucks %	0%	1.4%	0%	0%		1.1%	0%	4.5%	0%	0%		2.8%	0%	0%	0%	0%		0%	0%	0.6%	0%	0%		0.5%	**-**
Buses	0	2	0	0		2	1	3	2	0		6	1	0	1	0		2	0	0	0	0		0	**-**
Buses %	0%	2.9%	0%	0%		2.2%	11.1%	3.4%	4.3%	0%		4.2%	2%	0%	20%	0%		1.9%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	1.1%	0%	0%		0.7%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	50%		-	-	-	-	50%		-	-	-	-	0%		-	-	-	-	0%		**-**

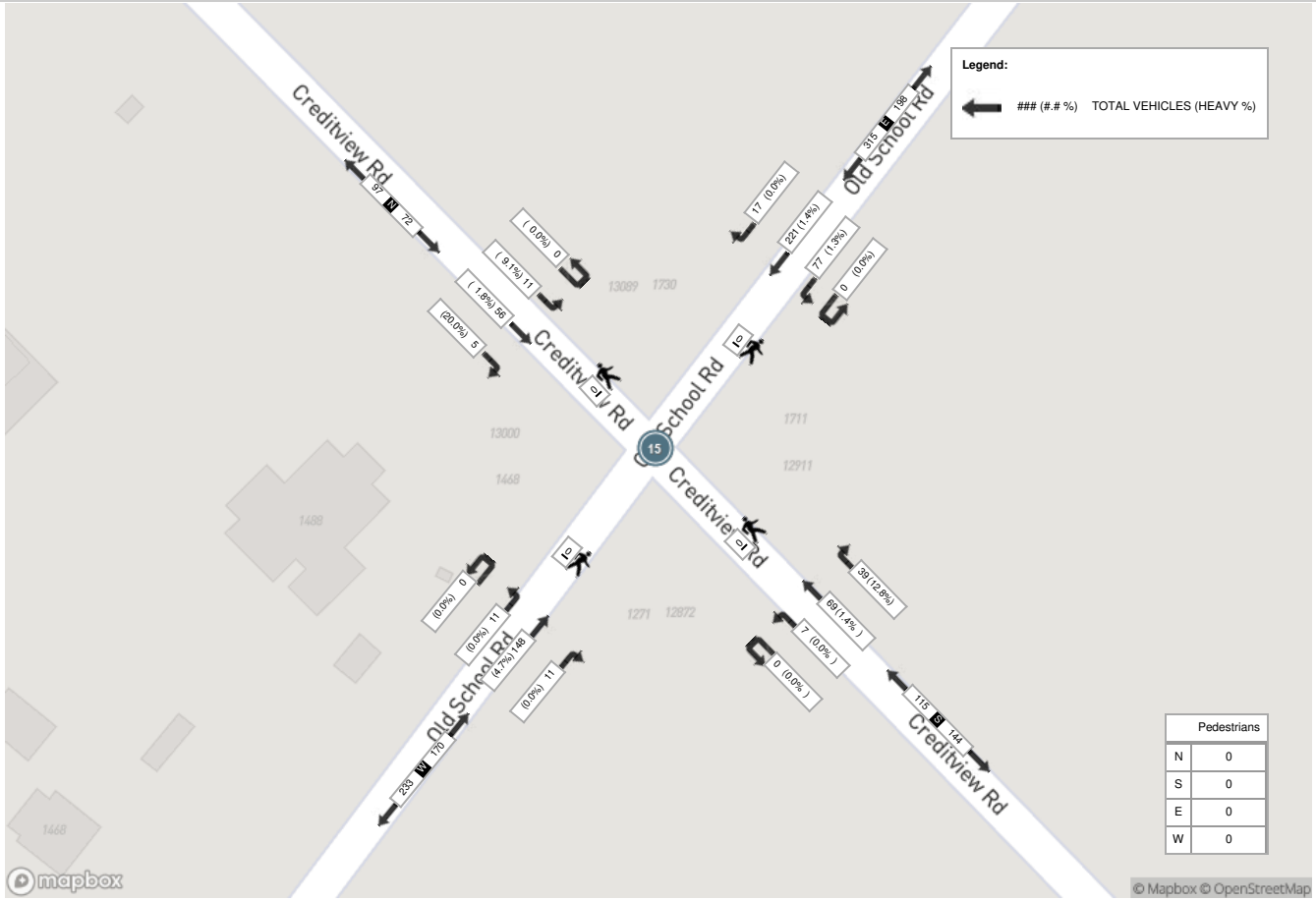
Peak Hour: 04:00 PM - 05:00 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach CREDITVIEW RD						E Approach OLD SCHOOL RD						S Approach CREDITVIEW RD						W Approach OLD SCHOOL RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
16:00:00	0	20	5	0	0	25	4	48	14	0	0	66	16	19	2	0	0	37	2	46	4	0	0	52	180
16:15:00	1	13	1	0	0	15	4	58	23	0	0	85	10	17	1	0	0	28	4	39	3	0	0	46	174
16:30:00	0	10	1	0	0	11	2	52	18	0	0	72	8	13	2	0	0	23	1	29	2	0	0	32	138
16:45:00	4	13	4	0	0	21	7	63	22	0	0	92	5	20	2	0	0	27	4	34	2	0	0	40	180
Grand Total	5	56	11	0	0	72	17	221	77	0	0	315	39	69	7	0	0	115	11	148	11	0	0	170	**672**
Approach%	6.9%	77.8%	15.3%	0%		-	5.4%	70.2%	24.4%	0%		-	33.9%	60%	6.1%	0%		-	6.5%	87.1%	6.5%	0%		-	**-**
Totals %	0.7%	8.3%	1.6%	0%		10.7%	2.5%	32.9%	11.5%	0%		46.9%	5.8%	10.3%	1%	0%		17.1%	1.6%	22%	1.6%	0%		25.3%	**-**
PHF	0.31	0.7	0.55	0		0.72	0.61	0.88	0.84	0		0.86	0.61	0.86	0.88	0		0.78	0.69	0.8	0.69	0		0.82	**-**
Heavy	1	1	1	0		3	0	3	1	0		4	5	1	0	0		6	0	7	0	0		7	**-**
Heavy %	20%	1.8%	9.1%	0%		4.2%	0%	1.4%	1.3%	0%		1.3%	12.8%	1.4%	0%	0%		5.2%	0%	4.7%	0%	0%		4.1%	**-**
Lights	4	55	10	0		69	17	218	76	0		311	34	68	7	0		109	11	141	11	0		163	**-**
Lights %	80%	98.2%	90.9%	0%		95.8%	100%	98.6%	98.7%	0%		98.7%	87.2%	98.6%	100%	0%		94.8%	100%	95.3%	100%	0%		95.9%	**-**
Single-Unit Trucks	0	0	1	0		1	0	1	0	0		1	1	0	0	0		1	0	2	0	0		2	**-**
Single-Unit Trucks %	0%	0%	9.1%	0%		1.4%	0%	0.5%	0%	0%		0.3%	2.6%	0%	0%	0%		0.9%	0%	1.4%	0%	0%		1.2%	**-**
Buses	1	1	0	0		2	0	0	1	0		1	4	1	0	0		5	0	5	0	0		5	**-**
Buses %	20%	1.8%	0%	0%		2.8%	0%	0%	1.3%	0%		0.3%	10.3%	1.4%	0%	0%		4.3%	0%	3.4%	0%	0%		2.9%	**-**
Articulated Trucks	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.9%	0%	0%		0.6%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 07:15 AM - 08:15 AM Weather: Overcast Clouds (7.73 °C)



Peak Hour: 04:00 PM - 05:00 PM Weather: Overcast Clouds (14.32 °C)



Turning Movement Count (7 . MAYFIELD RD & BRISDALE DR) CustID: 01420005

Start Time	E Approach MAYFIELD RD					S Approach BRISDALE DR					W Approach MAYFIELD RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
06:00:00	85	2	0	0	87	17	1	0	0	18	0	92	0	0	92	197	
06:15:00	80	2	0	0	82	13	3	0	0	16	1	94	0	0	95	193	
06:30:00	151	3	0	0	154	20	4	0	0	24	0	99	0	0	99	277	
06:45:00	106	4	0	0	110	20	1	0	0	21	0	105	0	0	105	236	903
07:00:00	122	5	0	0	127	18	8	0	0	26	4	138	0	0	142	295	1001
07:15:00	119	5	0	0	124	22	7	0	0	29	3	153	0	0	156	309	1117
07:30:00	139	8	0	0	147	19	4	0	0	23	0	149	0	0	149	319	1159
07:45:00	147	12	0	0	159	15	4	0	0	19	2	135	0	0	137	315	1238
08:00:00	147	8	0	0	155	19	3	0	0	22	6	160	0	0	166	343	1286
08:15:00	160	9	0	0	169	24	4	0	0	28	5	193	0	0	198	395	1372
08:30:00	146	5	0	0	151	14	3	0	0	17	4	150	0	0	154	322	1375
08:45:00	182	4	0	0	186	18	4	0	0	22	5	125	0	0	130	338	1398
09:00:00	154	8	1	0	163	14	5	0	0	19	5	158	0	0	163	345	1400
09:15:00	103	11	0	0	114	16	6	0	0	22	5	143	0	0	148	284	1289
09:30:00	115	7	0	0	122	20	3	0	0	23	8	112	0	0	120	265	1232
09:45:00	100	2	0	0	102	18	5	0	0	23	2	124	0	0	126	251	1145
BREAK																	
15:00:00	150	16	0	0	166	12	5	0	0	17	11	175	0	0	186	369	
15:15:00	159	22	0	0	181	16	5	0	0	21	10	159	0	0	169	371	
15:30:00	148	9	0	0	157	17	3	0	0	20	9	194	0	0	203	380	
15:45:00	157	20	0	0	177	6	3	0	0	9	8	194	0	0	202	388	1508
16:00:00	139	22	0	0	161	16	4	0	0	20	5	159	0	0	164	345	1484
16:15:00	150	15	0	0	165	13	4	0	0	17	5	154	0	0	159	341	1454
16:30:00	138	13	0	0	151	5	3	0	0	8	7	160	0	0	167	326	1400
16:45:00	123	23	0	0	146	16	6	0	0	22	11	158	0	0	169	337	1349
17:00:00	133	17	0	0	150	16	5	0	0	21	4	168	0	0	172	343	1347
17:15:00	145	13	0	0	158	10	5	1	0	16	7	167	0	0	174	348	1354
17:30:00	145	13	0	0	158	16	3	0	0	19	7	195	0	0	202	379	1407
17:45:00	137	19	0	1	156	10	5	0	0	15	14	150	0	0	164	335	1405
18:00:00	153	15	0	0	168	12	1	0	0	13	14	169	0	0	183	364	1426
18:15:00	165	19	0	0	184	12	5	0	0	17	7	181	0	0	188	389	1467
18:30:00	113	23	0	0	136	7	3	0	1	10	5	145	0	0	150	296	1384
18:45:00	122	20	0	0	142	10	3	0	0	13	9	146	0	0	155	310	1359

Grand Total	4333	374	1	1	4708	481	128	1	1	610	183	4804	0	0	4987	**10305**	-
Approach%	92%	7.9%	0%		-	78.9%	21%	0.2%		-	3.7%	96.3%	0%		-	**-**	-
Totals %	42%	3.6%	0%		45.7%	4.7%	1.2%	0%		5.9%	1.8%	46.6%	0%		48.4%	**-**	-
Heavy	291	9	0		-	16	11	0		-	9	296	0		-	**-**	-
Heavy %	6.7%	2.4%	0%		-	3.3%	8.6%	0%		-	4.9%	6.2%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

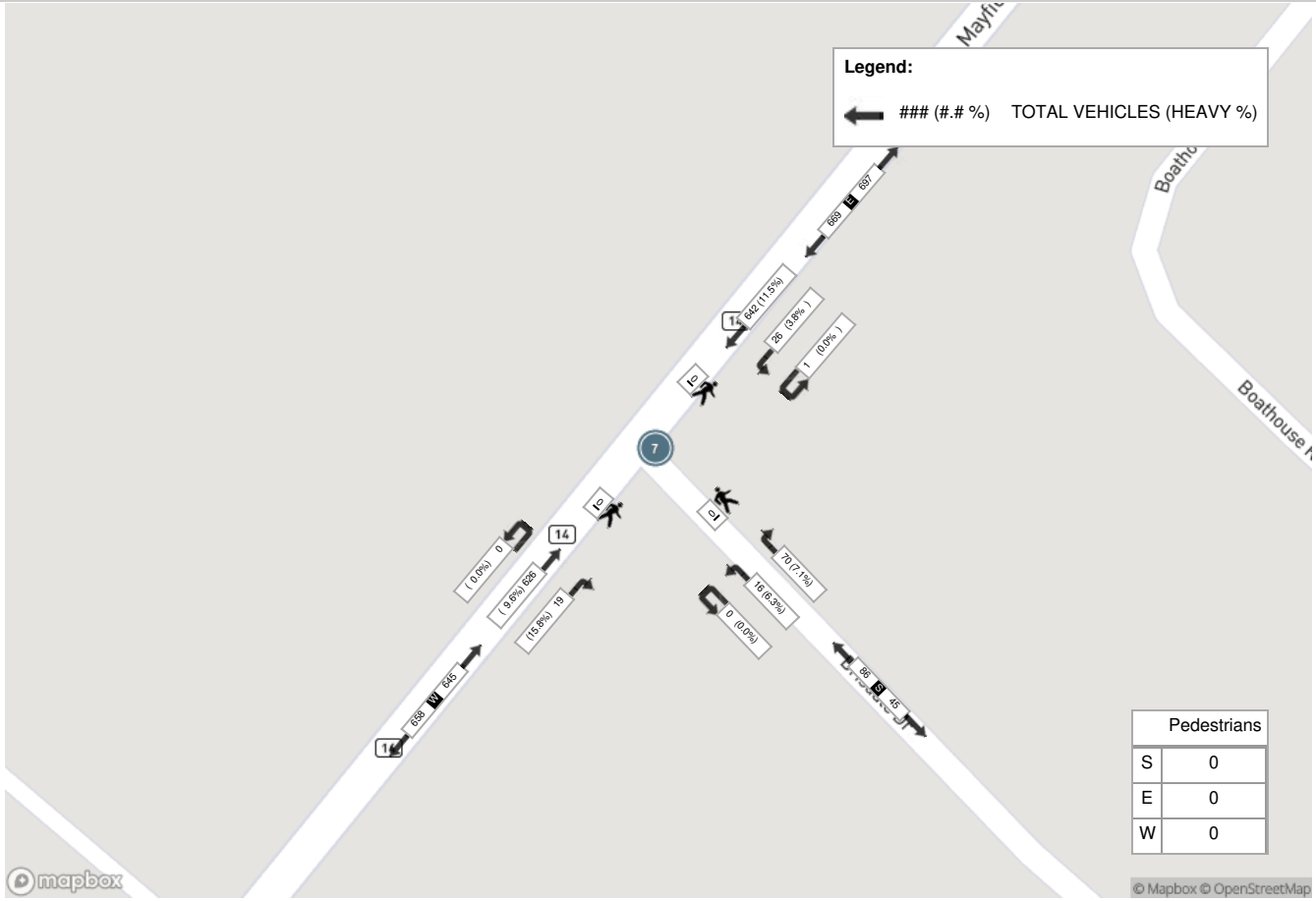
Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)

Start Time	E Approach MAYFIELD RD					S Approach BRISDALE DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
08:15:00	160	9	0	0	169	24	4	0	0	28	5	193	0	0	198	395
08:30:00	146	5	0	0	151	14	3	0	0	17	4	150	0	0	154	322
08:45:00	182	4	0	0	186	18	4	0	0	22	5	125	0	0	130	338
09:00:00	154	8	1	0	163	14	5	0	0	19	5	158	0	0	163	345
Grand Total	642	26	1	0	669	70	16	0	0	86	19	626	0	0	645	**1400**
Approach%	96%	3.9%	0.1%		-	81.4%	18.6%	0%		-	2.9%	97.1%	0%		-	**-**
Totals %	45.9%	1.9%	0.1%		47.8%	5%	1.1%	0%		6.1%	1.4%	44.7%	0%		46.1%	**-**
PHF	0.88	0.72	0.25		0.9	0.73	0.8	0		0.77	0.95	0.81	0		0.81	**-**
Heavy	74	1	0		75	5	1	0		6	3	60	0		63	**-**
Heavy %	11.5%	3.8%	0%		11.2%	7.1%	6.3%	0%		7%	15.8%	9.6%	0%		9.8%	**-**
Lights	568	25	1		594	65	15	0		80	16	566	0		582	**-**
Lights %	88.5%	96.2%	100%		88.8%	92.9%	93.8%	0%		93%	84.2%	90.4%	0%		90.2%	**-**
Single-Unit Trucks	30	1	0		31	1	1	0		2	0	18	0		18	**-**
Single-Unit Trucks %	4.7%	3.8%	0%		4.6%	1.4%	6.3%	0%		2.3%	0%	2.9%	0%		2.8%	**-**
Buses	33	0	0		33	4	0	0		4	3	39	0		42	**-**
Buses %	5.1%	0%	0%		4.9%	5.7%	0%	0%		4.7%	15.8%	6.2%	0%		6.5%	**-**
Articulated Trucks	11	0	0		11	0	0	0		0	0	3	0		3	**-**
Articulated Trucks %	1.7%	0%	0%		1.6%	0%	0%	0%		0%	0%	0.5%	0%		0.5%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

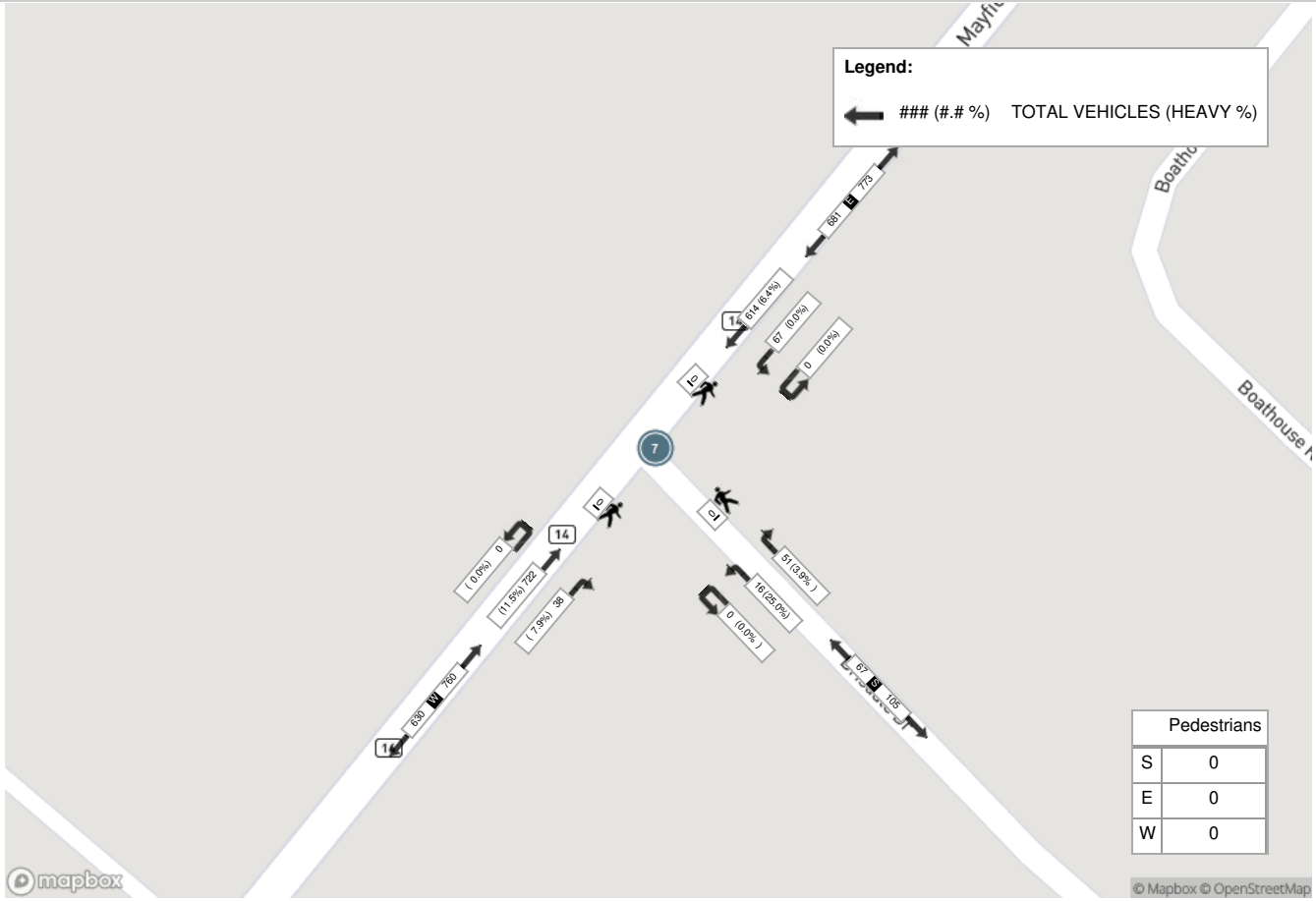
Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

Start Time	E Approach MAYFIELD RD					S Approach BRISDALE DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
15:00:00	150	16	0	0	166	12	5	0	0	17	11	175	0	0	186	369
15:15:00	159	22	0	0	181	16	5	0	0	21	10	159	0	0	169	371
15:30:00	148	9	0	0	157	17	3	0	0	20	9	194	0	0	203	380
15:45:00	157	20	0	0	177	6	3	0	0	9	8	194	0	0	202	388
Grand Total	614	67	0	0	681	51	16	0	0	67	38	722	0	0	760	**1508**
Approach%	90.2%	9.8%	0%		-	76.1%	23.9%	0%		-	5%	95%	0%		-	**-**
Totals %	40.7%	4.4%	0%		45.2%	3.4%	1.1%	0%		4.4%	2.5%	47.9%	0%		50.4%	**-**
PHF	0.97	0.76	0		0.94	0.75	0.8	0		0.8	0.86	0.93	0		0.94	**-**
Heavy	39	0	0		39	2	4	0		6	3	83	0		86	**-**
Heavy %	6.4%	0%	0%		5.7%	3.9%	25%	0%		9%	7.9%	11.5%	0%		11.3%	**-**
Lights	575	67	0		642	49	12	0		61	35	639	0		674	**-**
Lights %	93.6%	100%	0%		94.3%	96.1%	75%	0%		91%	92.1%	88.5%	0%		88.7%	**-**
Single-Unit Trucks	17	0	0		17	0	0	0		0	0	29	0		29	**-**
Single-Unit Trucks %	2.8%	0%	0%		2.5%	0%	0%	0%		0%	0%	4%	0%		3.8%	**-**
Buses	17	0	0		17	2	4	0		6	3	41	0		44	**-**
Buses %	2.8%	0%	0%		2.5%	3.9%	25%	0%		9%	7.9%	5.7%	0%		5.8%	**-**
Articulated Trucks	5	0	0		5	0	0	0		0	0	13	0		13	**-**
Articulated Trucks %	0.8%	0%	0%		0.7%	0%	0%	0%		0%	0%	1.8%	0%		1.7%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)



Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)



Turning Movement Count (5 . MAYFIELD RD & CHINGUACOUSY RD) CustID: 01419287

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	4	9	0	0	0	13	1	78	12	0	0	91	27	12	5	0	0	44	2	100	6	0	0	108	256	
06:15:00	4	11	1	0	0	16	3	77	17	0	0	97	25	27	1	0	0	53	5	95	6	0	0	106	272	
06:30:00	3	6	1	0	0	10	1	139	15	0	0	155	22	26	11	0	0	59	3	117	6	0	0	126	350	
06:45:00	6	13	0	0	0	19	5	101	10	0	0	116	23	19	5	0	0	47	4	109	4	0	0	117	299	1177
07:00:00	16	12	1	0	0	29	7	112	17	0	0	136	28	26	5	0	0	59	8	128	12	0	0	148	372	1293
07:15:00	5	17	3	0	0	25	2	111	17	0	0	130	33	26	8	0	0	67	10	177	3	0	0	190	412	1433
07:30:00	5	24	3	0	0	32	4	132	26	0	0	162	24	30	8	0	0	62	11	151	5	0	0	167	423	1506
07:45:00	8	44	2	0	0	54	2	143	29	0	0	174	27	24	9	0	0	60	11	160	6	0	0	177	465	1672
08:00:00	8	43	1	0	0	52	2	136	30	0	0	168	26	29	12	0	0	67	15	154	11	0	0	180	467	1767
08:15:00	13	33	3	0	0	49	4	145	14	0	0	163	31	26	8	0	0	65	12	167	12	0	0	191	468	1823
08:30:00	7	39	5	0	0	51	3	141	18	0	0	162	29	19	6	0	0	54	18	158	7	0	0	183	450	1850
08:45:00	13	21	4	0	0	38	4	148	31	0	0	183	32	22	22	0	0	76	5	121	14	0	0	140	437	1822
09:00:00	7	9	1	0	0	17	3	135	27	0	0	165	25	22	22	0	0	69	17	147	13	0	0	177	428	1783
09:15:00	6	12	1	0	0	19	2	98	29	0	1	129	28	20	10	0	0	58	13	139	7	0	0	159	365	1680
09:30:00	6	6	1	0	0	13	0	110	24	0	0	134	27	11	6	0	0	44	3	121	7	0	0	131	322	1552
09:45:00	8	13	2	0	0	23	5	89	31	0	0	125	23	17	3	0	0	43	2	130	14	0	0	146	337	1452
BREAK																										
15:00:00	7	24	3	0	0	34	5	154	26	0	0	185	36	23	10	0	1	69	9	160	5	0	0	174	462	
15:15:00	14	23	4	0	0	41	5	154	35	0	0	194	33	47	13	0	3	93	16	170	10	0	0	196	524	
15:30:00	8	30	3	0	0	41	3	140	28	0	0	171	31	34	8	0	0	73	10	162	16	0	0	188	473	
15:45:00	14	28	2	0	0	44	6	153	32	0	0	191	24	32	10	0	0	66	15	174	17	0	0	206	507	1966
16:00:00	12	36	2	0	0	50	9	141	34	0	0	184	21	24	7	0	0	52	11	162	9	0	0	182	468	1972
16:15:00	9	38	1	0	0	48	2	140	40	0	0	182	22	23	17	0	0	62	11	160	3	0	0	174	466	1914
16:30:00	9	34	0	0	0	43	5	139	40	0	0	184	34	33	4	0	0	71	9	144	7	0	0	160	458	1899
16:45:00	9	32	4	0	0	45	3	131	48	0	0	182	26	26	4	0	0	56	12	163	7	0	0	182	465	1857
17:00:00	11	42	6	0	0	59	3	135	35	0	0	173	26	33	8	0	0	67	5	163	10	0	0	178	477	1866
17:15:00	11	39	2	0	0	52	2	129	29	0	1	160	24	22	17	0	0	63	8	166	10	0	0	184	459	1859
17:30:00	8	46	3	0	0	57	2	139	33	0	0	174	29	27	12	0	0	68	12	173	14	0	0	199	498	1899
17:45:00	8	45	3	0	0	56	2	139	41	0	0	182	35	36	11	0	0	82	17	143	7	0	0	167	487	1921
18:00:00	9	32	3	0	0	44	1	148	40	0	0	189	28	28	9	0	0	65	17	142	12	0	0	171	469	1913
18:15:00	5	30	2	0	1	37	2	174	42	0	0	218	34	22	6	0	0	62	10	173	13	0	0	196	513	1967
18:30:00	7	34	4	0	0	45	1	122	49	0	1	172	44	32	8	0	1	84	10	139	7	0	0	156	457	1926
18:45:00	8	33	1	0	0	42	6	127	30	0	0	163	38	29	6	0	0	73	13	141	5	0	0	159	437	1876
Grand Total	268	858	72	0	1	1198	105	4160	929	0	3	5194	915	827	291	0	5	2033	324	4709	285	0	0	5318	**13743**	-
Approach%	22.4%	71.6%	6%	0%		-	2%	80.1%	17.9%	0%		-	45%	40.7%	14.3%	0%		-	6.1%	88.5%	5.4%	0%		-	-	-
Totals %	2%	6.2%	0.5%	0%		8.7%	0.8%	30.3%	6.8%	0%		37.8%	6.7%	6%	2.1%	0%		14.8%	2.4%	34.3%	2.1%	0%		38.7%	-	-
Heavy	47	22	6	0		-	14	228	43	0		-	29	14	22	0		-	17	250	47	0		-	-	-
Heavy %	17.5%	2.6%	8.3%	0%		-	13.3%	5.5%	4.6%	0%		-	3.2%	1.7%	7.6%	0%		-	5.2%	5.3%	16.5%	0%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

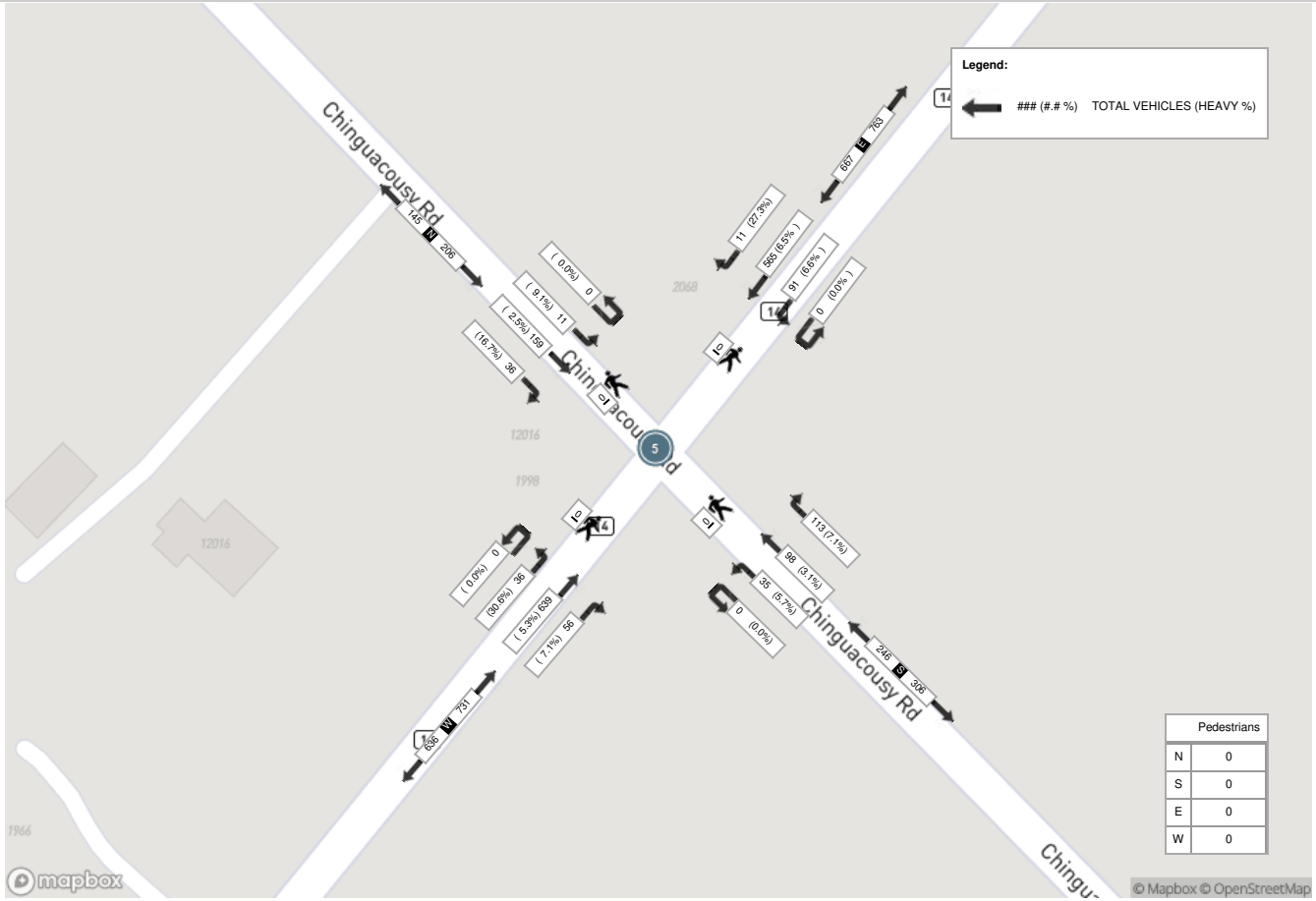
Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:45:00	8	44	2	0	0	54	2	143	29	0	0	174	27	24	9	0	0	60	11	160	6	0	0	177	465
08:00:00	8	43	1	0	0	52	2	136	30	0	0	168	26	29	12	0	0	67	15	154	11	0	0	180	467
08:15:00	13	33	3	0	0	49	4	145	14	0	0	163	31	26	8	0	0	65	12	167	12	0	0	191	468
08:30:00	7	39	5	0	0	51	3	141	18	0	0	162	29	19	6	0	0	54	18	158	7	0	0	183	450
Grand Total	36	159	11	0	0	206	11	565	91	0	0	667	113	98	35	0	0	246	56	639	36	0	0	731	**1850**
Approach%	17.5%	77.2%	5.3%	0%		-	1.6%	84.7%	13.6%	0%		-	45.9%	39.8%	14.2%	0%		-	7.7%	87.4%	4.9%	0%		-	**-**
Totals %	1.9%	8.6%	0.6%	0%		11.1%	0.6%	30.5%	4.9%	0%		36.1%	6.1%	5.3%	1.9%	0%		13.3%	3%	34.5%	1.9%	0%		39.5%	**-**
PHF	0.69	0.9	0.55	0		0.95	0.69	0.97	0.76	0		0.96	0.91	0.84	0.73	0		0.92	0.78	0.96	0.75	0		0.96	**-**
Heavy	6	4	1	0		11	3	37	6	0		46	8	3	2	0		13	4	34	11	0		49	**-**
Heavy %	16.7%	2.5%	9.1%	0%		5.3%	27.3%	6.5%	6.6%	0%		6.9%	7.1%	3.1%	5.7%	0%		5.3%	7.1%	5.3%	30.6%	0%		6.7%	**-**
Lights	30	155	10	0		195	8	528	85	0		621	105	95	33	0		233	52	605	25	0		682	**-**
Lights %	83.3%	97.5%	90.9%	0%		94.7%	72.7%	93.5%	93.4%	0%		93.1%	92.9%	96.9%	94.3%	0%		94.7%	92.9%	94.7%	69.4%	0%		93.3%	**-**
Single-Unit Trucks	6	1	0	0		7	1	15	1	0		17	3	0	0	0		3	1	19	11	0		31	**-**
Single-Unit Trucks %	16.7%	0.6%	0%	0%		3.4%	9.1%	2.7%	1.1%	0%		2.5%	2.7%	0%	0%	0%		1.2%	1.8%	3%	30.6%	0%		4.2%	**-**
Buses	0	3	1	0		4	2	12	4	0		18	4	3	2	0		9	3	11	0	0		14	**-**
Buses %	0%	1.9%	9.1%	0%		1.9%	18.2%	2.1%	4.4%	0%		2.7%	3.5%	3.1%	5.7%	0%		3.7%	5.4%	1.7%	0%	0%		1.9%	**-**
Articulated Trucks	0	0	0	0		0	0	10	1	0		11	1	0	0	0		1	0	4	0	0		4	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	1.8%	1.1%	0%		1.6%	0.9%	0%	0%	0%		0.4%	0%	0.6%	0%	0%		0.5%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

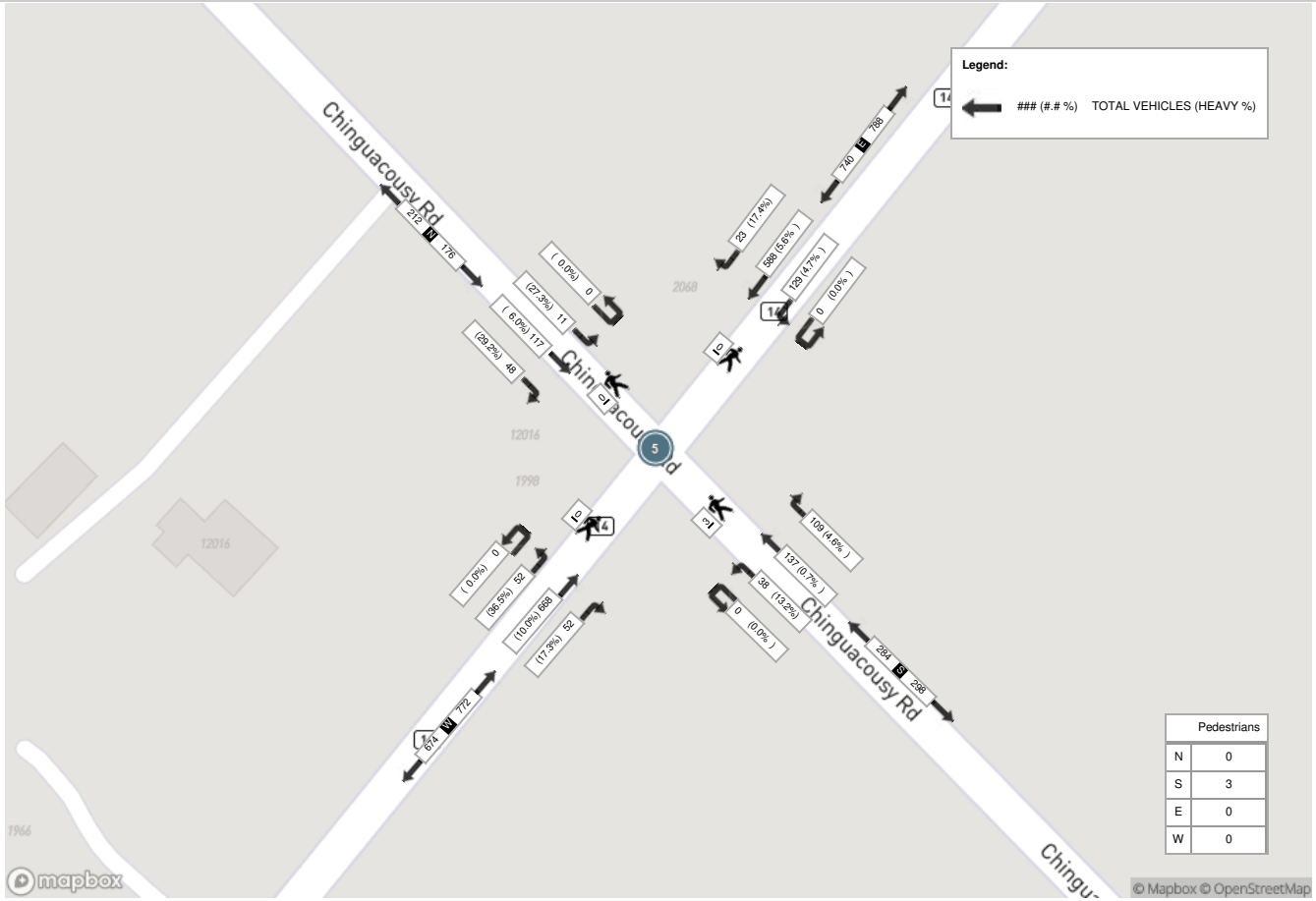
Peak Hour: 03:15 PM - 04:15 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
15:15:00	14	23	4	0	0	41	5	154	35	0	0	194	33	47	13	0	3	93	16	170	10	0	0	196	524
15:30:00	8	30	3	0	0	41	3	140	28	0	0	171	31	34	8	0	0	73	10	162	16	0	0	188	473
15:45:00	14	28	2	0	0	44	6	153	32	0	0	191	24	32	10	0	0	66	15	174	17	0	0	206	507
16:00:00	12	36	2	0	0	50	9	141	34	0	0	184	21	24	7	0	0	52	11	162	9	0	0	182	468
Grand Total	48	117	11	0	0	176	23	588	129	0	0	740	109	137	38	0	3	284	52	668	52	0	0	772	**1972**
Approach%	27.3%	66.5%	6.3%	0%		-	3.1%	79.5%	17.4%	0%		-	38.4%	48.2%	13.4%	0%		-	6.7%	86.5%	6.7%	0%		-	**-**
Totals %	2.4%	5.9%	0.6%	0%		8.9%	1.2%	29.8%	6.5%	0%		37.5%	5.5%	6.9%	1.9%	0%		14.4%	2.6%	33.9%	2.6%	0%		39.1%	**-**
PHF	0.86	0.81	0.69	0		0.88	0.64	0.95	0.92	0		0.95	0.83	0.73	0.73	0		0.76	0.81	0.96	0.76	0		0.94	**-**
Heavy	14	7	3	0		24	4	33	6	0		43	5	1	5	0		11	9	67	19	0		95	**-**
Heavy %	29.2%	6%	27.3%	0%		13.6%	17.4%	5.6%	4.7%	0%		5.8%	4.6%	0.7%	13.2%	0%		3.9%	17.3%	10%	36.5%	0%		12.3%	**-**
Lights	34	110	8	0		152	19	555	123	0		697	104	136	33	0		273	43	601	33	0		677	**-**
Lights %	70.8%	94%	72.7%	0%		86.4%	82.6%	94.4%	95.3%	0%		94.2%	95.4%	99.3%	86.8%	0%		96.1%	82.7%	90%	63.5%	0%		87.7%	**-**
Single-Unit Trucks	11	0	1	0		12	0	11	0	0		11	1	0	0	0		1	1	17	13	0		31	**-**
Single-Unit Trucks %	22.9%	0%	9.1%	0%		6.8%	0%	1.9%	0%	0%		1.5%	0.9%	0%	0%	0%		0.4%	1.9%	2.5%	25%	0%		4%	**-**
Buses	3	7	2	0		12	4	17	6	0		27	3	1	5	0		9	8	35	5	0		48	**-**
Buses %	6.3%	6%	18.2%	0%		6.8%	17.4%	2.9%	4.7%	0%		3.6%	2.8%	0.7%	13.2%	0%		3.2%	15.4%	5.2%	9.6%	0%		6.2%	**-**
Articulated Trucks	0	0	0	0		0	0	5	0	0		5	1	0	0	0		1	0	15	1	0		16	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.9%	0%	0%		0.7%	0.9%	0%	0%	0%		0.4%	0%	2.2%	1.9%	0%		2.1%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	100%		-	-	-	-	0%		**-**

Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)



Peak Hour: 03:15 PM - 04:15 PM Weather: Overcast Clouds (14.32 °C)



Turning Movement Count (9 . MAYFIELD RD & CREDITVIEW RD) CustID: 01420659

Start Time	N Approach CREDITVIEW RD						S Approach CREDITVIEW RD						W Approach MAYFIELD RD						E Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total		
06:00:00	3	2	1	0	0	6	17	16	7	0	0	40	3	68	1	0	0	72	2	69	4	0	0	75	193	
06:15:00	3	13	1	0	0	17	14	12	8	0	0	34	5	61	6	0	0	72	0	79	7	0	0	86	209	
06:30:00	2	4	1	0	0	7	8	12	12	0	0	32	0	95	4	0	0	99	1	137	9	0	0	147	285	
06:45:00	3	17	0	0	0	20	20	14	12	0	0	46	4	71	1	0	0	76	0	109	8	0	0	117	259	946
07:00:00	6	15	1	0	0	22	16	19	8	0	1	43	6	114	8	0	0	128	1	106	12	0	0	119	312	1065
07:15:00	4	26	3	0	0	33	24	19	5	0	0	48	8	119	5	0	0	132	1	109	15	0	0	125	338	1194
07:30:00	3	32	2	0	0	37	21	20	12	0	0	53	4	124	5	0	0	133	1	104	23	0	0	128	351	1260
07:45:00	4	26	1	0	0	31	26	14	5	0	0	45	10	115	3	0	0	128	2	116	25	0	0	143	347	1348
08:00:00	7	30	1	0	0	38	28	30	12	0	0	70	13	124	4	0	0	141	0	140	23	0	0	163	412	1448
08:15:00	8	14	5	0	0	27	37	25	11	0	0	73	12	144	6	0	0	162	1	135	23	0	0	159	421	1531
08:30:00	7	17	0	0	0	24	34	20	15	0	0	69	9	116	7	0	0	132	0	119	20	0	0	139	364	1544
08:45:00	3	14	1	0	0	18	22	12	18	0	0	52	7	84	4	0	0	95	0	150	26	0	0	176	341	1538
09:00:00	3	4	3	0	0	10	22	15	21	0	0	58	4	136	6	0	0	146	0	153	17	0	0	170	384	1510
09:15:00	7	11	3	0	0	21	16	9	8	0	0	33	7	112	3	0	0	122	2	102	12	0	0	116	292	1381
09:30:00	1	7	1	0	0	9	24	13	11	0	0	48	5	89	2	0	0	96	0	92	22	0	0	114	267	1284
09:45:00	6	11	2	0	0	19	15	9	3	0	0	27	5	107	3	0	0	115	1	86	17	0	0	104	265	1208
BREAK																										
15:00:00	4	15	3	0	0	22	38	27	20	0	0	85	11	139	4	0	0	154	0	108	31	0	0	139	400	
15:15:00	0	14	2	0	0	16	27	20	15	0	0	62	12	146	4	0	0	162	3	121	32	0	0	156	396	
15:30:00	4	12	1	0	0	17	30	28	23	0	0	81	13	165	2	0	2	180	1	122	26	0	0	149	427	
15:45:00	12	29	2	0	0	43	25	22	18	0	1	65	21	164	7	0	2	192	3	112	25	0	1	140	440	1663
16:00:00	8	19	1	0	0	28	17	25	12	0	0	54	14	139	6	0	0	159	2	108	29	0	0	139	380	1643
16:15:00	3	34	2	0	0	39	32	28	15	0	0	75	9	128	2	0	0	139	1	104	32	0	0	137	390	1637
16:30:00	5	26	2	0	0	33	24	24	10	0	0	58	8	134	2	0	0	144	2	120	17	0	0	139	374	1584
16:45:00	8	24	4	0	0	36	28	17	14	0	2	59	12	140	5	0	0	157	0	94	31	0	0	125	377	1521
17:00:00	5	26	1	0	0	32	19	26	11	0	1	56	11	140	5	0	0	156	2	110	24	0	0	136	380	1521
17:15:00	4	30	2	0	0	36	32	18	11	0	0	61	10	148	7	0	0	165	3	102	31	0	0	136	398	1529
17:30:00	3	30	1	0	0	34	30	16	13	0	0	59	10	159	4	0	0	173	3	101	31	0	0	135	401	1556
17:45:00	2	24	2	0	0	28	26	14	9	0	0	49	12	144	1	0	0	157	2	101	41	0	0	144	378	1557
18:00:00	4	22	1	0	0	27	32	32	9	0	0	73	14	140	9	0	0	163	1	105	37	0	0	143	406	1583
18:15:00	6	32	1	0	0	39	28	14	12	0	0	54	7	155	2	0	0	164	4	102	31	0	0	137	394	1579
18:30:00	6	27	2	0	0	35	26	15	9	0	0	50	12	116	6	0	0	134	1	102	36	0	0	139	358	1536
18:45:00	7	12	3	0	0	22	36	26	7	0	1	69	13	114	3	0	0	130	1	84	31	0	0	116	337	1495
Grand Total	151	619	56	0	0	826	794	611	376	0	6	1781	291	3950	137	0	4	4378	41	3502	748	0	1	4291	**11276**	-
Approach%	18.3%	74.9%	6.8%	0%		-	44.6%	34.3%	21.1%	0%		-	6.6%	90.2%	3.1%	0%		-	1%	81.6%	17.4%	0%		-	**-**	-
Totals %	1.3%	5.5%	0.5%	0%		7.3%	7%	5.4%	3.3%	0%		15.8%	2.6%	35%	1.2%	0%		38.8%	0.4%	31.1%	6.6%	0%		38.1%	**-**	-
Heavy	4	14	6	0		-	40	15	32	0		-	21	256	4	0		-	2	249	37	0		-	**-**	-
Heavy %	2.6%	2.3%	10.7%	0%		-	5%	2.5%	8.5%	0%		-	7.2%	6.5%	2.9%	0%		-	4.9%	7.1%	4.9%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach CREDITVIEW RD						S Approach CREDITVIEW RD						W Approach MAYFIELD RD						E Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:45:00	4	26	1	0	0	31	26	14	5	0	0	45	10	115	3	0	0	128	2	116	25	0	0	143	347
08:00:00	7	30	1	0	0	38	28	30	12	0	0	70	13	124	4	0	0	141	0	140	23	0	0	163	412
08:15:00	8	14	5	0	0	27	37	25	11	0	0	73	12	144	6	0	0	162	1	135	23	0	0	159	421
08:30:00	7	17	0	0	0	24	34	20	15	0	0	69	9	116	7	0	0	132	0	119	20	0	0	139	364
Grand Total	26	87	7	0	0	120	125	89	43	0	0	257	44	499	20	0	0	563	3	510	91	0	0	604	**1544**
Approach%	21.7%	72.5%	5.8%	0%		-	48.6%	34.6%	16.7%	0%		-	7.8%	88.6%	3.6%	0%		-	0.5%	84.4%	15.1%	0%		-	**-**
Totals %	1.7%	5.6%	0.5%	0%		7.8%	8.1%	5.8%	2.8%	0%		16.6%	2.8%	32.3%	1.3%	0%		36.5%	0.2%	33%	5.9%	0%		39.1%	**-**
PHF	0.81	0.73	0.35	0		0.79	0.84	0.74	0.72	0		0.88	0.85	0.87	0.71	0		0.87	0.38	0.91	0.91	0		0.93	**-**
Heavy	1	1	2	0		4	8	2	5	0		15	2	39	0	0		41	0	35	6	0		41	**-**
Heavy %	3.8%	1.1%	28.6%	0%		3.3%	6.4%	2.2%	11.6%	0%		5.8%	4.5%	7.8%	0%	0%		7.3%	0%	6.9%	6.6%	0%		6.8%	**-**
Lights	25	86	5	0		116	117	87	38	0		242	42	460	20	0		522	3	475	85	0		563	**-**
Lights %	96.2%	98.9%	71.4%	0%		96.7%	93.6%	97.8%	88.4%	0%		94.2%	95.5%	92.2%	100%	0%		92.7%	100%	93.1%	93.4%	0%		93.2%	**-**
Single-Unit Trucks	0	0	0	0		0	3	0	0	0		3	0	27	0	0		27	0	17	3	0		20	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	2.4%	0%	0%	0%		1.2%	0%	5.4%	0%	0%		4.8%	0%	3.3%	3.3%	0%		3.3%	**-**
Buses	0	1	2	0		3	5	2	4	0		11	2	8	0	0		10	0	8	3	0		11	**-**
Buses %	0%	1.1%	28.6%	0%		2.5%	4%	2.2%	9.3%	0%		4.3%	4.5%	1.6%	0%	0%		1.8%	0%	1.6%	3.3%	0%		1.8%	**-**
Articulated Trucks	1	0	0	0		1	0	0	1	0		1	0	4	0	0		4	0	10	0	0		10	**-**
Articulated Trucks %	3.8%	0%	0%	0%		0.8%	0%	0%	2.3%	0%		0.4%	0%	0.8%	0%	0%		0.7%	0%	2%	0%	0%		1.7%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

