SCREO | Dixie Outlet Mall L.P.

TRANSPORTATION IMPACT STUDY UPDATE

PROPOSED RESIDENTIAL DEVELOPMENT – PHASE 1

Dixie Outlet Mall,
1250 South Service Road,
City of Mississauga

April 2024
19373

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April 5, 2024 Reference Number: 19373

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RE: Transportation Impact Study Update
Proposed Residential Development
Dixie Outlet Mall, 1250 South Service Road, Mississauga, Ontario

LEA Consulting Ltd. (LEA) has been retained by Slate Asset Management (Slate) to provide transportation consulting services for the proposed residential development located on the Dixie Outlet Mall lands (herein referred to as the "subject site") in the City of Mississauga. By way of background, a Transportation Impact Study (TIS), dated December 2022, was previously prepared by LEA in support of the Official Plan Amendment (OPA) and Rezoning applications for the proposed development which consisted of the infill of three (3) new residential blocks to the site and the partial demolition of Dixie Outlet Mall.

Comments from the Ontario Ministry of Transportation were received on February 23, 2023, and comments from City of Mississauga staff on the application were received on March 29, 2023.

The development concept has been revised following the previous submission. The following letter provides a summary of the updated development concept and a response to the transportation-related comments. A full TIS Update is attached.

1 SITE STATISTICS & PROPOSED DEVELOPMENT CONCEPT

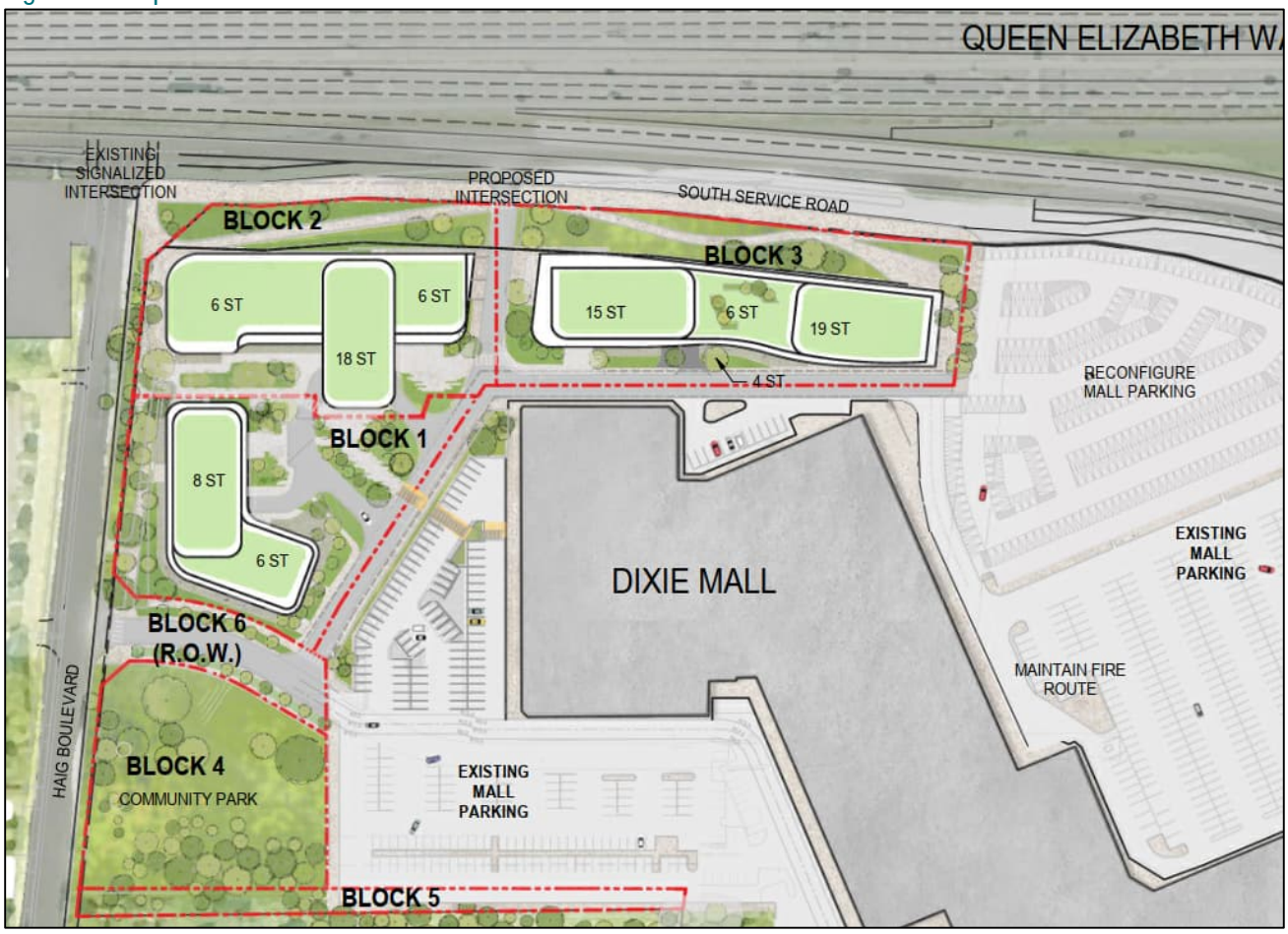
The proposed development is an apartment infill project that will introduce three new residential blocks which will be located on the existing surface parking lot and in place of the west wing of the existing mall, which will be demolished. The proposed site statistics have been revised since the previous submission.

A comparison of the current site statistics with those reflected in the initial December 2022 TIS is shown in Table 1. The latest site plan is illustrated in Figure 1.

Table 1: Comparison of Submitted Site Plan Statistics

Land Use	December 2022 TIS	February 2024 TIS Update	Difference
Residential	1,263 Units	997 Units	- 266
Retail (Future)	45,643 m^2	53,929 m^2	+ 8,286 m^2

Figure 1: Proposed Site Plan



Source: Giannone Petricone Associates Inc. Architects (March 26, 2024)

2 RESPONSE TO COMMENTS

The following section identifies the comments provided in February and March 2023 by MTO and City of Mississauga staff regarding the TIS submission, followed by LEA's response. The comments are provided in their original format for clarity.

2.1 CITY OF MISSISSAUGA - PARKING

The following comments about the proposed site plan were provided by City of Mississauga staff on February 28, 2023.

A. Applicable Planning Policy and Transportation Context

Staff advise that the recently updated parking requirements for off-street parking, Zoning By-Law 0117-2022, that came into effect June 8, 2022, is supportive of provincial and municipal land use and transportation policies. The updated rates were derived from the Parking Regulations Study (PRS) which undertook a review of off-street parking rates throughout the City, including the QEW/Dixie area. These developed rates for Precinct 4 were carefully tailored to Mississauga's context as well as current needs and are intended to support development appropriately, including sites that are served by existing or future planned transit.

LEA Response: Noted. The intention of the current parking policy for Precinct 4 is understood, however, it is also recognized that the subject development will become part of a new, mixed-use community with retail, services and employment uses available within the immediate vicinity, thereby reducing parking demand and automobile ownership habits.

As a result of this changing context, reduced parking rates are being sought as part of the application. Survey data from the existing mall and proxy residential sites has been collected to support the proposed parking supply. A review of local policy and precedent development applications has also been completed, demonstrating that several developments in the City are proposing reduced parking rates even with the new Zoning By-law. Please review Section 6 of the attached TIS Update for a detailed Parking Assessment.

B. Retail Parking Justification

Staff advise that vacant retail store Gross Floor Area (GFA) is to be included in the survey calculations at the required zoning by-law parking rate. Please update calculations. Staff advise that Gross Floor Area is not the same as Ground Floor Area. Please update calculations. Staff require clarification of the GFA of the retail use that was utilized in the PUS as well as other project documentation. Per LEA, a total retail GFA of 56,200 m^2 exists, however it is noted that 14,000 m^2 is also provided on a lower level. Please confirm whether or not this is leasable retail space that should be included in the GFA calculations. It is noted that the PUS surveyed the entire parking lot, however there are also references to both Slate lands and Choice lands and Choice lands not being included. Staff request clarification and discussion in order to verify that all uses and demands on the subject site have been correctly included. Staff are unable to verify the accuracy of the survey at this time and require clarifications as noted. Staff are unable to verify the parking requirements for the overall site due to inaccurate and missing information. Staff request that LEA discuss further with Municipal Parking staff.

LEA Response: Noted. LEA has confirmed the total existing retail GFA (69,810 m^2) and the occupied retail GFA during the survey (50,625 m^2). This GFA accounts for the entire mall's leasable area, including both portions owned by Slate and Choice.

Parking calculations and conclusions have been revised to reflect the direction of City staff, with the zoning by-law required rates being applied to the vacant area during the survey (19,185 m^2). Please review Section 6 of the attached TIS Update for a detailed Parking Assessment with revised calculations.

C. Residential Parking Justification

A satisfactory residential proxy survey was not included in this submission. Please confirm the proposed tenure of the residential units (rental or condominium). Staff require the Applicant undertake a satisfactory Parking Utilization Study (PUS) with appropriate proxy sites in Mississauga, per the Citys Parking Terms of Reference, to justify the requested visitor parking rate, as the parking reduction is greater than 10% from the existing Zoning By-law 0225-2007, as amended new parking rates for Precinct 4. Before undertaking proxy surveys, please contact staff to discuss scope. Staff advise the Applicant that each development application is reviewed based on its own merit. If the Applicant wishes to reference precedent applications, supporting justification outlining similarities is required.

LEA Response: The residential tenure is still to be confirmed. It is our opinion that the residential tenure does not significantly affect the parking demand, and evidence for this opinion is provided in Section 6.3.4.4 of the attached TIS Update.

A Parking Utilization Study has been completed in coordination with City staff and in accordance with the City's Parking Study Terms of Reference. The methodology and results of the survey are included in Section 6.3 the attached TIS Update. Additional justification has also been added to the TIS Update based on parking rates proposed in nearby precedent applications, with similarities between these precedents and the subject development identified.

D. Transportation Demand Management (TDM) Measures

Municipal Parking Staff advise that the Applicant contact TDM Staff in the Transportation Planning Section (tdm@mississauga.ca) should they wish to receive more information on TDM strategies. The Applicant is advised that TDM staff are not able to provide an assessment of an applications TDM measures in regards to the Zoning requirements for parking.

LEA Response: Noted. A TDM Plan has been developed in order to support the proposed parking reduction, however, is not being relied on as justification for the proposed reduction. Please refer to Section 7 of the attached TIS Update for a detailed TDM Plan for the development.

Additional Comments:

Staff note that per City of Mississauga Zoning By-law 0225-2007, as amended, that a minimum required number of Electric Vehicle Ready parking spaces will need to be provided. The associated rates for these are noted in Table 3.1.1.12, Minimum Required Number of Electric Vehicle Ready Parking Spaces, of the updated Zoning By-law.

LEA Response: Noted. The calculation of EV Ready parking requirements for the proposed development has been added to the Parking Assessment included in Section 6.1.1 of the attached TIS Update. The development will meet the requirements, with a provision of at least 239 EV Ready parking spaces.

Staff Recommendation:

Staff advise they are unable to verify the parking requirements for the overall site due to inaccurate and missing information. The proposed reduced residential parking rates are not supportive of the Parking Regulations Study recommendations as outlined in the existing City of Mississauga Zoning By-Law 0225-2007, as amended, for Parking Precinct 4 (By-law 0117-2022, June 8, 2022). Additionally, the parking justification submitted by the Applicant is not satisfactory as the required satisfactory Parking Utilization Study (Proxy Survey) was not undertaken. For these reasons Staff do not support the proposed parking rates in this instance. Should the Applicant wish to pursue a reduction in the residential parking rate, the submission of a satisfactory Parking Utilization Study (PUS) is required. The consultant should confirm the survey methodology with staff prior to conducting parking surveys. Details can be reviewed in the Citys Parking Terms of Reference for parking justification requirements. Staff are unable to verify the accuracy of the retail Parking Utilization Study at this time and require clarifications as noted within the comments. Staff request that LEA discuss further with Municipal Parking staff. Staff request that discrepancies regarding the existing non-residential use GFAs noted in the Site Statistics and the Transportation Impact Study be addressed to ensure that the correct parking needs are determined and verified. The following Parking Precinct 4 parking rates are recommended:

- *1.1 spaces/residential condominium apartment unit*
- *0.20 spaces/residential condominium apartment unit for visitors*
- *5.4 spaces/100 m2 retail centre (greater than 2000 m2 GFA non-residential)*

Should the Applicant wish to propose a shared parking arrangement between the non-residential uses of the subject site, a shared parking arrangement is applicable for the calculation of required visitor/non-residential parking in accordance with the following: the greater of visitor spaces/unit or parking required for all non-residential uses, except restaurant over 220 m^2 GFA non residential.

Restaurant over 220 m^2 GFA non residential shall not be included in the above shared parking arrangement and shall be provided in accordance with applicable regulations contained in Table 3.1.2.2 of City of Mississaugas Zoning By-law.

All required parking spaces must be accessible to all users participating in the shared parking arrangement and may not be reserved for a particular use or occupant.

LEA Response: City comments and advice have been noted and the Parking Assessment has been revised in the attached TIS Update to provide additional detail and clarity, and to update calculations as requested. Please refer to Section 6 of the attached TIS Update.

2.2 CITY OF MISSISSAUGA - TRAFFIC

The following comments about the proposed traffic analysis were provided by City of Mississauga staff on March 21, 2023.

2.2.1 Traffic Note

Please note all Regional traffic and access related works along Dixie Road are being completed through the on-going MTO project (QEW east of Cawthra Road to East of Dixie Road).

LEA Response: The ongoing MTO undertaking along the QEW is noted. The attached TIS Update prepared for this application utilizes traffic data collected in February 2024 during construction to represent the existing conditions where possible. Otherwise, pre-construction data has been used.

2.2.2 Public Road Network

As per the Official Plan (OP), the City strives to create a fine-grained system of roads that seeks to increase the number of intersections and overall connectivity throughout Mississauga. The OP also notes that additional public roads, above what is noted in the OP, may be identified through the review of development applications. The Traffic Section requests that a fine-grained grid network of public roads be implemented throughout the subject site to assist the City in creating a multi-modal transportation network for the movement of people and goods which supports the creation of a more sustainable community. Please revise the plans accordingly.

LEA Response: Phase 1 of the development proposes a new east-west public road connecting to Haig Boulevard. The new public road will have a right-of-way width of 20m, which will prioritize active transportation with 2.1m wide sidewalks on each side, 1.8m wide dedicated bike lanes on each side, 3.3m wide vehicle lanes, and bioswales and trees on both sides. A fine-grained road network will be implemented as part of the masterplan submission.

2.2.3 Development Concept Plan

The Owner is required to provide a further refined Development Concept Master Plan which illustrates the vision for the ultimate build-out of the subject site. It shall be a detailed plan showing the location, land use and form of all Development within the subject site. The plan shall also highlight all existing and proposed transportation facilities, including a fine-grained grid network of public roads.

LEA Response: Refer to response to comment on Public Road Network development above.

2.2.4 Right-of-Way Package

The developer shall provide a right-of-way package for all proposed roads within the development. The right-of-way package is to include reference to the relevant City of Mississauga standard drawings with detailed cross-sections that are applicable for each road. The developer should be advised that further comments on the development concept may be provided after the ROW package is submitted and therefore, revisions to the overall draft plan may be required.

****NOTE: Any deviation from a City of Mississauga standard is subject to a comprehensive review and approval process by City staff and all affected external agencies. If non-standard cross sections are proposed, the following information will also be required, but not limited to:*

An extensive right-of-way package that includes details of all design elements within a proposed right-of-way for each proposed street. The right-of-way package is to be prepared in two parts:

(A) The right-of-way package shall include plan views and a description for each of the following considerations: (i) Public Transit Facilities; (ii) Pedestrian Facilities; (iii) Cycling Facilities; (iv) On-Street Parking and Curbside Management; and (v) Traffic Calming.

(B) The right-of-way package shall also include typical cross-section details of each street that include the following information: (i) Street Name; (ii) Road Classification; (iii) Right-of-way widths; (iv) Pavement widths and lane widths; (v) Boulevard widths; (vi) Sidewalks, curbs, splash pads, grades; and (vii) All above and below ground utilities.

LEA Response: One new public road is proposed in Phase 1 of the proposed development. A ROW design drawing for the proposed public road is included in the Functional Design Review package attached as Appendix K to the TIS Update.

2.2.5 Traffic Impact Study

A Transportation Impact Study prepared by LEA Consulting Ltd. dated December 2022 was submitted in support of the proposed development. Based on the information provided to date, staff provide the following comments:

(A) GENERAL

(i) Certification Form

The Transportation Consultant must complete, sign, and seal (if appropriate) the Certification Form found in Appendix A of the Citys TIS Guidelines (2022) and submit the document with the application/report to ensure compliance with qualification requirements. The TIS Guidelines can be found at https://www.mississauga.ca/wp-content/uploads/2023/03/Mississauga-Transportation-Impact-Study-Guidelines.pdf

(ii) Terms of Reference (ToR)

The study does not satisfy the scope of work identified by the City through the review of the proposed ToR. The study must be revised to include all omitted components from the ToR. Further, the ToR and associated City comments must be appended in all subsequent submissions.

(iii) The City cannot confirm or refute the findings of the TIS with respect to assessing the transportation implications and evaluating the appropriateness of the scale of the proposed development, as this can only be achieved if the technical assumptions, methodologies, and scope of work are reasonable and correctly applied. The following comments demonstrate that there are a number of key assumptions and analytical issues that must be addressed before it will be possible to provide a decision in this regard. While we have endeavoured to identify as many of these potential concerns as possible below, updates to the TIS may result in additional concerns not addressed herein.

(iv) Modelling Software

As per the ToR, the modelling analysis shall be undertaken using VISSIM. Please revise accordingly.

LEA Response: Noted. The attached TIS Update provides additional detail and clarification to satisfy the City review comments on the December 2022 TIS submission and the Terms of Reference. This includes the use of Synchro, as specified by the Terms of Reference developed by LEA dated October 1, 2022. The Certification Form, Terms of Reference, and City responses to the Terms of Reference have been appended to the TIS Update as Appendix B.

(B) EXISTING CONDITIONS

(i) Existing Conditions Scenario

As per the ToR, an Existing Conditions Scenario is required to be analyzed. While it is understood that there are infrastructure improvements currently under construction, it is crucial to complete an Existing Conditions Scenario to establish a baseline, compare to the future background/total scenarios, and identify any existing transportation constraints/issues. The Existing Conditions Scenario should assume configurations based on pre-MTO construction.

LEA Response: The attached TIS Update includes an analysis of the existing traffic operations, based on traffic data collected in February 2024. Lane configuration assumptions are based on the pre-construction road network. Changes between the pre-MTO construction network and the road network at the date of data collection (Feb 2024) are noted within the TIS Update.

(ii) Traffic Data

While this report can reference and compare to the traffic volumes found in the QEW EA Study, the volumes should not be used directly. If new traffic counts cannot be completed due to the ongoing construction, pre-construction/pre-pandemic traffic counts should be utilized. Growth factors are to be applied to the traffic counts to mimic presumed existing traffic volumes. Please indicate the growth factors used for each roadway. The report must thoroughly justify all proposed growth rates and the methodology utilized to calculate them. Furthermore, all background work to calculate the growth rates must be appended to the report in a format that is easily verifiable to the reviewer.

LEA Response: The attached TIS Update includes traffic data collected by LEA in February 2024 for all intersections. However, due to construction at the intersection of South Service Road & Haig Boulevard traffic volumes were extracted from the QEW Improvements EA Traffic Report (page 65/68). No historical traffic count data was available for this intersection.

(iii) Volume Balancing

Ensure that traffic volumes are balanced to the higher values, where appropriate.

LEA Response: Traffic volumes have been balanced to higher values in the TIS Update.

(iv) Study Area Intersections / Road Network

As per the ToR, the following additional intersections are required to be evaluated: 1. South Service Road & Ogden Avenue, 2. Lakeshore Road, 3. East & Haig Boulevard, 4. Lakeshore Road East & Dixie Road, 5. Atwater Avenue & Haig Boulevard, 6. All site accesses. Furthermore, the City has requested a fine-grained grid network of public roads be implemented throughout the subject site to assist the City in creating a multi-modal transportation network for the movement of people and goods which supports the creation of a more sustainable community. Based on the above, please ensure to evaluate all new public intersections within the proposed development.

LEA Response: The requested intersections have been added to the analysis provided in the attached TIS Update.

(C) FUTURE BACKGROUND CONDITIONS

(i) Horizon Years

As per the ToR, the study horizon years shall consist of 5 years from the date of the study and each major phase of the development including an ultimate buildout phase

LEA Response: Noted. The attached TIS Update for Phase 1 of the Dixie Mall redevelopment considers a future horizon of 2029, 5 years from existing conditions. Subsequent phases and ultimate conditions are not yet developed, so it is not possible to include any further information within the TIS Update at this time.

(ii) Analysis Periods

As per the ToR, AM, PM, and SAT peak periods are required to be analyzed for the Existing, Future Background, and Future Total scenarios

LEA Response: Noted. The AM, PM and SAT peak periods for Existing, Future Background and Future Total scenarios are assessed in the attached TIS Update.

(iii) Sections 3.1.1 & 3.1.2

Many of the assumed/posted speed limits indicated for roadways under the Citys jurisdiction are not reflective of existing conditions as of the date of the report. Please revise the report and Synchro analyses accordingly.

LEA Response: Noted. The analysis and text of the attached TIS Update has been reviewed to ensure accuracy of speed limits.

(iv) Corridor Growth Rates

Corridor growth rates for roadways under the Citys jurisdiction must be confirmed with City Transportation Planning staff. Please contact Tyler Xuereb from the Transportation Planning Section (tyler.xuereb@mississauga.ca, Ext. 4783) to confirm growth rates for the study area roadways under

the jurisdiction of the City of Mississauga. Please confirm growth rates for Provincial and Regional roadways with the MTO and Region of Peel, respectively.

LEA Response: Growth rates were obtained from the City for this TIS Update.

(v) Background Developments

All in-stream and recently approved background developments within approximately 1km from the subject site must be included. Please use the following link to gather information on developments proposed in the area for background traffic: http://www.mississauga.ca/portal/residents/developmentinformation

LEA Response: The proposed development at 1583 Cormach Crescent has been added to the future background analysis in the attached TIS Update.

(vi) Road Network and Lane Configuration

Incorrect lane configuration assumed for the east leg of the intersection of Dixie Rd & QEW EB Off-Ramp/South Service Rd. Based on the EA it would appear that westbound left-turns are permitted, in addition to westbound right-turns. Revise the report and analysis accordingly.

LEA Response: Noted. The analysis and text of the attached TIS Update has been reviewed to ensure accuracy of lane configurations.

(vii) Future Transit Facilities

It should be noted that Metrolinx has identified Dixie Rd as a future Priority Bus Corridor.

LEA Response: Noted and added to the future transit context review included in the attached TIS Update.

(vii) Dixie Mall Traffic Volumes

2013 traffic counts should not be used to determine the Dixie Mall traffic volumes as they are significantly outdated. Furthermore, are the trips from the mall site assigned to the entire study area network, including the intersections along Dixie Rd which have 2031 traffic data from the EA Traffic Report? If yes, there may be potential double counting of traffic at those intersections as the 2031 volumes from the EA Report would have likely already included the mall traffic. This methodology would therefore not be considered acceptable.

LEA Response: Noted. The 2013 traffic data is no longer being used in the analysis included in the attached TIS Update. Traffic data for existing conditions was collected in February 2024.

(viii) Estimated 2031 Future Background Saturday Peak Hour Volumes

Is it possible to use existing count data from the EA Traffic Report completed by MTO to generate a growth factor instead of the 2017/2018 Region of Peel Data? Since MTO's modelling work has not

been validated/calibrated against the 2017/2018 Region of Peel Data, it may not be an appropriate base to generate a growth factor. With the planned interchange improvements in the area, auto access is expected to improve, therefore one would expect so see increased auto usage of the interchange.

LEA Response: Traffic data was collected in February 2024 for the Saturday peak period, and growth rates were obtained from City staff, rather than utilizing the former methodology. Please refer to the attached TIS Update for an updated analysis.

(D) SITE TRAFFIC

(i) Modal Split / TTS Vehicle Share

Only non-auto modes shall count towards a modal split reduction. Therefore, the TTS Vehicle Share utilized should be 74%, not 62%. Furthermore, modal splits should be calculated separately by trip purpose, reflecting shopping center trips versus residential land uses, as in the trip distributions process. Similar to the trip distribution process, modal split values should also be calculated separately for the AM and PM peak periods. Revise accordingly.

LEA Response: The mode split applied in the attached TIS Update has been revised from 62% to 74%, which was derived from TTS 2016 data for residential trips during the AM peak, PM peak and Saturday peak periods. This residential mode split has been applied in the calculation of future residential trip generation. Retail trip generation was forecasted separately based on the vehicle volumes collected at the mall driveways during data collection in February 2024, accounting for the proposed GFA reduction. No mode split was applied for retail, as the vehicle volumes were obtained directly.

(ii) Site Interaction (Internal Trip Reduction)

Why have internal trip reductions using ITE methodology not been considered in the analysis? Further, why are the Residential AM and PM Peak ITE Auto Trips not adjusted for both mode share and vehicle occupancy? It's not appropriate to apply auto mode share reduction as they don't represent person trips in the current state.

LEA Response: Internal trip reduction, auto mode share and vehicle occupancy were all considered in the previous submission, and were calculated based on the ITE Trip Generation Handbook 3rd Edition. They continue to be included in the trip generation calculation used in the attached TIS Update. It should be noted that AM and PM peak hour trip generation rates applied from the ITE Trip Generation Manual are defined as person-trips so a 100% ITE Vehicle Share and 1.00 Vehicle Occupancy rate were applied. Saturday peak hour trip generation is defined as vehicle-trips by the ITE data, so appropriate adjustment factors have been applied.

(iii) Trip Generation

For verification purposes, please note in the report which Land Use Subcategories, Setting/Locations, Time Periods, etc were used to calculate trips for each LUC.

LEA Response: The requested information has been provided in the attached TIS Update.

(iv) TTS Data

Traffic Analysis Zones (TAZs) that fall outside the City of Mississauga boundary (i.e. into Toronto) should not be used in the analysis. Revise the report accordingly.

LEA Response: Trip distribution and modal split for residential trips in the attached TIS Update was extracted from TTS 2016 data for Traffic Zones 3648, 3649, 3653 and 3654 which are all in Mississauga.