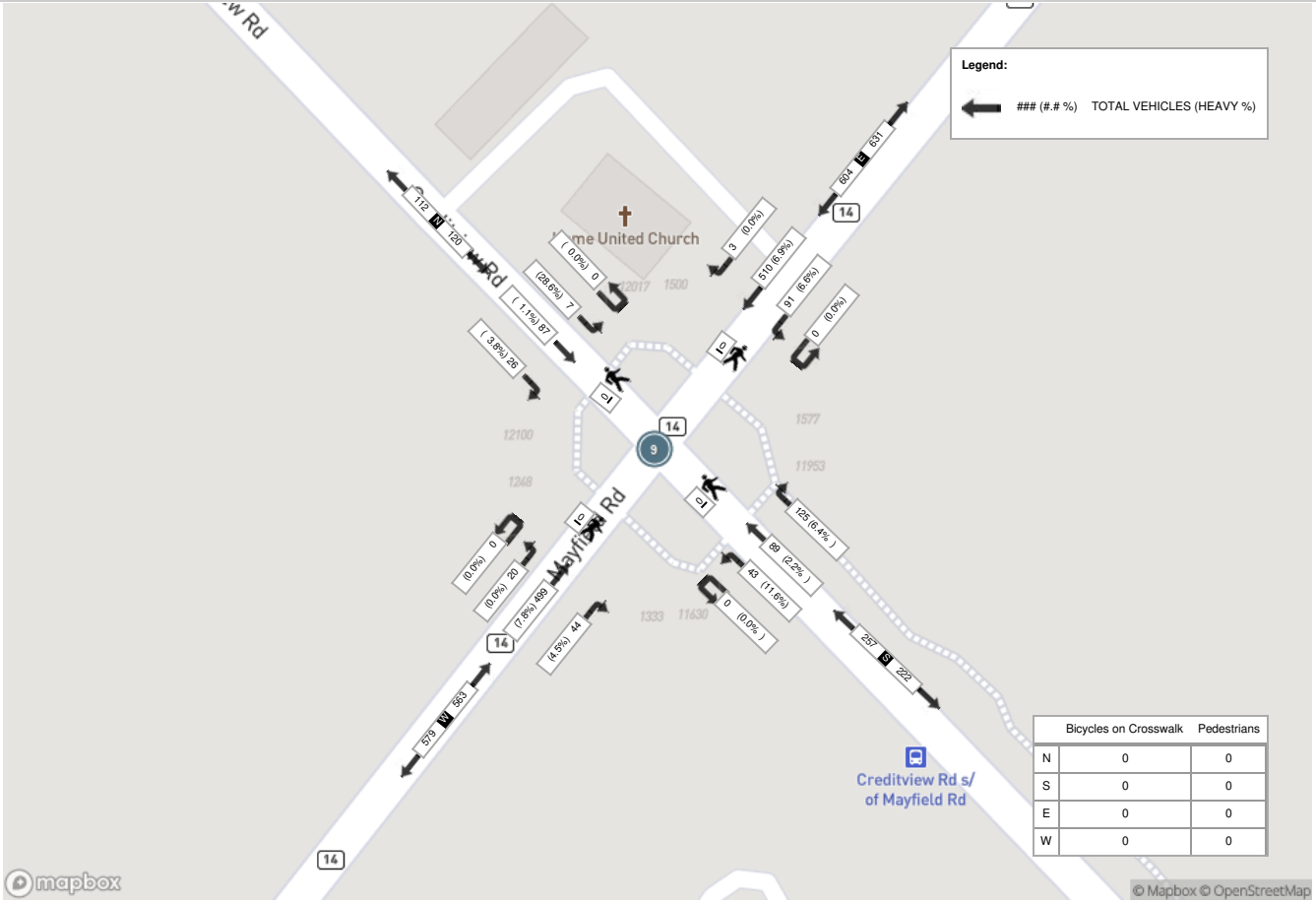
Turning Movement Count
Location Name: MAYFIELD RD & CREDITVIEW RD
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

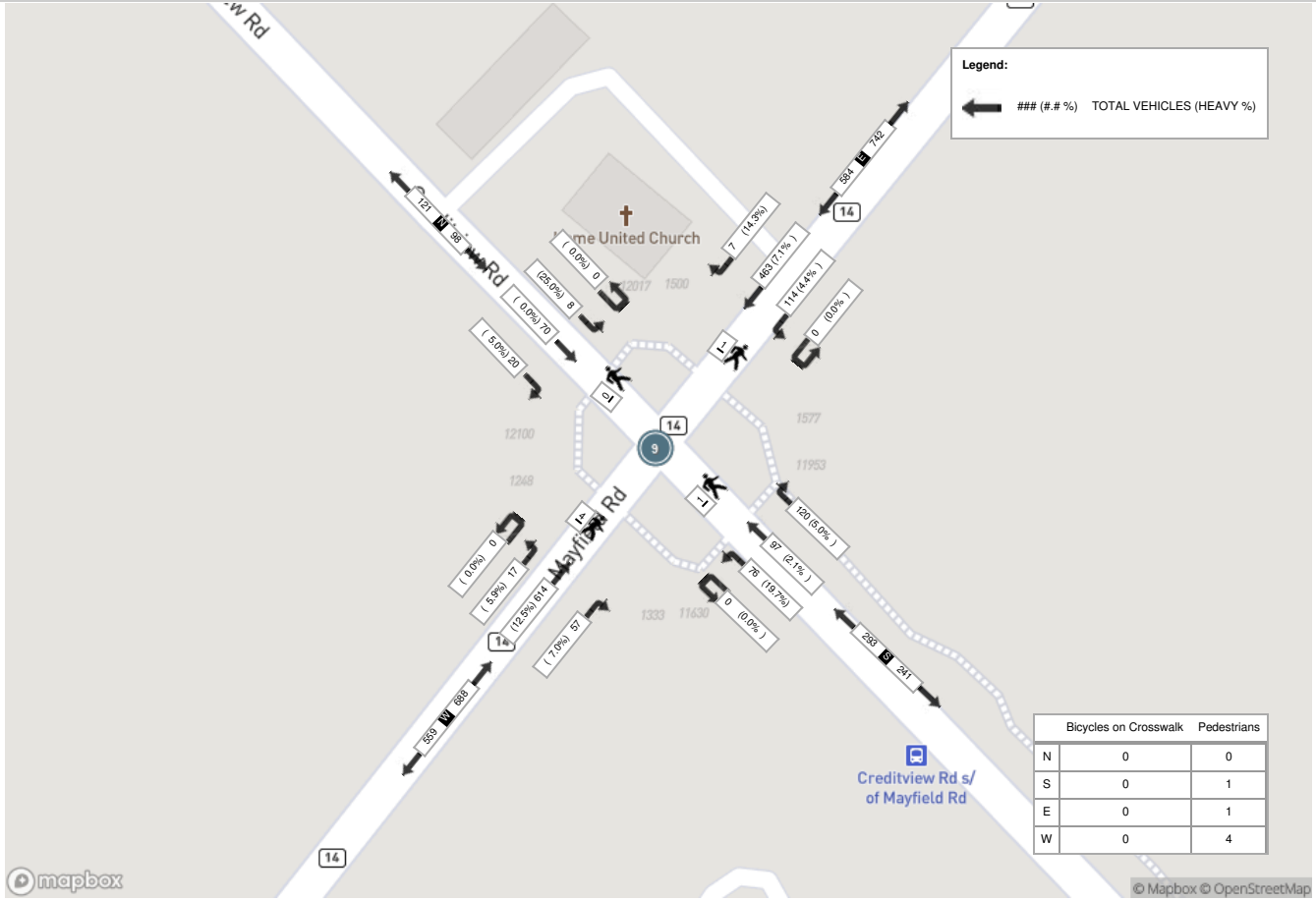
Start Time	N Approach CREDITVIEW RD						S Approach CREDITVIEW RD						W Approach MAYFIELD RD						E Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
15:00:00	4	15	3	0	0	22	38	27	20	0	0	85	11	139	4	0	0	154	0	108	31	0	0	139	400
15:15:00	0	14	2	0	0	16	27	20	15	0	0	62	12	146	4	0	0	162	3	121	32	0	0	156	396
15:30:00	4	12	1	0	0	17	30	28	23	0	0	81	13	165	2	0	2	180	1	122	26	0	0	149	427
15:45:00	12	29	2	0	0	43	25	22	18	0	1	65	21	164	7	0	2	192	3	112	25	0	1	140	440
Grand Total	20	70	8	0	0	98	120	97	76	0	1	293	57	614	17	0	4	688	7	463	114	0	1	584	**1663**
Approach%	20.4%	71.4%	8.2%	0%		-	41%	33.1%	25.9%	0%		-	8.3%	89.2%	2.5%	0%		-	1.2%	79.3%	19.5%	0%		-	**-**
Totals %	1.2%	4.2%	0.5%	0%		5.9%	7.2%	5.8%	4.6%	0%		17.6%	3.4%	36.9%	1%	0%		41.4%	0.4%	27.8%	6.9%	0%		35.1%	**-**
PHF	0.42	0.6	0.67	0		0.57	0.79	0.87	0.83	0		0.86	0.68	0.93	0.61	0		0.9	0.58	0.95	0.89	0		0.94	**-**
Heavy	1	0	2	0		3	6	2	15	0		23	4	77	1	0		82	1	33	5	0		39	**-**
Heavy %	5%	0%	25%	0%		3.1%	5%	2.1%	19.7%	0%		7.8%	7%	12.5%	5.9%	0%		11.9%	14.3%	7.1%	4.4%	0%		6.7%	**-**
Lights	19	70	6	0		95	114	95	61	0		270	53	537	16	0		606	6	430	109	0		545	**-**
Lights %	95%	100%	75%	0%		96.9%	95%	97.9%	80.3%	0%		92.2%	93%	87.5%	94.1%	0%		88.1%	85.7%	92.9%	95.6%	0%		93.3%	**-**
Single-Unit Trucks	0	0	1	0		1	1	0	1	0		2	1	27	0	0		28	0	14	1	0		15	**-**
Single-Unit Trucks %	0%	0%	12.5%	0%		1%	0.8%	0%	1.3%	0%		0.7%	1.8%	4.4%	0%	0%		4.1%	0%	3%	0.9%	0%		2.6%	**-**
Buses	1	0	1	0		2	5	2	14	0		21	3	36	1	0		40	1	15	4	0		20	**-**
Buses %	5%	0%	12.5%	0%		2%	4.2%	2.1%	18.4%	0%		7.2%	5.3%	5.9%	5.9%	0%		5.8%	14.3%	3.2%	3.5%	0%		3.4%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	14	0	0		14	0	4	0	0		4	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	2.3%	0%	0%		2%	0%	0.9%	0%	0%		0.7%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	16.7%		-	-	-	-	66.7%		-	-	-	-	16.7%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 07:45 AM - 08:45 AM **Weather: Overcast Clouds (7.73 °C)**



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	0
E	0	0
W	0	0

Peak Hour: 03:00 PM - 04:00 PM **Weather: Overcast Clouds (14.32 °C)**



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	1
E	0	1
W	0	4

Turning Movement Count (3 . MAYFIELD RD & QUEEN MARY DR / PETCH AVE) CustID: 01418295

Start Time	N Approach PETCH AVE						E Approach MAYFIELD RD						S Approach QUEEN MARY DR						W Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	9	1	5	0	0	15	1	84	3	0	0	88	7	0	3	0	0	10	3	143	1	0	2	147	260	
06:15:00	2	1	1	0	0	4	5	95	1	0	0	101	4	0	2	0	0	6	0	136	3	0	0	139	250	
06:30:00	4	0	2	0	0	6	5	146	0	0	2	151	1	1	5	0	0	7	1	151	3	0	0	155	319	
06:45:00	6	0	4	0	0	10	7	104	2	0	0	113	1	0	2	0	0	3	2	147	5	0	0	154	280	1109
07:00:00	8	2	3	0	0	13	10	130	2	0	0	142	3	0	2	0	0	5	0	170	8	0	0	178	338	1187
07:15:00	11	4	4	0	0	19	12	138	1	0	2	151	7	1	2	0	0	10	2	218	9	0	0	229	409	1346
07:30:00	7	0	3	0	0	10	11	151	4	0	0	166	5	3	1	0	0	9	3	190	4	0	1	197	382	1409
07:45:00	12	0	4	0	0	16	13	163	4	0	3	180	2	0	4	0	0	6	4	189	6	0	0	199	401	1530
08:00:00	12	0	6	1	0	19	11	153	3	0	0	167	5	1	3	0	0	9	2	189	10	0	1	201	396	1588
08:15:00	11	1	3	0	0	15	12	162	6	0	0	180	9	0	3	0	0	12	6	218	6	0	0	230	437	1616
08:30:00	13	1	5	0	0	19	4	160	6	0	1	170	7	0	1	0	0	8	7	196	8	0	0	211	408	1642
08:45:00	18	0	2	0	0	20	6	172	6	1	0	185	9	1	4	0	0	14	6	160	8	0	1	174	393	1634
09:00:00	15	2	3	0	0	20	7	136	3	0	0	146	8	2	5	0	0	15	8	154	12	0	0	174	355	1593
09:15:00	9	2	9	0	0	20	5	133	4	0	0	142	5	1	3	0	0	9	11	166	11	0	2	188	359	1515
09:30:00	5	2	8	0	0	15	8	132	2	0	0	142	5	0	2	0	0	7	2	154	5	0	0	161	325	1432
09:45:00	7	0	6	0	0	13	6	124	1	0	0	131	6	2	3	0	0	11	2	157	9	0	0	168	323	1362
BREAK																										
15:00:00	14	0	4	0	0	18	6	187	6	0	0	199	3	0	2	0	0	5	8	192	12	0	0	212	434	
15:15:00	14	0	7	0	0	21	8	193	11	0	0	212	6	0	4	0	0	10	2	198	14	0	0	214	457	
15:30:00	9	1	4	0	0	14	7	181	7	0	0	195	8	1	2	0	0	11	8	191	8	0	0	207	427	
15:45:00	10	1	8	0	0	19	9	204	7	0	2	220	3	2	1	0	2	6	13	180	13	0	1	206	451	1769
16:00:00	10	1	6	0	0	17	12	189	7	0	0	208	5	1	5	0	0	11	11	184	14	0	0	209	445	1780
16:15:00	16	2	5	0	0	23	11	190	14	0	0	215	6	1	2	0	0	9	9	172	12	0	2	193	440	1763
16:30:00	8	3	5	0	0	16	4	188	9	0	1	201	10	1	2	0	0	13	5	180	9	0	0	194	424	1760
16:45:00	11	0	3	0	0	14	6	208	13	0	0	227	2	0	0	0	0	2	3	185	13	0	3	201	444	1753
17:00:00	16	0	3	0	2	19	6	178	13	0	0	197	7	1	3	0	0	11	6	187	9	0	0	202	429	1737
17:15:00	12	2	6	0	0	20	9	182	7	0	1	198	3	0	2	0	0	5	7	176	20	0	1	203	426	1723
17:30:00	7	0	4	0	3	11	8	179	5	0	0	192	7	0	0	0	2	7	8	214	10	0	1	232	442	1741
17:45:00	9	0	5	1	0	15	7	209	11	0	0	227	9	0	0	0	0	9	12	166	7	0	0	185	436	1733
18:00:00	8	1	7	0	2	16	9	196	7	0	0	212	9	3	1	0	0	13	2	184	8	0	1	194	435	1739
18:15:00	12	1	1	2	0	16	7	238	12	0	0	257	6	2	2	0	0	10	5	190	11	0	0	206	489	1802
18:30:00	2	0	0	0	0	2	15	184	7	0	0	206	5	0	1	0	0	6	4	191	13	0	0	208	422	1782
18:45:00	12	2	8	0	0	22	5	170	8	0	1	183	3	0	2	0	0	5	4	166	16	0	0	186	396	1742
Grand Total	319	30	144	4	7	497	252	5259	192	1	13	5704	176	24	74	0	4	274	166	5694	297	0	16	6157	**12632**	-
Approach%	64.2%	6%	29%	0.8%		-	4.4%	92.2%	3.4%	0%		-	64.2%	8.8%	27%	0%		-	2.7%	92.5%	4.8%	0%		-	**-**	-
Totals %	2.5%	0.2%	1.1%	0%		3.9%	2%	41.6%	1.5%	0%		45.2%	1.4%	0.2%	0.6%	0%		2.2%	1.3%	45.1%	2.4%	0%		48.7%	**-**	-
Heavy	13	2	8	0		-	26	289	4	0		-	3	1	0	0		-	29	263	13	0		-	**-**	-
Heavy %	4.1%	6.7%	5.6%	0%		-	10.3%	5.5%	2.1%	0%		-	1.7%	4.2%	0%	0%		-	17.5%	4.6%	4.4%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & QUEEN MARY DR / PETCH AVE
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach PETCH AVE						E Approach MAYFIELD RD						S Approach QUEEN MARY DR						W Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:45:00	12	0	4	0	0	16	13	163	4	0	3	180	2	0	4	0	0	6	4	189	6	0	0	199	401
08:00:00	12	0	6	1	0	19	11	153	3	0	0	167	5	1	3	0	0	9	2	189	10	0	1	201	396
08:15:00	11	1	3	0	0	15	12	162	6	0	0	180	9	0	3	0	0	12	6	218	6	0	0	230	437
08:30:00	13	1	5	0	0	19	4	160	6	0	1	170	7	0	1	0	0	8	7	196	8	0	0	211	408
Grand Total	48	2	18	1	0	69	40	638	19	0	4	697	23	1	11	0	0	35	19	792	30	0	1	841	**1642**
Approach%	69.6%	2.9%	26.1%	1.4%		-	5.7%	91.5%	2.7%	0%		-	65.7%	2.9%	31.4%	0%		-	2.3%	94.2%	3.6%	0%		-	**-**
Totals %	2.9%	0.1%	1.1%	0.1%		4.2%	2.4%	38.9%	1.2%	0%		42.4%	1.4%	0.1%	0.7%	0%		2.1%	1.2%	48.2%	1.8%	0%		51.2%	**-**
PHF	0.92	0.5	0.75	0.25		0.91	0.77	0.98	0.79	0		0.97	0.64	0.25	0.69	0		0.73	0.68	0.91	0.75	0		0.91	**-**
Heavy	3	0	2	0		5	8	44	1	0		53	1	0	0	0		1	7	35	4	0		46	**-**
Heavy %	6.3%	0%	11.1%	0%		7.2%	20%	6.9%	5.3%	0%		7.6%	4.3%	0%	0%	0%		2.9%	36.8%	4.4%	13.3%	0%		5.5%	**-**
Lights	45	2	16	1		64	32	594	18	0		644	22	1	11	0		34	12	757	26	0		795	**-**
Lights %	93.8%	100%	88.9%	100%		92.8%	80%	93.1%	94.7%	0%		92.4%	95.7%	100%	100%	0%		97.1%	63.2%	95.6%	86.7%	0%		94.5%	**-**
Single-Unit Trucks	3	0	2	0		5	8	14	0	0		22	0	0	0	0		0	0	20	1	0		21	**-**
Single-Unit Trucks %	6.3%	0%	11.1%	0%		7.2%	20%	2.2%	0%	0%		3.2%	0%	0%	0%	0%		0%	0%	2.5%	3.3%	0%		2.5%	**-**
Buses	0	0	0	0		0	0	19	1	0		20	1	0	0	0		1	7	9	3	0		19	**-**
Buses %	0%	0%	0%	0%		0%	0%	3%	5.3%	0%		2.9%	4.3%	0%	0%	0%		2.9%	36.8%	1.1%	10%	0%		2.3%	**-**
Articulated Trucks	0	0	0	0		0	0	11	0	0		11	0	0	0	0		0	0	6	0	0		6	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	1.7%	0%	0%		1.6%	0%	0%	0%	0%		0%	0%	0.8%	0%	0%		0.7%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	80%		-	-	-	-	0%		-	-	-	-	20%		**-**

Spectrum

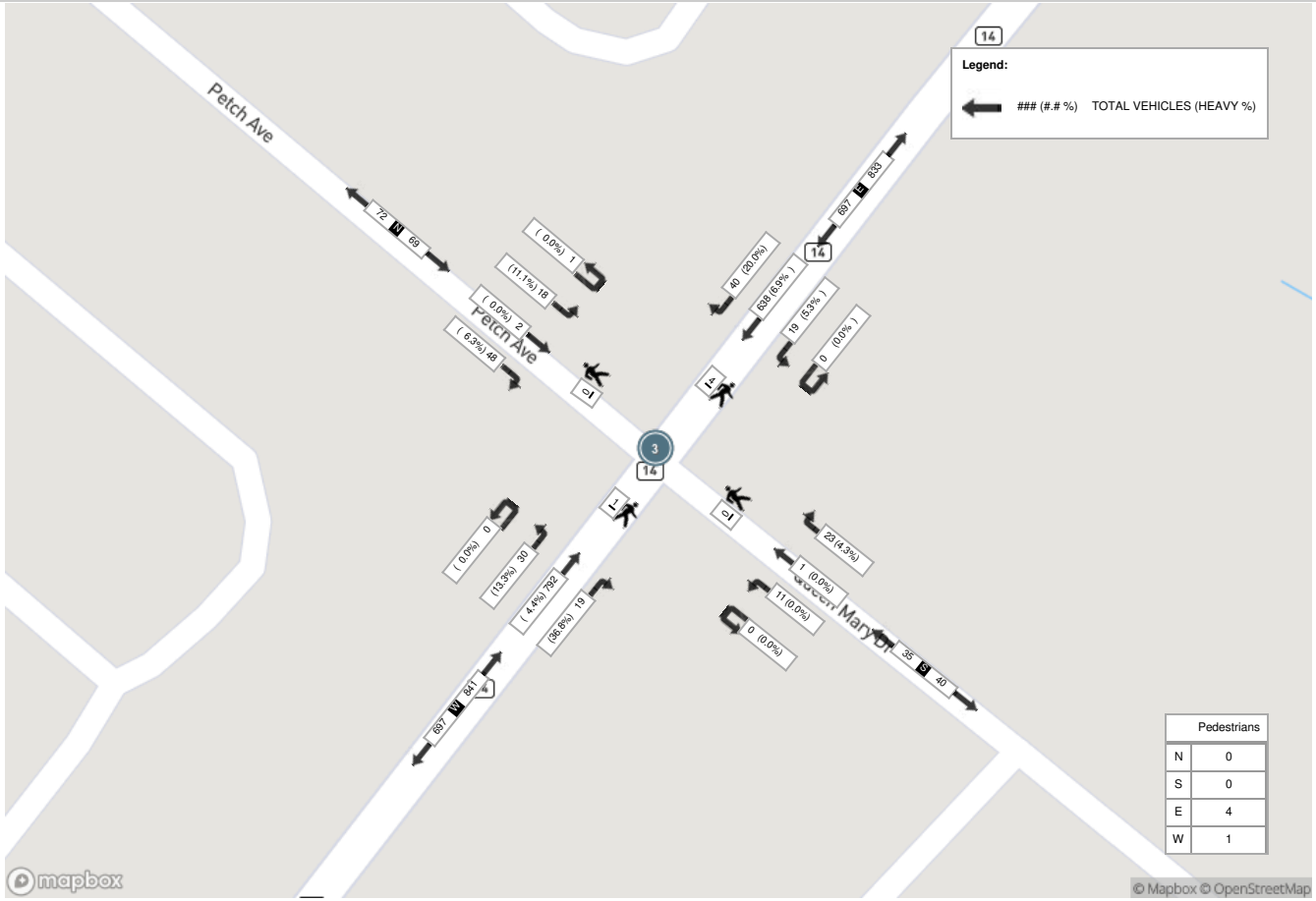
Turning Movement Count
Location Name: MAYFIELD RD & QUEEN MARY DR / PETCH AVE
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

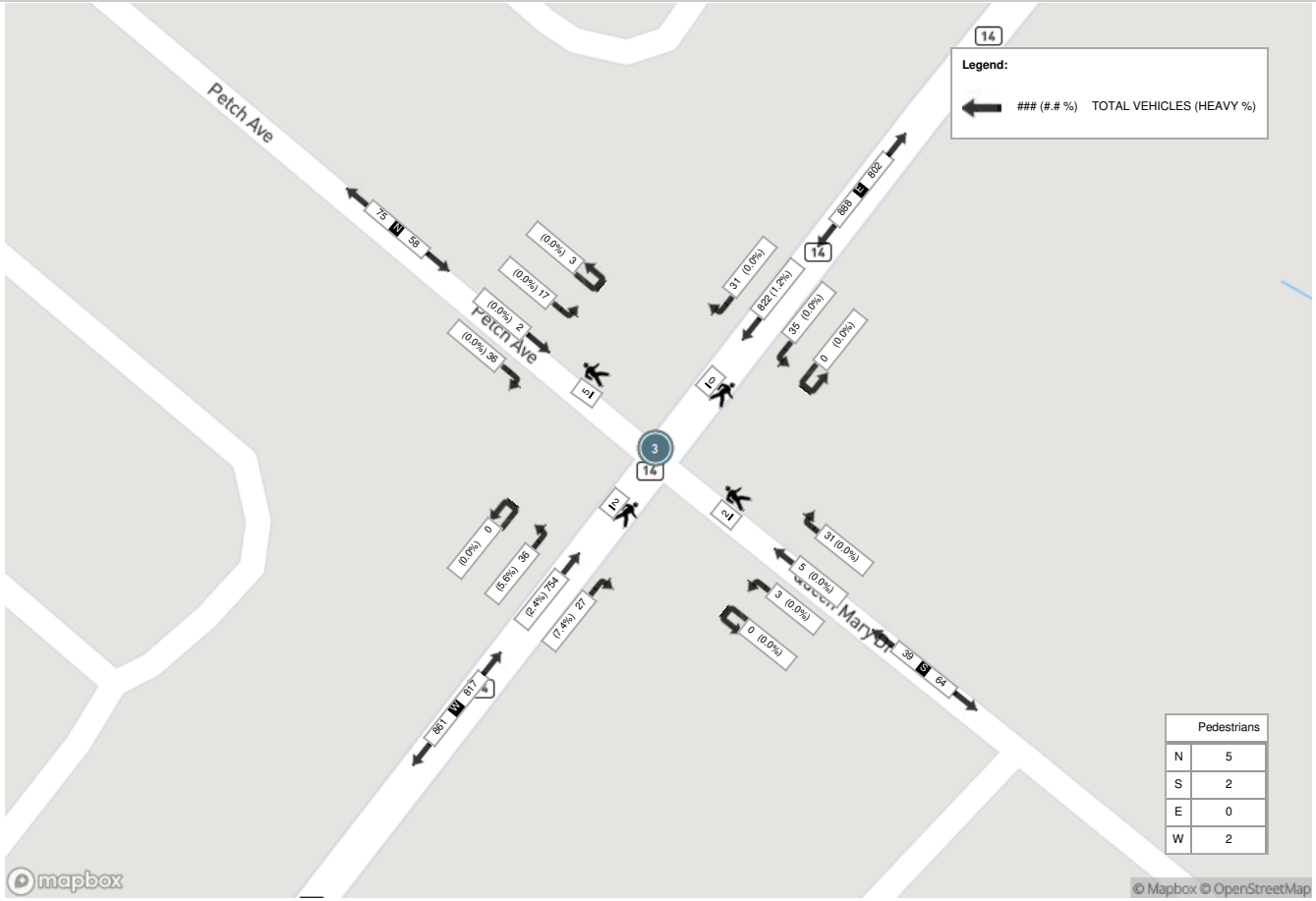
Peak Hour: 05:30 PM - 06:30 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach PETCH AVE						E Approach MAYFIELD RD						S Approach QUEEN MARY DR						W Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
17:30:00	7	0	4	0	3	11	8	179	5	0	0	192	7	0	0	0	2	7	8	214	10	0	1	232	442
17:45:00	9	0	5	1	0	15	7	209	11	0	0	227	9	0	0	0	0	9	12	166	7	0	0	185	436
18:00:00	8	1	7	0	2	16	9	196	7	0	0	212	9	3	1	0	0	13	2	184	8	0	1	194	435
18:15:00	12	1	1	2	0	16	7	238	12	0	0	257	6	2	2	0	0	10	5	190	11	0	0	206	489
Grand Total	36	2	17	3	5	58	31	822	35	0	0	888	31	5	3	0	2	39	27	754	36	0	2	817	**1802**
Approach%	62.1%	3.4%	29.3%	5.2%		-	3.5%	92.6%	3.9%	0%		-	79.5%	12.8%	7.7%	0%		-	3.3%	92.3%	4.4%	0%		-	**-**
Totals %	2%	0.1%	0.9%	0.2%		3.2%	1.7%	45.6%	1.9%	0%		49.3%	1.7%	0.3%	0.2%	0%		2.2%	1.5%	41.8%	2%	0%		45.3%	**-**
PHF	0.75	0.5	0.61	0.38		0.91	0.86	0.86	0.73	0		0.86	0.86	0.42	0.38	0		0.75	0.56	0.88	0.82	0		0.88	**-**
Heavy	0	0	0	0		0	0	10	0	0		10	0	0	0	0		0	2	18	2	0		22	**-**
Heavy %	0%	0%	0%	0%		0%	0%	1.2%	0%	0%		1.1%	0%	0%	0%	0%		0%	7.4%	2.4%	5.6%	0%		2.7%	**-**
Lights	36	2	17	3		58	31	812	35	0		878	31	5	3	0		39	25	736	34	0		795	**-**
Lights %	100%	100%	100%	100%		100%	100%	98.8%	100%	0%		98.9%	100%	100%	100%	0%		100%	92.6%	97.6%	94.4%	0%		97.3%	**-**
Single-Unit Trucks	0	0	0	0		0	0	4	0	0		4	0	0	0	0		0	0	15	2	0		17	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0.5%	0%	0%		0.5%	0%	0%	0%	0%		0%	0%	2%	5.6%	0%		2.1%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	2	0	0	0		2	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	7.4%	0%	0%	0%		0.2%	**-**
Articulated Trucks	0	0	0	0		0	0	6	0	0		6	0	0	0	0		0	0	3	0	0		3	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.7%	0%	0%		0.7%	0%	0%	0%	0%		0%	0%	0.4%	0%	0%		0.4%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	**-**
Pedestrians%	-	-	-	-	55.6%		-	-	-	-	0%		-	-	-	-	22.2%		-	-	-	-	22.2%		**-**

Peak Hour: 07:45 AM - 08:45 AM **Weather: Overcast Clouds (7.73 °C)**



Peak Hour: 05:30 PM - 06:30 PM Weather: Overcast Clouds (14.32 °C)



Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Turning Movement Count (10 . MAYFIELD RD & ROBERT PARKINSON DR) CustID: 01421014

Start Time	E Approach MAYFIELD RD					S Approach ROBERT PARKINSON DR					W Approach MAYFIELD RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
06:00:00	74	6	0	0	80	16	6	0	0	22	1	51	0	0	52	154	
06:15:00	87	5	0	0	92	14	7	0	0	21	2	65	0	0	67	180	
06:30:00	138	6	0	0	144	9	6	0	0	15	1	89	0	0	90	249	
06:45:00	118	7	0	0	125	14	8	0	0	22	0	66	0	0	66	213	796
07:00:00	110	7	0	0	117	22	6	0	0	28	4	107	0	0	111	256	898
07:15:00	113	4	0	0	117	21	3	0	0	24	3	110	0	0	113	254	972
07:30:00	112	3	0	0	115	16	5	0	0	21	5	115	0	0	120	256	979
07:45:00	124	4	0	0	128	15	10	0	0	25	4	126	0	0	130	283	1049
08:00:00	153	7	0	0	160	17	4	0	0	21	2	121	0	0	123	304	1097
08:15:00	141	10	0	0	151	24	7	0	0	31	8	144	0	0	152	334	1177
08:30:00	140	7	0	0	147	26	7	0	0	33	5	104	0	0	109	289	1210
08:45:00	161	7	0	0	168	19	7	0	0	26	5	86	0	0	91	285	1212
09:00:00	168	10	0	0	178	19	9	0	0	28	12	127	0	0	139	345	1253
09:15:00	112	6	0	0	118	14	2	0	0	16	5	113	0	0	118	252	1171
09:30:00	95	8	0	0	103	10	2	0	0	12	3	87	0	0	90	205	1087
09:45:00	87	8	0	0	95	25	4	0	0	29	5	93	0	0	98	222	1024
BREAK																	
15:00:00	129	9	0	0	138	19	9	0	0	28	9	148	0	0	157	323	
15:15:00	126	17	0	0	143	20	10	0	0	30	12	141	0	0	153	326	
15:30:00	128	17	0	0	145	15	3	0	0	18	9	182	0	0	191	354	
15:45:00	121	24	0	0	145	17	5	0	0	22	16	185	0	0	201	368	1371
16:00:00	106	29	0	0	135	12	1	0	0	13	12	146	0	0	158	306	1354
16:15:00	111	11	0	0	122	21	6	0	0	27	4	131	0	0	135	284	1312
16:30:00	119	20	0	0	139	17	7	0	0	24	7	134	0	0	141	304	1262
16:45:00	108	14	0	0	122	18	6	0	0	24	8	147	0	0	155	301	1195
17:00:00	108	18	0	0	126	23	5	0	0	28	5	141	0	0	146	300	1189
17:15:00	107	19	0	0	126	10	2	0	0	12	11	165	0	0	176	314	1219
17:30:00	99	16	0	0	115	19	11	0	0	30	8	169	0	0	177	322	1237
17:45:00	110	14	0	0	124	9	10	0	0	19	15	152	0	0	167	310	1246
18:00:00	103	15	0	0	118	25	9	0	2	34	9	152	0	0	161	313	1259
18:15:00	102	21	0	0	123	18	13	0	0	31	12	160	0	0	172	326	1271
18:30:00	92	31	0	0	123	15	7	0	0	22	12	133	0	0	145	290	1239
18:45:00	91	9	0	0	100	14	6	0	1	20	10	120	0	0	130	250	1179

Grand Total	3693	389	0	0	4082	553	203	0	3	756	224	4010	0	0	4234	**9072**	-
Approach%	90.5%	9.5%	0%		-	73.1%	26.9%	0%		-	5.3%	94.7%	0%		-	**-**	-
Totals %	40.7%	4.3%	0%		45%	6.1%	2.2%	0%		8.3%	2.5%	44.2%	0%		46.7%	**-**	-
Heavy	263	21	0		-	25	4	0		-	13	258	0		-	**-**	-
Heavy %	7.1%	5.4%	0%		-	4.5%	2%	0%		-	5.8%	6.4%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

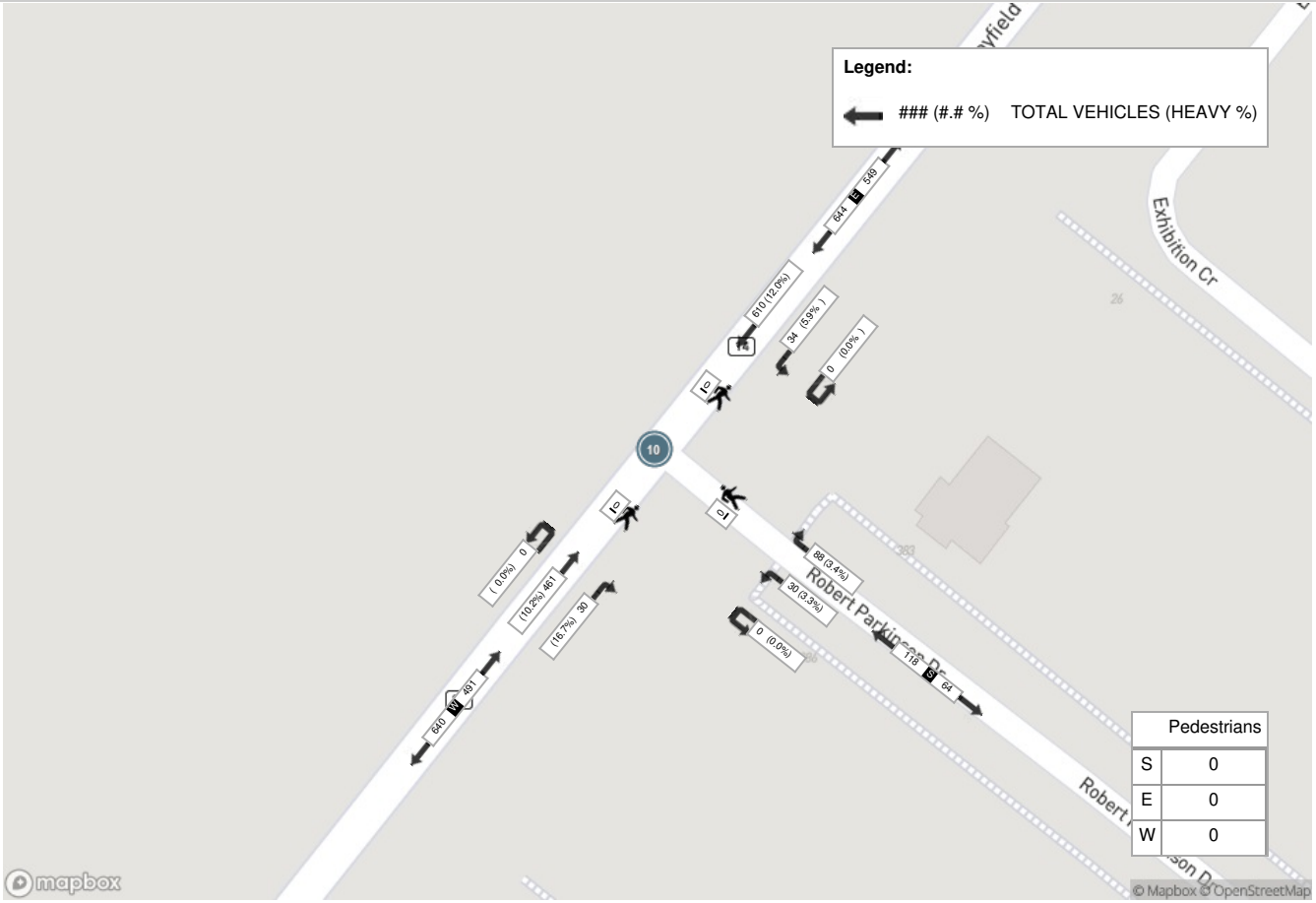
Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)

Start Time	E Approach MAYFIELD RD					S Approach ROBERT PARKINSON DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
08:15:00	141	10	0	0	151	24	7	0	0	31	8	144	0	0	152	334
08:30:00	140	7	0	0	147	26	7	0	0	33	5	104	0	0	109	289
08:45:00	161	7	0	0	168	19	7	0	0	26	5	86	0	0	91	285
09:00:00	168	10	0	0	178	19	9	0	0	28	12	127	0	0	139	345
Grand Total	610	34	0	0	644	88	30	0	0	118	30	461	0	0	491	**1253**
Approach%	94.7%	5.3%	0%		-	74.6%	25.4%	0%		-	6.1%	93.9%	0%		-	**-**
Totals %	48.7%	2.7%	0%		51.4%	7%	2.4%	0%		9.4%	2.4%	36.8%	0%		39.2%	**-**
PHF	0.91	0.85	0		0.9	0.85	0.83	0		0.89	0.63	0.8	0		0.81	**-**
Heavy	73	2	0		75	3	1	0		4	5	47	0		52	**-**
Heavy %	12%	5.9%	0%		11.6%	3.4%	3.3%	0%		3.4%	16.7%	10.2%	0%		10.6%	**-**
Lights	537	32	0		569	85	29	0		114	25	414	0		439	**-**
Lights %	88%	94.1%	0%		88.4%	96.6%	96.7%	0%		96.6%	83.3%	89.8%	0%		89.4%	**-**
Single-Unit Trucks	26	0	0		26	0	0	0		0	0	16	0		16	**-**
Single-Unit Trucks %	4.3%	0%	0%		4%	0%	0%	0%		0%	0%	3.5%	0%		3.3%	**-**
Buses	34	2	0		36	3	1	0		4	5	29	0		34	**-**
Buses %	5.6%	5.9%	0%		5.6%	3.4%	3.3%	0%		3.4%	16.7%	6.3%	0%		6.9%	**-**
Articulated Trucks	13	0	0		13	0	0	0		0	0	2	0		2	**-**
Articulated Trucks %	2.1%	0%	0%		2%	0%	0%	0%		0%	0%	0.4%	0%		0.4%	**-**
Bicycles on Road	0	0	0		0	0	0	0		0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

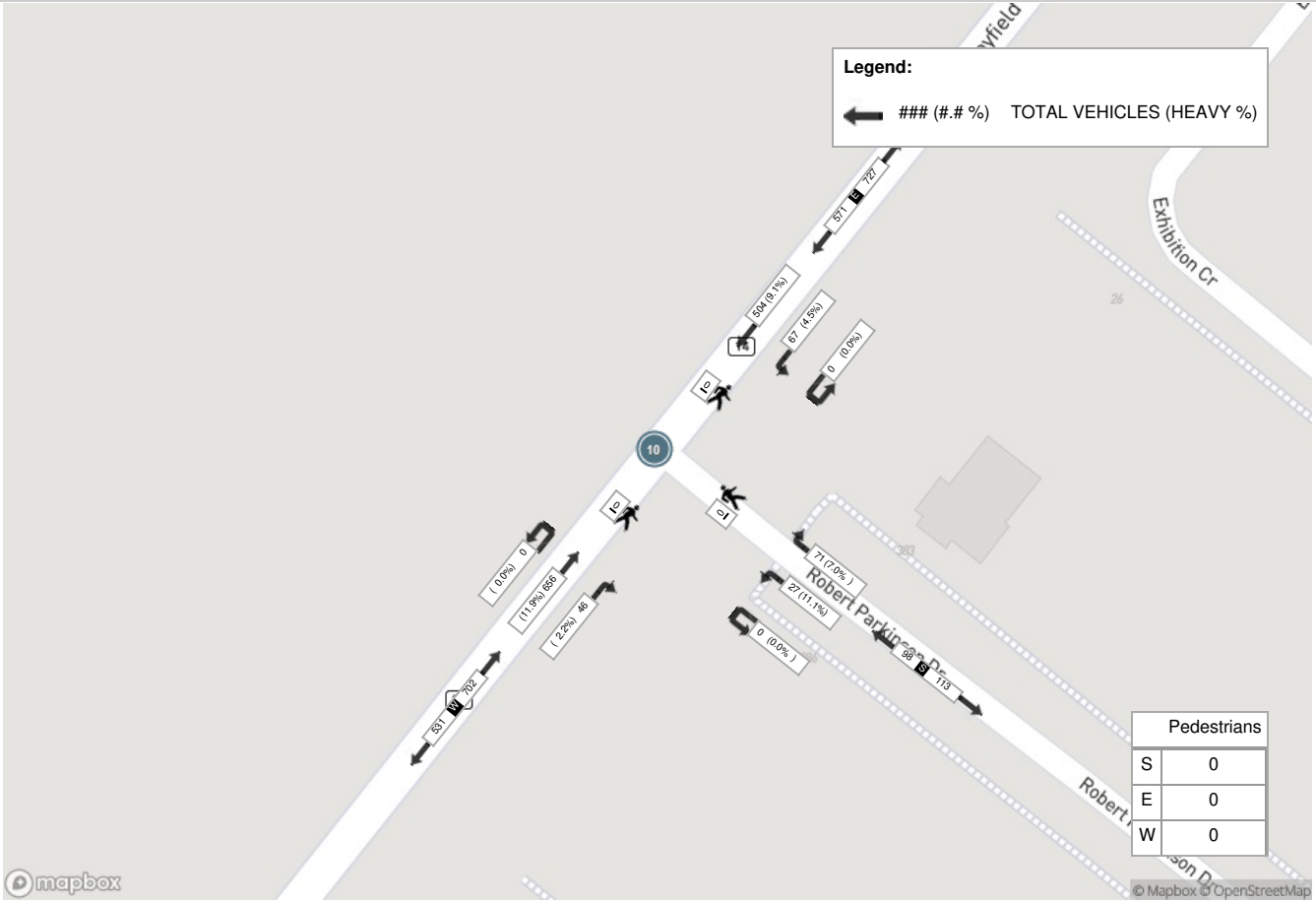
Start Time	E Approach MAYFIELD RD					S Approach ROBERT PARKINSON DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
15:00:00	129	9	0	0	138	19	9	0	0	28	9	148	0	0	157	323
15:15:00	126	17	0	0	143	20	10	0	0	30	12	141	0	0	153	326
15:30:00	128	17	0	0	145	15	3	0	0	18	9	182	0	0	191	354
15:45:00	121	24	0	0	145	17	5	0	0	22	16	185	0	0	201	368
Grand Total	504	67	0	0	571	71	27	0	0	98	46	656	0	0	702	**1371**
Approach%	88.3%	11.7%	0%		-	72.4%	27.6%	0%		-	6.6%	93.4%	0%		-	**-**
Totals %	36.8%	4.9%	0%		41.6%	5.2%	2%	0%		7.1%	3.4%	47.8%	0%		51.2%	**-**
PHF	0.98	0.7	0		0.98	0.89	0.68	0		0.82	0.72	0.89	0		0.87	**-**
Heavy	46	3	0		49	5	3	0		8	1	78	0		79	**-**
Heavy %	9.1%	4.5%	0%		8.6%	7%	11.1%	0%		8.2%	2.2%	11.9%	0%		11.3%	**-**
Lights	458	64	0		522	66	24	0		90	45	578	0		623	**-**
Lights %	90.9%	95.5%	0%		91.4%	93%	88.9%	0%		91.8%	97.8%	88.1%	0%		88.7%	**-**
Single-Unit Trucks	15	0	0		15	1	0	0		1	0	26	0		26	**-**
Single-Unit Trucks %	3%	0%	0%		2.6%	1.4%	0%	0%		1%	0%	4%	0%		3.7%	**-**
Buses	27	3	0		30	4	3	0		7	1	36	0		37	**-**
Buses %	5.4%	4.5%	0%		5.3%	5.6%	11.1%	0%		7.1%	2.2%	5.5%	0%		5.3%	**-**
Articulated Trucks	4	0	0		4	0	0	0		0	0	16	0		16	**-**
Articulated Trucks %	0.8%	0%	0%		0.7%	0%	0%	0%		0%	0%	2.4%	0%		2.3%	**-**
Bicycles on Road	0	0	0		0	0	0	0		0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)



Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)



Turning Movement Count (8 . MAYFIELD RD & THORNBUSH BLVD) CustID: 01420377

Start Time	E Approach MAYFIELD RD					S Approach THORNBUSH BLVD					W Approach MAYFIELD RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
06:00:00	82	1	0	0	83	9	0	0	0	9	0	87	0	0	87	179	
06:15:00	83	0	0	0	83	10	1	0	0	11	0	86	0	0	86	180	
06:30:00	143	2	0	0	145	8	0	0	0	8	1	94	0	0	95	248	
06:45:00	114	3	0	0	117	6	0	0	0	6	0	94	0	0	94	217	824
07:00:00	119	1	0	0	120	10	2	0	0	12	0	130	0	0	130	262	907
07:15:00	128	5	0	0	133	17	1	0	0	18	0	147	0	0	147	298	1025
07:30:00	130	8	0	0	138	10	4	0	0	14	0	146	0	0	146	298	1075
07:45:00	144	5	0	0	149	6	2	0	0	8	0	148	0	0	148	305	1163
08:00:00	152	1	0	0	153	11	2	0	0	13	3	152	0	0	155	321	1222
08:15:00	154	5	0	0	159	7	2	0	0	9	0	185	0	0	185	353	1277
08:30:00	138	8	0	0	146	8	0	0	0	8	0	153	0	0	153	307	1286
08:45:00	183	3	0	0	186	14	3	0	0	17	1	111	0	0	112	315	1296
09:00:00	163	4	0	0	167	11	3	0	0	14	0	154	0	0	154	335	1310
09:15:00	101	2	0	0	103	11	2	0	0	13	0	138	0	0	138	254	1211
09:30:00	114	1	0	0	115	5	0	0	0	5	1	112	0	0	113	233	1137
09:45:00	99	7	0	0	106	6	2	0	0	8	2	122	0	0	124	238	1060
BREAK																	
15:00:00	147	9	0	0	156	7	2	0	0	9	1	180	0	0	181	346	
15:15:00	157	6	0	0	163	6	1	0	0	7	2	167	0	0	169	339	
15:30:00	143	10	0	0	153	5	1	0	0	6	2	189	0	0	191	350	
15:45:00	140	11	0	0	151	8	3	0	0	11	5	195	0	0	200	362	1397
16:00:00	137	17	0	0	154	10	1	0	0	11	1	157	0	0	158	323	1374
16:15:00	131	11	0	0	142	4	1	0	0	5	3	157	0	0	160	307	1342
16:30:00	139	13	0	0	152	4	2	0	0	6	3	157	0	0	160	318	1310
16:45:00	115	8	0	0	123	4	1	0	0	5	1	168	0	0	169	297	1245
17:00:00	134	10	0	0	144	12	2	0	0	14	2	161	0	0	163	321	1243
17:15:00	139	7	0	0	146	6	1	0	0	7	4	170	1	0	175	328	1264
17:30:00	137	11	0	0	148	4	3	0	0	7	6	192	0	0	198	353	1299
17:45:00	132	9	0	0	141	5	6	0	0	11	4	164	0	0	168	320	1322
18:00:00	145	10	0	0	155	8	0	0	0	8	3	167	0	0	170	333	1334
18:15:00	151	12	0	0	163	11	0	0	0	11	3	189	0	0	192	366	1372
18:30:00	119	6	0	0	125	10	1	0	1	11	6	136	0	0	142	278	1297
18:45:00	115	7	0	0	122	5	1	0	0	6	2	149	0	0	151	279	1256

Grand Total	4228	213	0	0	4441	258	50	0	1	308	56	4757	1	0	4814	**9563**	-
Approach%	95.2%	4.8%	0%		-	83.8%	16.2%	0%		-	1.2%	98.8%	0%		-	**-**	-
Totals %	44.2%	2.2%	0%		46.4%	2.7%	0.5%	0%		3.2%	0.6%	49.7%	0%		50.3%	**-**	-
Heavy	290	8	0		-	9	0	0		-	4	296	0		-	**-**	-
Heavy %	6.9%	3.8%	0%		-	3.5%	0%	0%		-	7.1%	6.2%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

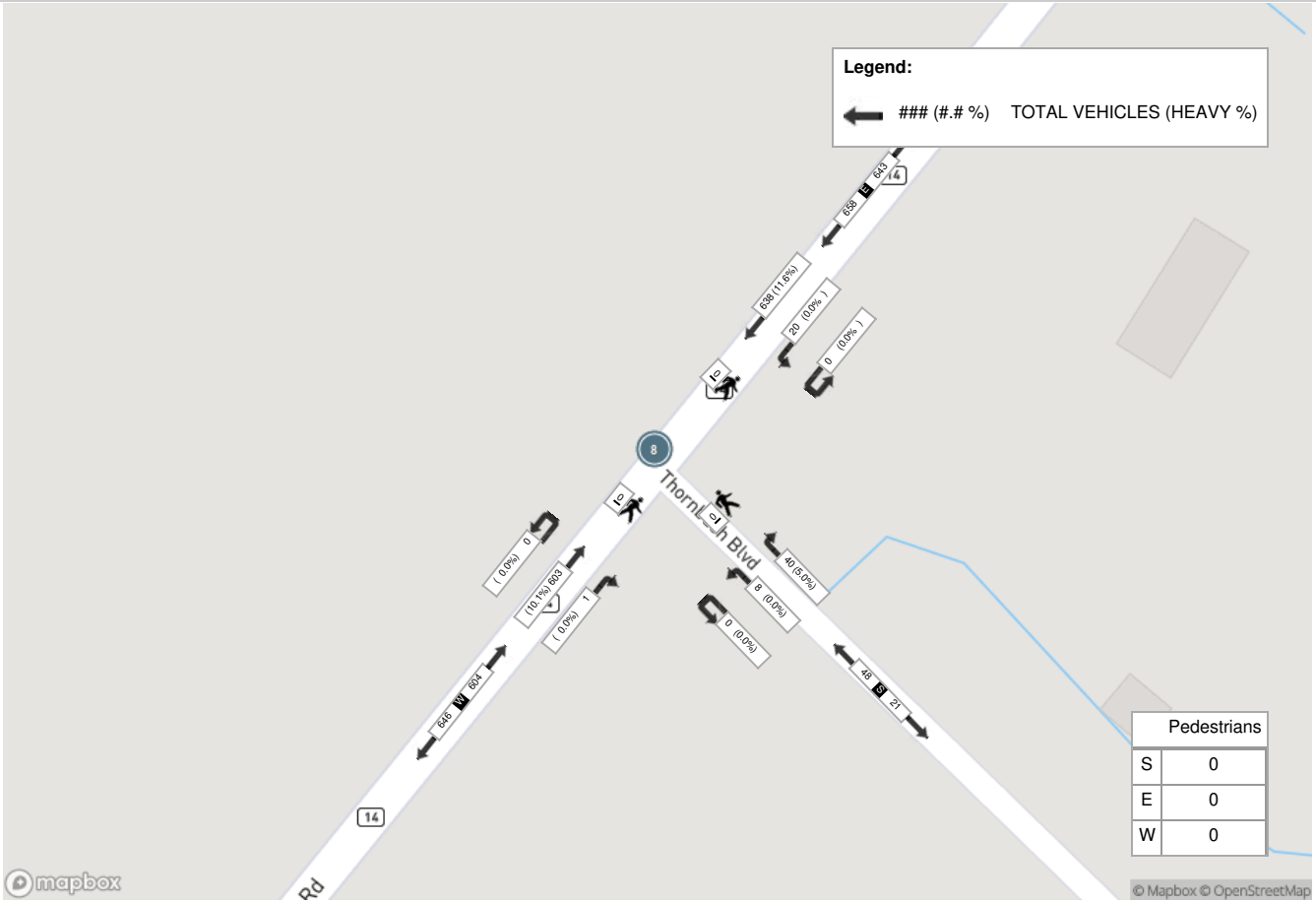
Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)

Start Time	E Approach MAYFIELD RD					S Approach THORNBUSH BLVD					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
08:15:00	154	5	0	0	159	7	2	0	0	9	0	185	0	0	185	353
08:30:00	138	8	0	0	146	8	0	0	0	8	0	153	0	0	153	307
08:45:00	183	3	0	0	186	14	3	0	0	17	1	111	0	0	112	315
09:00:00	163	4	0	0	167	11	3	0	0	14	0	154	0	0	154	335
Grand Total	638	20	0	0	658	40	8	0	0	48	1	603	0	0	604	**1310**
Approach%	97%	3%	0%		-	83.3%	16.7%	0%		-	0.2%	99.8%	0%		-	**-**
Totals %	48.7%	1.5%	0%		50.2%	3.1%	0.6%	0%		3.7%	0.1%	46%	0%		46.1%	**-**
PHF	0.87	0.63	0		0.88	0.71	0.67	0		0.71	0.25	0.81	0		0.82	**-**
Heavy	74	0	0		74	2	0	0		2	0	61	0		61	**-**
Heavy %	11.6%	0%	0%		11.2%	5%	0%	0%		4.2%	0%	10.1%	0%		10.1%	**-**
Lights	564	20	0		584	38	8	0		46	1	542	0		543	**-**
Lights %	88.4%	100%	0%		88.8%	95%	100%	0%		95.8%	100%	89.9%	0%		89.9%	**-**
Single-Unit Trucks	31	0	0		31	0	0	0		0	0	18	0		18	**-**
Single-Unit Trucks %	4.9%	0%	0%		4.7%	0%	0%	0%		0%	0%	3%	0%		3%	**-**
Buses	32	0	0		32	2	0	0		2	0	40	0		40	**-**
Buses %	5%	0%	0%		4.9%	5%	0%	0%		4.2%	0%	6.6%	0%		6.6%	**-**
Articulated Trucks	11	0	0		11	0	0	0		0	0	3	0		3	**-**
Articulated Trucks %	1.7%	0%	0%		1.7%	0%	0%	0%		0%	0%	0.5%	0%		0.5%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

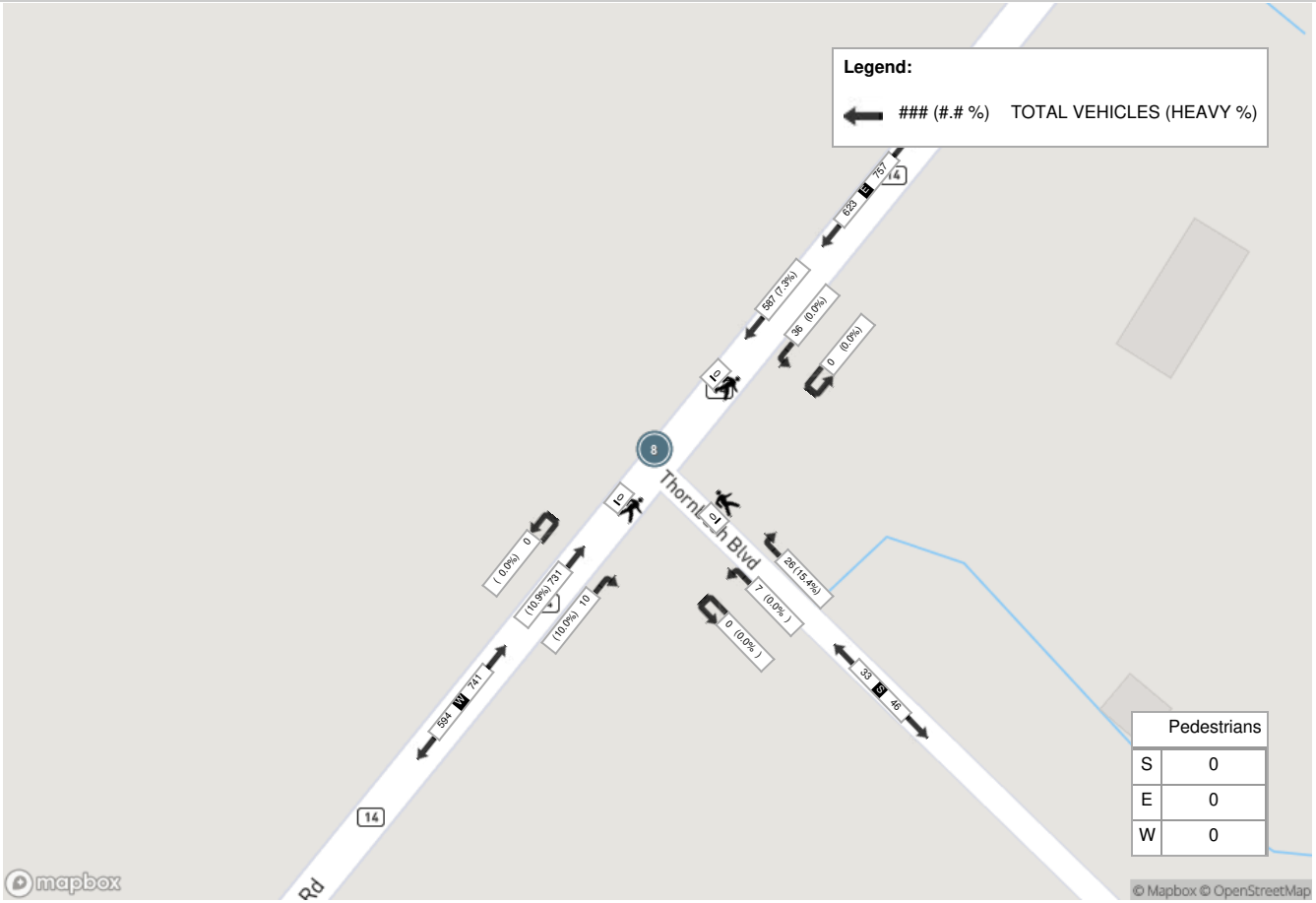
Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

Start Time	E Approach MAYFIELD RD					S Approach THORNBUSH BLVD					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
15:00:00	147	9	0	0	156	7	2	0	0	9	1	180	0	0	181	346
15:15:00	157	6	0	0	163	6	1	0	0	7	2	167	0	0	169	339
15:30:00	143	10	0	0	153	5	1	0	0	6	2	189	0	0	191	350
15:45:00	140	11	0	0	151	8	3	0	0	11	5	195	0	0	200	362
Grand Total	587	36	0	0	623	26	7	0	0	33	10	731	0	0	741	**1397**
Approach%	94.2%	5.8%	0%		-	78.8%	21.2%	0%		-	1.3%	98.7%	0%		-	**-**
Totals %	42%	2.6%	0%		44.6%	1.9%	0.5%	0%		2.4%	0.7%	52.3%	0%		53%	**-**
PHF	0.93	0.82	0		0.96	0.81	0.58	0		0.75	0.5	0.94	0		0.93	**-**
Heavy	43	0	0		43	4	0	0		4	1	80	0		81	**-**
Heavy %	7.3%	0%	0%		6.9%	15.4%	0%	0%		12.1%	10%	10.9%	0%		10.9%	**-**
Lights	544	36	0		580	22	7	0		29	9	651	0		660	**-**
Lights %	92.7%	100%	0%		93.1%	84.6%	100%	0%		87.9%	90%	89.1%	0%		89.1%	**-**
Single-Unit Trucks	17	0	0		17	0	0	0		0	0	27	0		27	**-**
Single-Unit Trucks %	2.9%	0%	0%		2.7%	0%	0%	0%		0%	0%	3.7%	0%		3.6%	**-**
Buses	21	0	0		21	4	0	0		4	1	41	0		42	**-**
Buses %	3.6%	0%	0%		3.4%	15.4%	0%	0%		12.1%	10%	5.6%	0%		5.7%	**-**
Articulated Trucks	5	0	0		5	0	0	0		0	0	12	0		12	**-**
Articulated Trucks %	0.9%	0%	0%		0.8%	0%	0%	0%		0%	0%	1.6%	0%		1.6%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)



Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)



Turning Movement Count (11 . MAYFIELD RD & VETERANS DR) CustID: 01421751

Start Time	E Approach MAYFIELD RD					S Approach VETERANS DR					W Approach MAYFIELD RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
06:00:00	70	9	0	0	79	25	4	0	0	29	2	33	0	0	35	143	
06:15:00	88	7	0	0	95	29	2	0	0	31	5	38	0	0	43	169	
06:30:00	124	18	0	0	142	27	3	0	0	30	3	62	0	0	65	237	
06:45:00	110	19	0	0	129	23	7	1	0	31	4	55	0	0	59	219	768
07:00:00	93	20	1	1	114	27	7	0	0	34	5	80	0	0	85	233	858
07:15:00	95	20	0	0	115	25	6	0	0	31	5	80	0	0	85	231	920
07:30:00	103	16	0	0	119	40	3	0	0	43	1	83	0	0	84	246	929
07:45:00	112	14	0	0	126	32	4	0	1	36	7	99	0	0	106	268	978
08:00:00	132	21	0	0	153	26	5	0	0	31	3	99	0	0	102	286	1031
08:15:00	120	17	0	0	137	48	6	0	0	54	2	108	0	0	110	301	1101
08:30:00	120	21	0	0	141	33	4	0	0	37	3	79	0	0	82	260	1115
08:45:00	120	29	0	0	149	34	2	0	0	36	3	59	0	0	62	247	1094
09:00:00	117	16	0	0	133	25	6	0	0	31	4	76	0	0	80	244	1052
09:15:00	83	23	0	0	106	27	5	0	0	32	4	68	0	0	72	210	961
09:30:00	71	21	0	0	92	30	4	0	0	34	3	59	0	0	62	188	889
09:45:00	69	18	0	0	87	31	0	0	0	31	3	58	0	0	61	179	821
BREAK																	
15:00:00	98	28	0	0	126	26	2	0	0	28	7	133	0	0	140	294	
15:15:00	99	27	0	0	126	29	3	0	0	32	3	125	0	0	128	286	
15:30:00	101	32	0	0	133	31	2	0	1	33	9	158	0	0	167	333	
15:45:00	114	27	0	0	141	34	4	0	0	38	4	135	0	0	139	318	1231
16:00:00	77	37	0	0	114	28	4	0	0	32	9	111	0	0	120	266	1203
16:15:00	82	37	0	1	119	34	8	0	0	42	4	103	0	0	107	268	1185
16:30:00	97	26	0	0	123	33	2	0	0	35	14	115	0	0	129	287	1139
16:45:00	90	28	0	0	118	28	6	0	0	34	3	129	0	0	132	284	1105
17:00:00	79	34	0	0	113	17	3	0	0	20	8	131	0	0	139	272	1111
17:15:00	79	30	0	0	109	40	6	0	0	46	7	137	0	0	144	299	1142
17:30:00	77	32	0	0	109	25	4	0	0	29	8	148	0	0	156	294	1149
17:45:00	72	43	0	0	115	21	3	0	0	24	8	137	0	0	145	284	1149
18:00:00	79	33	0	0	112	36	6	0	0	42	8	128	0	0	136	290	1167
18:15:00	60	55	0	0	115	30	4	0	0	34	11	138	0	0	149	298	1166
18:30:00	69	28	0	0	97	37	5	0	0	42	9	103	0	0	112	251	1123
18:45:00	61	35	0	0	96	28	7	0	0	35	11	111	0	0	122	253	1092

Grand Total	2961	821	1	2	3783	959	137	1	2	1097	180	3178	0	0	3358	**8238**	-
Approach%	78.3%	21.7%	0%		-	87.4%	12.5%	0.1%		-	5.4%	94.6%	0%		-	**-**	-
Totals %	35.9%	10%	0%		45.9%	11.6%	1.7%	0%		13.3%	2.2%	38.6%	0%		40.8%	**-**	-
Heavy	183	63	0		-	67	9	0		-	10	180	0		-	**-**	-
Heavy %	6.2%	7.7%	0%		-	7%	6.6%	0%		-	5.6%	5.7%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

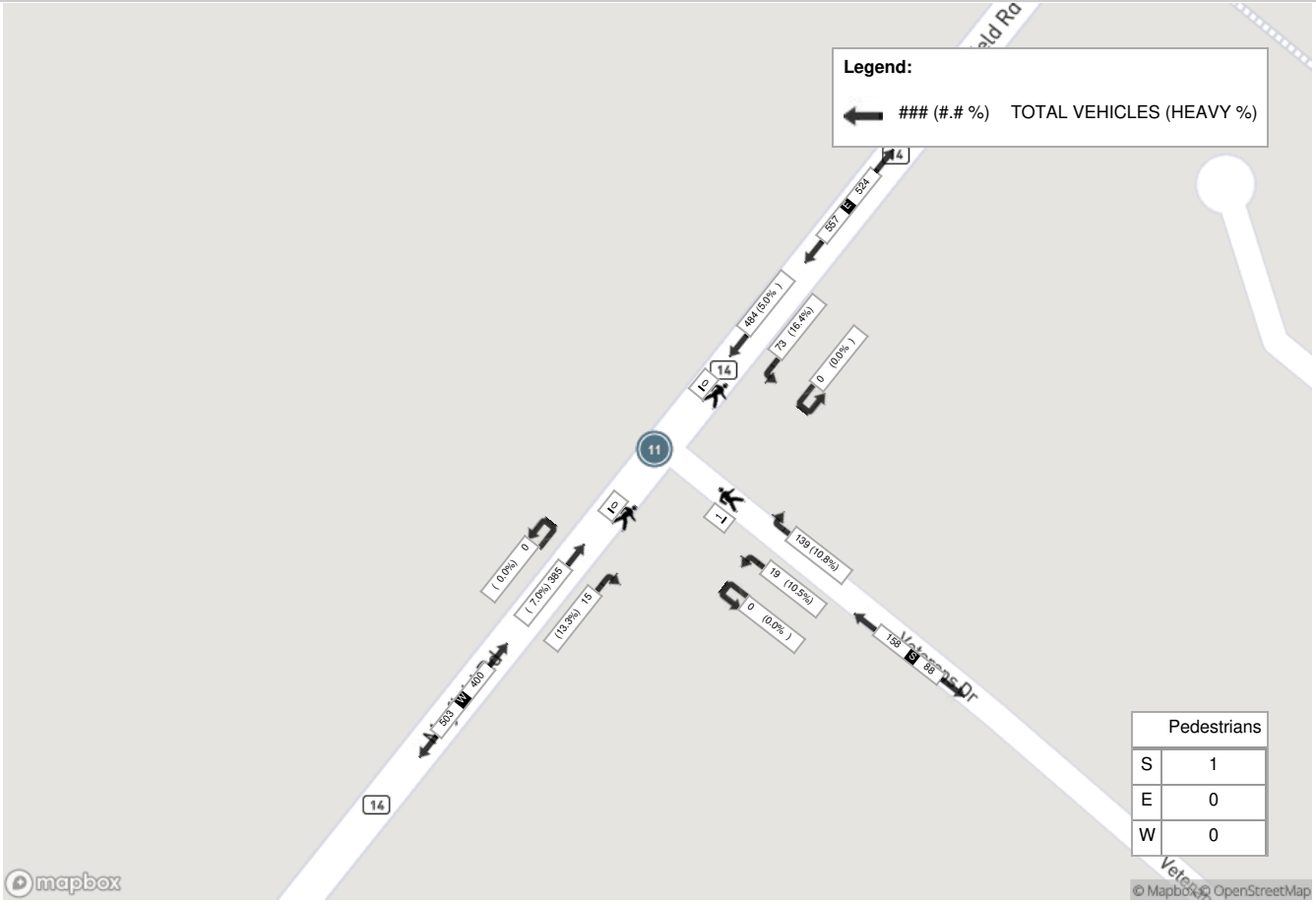
Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)

Start Time	E Approach MAYFIELD RD					S Approach VETERANS DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
07:45:00	112	14	0	0	126	32	4	0	1	36	7	99	0	0	106	268
08:00:00	132	21	0	0	153	26	5	0	0	31	3	99	0	0	102	286
08:15:00	120	17	0	0	137	48	6	0	0	54	2	108	0	0	110	301
08:30:00	120	21	0	0	141	33	4	0	0	37	3	79	0	0	82	260
Grand Total	484	73	0	0	557	139	19	0	1	158	15	385	0	0	400	**1115**
Approach%	86.9%	13.1%	0%		-	88%	12%	0%		-	3.8%	96.3%	0%		-	**-**
Totals %	43.4%	6.5%	0%		50%	12.5%	1.7%	0%		14.2%	1.3%	34.5%	0%		35.9%	**-**
PHF	0.92	0.87	0		0.91	0.72	0.79	0		0.73	0.54	0.89	0		0.91	**-**
Heavy	24	12	0		36	15	2	0		17	2	27	0		29	**-**
Heavy %	5%	16.4%	0%		6.5%	10.8%	10.5%	0%		10.8%	13.3%	7%	0%		7.3%	**-**
Lights	460	61	0		521	124	17	0		141	13	358	0		371	**-**
Lights %	95%	83.6%	0%		93.5%	89.2%	89.5%	0%		89.2%	86.7%	93%	0%		92.8%	**-**
Single-Unit Trucks	15	2	0		17	4	0	0		4	1	23	0		24	**-**
Single-Unit Trucks %	3.1%	2.7%	0%		3.1%	2.9%	0%	0%		2.5%	6.7%	6%	0%		6%	**-**
Buses	1	6	0		7	11	0	0		11	0	1	0		1	**-**
Buses %	0.2%	8.2%	0%		1.3%	7.9%	0%	0%		7%	0%	0.3%	0%		0.3%	**-**
Articulated Trucks	8	4	0		12	0	2	0		2	1	3	0		4	**-**
Articulated Trucks %	1.7%	5.5%	0%		2.2%	0%	10.5%	0%		1.3%	6.7%	0.8%	0%		1%	**-**
Bicycles on Road	0	0	0		0	0	0	0		0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	100%		-	-	-	0%		**-**

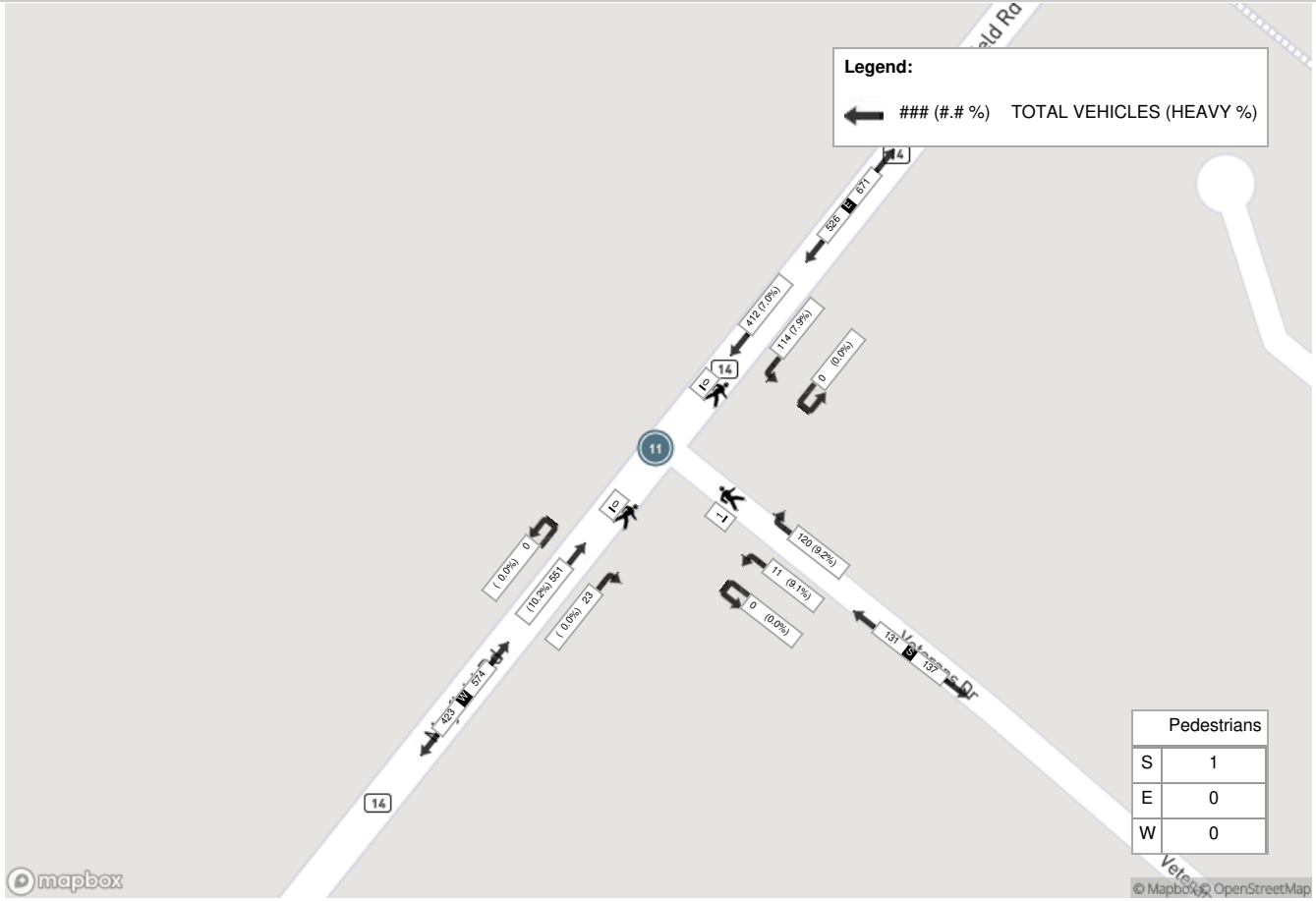
Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

Start Time	E Approach MAYFIELD RD					S Approach VETERANS DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
15:00:00	98	28	0	0	126	26	2	0	0	28	7	133	0	0	140	294
15:15:00	99	27	0	0	126	29	3	0	0	32	3	125	0	0	128	286
15:30:00	101	32	0	0	133	31	2	0	1	33	9	158	0	0	167	333
15:45:00	114	27	0	0	141	34	4	0	0	38	4	135	0	0	139	318
Grand Total	412	114	0	0	526	120	11	0	1	131	23	551	0	0	574	**1231**
Approach%	78.3%	21.7%	0%		-	91.6%	8.4%	0%		-	4%	96%	0%		-	**-**
Totals %	33.5%	9.3%	0%		42.7%	9.7%	0.9%	0%		10.6%	1.9%	44.8%	0%		46.6%	**-**
PHF	0.9	0.89	0		0.93	0.88	0.69	0		0.86	0.64	0.87	0		0.86	**-**
Heavy	29	9	0		38	11	1	0		12	0	56	0		56	**-**
Heavy %	7%	7.9%	0%		7.2%	9.2%	9.1%	0%		9.2%	0%	10.2%	0%		9.8%	**-**
Lights	383	105	0		488	109	10	0		119	23	495	0		518	**-**
Lights %	93%	92.1%	0%		92.8%	90.8%	90.9%	0%		90.8%	100%	89.8%	0%		90.2%	**-**
Single-Unit Trucks	15	1	0		16	0	0	0		0	0	26	0		26	**-**
Single-Unit Trucks %	3.6%	0.9%	0%		3%	0%	0%	0%		0%	0%	4.7%	0%		4.5%	**-**
Buses	10	8	0		18	10	1	0		11	0	15	0		15	**-**
Buses %	2.4%	7%	0%		3.4%	8.3%	9.1%	0%		8.4%	0%	2.7%	0%		2.6%	**-**
Articulated Trucks	4	0	0		4	1	0	0		1	0	15	0		15	**-**
Articulated Trucks %	1%	0%	0%		0.8%	0.8%	0%	0%		0.8%	0%	2.7%	0%		2.6%	**-**
Bicycles on Road	0	0	0		0	0	0	0		0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	100%		-	-	-	0%		**-**

Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)



Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)



Spectrum

Turning Movement Count
Location Name: MCLAUGHLIN RD & TIM MANLEY AVE
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Turning Movement Count (1 . MCLAUGHLIN RD & TIM MANLEY AVE)

Start Time	N Approach MCLAUGHLIN RD						E Approach EAST DRIVEWAY						S Approach MCLAUGHLIN RD						W Approach TIM MANLEY AVE						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	1	10	0	0	0	11	0	0	0	0	0	0	0	18	1	0	0	19	12	0	4	0	0	16	46	
06:15:00	0	13	0	0	1	13	0	0	0	0	1	0	0	26	6	0	0	32	8	0	2	0	0	10	55	
06:30:00	0	25	0	0	0	25	0	0	0	0	0	0	0	23	7	0	0	30	10	0	1	0	0	11	66	
06:45:00	3	19	0	0	0	22	0	0	0	0	0	0	0	19	17	0	0	36	7	0	2	0	0	9	67	234
07:00:00	3	31	0	0	0	34	0	0	0	0	0	0	0	27	8	0	0	35	12	0	5	0	0	17	86	274
07:15:00	2	33	0	0	0	35	0	0	0	0	0	0	0	32	8	0	0	40	13	0	3	0	0	16	91	310
07:30:00	1	49	0	0	0	50	0	0	0	0	0	0	0	29	4	0	0	33	13	0	4	0	0	17	100	344
07:45:00	3	54	0	0	0	57	0	0	0	0	2	0	0	32	11	0	2	43	17	0	6	0	0	23	123	400
08:00:00	2	48	0	0	4	50	0	0	0	0	2	0	0	27	10	0	2	37	15	0	7	0	6	22	109	423
08:15:00	4	35	0	0	0	39	0	0	0	0	0	0	0	23	11	0	0	34	19	0	2	0	2	21	94	426
08:30:00	4	49	0	0	0	53	0	0	0	0	0	0	0	26	9	0	0	35	19	0	6	0	0	25	113	439
08:45:00	4	34	0	0	0	38	0	0	0	0	0	0	0	34	9	0	0	43	25	0	6	0	0	31	112	428
09:00:00	3	17	0	0	0	20	0	0	0	0	0	0	0	30	13	0	0	43	15	0	5	0	2	20	83	402
09:15:00	2	24	0	0	0	26	0	0	0	0	0	0	0	25	13	0	0	38	14	0	4	0	0	18	82	390
09:30:00	6	23	0	0	0	29	0	0	0	0	0	0	0	25	9	1	1	35	10	0	6	0	0	16	80	357
09:45:00	7	24	0	0	0	31	0	0	0	0	1	0	0	20	7	0	0	27	16	0	3	0	0	19	77	322
BREAK																										
15:00:00	3	38	0	0	0	41	0	0	0	0	0	0	0	56	18	0	0	74	12	0	10	0	1	22	137	
15:15:00	5	34	0	0	0	39	0	0	0	0	0	0	0	42	14	0	0	56	15	0	0	0	0	15	110	
15:30:00	6	31	0	0	0	37	0	0	0	0	0	0	0	44	16	0	0	60	10	0	7	0	0	17	114	
15:45:00	6	31	0	0	0	37	0	0	0	0	0	0	0	48	16	0	0	64	25	0	8	0	0	33	134	495
16:00:00	7	41	0	0	0	48	0	0	0	0	0	0	0	53	19	0	0	72	12	0	1	0	0	13	133	491
16:15:00	6	33	0	0	0	39	0	0	0	0	0	0	0	41	16	0	0	57	13	0	6	0	0	19	115	496
16:30:00	3	46	0	0	0	49	0	0	0	0	0	0	0	58	9	0	0	67	9	0	5	0	0	14	130	512
16:45:00	7	29	0	0	0	36	0	0	0	0	0	0	0	56	17	0	0	73	14	0	3	0	0	17	126	504
17:00:00	5	46	0	0	0	51	0	0	0	0	0	0	0	48	14	0	0	62	9	0	5	0	0	14	127	498
17:15:00	9	41	0	0	0	50	0	0	0	0	0	0	0	45	20	0	0	65	15	0	4	0	0	19	134	517
17:30:00	8	42	0	0	0	50	0	0	0	0	0	0	0	45	18	0	1	63	15	0	6	0	0	21	134	521
17:45:00	8	49	0	0	0	57	0	0	0	0	0	0	0	38	12	0	1	50	13	0	3	0	0	16	123	518
18:00:00	5	43	0	0	0	48	0	0	0	0	0	0	0	37	15	0	0	52	15	0	1	0	0	16	116	507
18:15:00	10	43	0	0	0	53	0	0	0	0	0	0	0	36	11	0	0	47	13	0	5	0	0	18	118	491
18:30:00	15	46	0	0	0	61	0	0	0	0	0	0	0	35	12	0	0	47	19	0	0	0	0	19	127	484
18:45:00	8	35	0	0	0	43	0	0	0	0	0	0	0	30	13	0	2	43	9	0	2	0	0	11	97	458
Grand Total	156	1116	0	0	5	1272	0	0	0	0	6	0	0	1128	383	1	9	1512	443	0	132	0	11	575	**3359**	-
Approach%	12.3%	87.7%	0%	0%		-	0%	0%	0%	0%		-	0%	74.6%	25.3%	0.1%		-	77%	0%	23%	0%		-	-	-
Totals %	4.6%	33.2%	0%	0%		37.9%	0%	0%	0%	0%		0%	0%	33.6%	11.4%	0%		45%	13.2%	0%	3.9%	0%		17.1%	-	-
Heavy	8	30	0	0		-	0	0	0	0		-	0	30	29	0		-	18	0	5	0		-	-	-
Heavy %	5.1%	2.7%	0%	0%		-	0%	0%	0%	0%		-	0%	2.7%	7.6%	0%		-	4.1%	0%	3.8%	0%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

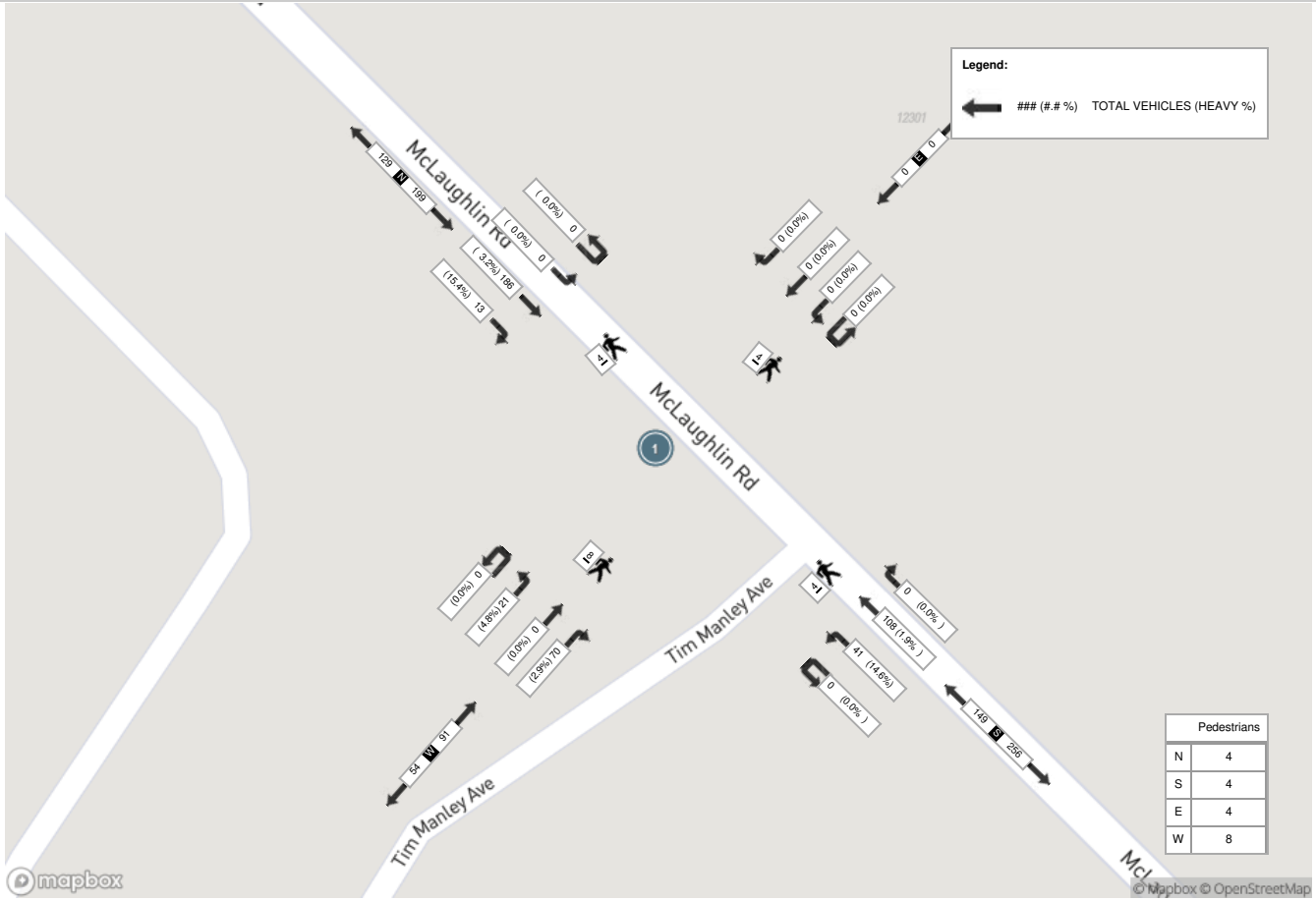
Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach MCLAUGHLIN RD						E Approach EAST DRIVEWAY						S Approach MCLAUGHLIN RD						W Approach TIM MANLEY AVE						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:45:00	3	54	0	0	0	57	0	0	0	0	2	0	0	32	11	0	2	43	17	0	6	0	0	23	123
08:00:00	2	48	0	0	4	50	0	0	0	0	2	0	0	27	10	0	2	37	15	0	7	0	6	22	109
08:15:00	4	35	0	0	0	39	0	0	0	0	0	0	0	23	11	0	0	34	19	0	2	0	2	21	94
08:30:00	4	49	0	0	0	53	0	0	0	0	0	0	0	26	9	0	0	35	19	0	6	0	0	25	113
Grand Total	13	186	0	0	4	199	0	0	0	0	4	0	0	108	41	0	4	149	70	0	21	0	8	91	**439**
Approach%	6.5%	93.5%	0%	0%		-	0%	0%	0%	0%		-	0%	72.5%	27.5%	0%		-	76.9%	0%	23.1%	0%		-	**-**
Totals %	3%	42.4%	0%	0%		45.3%	0%	0%	0%	0%		0%	0%	24.6%	9.3%	0%		33.9%	15.9%	0%	4.8%	0%		20.7%	**-**
PHF	0.81	0.86	0	0		0.87	0	0	0	0		0	0	0.84	0.93	0		0.87	0.92	0	0.75	0		0.91	**-**
Heavy	2	6	0	0		8	0	0	0	0		0	0	2	6	0		8	2	0	1	0		3	**-**
Heavy %	15.4%	3.2%	0%	0%		4%	0%	0%	0%	0%		0%	0%	1.9%	14.6%	0%		5.4%	2.9%	0%	4.8%	0%		3.3%	**-**
Lights	11	180	0	0		191	0	0	0	0		0	0	106	35	0		141	68	0	20	0		88	**-**
Lights %	84.6%	96.8%	0%	0%		96%	0%	0%	0%	0%		0%	0%	98.1%	85.4%	0%		94.6%	97.1%	0%	95.2%	0%		96.7%	**-**
Single-Unit Trucks	1	2	0	0		3	0	0	0	0		0	0	1	2	0		3	0	0	1	0		1	**-**
Single-Unit Trucks %	7.7%	1.1%	0%	0%		1.5%	0%	0%	0%	0%		0%	0%	0.9%	4.9%	0%		2%	0%	0%	4.8%	0%		1.1%	**-**
Buses	1	4	0	0		5	0	0	0	0		0	0	1	3	0		4	2	0	0	0		2	**-**
Buses %	7.7%	2.2%	0%	0%		2.5%	0%	0%	0%	0%		0%	0%	0.9%	7.3%	0%		2.7%	2.9%	0%	0%	0%		2.2%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	1	0		1	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	2.4%	0%		0.7%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	8	-	**-**
Pedestrians%	-	-	-	-	20%		-	-	-	-	20%		-	-	-	-	20%		-	-	-	-	40%		**-**

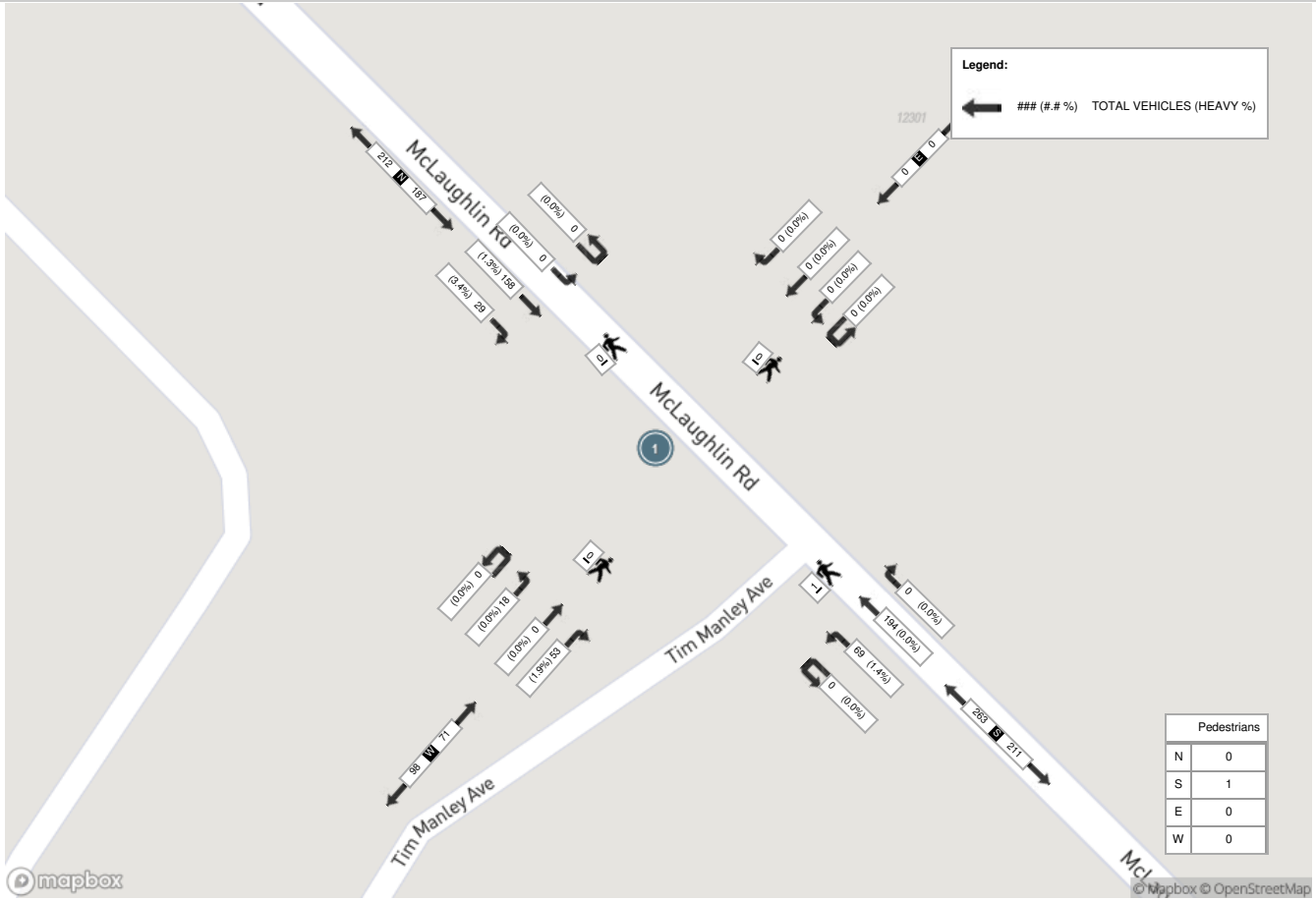
Peak Hour: 04:45 PM - 05:45 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach MCLAUGHLIN RD						E Approach EAST DRIVEWAY						S Approach MCLAUGHLIN RD						W Approach TIM MANLEY AVE						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
16:45:00	7	29	0	0	0	36	0	0	0	0	0	0	0	56	17	0	0	73	14	0	3	0	0	17	126
17:00:00	5	46	0	0	0	51	0	0	0	0	0	0	0	48	14	0	0	62	9	0	5	0	0	14	127
17:15:00	9	41	0	0	0	50	0	0	0	0	0	0	0	45	20	0	0	65	15	0	4	0	0	19	134
17:30:00	8	42	0	0	0	50	0	0	0	0	0	0	0	45	18	0	1	63	15	0	6	0	0	21	134
Grand Total	29	158	0	0	0	187	0	0	0	0	0	0	0	194	69	0	1	263	53	0	18	0	0	71	**521**
Approach%	15.5%	84.5%	0%	0%		-	0%	0%	0%	0%		-	0%	73.8%	26.2%	0%		-	74.6%	0%	25.4%	0%		-	**-**
Totals %	5.6%	30.3%	0%	0%		35.9%	0%	0%	0%	0%		0%	0%	37.2%	13.2%	0%		50.5%	10.2%	0%	3.5%	0%		13.6%	**-**
PHF	0.81	0.86	0	0		0.92	0	0	0	0		0	0	0.87	0.86	0		0.9	0.88	0	0.75	0		0.85	**-**
Heavy	1	2	0	0		3	0	0	0	0		0	0	0	1	0		1	1	0	0	0		1	**-**
Heavy %	3.4%	1.3%	0%	0%		1.6%	0%	0%	0%	0%		0%	0%	0%	1.4%	0%		0.4%	1.9%	0%	0%	0%		1.4%	**-**
Lights	28	156	0	0		184	0	0	0	0		0	0	194	68	0		262	52	0	18	0		70	**-**
Lights %	96.6%	98.7%	0%	0%		98.4%	0%	0%	0%	0%		0%	0%	100%	98.6%	0%		99.6%	98.1%	0%	100%	0%		98.6%	**-**
Single-Unit Trucks	1	2	0	0		3	0	0	0	0		0	0	0	1	0		1	1	0	0	0		1	**-**
Single-Unit Trucks %	3.4%	1.3%	0%	0%		1.6%	0%	0%	0%	0%		0%	0%	0%	1.4%	0%		0.4%	1.9%	0%	0%	0%		1.4%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	100%		-	-	-	-	0%		**-**