(v) Table 4-4

Please confirm what External Person Trips represents? Is it the total person trips combined for the residential and commercial trips? Were these calculated using the formula Existing Mall Site Part of Mall Demolished + New Residential? If yes, wouldn't the PM Total be 3072 - 368 (12% of total person trips for the mall) + 331 = 3035?

LEA Response: This table has been revised in the attached TIS Update to present the conclusions more clearly.

(E) FUTURE TOTAL CONDITIONS

(i) Synchro Input Parameters

Heavy Truck percentages should be based on the actual turning movement counts

LEA Response: The calculation of Heavy Truck Percentages has been revised in the attached TIS Update as requested.

(ii) Please provide further technical justification as to why it would or wouldn't be appropriate for the proposed development to proceed.

LEA Response: The discussion in Section 5 of the attached TIS Update has been updated to expand upon the technical justification for the development, including expected community impacts and proposed mitigation measures.

(iii) The future total conditions should assess the cumulative overall impact on the site based on the difference between the currently permitted zoning/densities vs. proposed zoning/densities.

LEA Response: The future total scenario has been compared to the future background scenario to understand the impact of developing high-rise residential buildings on the Dixie Outlet Mall site, which currently only provides retail. Discussion on the impacts of the development can be found in Section 5 of the attached TIS Update.

(F) CONCLUSION / RECOMMENDATIONS

(i) A Recommendations Section is required to be included complete with recommendations on on-site/off-site roadway improvements, site access, site circulation, and TDM measures are to be made.

LEA Response: Noted. Detailed recommendations have been added to the conclusions in Section 8 of the attached TIS Update.

(G) ADDITIONAL COMMENTS

(i) As revisions to the site designs/layouts are required, please update the sightline analyses and turning movement diagrams in the TIS accordingly. Ensure that the site layout/design is coordinated with these analyses (e.g. ensure the design does not require vehicles/trucks to encroach parking spaces and/or curbs when manouevering. Ensure that adequate sightline visibility is provided and that no obstructions are within the required visibility triangles such as parking spaces, etc.)

LEA Response: Please refer to the revised Functional Design Review attached in Appendix K to the TIS Update, which includes updated vehicle maneuvering diagrams and sightline analyses.

(ii) Community Impacts

Per the ToR, the TIS shall include a section in the report to address Community Impacts. This section shall include summary statements outlining the resulting traffic increases to the critical streets, movements and intersections. Comments or concerns from the community through future public meetings and engagements that are related to traffic shall also be addressed in this section.

LEA Response: A discussion of community impacts has been added to the attached TIS Update within Section 5.7.

(iii) Site Access Review

As per the ToR, it must be ensured that the site accesses conform to all TAC standards (e.g. corner clearances, clear throat lengths, veh & ped sight line distances for ingress/egress, proximity/alignment to other driveways/roads, etc.); Provide confirmation and technical justification of whether the site access location(s) and designs are safe for all roadway users and why.

LEA Response: The site accesses have been reviewed to ensure compliance with TAC standards. Please refer to the attached TIS Update, including the Functional Design Review in Appendix K.

(iv) Traffic Control Warrants

As per the ToR, traffic control warrants are to be completed for all three scenarios at intersections, where applicable.

LEA Response: A Signal Warrant analysis was completed for the proposed site access on South Service Road, however it was determined that a signal was not warranted. All other unsignalized intersections had acceptable operations without the need to complete a signal warrant analysis. Please refer to the attached TIS Update, including Appendix H for the analysis results and signal warrant analysis.

(v) Remedial Measures

Per the ToR, the physical and operational road network deficiencies identified in the TIS must be addressed and feasible solutions to mitigate these deficiencies identified. Functional design plans and detailed design drawings would be required for identified improvements to ensure their feasibility. Cost estimates and detailed design drawings must be provided for all identified infrastructure improvements.

LEA Response: No physical remedial measures were proposed for the road network surrounding the proposed development. Minor signal timing plan adjustments have been recommended, please refer to Section 5.3 of the TIS Update.

(vi) Phased Traffic Analysis

Per the ToR, the applicant shall provide a Phased Traffic Analysis that is supported by technical studies, including a Traffic Analysis to ensure there is adequate infrastructure available and to understand what infrastructure is required for each phase of development. The Phasing Plan / Study shall include but not be limited to: (a) The cumulative impacts for each phase of development on the existing and proposed road network; (b) The required existing and proposed road network improvements for each phase of development; (c) Any road network improvements that are not available to the developer (i.e. external private lands) that are required to support the development shall be identified.

LEA Response: A phased analysis has not been completed at this stage, as future development phases are undetermined. The attached TIS Update concerns Phase 1 of development on the Dixie Outlet Mall site. A single 5-year future horizon was assumed for the analysis as the future of the site past 5 years is unknown.

(vii) Please submit a revised TIS report addressing all of the aforementioned TIS comments in PDF format.

LEA Response: Please refer to the attached TIS Update prepared by LEA Consulting, which addresses the comments received.

(viii) Due to the number and significance of the comments, further comments may be provided in the subsequent submission(s)

LEA Response: Noted.

2.2.6 Site Access

(a) Accesses/roads shall align with opposing accesses/roads, wherever possible. Roadway connections on Haig Boulevard, in alignment with Peel Condo 41 driveways should be provided.

LEA Response: The proposed site access on Haig Boulevard has been relocated to align with the Peel Condo 41 driveway.

(b) The Owner shall ensure all proposed accesses/intersections provide sufficient sight lines, per TAC standards, such that views are not obstructed at the intersection (street trees, retaining walls, noise walls, structures, etc.).

LEA Response: Sight lines for movements in and out of the site driveways have been reviewed to ensure compliance with TAC standards. Sightline analysis is provided as Drawings 007 and 008 in the Functional Design Review attached in Appendix K to the TIS Update.

(c) The Owner shall provide for a sufficient clear throat lengths, per TAC standards, within driveway accesses to ensure roadways and internal driveways can operate efficiently.

LEA Response: The site plan has been reviewed to ensure driveways and roadways comply with TAC standards. Please refer to the Functional Design Review attached in Appendix K to the TIS Update.

(d) The Owner shall provide for a sufficient corner clearances/intersection spacing, per TAC standards.

LEA Response: The site plan has been reviewed to ensure intersections comply with TAC standards. Please refer to the Functional Design Review attached in Appendix K to the TIS Update.

(f) Site Accesses & Intersections will be further reviewed through the required Transportation Impact Study and as the application progresses.

LEA Response: Noted.

2.2.7 Internal Site Circulation

(a) As revisions to the site designs/layouts are required, please update the turning movement diagrams in the TIS accordingly.

(b) Revised detailed turning movements are to be provided for ingress and egress through the access points for the site.

(c) Ensure that mounting curbs and/or encroaching any portion of parking spaces are not required for any manoeuvering throughout the site.

(d) Confirmation from Fire and Emergency Services that the internal road is acceptable from an emergency response perspective is required.

(f) Confirmation from the Region of Peel that the internal road is acceptable from a waste collection perspective is required.

LEA Response: Comments have been noted. Please refer to the revised Functional Design Review attached in Appendix K to the TIS Update. All design vehicles can safely and effectively maneuver the site and site accesses.

2.2.8 Temporary Turning Circles

The applicant will be required to provide temporary turning circles as an interim condition for all dead end roads within the proposed development to ensure vehicles, garbage collection, fire & emergency services can be accommodated. The temporary turning circles will be removed once the municipal roads can be extended through adjacent lands. Some lots/blocks may need to be frozen to provide a turnaround facility. The City will request the required lands to be conveyed through a municipal easement.

(i) The applicant shall provide interim conditions on an engineering plan to show the temporary turning circles that meets municipal standards.

LEA Response: No dead-end roads are proposed within the development. The proposed future public road and private streets will connect to the existing Dixie Outlet Mall parking lot. As a result, temporary turning circles will not be required or provided.

2.2.9 Land Dedications

The Owner will be required to gratuitously dedicate the following to the City of Mississauga:

> *(A) MUNICIPAL ROADS - Right of ways of approximately 20.0-26.0 metres towards the creation of public roads and associated sight triangles*
>
> *(B) ROW WIDENINGS - Road allowance widening towards the ultimate 20m meter right-of-way as identified in the Official Plan, across the site frontages of South Service Road and Haig Boulevard*
>
> *(C) 0.3 METRE RESERVES.*
>
> *(D) WALKWAYS - The applicant is to provide walkways for pedestrian connections. Locations and width of walkways are to be determined.*

****[NOTE]*** This condition will be cleared upon receipt of confirmation from:*

> *(i) Locations of land dedications and widths noted above will be subject to further review as the application progresses. All municipal roads are to be free and clear and unencumbered.*
>
> *(ii) (a) City Surveyor regarding dimensions; (b) Environmental Site Management and Compliance regarding environmental conflicts; and (c) Legal Services identifying that the transfer has taken place and associated fees have been paid.*

LEA Response: Phase 1 of the development proposes a new east-west public road connecting to Haig Boulevard. The new public road will have a right-of-way width of 20m which will prioritize active transportation with 2.1m wide sidewalks on each side, 1.8m wide dedicated bike lanes on both sides, 3.3m wide vehicle lanes, and bioswales and trees on both sides. A fine-grained road network will be implemented as part of the masterplan submission.

2.2.10 Traffic Notes

(i) All damaged or disturbed areas within the municipal right-of-way are to be reinstated at the Owner's expense.;

(ii) All landscaping and grading within close proximity to the proposed access points is to be designed to ensure that adequate sight distances are available for all approaching and exiting motorists and pedestrians.;

(iii) The portion of the driveway within the municipal boulevard is to be paved by the Owner.;

(iv) Driveway accesses shall maintain a 1.5m setback from aboveground features such as utilities and trees.;

(v) Any above ground utilities located within 1.5m of a proposed access are to be relocated at the Owner's expense.;

(vi) The cost for any/all road improvements required in support of this development application will be borne by the Owner.;

(vii) The Owner shall make satisfactory arrangements with the Transportation and Works Department for the design, construction and payment of all costs associated with works necessary to support access to this site.;

(viii) Any access to internal servicing shall be provided internally through the site.;

LEA Response: Noted.

2.2.11 Rapid Transit

(A) [LAKESHORE CONNECTING COMMUNITIES] City Council has endorsed the Lakeshore Connecting Communities Transportation Master Plan which sets out a long-term vision for transit and corridor improvements along Lakeshore Road from 2020 to 2041 that will support waterfront development. The Owner is advised to review project details at: https://www.mississauga.ca/projects-andstrategies/city-projects/lakeshore-connectingcommunities/

LEA Response: The Lakeshore Connecting Communities TMP has been reviewed during the preparation of the TIS Update.

2.2.12 Environmental Assessment

(A) [QEW IMPROVEMENTS] - The Ontario Ministry of Transportation (MTO) has undertaken Detailed Design and a Class Environmental Assessment Study to examine the rehabilitation and improvement needs for the Queen Elizabeth Way (QEW) from Evans Avenue to Cawthra Road. Construction is now underway. Details can be found at http://www.qewdixiedetaildesign.ca/

LEA Response: Noted. The future conditions analysis in the TIS Update is based on the proposed conditions in the area post-construction.

2.2.13 Cycling Facilities

The Owner will be required to provide accessible and secure short term (outdoor) and long term (indoor) bicycle storage facilities on site. The Site Plan shall be revised to identify the cycling facility locations and to specify the facility detail(s), including quantity of spaces proposed for each. The following rates are to be used:

> *(a) Apartment Mississauga - A minimum of 0.60 long term spaces and 0.05 (6 spaces min.) short term spaces per residential unit.*
>
> *(b) Retail (Per 100 sq.m. GFA of retail area) Mississauga A minimum of 0.10 long term spaces and 0.20 short term spaces. Bike parking spaces shall be illustrated as 1.8m x 0.6m spaces, have appropriate aisle widths (min. 1.5m), and sufficient clearances.*

LEA Response: The by-law requirements regarding bicycle parking will be satisfied for the proposed development. Bicycle parking is proposed to be located on the ground floor and first parking level of the residential buildings. No bike parking will be provided for the existing retail use on the site as existing buildings are exempt from requiring bike parking.

2.2.14 Traffic Signal Requirements Package

Upon approval in principle of the geometric design of the intersections, the Owner will be required to submit a digital copy of the drawing and file in MicroStation format for Traffic Signals staff to carry out the signal design works. The Owners General Contractor will be expected to use an eligible electrical subcontractor to complete all the necessary traffic signal works. The collected security will be released upon completion of the Citys final inspection and no deficiencies detected. Applicant required to contact Darek Koziol (darek.koziol@mississauga.ca) to obtain the Signals Requirement Package (PHM-125 temporary and permanent signal design drawings, quantities, form of offer, etc.).

LEA Response: Noted. Traffic signal design will be completed at a later stage of the development application.

2.3 CITY OF MISSISSAUGA – TRANSIT INFRASTRUCTURE

The following comments about the impact to transit infrastructure were provided by City of Mississauga staff on February 28, 2023.

2.3.1 MiWay Existing and Future Infrastructure Existing Stops

Please be advised that there is an existing nearside transit stop #0462 located along South Service Road and Haig Boulevard. The function of this bus stop is to be maintained and shall remain in its current location. All appropriate drawings shall be amended to clearly depict the location of this bus stop/pad and shelter, and a note be added to the plan stating that the existing bus stop is to remain in its current location. Please reference Standard Drawing # 2250.010 (which may be found uploaded in ePlans) to depict the stop

infrastructure and dimensions. Please be advised that there is an existing midblock transit stop #0427 located along South Service Road and Haig Boulevard. The function of this bus stop is to be maintained and shall remain in its current location. All appropriate drawings shall be amended to clearly depict the location of this bus stop/pad and shelter, and a note be added to the plan stating that the existing bus stop is to remain in its current location. Please reference Standard Drawing # 2250.010 (which may be found uploaded in ePlans) to depict the stop infrastructure and dimensions. Please be advised that there is an existing nearside transit stop #0470 located along South Service Road at Dixie Mall Access. The function of this bus stop is to be maintained and shall remain in its current location. All appropriate drawings shall be amended to clearly depict the location of this bus stop/pad and shelter, and a note be added to the plan stating that the existing bus stop is to remain in its current location. Please reference Standard Drawing # 2250.010 (which may be found uploaded in ePlans) to depict the stop infrastructure and dimensions. Please be advised that there is an existing nearside transit stop #0428 located along South Service Road and Dixie Mall North Access. The function of this bus stop is to be maintained and shall remain in its current location. All appropriate drawings shall be amended to clearly depict the location of this bus stop/pad and shelter, and a note be added to the plan stating that the existing bus stop is to remain in its current location. Please reference Standard Drawing # 2250.010 (which may be found uploaded in ePlans) to depict the stop infrastructure and dimensions.

LEA Response: The proposed development will not impact the existing transit stops located at South Service Road & Haig Boulevard and at South Service Road & Dixie Mall North Access.

2.3.2 Pedestrian Connections

Convenient and accessible pedestrian linkages are to be provided between the existing sidewalk network and MiWay services/stops. Pedestrian walkway connections to the existing municipal sidewalk are necessary to ensure accessibility, reduce walking time and encourage transit use.

LEA Response: The proposed development will provide pedestrian connections to the public sidewalk network and transit stops.

2.3.3 Existing Miway Service

This site is currently serviced by MiWay Route 5 Dixie on South Service Road.

LEA Response: Noted.

2.4 MINISTRY OF TRANSPORTATION

The following comments about the proposed site plan were provided by MTO staff on February 23, 2023.

1. Subject Site Land, Slate Lands and untitled land are shown in Figure 1.1. Confirm all analysis are comprised of whole of Dixie Mall area plus Slate Lands for the 5-Condo Buildings, hereby called "Project".

LEA Response: The traffic analysis includes the entire Dixie Mall lands. The on-site parking survey included data collected in the entire Dixie Mall parking lot.

2. Section 2. Project build out is 2026, MTO QEW/Dixie IC project completion is 2026. Elaborate reason that base scenario of 2026 is not presented.

LEA Response: The TIS resubmission evaluates the operations in the existing (2024) horizon and a 5-year future (2029) horizon. Therefore, a comparison between the pre-QEW/Dixie reconfiguration scenario and the future development scenario is provided.

3. Final Preferred Alternative 2031 of MTO QEW/Dixie IC project as taken from the TESR, would be acceptable.

a. Copy/Paste this scenario (tables and traffic movement diagrams).

b. Is there no 2026 scenario in the TESR?

c. Clarify which surrounding developments have been taken into account as existing since the Project Build Out in 2026?

d. 2031 as base scenario is unusual to accept. Follow MTO's General Guide Lines to prepare TIS that had been provided before.

e. What is the difference between the traffic in Final Preferred Alternative 2031 and the traffic in Figure 3-6 Future Background Traffic Volumes?

LEA Response: The TESR is no longer being utilized as a primary source of traffic volume data for this analysis. The attached TIS Update utilizes traffic data collected in February 2024 during construction to represent the existing conditions where possible. Otherwise, pre-construction data has been used.

4. It is believed that the TIS be reviewed by the City to ascertain validity of the Trip Attraction/Distribution, directional split etc. results derived using Traffic Tomorrow Survey (TTS 2019?).

LEA Response: The TIS dated December 2022 was reviewed by City of Mississauga staff and comments were provided to the applicant in March 2023. Comments regarding the trip distribution and assignment have been received and responded to accordingly. The attached TIS Update reflects any changes accordingly.

5. Stated ITE LUC 820 and 222. Please provide soft copy of the pages used.

LEA Response: The ITE trip generation data sheets have been provided as Appendix G of the attached TIS Update. Details of the subject site trip generation are provided in Section 4.2 of the TIS Update. Note that ITE trip generation data was used to forecast residential trip generation, however retail trip generation is based on the existing trip generation observed at the site in February 2024.

6. Project Condo Buildings traffic can access QEW/Cawthra Road Interchange. Elaborate as to why no traffic analysis has been provided at QEW/Cawthra interchange.

LEA Response: City of Mississauga staff did not indicate a need to study the QEW/Cawthra Road interchange through the Terms of Reference correspondence for the study. Please refer to Appendix A of the attached TIS Update for this correspondence.

Based on the analysis included in the TIS Update, fewer than 10 vehicles per hour are expected to be generated by the site and routed towards this interchange. Therefore, it is not expected that site traffic will have an impact on this interchange.

7. Analysis regarding Lakeview Village is not clear. What is its status and when its traffic included in the respect scenario?

a. What are the other developments whose traffic comes in to play and in what year?

LEA Response: Lakeview Village has been included as a background development in the future background analysis provided in the attached TIS Update. Site-generated traffic volumes from Lakeview Village were extracted from the Traffic Considerations Report prepared in June 2020 by TMIG and applied to the analysis. However, it was also noted that an MZO was approved for the site which allows for 16,000 units on the site, so the residential trip generation was prorated to appropriately consider the background impact of this masterplan development. While the Lakeview Village masterplan development is expected to be built out by 2031, it was included in the 2029 horizon to be conservative.

A second background development, at 1583 Cormach Crescent, just east of the subject site, was also added to the 2029 background traffic.

8. Table 4.3: Subject Site Vehicle Trip Generation. Vehicle Trips are calculated by ITE LUC then Vehicle Trips are reduced significantly by 62% using TTS. It is not understandable/acceptable.

LEA Response: This has been corrected in the attached TIS Update. Please refer to Section 4.2 of the TIS Update for trip generation calculations.

9. Presentation of Appendix E is not clear. Clarify 5-years analysis and 10-years analysis of the traffic at the North and South Ramp Terminals.

a. Tables 6.6 and 6.7 about capacity statement at ramp terminals would only be looked at once the Trip Reduction at item 8 above is accepted.

b. Clearly state queue lengths and their effects at all ramp terminals.

LEA Response: The attached TIS Update includes a single future horizon (2029), five years after existing conditions. The intersection capacity analysis results at both ramp terminals are included in Section 5.5 of the TIS Update. Queue lengths have also been added to the body of the report as requested.

10. In conclusions as mentioned, elaborate on Single Occupant Vehicles (SOV) regarding traffic at the ramp terminals.

LEA Response: Discussion has been added to the attached TIS Update regarding impacts of traffic at the QEW ramps.

11. TIS is to be revised.

LEA Response: Please refer to the attached TIS Update prepared by LEA Consulting.

This letter has summarized the comments received from review agencies regarding the December 2022 Transportation Impact Study prepared by LEA Consulting, and the corresponding responses. A full TIS Update is attached to provide additional details and clarification about the current proposal.

Please do not hesitate to contact the undersigned should you have any additional questions or concerns at ZGeorgis@lea.ca.

Yours truly,

LEA CONSULTING LTD.

Kenneth Chan, P.Eng, PTOE, PMP
Senior Vice President
Transportation Engineering and Planning

Zara Georgis, M.Eng., P.Eng.
Project Manager
Transportation Engineering and Planning

Encl: Attachment 1: Transportation Impact Study Update – Proposed Residential Development, Dixie Outlet Mall, City of Mississauga

:du

Executive Summary

LEA Consulting Ltd. (LEA) prepared a Transportation Impact Study (TIS) in December 2022 in support of the Official Plan Amendment and Zoning By-law Amendment application for the proposed Phase 1 development of Dixie Outlet Mall, located at 1250 South Service Road in the City of Mississauga. This TIS Update has been prepared to address comments received from City of Mississauga, Region of Peel, and MTO staff on the December 2022 TIS.

Proposed Development

This TIS assesses Phase 1 of development on the site, which includes a proposal for three new high-rise residential buildings with four towers in total on the west side of the site and partial demolition of the existing mall. Phase 1 will introduce 997 residential units and will result in a reduction of 15,881m^2 of retail gross floor area (GFA), resulting in a remaining retail area of 53,929m^2 on the site.

Transportation Network

The local transportation network is undergoing significant changes as the Dixie Road/Queen Elizabeth Parkway (QEW) interchange, immediately adjacent to the site, is being reconfigured to improve traffic flow. Improvements to the public transit network, regional train service, cycling facilities and pedestrian connections are also planned for the area.

Study Horizon & Analysis Methodology

The study considers an existing horizon based on traffic data collected in February 2024, and a future horizon of 2029 (5-years after existing conditions). Intersection capacity analysis has been completed using Synchro 12 software, following the Mississauga Transportation Impact Study Guidelines (December 2022) and the Peel Region Traffic Impact Study Guidelines.

Traffic Impact

Although approximately 1,000 residential units are proposed to be added to the site, approximately 23% of the existing mall floor area will be removed. This will result in a trip generation reduction during some time periods. The development is anticipated to generate 205 net trips during the AM peak hour (55 inbound and 150 outbound), -2 net trips during the PM peak hour (+14 inbound and -16 outbound) and -198 net trips during the Saturday peak hour (-102 inbound and -96 outbound).

As a whole, the Dixie Outlet Mall site is anticipated to generate 394 trips during the AM peak hour (181 inbound and 213 outbound), 833 trips during the PM peak hour (403 inbound and 430 outbound) and 1,457 trips during the Saturday peak hour (769 inbound and 688 outbound) after the development of Phase 1.

Optimized signal timing plan have been recommended for the following intersections:

- Dixie Road & Sherway Drive;
- Dixie Road & South Service Road/QEW EB Off-Ramp;
- Dixie Road & Rometown Drive/South Service Road;
- Lakeshore Road East & Haig Boulevard;
- Dixie Road & Lakeshore Road East; and
- Haig Boulevard & South Service Road.

The intersection capacity analysis resulted in the identification of several critical movements which will arise due to background developments and background growth. Critical movements have been identified at the following intersections due to background conditions:

- Dixie Road & North Service Road / QEW Westbound Off-Ramp (PM and Saturday peak hours);
- Haig Boulevard & South Service Road (AM and PM peak hours);
- Lakeshore Road East & Haig Boulevard (AM, PM and Saturday peak hours); and
- Lakeshore Road East & Dixie Road (AM, PM and Saturday peak hours).

It was also found that the intersection of Dixie Road & Rometown Drive / South Service Road is expected operate with a V/C ratio of 0.94 in the AM peak hour of future total conditions, which is deemed critical but not over capacity.

It is recommended that the City monitor these intersections to understand capacity constraints as background developments and the development of the subject site are built out.

No queueing concerns were identified in the analysis of future total conditions.

Overall, the proposed development is expected to have an acceptable impact on the surrounding transportation network.

Parking Review & Transportation Demand Management Strategy

In addition to traffic network analysis, the parking provisions have been reviewed for the application, and a TDM Plan has been developed.

The development proposes to provide 0.85 residential parking spaces per unit and 0.15 visitor parking spaces per unit for an overall rate of 1.0 space per unit proposed, which does not meet the requirements for Parking Precinct 4 as set out by the City of Mississauga Zoning By-law 0225-2007.

The retail parking supply will be 4.05 spaces per 100m^2 GFA, which meets by-law requirements based on reductions permitted due to MTO expropriation.

To support the proposed parking supply, a retail parking demand survey was conducted on the site, which found a peak parking demand of 3.67 spaces per 100m^2 GFA, and residential parking demand surveys were conducted at proxy sites in Parking Precinct 4, which found a peak parking demand of 1.05 spaces per unit. It should be noted that five out of six residential sites surveyed exhibited a peak parking demand of 0.87 spaces per unit or lower. Therefore, the proposed parking supply for residents, visitors and retail guests is anticipated to be sufficient for the future demand.

The subject site is expected to see significant improvements to transit service and active transportation facilities in the near future, encouraging multi-modal travel and supporting a reduced parking supply.

To further support the proposed reduced parking supply on-site, Transportation Demand Management (TDM) measures are proposed to encourage the use of transit and active transportation. The TDM strategy for the site will be extensive, with information about the local multi-modal transportation options being made available to residents and visitors, bicycle repair stations and amenities being provided, and wayfinding and other pedestrian circulation measures being implemented to improve comfort and safety.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1 INTRODUCTION

LEA Consulting Ltd. (LEA) has been retained by SCREO | Dixie Outlet Mall L.P. ("SCREO) to prepare an Updated Transportation Impact Study (TIS) in support of the Official Plan Amendment and Rezoning applications for the proposed residential development located at 2150 South Service Road in the City of Mississauga (herein referred to as the "subject site"). The subject site is currently occupied by Dixie Outlet Mall.

LEA previously prepared a TIS, dated December 2022, for the first submission of the Phase 1 application. Subsequently, comments were received from the City of Mississauga for Parking (dated February 28, 2023) and for Traffic (dated March 21, 2023), as well as from the Ontario Ministry of Transportation (dated February 23, 2023) for the proposed development. Our responses to these comments are summarized in the cover letter attached to this report.

The development proposal for Phase 1 has also been revised, now consisting of 997 residential units and a future retail gross floor area (GFA) of 53,929 m^2. As such, this TIS has been updated from the original report to accurately reflect the revised site plan and statistics for this current updated submission.

This study has been prepared following a Terms of Reference circulated to City of Mississauga staff in October 2022, as well as a Parking Study Terms of Reference circulated to City staff in October 2023. The Terms of Reference letters and associated responses from City staff are provided in Appendix A. The City of Mississauga *Transportation Impact Study Guidelines* (December 2022) have also been followed during the preparation of this study.

A Certification Form for this TIS Update is provided in Appendix B.

1.1 SITE LOCATION

Dixie Outlet Mall is located at the southwest corner of the interchange of the Queen Elizabeth Way (QEW) and Dixie Road. The site is currently zoned as General Commercial (C3) under Zoning By-law 0225-2007 and is designated as a Mixed-Use area as per the City of Mississauga Official Plan (2010). The subject site is also located within the Lakeview Local Area Plan.

The mall contains a variety of retail stores including a No Frills supermarket, Treasure Hunt liquidation centre, Fantastic Flea Market and several large clothing stores. The existing retail GFA is 69,810 m^2. The mall can be accessed via two driveways on Dixie Road and three driveways on South Service Road.

SCREO owns the western portion of the Dixie Outlet Mall lands, which include a majority of the mall and surface parking lot. The Phase 1 development (i.e the subject site) will take place on the westernmost portion of the SCREO lands. The total SCREO-owned lands and the subject site lands specifically are shown in Figure 1-1.

Figure 1-1: Subject Site Location

Source: Google Earth Aerial Imagery (2020)

1.2 DEVELOPMENT PROPOSAL

Phase 1 of the proposed development will introduce three (3) residential blocks (4 towers with 8 to 19 stories) and a community park, which will be built on the west side of the existing Dixie Mall surface parking lot. The residential tenure is not confirmed at this time. The development will include the demolition of the westernmost part of the mall. The Phase 1 lands are proposed to be rezoned to Residential Apartment and Open Space zoning.

An internal road network will be developed for the proposed development, including a new public road connecting to Haig Boulevard at a full-moves unsignalized intersection. The residential buildings will share an underground parking garage, which will be accessible via Blocks 2 and 3, with driveways on the internal private road network. A functional design review of the site accesses, internal road network, and parking and loading facilities is provided in Appendix K.

The statistical breakdown of the development is outlined in Table 1-1.

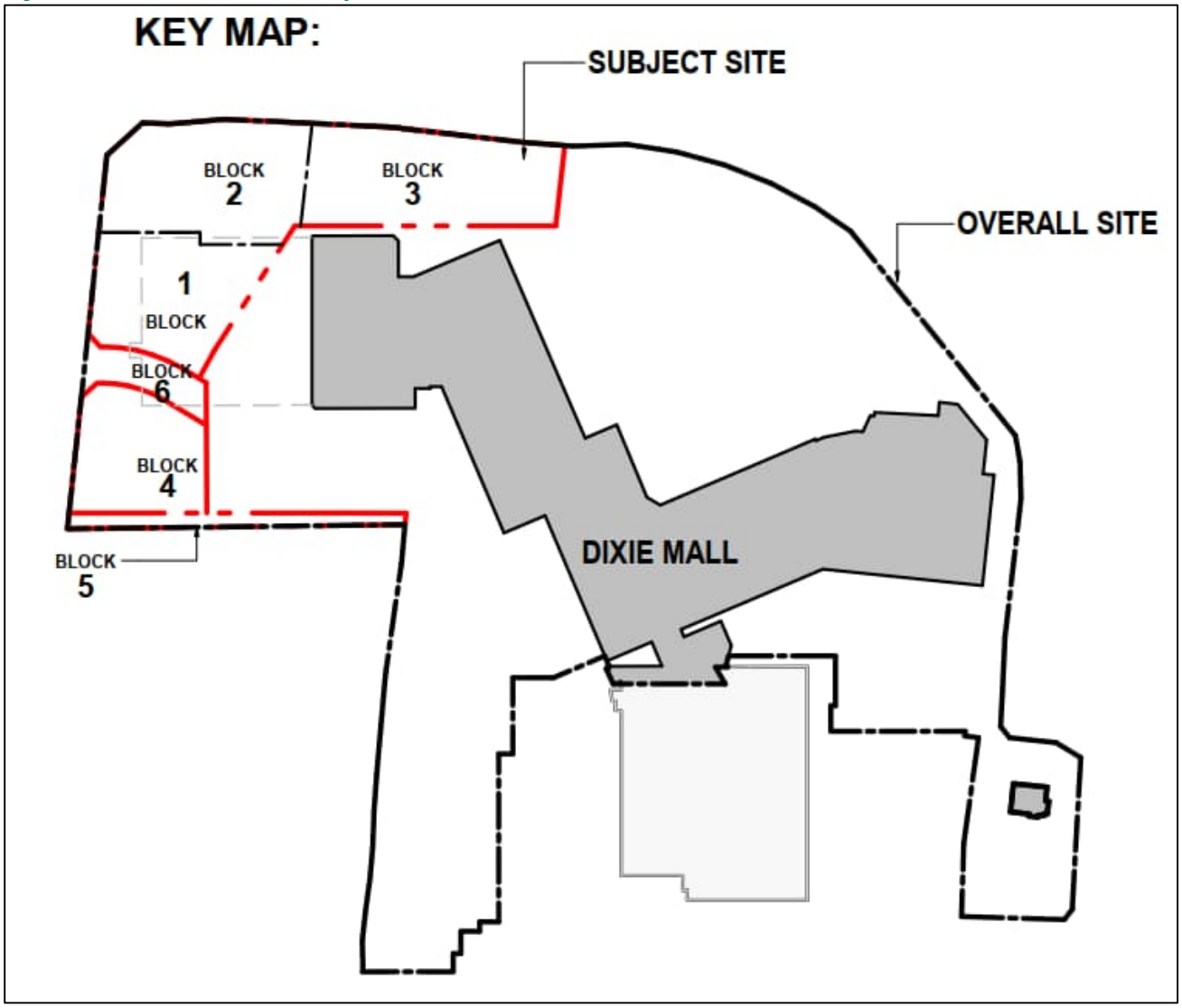
Table 1-1: Site Statistics

Land Use	Existing Site	Proposed Development			Difference
Residential	0 units	Block 1 (8-storey)	159 units	997 units	+ 997 units
		Block 2 (18-storey)	338 units		
		Block 3 (15- & 18-storey)	500 units		
Retail	69,810 m^2	53,929 m^2			- 15,881 m^2

An underground parking garage connecting the three residential blocks will contain 848 residential parking spaces and 161 visitor parking spaces. In addition, 50 short-term bicycle parking spaces and 598 long-term bicycle parking spaces will be provided on the site. One loading space will be provided in each residential block for garbage collection and moving.

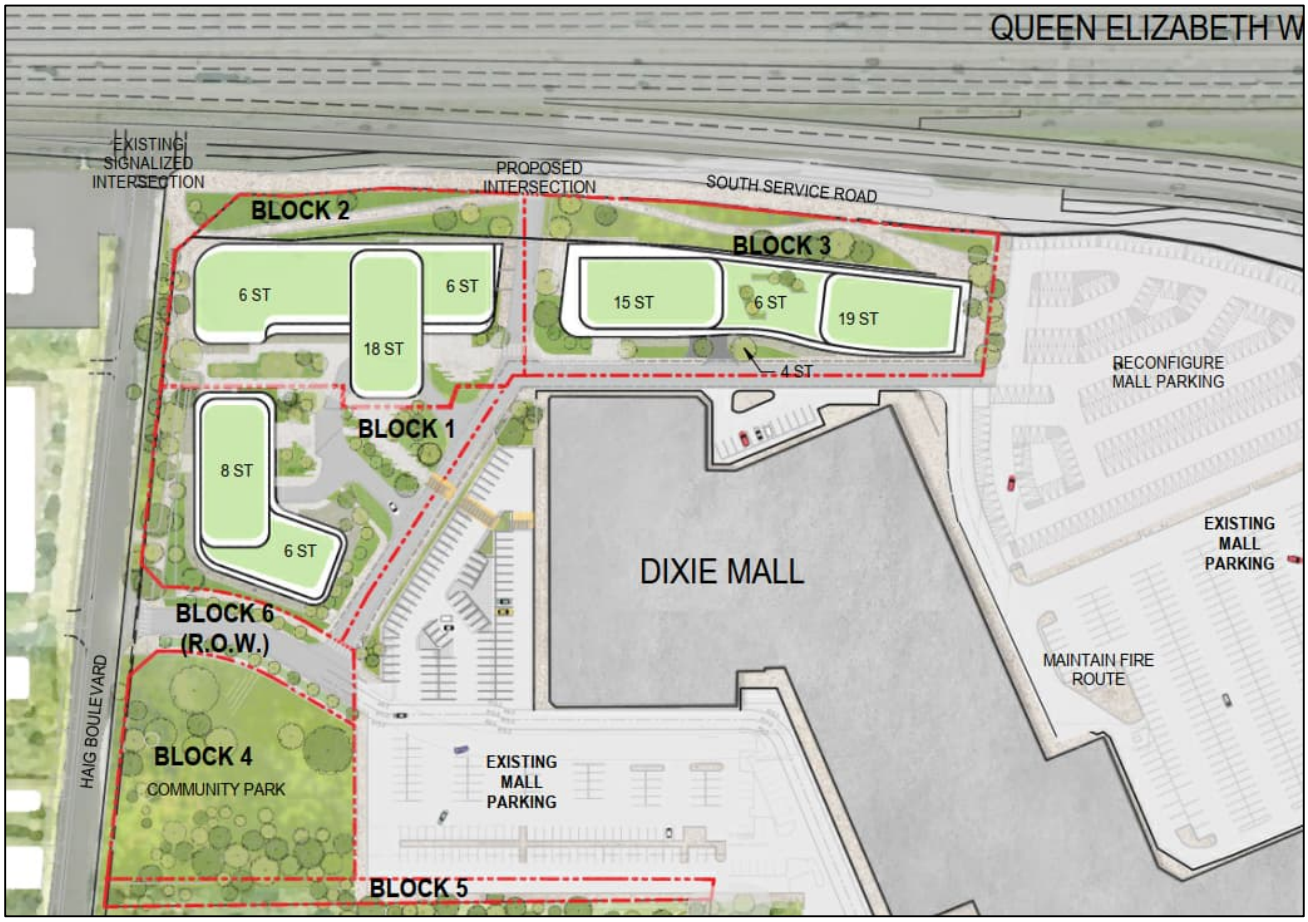
A key plan for the SCREO-owned lands within the Dixie Outlet Mall site is illustrated in Figure 1-2. A detailed ground floor plan for the proposed development area is shown in Figure 1-3.

Figure 1-2: Dixie Outlet Mall Key Plan



Source: Giannone Petricone Associates Inc. Architects (March 126, 2024)

Figure 1-3: Proposed Site Plan (Phase 1)



Source: Giannone Petricone Associates Inc. Architects (March 26, 2024)

1.3 STUDY METHODOLOGY

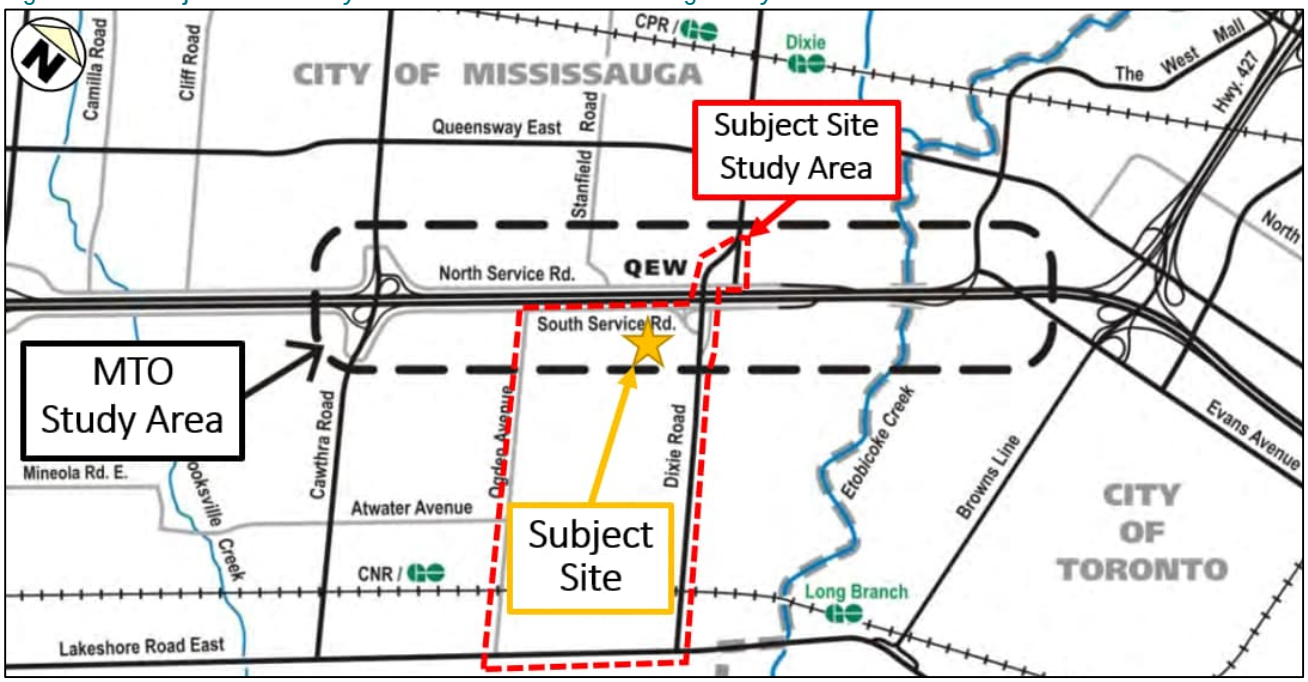
The report will assess the existing (2024), future (2029) background and future (2029) total traffic conditions for the AM, PM and Saturday peak hours to assess the impact of the proposed development on the study area transportation network. The report will also include a detailed review and justification for the proposed parking supply and will identify a proposed Transportation Demand Management (TDM) Plan for the subject development.

1.4 BACKGROUND STUDIES

1.4.1 Interchange Reconfiguration: QEW & Dixie Road

An Environmental Assessment Study (EA Study) has recently been completed by the Ontario Ministry of Transportation (MTO) for improvements to the Queen Elizabeth Way (QEW) between Cawthra Road and Evans Avenue, including the Dixie Road interchange adjacent to the subject site. The study area of the MTO undertaking (herein referred to as the "QEW Improvements") and the subject site are shown in Figure 1-4.

Figure 1-4: Subject Site Study Area and MTO Undertaking Study Area



Source: Transportation Environmental Study Report QEW from Evans Avenue to Cawthra Road (January 2016)

The key transportation improvements as part of the MTO undertaking include:

- Replacement of the QEW/Dixie Road overpass and reconfiguration of the QEW/Dixie Road interchange to a full-moves interchange including modifications to municipal roads;
- Replacement of the Ogden Pedestrian bridge and structural culvert west of Dixie Road;
- Realignment of local service roads;
- Localized QEW widening to accommodate operational and safety improvements and to maintain six lanes of traffic during construction;
- Modifications to/installation of retaining walls, noise barriers, sign-structures, traffic signals and illumination.

The transportation network review and traffic analysis within this report will utilize data and information from two key documents that are part of the EA Study. The two key reference documents are described below:

Transportation Environmental Study Report (herein referred to as the "TESR"):

- Completed in January 2016
- Outlines each of the alternatives and details the impacts of the Preferred Alternative

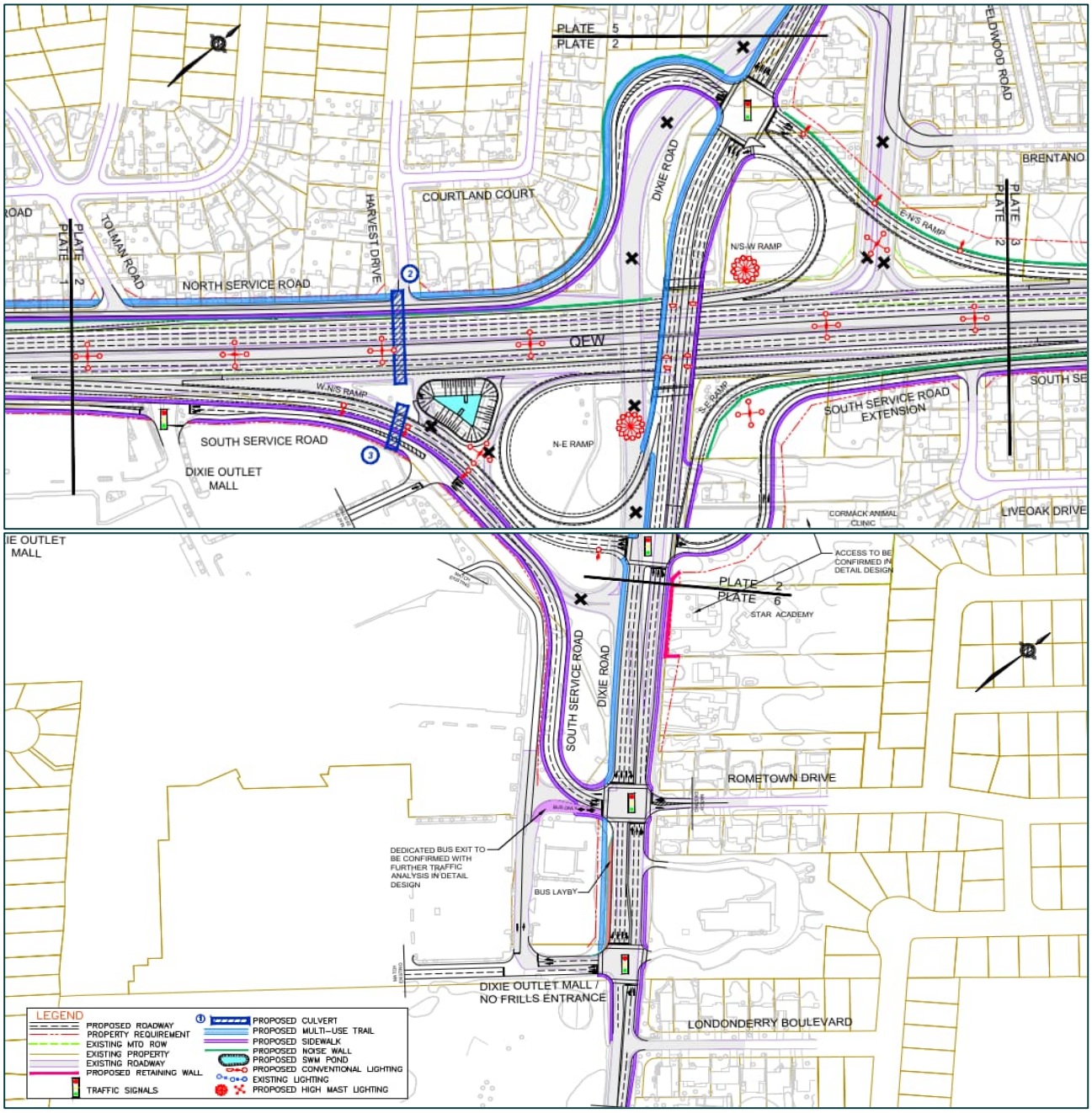
QEW Improvements from Evans Avenue to Cawthra Road Preliminary Design and Class Environmental Assessment Study Traffic Analysis Final Report (herein referred to as the "EA Traffic Report"):

- Completed in November 2016
- Explores the operations of the QEW and nearby intersections considering the implementation of the Preferred Alternative
- Refines the Preferred Alternative to obtain the Final Preferred Alternative design and forecasted traffic volumes

The TESR has mainly been used for background information purposes, whereas the EA Traffic Report has been used to fill gaps in traffic data. Relevant excerpts from the EA Traffic Report are provided in Appendix C.

Within the subject site study area, the main road network changes will be realized through the Dixie/QEW interchange improvements. These are to be implemented as part of the Final Preferred Alternative option, which is discussed in the EA Study. Additionally, active transportation facilities are planned to be implemented along Dixie Road and the municipal roads. These improvements are illustrated on the Final Preferred Alternative drawings which are shown as Figure 1-5, and in more detail in Appendix C.

Figure 1-5: Plate 2 Showing Final Preferred Alternative Plan Plates 2 and 6



Source: Transportation Environmental Study Report QEW from Evans Avenue to Cawthra Road (January 2016)

The MTO undertaking in the study area is expected to be completed in 2026, and thus many of the proposed road network changes are well under construction at the time of this TIS submission. As such, the existing conditions analysis will be completed based on the road network prior to construction, as detailed in Section 2.1, and the future background and future total analyses will be completed based on the EA Study Final Preferred Alternative.

1.4.2 Lakeshore Connecting Communities Study

The City of Mississauga has developed a Transportation Master Plan called Lakeshore Connecting Communities, which overlaps with the southern portion of the study area. One of the major objectives defined by the TMP is to implement a transit priority corridor on Lakeshore Road. Following this recommendation, the City completed a Transit Project Assessment Process (TPAP) for the Lakeshore Bus Rapid Transit Project, which will provide a Bus Rapid Transit corridor on Lakeshore Road between East Avenue and Etobicoke Creek. The proposed road design has been utilized in the development of the future road network model used for the traffic analysis included in this TIS Update.

2 EXISTING TRANSPORTATION CONTEXT

This section describes the existing transportation network in the study area, including the road, transit, cycling and pedestrian networks.

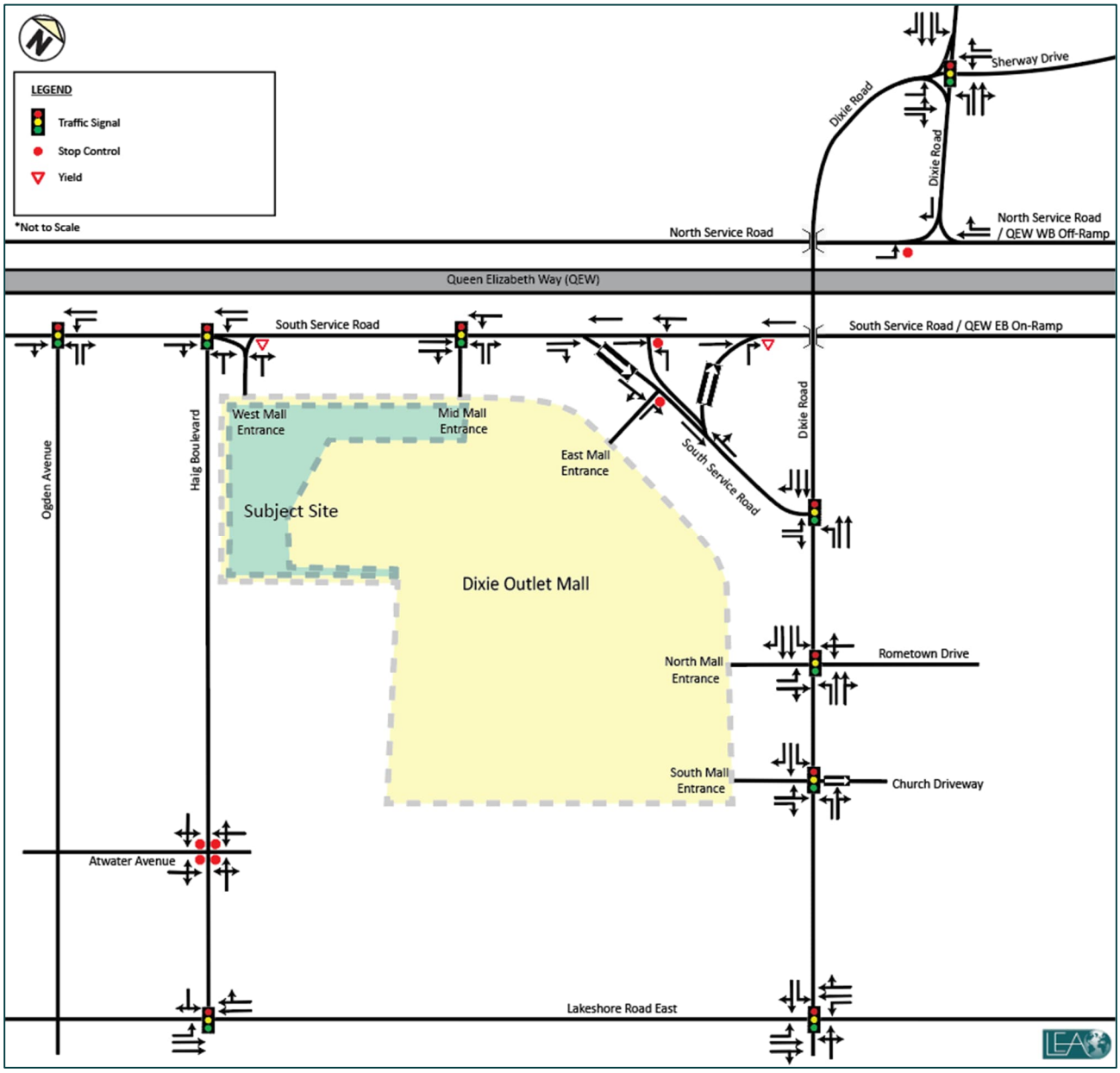
2.1 ROAD NETWORK

The study will analyze the following existing intersections during the weekday AM, PM, and Saturday peak periods:

- Dixie Road & Sherway Drive (signalized);
- Dixie Road & QEW Ramp / North Service Road (unsignalized);
- Dixie Road & QEW Ramp / South Service Road (signalized);
- Dixie Road & North Mall Entrance / Rometown Drive (signalized);
- Dixie Road & South Mall Entrance (signalized);
- South Service Road & East Mall Entrance (unsignalized);
- South Service Road & Mid Mall Entrance (signalized);
- South Service Road & West Mall Entrance / Haig Boulevard (signalized);
- South Service Road & Ogden Avenue (signalized);
- Lakeshore Road East & Haig Boulevard (signalized);
- Lakeshore Road East & Dixie Road (signalized); and
- Atwater Avenue & Haig Boulevard (unsignalized).