Peak Hour: 07:45 AM - 08:45 AM **Weather: Overcast Clouds (7.73 °C)**



Peak Hour: 04:45 PM - 05:45 PM Weather: Overcast Clouds (14.32 °C)



Spectrum

Turning Movement Count
Location Name: TIM MANLEY AVE & NEIL PROMENADE
Date: Wed, May 29, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Turning Movement Count (2 . TIM MANLEY AVE & NEIL PROMENADE)

Start Time	N Approach NEIL PROMENADE						E Approach TIM MANLEY AVE						S Approach NEIL PROMENADE						W Approach TIM MANLEY AVE						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
06:00:00	1	0	0	0	0	1	0	5	0	0	0	5	3	0	3	0	0	6	0	1	3	0	0	4	16	
06:15:00	1	0	0	0	0	1	0	7	0	0	0	7	1	0	2	0	0	3	0	4	1	0	0	5	16	
06:30:00	2	0	0	0	0	2	0	8	1	0	0	9	0	0	2	0	0	2	1	4	6	0	0	11	24	
06:45:00	3	0	0	1	0	4	2	10	1	0	0	13	0	0	1	0	0	1	1	7	9	0	0	17	35	91
07:00:00	3	0	0	0	0	3	2	18	0	0	0	20	0	0	2	0	0	2	0	11	7	0	0	18	43	118
07:15:00	4	0	1	0	0	5	1	9	0	0	0	10	4	0	2	0	0	6	2	12	8	0	0	22	43	145
07:30:00	0	0	0	0	0	0	0	14	1	0	0	15	1	1	3	0	0	5	4	19	15	1	0	39	59	180
07:45:00	4	0	0	0	0	4	1	14	1	0	0	16	2	0	2	0	0	4	0	9	6	0	0	15	39	184
08:00:00	4	0	0	0	0	4	0	12	1	0	0	13	2	1	2	0	4	5	3	8	6	1	0	18	40	181
08:15:00	2	0	0	0	0	2	0	19	0	0	0	19	3	0	3	0	6	6	1	15	7	0	0	23	50	188
08:30:00	6	0	0	0	0	6	2	15	3	0	0	20	1	0	2	0	0	3	4	7	4	0	0	15	44	173
08:45:00	6	0	1	1	0	8	0	19	0	0	0	19	2	0	7	0	0	9	2	13	3	0	0	18	54	188
09:00:00	0	0	0	0	0	0	0	9	1	0	0	10	1	0	2	0	0	3	3	15	5	0	0	23	36	184
09:15:00	3	0	0	0	0	3	0	8	0	0	0	8	0	0	1	0	0	1	1	13	3	0	0	17	29	163
09:30:00	3	0	0	1	0	4	0	13	1	0	0	14	1	0	2	0	0	3	1	7	2	0	0	10	31	150
09:45:00	6	0	0	0	1	6	1	8	1	0	0	10	0	0	4	0	0	4	3	9	6	0	0	18	38	134
BREAK																										
15:00:00	4	0	0	0	0	4	1	9	0	0	0	10	2	0	0	0	0	2	1	15	2	0	0	18	34	
15:15:00	4	0	0	0	0	4	0	17	0	0	0	17	0	0	3	0	0	3	1	22	3	0	0	26	50	
15:30:00	2	0	0	0	0	2	2	14	0	0	0	16	1	0	0	0	3	1	3	20	3	0	0	26	45	
15:45:00	7	1	1	0	0	9	1	10	2	0	0	13	0	0	4	0	0	4	4	23	1	0	0	28	54	183
16:00:00	1	0	4	0	0	5	0	20	2	0	0	22	1	0	3	0	0	4	2	19	3	0	0	24	55	204
16:15:00	1	0	0	0	0	1	0	12	0	0	0	12	2	0	1	0	0	3	2	9	0	0	0	11	27	181
16:30:00	2	0	0	0	0	2	0	10	1	0	0	11	1	0	0	0	0	1	1	11	0	0	0	12	26	162
16:45:00	0	0	1	0	0	1	0	15	2	0	0	17	1	0	2	0	0	3	5	13	1	0	0	19	40	148
17:00:00	3	0	1	0	0	4	0	15	1	0	0	16	0	0	1	0	0	1	0	11	0	0	0	11	32	125
17:15:00	2	0	0	0	0	2	1	16	4	0	0	21	0	0	0	0	0	0	2	20	1	0	0	23	46	144
17:30:00	0	0	1	0	0	1	0	15	2	0	0	17	2	0	1	0	0	3	2	18	0	0	0	20	41	159
17:45:00	2	0	0	0	0	2	0	11	3	0	0	14	0	0	1	0	0	1	6	16	0	0	0	22	39	158
18:00:00	1	0	2	0	0	3	0	7	2	0	0	9	4	0	1	0	2	5	0	13	0	0	0	13	30	156
18:15:00	0	0	0	0	2	0	0	9	3	0	0	12	1	0	1	0	0	2	6	13	0	0	0	19	33	143
18:30:00	1	0	0	0	0	1	0	14	3	0	0	17	3	0	0	0	0	3	3	19	0	0	0	22	43	145
18:45:00	0	1	1	0	0	2	0	20	1	0	0	21	2	0	1	0	0	3	6	14	0	0	0	20	46	152
Grand Total	78	2	13	3	3	96	14	402	37	0	0	453	41	2	59	0	15	102	70	410	105	2	0	587	**1238**	-
Approach%	81.3%	2.1%	13.5%	3.1%		-	3.1%	88.7%	8.2%	0%		-	40.2%	2%	57.8%	0%		-	11.9%	69.8%	17.9%	0.3%		-	-	-
Totals %	6.3%	0.2%	1.1%	0.2%		7.8%	1.1%	32.5%	3%	0%		36.6%	3.3%	0.2%	4.8%	0%		8.2%	5.7%	33.1%	8.5%	0.2%		47.4%	-	-
Heavy	21	0	4	1		-	3	37	0	0		-	3	0	4	0		-	5	49	25	1		-	-	-
Heavy %	26.9%	0%	30.8%	33.3%		-	21.4%	9.2%	0%	0%		-	7.3%	0%	6.8%	0%		-	7.1%	12%	23.8%	50%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

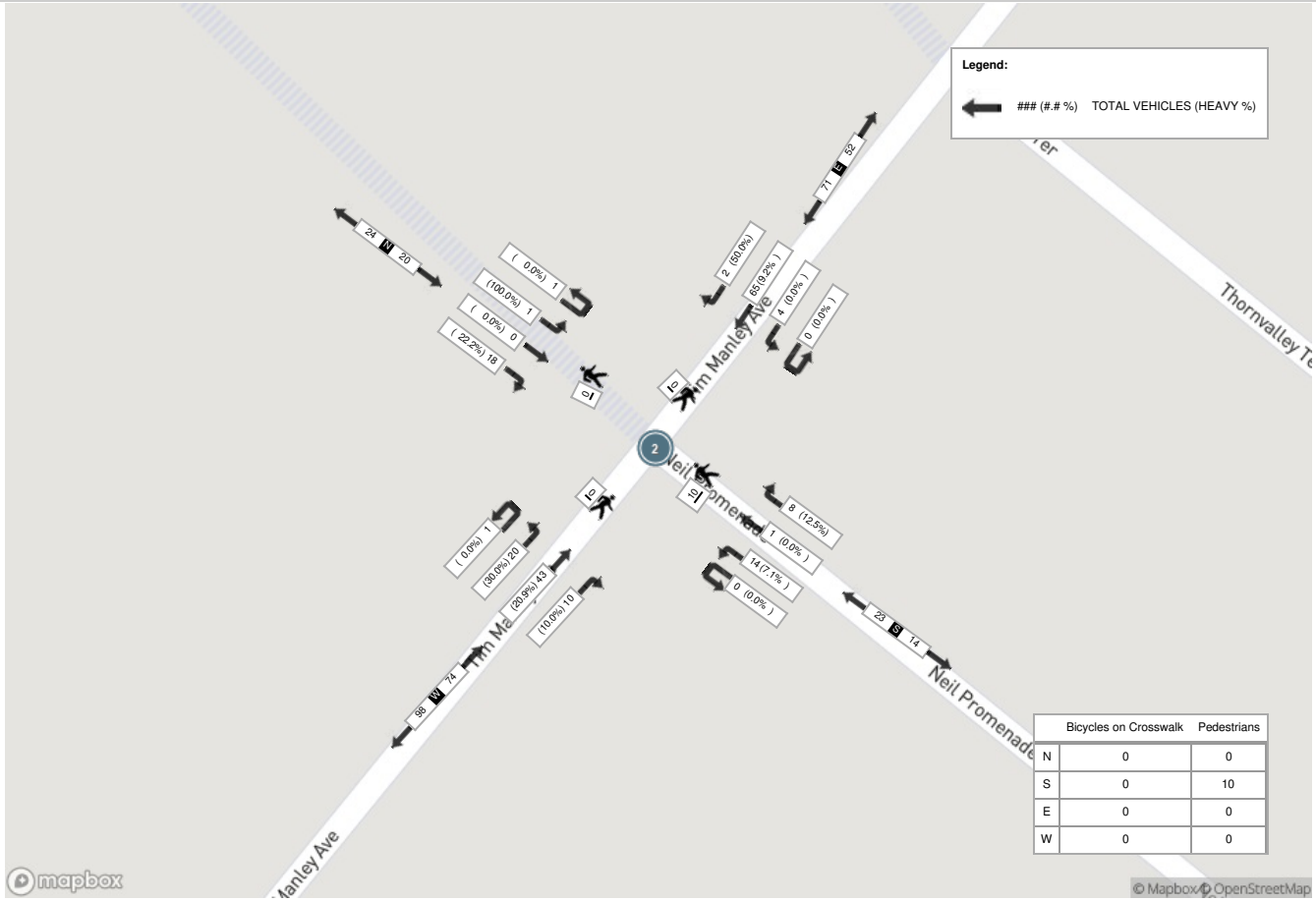
Peak Hour: 08:00 AM - 09:00 AM Weather: Broken Clouds (12.54 °C)

Start Time	N Approach NEIL PROMENADE						E Approach TIM MANLEY AVE						S Approach NEIL PROMENADE						W Approach TIM MANLEY AVE						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
08:00:00	4	0	0	0	0	4	0	12	1	0	0	13	2	1	2	0	4	5	3	8	6	1	0	18	40
08:15:00	2	0	0	0	0	2	0	19	0	0	0	19	3	0	3	0	6	6	1	15	7	0	0	23	50
08:30:00	6	0	0	0	0	6	2	15	3	0	0	20	1	0	2	0	0	3	4	7	4	0	0	15	44
08:45:00	6	0	1	1	0	8	0	19	0	0	0	19	2	0	7	0	0	9	2	13	3	0	0	18	54
Grand Total	18	0	1	1	0	20	2	65	4	0	0	71	8	1	14	0	10	23	10	43	20	1	0	74	**188**
Approach%	90%	0%	5%	5%		-	2.8%	91.5%	5.6%	0%		-	34.8%	4.3%	60.9%	0%		-	13.5%	58.1%	27%	1.4%		-	**-**
Totals %	9.6%	0%	0.5%	0.5%		10.6%	1.1%	34.6%	2.1%	0%		37.8%	4.3%	0.5%	7.4%	0%		12.2%	5.3%	22.9%	10.6%	0.5%		39.4%	**-**
PHF	0.75	0	0.25	0.25		0.63	0.25	0.86	0.33	0		0.89	0.67	0.25	0.5	0		0.64	0.63	0.72	0.71	0.25		0.8	**-**
Heavy	4	0	1	0		5	1	6	0	0		7	1	0	1	0		2	1	9	6	0		16	**-**
Heavy %	22.2%	0%	100%	0%		25%	50%	9.2%	0%	0%		9.9%	12.5%	0%	7.1%	0%		8.7%	10%	20.9%	30%	0%		21.6%	**-**
Lights	14	0	0	1		15	1	59	4	0		64	7	1	13	0		21	9	34	14	1		58	**-**
Lights %	77.8%	0%	0%	100%		75%	50%	90.8%	100%	0%		90.1%	87.5%	100%	92.9%	0%		91.3%	90%	79.1%	70%	100%		78.4%	**-**
Single-Unit Trucks	4	0	1	0		5	1	5	0	0		6	1	0	0	0		1	0	2	6	0		8	**-**
Single-Unit Trucks %	22.2%	0%	100%	0%		25%	50%	7.7%	0%	0%		8.5%	12.5%	0%	0%	0%		4.3%	0%	4.7%	30%	0%		10.8%	**-**
Buses	0	0	0	0		0	0	1	0	0		1	0	0	1	0		1	1	7	0	0		8	**-**
Buses %	0%	0%	0%	0%		0%	0%	1.5%	0%	0%		1.4%	0%	0%	7.1%	0%		4.3%	10%	16.3%	0%	0%		10.8%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	10	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	100%		-	-	-	-	0%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 03:15 PM - 04:15 PM Weather: Broken Clouds (18.37 °C)

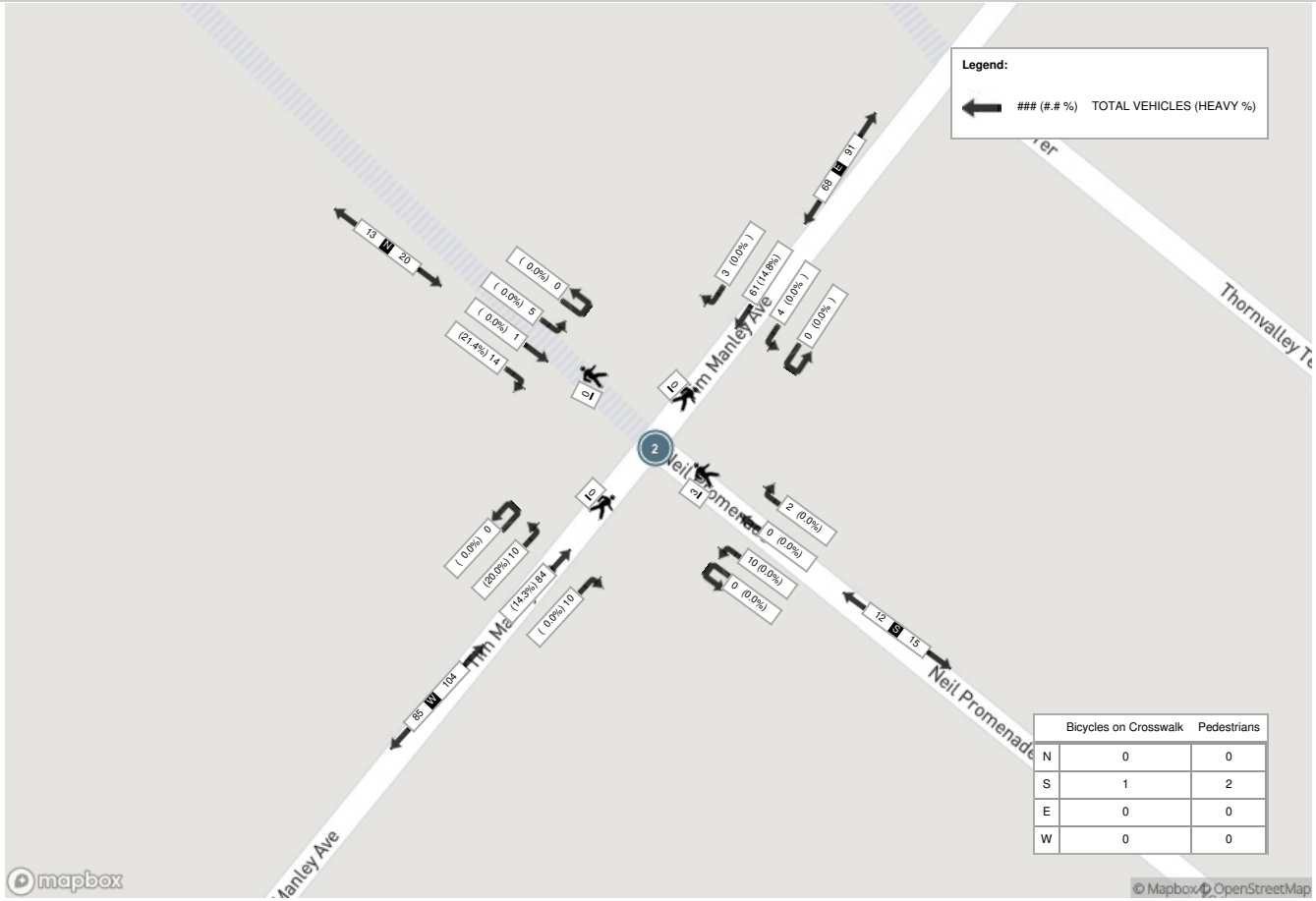
Start Time	N Approach NEIL PROMENADE						E Approach TIM MANLEY AVE						S Approach NEIL PROMENADE						W Approach TIM MANLEY AVE						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
15:15:00	4	0	0	0	0	4	0	17	0	0	0	17	0	0	3	0	0	3	1	22	3	0	0	26	50
15:30:00	2	0	0	0	0	2	2	14	0	0	0	16	1	0	0	0	3	1	3	20	3	0	0	26	45
15:45:00	7	1	1	0	0	9	1	10	2	0	0	13	0	0	4	0	0	4	4	23	1	0	0	28	54
16:00:00	1	0	4	0	0	5	0	20	2	0	0	22	1	0	3	0	0	4	2	19	3	0	0	24	55
Grand Total	14	1	5	0	0	20	3	61	4	0	0	68	2	0	10	0	3	12	10	84	10	0	0	104	**204**
Approach%	70%	5%	25%	0%		-	4.4%	89.7%	5.9%	0%		-	16.7%	0%	83.3%	0%		-	9.6%	80.8%	9.6%	0%		-	**-**
Totals %	6.9%	0.5%	2.5%	0%		9.8%	1.5%	29.9%	2%	0%		33.3%	1%	0%	4.9%	0%		5.9%	4.9%	41.2%	4.9%	0%		51%	**-**
PHF	0.5	0.25	0.31	0		0.56	0.38	0.76	0.5	0		0.77	0.5	0	0.63	0		0.75	0.63	0.91	0.83	0		0.93	**-**
Heavy	3	0	0	0		3	0	9	0	0		9	0	0	0	0		0	0	12	2	0		14	**-**
Heavy %	21.4%	0%	0%	0%		15%	0%	14.8%	0%	0%		13.2%	0%	0%	0%	0%		0%	0%	14.3%	20%	0%		13.5%	**-**
Lights	11	1	5	0		17	3	52	4	0		59	2	0	10	0		12	10	72	8	0		90	**-**
Lights %	78.6%	100%	100%	0%		85%	100%	85.2%	100%	0%		86.8%	100%	0%	100%	0%		100%	100%	85.7%	80%	0%		86.5%	**-**
Single-Unit Trucks	3	0	0	0		3	0	4	0	0		4	0	0	0	0		0	0	4	2	0		6	**-**
Single-Unit Trucks %	21.4%	0%	0%	0%		15%	0%	6.6%	0%	0%		5.9%	0%	0%	0%	0%		0%	0%	4.8%	20%	0%		5.8%	**-**
Buses	0	0	0	0		0	0	5	0	0		5	0	0	0	0		0	0	8	0	0		8	**-**
Buses %	0%	0%	0%	0%		0%	0%	8.2%	0%	0%		7.4%	0%	0%	0%	0%		0%	0%	9.5%	0%	0%		7.7%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	66.7%		-	-	-	-	0%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	33.3%		-	-	-	-	0%		**-**

Peak Hour: 08:00 AM - 09:00 AM Weather: Broken Clouds (12.54 °C)



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	10
E	0	0
W	0	0

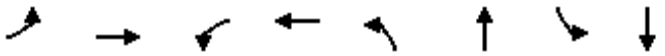
Peak Hour: 03:15 PM - 04:15 PM Weather: Broken Clouds (18.37 °C)



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	1	2
E	0	0
W	0	0

Appendix E – Synchro Analysis Outputs

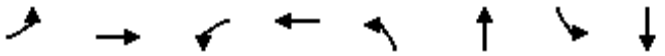
Queues
1: McLaughlin Road & Mayfield Rd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	261	2500	44	1834	103	827	409	649
v/c Ratio	1.08	1.02	0.72	1.04	0.66	1.13	1.09	0.44
Control Delay	112.1	55.1	73.5	58.8	64.7	117.4	104.5	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.1	55.1	73.5	58.8	64.7	117.4	104.5	19.9
Queue Length 50th (m)	~55.2	~241.0	5.2	~88.4	23.6	~124.4	~96.5	45.3
Queue Length 95th (m)	#110.2	#271.0	m8.9	m#197.5	#49.8	#165.7	#161.1	61.7
Internal Link Dist (m)		395.0		1351.6		359.0		213.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	241	2445	61	1759	157	733	376	1473
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	1.02	0.72	1.04	0.66	1.13	1.09	0.44

Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queues
1: McLaughlin Road & Mayfield Rd



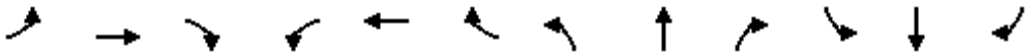
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	312	1828	134	3154	97	534	380	1083
v/c Ratio	1.48	0.85	0.70	1.51	1.59	0.55	1.39	0.85
Control Delay	264.3	35.3	16.3	257.5	361.2	39.3	225.9	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	264.3	35.3	16.3	257.5	361.2	39.3	225.9	40.6
Queue Length 50th (m)	~90.2	146.1	17.3	~408.0	~34.1	58.8	~106.5	123.0
Queue Length 95th (m)	#148.9	168.0	m15.7	m#339.6	#70.2	77.3	#187.4	152.8
Internal Link Dist (m)		395.0		1351.6		359.0		213.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	211	2156	197	2094	61	966	273	1277
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.48	0.85	0.68	1.51	1.59	0.55	1.39	0.85

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	312	1687	141	134	2755	399	97	492	42	380	775	308
Future Volume (vph)	312	1687	141	134	2755	399	97	492	42	380	775	308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.98		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5026		1770	4989		1770	3497		1770	3388	
Flt Permitted	0.08	1.00		0.08	1.00		0.12	1.00		0.28	1.00	
Satd. Flow (perm)	145	5026		149	4989		226	3497		523	3388	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	312	1687	141	134	2755	399	97	492	42	380	775	308
RTOR Reduction (vph)	0	8	0	0	16	0	0	5	0	0	35	0
Lane Group Flow (vph)	312	1820	0	134	3138	0	97	529	0	380	1048	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	61.3	51.3		58.7	50.0		33.0	33.0		44.0	44.0	
Effective Green, g (s)	61.3	51.3		58.7	50.0		33.0	33.0		44.0	44.0	
Actuated g/C Ratio	0.51	0.43		0.49	0.42		0.28	0.28		0.37	0.37	
Clearance Time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	2148		190	2078		62	961		264	1242	
v/s Ratio Prot	c0.12	0.36		0.05	0.63			0.15		c0.08	0.31	
v/s Ratio Perm	c0.64			0.29			c0.43			0.44		
v/c Ratio	1.49	0.85		0.71	1.51		1.56	0.55		1.44	0.84	
Uniform Delay, d1	35.5	30.8		23.6	35.0		43.5	37.2		37.2	34.8	
Progression Factor	1.00	1.00		0.66	1.06		1.00	1.00		1.00	1.00	
Incremental Delay, d2	245.4	4.4		1.1	229.8		318.3	0.7		218.0	5.4	
Delay (s)	280.8	35.2		16.6	266.8		361.8	37.8		255.2	40.2	
Level of Service	F	D		B	F		F	D		F	D	
Approach Delay (s)		71.0			256.6			87.6			96.1	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	158.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.53		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	145.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Queues
2: Hurontario Street & Mayfield Rd



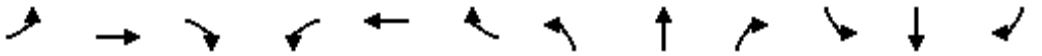
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	380	1679	628	2369	330	468	427	89	552	526
v/c Ratio	1.20	0.98	1.40	1.12	1.27	0.43	0.57	0.59	0.94	1.11
Control Delay	131.7	42.7	223.9	95.3	180.7	34.6	8.2	63.8	74.1	99.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.7	42.7	223.9	95.3	180.7	34.6	8.2	63.8	74.1	99.2
Queue Length 50th (m)	~93.5	156.7	~192.5	~248.6	~86.0	48.5	7.8	20.6	71.8	~93.1
Queue Length 95th (m)	m#114.2	m#163.8	#266.5	#278.9	#146.4	64.6	36.6	#42.3	#106.7	#163.4
Internal Link Dist (m)		1351.6		353.0		487.7			541.9	
Turn Bay Length (m)	50.0		50.0		80.0		70.0	140.0		110.0
Base Capacity (vph)	316	1719	448	2112	259	1091	753	150	589	474
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.98	1.40	1.12	1.27	0.43	0.57	0.59	0.94	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

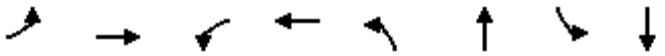
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	1447	232	628	2306	63	330	468	427	89	552	526
Future Volume (vph)	380	1447	232	628	2306	63	330	468	427	89	552	526
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4980		1770	5065		1770	3539	1583	1770	3539	1583
Flt Permitted	0.10	1.00		0.09	1.00		0.17	1.00	1.00	0.48	1.00	1.00
Satd. Flow (perm)	182	4980		166	5065		310	3539	1583	901	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	380	1447	232	628	2306	63	330	468	427	89	552	526
RTOR Reduction (vph)	0	18	0	0	2	0	0	0	265	0	0	211
Lane Group Flow (vph)	380	1661	0	628	2367	0	330	468	162	89	552	315
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	58.0	41.0		71.0	50.0		37.0	37.0	37.0	20.0	20.0	20.0
Effective Green, g (s)	58.0	41.0		71.0	50.0		37.0	37.0	37.0	20.0	20.0	20.0
Actuated g/C Ratio	0.48	0.34		0.59	0.42		0.31	0.31	0.31	0.17	0.17	0.17
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	312	1701		445	2110		253	1091	488	150	589	263
v/s Ratio Prot	0.17	0.33		c0.31	0.47		c0.14	0.13			0.16	
v/s Ratio Perm	0.42			c0.53			c0.26		0.10	0.10		0.20
v/c Ratio	1.22	0.98		1.41	1.12		1.30	0.43	0.33	0.59	0.94	1.20
Uniform Delay, d1	37.1	39.0		37.9	35.0		36.1	33.1	32.0	46.2	49.4	50.0
Progression Factor	0.88	0.88		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	108.1	8.4		198.0	61.7		162.6	0.3	0.4	6.2	22.5	120.0
Delay (s)	140.5	42.7		235.9	96.7		198.7	33.4	32.4	52.4	71.9	170.0
Level of Service	F	D		F	F		F	C	C	D	E	F
Approach Delay (s)		60.8			125.9			77.6			114.6	
Approach LOS		E			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	98.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	119.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



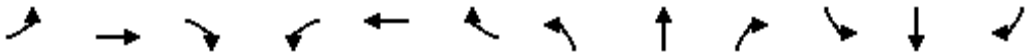
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	83	1693	4	2636	100	952	468	339
v/c Ratio	0.55	0.67	0.06	1.21	0.45	1.25	1.41	0.26
Control Delay	29.9	24.1	20.5	118.8	48.5	163.3	231.7	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	24.1	20.5	118.8	48.5	163.3	231.7	16.0
Queue Length 50th (m)	10.1	111.6	0.5	~291.9	21.7	~154.2	~139.4	18.4
Queue Length 95th (m)	20.9	128.7	m0.2	m84.9	40.2	#197.0	#207.1	29.6
Internal Link Dist (m)		442.4		1359.2		442.3		592.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	151	2542	72	2187	221	760	331	1307
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.67	0.06	1.21	0.45	1.25	1.41	0.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

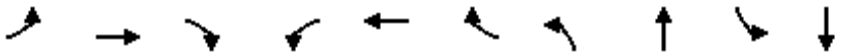


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	1690	3	4	2439	197	100	788	164	468	54	285
Future Volume (vph)	83	1690	3	4	2439	197	100	788	164	468	54	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.99		1.00	0.97		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5084		1770	5028		1770	3448		1770	3093	
Flt Permitted	0.07	1.00		0.09	1.00		0.55	1.00		0.13	1.00	
Satd. Flow (perm)	135	5084		165	5028		1020	3448		248	3093	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	83	1690	3	4	2439	197	100	788	164	468	54	285
RTOR Reduction (vph)	0	0	0	0	7	0	0	13	0	0	70	0
Lane Group Flow (vph)	83	1693	0	4	2629	0	100	939	0	468	269	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	60.0	60.0		51.2	51.2		26.0	26.0		48.0	48.0	
Effective Green, g (s)	60.0	60.0		51.2	51.2		26.0	26.0		48.0	48.0	
Actuated g/C Ratio	0.50	0.50		0.43	0.43		0.22	0.22		0.40	0.40	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	132	2542		70	2145		221	747		327	1237	
v/s Ratio Prot	0.02	c0.33			c0.52			0.27		c0.21	0.09	
v/s Ratio Perm	0.29			0.02			0.10			c0.36		
v/c Ratio	0.63	0.67		0.06	1.23		0.45	1.26		1.43	0.22	
Uniform Delay, d1	27.2	22.5		20.2	34.4		40.8	47.0		35.2	23.7	
Progression Factor	1.00	1.00		0.92	0.74		1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.0	1.4		0.1	101.9		1.5	126.3		210.9	0.1	
Delay (s)	36.2	23.9		18.7	127.2		42.3	173.3		246.1	23.7	
Level of Service	D	C		B	F		D	F		F	C	
Approach Delay (s)		24.5			127.0			160.8			152.7	
Approach LOS		C			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	107.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	125.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Queues
4: Mayfield Road & Dixie Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	108	1627	595	210	2087	22	1155	637	93	1035
v/c Ratio	0.78	1.20	0.72	1.36	1.49	0.04	1.98	0.34	0.54	1.37dr
Control Delay	58.3	139.6	21.7	200.7	258.9	2.4	472.5	11.7	59.1	185.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	139.6	21.7	200.7	258.9	2.4	472.5	11.7	59.1	185.2
Queue Length 50th (m)	21.7	~183.3	60.8	~52.4	~271.3	0.0	~433.0	32.8	21.0	~166.9
Queue Length 95th (m)	m28.2	m#183.4	m72.0	m#54.8	m#215.4	m0.0	#516.9	45.1	40.5	#210.3
Internal Link Dist (m)		1359.2			1349.5			377.9		2034.3
Turn Bay Length (m)	100.0		100.0	100.0		100.0			100.0	
Base Capacity (vph)	139	1356	826	154	1398	507	582	1868	171	792
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	1.20	0.72	1.36	1.49	0.04	1.98	0.34	0.54	1.31

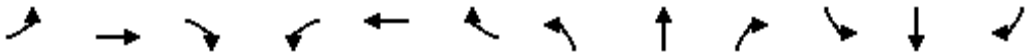
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

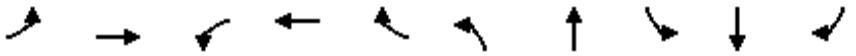


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	1627	595	210	2087	22	1155	322	315	93	462	573
Future Volume (vph)	108	1627	595	210	2087	22	1155	322	315	93	462	573
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3277		1770	3245	
Flt Permitted	0.12	1.00	1.00	0.12	1.00	1.00	0.13	1.00		0.41	1.00	
Satd. Flow (perm)	233	5085	1583	226	5085	1583	240	3277		764	3245	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	1627	595	210	2087	22	1155	322	315	93	462	573
RTOR Reduction (vph)	0	0	404	0	0	16	0	67	0	0	62	0
Lane Group Flow (vph)	108	1627	191	210	2087	6	1155	570	0	93	973	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	37.0	32.0	32.0	39.0	33.0	33.0	66.0	66.0		27.0	27.0	
Effective Green, g (s)	37.0	32.0	32.0	39.0	33.0	33.0	66.0	66.0		27.0	27.0	
Actuated g/C Ratio	0.31	0.27	0.27	0.32	0.28	0.28	0.55	0.55		0.22	0.22	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	135	1356	422	150	1398	435	578	1802		171	730	
v/s Ratio Prot	0.03	0.32		c0.07	c0.41		c0.58	0.17			0.30	
v/s Ratio Perm	0.21		0.12	0.38		0.00	c0.52			0.12		
v/c Ratio	0.80	1.20	0.45	1.40	1.49	0.01	2.00	0.32		0.54	1.37dr	
Uniform Delay, d1	35.5	44.0	36.7	37.9	43.5	31.7	34.6	14.7		41.1	46.5	
Progression Factor	1.36	1.23	3.93	1.36	1.21	1.00	1.00	1.00		1.11	1.12	
Incremental Delay, d2	15.2	93.7	0.4	183.7	222.1	0.0	455.4	0.5		11.9	159.1	
Delay (s)	63.5	147.8	144.7	235.2	274.6	31.7	490.0	15.2		57.4	210.9	
Level of Service	E	F	F	F	F	C	F	B		E	F	
Approach Delay (s)		143.1			268.7			321.2			198.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	232.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	158.2%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



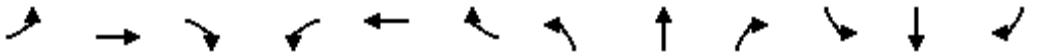
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	715	1435	188	1515	53	560	898	22	324	244
v/c Ratio	1.41	0.70	0.74	1.15	0.10	1.32	0.71	0.22	0.55	0.52
Control Delay	225.8	44.1	43.3	118.7	0.4	188.3	36.8	44.5	45.0	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	225.8	44.1	43.3	118.7	0.4	188.3	36.8	44.5	45.0	10.7
Queue Length 50th (m)	~227.1	97.9	24.8	~162.1	0.0	~140.3	99.6	3.7	30.3	11.7
Queue Length 95th (m)	m#196.9	m86.1	#51.7	#193.1	0.0	#212.8	124.0	m7.9	47.6	m21.3
Internal Link Dist (m)		1349.5		705.0			369.3		893.4	
Turn Bay Length (m)	100.0		100.0		100.0	100.0		100.0		100.0
Base Capacity (vph)	507	2036	279	1313	521	425	1261	98	589	467
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.41	0.70	0.67	1.15	0.10	1.32	0.71	0.22	0.55	0.52

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

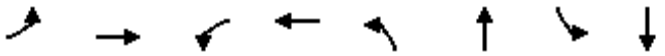
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	715	903	532	188	1515	53	560	849	49	22	324	244
Future Volume (vph)	715	903	532	188	1515	53	560	849	49	22	324	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0	5.0	4.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	4803		1770	5085	1583	1770	3510		1770	3539	1583
Flt Permitted	0.11	1.00		0.14	1.00	1.00	0.36	1.00		0.32	1.00	1.00
Satd. Flow (perm)	213	4803		264	5085	1583	670	3510		591	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	715	903	532	188	1515	53	560	849	49	22	324	244
RTOR Reduction (vph)	0	87	0	0	0	39	0	3	0	0	0	203
Lane Group Flow (vph)	715	1348	0	188	1515	14	560	895	0	22	324	41
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	65.0	48.7		43.3	31.0	31.0	43.0	43.0		20.0	20.0	20.0
Effective Green, g (s)	65.0	48.7		43.3	31.0	32.0	43.0	43.0		20.0	20.0	20.0
Actuated g/C Ratio	0.54	0.41		0.36	0.26	0.27	0.36	0.36		0.17	0.17	0.17
Clearance Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	504	1949		249	1313	422	414	1257		98	589	263
v/s Ratio Prot	c0.35	0.28		0.08	0.30		c0.21	0.25			0.09	
v/s Ratio Perm	c0.41			0.19		0.01	c0.27			0.04		0.03
v/c Ratio	1.42	0.69		0.76	1.15	0.03	1.35	0.71		0.22	0.55	0.15
Uniform Delay, d1	36.1	29.4		27.7	44.5	32.6	34.8	33.2		43.3	45.9	42.8
Progression Factor	1.51	1.62		1.00	1.00	1.00	1.00	1.00		0.90	0.91	1.28
Incremental Delay, d2	191.5	0.5		12.2	78.3	0.1	173.9	1.9		1.0	0.9	0.2
Delay (s)	246.1	48.4		40.0	122.8	32.7	208.7	35.1		39.9	42.6	55.1
Level of Service	F	D		D	F	C	F	D		D	D	E
Approach Delay (s)		114.1			111.2			101.8			47.7	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	103.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	133.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



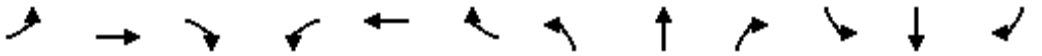
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	334	843	63	2843	97	1387	302	1216
v/c Ratio	1.58	0.33	0.27	1.55dr	1.59	1.36	1.53	0.86
Control Delay	305.6	18.4	29.6	244.9	360.8	201.1	289.6	25.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	305.6	18.4	29.6	244.9	360.8	201.1	289.6	25.9
Queue Length 50th (m)	~101.5	44.2	10.7	~348.7	~34.1	~238.2	~89.3	128.1
Queue Length 95th (m)	#161.8	54.1	23.2	#377.2	#70.2	#283.5	#147.4	158.7
Internal Link Dist (m)		1365.1		383.2		321.2		3042.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	212	2534	230	1929	61	1023	198	1421
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.58	0.33	0.27	1.47	1.59	1.36	1.53	0.86

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

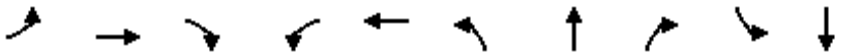


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	334	822	21	63	1762	1081	97	1250	137	302	573	643
Future Volume (vph)	334	822	21	63	1762	1081	97	1250	137	302	573	643
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.94		1.00	0.99		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5066		1770	4795		1770	3487		1770	3258	
Flt Permitted	0.08	1.00		0.32	1.00		0.11	1.00		0.10	1.00	
Satd. Flow (perm)	149	5066		601	4795		213	3487		191	3258	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	822	21	63	1762	1081	97	1250	137	302	573	643
RTOR Reduction (vph)	0	2	0	0	92	0	0	7	0	0	118	0
Lane Group Flow (vph)	334	841	0	63	2751	0	97	1380	0	302	1098	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	60.0	60.0		46.0	46.0		35.0	35.0		48.0	48.0	
Effective Green, g (s)	60.0	60.0		46.0	46.0		35.0	35.0		48.0	48.0	
Actuated g/C Ratio	0.50	0.50		0.38	0.38		0.29	0.29		0.40	0.40	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	2533		230	1838		62	1017		194	1303	
v/s Ratio Prot	c0.13	0.17			0.57			0.40		c0.12	0.34	
v/s Ratio Perm	c0.66			0.10			0.46			c0.50		
v/c Ratio	1.60	0.33		0.27	1.55dr		1.56	1.36		1.56	0.84	
Uniform Delay, d1	35.1	18.0		25.5	37.0		42.5	42.5		30.4	32.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.54	0.69	
Incremental Delay, d2	290.5	0.4		2.9	226.5		318.3	167.1		274.0	5.1	
Delay (s)	325.5	18.3		28.4	263.5		360.8	209.6		320.8	27.5	
Level of Service	F	B		C	F		F	F		F	C	
Approach Delay (s)		105.5			258.4			219.4			85.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	187.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	149.1%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

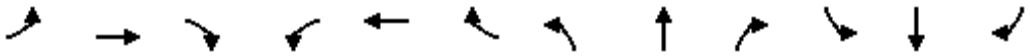
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	9	430	5	15	755	179	452	408	43	304
v/c Ratio	0.04	0.25	0.01	0.04	0.44	0.43	0.56	0.50	0.21	0.75
Control Delay	19.7	19.5	0.0	19.1	22.2	22.6	25.7	9.1	39.3	49.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	19.5	0.0	19.1	22.2	22.6	25.7	9.1	39.3	49.9
Queue Length 50th (m)	1.1	31.6	0.0	1.9	61.8	27.1	78.0	24.6	8.9	63.0
Queue Length 95th (m)	4.8	49.0	0.0	6.7	90.1	m34.6	88.0	m37.7	18.2	87.9
Internal Link Dist (m)		358.4			980.7		996.2			1216.1
Turn Bay Length (m)	100.0		100.0	100.0		100.0		100.0	100.0	
Base Capacity (vph)	257	1711	807	421	1710	438	1009	969	288	560
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.25	0.01	0.04	0.44	0.41	0.45	0.42	0.15	0.54

Intersection Summary

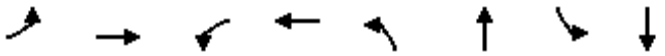
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	430	5	15	749	6	179	452	408	43	162	142
Future Volume (vph)	9	430	5	15	749	6	179	452	408	43	162	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3535		1770	1863	1583	1770	1732	
Flt Permitted	0.29	1.00	1.00	0.47	1.00		0.22	1.00	1.00	0.50	1.00	
Satd. Flow (perm)	533	3539	1583	871	3535		411	1863	1583	935	1732	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	430	5	15	749	6	179	452	408	43	162	142
RTOR Reduction (vph)	0	0	3	0	1	0	0	0	139	0	30	0
Lane Group Flow (vph)	9	430	2	15	754	0	179	452	269	43	274	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases		2			6		3	8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)	57.0	57.0	57.0	57.0	57.0		51.0	51.0	51.0	25.0	25.0	
Effective Green, g (s)	58.0	58.0	58.0	58.0	58.0		52.0	52.0	52.0	26.0	26.0	
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48		0.43	0.43	0.43	0.22	0.22	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	257	1710	765	420	1708		415	807	685	202	375	
v/s Ratio Prot		0.12			c0.21		0.08	c0.24			c0.16	
v/s Ratio Perm	0.02		0.00	0.02			0.11		0.17	0.05		
v/c Ratio	0.04	0.25	0.00	0.04	0.44		0.43	0.56	0.39	0.21	0.73	
Uniform Delay, d1	16.3	18.2	16.0	16.3	20.4		23.3	25.4	23.2	38.6	43.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.93	0.91	0.82	1.00	1.00	
Incremental Delay, d2	0.3	0.4	0.0	0.2	0.8		0.7	0.9	0.4	0.5	7.2	
Delay (s)	16.5	18.6	16.0	16.5	21.2		22.5	24.1	19.4	39.1	50.9	
Level of Service	B	B	B	B	C		C	C	B	D	D	
Approach Delay (s)		18.5			21.1			22.0			49.5	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	37	1056	503	578	58	2318	55	610
v/c Ratio	0.18	1.20	1.40	0.38	0.18	1.41	0.90	0.36
Control Delay	38.4	140.7	202.5	11.4	20.2	215.2	125.3	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	140.7	202.5	11.4	20.2	215.2	125.3	20.8
Queue Length 50th (m)	7.2	~167.2	~153.8	53.1	8.1	~405.6	12.1	49.2
Queue Length 95th (m)	17.3	#210.8	m#129.0	m42.6	17.5	#449.5	#40.8	63.4
Internal Link Dist (m)		1405.8		1334.5		635.4		329.7
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	202	879	360	1507	315	1646	61	1681
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	1.20	1.40	0.38	0.18	1.41	0.90	0.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

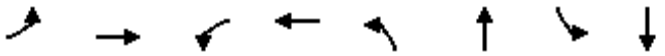
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	958	98	503	431	147	58	1792	526	55	608	2
Future Volume (vph)	37	958	98	503	431	147	58	1792	526	55	608	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		3.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.96		1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3490		1770	3404		1770	3419		1770	3537	
Flt Permitted	0.43	1.00		0.12	1.00		0.36	1.00		0.07	1.00	
Satd. Flow (perm)	809	3490		226	3404		665	3419		131	3537	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	958	98	503	431	147	58	1792	526	55	608	2
RTOR Reduction (vph)	0	7	0	0	3	0	0	23	0	0	0	0
Lane Group Flow (vph)	37	1049	0	503	575	0	58	2295	0	55	610	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	29.0	29.0		52.0	52.0		56.0	56.0		56.0	56.0	
Effective Green, g (s)	30.0	30.0		53.0	53.0		57.0	57.0		57.0	57.0	
Actuated g/C Ratio	0.25	0.25		0.44	0.44		0.48	0.48		0.48	0.48	
Clearance Time (s)	6.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	202	872		357	1503		315	1624		62	1680	
v/s Ratio Prot		0.30		c0.23	0.17			c0.67			0.17	
v/s Ratio Perm	0.05			c0.39			0.09			0.42		
v/c Ratio	0.18	1.20		1.41	0.38		0.18	1.41		0.89	0.36	
Uniform Delay, d1	35.4	45.0		36.3	22.5		18.1	31.5		28.6	20.0	
Progression Factor	1.00	1.00		0.40	0.50		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.0	102.4		188.5	0.2		0.3	189.8		74.6	0.1	
Delay (s)	37.4	147.4		203.2	11.4		18.4	221.3		103.2	20.1	
Level of Service	D	F		F	B		B	F		F	C	
Approach Delay (s)		143.7			100.7			216.3			27.0	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM 2000 Control Delay	153.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	135.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



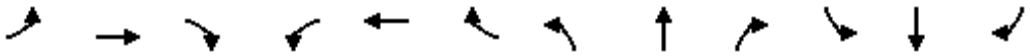
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	971	655	62	1071	15	2079	26	623
v/c Ratio	1.86	0.35	0.34	1.30	0.07	1.60	0.42	0.49
Control Delay	418.3	11.6	38.6	175.2	24.0	300.2	52.9	30.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	418.3	11.6	38.6	175.2	24.0	300.2	52.9	30.0
Queue Length 50th (m)	~347.4	32.8	11.0	~175.4	2.4	~391.6	4.8	60.3
Queue Length 95th (m)	m#254.4	m26.8	m18.3	m#219.0	m1.6	m#220.2	#17.5	78.0
Internal Link Dist (m)		1334.5		1358.5		3042.5		238.2
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	522	1858	181	824	213	1296	62	1280
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.86	0.35	0.34	1.30	0.07	1.60	0.42	0.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