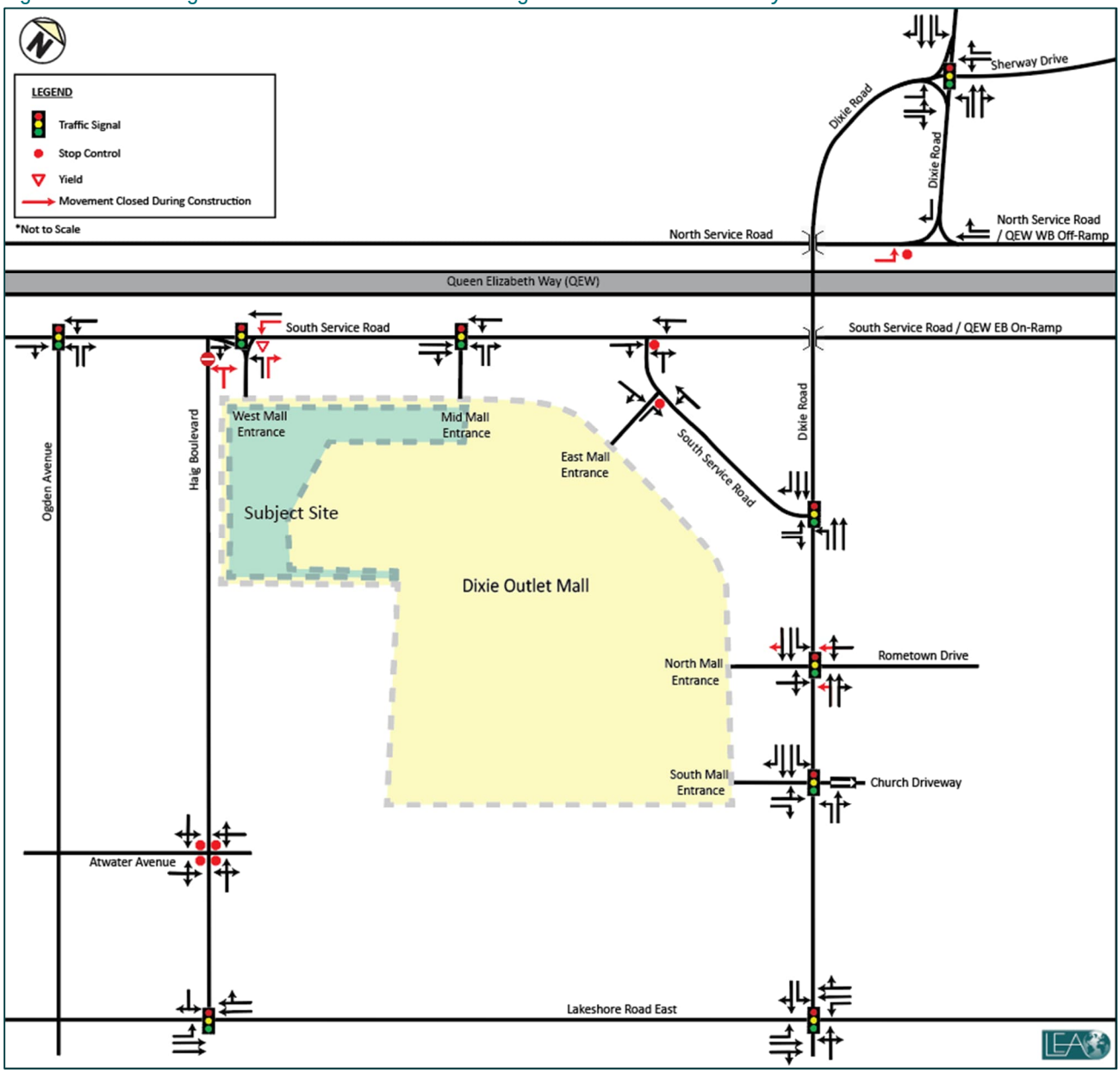
The study area is under construction for the reconfiguration of the Dixie Road & QEW interchange. As requested by City staff, the existing conditions analysis is based upon the pre-construction road network. The road network and lane configurations of study area intersections prior to the construction of QEW improvements are shown in Figure 2-1.

Figure 2-1: Road Network and Lane Configuration – Pre-Construction



It should be noted that traffic data for the existing conditions scenarios was collected in February 2024, when the study area was undergoing construction for the QEW Improvements. As of February 2024, significant road network restrictions included the temporary closure of Haig Boulevard at South Service Road due to sanitary sewer replacement and the restriction of all inbound traffic to Dixie Mall at the intersection of Dixie Road and the North Mall Entrance. A site visit was conducted in February 2024 to confirm the lane configurations and turning restrictions during construction, which are illustrated in Figure 2-2.

Figure 2-2: Existing Road Network and Lane Configuration – As of February 2024



The existing road network in the study area is described in detail below.

Queen Elizabeth Way (QEW) is classified as an east-west 400-series highway, under the jurisdiction of the MTO. The route extends between the Peace Bridge in the west and ends at Highway 427 in the east. It operates with a six-lane cross section (i.e three lanes per direction) and a posted speed limit of 100 km/hr.

Dixie Road is a north-south arterial road under the jurisdiction of Peel Region that runs from Lakeshore Road East to Olde Base Line Road. Dixie Road operates with a posted speed of 60 km/h, but is currently under construction with an advisory posted speed limit of 50 km/h. Within the vicinity of the subject site, Dixie Road operates with a four-lane cross-section (i.e. two lanes per direction), with a multi-use trail on the west side of the road and a sidewalk on the east side. South of Dixie Outlet Mall, Dixie Road reduces to one-lane per

direction with on-street bike lanes and sidewalks on both sides. Dixie Road is in the process of being re-aligned, with a new bridge over the QEW. Vehicle traffic continues to use the old alignment of Dixie Road at this time.

Lakeshore Road East is an east-west arterial road under the jurisdiction of the City of Mississauga that extends through the entire City, continuing west into Oakville and east into Toronto. Lakeshore Road East has a four-lane cross-section (i.e. two lanes per direction) and a posted speed limit of 60 km/h. Sidewalks are present on the north side of the street, while a multi-use trail is present on the south side.

North Service Road is an east-west major collector road under the jurisdiction of the City of Mississauga that extends from Hurontario Street to Brentano Boulevard. The roadway operates with a three-lane cross-section (i.e. two lanes westbound, one lane eastbound) and a posted speed limit of 50 km/h. A sidewalk is present on the north side of the street. Heavy vehicles are not permitted on North Service Road within the vicinity of the subject site. North Service Road is currently under construction as part of the QEW improvements project. North Service Road will terminate at Dixie Road and the segment between Dixie Road and Brentano Boulevard will be decommissioned.

South Service Road is an east west major collector road under the jurisdiction of the City of Mississauga that extends from Hurontario Street to Park Royale Boulevard. The roadway operates with a two-lane cross-section (i.e. one lane per direction) and a posted speed limit of 60 km/h. A sidewalk is present on the south side of the street. South Service Road is currently under construction as part of the QEW improvements project, where it is being shifted south to make room for a new off-ramp from the QEW just north of Dixie Outlet Mall.

Ogden Avenue is a north-south major collector road under the jurisdiction of the City of Mississauga that runs between South Service Road in the north and Lakeshore Road East in the south. It operates with a two-lane cross-section (i.e. one lane per direction) and a posted speed limit of 40 km/h. Sidewalks are provided on both sides of the street between South Service Road and Delco Avenue, but only on the west side of the street between Delco Avenue and Lakeshore Road East. At the northern end of Ogden Avenue, a pedestrian bridge provides a connection across the QEW for pedestrians and cyclists. Heavy vehicles are not permitted on Ogden Avenue. There is an at-grade crossing of the Lakeshore West rail corridor on Ogden Avenue.

Haig Boulevard is a north-south minor collector road with a two-lane cross section (i.e. one lane per direction) under the jurisdiction of the City of Mississauga that runs between South Service Road in the north and Lakeshore Road East in the south. Haig Boulevard operates with a posted speed limit of 50 km/h. In the area of the subject site, a sidewalk is provided on the west side of the street only. South of Atwater Avenue, sidewalks are provided on both sides. Heavy vehicles are not permitted on Haig Boulevard. There is an at-grade crossing of the Lakeshore West rail corridor on Haig Boulevard.

Atwater Avenue is an east-west local road under the jurisdiction of the City of Mississauga that runs between Mineola Gardens in the west and Haig Boulevard in the east. It operates with a two-lane cross-section (i.e. one lane per direction) and a posted speed limit of 40 km/h. Sidewalks are present on both sides of the street. Heavy vehicles are not permitted on Atwater Avenue in the study area.

Rometown Drive is an east-west local road with a two-lane cross section (i.e. one lane per direction) under the jurisdiction of the City of Mississauga that extends from Dixie Road to Winterhaven Road. Rometown Drive operates with a posted speed limit of 40 km/h and there are no sidewalks provided on either side of the road. Heavy vehicles are not permitted on Rometown Drive.

Sherway Drive is an east-west local road with a two-lane cross section (i.e. one lane per direction) under the jurisdiction of the City of Mississauga that extends from Dixie Road and ends at Etobicoke Creek. Sherway Drive operates with a posted speed limit of 40 km/h with sidewalks provided on both sides of the road. Heavy vehicles are not permitted on Sherway Drive east of Dixie Road.

West Mall Access is the westernmost driveway for Dixie Outlet Mall along South Service Road.

Mid Mall Access is a driveway for Dixie Outlet Mall along South Service Road that lies between the West Mall Access and East Mall Access

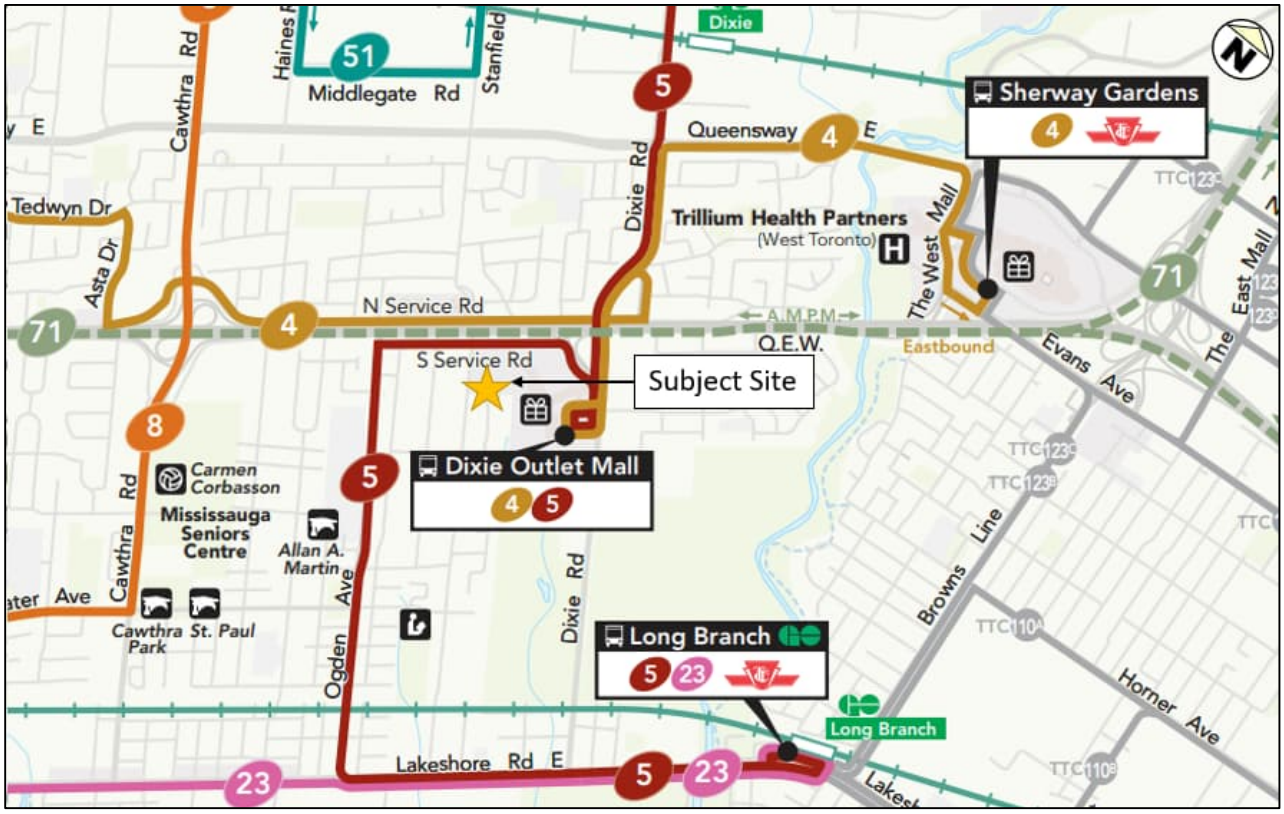
East Mall Access is the easternmost driveway for Dixie Outlet Mall along South Service Road.

2.2 TRANSIT NETWORK

This section will describe the current transit services near the subject. The subject site address has a Transit Score of 37/100 as per the WalkScore application. Local bus services operated by MiWay provide connections throughout the City as well as to the GO regional transit system and Toronto Transit Commission (TTC) system.

Key connections include Long Branch GO Station, Dixie GO Station, and the Sherway Gardens Shopping Centre. Currently, MiWay bus stops are present at the intersection of South Service Road and Haig Boulevard, and at the Dixie Mall Bus Terminal (near Dixie Road & North Mall Entrance), providing excellent accessibility to the local transit network. The existing transit network is shown in Figure 2-3 and described below.

Figure 2-3: Current MiWay Service Map



Source: MiWay Transit – January 2024

4 Sherway Gardens – operates generally in an east-west direction between Cooksville GO and Sherway Gardens Bus Terminal. This route operates daily with approximately 45-minute headways. Route 4 provides connections to the Toronto Transit Commission (TTC) transit services via the Sherway Gardens bus terminal. Route 4 is accessible in the study area with the closest bus stop located at the Dixie Mall Bus Terminal.

5 Dixie – operates generally in a north-south direction along Dixie Road between Long Branch GO and the area of Lorimar Drive and Cardiff Boulevard. This route operates Monday-Sunday with approximately 15-minute headways during weekday peak periods and 30-minute headways off-peak and during weekends. Route 5 provides connections to GO regional transit services via Long Branch GO, and also connects to the Mississauga Transitway at Dixie Station. Route 5 is accessible in the study area with the closest bus stop located at the Dixie Mall Bus Terminal. South of the subject site, the route provides connections to both the 501 and 508 TTC streetcars, and the 110 and 123 TTC bus services to the Islington and Kipling subway stations, allowing for ease of transfer onto the TTC network.

There are two GO Train stations located near the subject site: Long Branch GO (Lakeshore West Line) approximately 2 km to the east and Dixie GO (Milton Line) approximately 2 km to the north. Long Branch GO provides connections to the TTC streetcar and bus routes, whereas Dixie GO provides connections to GO Transit regional bus service that provides additional connections to several hubs throughout the GTA. The GO Transit network is illustrated in Figure 2-4.

Figure 2-4: Current GO Transit Service Map

Source: GO Transit – September 2023

2.3 CYCLING NETWORK

The subject site has a Bike Score of 57/100 based on the WalkScore application. This score indicates the availability of some cycling infrastructure in the area. As shown in Figure 2-5, bike lanes are present on Dixie Road south of the site and there is a multi-use trail on Dixie Road north of Sherway Drive. In addition, there is an existing shared route along Ogden Avenue from South Service Road to Lakeshore Road East which includes a pedestrian/cyclist bridge of the QEW.

Figure 2-5: Existing Cycling Network

Source: City of Mississauga – September 2023

It is noted that the QEW Improvements project will improve the cycling network in the study area significantly. Multi-use trails are proposed along Dixie Road and North Service Road to connect the existing infrastructure.

There is currently a limited supply of bicycle parking at the Dixie Mall entrances.

2.4 PEDESTRIAN NETWORK

The subject site has a WalkScore of 80/100 or "Very Walkable" due to the availability and variety of nearby amenities, in particular the existing mall. Future residents of the development will be able to accomplish most errands on foot.

In the study area, most roads have sidewalks on at least one side, and pedestrian crossings are provided at most intersections. The existing pedestrian network facilitates pedestrian connections to and from the nearby MiWay transit stops.

It is noted that the QEW Improvements project will improve the pedestrian network in the study area significantly. In addition, as the subject site develops, the public realm will be positively transformed with pedestrian-scale blocks and upgraded facilities, such as the proposed community park and urban mews.

2.5 TRAFFIC DATA COLLECTION

Turning movement counts (TMCs) were used as the source of traffic data in the intersection capacity analysis. Counts were conducted by LEA for all study area intersections in February 2024 during the reconstruction of Dixie Road and South Service Road. A summary of the TMC data collected is outlined in Table 2-1. Detailed TMC data collected, as well as signal timing plans provided by the Region of Peel can be found in Appendix D.

Table 2-1: Data Collection Summary

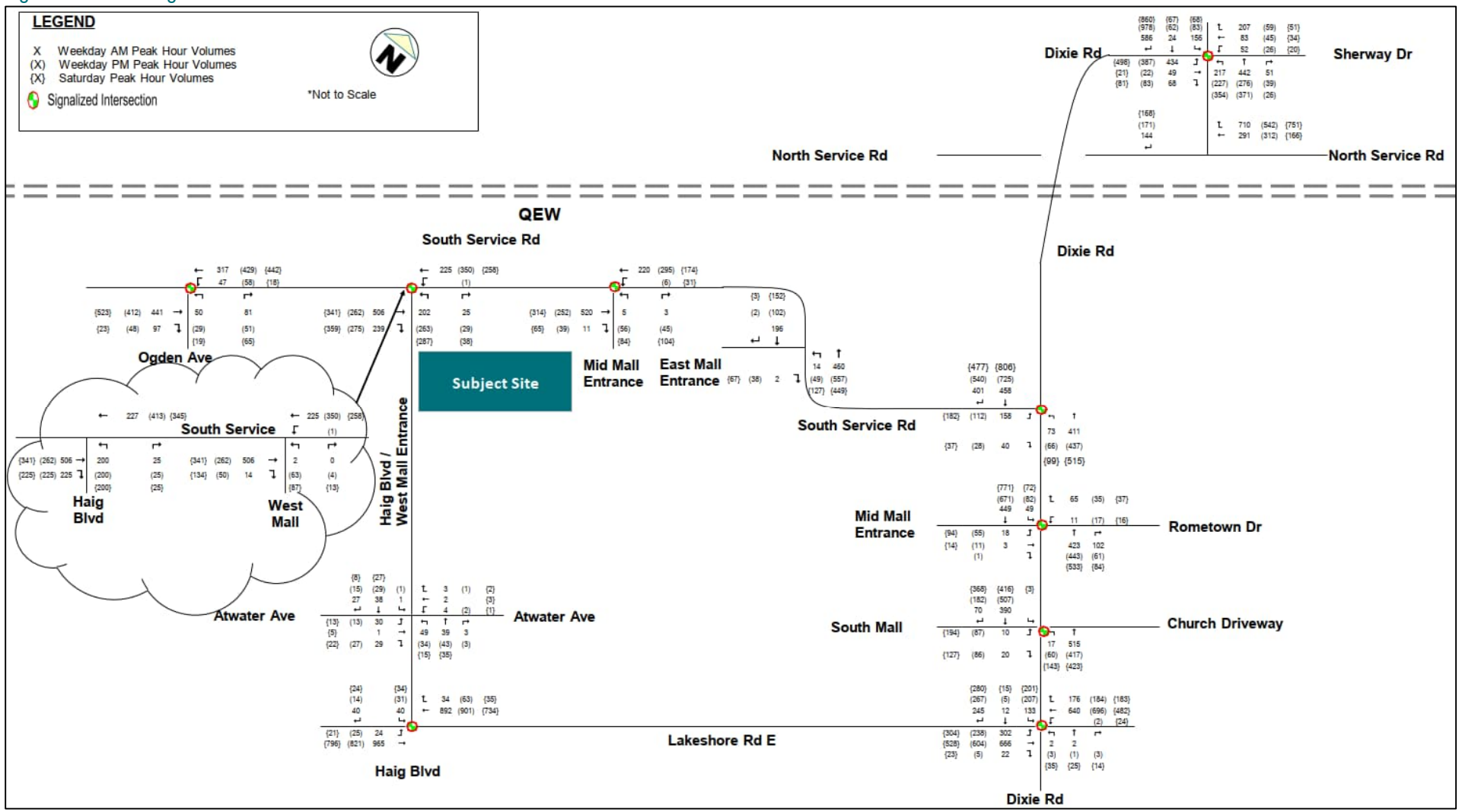
Intersection	TMC Date (Weekday)	TMC Date (Weekend)	Source
Dixie Rd & Sherway Drive	Tuesday, February 6th, 2024	Saturday, February 3rd, 2024	LEA Consulting Ltd.
Dixie Rd & QEW WB Off-Ramp/N Service Rd			
Dixie Rd & South Service Rd			
Dixie Rd & Rometown Drive			
Dixie Rd and South Mall Entrance/Church Driveway			
South Service Rd & East Mall Entrance			
South Service Rd & Mid Mall Entrance			
South Service Rd & West Mall Entrance/Haig Blvd			
South Service Rd & Ogden Ave			
Lakeshore Rd E & Haig Blvd			
Lakeshore Rd E & Dixie Rd			
Atwater Ave & Haig Blvd			

It should be noted that the intersection of Haig Boulevard and South Service Road was closed to northbound traffic due to sanitary sewer construction at the time of the data collection. As such, traffic data for this intersection is based on existing traffic volumes from the EA Traffic Report, provided in Appendix C.

2.6 EXISTING TRAFFIC VOLUMES

The existing traffic volumes in the study area during the weekday AM, weekday PM and Saturday peak hours are illustrated in Figure 2-6. It should be noted that northbound traffic volumes shown at the intersection of South Service Road and Haig Boulevard / West Mall Entrance in the figures represent the vehicle volumes coming from both south legs of the intersection.

Figure 2-6: Existing Peak Hour Traffic Volumes



3 FUTURE BACKGROUND TRANSPORTATION CONTEXT

This section will identify and detail the future transportation network with regards to the road, transit, cycling and pedestrian networks. The future traffic conditions have been determined based on a five-year horizon to the year 2029. No further horizons are being assessed as future development phases and an ultimate condition are not yet determined.

3.1 FUTURE BACKGROUND ROAD NETWORK

As previously mentioned, construction of the planned QEW Improvements is underway and is expected to be complete by 2026, and thus will be fully in place when the proposed development is built out. The future condition of the study area road network is described below, based on the planned QEW interchange reconfiguration and the Lakeshore Road Transportation Study.

Queen Elizabeth Way (QEW): the existing partial interchange at Dixie Road will be realigned and replaced with a Parclo (Partial Cloverleaf) A2 configuration north of the QEW and a Parclo A4 configuration south of the QEW. The Dixie Road Interchange will consist of two inner loop ramps, two outer ramps and one entrance ramp in the southeast quadrant.

Dixie Road: The future Dixie Road alignment will match the existing roadway approximately 215m north of Sherway Drive north of the QEW and approximately 50m south of Londonderry Boulevard south of the QEW.

Sherway Drive: As a result of the proposed Dixie Road realignment, Sherway Drive will be extended to the west to connect to the new Dixie Road.

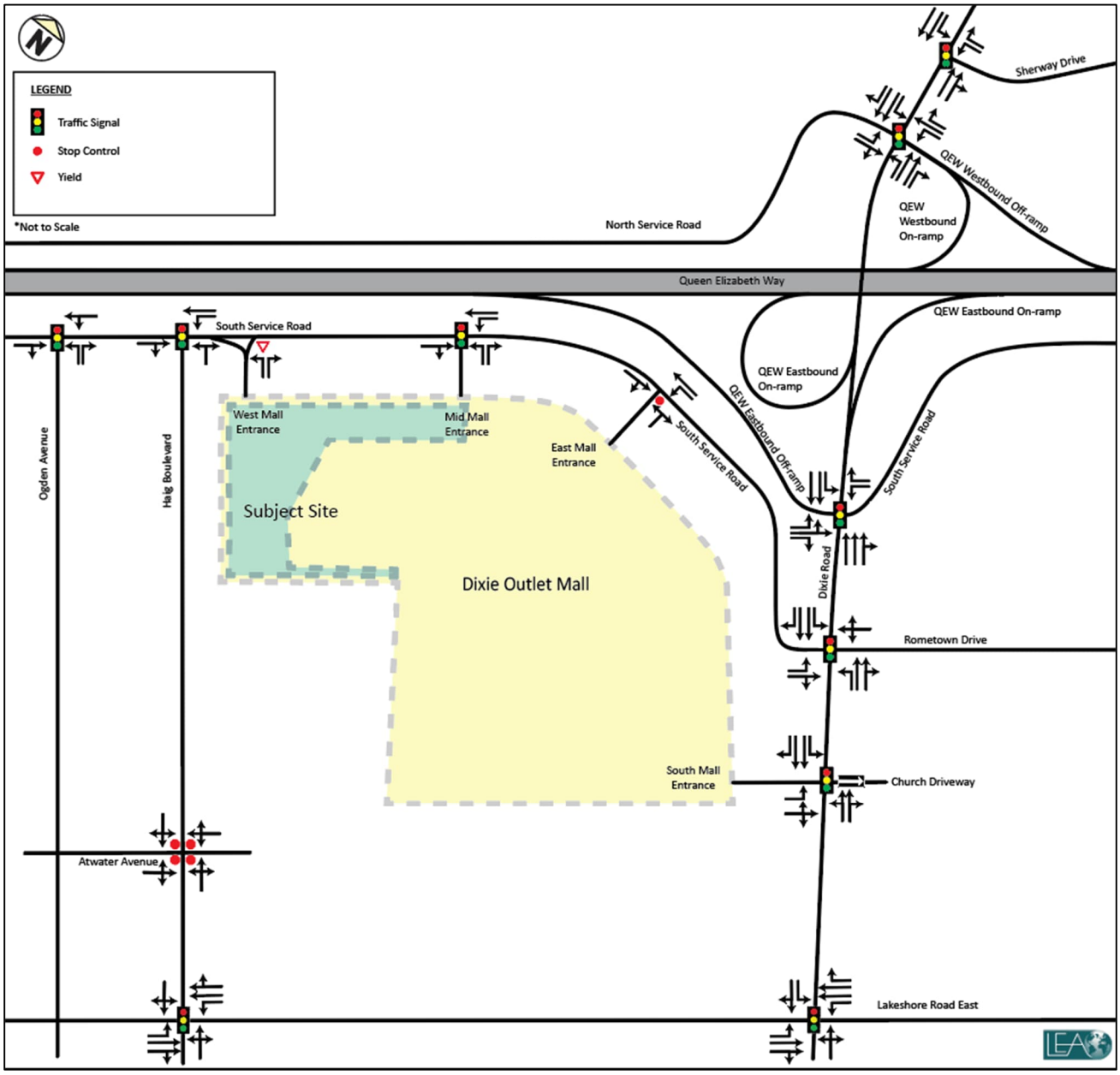
North Service Road: As a result of the proposed Dixie Road interchange, North Service Road will no longer exist east of Dixie Road and will be replaced with a new QEW westbound off-ramp that connects to Dixie Road. Access to the existing North Service Road from Brentano Boulevard will be closed. The cross section will be two (2) lanes (one lane in each direction) in order to accommodate a new 3-4m multi-use trail on the north side of the service road to accommodate pedestrians and public transportation services and a 1.8-2m sidewalk on the south side.

South Service Road: As a result of the proposed Dixie Road interchange reconfiguration, South Service Road is being realigned west of Dixie Road. The proposed realignment intersects with Dixie Road directly across from Rometown Drive and the existing Dixie Outlet Mall main entrance at Dixie Road will be relocated south to the existing No Frills access which will be reconfigured to include a full-moves signalized intersection and a dedicated right-turn lane in the southbound direction on Dixie Road. East of Dixie Road, the South Service Road connection will be realigned to connect to Boxwood Way at Park Royale Boulevard.

Lakeshore Road East: As part of the proposed Lakeshore Bus Rapid Transit Project, some minor lane configuration changes are proposed. In the analysis, it is assumed that all left turns will have protected signal phases.

The road network assumed for the future background analysis is illustrated in Figure 3-1.

Figure 3-1: Future Background Road Network and Lane Configuration



3.2 FUTURE TRANSIT FACILITIES

The study area will see the realization of several local and regional transit improvements in the future.

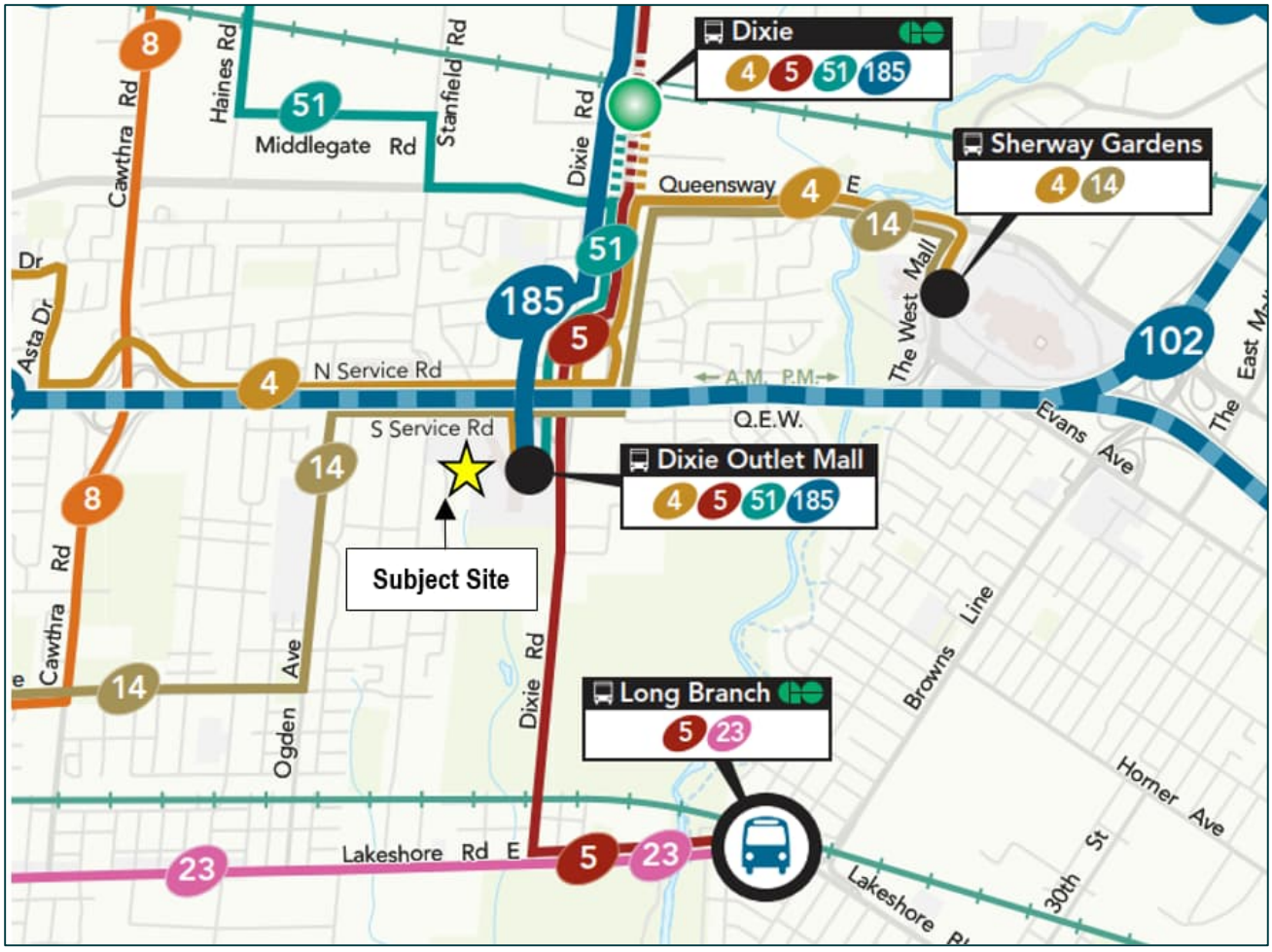
3.2.1 MiWay Transit

In terms of local transit, the MiWay Proposed Route Network improvements will directly impact the transit opportunities near the subject site. The relevant improvements proposed include the following:

- Re-routing of 5 Dixie so that the route continues travelling on Dixie Road south of Dixie Mall as opposed to the current route that switches to Ogden Avenue via South Service at this location;
- New Route 14 operating on South Service Road in place of Route 5 Dixie which will be rerouted;
- 5 Dixie and 4 Sherway Gardens to provide direct connections to Dixie GO Station;
- 51 Tomken routed to reach further south and connect to the Dixie Mall terminal; and
- Addition of MiExpress Routes 185 on-site and 102 passing by the site.

These improvements are shown in Figure 3-2.

Figure 3-2: MiWay Proposed Route Network



Source: MiWay Transit – Accessed June 2021

The City of Mississauga has also committed to providing enhanced bus shelters and transit amenities at Dixie Outlet Mall and along Dixie Road.

In addition, the City completed a Transit Project Assessment Process (TPAP) for the Lakeshore Bus Rapid Transit Project, which will provide a Bus Rapid Transit corridor on Lakeshore Road between East Avenue and Etobicoke Creek. This project will enhance transit service to Long Branch GO Station.

3.2.2 GO Transit

As for regional transit, Metrolinx has identified Dixie Road as a future Priority Bus Corridor, as per the 2041 Regional Transportation Plan. The priority corridor would run between Lakeshore Road and Bovaird Drive. There is potential to connect Bramalea Go, Dixie GO, and Long Branch GO with future priority service along this corridor.

In addition, major improvements are planned for the Lakeshore West line as part of the Metrolinx GO Expansion Project which includes Regional Express Rail (RER) 15-minute train headway, more all-day service, more two-way service, and station improvements. The Metrolinx GO Expansion Full Business Case (Business Case), details such improvements for each line and sets the general timeline of completion as 2025-2030.

The improvements are planned to yield the following key performance objectives for the Lakeshore West line and more specifically Long Branch Station:

- Two-way all-day service between Union and Hamilton stations; and
- 15-minute service or better between Burlington and Union stations.

Station improvements at Long Branch GO including new tunnels, new entrance buildings, bike facilities including a secure bike storage room, and improved wayfinding, will improve accessibility and comfort for travelers utilizing the station. Construction is currently underway and is scheduled to be complete by 2027.

3.3 FUTURE ACTIVE TRANSPORTATION NETWORK

3.3.1 Pedestrian Network

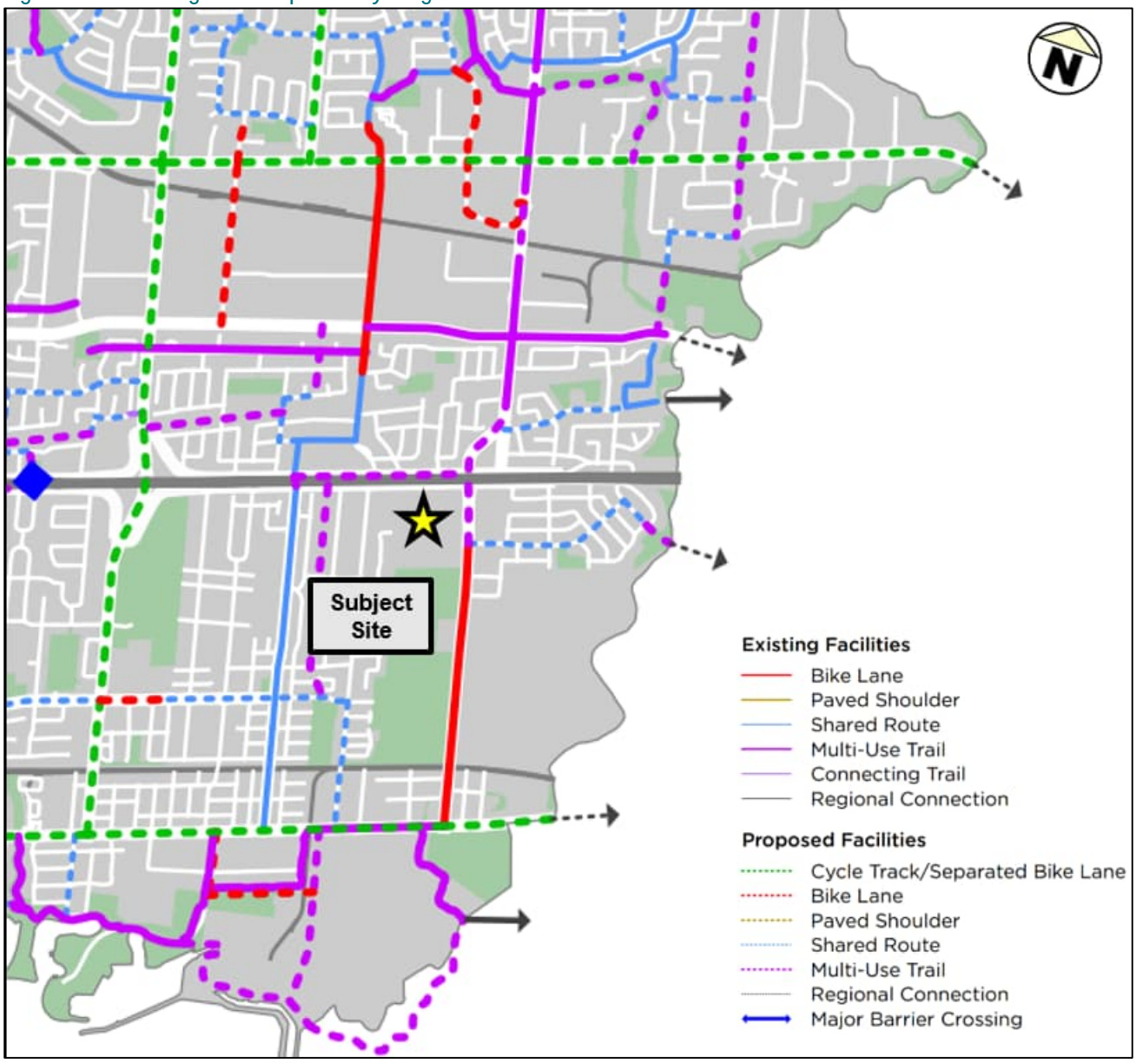
The study area will be well-connected with a sidewalk network. Concrete sidewalks will be present on both sides of Dixie Road, Sherway Drive, North Service Road and South Service Road (west of Dixie Road). In addition, sidewalks will be provided on the south side of South Service Road Extension, east side of Dixie Road and on the west side of Haig Boulevard. Pedestrian crosswalks are provided at all signalized intersections for pedestrians to safely cross the street and access transit stops.

3.3.2 Cycling Network

As a result of the proposed Dixie Road realignment, a multi-use trail is proposed along the west side of Dixie Road and on the north side of North Service Road. This proposed facility is reflected in the *City of Mississauga Cycling Master Plan, 2018*, and listed as a Peel Region five-year implementation plan project. The proposed multi-use trail will connect the site to the existing network, providing a consistent connection to future dedicated cycling facilities on Lakeshore Road East and along the waterfront to the south, and to key destinations along Dixie Road such as Dixie GO Station.

The future cycling network will therefore enhance the viability of cycling for transportation to and from the site. The Cycling Master Plan also proposes a multi-use trail along the QEW between Dixie Road and Ogden Avenue. The proposed cycling network is shown in Figure 3-3.

Figure 3-3: Existing and Proposed Cycling Network



Source: City of Mississauga Cycling Master Plan, 2018

3.4 FUTURE BACKGROUND TRAFFIC VOLUMES

The future background conditions were determined by incorporating background development traffic, corridor growth, and road network changes into the existing traffic conditions.

3.4.1 Background Developments

Two background developments located within the proximity of the subject site were considered under future background conditions. Table 3-1 lists the development statistics of the background developments. The background development site traffic volumes were extracted from the Lakeview Village Traffic Consideration

Report and the 1583 Cormack Crescent TIS, and subsequently assigned to the road network within the study area, as shown in Figure 3-4 and Figure 3-5. Excerpts from these traffic reports are provided in Appendix E.

Table 3-1: Background Development Site Statistics

Development	Site Statistics		Source (Date)
Lakeview Village (Master Plan Development)	Residential	16,000 units*	Traffic Considerations Report, TMIG (June 2020) *Updated unit count provided by City as of 2024
	Retail	147,078 ft^2	
	General Office	876,817 ft^2	
	Research and Development	867,807 ft^2	
	Recreational Community Center	194,278 ft^2	
	Hotel	191 rooms	
1583 Cormach Crescent	22 single detached residential units		TIS (Figure 7), Tatham Engineering (May 2019)

It is noted that the Lakeview Village Master Plan is proposed to be built out by 2031, however was fully included in the 2029 horizon for a conservative estimate of the future road network capacity.

3.4.2 Corridor Growth

Corridor growth rates obtained from City of Mississauga staff were applied to the existing traffic volumes to determine the background growth. These rates are summarized in Table 3-2.Growth rates for the QEW off-ramps were extracted from the EA Traffic Study, as shown in Figure 3-6. Excerpts from the EA Traffic Study are provided in Appendix C for reference.

Table 3-2: Corridor Growth Rates

Corridor	Direction	Annual Growth Rate	
		AM	PM
Dixie Road	Northbound	2%	1%
	Southbound	2%	1%
Lakeshore Road East	Eastbound	0.5%	1%
	Westbound	0.5%	1%
South Service Road	Eastbound/Westbound	0%	0%

3.4.3 Future Background Traffic Volumes

The future background conditions were determined by incorporating background development traffic, corridor growth, and road network changes into the existing traffic conditions. The future background traffic volumes are illustrated in Figure 3-7.

Figure 3-4: 1583 Cormach Crescent Background Traffic Volumes

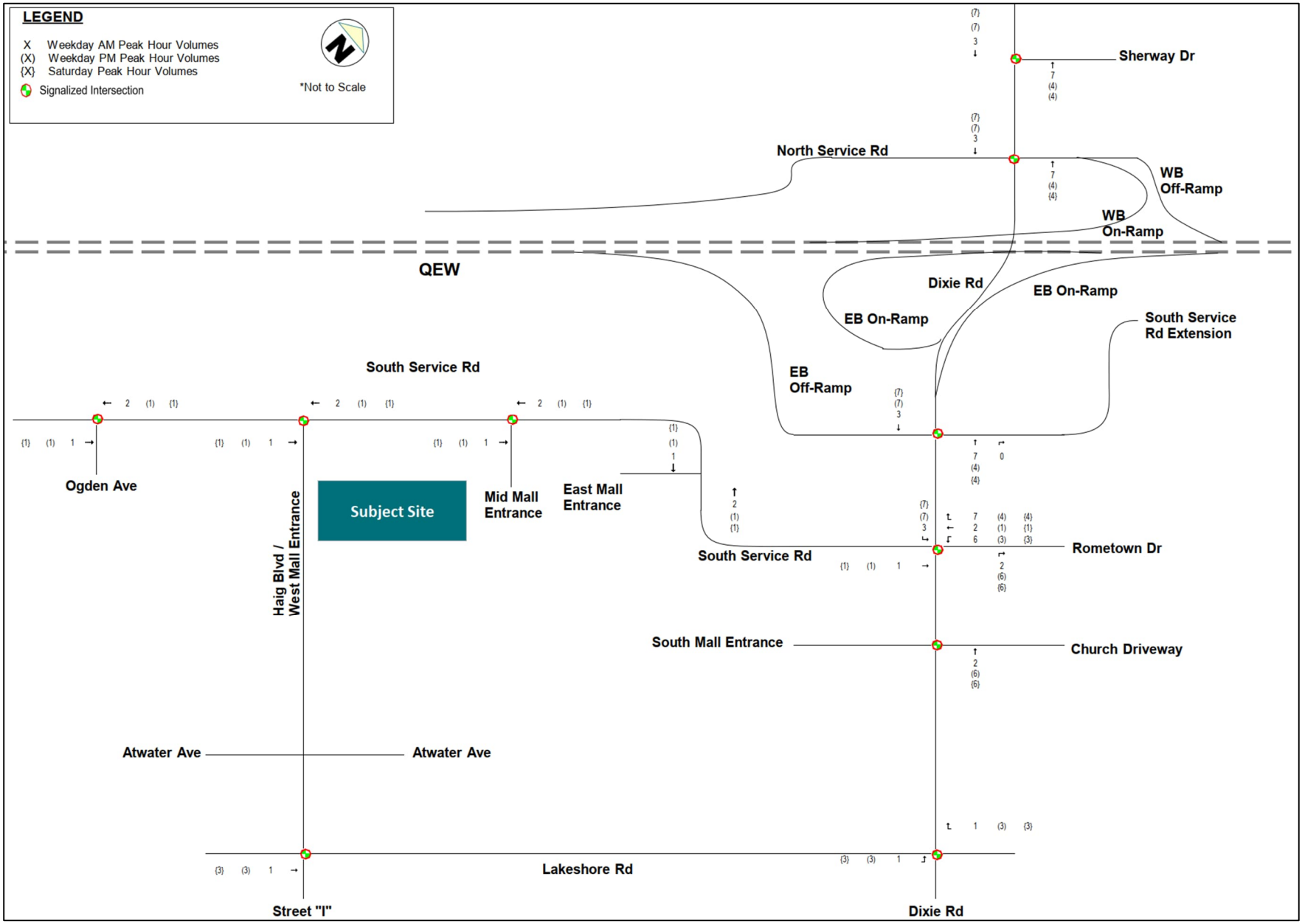


Figure 3-5: Lakeview Development Background Traffic Volumes

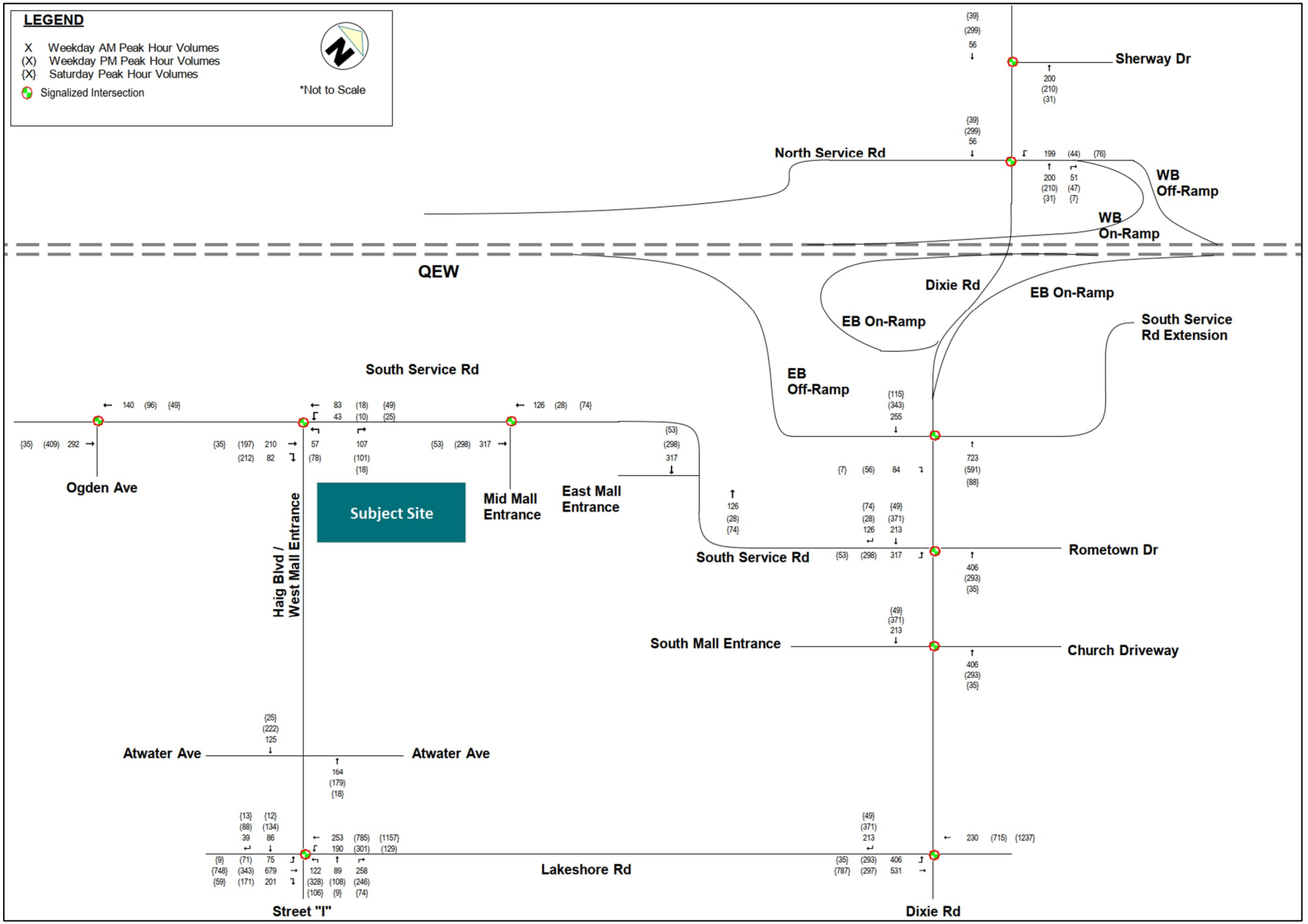


Figure 3-6: Future QEW Ramp Volumes (Source: EA Traffic Report)

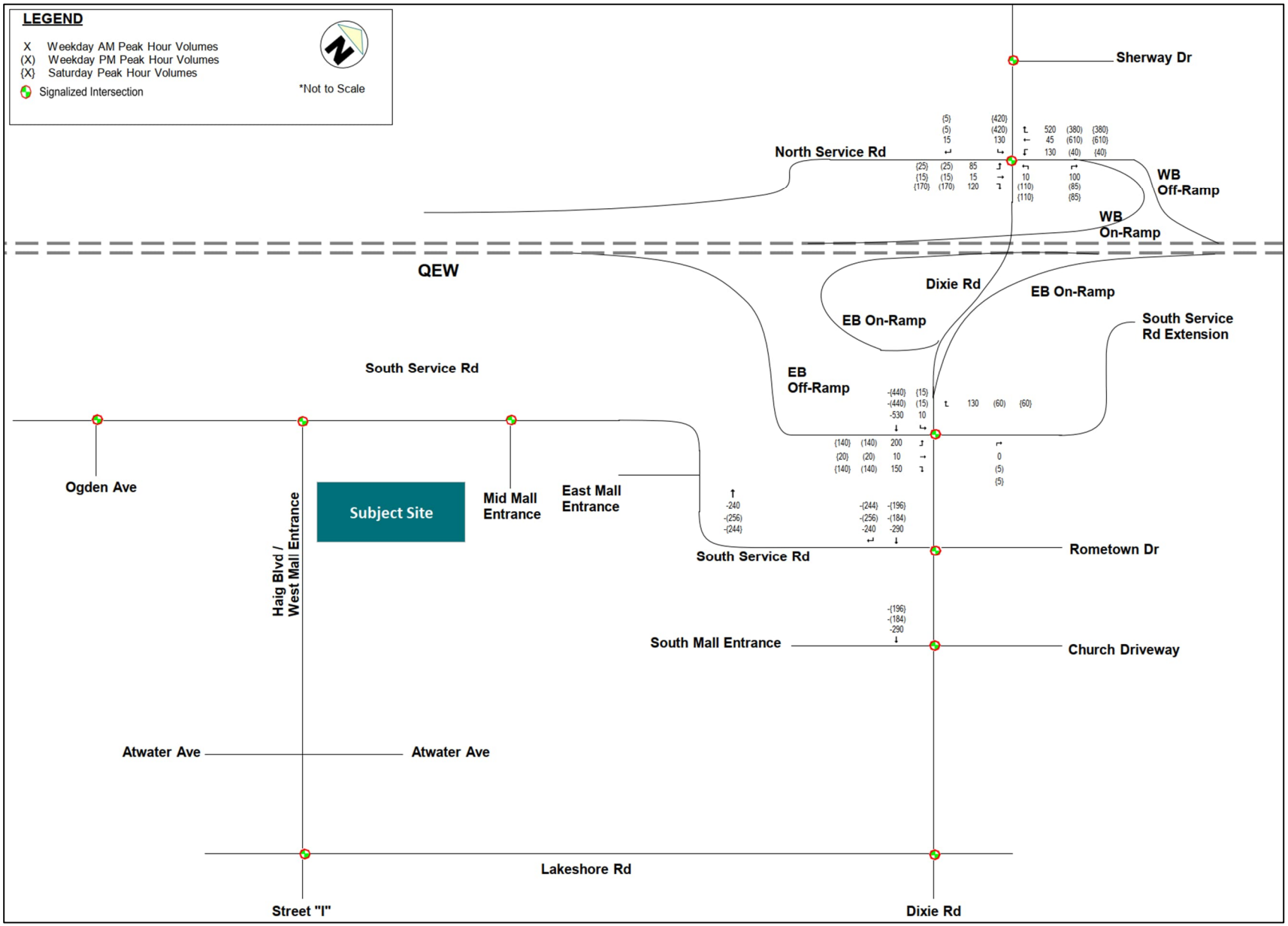
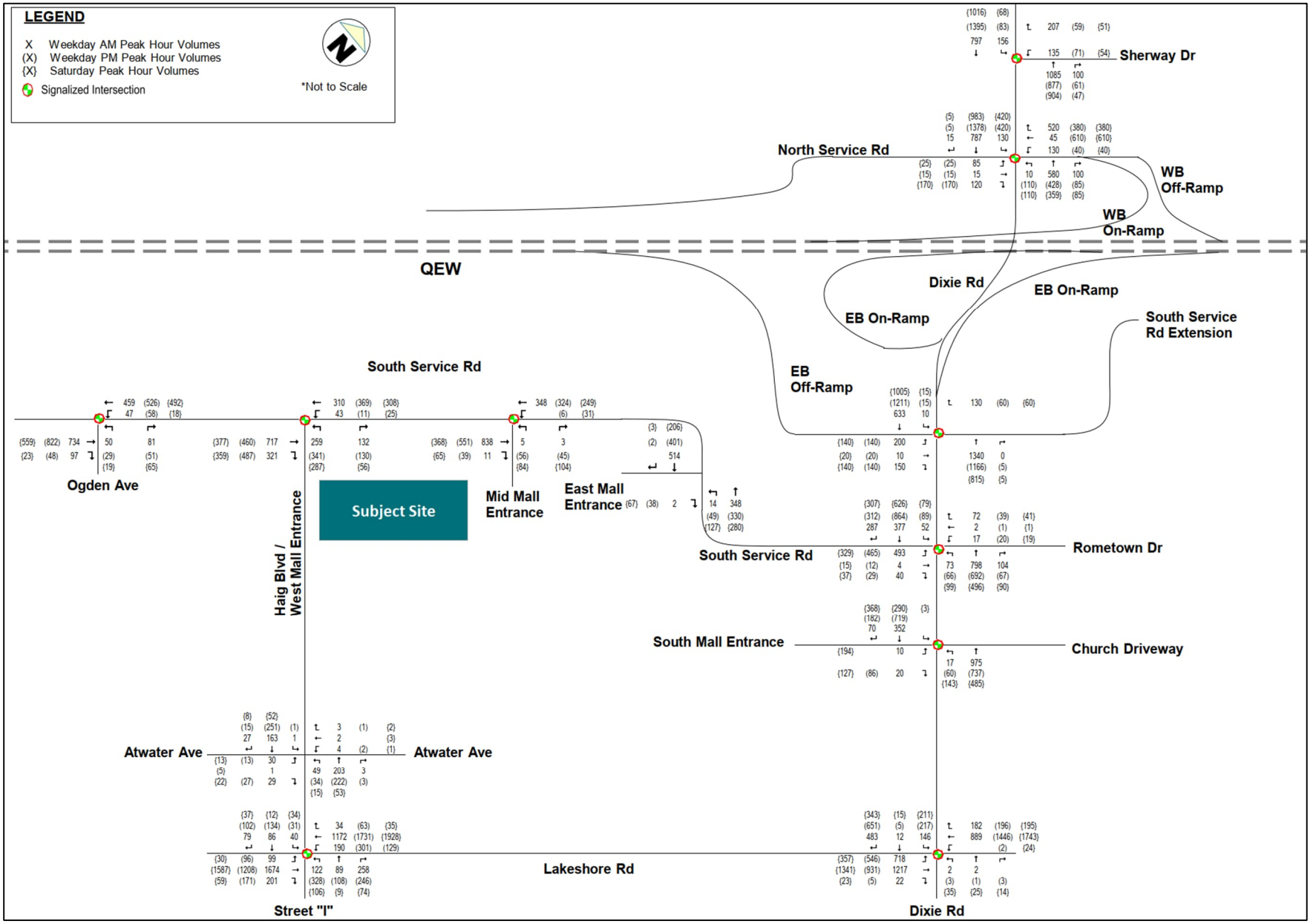