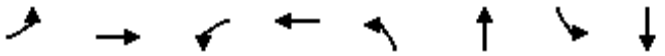
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	971	564	91	62	780	291	15	2071	8	26	533	90
Future Volume (vph)	971	564	91	62	780	291	15	2071	8	26	533	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.96		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3465		1770	3395		1770	3537		1770	3463	
Flt Permitted	0.12	1.00		0.40	1.00		0.31	1.00		0.09	1.00	
Satd. Flow (perm)	226	3465		750	3395		582	3537		169	3463	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	971	564	91	62	780	291	15	2071	8	26	533	90
RTOR Reduction (vph)	0	11	0	0	4	0	0	0	0	0	11	0
Lane Group Flow (vph)	971	644	0	62	1067	0	15	2079	0	26	612	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	64.0	64.0		29.0	29.0		44.0	44.0		44.0	44.0	
Effective Green, g (s)	64.0	64.0		29.0	29.0		44.0	44.0		44.0	44.0	
Actuated g/C Ratio	0.53	0.53		0.24	0.24		0.37	0.37		0.37	0.37	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	519	1848		181	820		213	1296		61	1269	
v/s Ratio Prot	c0.48	0.19			0.31			c0.59			0.18	
v/s Ratio Perm	c0.51			0.08			0.03			0.15		
v/c Ratio	1.87	0.35		0.34	1.30		0.07	1.60		0.43	0.48	
Uniform Delay, d1	35.7	16.1		37.6	45.5		24.7	38.0		28.5	29.2	
Progression Factor	1.62	0.74		0.89	0.85		0.94	0.94		1.00	1.00	
Incremental Delay, d2	392.6	0.0		3.9	142.6		0.0	272.2		4.7	0.3	
Delay (s)	450.3	12.0		37.5	181.2		23.3	308.0		33.3	29.5	
Level of Service	F	B		D	F		C	F		C	C	
Approach Delay (s)		273.7			173.4			305.9			29.7	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM 2000 Control Delay	236.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	155.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



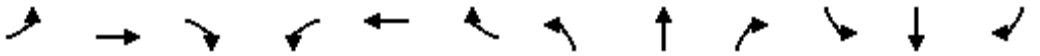
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	289	176	15	406	391	2089	67	728
v/c Ratio	0.97	0.16	0.08	0.69	0.88	1.00	1.08	0.44
Control Delay	69.9	14.5	43.5	50.7	35.7	45.5	174.9	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.9	14.5	43.5	50.7	35.7	45.5	174.9	13.3
Queue Length 50th (m)	60.1	7.8	3.2	47.1	45.7	~260.9	~18.6	35.2
Queue Length 95th (m)	m#93.5	m17.3	9.8	65.1	#87.3	#328.8	#49.5	51.3
Internal Link Dist (m)		1358.5		526.0		494.8		407.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	299	1077	199	589	446	2081	62	1636
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.16	0.08	0.69	0.88	1.00	1.08	0.44

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

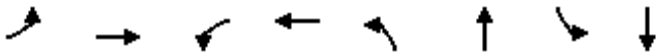


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	289	142	34	15	300	106	391	1988	101	67	344	384
Future Volume (vph)	289	142	34	15	300	106	391	1988	101	67	344	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		4.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.96		1.00	0.99		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3437		1770	3401		1770	3514		1770	3259	
Flt Permitted	0.27	1.00		0.64	1.00		0.27	1.00		0.07	1.00	
Satd. Flow (perm)	499	3437		1194	3401		508	3514		138	3259	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	289	142	34	15	300	106	391	1988	101	67	344	384
RTOR Reduction (vph)	0	17	0	0	23	0	0	3	0	0	169	0
Lane Group Flow (vph)	289	159	0	15	384	0	391	2086	0	67	559	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	37.0		20.0	20.0		71.0	71.0		54.0	54.0	
Effective Green, g (s)	37.0	37.0		20.0	20.0		71.0	71.0		54.0	54.0	
Actuated g/C Ratio	0.31	0.31		0.17	0.17		0.59	0.59		0.45	0.45	
Clearance Time (s)	4.0	6.0		6.0	6.0		4.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	291	1059		199	566		437	2079		62	1466	
v/s Ratio Prot	c0.11	0.05			0.11		0.10	c0.59			0.17	
v/s Ratio Perm	c0.20			0.01			0.43			c0.49		
v/c Ratio	0.99	0.15		0.08	0.68		0.89	1.00		1.08	0.38	
Uniform Delay, d1	37.6	30.1		42.2	47.0		16.2	24.5		33.0	21.9	
Progression Factor	0.70	0.54		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	49.2	0.3		0.7	6.4		20.2	20.6		138.3	0.2	
Delay (s)	75.6	16.7		42.9	53.4		36.4	45.1		171.3	22.1	
Level of Service	E	B		D	D		D	D		F	C	
Approach Delay (s)		53.3			53.0			43.7			34.7	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	44.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	128.2%	ICU Level of Service	H
Analysis Period (min)	15		

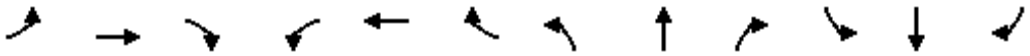
c Critical Lane Group

Queues
1: McLaughlin Road & Mayfield Rd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	237	2524	43	1825	110	827	391	617
v/c Ratio	0.98	1.03	0.70	1.04	0.68	1.13	1.04	0.42
Control Delay	84.6	58.2	76.6	61.9	66.0	117.9	90.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	58.2	76.6	61.9	66.0	117.9	90.2	18.8
Queue Length 50th (m)	42.1	~245.7	6.1	~102.6	25.3	~124.3	~87.1	40.6
Queue Length 95th (m)	#95.6	#275.5	m10.1	m#194.8	#53.1	#165.7	#150.6	56.4
Internal Link Dist (m)		395.0		1351.6		359.0		213.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	241	2444	61	1760	162	732	376	1479
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	1.03	0.70	1.04	0.68	1.13	1.04	0.42

Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	2411	113	43	1558	267	110	734	93	391	371	246
Future Volume (vph)	237	2411	113	43	1558	267	110	734	93	391	371	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.98		1.00	0.98		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5051		1770	4974		1770	3480		1770	3328	
Flt Permitted	0.09	1.00		0.10	1.00		0.42	1.00		0.14	1.00	
Satd. Flow (perm)	162	5051		177	4974		779	3480		257	3328	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	237	2411	113	43	1558	267	110	734	93	391	371	246
RTOR Reduction (vph)	0	4	0	0	20	0	0	8	0	0	93	0
Lane Group Flow (vph)	237	2520	0	43	1805	0	110	819	0	391	524	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	58.0	58.0		42.0	42.0		25.0	25.0		50.0	50.0	
Effective Green, g (s)	58.0	58.0		42.0	42.0		25.0	25.0		50.0	50.0	
Actuated g/C Ratio	0.48	0.48		0.35	0.35		0.21	0.21		0.42	0.42	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	239	2441		61	1740		162	725		371	1386	
v/s Ratio Prot	0.10	c0.50			0.36			0.24		c0.18	0.16	
v/s Ratio Perm	0.38			0.24			0.14			c0.25		
v/c Ratio	0.99	1.03		0.70	1.04		0.68	1.13		1.05	0.38	
Uniform Delay, d1	35.6	31.0		33.7	39.0		43.8	47.5		35.7	24.2	
Progression Factor	1.00	1.00		1.02	0.89		1.00	1.00		1.00	1.00	
Incremental Delay, d2	55.7	27.2		36.6	28.1		10.8	75.2		61.6	0.2	
Delay (s)	91.3	58.2		70.9	62.7		54.6	122.7		97.3	24.4	
Level of Service	F	E		E	E		D	F		F	C	
Approach Delay (s)		61.0			62.9			114.7			52.7	
Approach LOS		E			E			F			D	

Intersection Summary			
HCM 2000 Control Delay	67.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	129.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Queues
2: Hurontario Street & Mayfield Rd



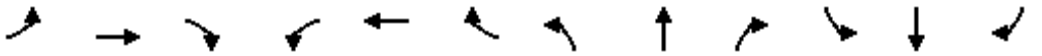
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	429	2352	336	1357	266	485	510	59	432	255
v/c Ratio	0.97	1.10	1.02	0.74	1.03	0.47	0.75	0.40	0.73	0.54
Control Delay	56.4	74.4	90.9	36.4	100.0	36.7	23.2	53.9	55.7	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	74.4	90.9	36.4	100.0	36.7	23.2	53.9	55.7	9.8
Queue Length 50th (m)	97.9	~236.4	~71.3	106.6	~55.4	51.9	47.7	13.2	54.1	0.0
Queue Length 95th (m)	m93.8	m#220.9	#131.6	125.2	#98.9	68.7	93.5	27.6	72.6	23.7
Internal Link Dist (m)		1351.6		353.0		487.7			541.9	
Turn Bay Length (m)	50.0		50.0		80.0		70.0	140.0		110.0
Base Capacity (vph)	448	2138	329	1827	259	1032	676	147	589	476
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	1.10	1.02	0.74	1.03	0.47	0.75	0.40	0.73	0.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

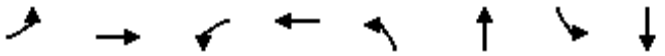
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	429	2082	270	336	1291	66	266	485	510	59	432	255
Future Volume (vph)	429	2082	270	336	1291	66	266	485	510	59	432	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4998		1770	5048		1770	3539	1583	1770	3539	1583
Flt Permitted	0.08	1.00		0.09	1.00		0.24	1.00	1.00	0.48	1.00	1.00
Satd. Flow (perm)	158	4998		172	5048		448	3539	1583	886	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	429	2082	270	336	1291	66	266	485	510	59	432	255
RTOR Reduction (vph)	0	14	0	0	4	0	0	0	215	0	0	213
Lane Group Flow (vph)	429	2338	0	336	1353	0	266	485	295	59	432	43
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	73.0	51.0		61.3	43.3		35.0	35.0	35.0	20.0	20.0	20.0
Effective Green, g (s)	73.0	51.0		61.3	43.3		35.0	35.0	35.0	20.0	20.0	20.0
Actuated g/C Ratio	0.61	0.42		0.51	0.36		0.29	0.29	0.29	0.17	0.17	0.17
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	441	2124		327	1821		251	1032	461	147	589	263
v/s Ratio Prot	c0.21	c0.47		0.15	0.27		c0.10	0.14			0.12	
v/s Ratio Perm	0.38			0.37			c0.21		0.19	0.07		0.03
v/c Ratio	0.97	1.10		1.03	0.74		1.06	0.47	0.64	0.40	0.73	0.16
Uniform Delay, d1	36.7	34.5		37.8	33.5		38.9	34.9	37.0	44.7	47.5	42.8
Progression Factor	1.48	0.83		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.7	46.2		57.0	2.8		73.5	0.3	3.0	1.8	4.7	0.3
Delay (s)	62.2	75.0		94.8	36.3		112.3	35.2	40.1	46.4	52.2	43.1
Level of Service	E	E		F	D		F	D	D	D	D	D
Approach Delay (s)		73.0			47.9			53.4			48.6	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	59.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	116.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



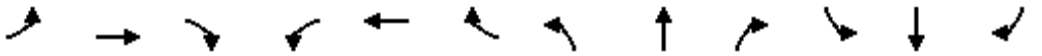
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	378	2085	125	1761	3	57	76	664
v/c Ratio	0.94	0.77	0.63	0.83	0.03	0.10	0.22	0.75
Control Delay	66.8	24.8	29.9	22.6	43.0	40.7	34.3	46.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	24.8	29.9	22.6	43.0	40.7	34.3	46.6
Queue Length 50th (m)	~84.5	150.2	18.5	64.9	0.6	6.0	14.0	76.6
Queue Length 95th (m)	#147.0	173.7	m19.1	m60.2	3.7	12.4	27.0	99.2
Internal Link Dist (m)		442.4		1359.2		442.3		592.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	403	2720	227	2173	95	596	344	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.77	0.55	0.81	0.03	0.10	0.22	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

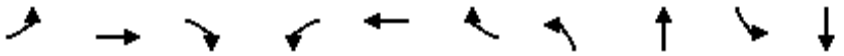


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	378	1935	150	125	1444	317	3	54	3	76	593	71
Future Volume (vph)	378	1935	150	125	1444	317	3	54	3	76	593	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.97		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5030		1770	4948		1770	3511		1770	3482	
Flt Permitted	0.07	1.00		0.08	1.00		0.30	1.00		0.60	1.00	
Satd. Flow (perm)	138	5030		149	4948		565	3511		1117	3482	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	378	1935	150	125	1444	317	3	54	3	76	593	71
RTOR Reduction (vph)	0	7	0	0	30	0	0	2	0	0	7	0
Lane Group Flow (vph)	378	2078	0	125	1731	0	3	55	0	76	657	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	77.1	64.0		59.2	50.1		20.3	20.3		30.9	30.9	
Effective Green, g (s)	77.1	64.0		59.2	50.1		20.3	20.3		30.9	30.9	
Actuated g/C Ratio	0.64	0.53		0.49	0.42		0.17	0.17		0.26	0.26	
Clearance Time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	401	2682		196	2065		95	593		323	896	
v/s Ratio Prot	c0.18	0.41		0.05	0.35			0.02		0.01	c0.19	
v/s Ratio Perm	c0.43			0.27			0.01			0.05		
v/c Ratio	0.94	0.77		0.64	0.84		0.03	0.09		0.24	0.73	
Uniform Delay, d1	37.5	22.3		20.2	31.3		41.6	42.1		34.6	40.8	
Progression Factor	1.00	1.00		1.40	0.74		1.00	1.00		1.00	1.00	
Incremental Delay, d2	30.5	2.3		0.6	0.4		0.1	0.1		0.4	3.1	
Delay (s)	68.1	24.5		28.9	23.7		41.8	42.1		35.0	43.9	
Level of Service	E	C		C	C		D	D		D	D	
Approach Delay (s)		31.2			24.1			42.1			43.0	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Queues
4: Mayfield Road & Dixie Road



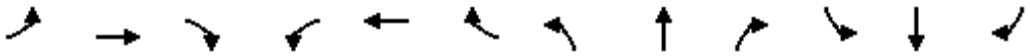
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	453	1823	855	194	1187	74	506	622	62	911
v/c Ratio	1.08	0.93	0.94	0.82	0.82	0.14	1.29	0.47	0.48	1.50
Control Delay	90.1	50.4	42.4	54.1	47.1	2.0	180.1	27.6	51.2	263.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.1	50.4	42.4	54.1	47.1	2.0	180.1	27.6	51.2	263.1
Queue Length 50th (m)	~108.6	172.1	150.7	0.0	109.2	0.0	~143.0	57.0	13.9	~154.8
Queue Length 95th (m)	#174.6	#195.4	#212.2	m47.4	m110.2	m0.8	#212.2	74.3	m28.5	#204.4
Internal Link Dist (m)		1359.2			1349.5			377.9		2034.3
Turn Bay Length (m)	100.0		100.0	100.0		100.0			100.0	
Base Capacity (vph)	419	1969	909	243	1440	545	391	1333	129	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	0.93	0.94	0.80	0.82	0.14	1.29	0.47	0.48	1.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

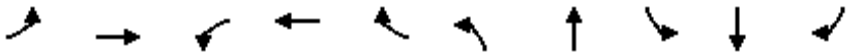
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	453	1823	855	194	1187	74	506	491	131	62	624	287
Future Volume (vph)	453	1823	855	194	1187	74	506	491	131	62	624	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3427		1770	3372	
Flt Permitted	0.11	1.00	1.00	0.12	1.00	1.00	0.17	1.00		0.42	1.00	
Satd. Flow (perm)	196	5085	1583	219	5085	1583	310	3427		775	3372	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	453	1823	855	194	1187	74	506	491	131	62	624	287
RTOR Reduction (vph)	0	0	297	0	0	53	0	20	0	0	45	0
Lane Group Flow (vph)	453	1823	558	194	1187	21	506	602	0	62	866	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	62.0	46.5	46.5	45.5	34.0	34.0	46.0	46.0		20.0	20.0	
Effective Green, g (s)	62.0	46.5	46.5	45.5	34.0	34.0	46.0	46.0		20.0	20.0	
Actuated g/C Ratio	0.52	0.39	0.39	0.38	0.28	0.28	0.38	0.38		0.17	0.17	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	416	1970	613	231	1440	448	386	1313		129	562	
v/s Ratio Prot	c0.22	0.36		0.08	0.23		c0.24	0.18			c0.26	
v/s Ratio Perm	c0.34		0.35	0.24		0.01	0.26			0.08		
v/c Ratio	1.09	0.93	0.91	0.84	0.82	0.05	1.31	0.46		0.48	1.54	
Uniform Delay, d1	36.6	35.1	34.8	29.4	40.2	31.2	35.0	27.7		45.3	50.0	
Progression Factor	0.66	1.19	1.72	1.28	1.07	1.00	1.00	1.00		0.84	0.80	
Incremental Delay, d2	67.9	7.2	16.2	15.8	2.6	0.0	157.4	1.2		11.9	251.9	
Delay (s)	92.2	49.2	75.9	53.5	45.8	31.3	192.4	28.8		49.9	291.8	
Level of Service	F	D	E	D	D	C	F	C		D	F	
Approach Delay (s)		62.7			46.1			102.2			276.4	
Approach LOS		E			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	96.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	119.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



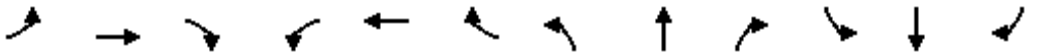
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	163	1851	131	600	10	583	302	50	529	373
v/c Ratio	0.43	1.09	0.66	0.38	0.02	1.20	0.19	0.23	0.73	0.66
Control Delay	19.2	85.1	42.2	34.8	0.1	138.5	10.6	33.6	43.9	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	85.1	42.2	34.8	0.1	138.5	10.6	33.6	43.9	14.9
Queue Length 50th (m)	32.8	~190.4	18.5	42.5	0.0	~149.8	12.6	8.5	60.7	24.1
Queue Length 95th (m)	m42.0	m#220.6	#65.2	61.3	0.0	#213.1	19.6	m15.4	65.7	33.9
Internal Link Dist (m)		1349.5		705.0			369.3		893.4	
Turn Bay Length (m)	100.0		100.0		100.0	100.0		100.0		100.0
Base Capacity (vph)	472	1693	199	1569	594	484	1721	264	884	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	1.09	0.66	0.38	0.02	1.20	0.18	0.19	0.60	0.60

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

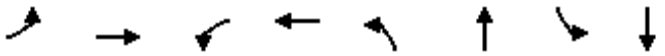
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	1201	650	131	600	10	583	173	129	50	529	373
Future Volume (vph)	163	1201	650	131	600	10	583	173	129	50	529	373
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0	5.0	4.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	4817		1770	5085	1583	1770	3312		1770	3539	1583
Flt Permitted	0.32	1.00		0.11	1.00	1.00	0.21	1.00		0.57	1.00	1.00
Satd. Flow (perm)	604	4817		201	5085	1583	392	3312		1057	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	163	1201	650	131	600	10	583	173	129	50	529	373
RTOR Reduction (vph)	0	80	0	0	0	7	0	70	0	0	0	237
Lane Group Flow (vph)	163	1771	0	131	600	3	583	232	0	50	529	136
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	52.5	40.2		46.1	37.0	37.0	54.7	54.7		24.7	24.7	24.7
Effective Green, g (s)	52.5	40.2		46.1	37.0	38.0	54.7	54.7		24.7	24.7	24.7
Actuated g/C Ratio	0.44	0.34		0.38	0.31	0.32	0.46	0.46		0.21	0.21	0.21
Clearance Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	383	1613		196	1567	501	477	1509		217	728	325
v/s Ratio Prot	c0.04	c0.37		c0.05	0.12		c0.26	0.07			0.15	
v/s Ratio Perm	0.14			0.21		0.00	c0.29			0.05		0.09
v/c Ratio	0.43	1.10		0.67	0.38	0.01	1.22	0.15		0.23	0.73	0.42
Uniform Delay, d1	21.3	39.9		29.5	32.5	28.1	30.3	19.1		39.7	44.5	41.4
Progression Factor	0.86	1.08		1.00	1.00	1.00	1.00	1.00		0.82	0.88	1.05
Incremental Delay, d2	0.3	49.1		8.3	0.7	0.0	117.6	0.0		0.5	3.0	0.7
Delay (s)	18.7	92.2		37.8	33.3	28.1	147.9	19.2		33.0	42.1	44.4
Level of Service	B	F		D	C	C	F	B		C	D	D
Approach Delay (s)		86.2			34.0			104.0			42.5	
Approach LOS		F			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	72.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	110.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	192	1936	47	1057	30	533	584	1702
v/c Ratio	0.76	0.97	0.76	1.01dr	0.48	0.71	1.03	0.97
Control Delay	45.4	50.6	106.8	35.4	69.6	48.0	75.7	43.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	50.6	106.8	35.4	69.6	48.0	75.7	43.1
Queue Length 50th (m)	31.1	170.6	11.0	69.2	6.6	62.8	~130.0	172.5
Queue Length 95th (m)	#60.8	#209.1	#35.2	87.1	#20.5	83.0	m#132.4	m160.9
Internal Link Dist (m)		1365.1		383.2		321.2		3042.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	269	1991	62	1373	62	761	565	1757
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.97	0.76	0.77	0.48	0.70	1.03	0.97

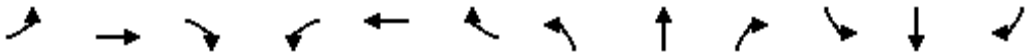
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

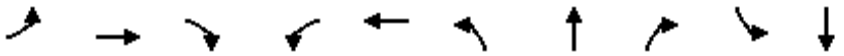


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	192	1873	63	47	451	606	30	454	79	584	1202	500
Future Volume (vph)	192	1873	63	47	451	606	30	454	79	584	1202	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.91		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5060		1770	4648		1770	3461		1770	3383	
Flt Permitted	0.12	1.00		0.13	1.00		0.16	1.00		0.22	1.00	
Satd. Flow (perm)	217	5060		245	4648		289	3461		409	3383	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	192	1873	63	47	451	606	30	454	79	584	1202	500
RTOR Reduction (vph)	0	3	0	0	199	0	0	12	0	0	38	0
Lane Group Flow (vph)	192	1933	0	47	858	0	30	521	0	584	1664	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	47.2	47.2		30.4	30.4		25.8	25.8		60.8	60.8	
Effective Green, g (s)	47.2	47.2		30.4	30.4		25.8	25.8		60.8	60.8	
Actuated g/C Ratio	0.39	0.39		0.25	0.25		0.22	0.22		0.51	0.51	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	251	1990		62	1177		62	744		558	1714	
v/s Ratio Prot	0.08	c0.38			0.18			0.15		c0.27	0.49	
v/s Ratio Perm	0.22			0.19			0.10			c0.26		
v/c Ratio	0.76	0.97		0.76	1.01dr		0.48	0.70		1.05	0.97	
Uniform Delay, d1	27.8	35.7		41.4	41.0		41.3	43.5		29.6	28.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.50	1.19	
Incremental Delay, d2	13.0	14.5		59.0	4.0		5.8	3.0		41.1	10.2	
Delay (s)	40.8	50.2		100.4	45.0		47.1	46.5		85.4	44.4	
Level of Service	D	D		F	D		D	D		F	D	
Approach Delay (s)		49.3			47.4			46.6			54.9	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	50.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	140.1%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

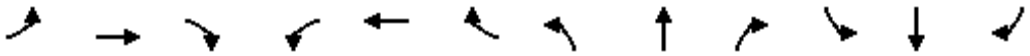
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	94	506	112	244	305	4	150	15	11	372
v/c Ratio	0.17	0.27	0.13	0.39	0.13	0.04	0.32	0.03	0.04	0.79
Control Delay	18.6	17.6	4.0	10.0	7.3	24.8	28.5	1.1	30.5	53.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	17.6	4.0	10.0	7.3	24.8	28.5	1.1	30.5	53.7
Queue Length 50th (m)	11.5	34.6	0.0	20.5	11.6	0.7	26.1	0.0	2.1	85.8
Queue Length 95th (m)	27.5	58.2	11.1	39.2	21.1	m1.0	m30.4	m0.0	6.4	111.1
Internal Link Dist (m)		358.4			980.7		996.2			1216.1
Turn Bay Length (m)	100.0		100.0	100.0		100.0		100.0	100.0	
Base Capacity (vph)	558	1875	891	747	2294	136	636	582	377	634
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.27	0.13	0.33	0.13	0.03	0.24	0.03	0.03	0.59

Intersection Summary

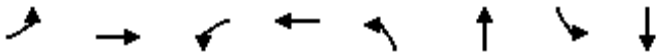
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	506	112	244	247	58	4	150	15	11	356	16
Future Volume (vph)	94	506	112	244	247	58	4	150	15	11	356	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	3.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3438		1770	1863	1583	1770	1851	
Flt Permitted	0.57	1.00	1.00	0.41	1.00		0.21	1.00	1.00	0.59	1.00	
Satd. Flow (perm)	1054	3539	1583	766	3438		399	1863	1583	1105	1851	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	506	112	244	247	58	4	150	15	11	356	16
RTOR Reduction (vph)	0	0	53	0	13	0	0	0	11	0	1	0
Lane Group Flow (vph)	94	506	59	244	292	0	4	150	4	11	371	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)	62.6	62.6	62.6	78.6	78.6		29.4	29.4	29.4	29.4	29.4	
Effective Green, g (s)	63.6	63.6	63.6	79.6	79.6		30.4	30.4	30.4	30.4	30.4	
Actuated g/C Ratio	0.53	0.53	0.53	0.66	0.66		0.25	0.25	0.25	0.25	0.25	
Clearance Time (s)	6.0	6.0	6.0	4.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	558	1875	838	616	2280		101	471	401	279	468	
v/s Ratio Prot		0.14		c0.04	0.08			0.08			c0.20	
v/s Ratio Perm	0.09		0.04	c0.22			0.01		0.00	0.01		
v/c Ratio	0.17	0.27	0.07	0.40	0.13		0.04	0.32	0.01	0.04	0.79	
Uniform Delay, d1	14.6	15.5	13.8	8.2	7.4		33.8	36.4	33.5	33.8	41.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.80	0.78	1.00	1.00	1.00	
Incremental Delay, d2	0.7	0.4	0.2	0.4	0.1		0.1	0.3	0.0	0.1	8.9	
Delay (s)	15.2	15.8	13.9	8.7	7.5		27.2	28.6	33.5	33.8	50.7	
Level of Service	B	B	B	A	A		C	C	C	C	D	
Approach Delay (s)		15.4			8.0			29.0			50.2	
Approach LOS		B			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

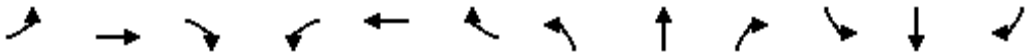
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	2	279	371	948	23	979	62	1716
v/c Ratio	0.02	0.41	0.73	0.68	0.38	0.53	0.31	0.93
Control Delay	41.5	44.1	29.0	30.0	38.3	14.2	21.6	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	44.1	29.0	30.0	38.3	14.2	21.6	37.7
Queue Length 50th (m)	0.4	32.0	76.2	105.6	3.3	56.9	8.4	198.9
Queue Length 95th (m)	3.0	46.0	m81.0	m109.0	13.4	75.7	19.9	#259.5
Internal Link Dist (m)		1405.8		1334.5		635.4		329.7
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	111	693	518	1417	62	1852	201	1849
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.40	0.72	0.67	0.37	0.53	0.31	0.93

Intersection Summary

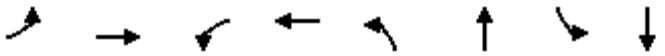
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	252	27	371	886	62	23	519	460	62	1700	16
Future Volume (vph)	2	252	27	371	886	62	23	519	460	62	1700	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		3.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.93		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3488		1770	3504		1770	3290		1770	3534	
Flt Permitted	0.30	1.00		0.43	1.00		0.06	1.00		0.21	1.00	
Satd. Flow (perm)	562	3488		807	3504		120	3290		386	3534	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	252	27	371	886	62	23	519	460	62	1700	16
RTOR Reduction (vph)	0	6	0	0	4	0	0	133	0	0	0	0
Lane Group Flow (vph)	2	273	0	371	944	0	23	846	0	62	1716	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	22.1	22.1		46.7	46.7		61.3	61.3		61.3	61.3	
Effective Green, g (s)	23.1	23.1		47.7	47.7		62.3	62.3		62.3	62.3	
Actuated g/C Ratio	0.19	0.19		0.40	0.40		0.52	0.52		0.52	0.52	
Clearance Time (s)	6.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	108	671		494	1392		62	1708		200	1834	
v/s Ratio Prot		0.08		c0.14	0.27			0.26			c0.49	
v/s Ratio Perm	0.00			c0.16			0.19			0.16		
v/c Ratio	0.02	0.41		0.75	0.68		0.37	0.50		0.31	0.94	
Uniform Delay, d1	39.3	42.4		27.8	29.8		17.2	18.7		16.5	27.0	
Progression Factor	1.00	1.00		0.97	0.97		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.8		2.0	0.8		3.7	0.2		0.9	9.5	
Delay (s)	39.6	44.3		28.9	29.7		20.9	18.9		17.4	36.5	
Level of Service	D	D		C	C		C	B		B	D	
Approach Delay (s)		44.2			29.5			18.9			35.8	
Approach LOS		D			C			B			D	

Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	107.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



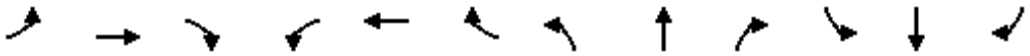
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	22	592	10	533	61	592	295	2573
v/c Ratio	0.31	0.90	0.16	0.81	0.98	0.27	0.51	1.07
Control Delay	56.4	65.7	44.9	51.2	130.7	15.5	9.1	57.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	65.7	44.9	51.2	130.7	15.5	9.1	57.6
Queue Length 50th (m)	4.6	74.6	2.1	70.4	15.4	37.5	21.3	~372.4
Queue Length 95th (m)	m11.6	#103.5	m3.9	m76.3	m#26.5	54.7	31.6	#414.9
Internal Link Dist (m)		1334.5		1358.5		3042.5		238.2
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	74	677	63	676	62	2214	577	2414
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.87	0.16	0.79	0.98	0.27	0.51	1.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

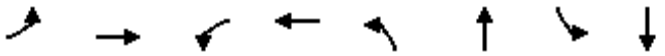
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	585	7	10	501	32	61	534	58	295	1760	813
Future Volume (vph)	22	585	7	10	501	32	61	534	58	295	1760	813
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.99		1.00	0.99		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3533		1770	3507		1770	3487		1770	3371	
Flt Permitted	0.21	1.00		0.18	1.00		0.05	1.00		0.39	1.00	
Satd. Flow (perm)	392	3533		333	3507		98	3487		726	3371	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	22	585	7	10	501	32	61	534	58	295	1760	813
RTOR Reduction (vph)	0	1	0	0	4	0	0	7	0	0	9	0
Lane Group Flow (vph)	22	591	0	10	529	0	61	585	0	295	2564	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	22.4	22.4		22.4	22.4		76.0	76.0		85.6	85.6	
Effective Green, g (s)	22.4	22.4		22.4	22.4		76.0	76.0		85.6	85.6	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.63	0.63		0.71	0.71	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	73	659		62	654		62	2208		566	2404	
v/s Ratio Prot		c0.17			0.15			0.17		0.02	c0.76	
v/s Ratio Perm	0.06			0.03			0.62			0.35		
v/c Ratio	0.30	0.90		0.16	0.81		0.98	0.26		0.52	1.07	
Uniform Delay, d1	42.1	47.7		40.9	46.7		21.4	9.7		6.9	17.2	
Progression Factor	1.07	1.05		0.97	0.95		1.85	1.62		1.00	1.00	
Incremental Delay, d2	9.3	15.9		3.6	7.1		87.0	0.0		0.9	39.1	
Delay (s)	54.3	65.8		43.5	51.5		126.6	15.8		7.8	56.3	
Level of Service	D	E		D	D		F	B		A	E	
Approach Delay (s)		65.4			51.4			26.1			51.3	
Approach LOS		E			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	49.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	124.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



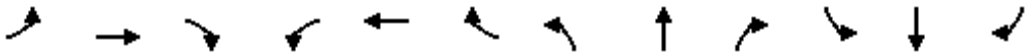
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	358	510	40	160	21	338	118	2157
v/c Ratio	0.87	0.50	0.28	0.27	0.34	0.16	0.20	1.05
Control Delay	69.0	49.2	49.6	39.4	31.4	11.0	12.3	58.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.0	49.2	49.6	39.4	31.4	11.0	12.3	58.9
Queue Length 50th (m)	89.8	65.0	8.8	16.0	2.5	18.2	12.8	~305.0
Queue Length 95th (m)	m#117.6	m78.4	20.2	26.7	11.6	25.6	22.9	#349.4
Internal Link Dist (m)		1358.5		526.0		494.8		407.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	410	1014	144	590	61	2081	604	2056
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.50	0.28	0.27	0.34	0.16	0.20	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

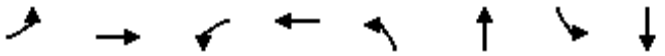


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	358	233	277	40	130	30	21	319	19	118	1816	341
Future Volume (vph)	358	233	277	40	130	30	21	319	19	118	1816	341
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.97		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3251		1770	3440		1770	3509		1770	3455	
Flt Permitted	0.54	1.00		0.46	1.00		0.06	1.00		0.55	1.00	
Satd. Flow (perm)	1010	3251		865	3440		105	3509		1021	3455	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	358	233	277	40	130	30	21	319	19	118	1816	341
RTOR Reduction (vph)	0	12	0	0	17	0	0	4	0	0	13	0
Lane Group Flow (vph)	358	498	0	40	143	0	21	334	0	118	2144	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	37.0		20.0	20.0		71.0	71.0		71.0	71.0	
Effective Green, g (s)	37.0	37.0		20.0	20.0		71.0	71.0		71.0	71.0	
Actuated g/C Ratio	0.31	0.31		0.17	0.17		0.59	0.59		0.59	0.59	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	393	1002		144	573		62	2076		604	2044	
v/s Ratio Prot	c0.10	0.15			0.04			0.10			c0.62	
v/s Ratio Perm	c0.18			0.05			0.20			0.12		
v/c Ratio	0.91	0.50		0.28	0.25		0.34	0.16		0.20	1.05	
Uniform Delay, d1	38.3	33.9		43.7	43.5		12.5	11.1		11.3	24.5	
Progression Factor	1.48	1.45		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	18.5	1.2		4.7	1.0		3.2	0.0		0.2	34.2	
Delay (s)	75.1	50.4		48.4	44.5		15.7	11.1		11.5	58.7	
Level of Service	E	D		D	D		B	B		B	E	
Approach Delay (s)		60.6			45.3			11.4			56.2	
Approach LOS		E			D			B			E	

Intersection Summary			
HCM 2000 Control Delay	52.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	132.6%	ICU Level of Service	H
Analysis Period (min)	15		

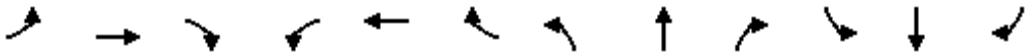
c Critical Lane Group

Queues
1: McLaughlin Road & Mayfield Rd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	299	1853	143	3166	97	502	351	1049
v/c Ratio	1.42	0.86	0.74	1.51	1.41	0.52	1.22	0.82
Control Delay	239.5	36.1	17.7	259.5	283.9	38.5	158.3	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	239.5	36.1	17.7	259.5	283.9	38.5	158.3	39.2
Queue Length 50th (m)	~83.4	149.1	18.9	~410.1	~32.2	54.5	~85.7	117.8
Queue Length 95th (m)	#141.6	171.4	m17.1	m#344.0	#68.3	72.4	#156.4	146.3
Internal Link Dist (m)		395.0		1351.6		359.0		213.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	211	2153	197	2096	69	966	287	1276
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.42	0.86	0.73	1.51	1.41	0.52	1.22	0.82

Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	299	1702	151	143	2780	386	97	460	42	351	763	286
Future Volume (vph)	299	1702	151	143	2780	386	97	460	42	351	763	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.98		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5023		1770	4992		1770	3495		1770	3394	
Flt Permitted	0.08	1.00		0.08	1.00		0.14	1.00		0.30	1.00	
Satd. Flow (perm)	146	5023		149	4992		252	3495		566	3394	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	299	1702	151	143	2780	386	97	460	42	351	763	286
RTOR Reduction (vph)	0	9	0	0	15	0	0	6	0	0	32	0
Lane Group Flow (vph)	299	1844	0	143	3151	0	97	496	0	351	1017	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	61.2	51.2		58.8	50.0		33.0	33.0		44.0	44.0	
Effective Green, g (s)	61.2	51.2		58.8	50.0		33.0	33.0		44.0	44.0	
Actuated g/C Ratio	0.51	0.43		0.49	0.42		0.28	0.28		0.37	0.37	
Clearance Time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	2143		191	2080		69	961		277	1244	
v/s Ratio Prot	c0.12	0.37		0.05	c0.63			0.14		c0.07	0.30	
v/s Ratio Perm	0.61			0.31			c0.38			0.39		
v/c Ratio	1.43	0.86		0.75	1.51		1.41	0.52		1.27	0.82	
Uniform Delay, d1	35.4	31.2		24.0	35.0		43.5	36.8		37.3	34.4	
Progression Factor	1.00	1.00		0.64	1.06		1.00	1.00		1.00	1.00	
Incremental Delay, d2	219.1	4.8		1.5	231.9		248.9	0.5		145.7	4.3	
Delay (s)	254.5	36.0		17.0	269.1		292.4	37.2		183.0	38.6	
Level of Service	F	D		B	F		F	D		F	D	
Approach Delay (s)		66.4			258.2			78.6			74.8	
Approach LOS		E			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	154.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	144.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Queues
2: Hurontario Street & Mayfield Rd



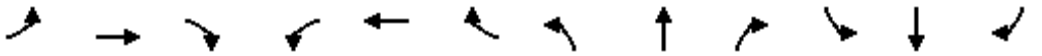
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	359	1687	643	2378	338	431	406	78	536	500
v/c Ratio	1.14	0.98	1.44	1.13	1.31	0.40	0.54	0.50	0.91	1.05
Control Delay	107.4	43.7	237.9	97.0	192.7	34.0	7.0	58.0	69.9	80.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	107.4	43.7	237.9	97.0	192.7	34.0	7.0	58.0	69.9	80.8
Queue Length 50th (m)	~82.6	157.5	~200.4	~250.3	~90.2	44.2	4.0	17.8	69.4	~79.5
Queue Length 95th (m)	m#103.8	m#173.7	#274.3	#280.4	#151.1	59.4	29.8	35.0	#102.1	#148.2
Internal Link Dist (m)		1351.6		353.0		487.7			541.9	
Turn Bay Length (m)	50.0		50.0		80.0		70.0	140.0		110.0
Base Capacity (vph)	316	1720	448	2112	259	1091	753	155	589	474
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.98	1.44	1.13	1.31	0.40	0.54	0.50	0.91	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

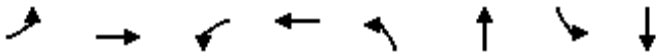
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	359	1434	253	643	2322	56	338	431	406	78	536	500
Future Volume (vph)	359	1434	253	643	2322	56	338	431	406	78	536	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4971		1770	5067		1770	3539	1583	1770	3539	1583
Flt Permitted	0.10	1.00		0.09	1.00		0.17	1.00	1.00	0.50	1.00	1.00
Satd. Flow (perm)	182	4971		166	5067		310	3539	1583	933	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	359	1434	253	643	2322	56	338	431	406	78	536	500
RTOR Reduction (vph)	0	21	0	0	2	0	0	0	265	0	0	211
Lane Group Flow (vph)	359	1666	0	643	2376	0	338	431	141	78	536	289
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	58.0	41.0		71.0	50.0		37.0	37.0	37.0	20.0	20.0	20.0
Effective Green, g (s)	58.0	41.0		71.0	50.0		37.0	37.0	37.0	20.0	20.0	20.0
Actuated g/C Ratio	0.48	0.34		0.59	0.42		0.31	0.31	0.31	0.17	0.17	0.17
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	312	1698		445	2111		253	1091	488	155	589	263
v/s Ratio Prot	0.16	0.34		c0.31	0.47		c0.14	0.12			0.15	
v/s Ratio Perm	0.39			c0.54			c0.27		0.09	0.08		0.18
v/c Ratio	1.15	0.98		1.44	1.13		1.34	0.40	0.29	0.50	0.91	1.10
Uniform Delay, d1	37.1	39.1		37.9	35.0		36.0	32.7	31.5	45.5	49.1	50.0
Progression Factor	0.89	0.87		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	82.0	9.9		212.6	63.2		175.6	0.2	0.3	2.6	18.2	84.7
Delay (s)	115.0	44.0		250.5	98.2		211.5	32.9	31.8	48.0	67.4	134.7
Level of Service	F	D		F	F		F	C	C	D	E	F
Approach Delay (s)		56.5			130.7			83.9			96.2	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	97.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	121.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



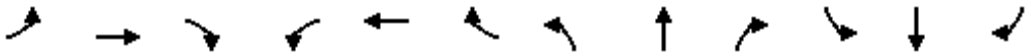
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	78	1641	4	2287	166	816	363	487
v/c Ratio	0.52	0.65	0.05	1.04	0.87	1.07	1.10	0.37
Control Delay	27.6	23.6	19.0	45.9	84.6	97.5	109.8	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	23.6	19.0	45.9	84.6	97.5	109.8	19.8
Queue Length 50th (m)	9.4	106.5	0.4	~225.0	40.0	~116.2	~84.4	32.9
Queue Length 95th (m)	18.9	123.0	m0.3	m76.4	#81.6	#157.6	#146.8	47.2
Internal Link Dist (m)		442.4		1359.2		442.3		592.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	151	2542	79	2193	191	761	331	1300
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.65	0.05	1.04	0.87	1.07	1.10	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

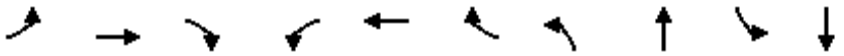
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	1638	3	4	2198	89	166	674	142	363	61	426
Future Volume (vph)	78	1638	3	4	2198	89	166	674	142	363	61	426
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.99		1.00	0.97		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5084		1770	5056		1770	3447		1770	3075	
Flt Permitted	0.07	1.00		0.10	1.00		0.47	1.00		0.13	1.00	
Satd. Flow (perm)	135	5084		182	5056		884	3447		248	3075	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	78	1638	3	4	2198	89	166	674	142	363	61	426
RTOR Reduction (vph)	0	0	0	0	3	0	0	15	0	0	70	0
Lane Group Flow (vph)	78	1641	0	4	2284	0	166	801	0	363	417	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	60.0	60.0		51.2	51.2		26.0	26.0		48.0	48.0	
Effective Green, g (s)	60.0	60.0		51.2	51.2		26.0	26.0		48.0	48.0	
Actuated g/C Ratio	0.50	0.50		0.43	0.43		0.22	0.22		0.40	0.40	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	132	2542		77	2157		191	746		327	1230	
v/s Ratio Prot	0.02	c0.32			c0.45			0.23		c0.17	0.14	
v/s Ratio Perm	0.27			0.02			0.19			c0.28		
v/c Ratio	0.59	0.65		0.05	1.06		0.87	1.07		1.11	0.34	
Uniform Delay, d1	27.1	22.1		20.2	34.4		45.4	47.0		35.2	25.0	
Progression Factor	1.00	1.00		0.86	0.69		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.9	1.3		0.1	27.7		31.6	54.6		82.8	0.2	
Delay (s)	34.0	23.4		17.5	51.4		77.0	101.6		118.0	25.2	
Level of Service	C	C		B	D		E	F		F	C	
Approach Delay (s)		23.9			51.4			97.4			64.8	
Approach LOS		C			D			F			E	

Intersection Summary			
HCM 2000 Control Delay	53.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	110.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	298	1352	596	204	2023	62	939	960	82	1075
v/c Ratio	2.14	1.00	0.69	1.32	1.45	0.12	1.61	0.50	0.66	1.41dr
Control Delay	555.0	74.5	21.4	183.6	239.0	12.0	310.6	16.9	74.3	202.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	555.0	74.5	21.4	183.6	239.0	12.0	310.6	16.9	74.3	202.6
Queue Length 50th (m)	~102.7	128.7	61.1	~49.1	~258.9	2.4	~319.7	70.5	19.2	~176.2
Queue Length 95th (m)	m#145.5	m#149.8	m84.0	m#44.5	m#227.2	m2.6	#401.0	88.2	#44.7	#220.1
Internal Link Dist (m)		1359.2			1349.5			377.9		2034.3
Turn Bay Length (m)	100.0		100.0	100.0		100.0			100.0	
Base Capacity (vph)	139	1356	859	154	1398	507	582	1902	124	797
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.14	1.00	0.69	1.32	1.45	0.12	1.61	0.50	0.66	1.35

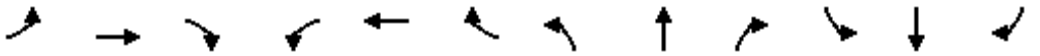
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

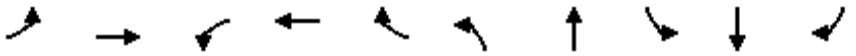


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	298	1352	596	204	2023	62	939	744	216	82	480	595
Future Volume (vph)	298	1352	596	204	2023	62	939	744	216	82	480	595
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3420		1770	3245	
Flt Permitted	0.12	1.00	1.00	0.12	1.00	1.00	0.13	1.00		0.30	1.00	
Satd. Flow (perm)	233	5085	1583	226	5085	1583	240	3420		556	3245	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	1352	596	204	2023	62	939	744	216	82	480	595
RTOR Reduction (vph)	0	0	437	0	0	45	0	23	0	0	67	0
Lane Group Flow (vph)	298	1352	159	204	2023	17	939	938	0	82	1008	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	37.0	32.0	32.0	39.0	33.0	33.0	66.0	66.0		27.0	27.0	
Effective Green, g (s)	37.0	32.0	32.0	39.0	33.0	33.0	66.0	66.0		27.0	27.0	
Actuated g/C Ratio	0.31	0.27	0.27	0.32	0.28	0.28	0.55	0.55		0.22	0.22	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	135	1356	422	150	1398	435	578	1881		125	730	
v/s Ratio Prot	c0.09	0.27		0.07	0.40		c0.47	0.27			0.31	
v/s Ratio Perm	c0.59		0.10	0.37		0.01	c0.42			0.15		
v/c Ratio	2.21	1.00	0.38	1.36	1.45	0.04	1.62	0.50		0.66	1.41dr	
Uniform Delay, d1	40.2	44.0	35.9	37.8	43.5	31.9	34.6	16.7		42.3	46.5	
Progression Factor	1.42	1.26	5.97	1.32	1.19	6.83	1.00	1.00		1.13	1.14	
Incremental Delay, d2	559.5	19.4	0.4	166.0	201.6	0.0	288.9	0.9		23.8	179.6	
Delay (s)	616.8	75.0	214.4	215.9	253.1	217.6	323.5	17.7		71.4	232.5	
Level of Service	F	E	F	F	F	F	F	B		E	F	
Approach Delay (s)		183.9			248.8			168.9			221.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	205.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.86		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	156.7%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



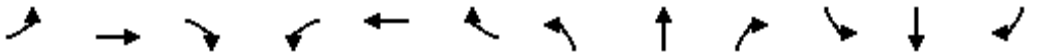
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	401	1363	184	1357	27	777	710	11	228	154
v/c Ratio	0.91	0.66	0.71	0.90	0.05	1.64	0.56	0.09	0.39	0.39
Control Delay	62.4	41.6	38.5	50.9	0.1	325.4	32.7	41.2	42.3	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	41.6	38.5	50.9	0.1	325.4	32.7	41.2	42.3	10.5
Queue Length 50th (m)	94.0	89.4	22.1	121.4	0.0	~278.7	73.0	1.9	20.6	6.7
Queue Length 95th (m)	m101.4	m92.3	46.8	#163.0	0.0	#355.0	93.0	m4.0	m35.4	m14.5
Internal Link Dist (m)		1349.5		705.0			369.3		893.4	
Turn Bay Length (m)	100.0		100.0		100.0	100.0		100.0		100.0
Base Capacity (vph)	501	2061	292	1501	575	473	1258	118	589	392
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.66	0.63	0.90	0.05	1.64	0.56	0.09	0.39	0.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