Figure 3-7: Future Background Traffic Volumes



4 FUTURE TOTAL TRANSPORTATION CONTEXT

The proposed redevelopment includes the build-out of three residential blocks with a total of 997 units in the northwest section of the existing Dixie Mall area. The development will reduce the existing retail GFA by 15,881 m^2 to 53,929 m^2.

The following section discusses the proposed road network changes, the trip generation calculation based on the retail GFA reduction and proposed residential development, and the distribution and assignment of site-generated vehicle trips to be generated by the proposed development.

The future total scenario will be compared to the future background scenario through intersection capacity analysis to understand the impact of the proposed development's scale and density.

4.1 FUTURE TOTAL ROAD NETWORK

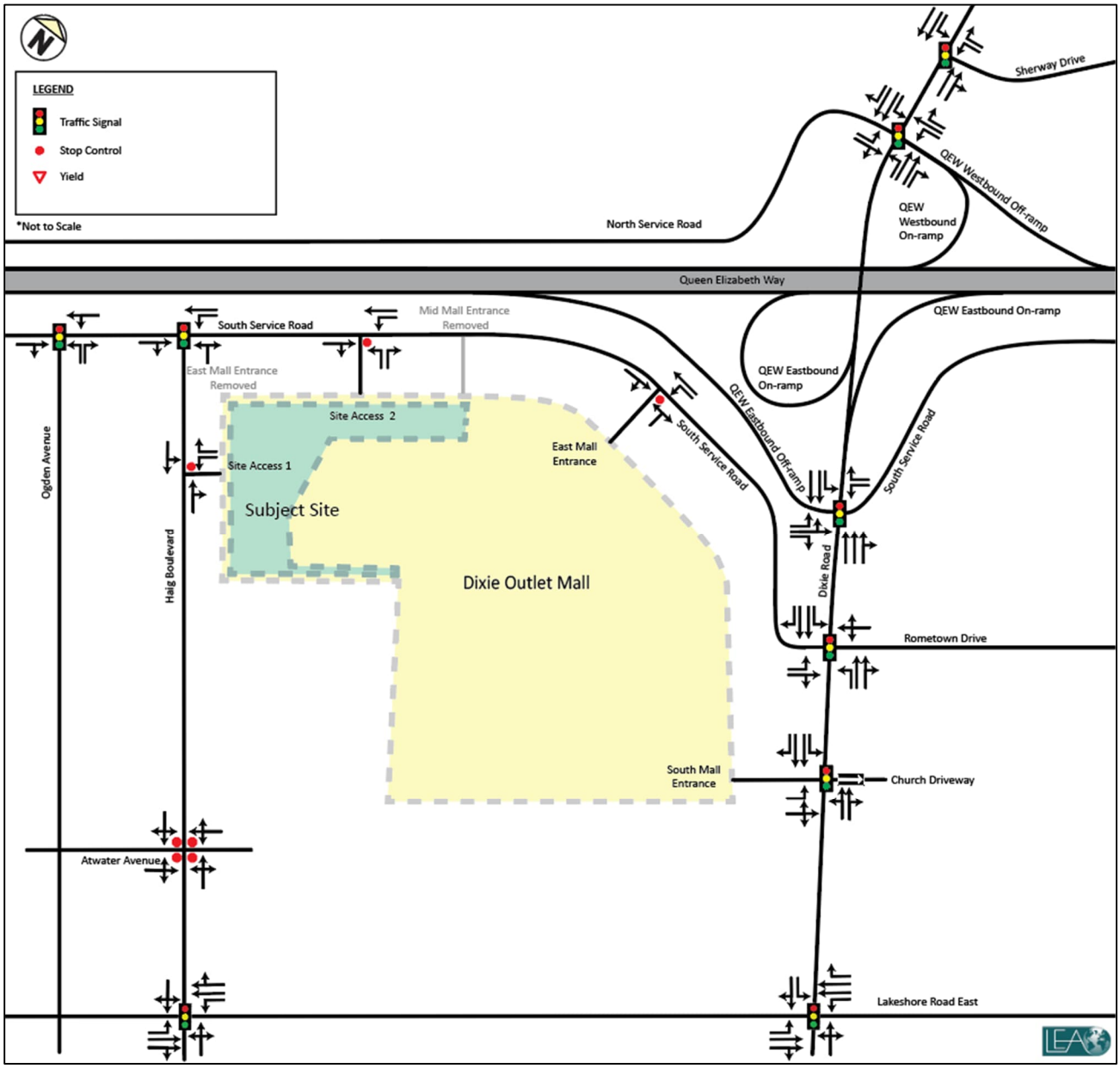
The proposed development will include some road network modifications regarding the site accesses. The proposed changes are described below. The network assumed for the future total analysis is illustrated in Figure 4-1.

Firstly, the existing North Mall Access is being removed as part of the QEW Improvements project, as the west leg of the intersection will eventually connect directly to South Service Road instead of the Dixie Mall parking lot. Reassignment of existing vehicle traffic due to this change is shown in Figure 4-2.

A new site access is proposed along Haig Boulevard ("Site Access 1"). This access will be a new public street that will eventually extend to the east to create a fine-grid road network through the subject site in later stages of development.

The Haig Boulevard & West Mall Entrance intersection along South Service Road will be modified during the redevelopment. The connection to the West Mall Entrance will be removed, and instead a new access ("Site Access 2") will be created 80m to the east, providing access to the proposed residential development and the mall. The Mid Mall Entrance will also be removed. Reassignment of traffic volumes due to the removal of the Mid Mall Access and the West Mall Access are shown in Figure 4-4 and Figure 4-5, respectively.

Figure 4-1: Future Total - Road Network and Lane Configuration



4.2 SITE GENERATED TRAFFIC

The existing and proposed site statistics are detailed in Table 4-1.

Table 4-1: Proposed Site Statistics

Land Use	Existing Site	Proposed Addition (+) / Demolition (-)	Future Development
Residential	0 units	+ 997 units	997 units
Retail	69,810 m^2	- 15,881 m^2	53,929 m^2

4.2.1 Modal Split

Local modal split percentages were obtained from the Transportation Tomorrow Survey (TTS) for Traffic Zone (TZ) 3649 which contains the subject site and nearby TZs 3648, 3653 and 3654. Table 4-2 shows the existing modal split for the subject site, which was applied to the future analysis. TTS data is provided in Appendix F.

Table 4-2: Local Modal Split

Mode	AM Peak	PM Peak	Saturday
Auto Driver + Passenger	74%	74%	74%
Transit	17%	18%	18%
Walk	7%	7%	7%
Bicycle	2%	1%	1%

4.2.2 Trip Generation

The *Institute of Transportation Engineers Trip Generation Handbook, 11th Edition (ITE Manual)*, was utilized to forecast the residential site trips for the development. Trip generation rates for ITE LUC 222, filtered for 'Not Close to Rail Transit' and 'General Urban/Suburban' were utilized. Person trip rates were extracted for the AM and PM peak hours, whereas vehicle trip rates were extracted for the Saturday peak hour and then converted into person trips by utilizing the methodology described in Appendix B of the *ITE Trip Generation Handbook 3rd Edition (ITE Handbook)*. Trip generation data sheets are provided in Appendix G for reference.

Since the retail trip generation for the existing mall has been captured within the existing conditions scenario, a reduction was applied to in and out volumes at site accesses based on the retail GFA to be removed. Internal trips capture was also calculated based on the methodology described in the ITE Handbook. The internal trips were then subtracted from the auto trips to determine the net amount of trips generated. Finally, the local modal split was applied to determine the final number of vehicle trips generated by the site. The trip generation calculations are shown in Table 4-3.

Table 4-3: Subject Site Peak Hour Vehicle Trip Generation

Land Use	Description	Weekday AM			Weekday PM			Saturday		
		In	Out	Total	In	Out	Total	In	Out	Total
Residential (*LUC 222 – High-Rise Residential*) **997 Units**	Percentage Split	34%	66%	100%	56%	44%	100%	57%	43%	100%
	Trip Rate	0.12	0.22	0.34	0.26	0.20	0.46	0.21	0.15	0.36
	Vehicle Trips	-	-	-	-	-	-	205	154	359
	ITE Vehicle Share	-	-	-	-	-	-	96.3%	94.7%	-
	Vehicle Occupancy	-	-	-	-	-	-	1.15	1.21	-
	Person Trips	115	224	339	257	202	459	245	197	442
	Internal Reduction	-2	-2		-118	-85		-113	-83	
	Net Person Trips	**113**	**222**	**335**	**139**	**117**	**256**	**132**	**114**	**246**
	TTS Vehicle Share	74%	74%		74%	74%		74%	74%	
	Total New Vehicle Trips	**84**	**164**	**248**	**103**	**87**	**190**	**98**	**84**	**182**
69,810 m^2 Existing Retail	**Total Existing Vehicle Trips**	**126**	**63**	**189**	**389**	**446**	**835**	**871**	**784**	**1655**
15,881 m^2 of Existing Retail Removed (~23%)	**Trips Removed (23% of existing surveyed trips)**	**-29**	**-14**	**-43**	**-89**	**-103**	**-192**	**-200**	**-180**	**-380**
Net New Site Trips		**55**	**150**	**205**	**14**	**-16**	**-2**	**-102**	**-96**	**-198**
Total Trips		**181**	**213**	**394**	**403**	**430**	**833**	**769**	**688**	**1457**

The development is anticipated to generate 205 net trips during the AM peak hour (55 inbound and 150 outbound), -2 net trips during the PM peak hour (+14 inbound and -16 outbound) and -198 net trips during

the Saturday peak hour (-102 inbound and -96 outbound). The reduction in vehicle trips generated by the site is driven by the demolition of approximately 23% of retail space on the western portion of the mall, which particularly affects evening and weekend trips. Removal of these trips from the surrounding road network is illustrated in Figure 4-3. Residential site generated trip assignment is shown in Figure 4-7.

Considering the net impact of the proposed development, the Dixie Outlet Mall site is anticipated to generate 394 trips during the AM peak hour (181 inbound and 213 outbound), 833 trips during the PM peak hour (403 inbound and 430 outbound) and 1,457 trips during the Saturday peak hour (769 inbound and 688 outbound).

The trip generation for the net new trips by mode is shown in Table 4-4.

Table 4-4: Subject Site Multi-Modal Trip Generation

Land Use	Description	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
All	Net Person Trips	113	222	335	139	117	256	132	114	246
	Auto Driver Trips	84	164	248	103	87	190	98	84	182
	Transit Trips	19	38	57	25	21	46	24	21	45
	Pedestrian trips	8	16	24	10	8	18	9	8	17
	Cycling Trips	2	4	6	1	1	2	1	1	2

4.2.3 Trip Distribution and Assignment

The trip distribution of residential site traffic for each of the peak periods was estimated using Transportation Tomorrow Survey (TTS) 2016 data for TZs 3648, 3649, 3653 and 3654. The data was filtered for home-based trips and time of day.

Table 4-5 summarizes the assumed trip distribution percentages for residential site traffic based on the TTS data. A summary of the full TTS dataset used is presented in Appendix F.

Table 4-5: Directional Trip Distribution of Residential Auto Trips

Gateway No.	Locations	AM		PM		SAT	
		IN	OUT	IN	OUT	IN	OUT
1	Dixie Rd (N of Sherway Dr)	40%	28%	33%	30%	18%	27%
2	QEW (W of Dixie Rd)	21%	20%	7%	26%	20%	24%
3	QEW (E of Dixie Rd)	28%	46%	54%	30%	53%	32%
4	Dixie Rd (S of Church Driveway/Street A)	5%	2%	4%	7%	4%	8%
5	S Service Rd (W of Haig Blvd)	6%	4%	2%	7%	5%	9%
	Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Retail trip distribution was forecasted based on the observed traffic patterns of existing site traffic.

Trip assignment to the study area gateways was subsequently determined based on the trip origin and destination, site accesses, and the most logical routing. The site-generated trips applied to the road network, are shown in the following section.

4.3 FUTURE TOTAL TRAFFIC CONDITIONS

The future total traffic analysis will assess the traffic impact of the development in the 2029 horizon year, by comparing results to the future background analysis. The purpose of such is to determine the adequacy of the proposed final road network and interim road network in servicing the site generated traffic. The future total traffic volumes are composed of the 2029 future background traffic volumes with the site generated traffic added. These volumes are depicted in Figure 4-9.

Figure 4-2: Removal of Existing Site-Generated Traffic at Dixie Rd & Rometown Drive

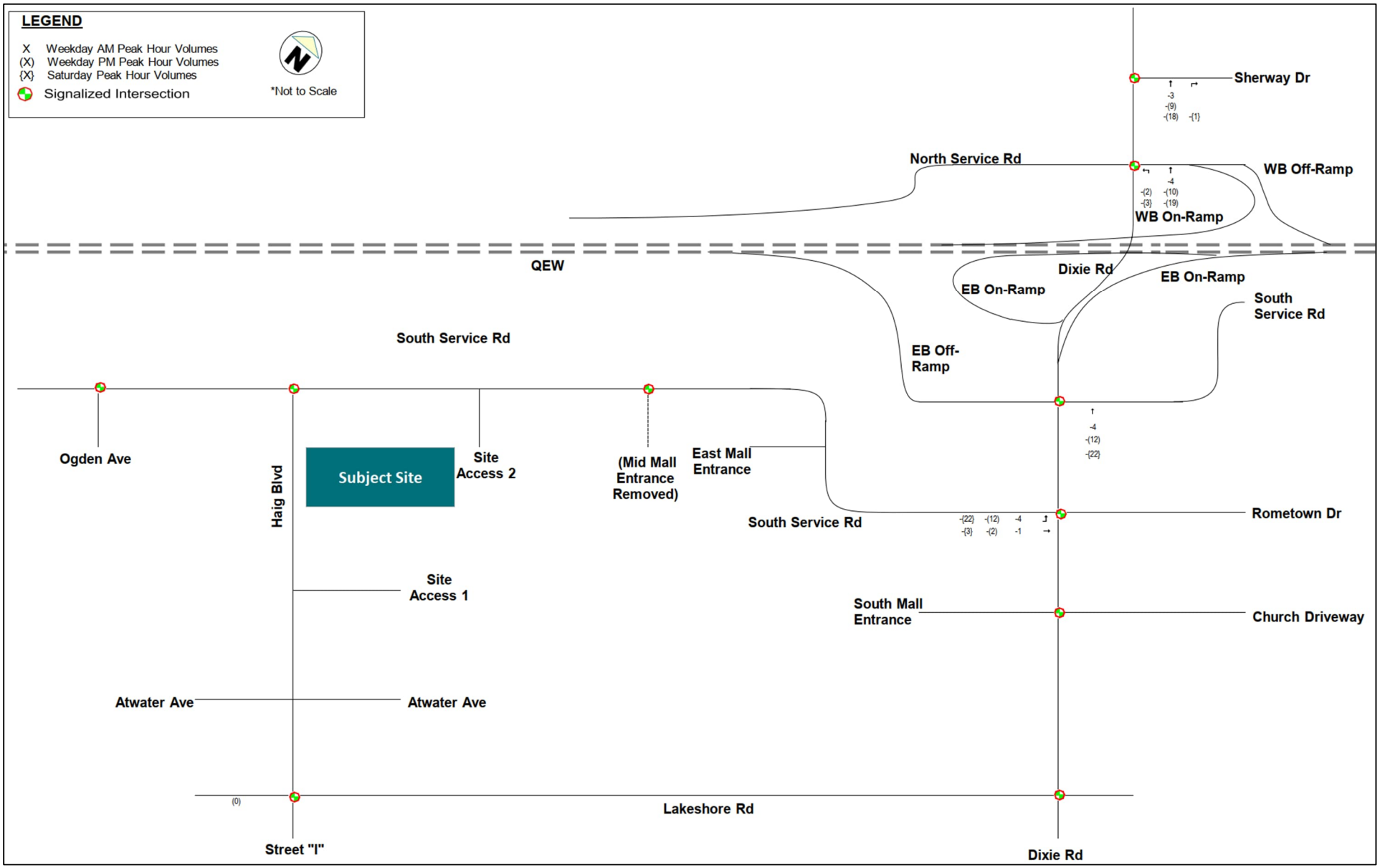


Figure 4-3: Removal of Existing Site-Generated Traffic at Other Mall Entrances (West, Mid, East, South)

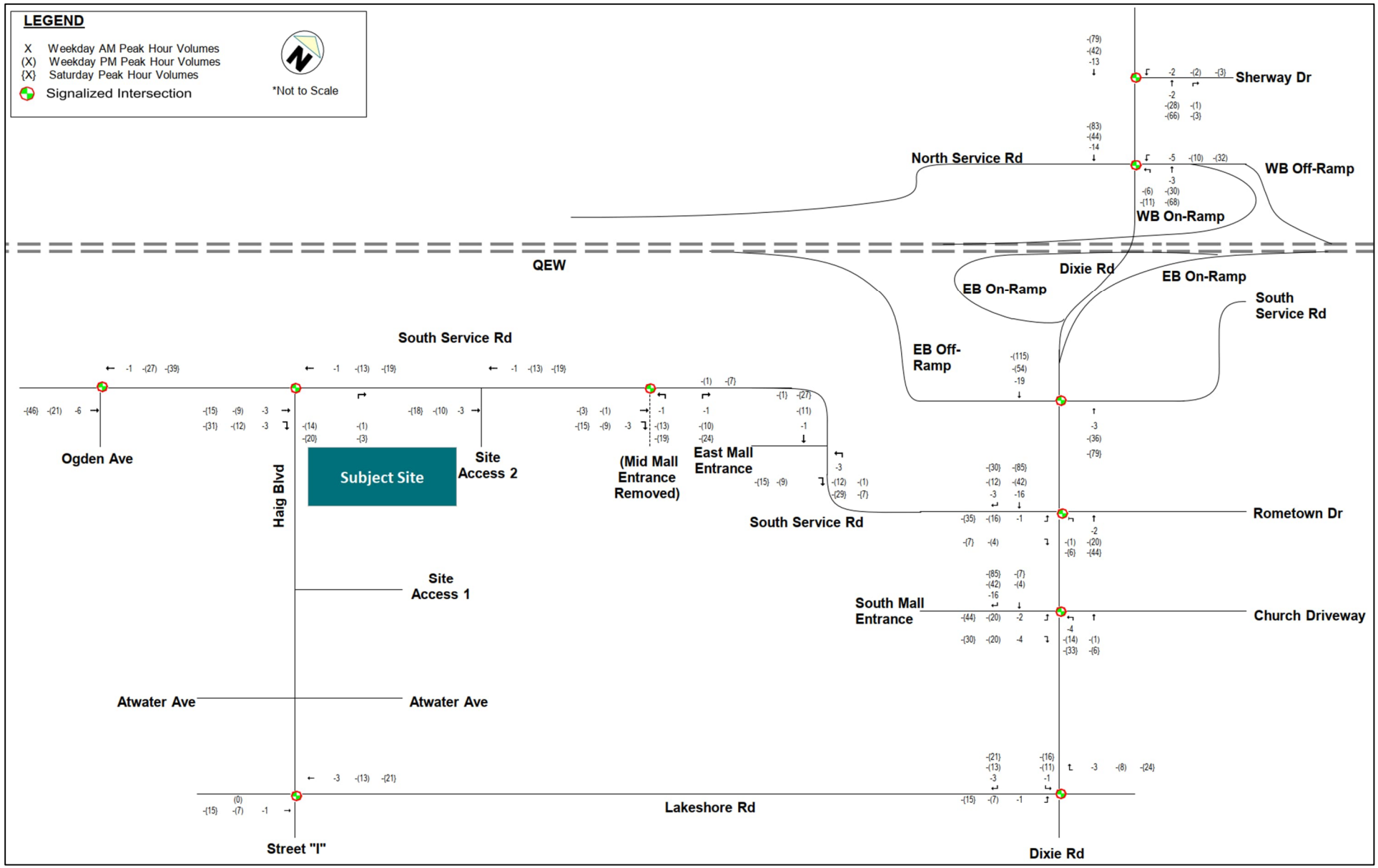


Figure 4-4: Reassignment of Existing Site-Generated Traffic at Mid Mall Entrance

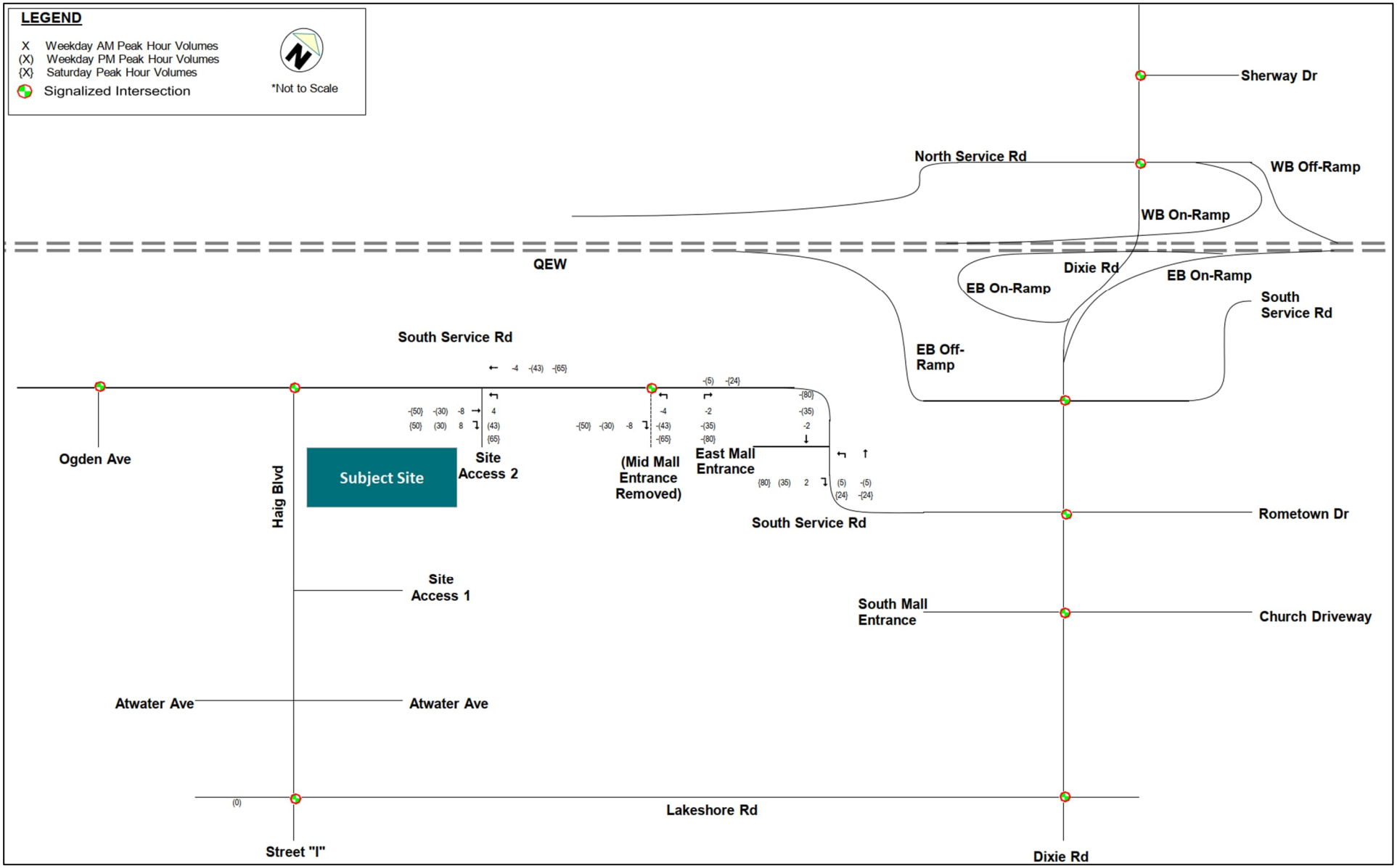


Figure 4-5: Reassignment of Existing Site-Generated Traffic at West Mall Entrance

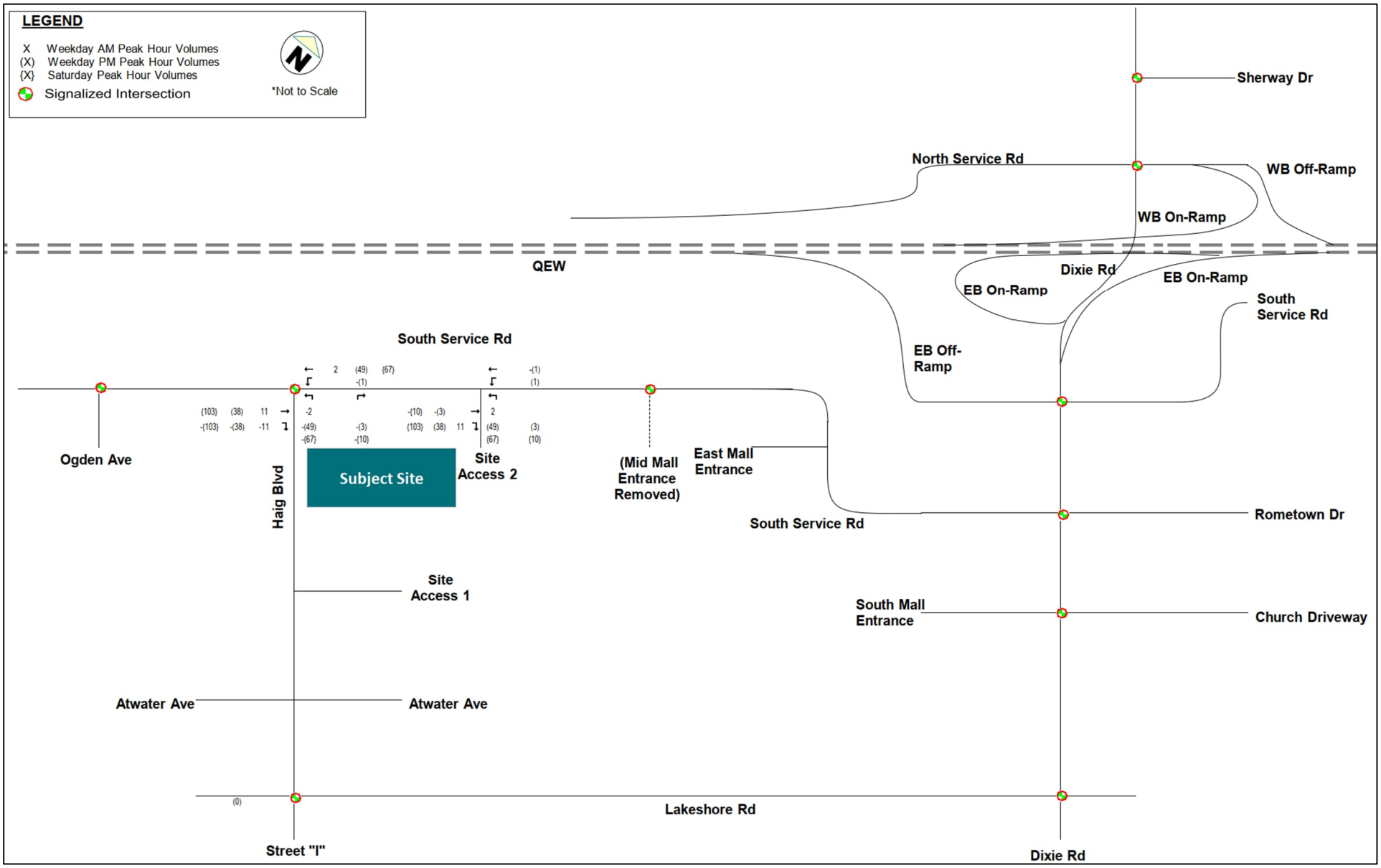


Figure 4-6: Total Removed and Reassigned Retail Trips

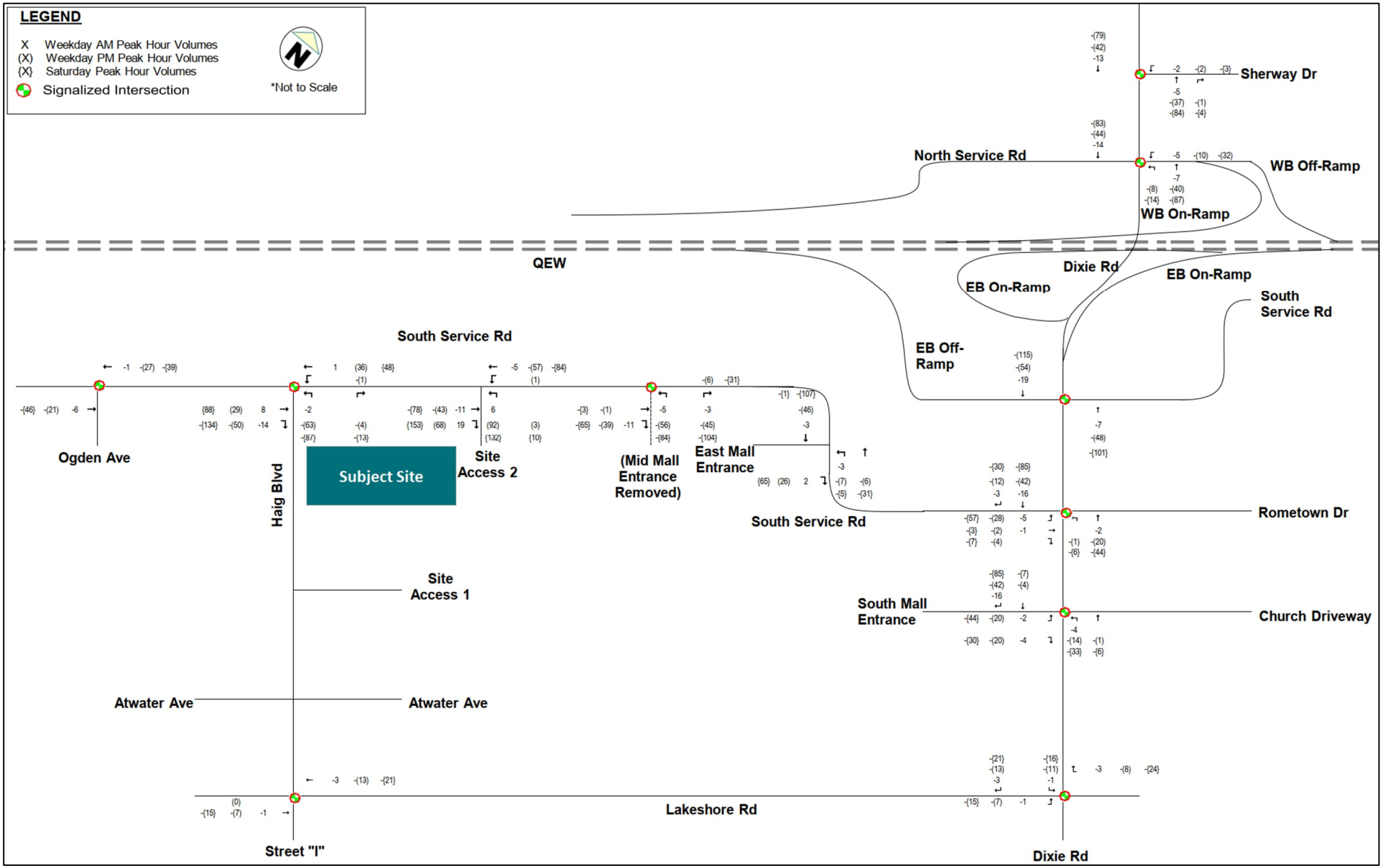


Figure 4-7: Residential Site Generated Traffic

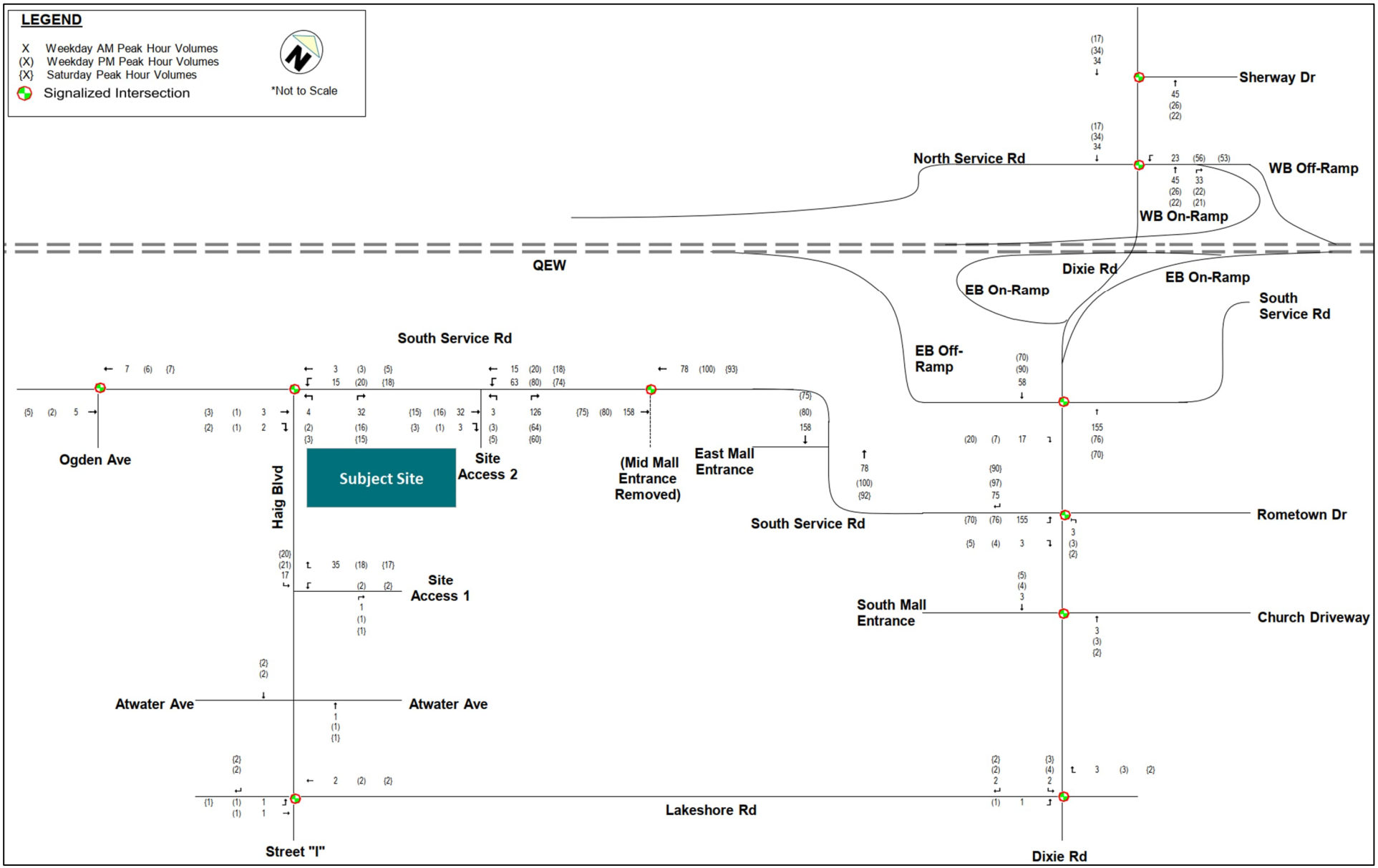


Figure 4-8: Net Site Generated Trips

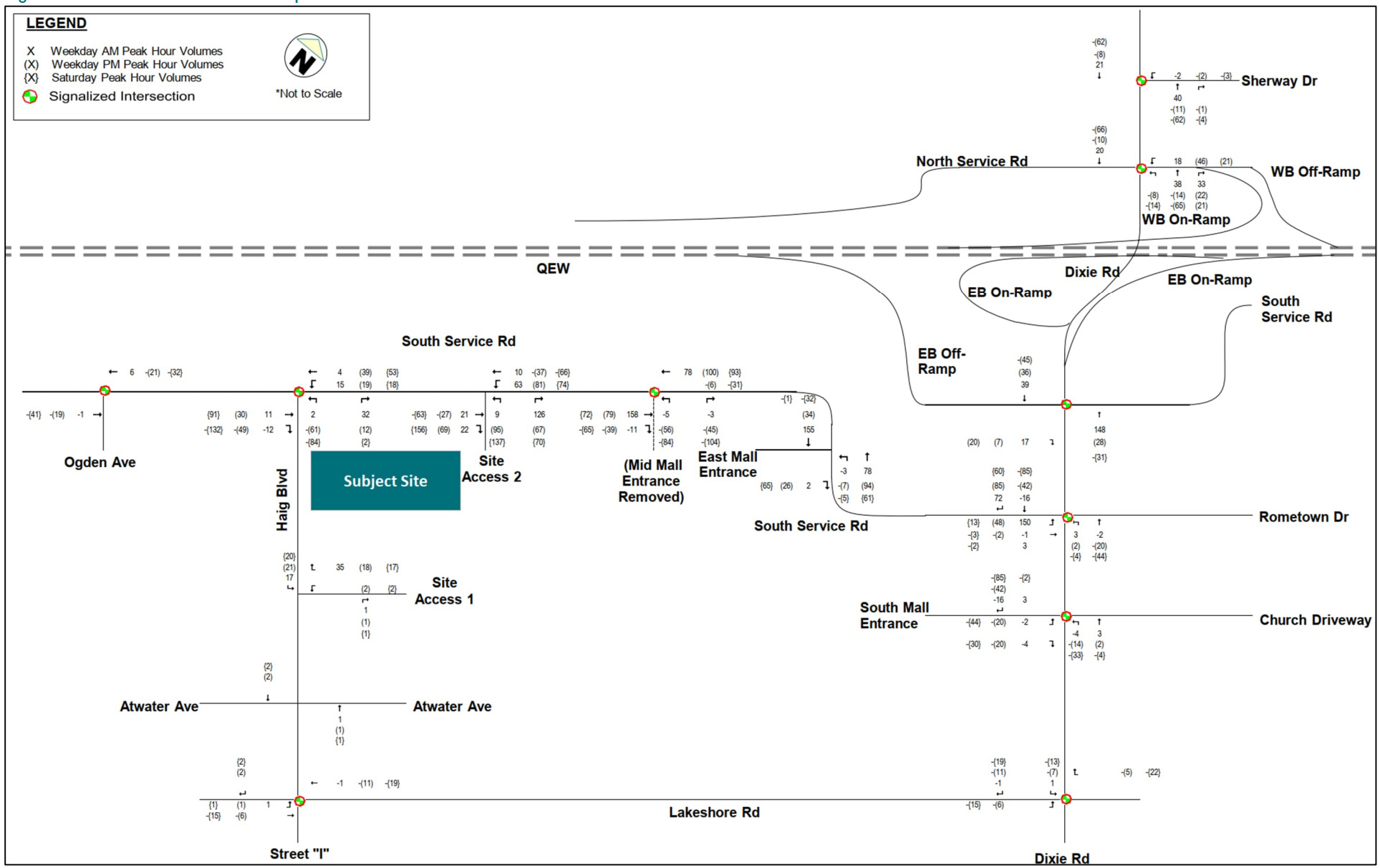
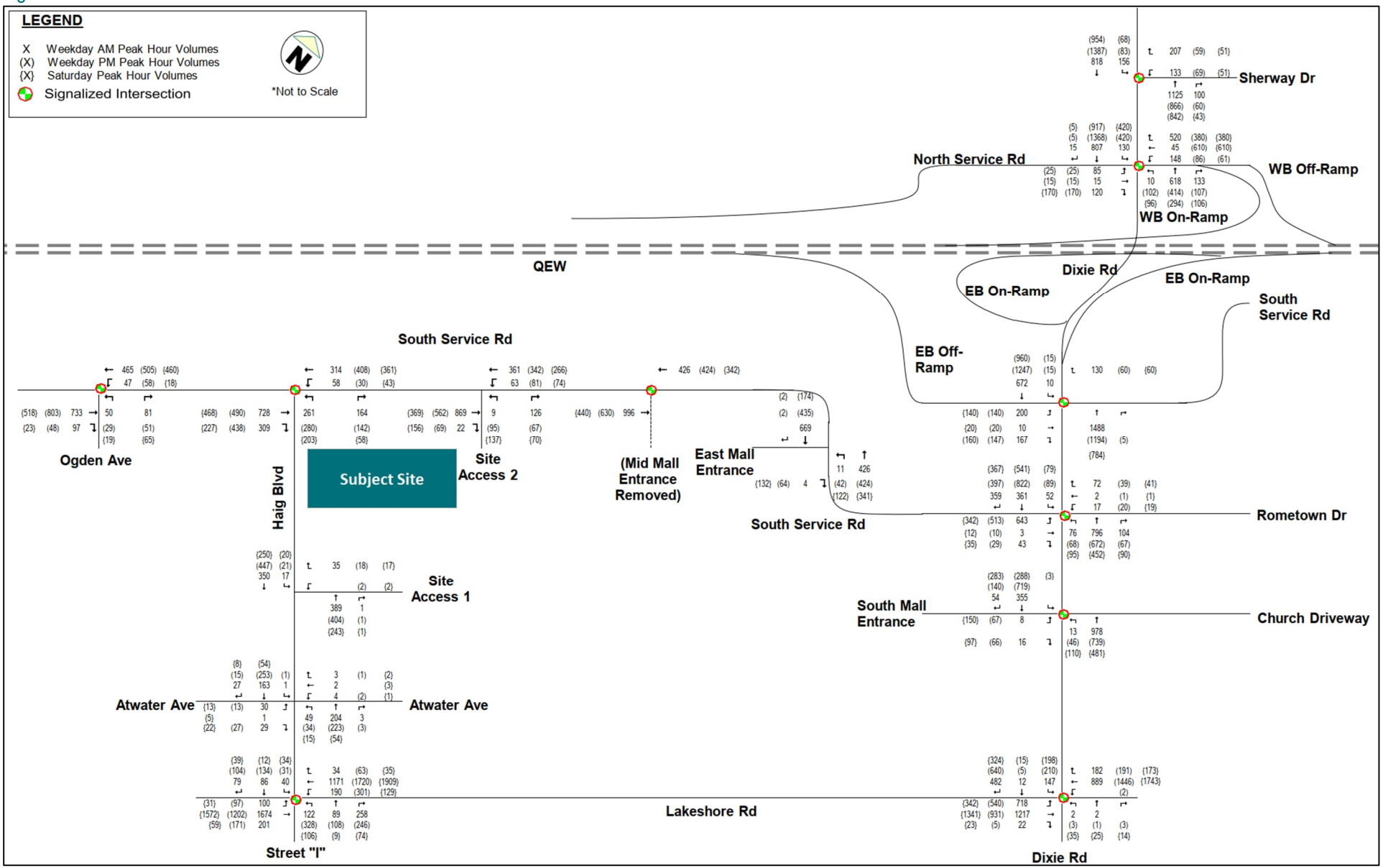


Figure 4-9: Future Total Traffic Volumes



5 INTERSECTION CAPACITY ANALYSIS

The intersection capacity analysis was undertaken using Synchro version 12, which is based on the Highway Capacity Manual (2000) methodology for signalized intersections and the Highway Capacity Manual (6th Edition) for unsignalized intersections. The study was also prepared in adherance to *The City of Mississauga Traffic Impact Study Guidelines* (Mississauga TIS Guidelines) and the Region of Peel's *Traffic Impact Study Guidelines* (Peel TIS Guidelines). The intersection capacity analysis was conducted for the weekday AM, PM, and Saturday peak hours.

Intersection capacity analysis results are summarized in Sections 5.3 and 5.4, with full reports in Appendix H.

5.1 MISSISSAUGA AND PEEL TIS GUIDELINES

The Mississauga TIS Guidelines require that signalized intersections with the following results be identified:

- V/C ratios for overall intersections operations that are equal to 0.85 or above;
- V/C ratios for individual through or turning movements that are equal to 1.0 or above; or
- 95th percentile queues for an individual movement that are projected to exceed available turning lane storage or that are projected to block vehicles from entering turning lanes.

The Mississauga TIS Guidelines require that unsignalized intersections with the following results be identified:

- Level of service, based on average delay per vehicle, on individual movements is LOS F; or
- 95th percentile queues for individual movements that exceed the available storage length.

The Peel TIS Guidelines require that the following be identified for signalized and unsignalized intersections:

- V/C ratios for overall intersections operations, through movements or shared through/turning movements that are equal to 0.90 or above;
- V/C ratios for exclusive turning movements that will exceed 1.00; or
- 95th Percentile queues for individual movements that exceed the available storage length.

5.2 SYNCHRO INPUT PARAMETERS

The input parameters assumed in the analysis along with the basis for each input is listed in point form below:

- The lane widths for Dixie Road, North Service Road and South Service Road are based on the final preferred cross-sections in the approved TESR, which shows a width of 3.5m.
- Peak hour factors (PHF) for all movements have been calculated based on surveyed traffic data, and applied within the analysis.
- Heavy vehicle percentages (HV%) for all movements have been calculated based on surveyed traffic data, and applied within the analysis.
- The Lane Utilization Factor was adjusted to 1.00 to reflect the congested conditions created by the Lakeview Village development in the future horizons for the following movements:
    - Dixie Rd & Lakeshore Rd E: EBTR and WBT for AM, PM and SAT periods;
    - Haig Blvd & Lakeshore Rd E: EBTR and WBTR for AM and PM periods.

5.3 SIGNALIZED INTERSECTION CAPACITY ANALYSIS

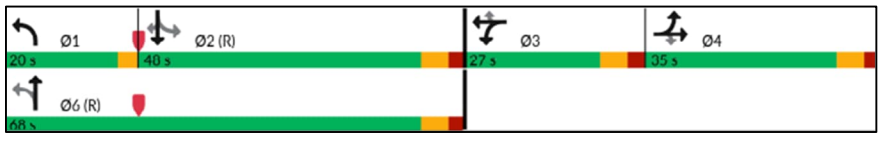
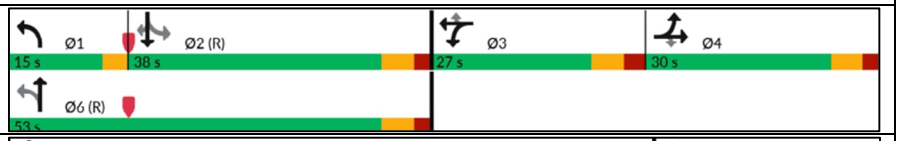
The following sections detail the results of the peak hour intersection capacity analysis at the signalized intersections in the study area. Critical movements are bolded.

Signal timing plans have been obtained from the City and Region for all study area signalized intersections to be used in the existing conditions analysis. For the analysis of future conditions, signal timing plans have been optimized to accommodate changing traffic patterns. In general, the corridor cycle lengths have been maintained for the peak hour periods but the splits within the signal timing plans have been optimized for future conditions. The proposed signal timing adjustments for each intersection are also discussed in the following sections.

5.3.1 Dixie Road & Sherway Drive

The signal timing plans at the intersection of Dixie Road and Sherway Drive for the existing and future condition are shown in Table 5-1.

Table 5-1: Signal Timing Adjustments – Dixie Rd & Sherway Dr

Peak Period	Cycle Length	Horizon	Splits
Weekday AM	120	Existing	
		Proposed	
Weekday PM	130	Existing	
		Proposed	
Saturday	130	Existing	
		Proposed	

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Dixie Road and Sherway Drive. It should be noted that the western leg of the intersection will be removed in the future scenarios due to the realignment of Dixie Road.