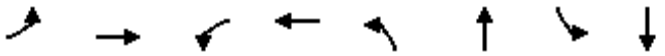
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	773	590	184	1357	27	777	654	56	11	228	154
Future Volume (vph)	401	773	590	184	1357	27	777	654	56	11	228	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0	5.0	4.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	4755		1770	5085	1583	1770	3497		1770	3539	1583
Flt Permitted	0.10	1.00		0.15	1.00	1.00	0.48	1.00		0.38	1.00	1.00
Satd. Flow (perm)	189	4755		276	5085	1583	892	3497		711	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	401	773	590	184	1357	27	777	654	56	11	228	154
RTOR Reduction (vph)	0	112	0	0	0	19	0	5	0	0	0	128
Lane Group Flow (vph)	401	1251	0	184	1357	8	777	705	0	11	228	26
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	65.0	49.2		47.2	35.4	35.4	43.0	43.0		20.0	20.0	20.0
Effective Green, g (s)	65.0	49.2		47.2	35.4	36.4	43.0	43.0		20.0	20.0	20.0
Actuated g/C Ratio	0.54	0.41		0.39	0.29	0.30	0.36	0.36		0.17	0.17	0.17
Clearance Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	439	1949		255	1500	480	458	1253		118	589	263
v/s Ratio Prot	c0.19	0.26		0.07	0.27		c0.27	0.20			0.06	
v/s Ratio Perm	c0.30			0.21		0.01	c0.34			0.02		0.02
v/c Ratio	0.91	0.64		0.72	0.90	0.02	1.70	0.56		0.09	0.39	0.10
Uniform Delay, d1	34.9	28.3		25.1	40.7	29.3	35.8	30.9		42.3	44.5	42.4
Progression Factor	1.54	1.65		1.00	1.00	1.00	1.00	1.00		0.92	0.91	1.15
Incremental Delay, d2	13.4	0.8		9.6	9.3	0.1	322.7	0.6		0.3	0.4	0.1
Delay (s)	67.1	47.5		34.8	50.0	29.3	358.6	31.5		39.3	40.8	48.8
Level of Service	E	D		C	D	C	F	C		D	D	D
Approach Delay (s)		52.0			47.9			202.4			43.9	
Approach LOS		D			D			F			D	

Intersection Summary			
HCM 2000 Control Delay	93.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	124.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



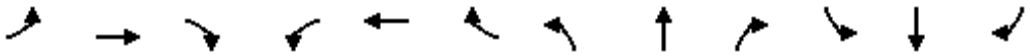
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	290	825	68	2810	98	1391	296	1124
v/c Ratio	1.37	0.33	0.29	1.52dr	1.34	1.36	1.49	0.79
Control Delay	219.4	18.3	30.0	237.5	257.1	202.7	277.8	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	219.4	18.3	30.0	237.5	257.1	202.7	277.8	20.3
Queue Length 50th (m)	~78.4	43.0	11.6	~342.5	~31.5	~239.2	~85.9	64.6
Queue Length 95th (m)	#135.5	52.9	24.5	#371.1	#67.6	#284.2	#143.1	79.7
Internal Link Dist (m)		1365.1		383.2		321.2		3042.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	212	2534	234	1929	73	1023	198	1424
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.37	0.33	0.29	1.46	1.34	1.36	1.49	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

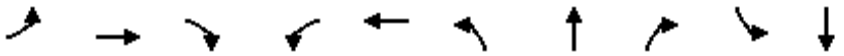


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	805	20	68	1747	1063	98	1242	149	296	550	574
Future Volume (vph)	290	805	20	68	1747	1063	98	1242	149	296	550	574
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.94		1.00	0.98		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5067		1770	4797		1770	3482		1770	3268	
Flt Permitted	0.08	1.00		0.33	1.00		0.14	1.00		0.10	1.00	
Satd. Flow (perm)	149	5067		613	4797		253	3482		191	3268	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	290	805	20	68	1747	1063	98	1242	149	296	550	574
RTOR Reduction (vph)	0	2	0	0	91	0	0	8	0	0	118	0
Lane Group Flow (vph)	290	823	0	68	2719	0	98	1383	0	296	1006	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	60.0	60.0		46.0	46.0		35.0	35.0		48.0	48.0	
Effective Green, g (s)	60.0	60.0		46.0	46.0		35.0	35.0		48.0	48.0	
Actuated g/C Ratio	0.50	0.50		0.38	0.38		0.29	0.29		0.40	0.40	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	2533		234	1838		73	1015		194	1307	
v/s Ratio Prot	c0.12	0.16			c0.57			0.40		c0.11	0.31	
v/s Ratio Perm	0.58			0.11			0.39			c0.49		
v/c Ratio	1.39	0.32		0.29	1.52dr		1.34	1.36		1.53	0.77	
Uniform Delay, d1	35.1	17.9		25.7	37.0		42.5	42.5		30.4	31.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.62	0.61	
Incremental Delay, d2	201.1	0.3		3.1	218.6		221.4	169.7		260.7	2.8	
Delay (s)	236.2	18.3		28.8	255.6		263.9	212.2		309.7	21.8	
Level of Service	F	B		C	F		F	F		F	C	
Approach Delay (s)		74.9			250.3			215.6			81.8	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	179.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.53		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	145.8%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

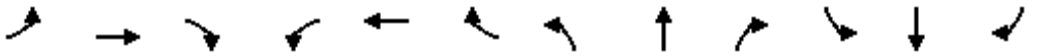
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	8	292	4	15	586	104	419	286	45	296
v/c Ratio	0.02	0.17	0.00	0.03	0.34	0.25	0.52	0.34	0.22	0.74
Control Delay	19.1	18.5	0.0	18.7	20.5	19.2	23.7	2.3	39.7	50.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	18.5	0.0	18.7	20.5	19.2	23.7	2.3	39.7	50.6
Queue Length 50th (m)	1.0	20.4	0.0	1.9	45.1	15.5	68.5	0.0	9.3	62.6
Queue Length 95th (m)	4.4	33.3	0.0	6.6	67.1	m16.2	m56.4	m0.0	18.9	87.4
Internal Link Dist (m)		358.4			980.7		996.2			1216.1
Turn Bay Length (m)	100.0		100.0	100.0		100.0		100.0	100.0	
Base Capacity (vph)	338	1718	810	512	1715	441	1009	988	296	560
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.17	0.00	0.03	0.34	0.24	0.42	0.29	0.15	0.53

Intersection Summary

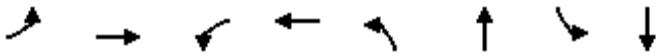
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	292	4	15	578	8	104	419	286	45	173	123
Future Volume (vph)	8	292	4	15	578	8	104	419	286	45	173	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3532		1770	1863	1583	1770	1747	
Flt Permitted	0.37	1.00	1.00	0.57	1.00		0.23	1.00	1.00	0.52	1.00	
Satd. Flow (perm)	696	3539	1583	1054	3532		427	1863	1583	964	1747	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	8	292	4	15	578	8	104	419	286	45	173	123
RTOR Reduction (vph)	0	0	2	0	1	0	0	0	163	0	24	0
Lane Group Flow (vph)	8	292	2	15	585	0	104	419	123	45	272	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases		2			6		3	8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)	57.3	57.3	57.3	57.3	57.3		50.7	50.7	50.7	24.7	24.7	
Effective Green, g (s)	58.3	58.3	58.3	58.3	58.3		51.7	51.7	51.7	25.7	25.7	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.49		0.43	0.43	0.43	0.21	0.21	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	338	1719	769	512	1715		418	802	682	206	374	
v/s Ratio Prot		0.08			c0.17		0.04	c0.22			c0.16	
v/s Ratio Perm	0.01		0.00	0.01			0.06		0.08	0.05		
v/c Ratio	0.02	0.17	0.00	0.03	0.34		0.25	0.52	0.18	0.22	0.73	
Uniform Delay, d1	16.0	17.3	15.9	16.1	19.0		22.2	25.1	21.1	38.9	43.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.95	0.92	0.91	1.00	1.00	
Incremental Delay, d2	0.1	0.2	0.0	0.1	0.5		0.1	0.2	0.0	0.5	6.9	
Delay (s)	16.2	17.5	15.9	16.2	19.6		21.1	23.3	19.1	39.4	50.7	
Level of Service	B	B	B	B	B		C	C	B	D	D	
Approach Delay (s)		17.4			19.5			21.6			49.3	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	24.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	35	1015	460	424	40	2335	54	612
v/c Ratio	0.15	1.15	1.28	0.28	0.13	1.42	0.89	0.36
Control Delay	37.2	122.9	154.2	10.4	19.1	219.7	121.3	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	122.9	154.2	10.4	19.1	219.7	121.3	20.8
Queue Length 50th (m)	6.8	~155.8	~131.0	30.7	5.4	~410.4	11.7	49.3
Queue Length 95th (m)	16.1	#199.2	m#121.6	m29.1	12.7	#454.1	#39.8	63.6
Internal Link Dist (m)		1405.8		1334.5		635.4		329.7
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	235	879	360	1489	314	1646	61	1681
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	1.15	1.28	0.28	0.13	1.42	0.89	0.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

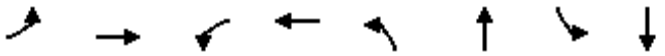
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	919	96	460	285	139	40	1822	513	54	610	2
Future Volume (vph)	35	919	96	460	285	139	40	1822	513	54	610	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		3.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.95		1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3489		1770	3365		1770	3423		1770	3537	
Flt Permitted	0.50	1.00		0.12	1.00		0.36	1.00		0.07	1.00	
Satd. Flow (perm)	940	3489		226	3365		663	3423		131	3537	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	919	96	460	285	139	40	1822	513	54	610	2
RTOR Reduction (vph)	0	7	0	0	3	0	0	22	0	0	0	0
Lane Group Flow (vph)	35	1008	0	460	421	0	40	2313	0	54	612	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	29.0	29.0		52.0	52.0		56.0	56.0		56.0	56.0	
Effective Green, g (s)	30.0	30.0		53.0	53.0		57.0	57.0		57.0	57.0	
Actuated g/C Ratio	0.25	0.25		0.44	0.44		0.48	0.48		0.48	0.48	
Clearance Time (s)	6.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	235	872		357	1486		314	1625		62	1680	
v/s Ratio Prot		0.29		c0.21	0.13			c0.68			0.17	
v/s Ratio Perm	0.04			c0.35			0.06			0.41		
v/c Ratio	0.15	1.16		1.29	0.28		0.13	1.42		0.87	0.36	
Uniform Delay, d1	35.1	45.0		36.3	21.4		17.6	31.5		28.2	20.0	
Progression Factor	1.00	1.00		0.43	0.48		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	83.2		139.4	0.2		0.2	194.3		70.2	0.1	
Delay (s)	36.4	128.2		154.9	10.5		17.8	225.8		98.4	20.1	
Level of Service	D	F		F	B		B	F		F	C	
Approach Delay (s)		125.2			85.6			222.3			26.5	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM 2000 Control Delay	151.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	132.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	909	661	74	984	11	2024	31	619
v/c Ratio	1.74	0.35	0.41	1.21	0.05	1.56	0.50	0.48
Control Delay	366.9	11.9	38.9	138.4	22.5	281.1	61.0	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	366.9	11.9	38.9	138.4	22.5	281.1	61.0	30.2
Queue Length 50th (m)	~314.9	33.8	13.8	~152.6	1.7	~376.3	5.9	60.4
Queue Length 95th (m)	m#238.0	m28.3	m23.5	#196.8	m1.2	m#217.4	#21.6	78.1
Internal Link Dist (m)		1334.5		1358.5		3042.5		238.2
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	522	1862	180	812	215	1296	62	1285
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.74	0.35	0.41	1.21	0.05	1.56	0.50	0.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

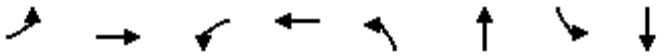
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	909	582	79	74	615	369	11	2016	8	31	559	60
Future Volume (vph)	909	582	79	74	615	369	11	2016	8	31	559	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.94		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3476		1770	3340		1770	3537		1770	3488	
Flt Permitted	0.12	1.00		0.40	1.00		0.31	1.00		0.09	1.00	
Satd. Flow (perm)	226	3476		746	3340		587	3537		169	3488	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	909	582	79	74	615	369	11	2016	8	31	559	60
RTOR Reduction (vph)	0	9	0	0	5	0	0	0	0	0	7	0
Lane Group Flow (vph)	909	652	0	74	979	0	11	2024	0	31	612	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	64.0	64.0		29.0	29.0		44.0	44.0		44.0	44.0	
Effective Green, g (s)	64.0	64.0		29.0	29.0		44.0	44.0		44.0	44.0	
Actuated g/C Ratio	0.53	0.53		0.24	0.24		0.37	0.37		0.37	0.37	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	519	1853		180	807		215	1296		61	1278	
v/s Ratio Prot	c0.45	0.19			0.29			c0.57			0.18	
v/s Ratio Perm	c0.48			0.10			0.02			0.18		
v/c Ratio	1.75	0.35		0.41	1.21		0.05	1.56		0.51	0.48	
Uniform Delay, d1	35.7	16.1		38.3	45.5		24.5	38.0		29.6	29.2	
Progression Factor	1.61	0.75		0.85	0.82		0.89	0.91		1.00	1.00	
Incremental Delay, d2	338.9	0.0		5.3	104.8		0.0	253.1		6.5	0.3	
Delay (s)	396.5	12.1		37.7	142.3		22.0	287.6		36.1	29.5	
Level of Service	F	B		D	F		C	F		D	C	
Approach Delay (s)		234.7			134.9			286.1			29.8	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM 2000 Control Delay	209.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	148.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



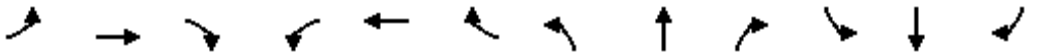
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	314	172	15	458	323	2072	76	717
v/c Ratio	1.13	0.16	0.08	0.78	0.72	1.00	1.23	0.44
Control Delay	118.6	15.1	43.5	56.1	21.7	43.4	217.6	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	118.6	15.1	43.5	56.1	21.7	43.4	217.6	12.7
Queue Length 50th (m)	~85.3	8.0	3.2	55.2	36.0	253.2	~23.2	33.1
Queue Length 95th (m)	m#120.8	m17.0	9.8	#75.0	53.0	#324.1	#41.5	49.1
Internal Link Dist (m)		1358.5		526.0		494.8		407.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	278	1077	199	584	451	2081	62	1647
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.16	0.08	0.78	0.72	1.00	1.23	0.44

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	141	31	15	337	121	323	1979	93	76	334	383
Future Volume (vph)	314	141	31	15	337	121	323	1979	93	76	334	383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		4.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.96		1.00	0.99		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3444		1770	3399		1770	3515		1770	3256	
Flt Permitted	0.21	1.00		0.64	1.00		0.28	1.00		0.07	1.00	
Satd. Flow (perm)	399	3444		1198	3399		519	3515		137	3256	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	314	141	31	15	337	121	323	1979	93	76	334	383
RTOR Reduction (vph)	0	15	0	0	18	0	0	3	0	0	174	0
Lane Group Flow (vph)	314	157	0	15	440	0	323	2069	0	76	543	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	37.0		20.0	20.0		71.0	71.0		54.3	54.3	
Effective Green, g (s)	37.0	37.0		20.0	20.0		71.0	71.0		54.3	54.3	
Actuated g/C Ratio	0.31	0.31		0.17	0.17		0.59	0.59		0.45	0.45	
Clearance Time (s)	4.0	6.0		6.0	6.0		4.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	271	1061		199	566		439	2079		61	1473	
v/s Ratio Prot	c0.13	0.05			0.13		0.08	c0.59			0.17	
v/s Ratio Perm	c0.23			0.01			0.36			c0.55		
v/c Ratio	1.16	0.15		0.08	0.78		0.74	1.00		1.25	0.37	
Uniform Delay, d1	36.9	30.1		42.2	47.9		14.1	24.3		32.9	21.6	
Progression Factor	0.71	0.56		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	103.1	0.3		0.7	10.1		6.3	18.5		195.3	0.2	
Delay (s)	129.4	17.1		42.9	57.9		20.4	42.8		228.2	21.7	
Level of Service	F	B		D	E		C	D		F	C	
Approach Delay (s)		89.6			57.4			39.8			41.5	
Approach LOS		F			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	48.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	127.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	2383	117	44	1544	290	103	742	85	409	395	254
Future Volume (vph)	261	2383	117	44	1544	290	103	742	85	409	395	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.98		1.00	0.98		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5050		1770	4965		1770	3485		1770	3331	
Flt Permitted	0.09	1.00		0.10	1.00		0.41	1.00		0.14	1.00	
Satd. Flow (perm)	162	5050		177	4965		755	3485		257	3331	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	261	2383	117	44	1544	290	103	742	85	409	395	254
RTOR Reduction (vph)	0	5	0	0	23	0	0	7	0	0	86	0
Lane Group Flow (vph)	261	2495	0	44	1811	0	103	820	0	409	563	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	58.0	58.0		42.0	42.0		25.0	25.0		50.0	50.0	
Effective Green, g (s)	58.0	58.0		42.0	42.0		25.0	25.0		50.0	50.0	
Actuated g/C Ratio	0.48	0.48		0.35	0.35		0.21	0.21		0.42	0.42	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	239	2440		61	1737		157	726		371	1387	
v/s Ratio Prot	0.11	c0.49			0.36			0.24		c0.19	0.17	
v/s Ratio Perm	c0.42			0.25			0.14			c0.27		
v/c Ratio	1.09	1.02		0.72	1.04		0.66	1.13		1.10	0.41	
Uniform Delay, d1	35.8	31.0		33.9	39.0		43.6	47.5		35.7	24.6	
Progression Factor	1.00	1.00		0.86	0.75		1.00	1.00		1.00	1.00	
Incremental Delay, d2	85.0	24.2		38.2	29.9		9.5	75.0		77.2	0.2	
Delay (s)	120.8	55.2		67.2	59.0		53.0	122.5		112.9	24.8	
Level of Service	F	E		E	E		D	F		F	C	
Approach Delay (s)		61.4			59.2			114.8			58.8	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM 2000 Control Delay	67.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	129.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



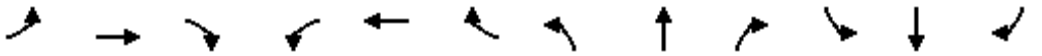
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	451	2332	352	1381	247	499	497	66	468	270
v/c Ratio	1.01	1.09	1.07	0.76	1.01	0.48	0.74	0.46	0.79	0.55
Control Delay	61.7	73.1	103.7	37.1	97.6	37.0	21.7	56.4	59.0	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	73.1	103.7	37.1	97.6	37.0	21.7	56.4	59.0	9.9
Queue Length 50th (m)	~105.3	~232.8	~79.2	109.2	~49.8	53.6	43.8	14.9	59.3	0.0
Queue Length 95th (m)	m100.5	m#218.2	#140.6	127.8	#95.3	70.8	88.0	30.5	#80.1	24.3
Internal Link Dist (m)		1351.6		353.0		487.7			541.9	
Turn Bay Length (m)	50.0		50.0		80.0		70.0	140.0		110.0
Base Capacity (vph)	448	2137	330	1812	244	1032	676	145	589	488
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	1.09	1.07	0.76	1.01	0.48	0.74	0.46	0.79	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

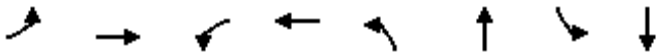
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	451	2068	264	352	1305	76	247	499	497	66	468	270
Future Volume (vph)	451	2068	264	352	1305	76	247	499	497	66	468	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4999		1770	5043		1770	3539	1583	1770	3539	1583
Flt Permitted	0.09	1.00		0.09	1.00		0.20	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	159	4999		173	5043		381	3539	1583	874	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	451	2068	264	352	1305	76	247	499	497	66	468	270
RTOR Reduction (vph)	0	13	0	0	5	0	0	0	215	0	0	225
Lane Group Flow (vph)	451	2319	0	352	1376	0	247	499	282	66	468	45
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	73.0	51.0		61.0	43.0		35.0	35.0	35.0	20.0	20.0	20.0
Effective Green, g (s)	73.0	51.0		61.0	43.0		35.0	35.0	35.0	20.0	20.0	20.0
Actuated g/C Ratio	0.61	0.42		0.51	0.36		0.29	0.29	0.29	0.17	0.17	0.17
Clearance Time (s)	4.0	6.0		4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	445	2124		327	1807		238	1032	461	145	589	263
v/s Ratio Prot	c0.22	c0.46		0.16	0.27		c0.09	0.14			0.13	
v/s Ratio Perm	0.40			0.38			c0.21		0.18	0.08		0.03
v/c Ratio	1.01	1.09		1.08	0.76		1.04	0.48	0.61	0.46	0.79	0.17
Uniform Delay, d1	37.3	34.5		37.7	34.0		38.3	35.0	36.7	45.1	48.0	42.9
Progression Factor	1.40	0.92		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.3	42.2		71.6	3.1		68.5	0.4	2.4	2.3	7.3	0.3
Delay (s)	68.4	74.1		109.3	37.1		106.8	35.4	39.1	47.3	55.3	43.2
Level of Service	E	E		F	D		F	D	D	D	E	D
Approach Delay (s)		73.1			51.7			51.1			50.6	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	60.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	117.0%	ICU Level of Service	H
Analysis Period (min)	15		

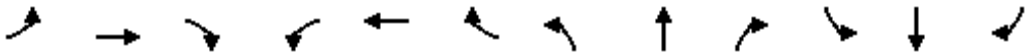
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	255	2251	140	1890	3	51	169	770
v/c Ratio	0.83	0.84	0.69	0.80	0.03	0.09	0.46	0.85
Control Delay	52.2	28.2	51.6	16.9	43.3	40.6	39.3	51.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	28.2	51.6	16.9	43.3	40.6	39.3	51.4
Queue Length 50th (m)	44.2	172.3	20.1	150.3	0.6	5.3	33.2	93.5
Queue Length 95th (m)	#75.1	198.2	m20.0	m149.5	3.7	11.4	53.5	118.3
Internal Link Dist (m)		442.4		1359.2		442.3		592.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	356	2679	227	2357	88	587	367	950
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.84	0.62	0.80	0.03	0.09	0.46	0.81

Intersection Summary

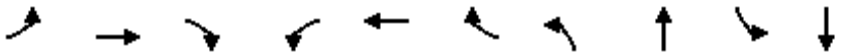
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	255	2163	88	140	1483	407	3	48	3	169	698	72
Future Volume (vph)	255	2163	88	140	1483	407	3	48	3	169	698	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.97		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5055		1770	4921		1770	3508		1770	3490	
Flt Permitted	0.07	1.00		0.07	1.00		0.29	1.00		0.58	1.00	
Satd. Flow (perm)	125	5055		134	4921		532	3508		1076	3490	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	255	2163	88	140	1483	407	3	48	3	169	698	72
RTOR Reduction (vph)	0	3	0	0	39	0	0	3	0	0	7	0
Lane Group Flow (vph)	255	2248	0	140	1851	0	3	48	0	169	763	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2		1	6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	75.8	62.4		64.8	55.4		16.0	16.0		32.2	32.2	
Effective Green, g (s)	75.8	62.4		64.8	55.4		16.0	16.0		32.2	32.2	
Actuated g/C Ratio	0.63	0.52		0.54	0.46		0.13	0.13		0.27	0.27	
Clearance Time (s)	4.0	6.0		4.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	303	2628		200	2271		70	467		359	936	
v/s Ratio Prot	c0.11	c0.44		0.05	0.38			0.01		0.05	c0.22	
v/s Ratio Perm	0.41			0.32			0.01			0.08		
v/c Ratio	0.84	0.86		0.70	0.81		0.04	0.10		0.47	0.82	
Uniform Delay, d1	35.3	24.9		23.3	27.9		45.3	45.7		35.6	41.1	
Progression Factor	1.00	1.00		2.09	0.61		1.00	1.00		1.00	1.00	
Incremental Delay, d2	18.6	3.8		1.0	0.3		0.3	0.1		1.0	5.5	
Delay (s)	53.9	28.7		49.7	17.3		45.6	45.8		36.6	46.7	
Level of Service	D	C		D	B		D	D		D	D	
Approach Delay (s)		31.3			19.5			45.8			44.9	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



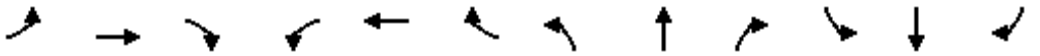
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	439	1887	1032	276	1434	85	513	605	22	376
v/c Ratio	1.05	0.97	1.12	1.14	1.00	0.16	1.15	0.45	0.17	0.63
Control Delay	84.2	41.7	86.0	117.6	52.6	2.4	120.4	27.2	41.8	41.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.2	41.7	86.0	117.6	52.6	2.4	120.4	27.2	41.8	41.2
Queue Length 50th (m)	~98.3	177.3	~215.8	~58.0	126.7	2.4	~117.1	54.6	4.8	44.2
Queue Length 95th (m)	m#150.3	#206.8	#300.1	m#76.3	m126.2	m2.7	#187.0	71.6	m9.6	57.5
Internal Link Dist (m)		1359.2			1349.5			377.9		2034.3
Turn Bay Length (m)	100.0		100.0	100.0		100.0			100.0	
Base Capacity (vph)	419	1949	920	243	1440	545	446	1333	131	599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.97	1.12	1.14	1.00	0.16	1.15	0.45	0.17	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

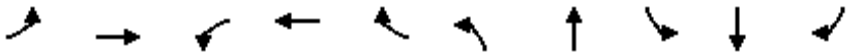
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	439	1887	1032	276	1434	85	513	470	135	22	271	105
Future Volume (vph)	439	1887	1032	276	1434	85	513	470	135	22	271	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3421		1770	3391	
Flt Permitted	0.11	1.00	1.00	0.12	1.00	1.00	0.30	1.00		0.42	1.00	
Satd. Flow (perm)	196	5085	1583	219	5085	1583	560	3421		788	3391	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	439	1887	1032	276	1434	85	513	470	135	22	271	105
RTOR Reduction (vph)	0	0	313	0	0	61	0	22	0	0	34	0
Lane Group Flow (vph)	439	1887	719	276	1434	24	513	583	0	22	342	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	62.0	46.0	46.0	46.0	34.0	34.0	46.0	46.0		20.0	20.0	
Effective Green, g (s)	62.0	46.0	46.0	46.0	34.0	34.0	46.0	46.0		20.0	20.0	
Actuated g/C Ratio	0.52	0.38	0.38	0.38	0.28	0.28	0.38	0.38		0.17	0.17	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	416	1949	606	239	1440	448	436	1311		131	565	
v/s Ratio Prot	c0.21	0.37		0.12	0.28		c0.22	0.17			0.10	
v/s Ratio Perm	0.33		c0.45	0.33		0.02	c0.24			0.03		
v/c Ratio	1.06	0.97	1.19	1.15	1.00	0.05	1.18	0.44		0.17	0.61	
Uniform Delay, d1	37.2	36.3	37.0	32.5	42.9	31.3	32.2	27.5		42.9	46.3	
Progression Factor	0.89	0.79	0.99	1.28	0.89	2.06	1.00	1.00		0.90	0.89	
Incremental Delay, d2	55.6	11.9	97.3	87.6	14.0	0.0	101.1	1.1		2.4	4.2	
Delay (s)	88.6	40.5	133.8	129.2	52.0	64.4	133.3	28.6		40.8	45.2	
Level of Service	F	D	F	F	D	E	F	C		D	D	
Approach Delay (s)		75.5			64.5			76.6			45.0	
Approach LOS		E			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	70.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



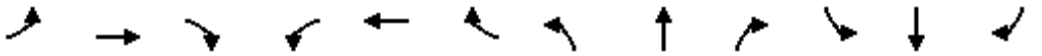
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	250	1792	121	721	17	533	388	95	689	642
v/c Ratio	0.72	1.09	0.86	0.62	0.04	1.14	0.22	0.39	0.78	1.04
Control Delay	12.7	67.2	77.2	44.9	0.1	115.9	12.0	37.4	44.9	68.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	67.2	77.2	44.9	0.1	115.9	12.0	37.4	44.9	68.9
Queue Length 50th (m)	17.8	~182.6	18.5	59.4	0.0	~132.1	18.7	17.2	96.0	~125.2
Queue Length 95th (m)	m19.4	m#195.8	#51.9	76.6	0.0	#202.3	28.4	m26.8	96.5	#186.7
Internal Link Dist (m)		1349.5		705.0			369.3		893.4	
Turn Bay Length (m)	100.0		100.0		100.0	100.0		100.0		100.0
Base Capacity (vph)	390	1640	140	1165	479	468	1735	243	884	617
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	1.09	0.86	0.62	0.04	1.14	0.22	0.39	0.78	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

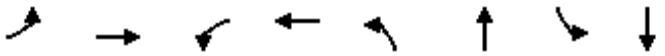
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	1317	475	121	721	17	533	254	134	95	689	642
Future Volume (vph)	250	1317	475	121	721	17	533	254	134	95	689	642
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0	5.0	4.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	4883		1770	5085	1583	1770	3356		1770	3539	1583
Flt Permitted	0.20	1.00		0.15	1.00	1.00	0.15	1.00		0.52	1.00	1.00
Satd. Flow (perm)	381	4883		271	5085	1583	284	3356		973	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	250	1317	475	121	721	17	533	254	134	95	689	642
RTOR Reduction (vph)	0	54	0	0	0	13	0	58	0	0	0	222
Lane Group Flow (vph)	250	1738	0	121	721	4	533	331	0	95	689	420
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	48.0	39.0		32.5	27.5	27.5	60.0	60.0		30.0	30.0	30.0
Effective Green, g (s)	48.0	39.0		32.5	27.5	28.5	60.0	60.0		30.0	30.0	30.0
Actuated g/C Ratio	0.40	0.32		0.27	0.23	0.24	0.50	0.50		0.25	0.25	0.25
Clearance Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	343	1586		135	1165	375	463	1678		243	884	395
v/s Ratio Prot	c0.10	c0.36		0.04	0.14		c0.25	0.10			0.19	
v/s Ratio Perm	0.19			0.20		0.00	c0.33			0.10		0.27
v/c Ratio	0.73	1.10		0.90	0.62	0.01	1.15	0.20		0.39	0.78	1.06
Uniform Delay, d1	26.4	40.5		40.8	41.5	35.0	33.1	16.6		37.4	41.9	45.0
Progression Factor	0.33	0.50		1.00	1.00	1.00	1.00	1.00		0.87	0.93	1.03
Incremental Delay, d2	2.9	47.5		47.2	2.5	0.1	90.3	0.1		0.9	3.7	59.1
Delay (s)	11.7	67.6		88.0	44.0	35.0	123.5	16.7		33.5	42.6	105.5
Level of Service	B	E		F	D	D	F	B		C	D	F
Approach Delay (s)		60.8			50.0			78.5			70.3	
Approach LOS		E			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	64.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	108.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	229	1973	41	1072	31	550	584	1763
v/c Ratio	0.86	0.99	0.66	1.05dr	0.50	0.72	1.04	1.00
Control Delay	57.2	55.4	89.7	36.1	70.9	48.9	75.3	44.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	55.4	89.7	36.1	70.9	48.9	75.3	44.2
Queue Length 50th (m)	38.4	175.9	9.3	69.2	6.8	65.7	~128.0	~193.4
Queue Length 95th (m)	#82.7	#216.2	#30.0	87.2	#21.6	86.2	m#111.6	m157.1
Internal Link Dist (m)		1365.1		383.2		321.2		3042.5
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	271	1984	62	1347	62	761	560	1758
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.99	0.66	0.80	0.50	0.72	1.04	1.00

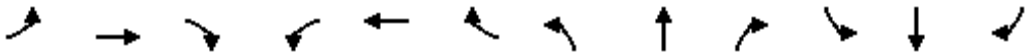
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

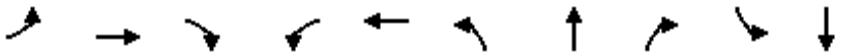


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	229	1908	65	41	443	629	31	481	69	584	1201	562
Future Volume (vph)	229	1908	65	41	443	629	31	481	69	584	1201	562
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.91		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5060		1770	4638		1770	3473		1770	3370	
Flt Permitted	0.12	1.00		0.14	1.00		0.15	1.00		0.21	1.00	
Satd. Flow (perm)	224	5060		254	4638		287	3473		388	3370	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	229	1908	65	41	443	629	31	481	69	584	1201	562
RTOR Reduction (vph)	0	3	0	0	214	0	0	9	0	0	46	0
Lane Group Flow (vph)	229	1970	0	41	858	0	31	541	0	584	1717	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	47.0	47.0		29.3	29.3		26.0	26.0		61.0	61.0	
Effective Green, g (s)	47.0	47.0		29.3	29.3		26.0	26.0		61.0	61.0	
Actuated g/C Ratio	0.39	0.39		0.24	0.24		0.22	0.22		0.51	0.51	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	264	1981		62	1132		62	752		554	1713	
v/s Ratio Prot	0.10	c0.39			0.19			0.16		c0.27	0.51	
v/s Ratio Perm	0.24			0.16			0.11			c0.26		
v/c Ratio	0.87	0.99		0.66	1.05dr		0.50	0.72		1.05	1.00	
Uniform Delay, d1	29.3	36.4		40.9	42.1		41.3	43.6		30.2	29.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.38	1.02	
Incremental Delay, d2	24.5	18.9		44.0	4.8		6.2	3.3		41.9	15.6	
Delay (s)	53.8	55.3		84.9	46.8		47.5	46.9		83.6	45.6	
Level of Service	D	E		F	D		D	D		F	D	
Approach Delay (s)		55.2			48.2			46.9			55.0	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	53.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	142.8%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

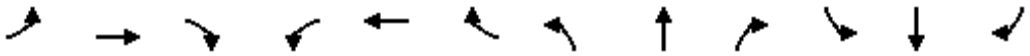
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	106	654	180	348	431	4	141	15	10	402
v/c Ratio	0.24	0.39	0.21	0.62	0.19	0.04	0.28	0.03	0.03	0.81
Control Delay	24.3	23.2	4.4	14.6	9.0	31.2	36.1	1.0	29.0	53.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	23.2	4.4	14.6	9.0	31.2	36.1	1.0	29.0	53.1
Queue Length 50th (m)	14.9	52.7	0.0	33.3	19.5	0.8	33.0	0.0	1.8	92.6
Queue Length 95th (m)	36.3	88.5	15.8	59.9	32.8	m1.4	m31.6	m0.0	5.7	118.8
Internal Link Dist (m)		358.4			980.7		996.2			1216.1
Turn Bay Length (m)	100.0		100.0	100.0		100.0		100.0	100.0	
Base Capacity (vph)	446	1694	851	658	2255	124	636	582	391	634
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.39	0.21	0.53	0.19	0.03	0.22	0.03	0.03	0.63

Intersection Summary

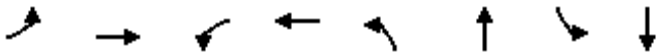
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	654	180	348	370	61	4	141	15	10	386	16
Future Volume (vph)	106	654	180	348	370	61	4	141	15	10	386	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	3.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3464		1770	1863	1583	1770	1852	
Flt Permitted	0.50	1.00	1.00	0.32	1.00		0.20	1.00	1.00	0.62	1.00	
Satd. Flow (perm)	933	3539	1583	593	3464		363	1863	1583	1148	1852	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	654	180	348	370	61	4	141	15	10	386	16
RTOR Reduction (vph)	0	0	94	0	9	0	0	0	11	0	1	0
Lane Group Flow (vph)	106	654	86	348	422	0	4	141	4	10	401	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)	56.5	56.5	56.5	76.8	76.8		31.2	31.2	31.2	31.2	31.2	
Effective Green, g (s)	57.5	57.5	57.5	77.8	77.8		32.2	32.2	32.2	32.2	32.2	
Actuated g/C Ratio	0.48	0.48	0.48	0.65	0.65		0.27	0.27	0.27	0.27	0.27	
Clearance Time (s)	6.0	6.0	6.0	4.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	447	1695	758	554	2245		97	499	424	308	496	
v/s Ratio Prot		0.18		c0.09	0.12			0.08			c0.22	
v/s Ratio Perm	0.11		0.05	c0.32			0.01		0.00	0.01		
v/c Ratio	0.24	0.39	0.11	0.63	0.19		0.04	0.28	0.01	0.03	0.81	
Uniform Delay, d1	18.4	20.0	17.2	10.5	8.4		32.5	34.8	32.2	32.4	41.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.06	1.05	1.00	1.00	1.00	
Incremental Delay, d2	1.2	0.7	0.3	2.2	0.2		0.1	0.2	0.0	0.0	9.3	
Delay (s)	19.6	20.6	17.5	12.7	8.6		34.6	36.8	32.2	32.4	50.4	
Level of Service	B	C	B	B	A		C	D	C	C	D	
Approach Delay (s)		19.9			10.5			36.3			49.9	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		

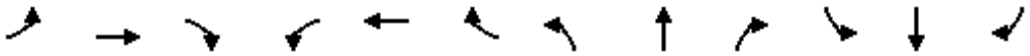
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	4	421	380	988	24	1019	67	1694
v/c Ratio	0.04	0.62	0.85	0.70	0.39	0.56	0.36	0.93
Control Delay	42.0	48.7	32.3	30.8	39.6	14.4	24.3	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	48.7	32.3	30.8	39.6	14.4	24.3	37.5
Queue Length 50th (m)	0.8	51.0	77.3	110.4	3.4	58.8	9.3	194.0
Queue Length 95th (m)	4.3	68.4	m79.6	m107.0	14.2	79.5	22.7	#256.6
Internal Link Dist (m)		1405.8		1334.5		635.4		329.7
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	106	688	457	1422	62	1849	185	1839
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.61	0.83	0.69	0.39	0.55	0.36	0.92

Intersection Summary

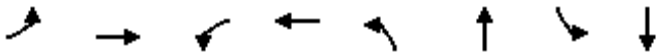
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	380	41	380	924	64	24	517	502	67	1678	16
Future Volume (vph)	4	380	41	380	924	64	24	517	502	67	1678	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		3.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.93		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3488		1770	3505		1770	3278		1770	3534	
Flt Permitted	0.29	1.00		0.28	1.00		0.06	1.00		0.19	1.00	
Satd. Flow (perm)	540	3488		524	3505		121	3278		357	3534	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	380	41	380	924	64	24	517	502	67	1678	16
RTOR Reduction (vph)	0	6	0	0	4	0	0	147	0	0	0	0
Lane Group Flow (vph)	4	415	0	380	984	0	24	872	0	67	1694	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	22.1	22.1		47.2	47.2		60.8	60.8		60.8	60.8	
Effective Green, g (s)	23.1	23.1		48.2	48.2		61.8	61.8		61.8	61.8	
Actuated g/C Ratio	0.19	0.19		0.40	0.40		0.51	0.51		0.51	0.51	
Clearance Time (s)	6.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	103	671		439	1407		62	1688		183	1820	
v/s Ratio Prot		0.12		c0.16	0.28			0.27			c0.48	
v/s Ratio Perm	0.01			c0.19			0.20			0.19		
v/c Ratio	0.04	0.62		0.87	0.70		0.39	0.52		0.37	0.93	
Uniform Delay, d1	39.4	44.4		28.3	29.9		17.6	19.2		17.4	27.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	4.2		4.5	0.7		4.0	0.3		1.2	9.1	
Delay (s)	40.1	48.6		32.8	30.5		21.6	19.5		18.6	36.2	
Level of Service	D	D		C	C		C	B		B	D	
Approach Delay (s)		48.6			31.2			19.5			35.5	
Approach LOS		D			C			B			D	

Intersection Summary			
HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	112.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



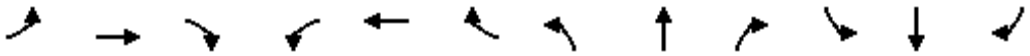
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	38	768	9	511	67	561	213	2681
v/c Ratio	0.44	1.13	0.15	0.76	1.08	0.25	0.36	1.12
Control Delay	57.0	117.2	44.2	50.1	146.7	10.9	7.0	79.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	117.2	44.2	50.1	146.7	10.9	7.0	79.7
Queue Length 50th (m)	7.7	~113.3	1.9	67.2	~19.0	33.0	14.6	~402.6
Queue Length 95th (m)	m16.3	#156.7	m3.5	m73.7	m#26.8	m41.8	22.6	#444.5
Internal Link Dist (m)		1334.5		1358.5		3042.5		238.2
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	86	677	62	676	62	2221	588	2394
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	1.13	0.15	0.76	1.08	0.25	0.36	1.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

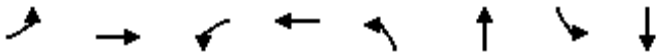
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	756	12	9	484	27	67	520	41	213	1808	873
Future Volume (vph)	38	756	12	9	484	27	67	520	41	213	1808	873
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.99		1.00	0.99		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3531		1770	3511		1770	3500		1770	3366	
Flt Permitted	0.24	1.00		0.17	1.00		0.05	1.00		0.40	1.00	
Satd. Flow (perm)	449	3531		324	3511		98	3500		754	3366	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	756	12	9	484	27	67	520	41	213	1808	873
RTOR Reduction (vph)	0	1	0	0	3	0	0	5	0	0	11	0
Lane Group Flow (vph)	38	767	0	9	508	0	67	556	0	213	2671	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	23.0	23.0		23.0	23.0		76.0	76.0		85.0	85.0	
Effective Green, g (s)	23.0	23.0		23.0	23.0		76.0	76.0		85.0	85.0	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.63	0.63		0.71	0.71	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	86	676		62	672		62	2216		576	2384	
v/s Ratio Prot		c0.22			0.14			0.16		0.02	c0.79	
v/s Ratio Perm	0.08			0.03			0.68			0.25		
v/c Ratio	0.44	1.13		0.15	0.76		1.08	0.25		0.37	1.12	
Uniform Delay, d1	42.8	48.5		40.3	45.8		22.0	9.6		6.1	17.5	
Progression Factor	0.97	0.94		0.97	0.98		1.41	1.14		1.00	1.00	
Incremental Delay, d2	13.1	75.7		3.3	5.3		112.3	0.0		0.4	60.4	
Delay (s)	54.6	121.2		42.4	50.1		143.4	10.9		6.5	77.9	
Level of Service	D	F		D	D		F	B		A	E	
Approach Delay (s)		118.0			49.9			25.1			72.6	
Approach LOS		F			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	71.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	141.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



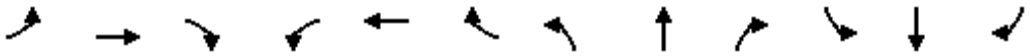
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	359	588	44	160	26	343	102	2140
v/c Ratio	0.88	0.58	0.33	0.27	0.43	0.16	0.17	1.04
Control Delay	65.8	53.7	52.0	40.3	39.5	11.0	12.0	55.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	53.7	52.0	40.3	39.5	11.0	12.0	55.7
Queue Length 50th (m)	91.9	77.6	9.7	16.4	3.3	18.5	10.8	~300.1
Queue Length 95th (m)	m91.4	m75.0	22.2	27.1	#17.7	25.9	20.1	#344.5
Internal Link Dist (m)		1358.5		526.0		494.8		407.1
Turn Bay Length (m)	50.0		50.0		50.0		50.0	
Base Capacity (vph)	410	1007	133	589	61	2079	601	2059
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.58	0.33	0.27	0.43	0.16	0.17	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	359	247	341	44	133	27	26	322	21	102	1822	318
Future Volume (vph)	359	247	341	44	133	27	26	322	21	102	1822	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.91		1.00	0.97		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3231		1770	3450		1770	3507		1770	3460	
Flt Permitted	0.54	1.00		0.43	1.00		0.06	1.00		0.55	1.00	
Satd. Flow (perm)	1010	3231		801	3450		105	3507		1016	3460	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	359	247	341	44	133	27	26	322	21	102	1822	318
RTOR Reduction (vph)	0	11	0	0	14	0	0	4	0	0	12	0
Lane Group Flow (vph)	359	577	0	44	146	0	26	339	0	102	2128	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	37.0		20.0	20.0		71.0	71.0		71.0	71.0	
Effective Green, g (s)	37.0	37.0		20.0	20.0		71.0	71.0		71.0	71.0	
Actuated g/C Ratio	0.31	0.31		0.17	0.17		0.59	0.59		0.59	0.59	
Clearance Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	393	996		133	575		62	2074		601	2047	
v/s Ratio Prot	c0.10	0.18			0.04			0.10			c0.62	
v/s Ratio Perm	c0.18			0.05			0.25			0.10		
v/c Ratio	0.91	0.58		0.33	0.25		0.42	0.16		0.17	1.04	
Uniform Delay, d1	38.3	34.9		44.1	43.5		13.3	11.1		11.1	24.5	
Progression Factor	1.58	1.54		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.3	0.9		6.5	1.1		4.5	0.0		0.1	31.1	
Delay (s)	71.8	54.7		50.6	44.6		17.8	11.1		11.3	55.6	
Level of Service	E	D		D	D		B	B		B	E	
Approach Delay (s)		61.2			45.9			11.6			53.6	
Approach LOS		E			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	50.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	132.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Appendix F – Public Consultation Materials

Appendix F:
Public Consultation Materials

DRAFT

Table of Contents

1. Introduction 2
2. Notice 2
3. Public Engagement 4
   3.1 Public Consultation Center 4
   3.2 What we heard 5

DRAFT

1. Introduction

The Town of Caledon Multi-Modal Transportation Master Plan Addendum (herein referred to as the "MMTMP Addendum") is an addendum to the Town's 2024 Multi-Modal Transportation Master Plan (MMTMP). Engagement with stakeholders (development community and land owner groups, agencies), Indigenous communities and the public were undertaken as part of this study and through various methods. This document provides a summary of the public consultation that was undertaken during MMTMP Addendum study.

2. Notice

The Town of Caledon's communications team and project team facilitated the distribution of the public "Notice of Study Commencement and Public Consultation Centre" associated with this study, through various media such as print, email, and the project website which went live September 11, 2025. This notice was distributed to external agencies,

A copy of the notice is attached.

DRAFT

PUBLIC NOTICE

Town of Caledon

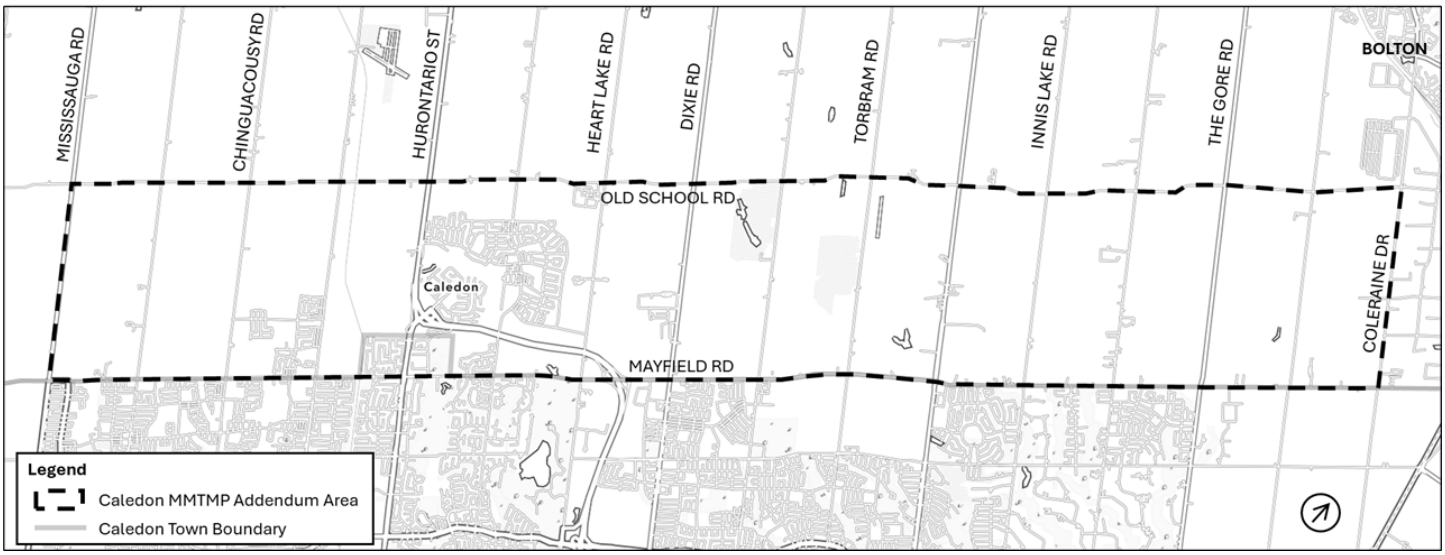
Addendum to the Multi-Modal Transportation Master Plan (MMTMP)

Notice of Study Commencement and Public Consultation Centre

The Town of Caledon (Town)'s Multi-Modal Transportation Master Plan (MMTMP) was completed in June 2024. The MMTMP expands upon Provincial, Regional and Town plans and initiatives to address mobility needs to 2051, which is consistent with the Future Caledon Official Plan. The MMTMP is a long-term strategy that guides the planning, policy, and infrastructure needs of the Town's multi-modal transportation system to accommodate future growth and development.

An Addendum to the MMTMP (the Study) is being undertaken to further refine the transportation network within the Settlement Area Boundary Expansion (SABE) lands. The study area is bounded by Coleraine Drive, Mayfield Road, Mississauga Road, and Old School Road comprising approximately 62 square kilometres of rural and urban residential land.

STUDY AREA



STUDY PROCESS

The Study is being carried out in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011, 2015 and 2023), which is approved under the Ontario Environmental Assessment Act. The MMTMP follows Master Plan Approach #1 under the

Municipal Class Environmental Assessment (MCEA) process which is a broad level assessment requiring more detailed investigations at the project-specific level to fulfill MCEA requirements.

While the MMTMP identified a conceptual collector road network within the study area, this Addendum seeks to identify a preferred collector road network and alignment with a focus on improving east-west connectivity by considering alternative solutions and seeking feedback from the public and stakeholders.

NOTICE OF PUBLIC MEETING

An Open House will be held to introduce the Study and gather feedback from members of the public. Your input and insight will inform and shape plans that meet the needs of our community.

Meeting Date:	Tuesday, September 30, 2025
Open House Time:	6:30 p.m. to 8:30 p.m.
Location:	Southfields Community Centre 225 Dougall Avenue, Caledon

CONTACT US!

Additional information regarding this project will be available on the Town website on September 15, 2025. If you would like to be placed on the project contact list, please visit the study website or contact one of the individuals below:

Jaspreet Kaur, MASc, P.Eng.
Lead Engineer
Transportation Engineer, Engineering, Public Works & Transportation
Town of Caledon
6311 Old Church Road, Caledon, ON L7C 1J6
Tel: 905.584.2272 (ext. 4040)
Email: jaspreet.kaur1@caledon.ca

Jamshaid Muzaffar, P.Eng.
Consultant Project Manager
HDR
100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8
D 647.777.1687 M 437.684.0706
Email: Jamshaid.Muzaffar@hdrinc.com

Information provided in response to this notice will be collected in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will be part of the public record.

This Notice first issued on September 11, 2025

TOWN OF CALEDON

6311 Old Church Road
Caledon, ON L7C 1J6
caledon.ca
T. 905.584.2272 | 1.888.225.3366 | F. 905.584.4325

3. Public Engagement

A Public Consultation Centre (PCC) was held on September 30, 2025, to present the study to the public, including the study purpose, outline of the MMTMP Addendum study process, presentation of alternative alignment scenarios, evaluation of the scenarios and the Town's preferred alternative. The public engagement and summary of what we heard is provided below.

3.1 Public Consultation Center

The Public Meeting for the MMTMP Addendum was held on Tuesday, September 20, 2025, between 6:30pm and 8:30pm, at the Southfields Community Centre, 225 Dougall Avenue, Caledon, ON.

The event was hosted by the Town of Caledon project team and consultant team, and was attended by 18 members of the public, as well as representatives from the development community and their consultant team members. Additionally, Ward 2 Councilor Dave Sheen was also in attendance. An image from the PCC is shown below.



The display boards from the PCC are provided further below.

3.2 What we heard

Attendees of the PCC were greeted by the Town staff or Project Team members, and were provided comment cards to submit any thoughts, questions or comments for consideration by the Project Team. The Town Staff and Project Team also discussed the project and answered questions directly, encouraging the interested public to submit comment cards. However if any member of the public who connected with the Town or Project Team staff did not provide a comment form, their input was discussed and noted, summarized below.

Comments Summary:

- One member of the public was asking about costs, and if building this new east-west collector would result in impact to property taxes
- One member of the public commented that the connectivity being achieved is very encouraging, especially if it results in transit options.
- One member of the public expressed concerns about industrial land uses in the study area.
- One member of the public noted via comment form concerns about vehicle speeds if Dougall Avenue is extended to Highway 10, explaining current high vehvile speeds for cars coming off Highway 410 / Highway 10 transitioning onto Dougall Avenue
- One member of the public noted via comment form suggested that the roads being planned should support an efficient grid system to avoid costs of widening road way allowances. They also appreciated the Town's commitment to complete streets and active transprotaiton, and also suggested the Town should be planning for powered personal mobility as well (e-scooters, low speed vehicles).

Key Themes (from comment forms and discussion):

- Multi-modal corridors are preferred to provide mobility options for all users
- New planned roads should avoid wider right-of-ways (beyond 26m)
- Project costs and the sources of funding need to be considered, and avoid tax impacts for residents
- Road safety must be considered in evaluation

Comment forms that were received are provided later in this Appendix.

DRAFT



WELCOME
TO THE PUBLIC CONSULTATION CENTRE
for the
CALEDON MULTI-MODAL TRANSPORTATION MASTER PLAN ADDENDUM STUDY
September 30, 2025

HDR

TOWN OF CALEDON

Indigenous Land Acknowledgement

The Town acknowledges that it is situated on lands that are home to many Indigenous Peoples from across Turtle Island (North America). The Town realizes the need and value of understanding more about the rich history of this land and its Indigenous Peoples, which will help the Town be better neighbours and partners.

This land is part of the Treaty Lands and Territory of the Mississaugas of the Credit First Nation, and part of the traditional Territory of the Huron-Wendat, Haudenosaunee Peoples, and the Anishnabek of the Williams Treaties.

We acknowledge the enduring presence and deep traditional knowledge and perspectives of the Indigenous Peoples with whom we share this land today.

About this Public Consultation Centre

How to get involved

Visit the Caledon MMTMP Addendum webpage on **haveyoursaycaledon.ca**.

Provide comments and feedback by **October 21st**.

Contact the Project Manager, Jaspreet Kaur at Jaspreet.Kaur1@caledon.ca to join the study mailing list or provide feedback in an alternate manner.

Study Purpose

What is a Transportation Master Plan?

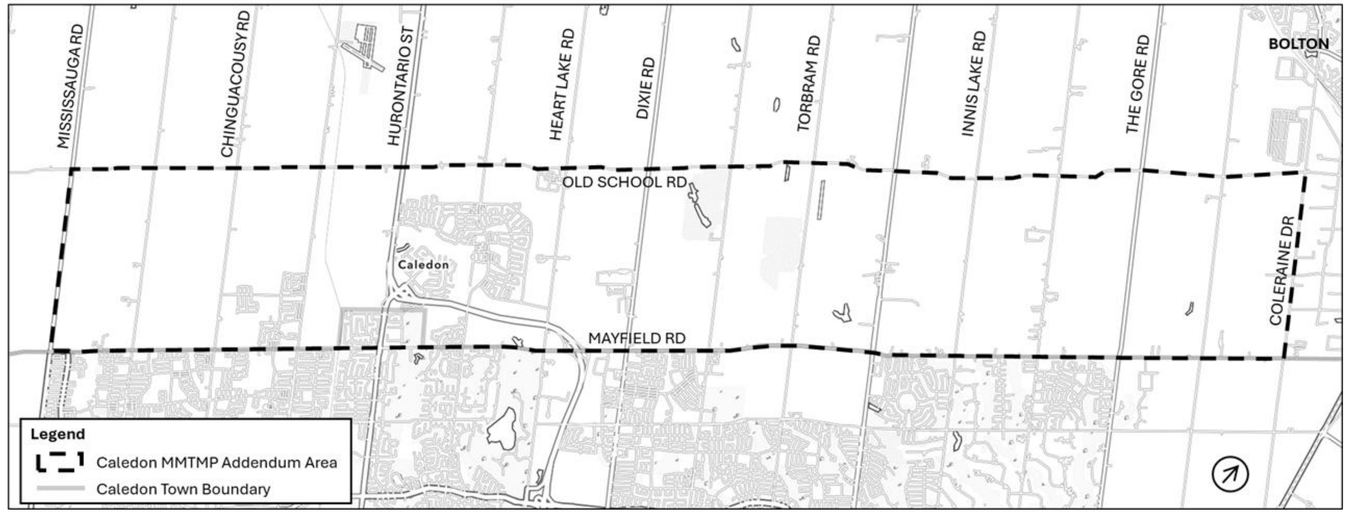
The Town of Caledon (Town)'s Multi-Modal Transportation Master Plan (MMTMP) is a long-term strategy that guides the planning, policy, and infrastructure needs of the Town's multi-modal transportation system to accommodate future growth and development.

Why are we doing this?

An Addendum to the MMTMP (the Study) is being undertaken to further refine the recommended future transportation network within the Settlement Area Boundary Expansion (SABE) lands. These refinements aim to support the **unprecedented population and employment growth** projected in the SABE lands by building upon the MMTMP and identifying a major east-west route which will improve and ensure **multi-modal connectivity and continuity throughout the SABE** and accommodate pedestrians, cyclists, transit, and auto trips for the long-term health of the residents and employees, while also helping to alleviate the housing crisis currently being faced across the province.

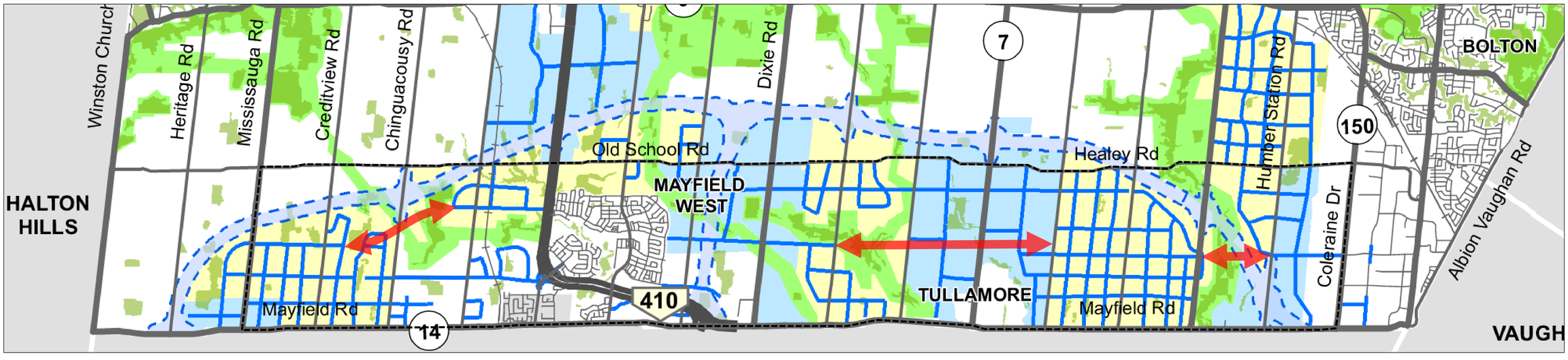
Study Area

The study area is bounded by Coleraine Drive, Mayfield Road, Mississauga Road, and Old School Road comprising approximately 62 square kilometres of rural and urban residential land.

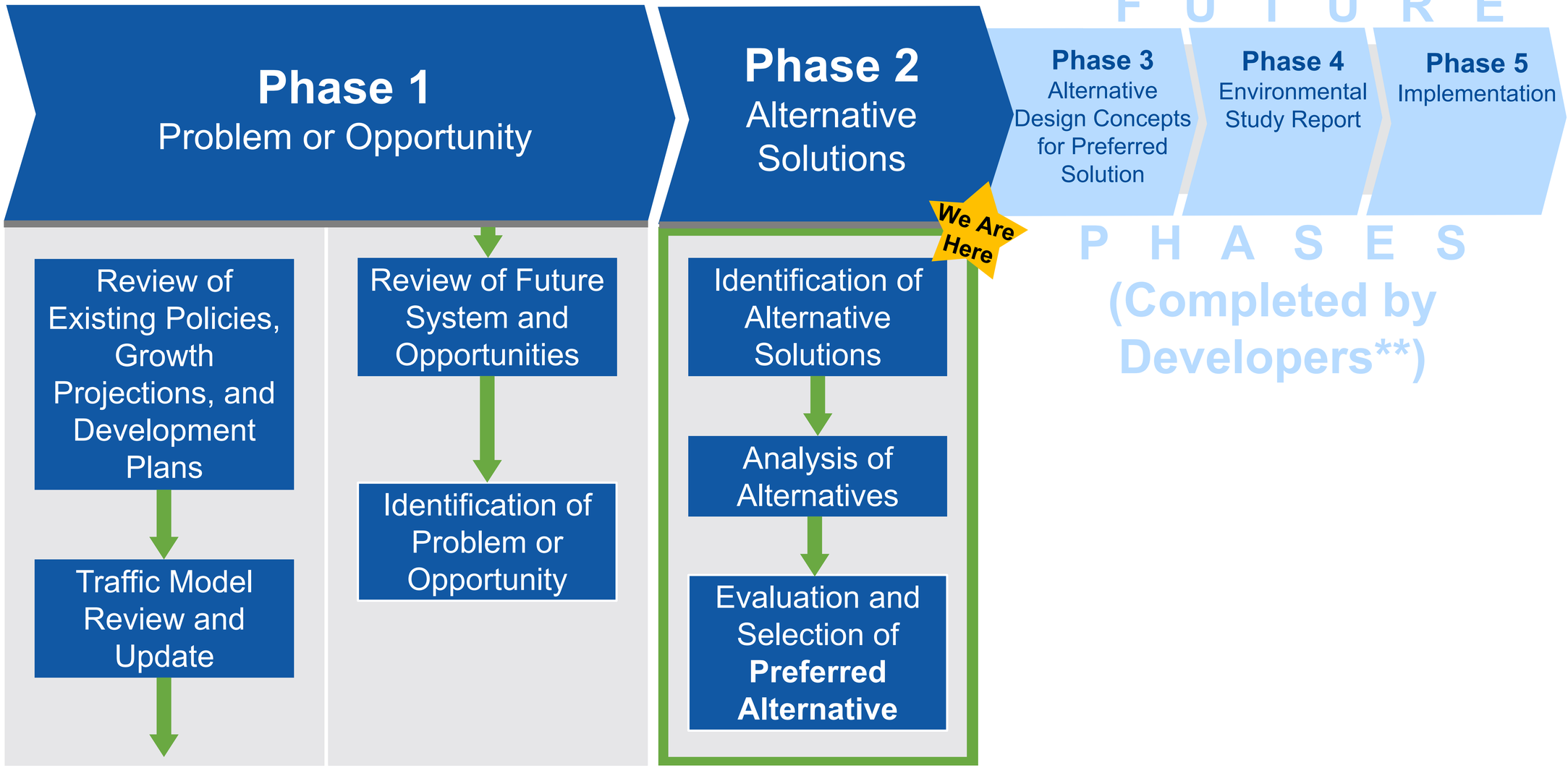


Objectives

1. Refine the recommended future transportation network identified in the Conceptual Collector Road Layout from the Caledon MMTMP (illustrated below) through the planning and integration of a major east-west collector network, as identified in the MMTMP to **improve east-west connectivity and continuity** within the SABE lands, while balancing impacts to natural heritage, developable lands, and costs.
2. Satisfy **Phase 1** and **Phase 2** of the **MCEA** process by identifying the **constraints, opportunities, and solutions** for connectivity improvements within the Study Area to service the planned growth.
3. Determine the **technical feasibility of the proposed road network** bound by Old School Rd, Coleraine Dr, Mayfield Rd, and Mississauga Rd, specifically for the extensions of George Bolton Pkwy, Dougall Ave, and Abbotside Wy.
4. In collaboration with stakeholders, **recommend and document a conceptual road network** to inform further, more detailed study including a potential Municipal Class Environmental Assessment(s).
5. Develop functional plan and profiles for high level routing and valley crossings to protect for a **26-metre** right-of-way.



MCEA Process



** Municipal Class Environmental Assessment, 2000, as amended in 2007, 2011, 2015, and 2023*

*** The MMTMP Addendum will satisfy Phase 1 and 2 of the MCEA process. An integrated approach may be used to address the remaining requirements under the Environmental Assessment Act (EAA) and the Planning Act.*

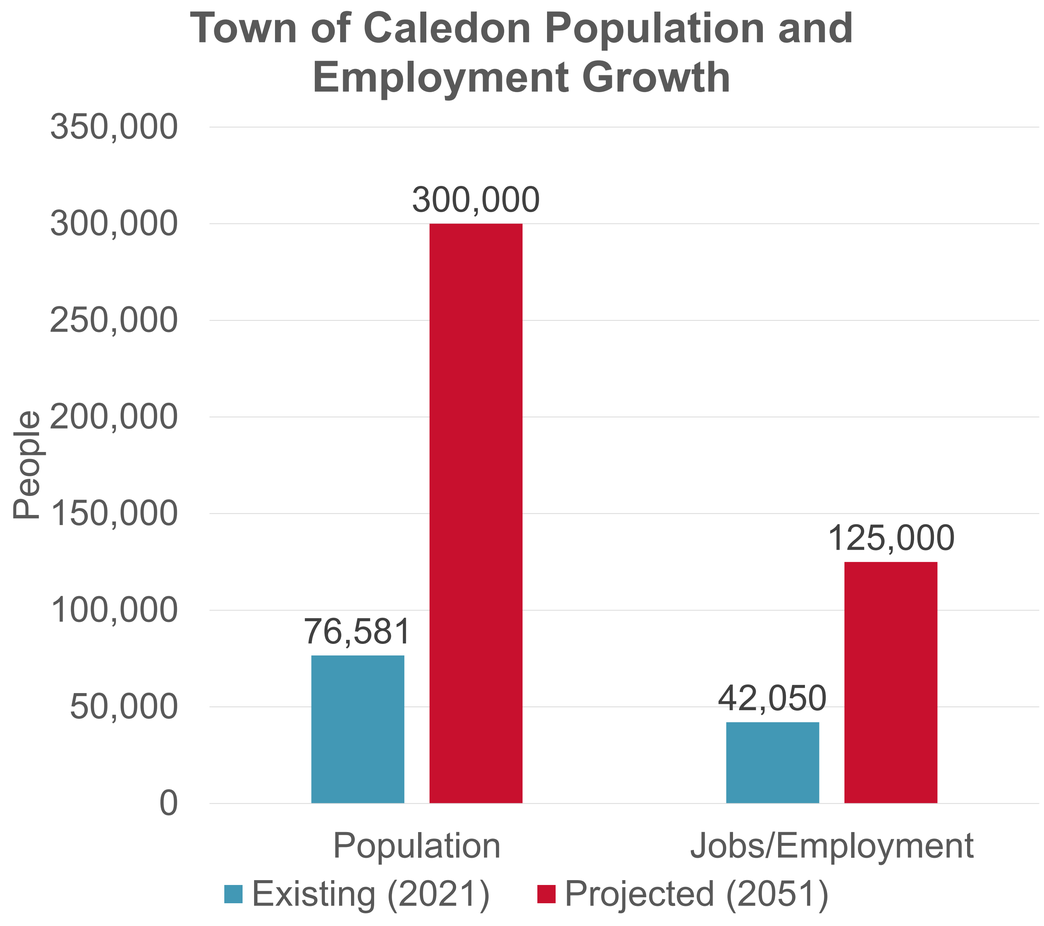
Need and Justification

The Need and Justification for the improvements are supported by Town's policies from the 2024 Draft Future Caledon Official Plan and the Caledon Multi-Modal Transportation Master Plan.

- **Transit:** Improved route coverage, efficiency, and flexibility. Reduced circuitous transit routes and better facilitates trips between SABE neighbourhoods. [*Supports OP 5.2.1, 7.2.4, and MMTMP 5.5.6*]
- **Active Transportation:** More continuous facilities for pedestrians and cyclists with key destinations along the corridors, helping adoption and supporting healthy lifestyles. Supports equitable transportation for those that rely on walking of biking as a primary mode of transport (youth, seniors, low-income residents). [*Supports OP 5.2.1, 7.2.4, and MMTMP 5.5.6, 7.3.2*]
- **Autos:** Increased connectivity, network redundancy, reduced capacity strain on arterials. [*Supports OP 5.2.1, 7.2.4, and MMTMP 5.5.6*]
- **Services:** Alternate routes for emergency services, improved access for snow clearing, salt application, road maintenance. Standardized ROW for municipal water, wastewater, stormwater infrastructure. [*Supports OP 5.2.1, 7.2.4, and MMTMP 5.5.6*]

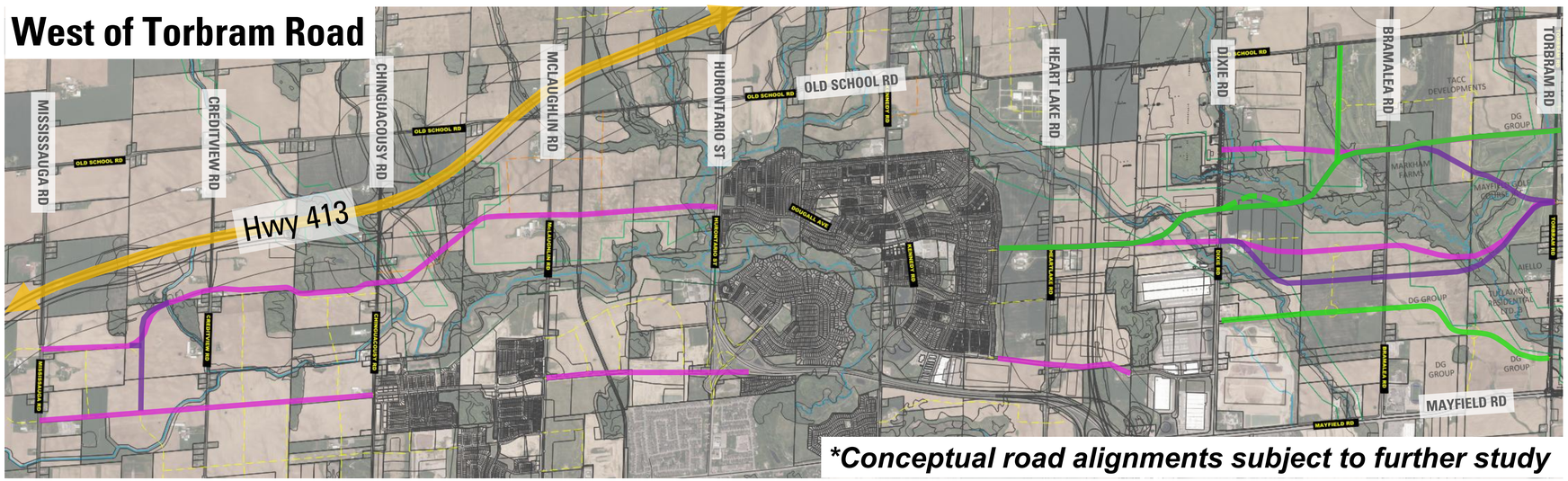
Problem & Opportunity Statement Summary

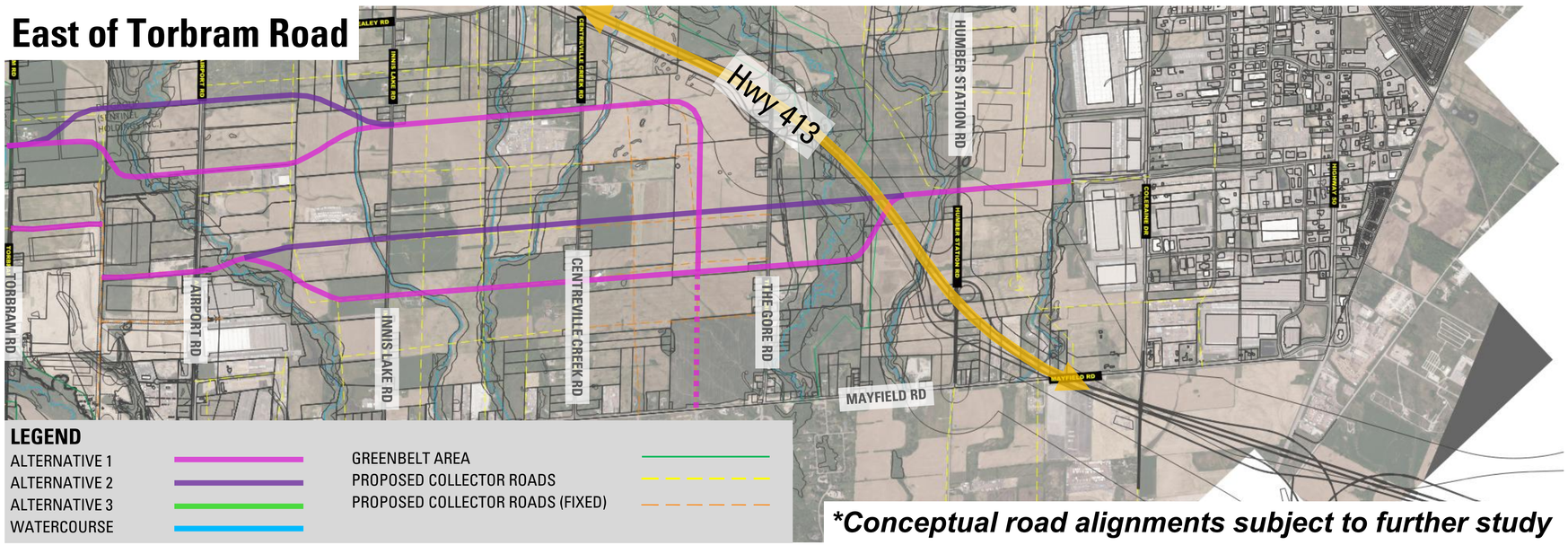
- Caledon is projected to grow to **300,000 people** and **125,000 jobs** by 2051, with the Caledon MMTMP Addendum study area accounting for approximately **132,000 people** and **64,000 jobs**.
- **Existing gaps in east-west road connectivity** within SABE create inefficiencies for vehicles, transit, and active transportation. Building on recommendations from the MMTMP, which identified the need for east-west collectors, the Caledon MMTMP Addendum is being developed to guide a multimodal network that aligns with Caledon's vision for an accessible, sustainable, and integrated transportation system.



- **There is a need for integrated east-west corridors.** Continuous east-west connections are critical for enhancing mobility, enabling efficient transit, reducing congestion, and supporting sustainable growth, particularly in light of new infrastructure like Highways 410 and 413 and approved developments that must be coordinated into the broader network.

Alternative Solutions





Alternative Alignments

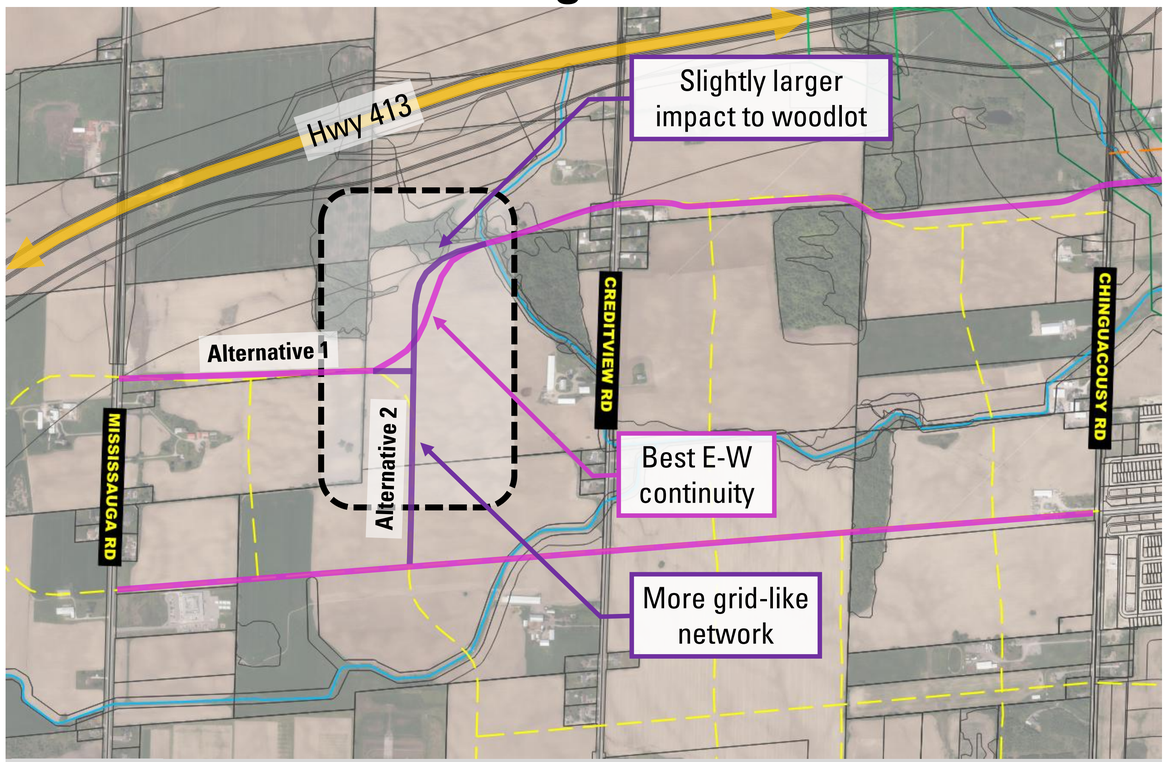
Needs and opportunities were viewed from a **network-wide lens to bridge gaps** in the conceptual collector networks identified in Secondary Plans to maintain continuity in the network while balancing impacts to natural heritage, developable lands, and the size of crossings.

Alignments include:

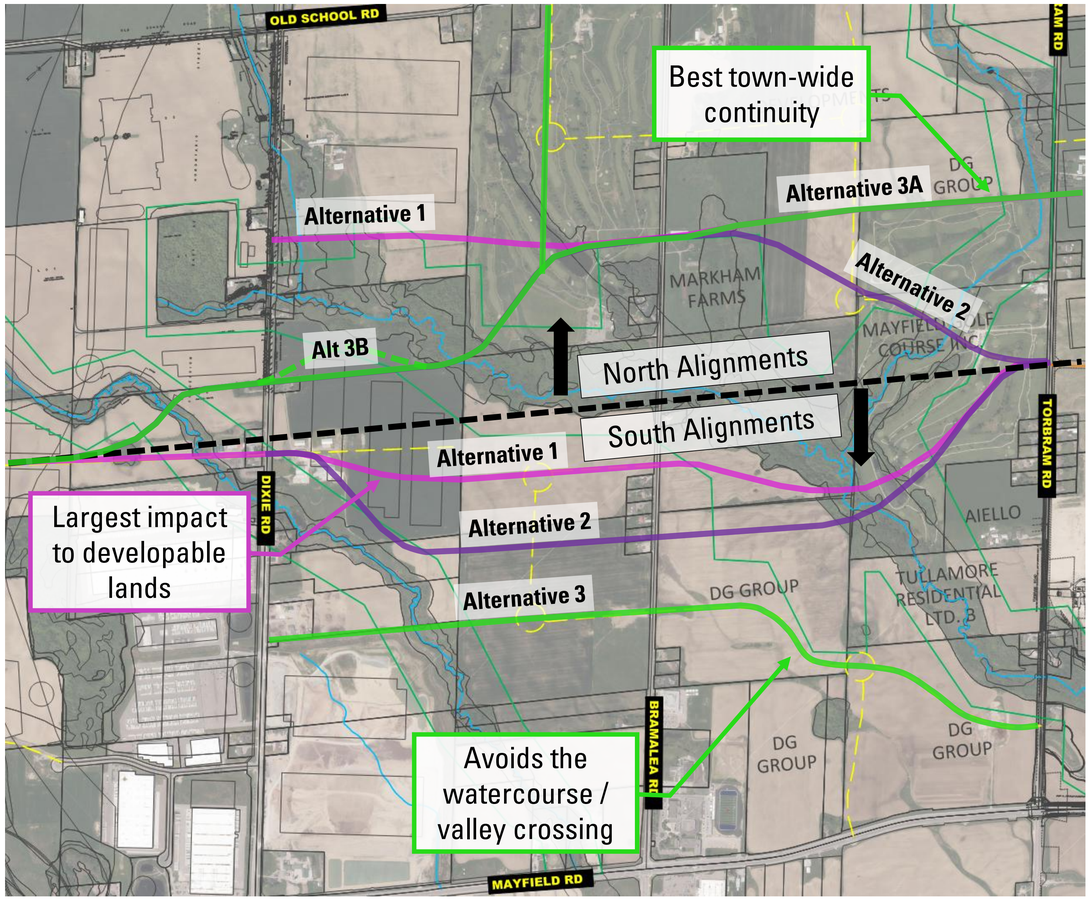
- Continuous east-west connection between Mississauga Road and Dixie Road.
- Various alignments east of Dixie Road to extend connectivity to the east of Torbram Road, east of Centreville Creek Road, and/or more localized connectivity.
- Continuous connection from the west of Airport Road to George Bolton Parkway.

Alternative Solutions

Between Mississauga Rd & Creditview Rd

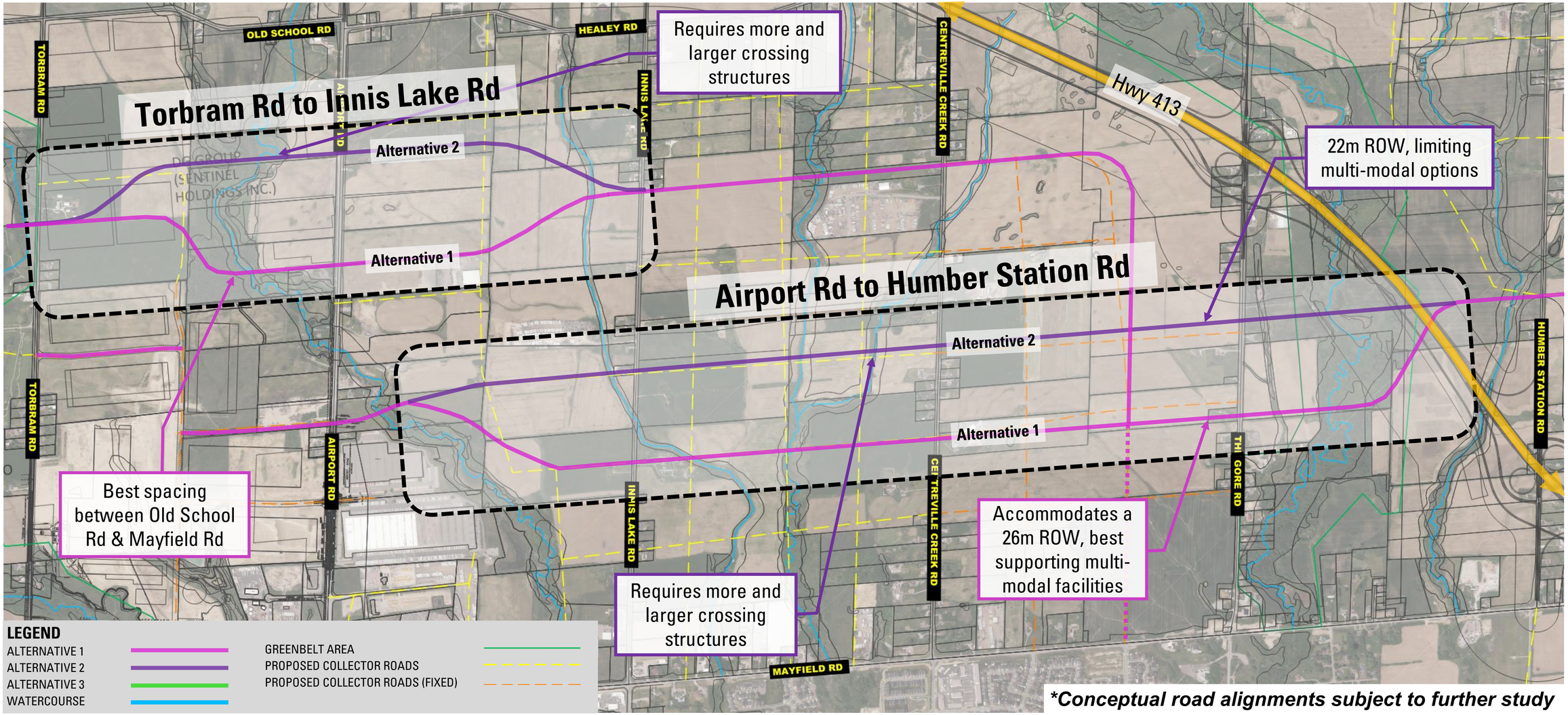


West of Dixie Rd to Torbram Rd



***Conceptual road alignments subject to further study**

Alternative Solutions



***Conceptual road alignments subject to further study**

Evaluation Criteria

The alternative solutions were evaluated based on the following criteria:

Transportation: ability to seamlessly connect existing and future neighbourhoods, reduce local congestion, provide routing alternatives and flexibility, accommodate active transportation, future travel demand, goods movement, constructability, transit supportive infrastructure

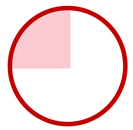
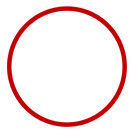
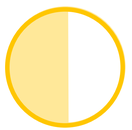
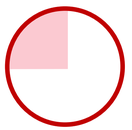
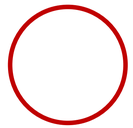
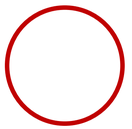
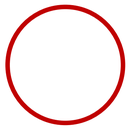
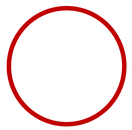
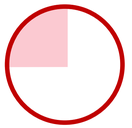
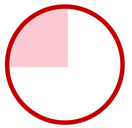
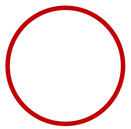
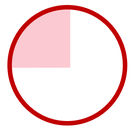
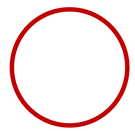
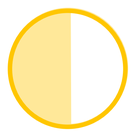
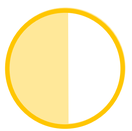
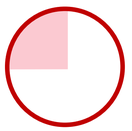
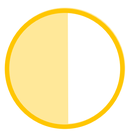
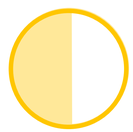
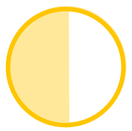
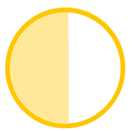
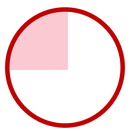
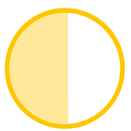
Socio-Economic Environment: existing and planned land uses, property impacts, agricultural lands impacts, promotion of healthy communities

Natural Environment: surface water and groundwater, minimize impacts to flooding and erosion, natural heritage features such as designated areas, vegetation, wildlife, aquatic habitat, species at risk

Safety: accommodate safety and emergency services

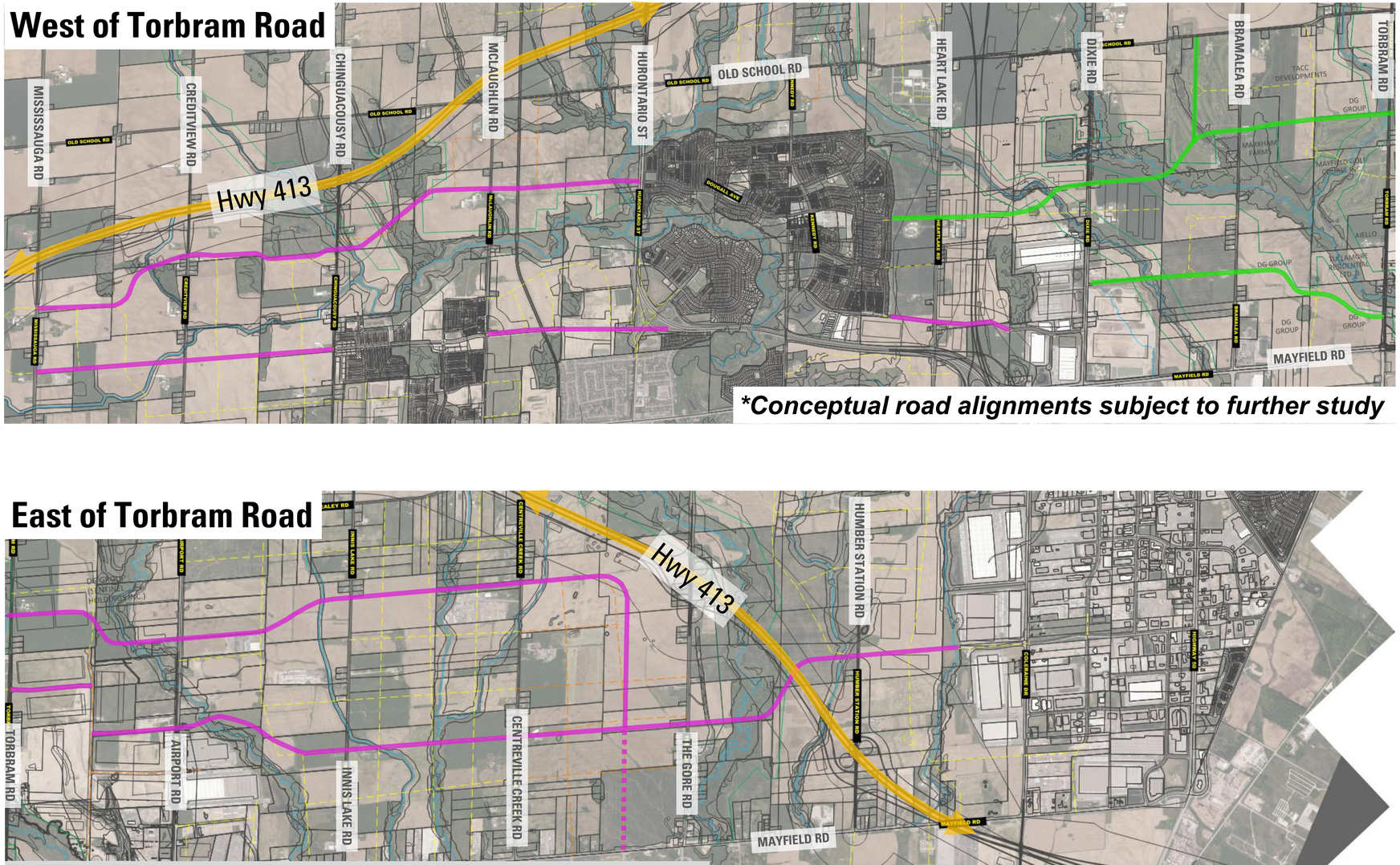
Preliminary Cost: construction-related costs, minimize size of structures, operating and maintenance costs, minimize utility relocation

Evaluation of Alternative Solutions

Criteria	Btwn Mississauga & Creditview		W of Dixie to Torbram (North Alignments)				W of Dixie to Torbram (South Alignments)			Torbram to Innis Lake		Airport to Humber Station	
	Alt 1	Alt 2	Alt 1	Alt 2	Alt 3A	Alt 3B	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 1	Alt 2
Natural Environment													
Socio-Economic Environment													
Transportation													
Safety													
Preliminary Cost	$	$	$	$$$	$$	$$	$$	$$$	$	$$	$$$	$	$$
Overall													

Least Supportive	Less Supportive	Neutral	Supportive	Most Supportive

Preliminary Preferred Alternative



*Conceptual road alignments subject to further study

*Conceptual road alignments subject to further study

Preferred Alternative

The preliminary preferred alternatives carries forward **Alternative 3 from west of Heart Lake Rd to Torbram Rd, and Alternative 1 for the remainder of the study area.**

Alternatives were selected to support the significant population and employment growth in the area, connect the future neighbourhoods within the SABE lands and support multi-modal functionality for pedestrians, cyclists, transit, and autos, while balancing impacts to natural heritage, developable lands, and costs.

Next Steps

Following this Public Consultation Centre, the Project Team will:

- Review and consider feedback from agencies, stakeholders, Indigenous Communities, and the public
- Prepare the TMP Addendum Report to document the analysis conducted, public and stakeholder engagement, and key recommendations

How to stay involved:



We want to hear from you
Provide your feedback by **October 21st**



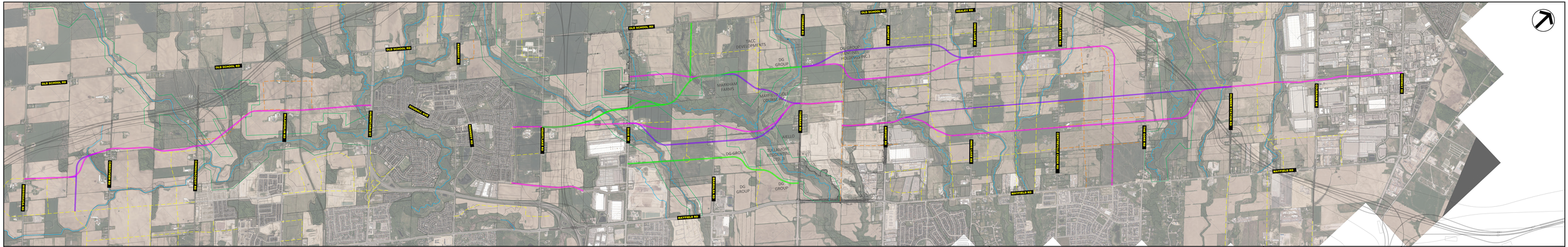
Study webpage
Learn more about the project at haveyoursaycaledon.ca



Contact the Project Team
Reach out to the Project Managers

Jaspreet Kaur
Project Manager
Town of Caledon
905.584.2272 ext. 4040
Jaspreet.Kaur1@caledon.ca

Jamshaid Muzaffar
Consultant Project Manager
HDR
647.777.1687
Jamshaid.Muzaffar@hdrinc.com


OLD SCHOOL RD
OLD SCHOOL RD
OLD SCHOOL RD
OLD SCHOOL RD
OLD SCHOOL RD
OLD SCHOOL RD
HEALEY RD
MAYFIELD RD
MAYFIELD RD
MAYFIELD

TOWN OF CALEDON

Name: [redacted]

Email (optional): [redacted]

Phone (optional):

Consent to be added to the Mailing List (circle one)

Yes No

Comments: Concern about opening Dougall Avenue to Hwy 10. Vehicle speed coming off the 410/10 transition into Dougall Ave is a safety concern.

Thank You!

Personal information submitted (e.g., name, address and phone number) is collected, maintained and disclosed under the authority of the Environmental Assessment Act and the Municipal Freedom of Information and Protection of Privacy Act for transparency and consultation purposes. Personal information submitted will become part of a public record that is available to the general public unless it is requested that the personal information remain confidential.

Caledon Multi-Modal Transportation Master Plan Addendum Study

Public Consultation Centre

September 30, 2025

TOWN OF CALEDON

Name: [redacted]

Email (optional): [redacted]

Phone (optional): [redacted]

Consent to be added to the Mailing List (circle one)

Yes No

Comments: Where possible the road design should be built in support of an efficient grid to minimize the additional cost of a wider roadway allowance (and public right-of-way) to accommodate curving roads (eg Between Creditview & Mississauga Rd). It's good to hear the town is planning for complete streets and active transport but should also be planning for powered personal mobility (e-scooters, bikes) and low speed vehicles.

Personal information submitted (e.g., name, address and phone number) is collected, maintained and disclosed under the authority of the Environmental Assessment Act and the Municipal Freedom of Information and Protection of Privacy Act for transparency and consultation purposes. Personal information submitted will become part of a public record that is available to the general public unless it is requested that the personal information remain confidential.

Caledon Multi-Modal Transportation Master Plan Addendum Study

Public Consultation Centre

September 30, 2025

Appendix G – Indigenous Community Consultation

ID	From	Name	Comment Date	Comments Format	Indigenous Group	Comment / Request	Response Date	Response Format	Response/Action	Status
1	HDR	Martin Kaczmarek	17-Sep-25	Email / PDF Letter: doca@mncfn.ca	Mississaugas of the Credit First Nation	Good morning, The Town of Caledon is commencing a study and public consultation centre for the Addendum to the Multi-Modal Transportation Master Plan. Should you have any questions or would like to provide feedback please contact the project lead: Jaspreet Kaur (Jaspreet.Kaur1@caledon.ca). Best regards,			No response	Complete
2	HDR	Martin Kaczmarek	17-Sep-25	Email / PDF Letter: lrcs@sixnations.ca	Six Nations of the Grand River	Good morning, The Town of Caledon is commencing a study and public consultation centre for the Addendum to the Multi-Modal Transportation Master Plan. Should you have any questions or would like to provide feedback please contact the project lead: Jaspreet Kaur (Jaspreet.Kaur1@caledon.ca). Best regards,			No response	Complete
3	HDR	Martin Kaczmarek	17-Sep-25	Email / PDF Letter: administration@wendake.ca	Nation Huronne-Wendat	Good morning, The Town of Caledon is commencing a study and public consultation centre for the Addendum to the Multi-Modal Transportation Master Plan. Should you have any questions or would like to provide feedback please contact the project lead: Jaspreet Kaur (Jaspreet.Kaur1@caledon.ca). Best regards,			No response	Complete
4	HDR	Martin Kaczmarek	17-Sep-25	Email / PDF Letter: info@hdi.land	Haudenosaunee Confederacy	Good morning, The Town of Caledon is commencing a study and public consultation centre for the Addendum to the Multi-Modal Transportation Master Plan. Should you have any questions or would like to provide feedback please contact the project lead: Jaspreet Kaur (Jaspreet.Kaur1@caledon.ca). Best regards,			No response	Complete
5	HDR	Martin Kaczmarek	17-Sep-25	Email / PDF Letter: consultations@metisnation.org	Métis Nation of Ontario	Good morning, The Town of Caledon is commencing a study and public consultation centre for the Addendum to the Multi-Modal Transportation Master Plan. Should you have any questions or would like to provide feedback please contact the project lead: Jaspreet Kaur (Jaspreet.Kaur1@caledon.ca). Best regards,	17-Sep-25	Email	This is an automatically generated response from consultations@metisnation.org. Please do no reply to this e-mail address. The MNO is adjusting standard work practices due to the Covid-19 outbreak and to better enable staff to work remotely. Please note that the MNO's Lands, Resources and Consultations (LRC) Branch will no longer review hard copy consultation notices mailed to MNO offices. The LRC Branch will review all electronic notices and process them in accordance with our standard operating procedures. All consultation notices must be sent electronically to consultations@metisnation.org. The Métis Nation of Ontario's LRC Branch acknowledges your information notice. The MNO reserves the right to request additional information, meetings and consultations in respect of the project should the MNO deem it to be necessary. For additional information pertaining to consulting with Ontario Métis please visit the MNO web site at: https://www.metisnation.org/programs-and-services/lands-resources-consultations/duty-to-consult/	Complete
6	HDR	Martin Kaczmarek	22-Oct-25	Phone Call: 905-768-4260	Mississaugas of the Credit First Nation	A phone call was made to the Mississaugas of the Credit First Nation to confirm whether they had any questions or feedback about the Notice of Commencement and PIC sent on September 17, 2025. HDR was forwarded to Megan Devries at the consultation department. Megan asked to resend the original email to her work email at megan.devries@mncfn.ca to review and will let the project team know if they have any feedback.	22-Oct-25	Phone Call	Action: Requested that the Notice of Commencement and PIC email be re-sent to megan.devries@mncfn.ca. HDR followed up in email.	Complete
7	HDR	Martin Kaczmarek	22-Oct-25	Phone Call: 519-753-0665	Six Nations of the Grand River	A phone call was made to the Six Nations of the Grand River to confirm whether they had any questions or feedback about the Notice of Commencement and PIC sent on September 17, 2025. HDR was forwarded to Peter Graham (consultation supervisor) at the lands and resources department. Peter acknowledged receipt of the email and noted that their concerns would mainly be on impacts to natural heritage features but no specific feedback at this time. Peter noted they appreciate the project team reaching out early in the study and asked to send a copy of the draft report when available.	22-Oct-25	Phone Call	Action: HDR shared a copy of the draft report.	Complete
8	HDR	Martin Kaczmarek	22-Oct-25	Phone Call: 418-843-3767	Nation Huronne-Wendat	A phone call was made to the Nation Huronne-Wendat community to confirm whether they had any questions or feedback about the Notice of Commencement and PIC sent on September 17, 2025. HDR was unable to communicate with the office as they exclusively spoke in French. HDR will follow up in email format for accessibility.			Action: HDR followed up in email to the original Notice of Commencement and PIC email to confirm whether the community had any questions or feedback.	Complete
9	HDR	Martin Kaczmarek	22-Oct-25	Phone Call: 519-445-4222	Haudenosaunee Confederacy	A phone call was made to the Haudenosaunee Confederacy community to confirm whether they had any questions or feedback about the Notice of Commencement and PIC sent on September 17, 2025. HDR was unable to reach the contact as calls went straight to voicemail and their voicemail was not set up.			Action: HDR followed up in email to the original Notice of Commencement and PIC email to confirm whether the community had any questions or feedback.	Complete
10	HDR	Martin Kaczmarek	22-Oct-25	Phone Call: 613-798-1488	Métis Nation of Ontario	A phone call was made to the Métis Nation of Ontario community to confirm whether they had any questions or feedback about the Notice of Commencement and PIC sent on September 17, 2025. The office noted that they do not have phone numbers available for their consultations staff and asked HDR to follow up with the original email that was contacted (consultations@metisnation.org) to see if they have any feedback or would like a call.	22-Oct-25	Phone Call	Action: HDR followed up in email to the original Notice of Commencement and PIC email to confirm whether the community had any questions or feedback.	Complete
11	HDR	Martin Kaczmarek	24-Oct-25	Email: doca@mncfn.ca	Mississaugas of the Credit First Nation	Good morning Megan, Thank you for taking the time to speak with me on Wednesday about the Caledon MMTMP Addendum. Please find attached the Notice of Commencement and PIC email that was shared with the Mississaugas of the Credit First Nation. Additional information about the project, including the study overview, materials from the Public Consultation Centre, and recent updates, is available on the project website: https://haveyoursaycaledon.ca/multi-modal-transportation-master-plan-addendum Please don't hesitate to reach out to the project team if you have any questions, feedback, or would like to discuss the study further. I hope you have a wonderful weekend! Best regards,				
12	HDR	Martin Kaczmarek	24-Oct-25	Email: administration@wendake.ca	Nation Huronne-Wendat	Good morning, I am following up on my email from September 17th to confirm whether the community has any questions or feedback regarding the Caledon Multi-Modal Transportation Master Plan Addendum study. Additional information about the project, including the study overview, materials from the Public Consultation Centre, and recent updates, is available on the project website: https://haveyoursaycaledon.ca/multi-modal-transportation-master-plan-addendum Please don't hesitate to reach out to the project team if you have any questions, feedback, or would like to discuss the study further. Best regards,				
13	HDR	Martin Kaczmarek	24-Oct-25	Email: info@hdi.land	Haudenosaunee Confederacy	Good morning, I am following up on my email from September 17th to confirm whether the Haudenosaunee Confederacy community has any questions or feedback regarding the Caledon Multi-Modal Transportation Master Plan Addendum study. Additional information about the project, including the study overview, materials from the Public Consultation Centre, and recent updates, is available on the project website: https://haveyoursaycaledon.ca/multi-modal-transportation-master-plan-addendum Please don't hesitate to reach out to the project team if you have any questions, feedback, or would like to discuss the study further. Best regards,				

ID	From	Name	Comment Date	Comments Format	Indigenous Group	Comment / Request	Response Date	Response Format	Response/Action	Status
14	HDR	Martin Kaczmarek	24-Oct-25	Email: consultations@metisnation.org	Métis Nation of Ontario	Good morning, I am following up on my email from September 17th to confirm whether the Métis Nation of Ontario community has any questions or feedback regarding the Caledon Multi-Modal Transportation Master Plan Addendum study. Additional information about the project, including the study overview, materials from the Public Consultation Centre, and recent updates, is available on the project website: https://haveyoursaycaledon.ca/multi-modal-transportation-master-plan-addendum Please don't hesitate to reach out to the project team if you have any questions, feedback, or would like to discuss the study further. Best regards,	5-Nov-25	Email from Laura Desaulniers: LauraD@metisnation.org	Hello, Thank you for the notification, there are no questions or comments at this time.	Complete
15	Mississaugas of the Credit First Nation (MCFN) DOCA	Payton Mitchell	27-Oct-25	Email, from: Payton.Mitchell@mncfn.ca	Mississaugas of the Credit First Nation	Good afternoon, Martin, Please find attached, the letter of response from MCFN-DOCA. We would like to have a short introductory meeting with you to better understand this study and any associated works. We'd appreciate if you could provide some potential meeting times for late November, or early December. Thank you,	28-Oct-25	Call from Martin Kaczmarek to Megan DeVries	Martin called to provide background on the project and to schedule the meeting between MCFN-DOCA, the Town of Caledon, and HDR. As discussed, a draft of the project report has been shared with MCFN for review. HDR coordinated with Payton to schedule a meeting on November 27, 2025.	Complete
16	HDR	Martin Kaczmarek	30-Oct-25	Email: Payton.Mitchell@mncfn.ca megan.devries@mncfn.ca	Mississaugas of the Credit First Nation	Good morning Payton, We appreciate you reaching out and sharing the letter and would be happy to meet with you to discuss the project. The Town and HDR are available at the times below around the end of November: •Wed, Nov 26: 9AM-11AM, 12PM-3PM •Thurs, Nov 27: 9AM-10AM, 12PM-2:30PM •Fri, Nov 28: 9AM-1:30PM, 2:30PM-5PM •Mon, Dec 1: 11AM-12:30PM, 1PM-2PM •Tues, Dec 2: 9AM-11AM, 11:30AM-2PM Could you please let us know if any of these times work for you? Best regards,	30-Oct-25	Email from: Payton.Mitchell@mncfn.ca	Thank you, Martin, Megan and I are available on November 27 at 9 a.m. Are you able to send the meeting invitation? Thank you,	Complete
17	HDR	Martin Kaczmarek	27-Nov-25	Email: Payton.Mitchell@mncfn.ca megan.devries@mncfn.ca	Mississaugas of the Credit First Nation	Good morning Megan and Payton, Thanks again for meeting with us to discuss the MMTMP Addendum! As requested, please find attached a copy of the deck we had presented today. Feel free to let us know if you have any further questions. Best,	27-Nov-25	Email from: Payton.Mitchell@mncfn.ca	Hi Martin, Thank you for providing the presentation materials from this morning's meeting. We look forward to receiving the draft policy in a couple weeks. To facilitate DOCA's review, I've attached a technical review agreement (TRA). Please let us know if you have any questions concerning this agreement. Regards,	On-going: TRA

Appendix H – Meeting Minutes

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	QuadReal Collector Road Meeting
Date:	Tuesday, June 03, 2025
Location:	Virtual
Attendees:	Jacqueline Foster (Town of Caledon) Dan Terzievski (Town of Caledon) Domenica D'Amico (Town of Caledon) Drew Haines (Town of Caledon) Gurpreet Walia (Town of Caledon) Jaspreet Kaur (Town of Caledon) Jamshaid Muzaffar (HDR) Jonathan Chai (HDR) Martin Kaczmarek (HDR) Thomas Woodhall (BA Group) Mohammad Bari (BA Group) Robin Comfort (Tribal) Michelle Lamothe (Tribal) Joseph Simard (Tribal) Alex Williams (Envision) Dabi Abikoye (Envision) Gus Tsoraklidis (QuadReal) Vincent Raso (QuadReal) Cesare Pittelli (Armstrong) Davin McCully (Armstrong) Carleigh Oude-Reimerink (Tribal)
Meeting Purpose	The Town, QuadReal, BA Group, and HDR met to discuss the proposed industrial developments at the QuadReal site east of Dixie Road, mitigation measures identified by BA Group, and how the development will tie into the potential east-west connectivity improvements from the MMTMP Addendum.

Item	**Meeting Note**	**Action**
1	**Overview**	
1.1	The Town, QuadReal, BA Group, and HDR met to discuss the status and next steps for the road network adjacent to the development in question, focusing on road network connectivity, capacity, requirements for future employment land uses and the advancement of employment areas applications.	-
2	**Discussion**	
2.1	**BA Group Presentation & Discussion**	

DRAFT

The Town emphasized the need for a mid-block collector road to support a grid system as new developments proceed and satisfy the holistic connectivity needs for the SABE lands.

BA Group noted that a report was developed that looks at options for midblock alternatives, prepared in consultation with Amazon, QuadReal and residents. The report concluded that a continuous extension of Dougall Avenue would pose challenges.

QuadReal/BA Group (developer team) presented their analysis, highlighting the challenges and high costs associated with constructing a mid-block collector, especially due to natural heritage features and the need for expensive infrastructure such as a 200-meter+ bridge over natural heritage features (creeks and ponds). At the crossing location at Dixie Road that was identified by the developer team, there would be a lack of space due to the existing church and natural heritage features, and the team believes that an intersection with Dixie Road may not be possible with the elevation of the crossing structure along the extension. Overall, a continuous midblock connection through the SABE lands wouldn't be possible, as it would be broken up by conflicts with other developments.

Alternatives such as widening Old School Road were discussed as more feasible interim solutions for the developer, along with the potential for future connections via Abbotside Way. The development team is expecting the highest demand to and from their site travelling between the Highway 413 interchange on Bramalea Road and the interchange on Mayfield Road with Highway 410. The team noted there is an opportunity to upgrade Old School Road via a partial widening in the near-term through the properties that are being acquired next to the roadway to help mitigate site trips between the interchange. The team also noted that through their analysis they keep coming back to Old School Road improvements because the other options appear to be cost prohibitive. The developer team do not believe that the east-west collector would address capacity needs for parcels coming online soon and expressed preference for interim improvements to Old School Road.

The developer team noted a constraint will be a bridge at the Highway 410 extension and that this could be a big impact unless it's constructed before the Highway 410 extension to Highway 413.

The Town raised concerns that an extension of Abbotside Way may not work well as an alternative as it will be disconnected and far from Old School Road but noted that HDR will be carrying it forward as an alternative for consideration. The Town noted that alternate building configurations may need to be explored through the QuadReal site to accommodate an extension and asked whether the developer team would consider the reconfiguration and take it away for further development.

The developer team noted that they understand the desire for parallel networks and redundancy, and that the land use designations in the area and natural constraints would result in impacts to their developable land, efficiency of the industrial uses on-

site, and desirability for tenants, but agreed that they will look at options for the building reconfigurations on the site. ***Takeaway: Changing the building configurations isn't out of the question but poses challenges, and the developer team may be more receptive to options that mitigate impacts to their site to the extents possible.***

The Town noted that there will be costs no matter the direction chosen, either as a cost of giving up network connectivity or costs from impacted lands. The Town also noted that BA Groups evaluation tables and connection options have been circulated with HDR and will be taken into consideration.

BA Group asked whether order of magnitude pricing should be shared for bridges and options that have been considered by the development team. HDR agreed it would be helpful to see the pricing. **QuadReal / BA Group to share the pricing estimates with the Town, and Town will circulate to HDR.**

QuadReal / BA Group

HDR noted that the Caledon TTMP Addendum will be looking at the broader area and connectivity across it while reviewing capacity and connectivity needs. The needs for connectivity across the broader area will need to be balanced with the impacts to developable areas.

Concerns were raised about the impact of new roads on residential neighbourhoods, traffic flow, and the efficiency and viability of employment land parcels if building configurations are altered to accommodate new road alignments. Concerns were raised regarding industrial / commercial truck trips travelling through residential neighbourhoods. The developer team believe Old School Road improvements will keep trucks on Old School Road while addressing east-west flow concerns.

HDR confirmed they are progressing with road alignment evaluations and stakeholder meetings, aiming to balance connectivity needs with development viability and environmental constraints.

Cost implications for developers and municipalities were discussed, with consensus that some road options may only be viable as Development Charge (DC) projects due to their expense and long-term maintenance requirements.

3	**Key Issues**	
3.1	East-west collector improvements will be costly (due to crossings of natural heritage features, structures, maintenance, etc.). Desire from landowners to avoid splitting parcels due to impacts to the value of the parcels, land efficiency, and ease of finding long-term tenants. No room for intersection where BA Group presented it (however, other options can be looked at).	-

DRAFT

	Mixing of residential and commercial traffic.	
4	**Decisions & Next Steps**	
4.1	Stakeholders agreed to continue collaboration, share analysis, and maintain open communication as evaluations progress. Town will coordinate the upcoming workshop as a working session to foster collaboration and finalize road network solutions. All parties acknowledged the need to balance road connectivity, development efficiency, and environmental protection in final recommendations.	-
3	**Action Items**	
3.1	HDR to prepare meeting minutes and circulate to the Town for approval.	HDR
3.2	QuadReal / BA Group to compile and share their package of road alignment options and cost estimates with Town, who will share with HDR. Deadline: Not specified but implied as soon as possible.	QuadReal / BA Group
3.3	HDR to provide the town with updated alignments, needs assessment overview, and recommendations by mid-June. Deadline: Mid-June.	HDR
3.4	Town to schedule an in-person stakeholder workshop for the third or fourth week of June, depending on progress and availability. Deadline: To be determined.	Town

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	Meeting with Mayfield-Tullamore Landowner Group
Date:	Wednesday, July 09, 2025
Location:	Virtual
Attendees:	Dan Terzievski (Town of Caledon) Domenica D'Amico (Town of Caledon) Drew Haines (Town of Caledon) Gurpreet Walia (Town of Caledon) Jaspreet Kaur (Town of Caledon) Jonathan Chai (HDR) Jamshaid Muzaffar (HDR) Martin Kaczmarek (HDR) Andrea Kelly (Geranium) Dalton Young (MGP) David Stewart (TACC Developments) Jessica Kwan (Broccolini) Josh Berry (Anatolia) Justin Mamone (MT LOG) Kim Beckman (Development Collective) Liz Sawicki (MT LOG) Matthew Cory (MGP) Nick McIntosh (SCS) Michael Beach (MT LOG) Steve Krossey (BA Group) Pat Becker (MT LOG) Paul Brown (MT LOG) **Identified as Mayfield-Tullamore Landowners Group (MT LOG) when company name was not available*
Meeting Purpose	Meeting to present the preliminary alignments to the Mayfield-Tullamore landowners group and to have a roundtable discussion with the Town of Caledon and HDR.

Item	**Meeting Note**	**Action**
1	**Welcome & Introductions**	
1.1	HDR provided a summary of the presentation agenda, and the meeting attendees did a roundtable introduction.	-
2	**Discussion**	
2.1	**Presentation**	-

DRAFT

HDR presented the project overview, past engagement, need and justification, constraints, and preliminary alignment alternatives to the Mayfield-Tullamore landowners group.

2.2 Discussions

After presenting the materials, HDR opened the discussions for any questions or feedback.

Mayfield-Tullamore (MT) noted that there are critical servicing connections to outside of the community that had guided the selection of their preferred network and road connections. MT also noted that certain species at risk had also constrained some locations for connections and noted that some species weren't flagged during the presentation.

Servicing

SCS / MT LOG approach was to align their road network with their sanitary sewer network. The alignment was selected because the north-west area of the site is at a higher elevation than the south-east and therefore the trunk sewer would want to follow that topography. The connection to the south-east at the Rice Group intersection with Torbram Road would allow for a simpler and cheaper option. Servicing to the site would be provided via a connection at the Rice Group site. The sanitary sewers would be placed below the ground in the valley and therefore the servicing and roadway alignments do not need to match exactly, but MT noted that this would provide a cheaper and lower impact option since the valley would already be disturbed.

Natural Heritage

GEI / MT LOG noted that the northern portion of the site in the green belt has a redside dace habitat and would require a special permit to disrupt. The northern crossing identified by HDR / TOC has significant woodlands and wetlands, and there are more impacts to redside dace there compared to the alignment further south. MT noted that the southernmost green alignment just west of Torbram Road has a significant natural area.

HDR asked about the driveway currently located through the woodlands at the northern connection to Torbram Road and whether that could be used to mitigate impacts to the rest of the natural area. The driveway connects Torbram Road to the agriculture lands west of the woodland. GEI / MT noted that they were proposing to remove that crossing to remove the barrier.

DRAFT

Traffic & Roadway Alignments

BA Group / MT LOG asked whether there is an opportunity to mix and match the options presented because they were presented as pairs. Town and HDR confirmed they are open to mixing and matching.

BA Group / MT LOG noted that they looked at SV1 and NV1, but they did not see much benefit of the SV1 option due to the connection location.

BA Group / MT LOG asked why that location was selected for the north-south connection to Old School Road, acknowledging that it's reasonable to place it along the boundary between MT and QuadReal, but noted that the stakeholders do not own some of the land along the connection. HDR asked BA Group / MT to share more information on the missing lands if available. Anatolia / MT LOG noted that MT is proposing to relocate some of the pond to the MT boundary, as a barrier between MT and QuadReal north.

BA Group / MT LOG also raised a concern about the north east-west connection through the residential area being the fastest option for commercial vehicles to reach the future Highway 413.

MT LOG asked if the objective of the study is to have a continuous east-west corridor. Town confirmed that connectivity and continuity are important but understand that there are constraints and needs from developers.

Geranium / MT LOG noted that the variations to Alternative 3 are a step in the right direction and asked whether there is a hybrid option that can be worked on that would satisfy the Town and MT. The Town noted that they are receptive of additional feedback from MT, but that there may be more benefit to discussing after the meeting with QuadReal as that meeting may affect the alignments. MT LOG are looking to progress on alignments as soon as possible as they are planning to hold a public consultation on September 16th.

Kim Beckman / MT LOG noted that they will circulate information from their assessments to the Town and HDR and asked whether it would be possible to have direct communications with HDR. HDR confirmed they are okay to communicate directly, and the Town noted that any communications should include their team.

	MT LOG will share materials with HDR to make sure all available constraints and analyses are available for consideration in the study.	MT LOG
3	**Next Steps**	
3.1	**HDR to prepare meeting minutes and circulate to the Town for review and confirmation.**	HDR

3.2	**MT LOG will share materials with HDR to make sure all available constraints and analyses are available for consideration in the study.**	MT LOG

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	Meeting with QuadReal
Date:	Wednesday, July 16, 2025
Location:	Humber River Center (28 Ann Street, Bolton) & Virtual
Attendees:	Dan Terzievski (Town of Caledon) Domenica D'Amico (Town of Caledon) Drew Haines (Town of Caledon) Gurpreet Walia (Town of Caledon) Jaspreet Kaur (Town of Caledon) Jonathan Chai (HDR) Jamshaid Muzaffar (HDR) Martin Kaczmarek (HDR) Cesare Pittelli (Armstrong) Alex Williams (Envision) Mohammad Bari (BA Group) Carleigh Oude-Reimerink (Tribal) Stephen Armstrong (Armstrong) Davin McCully (Armstrong) Gus Tsoraklidis (QuadReal)
Meeting Purpose	Meeting to present the preliminary alignments to the QuadReal developer team and to have a roundtable discussion with the Town of Caledon and HDR.

Item	**Meeting Note**	**Action**
1	**Welcome & Introductions**	
1.1	HDR provided a summary of the presentation agenda, and the meeting attendees did a roundtable introduction.	-
2	**Discussion**	
2.1	**Presentation** HDR presented the project overview, past engagement, need and justification, constraints, and preliminary alignment alternatives to the QuadReal developer team.	-
2.2	**Discussions** HDR opened the discussion to the group to provide any feedback or questions.	

DRAFT

Splitting QuadReal South Parcel

The Town asked whether QuadReal would consider a connection through their site that would split it into two parcels. QuadReal noted that their preference would be a larger parcel due to massing issues from a split plot and the issues that would come with smaller buildings, including difficulty finding good tenants or needing to sell off the plots. QuadReal also noted that it's not cost effective enough to build small buildings to make it work for them financially.

SWM Ponds

QuadReal also noted that a split parcel would be problematic for the site stormwater management (SWM) pond and that it may need to be located underground.

The Town asked if the pond could be located at the north-west corner of the south site. QuadReal noted that the location may work if some land adjacent to the municipal road is allowed to be used for the SWM pond area. Town will consider this and is willing to work with QuadReal to make an east-west connection in the area work.

QuadReal noted that north segments for Alternative 1 and 2 (Pink and Purple) run through the SWM pond on the QuadReal north site.

North-South Connection to Old School Road

QuadReal asked whether the north-south connection alignment is split between Mayfield-Tullamore (MT) and QuadReal, noting that MT is planning to relocate the pond that is currently located in the Banty's Roost Golf Course to the border with QuadReal and that the alignment may need to go east of that pond. The current alignment also conflicts with houses that are not owned by MT and QuadReal just south of Old School Road.

QuadReal Feedback

Town noted that the alignments can be taken back for QuadReal's consideration and feedback. The Town would like feedback in advance of the upcoming meeting with the mayor to help inform the discussions. QuadReal noted that they will need to receive feedback from Tom (BA Group) and that it will be tough to provide feedback within a week but will do their best. QuadReal also asked if CAD files can be shared with the alignments to help inform their review and feedback. Town and HDR confirmed the alignments can be shared but noted it may be better for QuadReal to take the fixed points and see which refinements would work for their site. There is flexibility in the connections between the fixed points, but Town's preference is to have a continuous connection from west of Dixie Road to east of Torbram Road via the connection north of the Rice Group development. **HDR will share a CAD file with the preliminary alignments.** HDR

DRAFT

Amazon Connection at Dixie Road

QuadReal noted that the connection to Amazon would not be preferred as it may cause issues with trucks passing through the residential area, and that the mayor may also be against it for that reason. The Town noted that the mayor has not had an opportunity to see the materials prepared yet for the MMTMP Addendum.

Capital Costs & Maintenance

QuadReal asked whether the Town council will have an appetite to spend the money needed for the crossings in the area and the maintenance costs associated with them. The Town noted that it will need to be put forward to the Town council as these larger works will be needed to accommodate the planned growth and development in the area.

Costing of Alternatives

QuadReal asked whether costing of the alternatives is available. The Town confirmed that costing is being considered internally and will be refined and shared to the broader group when the alternatives are more settled.

Coordination with Mayfield-Tullamore LOG

QuadReal asked whether the MT Landowners Group's preferred routes can be shared, noting that despite BA Group supporting both developments, they are not allowed to share information unless approved. The Town noted that they can help facilitate the discussions between QuadReal and MT.

Crossing of Dixie Road

QuadReal raised concerns about the proposed Dixie Road crossing near their south site, noting that when they had previously evaluated the crossing, they found that a large bridge would be required over Dixie Road via an interchange, and that it would impact a church located there. HDR noted that this difficult crossing location was factored into their evaluation of the alignments at Dixie Road, and that the proposed crossing is further north to avoid the larger natural heritage features and the church. Quad Real acknowledged that the crossing to the north would be more feasible, though it may impact the landscaping business that is located there.

Public Consultation

QuadReal asked whether a PIC will be held for the study. The Town confirmed that a PIC will be held, and that the schedule previously developed had identified that it would be in September. The Town also noted that the development community is pushing for the study to progress due to the developers planning their own PICs and the MMTMP Addendum could affect their networks.

DRAFT

Old School Road Improvements

QuadReal asked whether Old School Road would be analyzed as part of the MMTMP Addendum. The Town noted that they have an EA RFP coming out soon for Old School Road and that there are constraints for available land to the north of the corridor which could make it difficult to widen. The Town also noted that the MMTMP already identified improvements to Old School Road with the addition of east-west connectivity via a collector roadway, and that the MMTMP Addendum will verify the need, but the east-west collector would still be needed for connectivity and continuity.

QuadReal noted that they are working with other developers to look at improvements to Old School Road as a more short-term solution to the needs along the corridor. The improvements would extend to Bramalea Road. The Town confirmed that the east-west collector would still be needed even with the improvements to Old School Road.

Highway 413 & Highway 410 Extension

QuadReal asked about the status of the Highway 413 extension and when it could be expected that it would be constructed. The Town noted that they are advocating for a Highway 410 extension and the Highway 413 portion west of the Highway 410 extension. The Town is trying to push for these improvements so that Highway 10 can be downloaded as soon as possible due to access issues that are present on Highway 10. The Town will provide info to the MTO about the work that is being done in the area and what the Town needs from a transportation network perspective and may suggest revising the interchange locations if it makes more sense for the planned developments and access locations in the future.

The Town confirmed that that MTO has provided a written commitment to allowing the extensions of both Dougall Avenue and Abbotside Way to cross the Highway 410 extension alignment. The Town sees the crossing to Dixie Road as a sunk cost for the extensions, and some form of connection beyond Dixie Road via the Dougall Avenue extension is preferred to provide continuity.

QuadReal Access to Old School Road

QuadReal asked whether there will be any pushback to having an access from their north site to Old School Road, noting that there may be spacing constraints with the north-south roadway that is proposed. The Town noted that the improvements to Old School Road will be needed before it's suitable for trucks but also noted that the north-south connection is intended to be used by QuadReal's trucks to help facilitate access to and from Old School Road. HDR also noted that the MMTMP Addendum would give a need and justification for the north-south collector to Old School Road which would improve access to the QuadReal site.

Next Steps

	QuadReal will take away the materials and discussions to inform their feedback on the alignments and would also incorporate the CAD alignments if available.	
	QuadReal will call the Town ahead of the mayor meeting next week to provide an update and any feedback at the time.	QuadReal
3	**Next Steps**	
3.1	**HDR to prepare meeting minutes and circulate to the Town for review and confirmation.**	HDR
3.2	**HDR will share a CAD file of the preliminary alignment alternatives with QuadReal.**	HDR
3.3	**QuadReal will call the Town ahead of the mayor meeting next week to provide an update and any feedback at the time.**	QuadReal

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	Meeting with Broccolini
Date:	Thursday, July 24, 2025
Location:	Virtual
Attendees:	Dan Terzievski (Town of Caledon) Domenica D'Amico (Town of Caledon) Drew Haines (Town of Caledon) Jonathan Chai (HDR) Jamshaid Muzaffar (HDR) Martin Kaczmarek (HDR) Toni Wodzicki (Broccolini) Michael Beach (Broccolini) Jessica Kwan (Broccolini)
Meeting Purpose	Meeting to present the preliminary alignments to the Broccolini developer team and to have a roundtable discussion with the Town of Caledon and HDR.

Item	**Meeting Note**	**Action**
1	**Welcome & Introductions**	
1.1	HDR provided a summary of the presentation agenda, and the meeting attendees did a roundtable introduction.	-
2	**Discussion**	
2.1	**Presentation** HDR presented the project overview, past engagement, need and justification, constraints, and preliminary alignment alternatives, and evaluation criteria to the Broccolini developer team.	-
2.2	**Discussions** Broccolini provided an update, noting that they have a public consultation scheduled for October for their Secondary Plan.	

DRAFT

Broccolini was also part of the Mayfield-Tullamore landowners group discussions, and the team had already seen the previous slide deck.

Broccolini also noted that they understand that the Town and HDR have aligned the connection point through the West Tullamore site with the alignment shown in their West Tullamore development plan but advised that Broccolini is currently the only participating landowner in the West Tullamore area and the plans beyond their site are highly conceptual.

Broccolini noted that they had several meetings with the Town to discuss the site plan and Secondary Plan, but the discussions were with different staff at the Town than the team for the Caledon MMTMP Addendum. Broccolini's reason for being a participating landowner is that they have a strong multi-national prospective client for the site.

Broccolini noted that their recent plans for the site have shifted, and they are no longer proposing a stormwater management pond within their site and are now planning on building two buildings instead of one.

Broccolini asked if there is flexibility for the connection to Torbram Road. HDR noted that there is flexibility in that connection, and that the preliminary alignments selected attempted to minimize impacts to the development proposals.

Broccolini presented alternative alignments that they have prepared through the West Tullamore lands which showed two variations of an east-west connection north of the Broccolini sites. One site is shifted further to the north as Broccolini worries that the collector roadway intersection with Airport Road will be too close to the Broccolini site access, however, the Town and HDR are concerned that this alignment would be located too close to Old School Road and would negate some connectivity benefits in the area. HDR also raised concerns regarding the two watercourse crossings and the wider valleys to the north, noting that these alignments would need further evaluation to account for crossing distances and natural impacts. Broccolini noted that in their preliminary evaluation they believe the northern crossings would have a smaller natural heritage impact due to the denser forest west of the Broccolini site but agreed that further evaluation would be needed to define the specific impacts and trade-offs.

The Town asked whether Broccolini is planning on signalizing their site access. Broccolini confirmed that they are still evaluating the need for signalization but that they expect it will be signalized to help facilitate left turns out of the site and provide for safe right-of-way.

The Town and HDR asked whether the alignments would work skirting the Broccolini site along the north or south boundary, but Broccolini noted that there may be concerns from the landowners there as it would impact their developable lands and their sites are already relatively small and constrained by the natural areas to the west. Broccolini suggested that the lands further to the north may be preferrable because the lands are more "sterile" and disconnected already with more of the lands being undevelopable due to the natural heritage zoning and natural barriers. These barriers

DRAFT

would require the developers there to build connections to use the land, which the Town could make use of.

Broccolini shared an image of their latest site plan which shows two buildings with an internal driveway through the center and loading docks adjacent to the internal driveway. Broccolini noted that running a collector road through this area would conflict with the loading dock operations. Broccolini noted that their lot is already approximately 40% blocked by the natural area to the west, and they're currently looking at about $2 million per acre and losing more land would be devastating for their development.

Broccolini asked that the Town provide a commitment that an option through the site is dismissed as soon as possible to help them progress with their development. They are looking at finishing the development as soon as possible, targeting 2027. Town and HDR agreed that they will take Broccolini's presentation materials back and evaluate the alternatives further to help confirm whether an alignment through the site would still be considered.

Broccolini noted that there were other alignment alternatives that were looked at in the area but only focused on the two variations for the meeting due to time constraints. **Broccolini will share their alignment alternative materials with the Town and HDR.**

3	**Next Steps**	
3.1	**HDR to prepare meeting minutes and circulate to the Town for review and confirmation.**	HDR
3.2	**Broccolini will share their alignment alternative materials with the Town and HDR.**	Broccolini

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	Mayfield-Tullamore LOG Road Issues Meeting
Date:	Thursday, August 21, 2025
Location:	Virtual
Attendees:	Dan Terzievski (Town of Caledon) Domenica D'Amico (Town of Caledon) Drew Haines (Town of Caledon) Gurpreet Walia (Town of Caledon) Jaspreet Kaur (Town of Caledon) Jamshaid Muzaffar (HDR) Martin Kaczmarek (HDR) Steve Krossey (BA Group) Ethan Sun (BA Group) Pat Becker (MT LOG)
Meeting Purpose	Bi-weekly check-in meeting with the Town and Mayfield-Tullamore to discuss updates and action items for the Mayfield-Tullamore development.

Item	**Meeting Note**	**Action**
1	**Welcome**	
1.1	Round of introductions between the Town, HDR, and the Mayfield-Tullamore (MT) Landowners Group (LOG) team.	-
2	**Discussion**	
2.1	**Collector Road Alignments** The Town and MT LOG confirmed the previous understanding of the east-west alignments; the Town conditionally accepts the south alignment preferred by MT LOG subject to the north alignment being shifted to provide more network continuity to the east and west. BA Group noted that the MT LOG is actively working on an approach to shift the northern east-west alignment to the north, but the group is not there yet. The key challenges for MT LOG are impacts to developable lands and environmental impacts. MT LOG have previously shared a map which showed a bubble around the north east-west alignment to show potential connection areas. The Town noted that there is flexibility in the alignments through the MT site, but the bubble should note that the	

DRAFT

intent is to connect to the alignments beyond the site, east of Torbram Road and west of the MT western limit.

The Town noted their scheduling concerns, preferring to have the north east-west alignment settled to be able to present a consistent message at the public consultations for the Caledon MMTMP Addendum, and the MT LOG PIC in October. **BA Group will communicate the urgency to the MT LOG.** The Town also noted that the road network presented at the PIC will not be final, and there will be an opportunity to refine the alignments based on feedback from the PIC (currently targeting last week of September). BA Group

Highway 413

BA Group noted that they have received plan and profile drawings for Highway 413 and that the Dougall Avenue and Abbotside Way extensions were not shown on the drawings. The Town noted that they are not shown, but MTO have no objections to the extensions. The plan is to build the extensions at the same time as the Highway 410 extension.

Right-of-Ways (ROWs)

The Town and BA Group discussed the ROWs proposed on the site. The Town confirmed that they accept the 18 metre ROW for local roads with sidewalks on both sides. The Town also confirmed that the 23.5 metre ROW is correct for minor collector roads, but that this is the basic ROW and localized widening may be needed at intersections to accommodate lane configurations. The Town will be looking for approaches from BA Group on the transition of multi-use paths (MUPs) through intersections. ROW of 26 metres is correct for major collector roads.

Traffic Analysis

HDR confirmed that the EMME modelling for the MMTMP Addendum will include volumes on the internal east-west collector road. The current target is three to four weeks away to have the analysis completed prior to the PIC. Documentation on the analysis will come after the PIC.

Traffic Calming Measures

The Town noted that they will take back BA Group's proposed traffic calming measures for review, but proactive measures such as curb extensions and raised crossings could be considered. BA Group noted that in some cases, such as the Wildfield development, traffic calming measures are already being prepared as part of draft plan of subdivision.

Wildfield Development

The Town and BA Group discussed the requirements for the Wildfield development. BA Group noted that they will update their Community-Wide Transportation Study to address all comments to-date and provide all analysis to support their plan. The Town

DRAFT

	noted that a key consideration for them is to ensure that the phased improvements account for the ultimate conditions to avoid building the improvements only to find out they can't accommodate the future needs. MT LOG also noted that the EA side needs to be addressed before the lane configurations and intersections are finalized for the site. **BA Group will pass on discussions about the EA requirements needing to be met to the MT LOG.**	BA Group
3	**Next Steps**	
3.1	**HDR to prepare meeting minutes and circulate to the Town for review and confirmation.**	HDR
3.2	**BA Group will communicate the urgency of the need to settle the east-west alignments through the MT site to the MT LOG.**	BA Group
3.3	**BA Group will pass on discussions about the EA requirements needing to be met to the MT LOG.**	BA Group

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	Mayfield-Tullamore LOG Road Issues Meeting
Date:	Tuesday, September 02, 2025
Location:	Virtual
Attendees:	Dan Terzievski (Town of Caledon) Domenica D'Amico (Town of Caledon) Drew Haines (Town of Caledon) Jaspreet Kaur (Town of Caledon) Jamshaid Muzaffar (HDR) Jonathan Chai (HDR) Martin Kaczmarek (HDR) Ethan Sun (MT LOG / BA Group) Pat Becker (MT LOG) Rayne Thompson (MT LOG / SCS) Steve Krossey (MT LOG / BA Group) Theressa Chung-Hun (MT LOG) Zack Korn (MT LOG)
Meeting Purpose	Bi-weekly check-in meeting with the Town and Mayfield-Tullamore to discuss updates and action items for the Mayfield-Tullamore development.

Item	**Meeting Note**	**Action**
1	**Welcome**	
1.1	Round of introductions between the Town, HDR, and the Mayfield-Tullamore (MT) Landowners Group (LOG) team.	-
2	**Discussion**	
2.1	**Traffic Calming** BA Group shared the traffic calming strategies from the Wildfield development, since the same strategies would apply to Mayfield-Tullamore; the top two strategies that are being considered are curb extensions and protected intersections. The Town noted that operations had concerns with curb extensions at intersections and would prefer mid-block curb extensions. BA Group will consider reducing the curb radius and will show swept paths for design vehicles (likely garbage trucks) to make the Town comfortable with the proposed design.	

DRAFT

BA Group showed an example of a protected intersection in Toronto at St. George and Bloor. The Town advised that they will discuss this configuration internally, but due to higher costs and different equipment requirements, there may be better wins to consider with other strategies and consideration can be given to retrofit to protected intersections at problematic intersections.

Road Alignments

BA Group noted that they will be meeting with the MT LOG stakeholders tomorrow (September 3rd) to discuss the north east-west alignment. **BA Group will provide an update on the northern road alignment after the meeting.** MT have created a working group for the alignment of this roadway. The Town reiterated that the connection to the south is contingent on the continuity being provided in the north and noted that there may be benefits of MT LOG coordinating with Broccolini to the east of Torbram Road on the connection location to maintain continuity. BA Group

MT LOG are proposing to shift the north-south connection further to the east which would result in the connection being between residential uses on both sides. **HDR and the Town will take that back to discuss, as the team was looking to use that connection as a buffer and accommodate truck trips.** There are also noise implications for residential buildings backing onto an industrial site. HDR & Town

PIC

The Town has tentatively blocked off September 25th for the MMTMP Addendum PIC. The MT PIC will be in October.

Transportation Study

BA Group shared the proposed Community-Wide Transportation Study scope from the Wildfield Village development, noting that lots of overlap is expected with the Mayfield-Tullamore study. The scope for the study reflects that of a Secondary Plan transportation study, supporting the network proposed for the development block.

BA Group will analyze the ultimate configuration to avoid under sizing / designing intersections and will analyze all internal collectors. A 23 metre ROW would allow for left turn lanes but not both left turn and right turn lanes; BA Group will identify where additional property would be required to accommodate turn lanes.

The Town noted that the cross-sections will need to provide sufficient space for tree soil volumes. Previous assessments by the Town when developing the cross-section features have considered these needs.

BA Group asked about the approach to coordinate with Brampton Transit. The Town noted that they will be the ones to coordinate with Brampton Transit, and the development team will be responsible for proposing the transit plan and catchment areas in their submission.

The TDM portions of the study will be driven by transit and active transportation. The Town noted that the study should also consider ways to future-proof the neighbourhood. BA Group noted that one of the measures they are proposing is to require site applicants to look at TDM as part of their submissions, and that the provision of good active transportation facilities will support future proofing.

Environmental Assessments

The Town confirmed that the onus will be on the landowners to ensure that they are satisfying Phase 3 and 4 of the EA process as part of their site applications. This includes the east-west collector roads identified in the MMTMP Addendum; the MMTMP Addendum will evaluate alternatives and cover portions of the EA process, but the Town is expecting that these connections are built by the developers.

Pat from MT LOG noted that there are trade-offs of having Town-led or developer-led EA studies. The evaluation of alternatives in the MMTMP Addendum could eliminate the need to do a Schedule C EA for the corridors but would need archaeology to be undertaken. Archaeology from developer studies can be used. Crossings of the watercourses would trigger Schedule B studies to be done if led by the Town, but if undertaken by developers it would not be required. Additionally, there is a risk of piecemeal development if not led by the Town.

The Town noted that they do not have the resources to do the full EA and construction for the east-west collectors. The Town will be undertaking the widening and improvements at the north-south arterial roadways that the sites are connecting to and expects that the east-west internal roadways will be covered by the developers. This approach with the MMTMP Addendum was undertaken to expedite the process for developers and allow them to begin construction sooner.

Wildfield Village Development

The Town clarified that the process of the draft plan of subdivision and secondary plan for the Wildfield Village application is different and comes with risk to the developer, and that the process for Mayfield-Tullamore should follow the standard application process.

3	**Next Steps**	
3.1	**HDR to prepare meeting minutes and circulate to the Town for review and confirmation.**	HDR
3.2	**BA Group will provide an update on the northern road alignment after the meeting with the MT LOG.**	BA Group

DRAFT

3.3	**HDR and the Town will discuss the shifting of the north-south collector connection further east into the Mayfield-Tullamore site.**	HDR & Town

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	Stakeholder Meeting with Alloa
Date:	Friday, September 19, 2025
Location:	Virtual
Attendees:	Dan Terzievski (Town of Caledon) Domenica D'Amico (Town of Caledon) Jaspreet Kaur (Town of Caledon) Tong Wang (Town of Caledon) Jamshaid Muzaffar (HDR) Martin Kaczmarek (HDR) Alexander Fleming (Alloa) Dragan Zec (Alloa) Jason Afonso (Alloa) Justin Marr (Alloa) Kathy Kadziela (Alloa) Michael Linton (Alloa) Mike Hensel (Alloa) Mike McLean (Alloa) Ram (Alloa) Scott Riemer (Alloa) Tanjot Bal (Alloa) Tony Vella (Alloa) Zechariah Bouchard (Alloa)
Meeting Purpose	Meeting with the Alloa developer team to present the project background, alignment alternatives, and discuss.

Item	Meeting Note	Action
1	**Discussion**	
1.1	**Site Grading** Alloa advised that the grading through their site will use a 0.5% minimum grade as opposed to the 0.75% outlined in the Town's standards, and that they will share their grading plans with the Town and HDR. **Stakeholder Engagement** The group discussed MTO engagement, as the connection to Chinguacousy is located close to the proposed Highway 413 ramp. The Town noted that formal discussions have not yet been held with the MTO, as these discussions are held prior to the MTO discussions to refine the alignments.	

DRAFT

The Town are in discussions with the MTO about Highway 10. The MTO may be divesting Highway 10 when the Highway 410 extension is built. Both the Town and MTO recognize that the extension will be built along with Highway 413 and the Town wants to make sure that the planning process isn't held up by the divestment.

Alloa advised that there are PSW designations within the woodlot in the site, which would need to be navigated with TRCA. The Town acknowledged that TRCA engagement will be required, but noted that these challenges are not insurmountable, and a disconnected network will present itself as a cost to the community in the future.

Ecology

The Town will look into the ecological impacts from the alignment west of Creditview Road and discuss with the Town's ecology team, as Alloa have noted that the woodlot and wetlands there are a concern. Town

Collector Alignment

Alloa believes they will be able to make the alignment east of Creditview Road work to help maintain continuity east-west.

Alloa noted that when developing the internal network a grid network was the goal to the extent possible, and that curvature of the roadways could help with traffic calming.

EA Process

The Town confirmed that one of the goals of this work is to satisfy MCEA phase 1 and 2 to allow developers to progress with their site planning, design, and construction.

Development Charges (DC)

The goal is to align the 2031 DC charges to stay within a bucket of funds. Re-prioritization of roads will likely be needed with approval from council.

Right-of-Way (ROW)

The Town is targeting a 26-metre ROW for this east-west connection but noted that consideration could be given for a reduced ROW as the existing Dougall Avenue has a 22-metre ROW.

Alloa noted that some communities are advanced in the application stages but are receiving feedback on ROW changes. The Town noted that the ROW for Tim Manley Avenue will not change and that the main change they're working through is for minor collector road standards, which they are considering changing to 23.5 metres.

DRAFT

2 Next Steps

2.1	**HDR to prepare meeting minutes and circulate to the Town for review and confirmation.**	HDR
2.2	**The Town will look into the ecological impacts from the alignment west of Creditview Road and discuss with the Town's ecology team.**	Town

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT

Meeting Minutes

Project:	Caledon Multimodal TMP Addendum
Subject:	Stakeholder Meeting with 12505 Heart Lake Road Team
Date:	Friday, September 19, 2025
Location:	Virtual
Attendees:	Dan Terzievski (Town of Caledon) Drew Haines (Town of Caledon) Jay Menary (Town of Caledon) Tong Wang (Town of Caledon) Jamshaid Muzaffar (HDR) Martin Kaczmarek (HDR) Leslie Marlowe (HLR Team) Joshua Marlowe (HLR Team) Stephen Albanese (HLR Team) Jennifer Januczek (HLR Team)
Meeting Purpose	Meeting with the developer team of 12505 Heart Lake Road to provide background on the project, present preliminary alignment alternatives, and discuss.

Item	Meeting Note	Action
1	**Discussion**	
1.1	**Presentation Materials** The HLR team asked if the slide deck could be shared. **The Town will circulate a copy of the slide deck with the 12505 Heart Lake Road (HLR) team.**	Town
	Costs The HLR team noted that the construction of the crossings of the Highway 410 extension could be very expensive. The Town is still working through the cost estimates for the crossings and noted that they will be considered in the evaluation with the typical approach undertaken in planning studies and TMP studies.	
	Collector Road Justification The HLR team noted that their position is that the east-west collect road is not needed as supported by their transportation consultant's (Arcadis') analysis. HDR and the Town noted that east-west capacity is only one piece that is being considered, and that the	

DRAFT

	need for active transportation and transit connections, and corridor spacing is also being considered. The HLR team noted that they would like to see the do nothing condition and the improvement condition analysis when available to help understand the justification. The analysis will be shared when available. **Alignment Alternatives** The Town noted that they would like to work together with the HLR team and have the team show what they're willing to accept for a connection east-west. The HLR team shared a slightly revised alignment through their site, which curves to the south through the site. The Town confirmed that they would accept a revised alignment which maintains continuity. **The HLR team will share the revised alignment through their site with the Town and HDR.** The HLR team asked whether the Town would consider approval of less contentious segments as opposed to the entire segment through the site at one time. The Town noted that they are looking to have one preferred alignment identified to have developers proceed with the full site and alignment but may be open to partial approvals to allow for the west end of the site to be developed ahead of the east end, as long as a collector throughout the site is protected for. Due to the Highway 410 extension, the site will be split in two with the west end being more easily accessible due to the bordering Heart Lake Road. **Site Plan Application** The HLR team is ideally looking for site plan approval around Q2 of 2026 and noted that if they know the Town's preferred alignment, they will use that for the site plan.	HLR
2	**Next Steps**	
2.1	**HDR to prepare meeting minutes and circulate to the Town for review and confirmation.**	HDR
2.2	**The Town will circulate a copy of the slide deck with the 12505 Heart Lake Road (HLR) team.**	Town
2.3	**The HLR team will share the revised alignment through their site with the Town and HDR.**	HLR

Please advise Martin Kaczmarek (martin.kaczmarek@hdrinc.com) of any comments, errors or omissions in these minutes within five business days.

DRAFT