Table 5-2: Intersection Capacity Analysis – Dixie Rd & Sherway Dr (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.62	D (37)	-/-	-	0.59	B (13)	-/-	-	0.61	B (14)	-/-
EBL	434	0.74	D (53)	65/92	-	-	- (-)	-/-	-	-	- (-)	-/-
EBT	49	0.74	D (53)	67/94	-	-	- (-)	-/-	-	-	- (-)	-/-
EBR	68	0.04	D (37)	0/4	-	-	- (-)	-/-	-	-	- (-)	-/-
WBLT	135	0.59	D (54)	36/55	135	0.60	D (54)	36/54	133	0.59	D (54)	36/54
WBR	207	0.32	D (48)	10/33	207	0.41	D (49)	16/39	207	0.43	D (50)	17/41
NBL	217	0.37	C (20)	36/59	-	-	- (-)	-/-	-	-	- (-)	-/-
NBTR	446	0.31	C (20)	40/57	1185	0.59	A (8)	64/70	1225	0.61	A (9)	63/80
SBL	156	0.63	D (45)	40/76	156	0.56	B (13)	9/18	156	0.59	B (14)	9/21
SBT	15	0.01	C (27)	2/5	797	0.33	A (5)	34/50	818	0.34	A (5)	35/51
SBR	586	0.43	C (34)	0/29	-	-	- (-)	-/-	-	-	- (-)	-/-

Table 5-3: Intersection Capacity Analysis – Dixie Rd & Sherway Dr (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.69	D (40)	-/-	-	0.50	A (7)	-/-	-	0.50	A (6)	-/-
EBL	387	0.69	E (57)	58/81	-	-	- (-)	-/-	-	-	- (-)	-/-
EBT	22	0.68	E (57)	57/81	-	-	- (-)	-/-	-	-	- (-)	-/-
EBR	83	0.05	D (43)	0/9	-	-	- (-)	-/-	-	-	- (-)	-/-
WBLT	71	0.41	E (59)	19/34	71	0.43	E (59)	19/35	69	0.42	E (59)	19/34
WBR	59	0.03	D (54)	0/3	59	0.03	D (53)	0/14	59	0.03	D (53)	0/14
NBL	227	0.31	B (15)	29/55	-	-	- (-)	-/-	-	-	- (-)	-/-
NBTR	285	0.14	B (13)	18/32	938	0.34	A (2)	15/22	926	0.34	A (2)	15/22
SBL	83	0.19	C (24)	15/32	83	0.20	A (4)	5/11	83	0.20	A (4)	5/11
SBT	62	0.04	C (22)	5/12	1395	0.51	A (5)	57/82	1387	0.50	A (5)	56/80
SBR	978	0.84	D (46)	60/201	-	-	- (-)	-/-	-	-	- (-)	-/-

Table 5-4: Intersection Capacity Analysis – Dixie Rd & Sherway Dr (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.63	C (33)	-/-	-	0.37	A (5)	-/-	-	0.35	A (5)	-/-
EBL	498	0.70	D (46)	59/87	-	-	- (-)	-/-	-	-	- (-)	-/-
EBT	21	0.70	D (46)	59/87	-	-	- (-)	-/-	-	-	- (-)	-/-
EBR	81	0.05	C (33)	0/5	-	-	- (-)	-/-	-	-	- (-)	-/-
WBLT	54	0.37	D (51)	12/25	54	0.38	D (51)	12/25	51	0.36	D (51)	12/24
WBR	51	0.03	D (47)	0/0	51	0.03	D (46)	0/12	51	0.03	D (47)	0/12
NBL	354	0.53	B (18)	50/83	-	-	- (-)	-/-	-	-	- (-)	-/-
NBTR	325	0.19	B (15)	22/35	951	0.35	A (3)	19/36	885	0.32	A (3)	19/36
SBL	68	0.20	C (26)	12/25	68	0.17	A (3)	3/9	68	0.16	A (3)	3/8
SBT	67	0.05	C (24)	6/12	1016	0.37	A (3)	31/46	954	0.35	A (3)	28/42
SBR	860	0.67	D (37)	13/117	-	-	- (-)	-/-	-	-	- (-)	-/-

During the AM peak hour at the signalized intersection of Dixie Road & Sherway Drive, all movements operate within capacity in existing conditions and are forecasted to operate within capacity in future total conditions

with an overall V/C ratio of 0.61, delay time of 14 seconds and LOS of B. All movements are expected to operate within capacity.

This intersection is also forecasted to operate within capacity in the existing and future PM peak hour, with an overall V/C ratio of 0.50, delay time of 6 seconds and LOS of A. All movements are expected to operate within capacity.

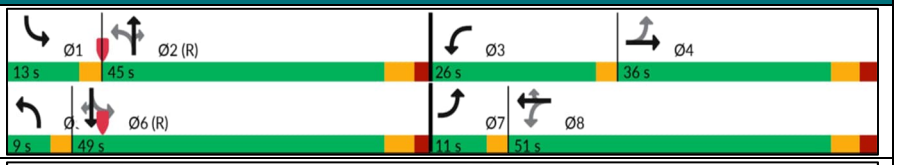
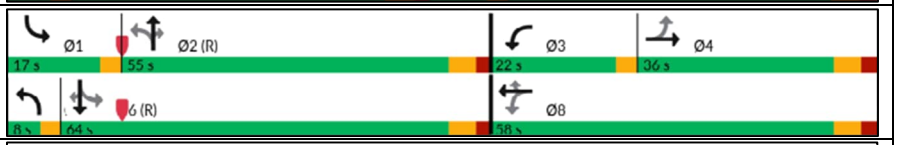
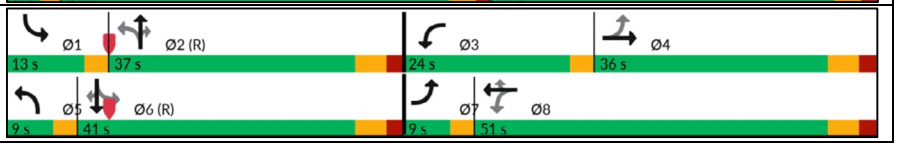
Lastly, the Saturday peak hour at this intersection is also expected to operate within capacity in the future with an overall V/C ratio of 0.35, delay time of 5 seconds and LOS of A. All movements are expected to operate within capacity.

During all peak hours, queues are not expected to worsen significantly between future background and future total conditions.

5.3.2 Dixie Road & North Service Road

Both Dixie Road and North Service Road will be realigned from their existing positions, creating a new intersection for the future horizons. The proposed future signal timing plans are shown in Table 5-5.

Table 5-5: Proposed Signal Timing– Dixie Rd & North Service Rd / QEW WB Off/On-Ramp

Peak Period	Cycle Length	Horizon	Splits
Weekday AM	120	Proposed	
Weekday PM	130	Proposed	
Saturday	110	Proposed	

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Dixie Road and North Service Road.

Table 5-6: Intersection Capacity Analysis – Dixie Rd & North Service Rd/QEW WB Off-Ramp (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (-)	-/-	-	0.62	D (37)	-/-	-	0.64	C (34)	-/-
EBL	-	-	- (-)	-/-	85	0.21	C (30)	14/22	85	0.21	C (31)	14/22
EBTR	-	-	- (-)	-/-	135	0.12	D (36)	3/18	135	0.12	D (36)	3/18
WBL	-	-	- (-)	-/-	130	0.30	C (26)	22/32	148	0.33	C (26)	25/36
WBT	-	-	- (-)	-/-	45	0.10	C (31)	9/17	45	0.09	C (31)	9/17
WBR	-	-	- (-)	-/-	520	0.85	E (56)	75/114	520	0.85	E (56)	77/116
NBL	-	-	- (-)	-/-	10	0.05	C (25)	2/5	10	0.05	C (21)	1/3
NBT	-	-	- (-)	-/-	580	0.46	C (33)	78/96	618	0.50	C (30)	86/105
NBR	-	-	- (-)	-/-	100	0.07	F (104)	5/20	133	0.10	D (44)	7/28
SBL	-	-	- (-)	-/-	130	0.38	B (18)	22/38	130	0.40	B (19)	22/38
SBT	-	-	- (-)	-/-	787	0.52	C (24)	86/124	807	0.54	C (25)	89/128
SBR	-	-	- (-)	-/-	15	0.01	B (17)	0/0	15	0.01	B (17)	0/0

Table 5-7: Intersection Capacity Analysis – Dixie Rd & North Service Rd/QEW WB Off-Ramp (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**-**	**- (-)**	**-/-**	**-**	**1.00**	**D (48)**	**-/-**	**-**	**1.00**	**D (45)**	**-/-**
EBL	-	-	- (-)	-/-	25	0.49	D (50)	6/22	25	0.49	D (53)	6/22
EBTR	-	-	- (-)	-/-	185	0.15	C (33)	3/22	185	0.15	D (36)	3/23
WBL	-	-	- (-)	-/-	40	0.10	C (25)	7/15	86	0.22	C (27)	16/27
WBT	**-**	**-**	**- (-)**	**-/-**	**610**	**0.92**	**E (56)**	**174/247**	**610**	**0.93**	**E (58)**	**174/247**
WBR	-	-	- (-)	-/-	380	0.38	C (29)	20/49	380	0.38	C (29)	20/49
NBL	-	-	- (-)	-/-	110	0.90	F (94)	20/56	102	0.83	E (78)	17/50
NBT	-	-	- (-)	-/-	428	0.36	C (30)	44/54	414	0.34	C (30)	42/55
NBR	-	-	- (-)	-/-	85	0.06	D (47)	3/10	107	0.07	D (45)	5/13
SBL	-	-	- (-)	-/-	420	0.96	E (56)	63/137	420	0.94	D (50)	64/131
SBT	**-**	**-**	**- (-)**	**-/-**	**1378**	**0.98**	**D (51)**	**213/262**	**1368**	**0.96**	**D (47)**	**210/258**
SBR	-	-	- (-)	-/-	5	0.00	C (20)	0/0	5	0.00	B (20)	0/0

Table 5-8: Intersection Capacity Analysis – Dixie Rd & North Service Rd/QEW WB Off-Ramp (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**-**	**- (-)**	**-/-**	**-**	**0.91**	**D (43)**	**-/-**	**-**	**0.88**	**D (37)**	**-/-**
EBL	-	-	- (-)	-/-	25	0.19	C (25)	3/7	25	0.19	C (26)	3/7
EBTR	-	-	- (-)	-/-	185	0.13	C (23)	2/18	185	0.14	C (25)	2/18
WBL	-	-	- (-)	-/-	40	0.08	B (18)	5/11	61	0.12	B (18)	7/14
WBT	-	-	- (-)	-/-	610	0.89	D (45)	132/198	610	0.89	D (45)	132/198
WBR	-	-	- (-)	-/-	380	0.28	C (24)	4/24	380	0.28	C (24)	4/24
NBL	-	-	- (-)	-/-	110	0.61	D (41)	16/35	96	0.53	C (34)	14/28
NBT	-	-	- (-)	-/-	359	0.39	C (32)	29/38	294	0.31	C (30)	23/35
NBR	-	-	- (-)	-/-	85	0.05	F (203)	1/2	106	0.07	E (70)	3/7
SBL	-	-	- (-)	-/-	420	0.93	D (50)	85/167	420	0.87	D (41)	77/154
SBT	-	-	- (-)	-/-	983	0.85	D (40)	120/161	917	0.79	D (36)	109/138
SBR	-	-	- (-)	-/-	5	0.00	C (24)	0/0	5	0.00	C (24)	0/0

The signalized intersection of Dixie Road & North Service Road/Westbound Off/On-Ramp is expected to operate within capacity in the future AM peak hour, with an overall V/C ratio of 0.64, delay time of 34 seconds and LOS of C. All movements are expected to operate within capacity.

The PM peak hour at this intersection is forecasted to operate at capacity in future background conditions with an overall V/C ratio of 1.00, delay time of 48 seconds and LOS of D. The westbound through and southbound through movements will operate with critical V/C ratios of 0.92 and 0.98, respectively. Under future total conditions, the overall intersection is still forecasted to operate at capacity, with an overall V/C ratio of 1.00, delay time of 45 seconds and LOS of D. The critical movements will exhibit similar operations, with the westbound through movement operating with a V/C ratio of 0.93 and the southbound through movement operating with a V/C ratio of 0.96. Therefore, the congestion anticipated at this intersection is caused by background growth, and is not significantly impacted by the proposed development. Overall, despite some movements approaching capacity, the delay time being less than one cycle length (120 seconds) indicates that all movements can sufficiently progress through the intersection within one cycle.

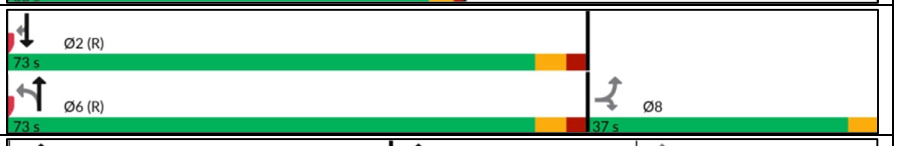
The Saturday peak hour at this intersection is expected to operate within capacity in the future with an overall V/C ratio of 0.88, delay time of 37 seconds and LOS of D. Although this overall V/C ratio is deemed critical by the City, it is an improvement from future background conditions, where the overall V/C ratio is 0.91. Therefore, the proposed development will have a positive impact on this intersection's operations. All movements in the intersection are expected to operate within capacity.

During all peak hours, queues are not expected to worsen significantly between future background and future total conditions.

5.3.3 Dixie Road & South Service Road

The signal timing plans at the intersection of Dixie Road and South Service Road for the existing and future condition are shown in Table 5-9.

Table 5-9: Signal Timing Adjustments – South Service Rd / QEW EB Off-Ramp

Peak Period	Cycle Length	Horizon	Splits
Weekday AM	120	Existing	
		Proposed	
Weekday PM	130	Existing	
		Proposed	
Saturday	110	Existing	
		Proposed	

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Dixie Road and South Service Road.

Table 5-10: Intersection Capacity Analysis – Dixie Rd & South Service Rd/QEW EB Off-Ramp (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.33	B (10)	-/-	-	0.44	B (19)	-/-	-	0.48	B (17)	-/-
EBL	157	0.61	D (53)	39/59	200	0.50	D (52)	27/45	200	0.50	D (52)	27/45
EBT	-	-	- (-)	-/-	10	0.51	D (53)	28/45	10	0.51	D (53)	28/45
EBR	22	0.01	D (43)	0/7	150	0.10	D (46)	0/19	167	0.11	D (46)	0/20
WBL	-	-	- (-)	-/-	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
WBR	-	-	- (-)	-/-	130	0.31	D (53)	9/28	130	0.33	D (54)	9/29
NBL	73	0.12	A (5)	5/12	-	-	- (-)	-/-	-	-	- (-)	-/-
NBTR	436	0.18	A (5)	17/26	1340	0.44	B (12)	59/95	1488	0.49	A (8)	48/72
SBL	-	-	- (-)	-/-	10	0.06	A (6)	1/3	10	0.08	A (7)	1/3
SBT	458	0.19	A (4)	15/26	633	0.30	B (11)	63/82	672	0.32	B (11)	67/88
SBR	401	0.27	A (5)	0/9	-	-	- (-)	-/-	-	-	- (-)	-/-

Table 5-11: Intersection Capacity Analysis – Dixie Rd & South Service Rd/QEW EB Off-Ramp (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.37	A (6)	-/-	-	0.48	B (10)	-/-	-	0.50	A (10)	-/-
EBL	77	0.45	E (59)	21/37	140	0.47	E (59)	23/40	140	0.47	E (59)	23/40
EBT	-	-	- (-)	-/-	20	0.46	E (58)	23/40	20	0.46	E (58)	23/40
EBR	28	0.02	D (53)	0/10	140	0.09	D (53)	0/20	147	0.10	D (53)	0/20
WBL	-	-	- (-)	-/-	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
WBR	-	-	- (-)	-/-	60	0.04	E (59)	0/0	60	0.04	E (59)	0/0
NBL	66	0.13	A (3)	4/7	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
NBTR	462	0.17	A (3)	13/18	1171	0.34	A (5)	28/45	1199	0.35	A (4)	27/38
SBL	-	-	- (-)	-/-	15	0.06	A (2)	0/1	15	0.06	A (2)	0/1
SBT	725	0.26	A (3)	20/32	1211	0.51	A (2)	11/16	1247	0.53	A (2)	16/22
SBR	540	0.36	A (4)	0/7	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0

Table 5-12: Intersection Capacity Analysis – Dixie Rd & South Service Rd/QEW EB Off-Ramp (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.36	A (8)	-/-	-	0.42	B (13)	-/-	-	0.40	B (13)	-/-
EBL	147	0.57	D (48)	33/52	140	0.42	D (48)	19/34	140	0.42	D (48)	19/34
EBT	-	-	- (-)	-/-	20	0.42	D (48)	19/34	20	0.42	D (48)	19/34
EBR	37	0.02	D (40)	0/9	140	0.09	D (44)	0/18	160	0.10	D (44)	0/19
WBL	-	-	- (-)	-/-	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
WBR	-	-	- (-)	-/-	60	0.04	D (49)	0/0	60	0.04	D (49)	0/0
NBL	99	0.23	A (4)	6/10	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
NBTR	540	0.21	A (3)	16/21	820	0.25	A (4)	10/28	789	0.24	A (3)	9/18
SBL	-	-	- (-)	-/-	15	0.04	A (7)	1/2	15	0.04	A (7)	1/2
SBT	806	0.31	A (5)	28/44	1005	0.45	A (8)	33/51	960	0.43	A (7)	26/51
SBR	477	0.32	A (5)	0/9	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0

The AM peak hour at the signalized intersection of Dixie Road & QEW Eastbound Off Ramp/South Service Road is forecasted to operate within capacity in the future with an overall V/C ratio of 0.48, delay time of 17 seconds and LOS of B. All movements are expected to operate within capacity.

The PM peak hour at this intersection is also expected to operate within capacity in the future with an overall V/C ratio of 0.50, delay time of 10 seconds and LOS of A. All movements are expected to operate within capacity and with minimal delays.

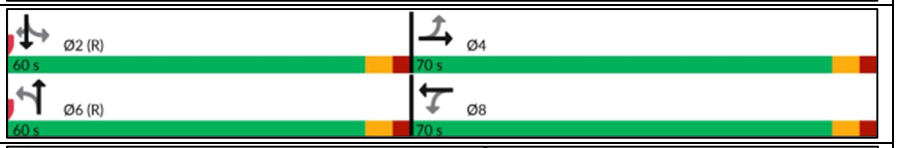
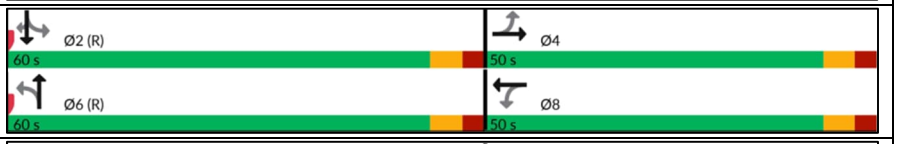
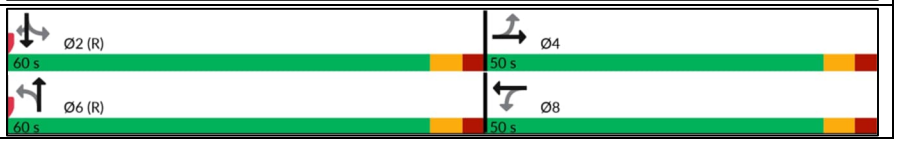
The Saturday peak hour at this intersection is also forecasted to operate within capacity in the future with an overall V/C ratio of 0.40, delay time of 13 seconds and LOS of B. All movements are forecasted to operate within capacity.

During all peak hours, queues are not expected to worsen significantly between future background and future total conditions.

5.3.4 Dixie Road & Rometown Drive

The signal timing plans at the intersection of Dixie Road and Rometown Drive for the existing and future conditions are shown in Table 5-13.

Table 5-13: Signal Timing Adjustments – Dixie Rd & Rometown Dr / South Service Rd

Peak Period	Cycle Length	Horizon	Splits
Weekday AM	130	Existing	
		Proposed	
Weekday PM	130	Existing	
		Proposed	
Saturday	110	Existing	
		Proposed	

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Dixie Road and Rometown Drive. It should be noted that the west leg of this intersection was the North Mall Entrance in existing conditions, but is the realigned South Service Road in future conditions.

Table 5-14: Intersection Capacity Analysis – Dixie Rd & South Service Rd/Rometown Dr (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.23**	**A (8)**	**-/-**	**-**	**0.77**	**C (33)**	**-/-**	**-**	**0.94**	**D (45)**	**-/-**
EBL	43	0.47	E (59)	11/23	493	0.80	C (34)	112/135	643	0.95	D (47)	151/242
EBTR	3	0.01	D (49)	1/4	44	0.03	B (16)	1/5	46	0.03	B (12)	0/6
WBLTR	76	0.13	D (51)	3/18	91	0.10	B (16)	10/16	91	0.09	B (12)	8/16
NBL	1	0.00	A (3)	0/0	73	0.23	C (29)	15/32	76	0.29	C (30)	11/23
NBTR	509	0.20	A (3)	8/11	902	0.73	D (38)	121/183	900	0.86	D (45)	68/84
SBL	49	0.08	A (1)	1/3	52	0.57	D (54)	12/40	52	0.91	F (118)	14/37
SBT	441	0.17	A (1)	4/7	375	0.30	C (29)	41/63	359	0.34	B (19)	44/38
SBR	54	0.03	A (0)	0/0	289	0.19	C (28)	0/22	361	0.24	E (76)	54/88

Table 5-15: Intersection Capacity Analysis – Dixie Rd & South Service Rd/Rometown Dr (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.30	A (8)	-/-	-	0.74	B (16)	-/-	-	0.77	B (18)	-/-
EBL	80	0.52	E (58)	23/38	465	0.88	D (50)	122/167	513	0.93	D (54)	137/209
EBTR	12	0.04	D (49)	3/9	41	0.03	C (21)	2/9	39	0.03	B (19)	2/8
WBLTR	52	0.11	D (50)	5/16	60	0.06	C (21)	3/11	60	0.06	B (19)	3/11
NBL	25	0.05	A (3)	1/5	66	0.46	B (17)	4/11	68	0.48	B (19)	5/26
NBTR	488	0.20	A (4)	7/28	759	0.52	A (9)	26/32	739	0.54	A (10)	29/28
SBL	82	0.14	A (4)	4/8	89	0.49	B (14)	4/24	89	0.52	B (17)	8/26
SBT	607	0.25	A (4)	15/22	870	0.60	A (8)	23/61	828	0.60	A (9)	41/61
SBR	197	0.13	A (1)	0/2	306	0.21	A (3)	0/0	391	0.27	A (6)	0/2

Table 5-16: Intersection Capacity Analysis – Dixie Rd & South Service Rd/Rometown Dr (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.39	A (8)	-/-	-	0.55	B (17)	-/-	-	0.53	B (18)	-/-
EBL	119	0.61	D (50)	28/45	329	0.83	D (49)	75/105	342	0.85	D (50)	78/111
EBTR	14	0.04	D (38)	3/9	52	0.05	C (25)	3/11	47	0.04	C (25)	2/10
WBLTR	53	0.09	D (39)	4/14	61	0.07	C (26)	3/12	61	0.07	C (25)	3/12
NBL	25	0.06	A (4)	2/5	99	0.32	B (13)	12/21	95	0.27	B (12)	11/19
NBTR	617	0.27	A (5)	27/40	586	0.33	B (11)	36/45	542	0.31	B (11)	30/39
SBL	72	0.15	A (4)	3/6	79	0.23	A (7)	6/14	79	0.22	A (8)	6/15
SBT	761	0.34	A (4)	15/23	657	0.37	A (7)	28/42	572	0.32	A (7)	22/39
SBR	197	0.13	A (1)	0/1	276	0.19	B (18)	5/22	336	0.23	B (19)	3/27

The AM peak hour at the signalized intersection of Dixie Road & South Service Road/Rometown Drive is expected to operate within capacity in the future with an overall V/C ratio of 0.94, delay time of 45 seconds and LOS of D. This is classified as critical operation by the City. Future impacts to key movements in the intersection including the eastbound left, northbound through-right and southbound left movements should be monitored to ensure operations remain acceptable. All movements are forecasted to operate within capacity, with queue lengths that can be accommodated by existing storage capacity and delays that are shorter than one cycle length (120 seconds). It has been noted that the forecasted 95th percentile queue length for the eastbound left movement is 242m, however this queue length would not block the upstream intersection at South Service Road and the East Mall Entrance. There may be rare instances where the eastbound left queue blocks vehicles from entering the eastbound through-right lane, which will have a storage length of approximately 200m based on the QEW Improvements EA drawings. However, the volume of traffic forecasted for the eastbound through-right movement is minimal, and so no significant impact is anticipated. All other projected queues are expected to fit within provided storage capacity.

The PM peak hour at this intersection is forecasted to operate within capacity in the future with an overall V/C ratio of 0.77, delay time of 18 seconds and LOS of B. All movements are expected to operate within capacity. The queue for the eastbound left turn lane is expected to be up to 209m during PM peak hour conditions, however as discussed above, the impact will be acceptable. All other projected queues are expected to fit within provided storage capacity.

Lastly, the Saturday peak hour at this intersection is also expected to operate within capacity in the future with an overall V/C ratio of 0.53, delay time of 18 seconds and LOS of B. All movements are expected to

operate within capacity in the future. All projected queues are expected to fit within provided storage capacity.

5.3.5 Dixie Road & South Mall Entrance

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Dixie Road and the South Mall Entrance. The existing signal timing plan was maintained for future conditions.

Table 5-17: Intersection Capacity Analysis – Dixie Rd & South Mall Entrance (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.36	A (4)	-/-	-	0.38	A (4)	-/-	-	0.37	A (3)	-/-
EBL	10	0.19	E (58)	3/9	10	0.18	E (58)	2/9	8	0.16	E (58)	2/7
EBTR	20	0.01	D (54)	0/7	20	0.01	D (54)	0/7	16	0.01	D (54)	0/5
WBLTR	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
NBL	17	0.02	A (2)	1/3	-	-	- (-)	-/-	-	-	- (-)	-/-
NBLTR	515	0.36	A (3)	23/56	992	0.38	A (3)	33/43	991	0.38	A (3)	33/43
SBL	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
SBT	390	0.28	A (1)	2/5	350	0.13	A (2)	9/13	353	0.13	A (0)	1/2
SBR	70	0.06	A (0)	0/0	70	0.05	A (2)	0/3	54	0.04	A (0)	0/0

Table 5-18: Intersection Capacity Analysis – Dixie Rd & South Mall Entrance (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.38	B (10)	-/-	-	0.42	A (6)	-/-	-	0.38	A (5)	-/-
EBL	87	0.55	E (60)	25/42	87	0.53	E (60)	24/41	67	0.46	E (59)	18/34
EBTR	86	0.06	D (50)	0/16	86	0.12	D (52)	3/20	66	0.09	D (53)	2/17
WBLTR	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
NBL	60	0.10	A (4)	4/10	-	-	- (-)	-/-	-	-	- (-)	-/-
NBLTR	417	0.32	A (5)	33/57	797	0.40	A (2)	6/6	785	0.37	A (1)	5/5
SBL	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
SBT	458	0.35	A (2)	2/4	725	0.29	A (0)	1/2	725	0.29	A (0)	1/2
SBR	182	0.14	A (1)	0/0	182	0.13	A (0)	0/0	140	0.10	A (0)	0/0

Table 5-19: Intersection Capacity Analysis – Dixie Rd & South Mall Entrance (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.45	B (16)	-/-	-	0.44	B (12)	-/-	-	0.38	B (11)	-/-
EBL	194	0.69	D (49)	44/64	194	0.67	D (49)	40/60	150	0.61	D (50)	31/49
EBTR	127	0.08	C (35)	0/14	127	0.18	D (37)	5/23	97	0.16	D (40)	5/21
WBLTR	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
NBL	143	0.26	A (9)	13/30	-	-	- (-)	-/-	-	-	- (-)	-/-
NBLTR	421	0.36	A (9)	42/77	628	0.37	A (8)	32/54	591	0.31	A (7)	25/42
SBL	3	0.00	A (1)	0/0	3	0.00	A (0)	0/0	3	0.00	A (0)	0/0
SBT	398	0.34	A (3)	1/75	321	0.14	A (1)	1/2	319	0.13	A (1)	1/2
SBR	368	0.26	B (14)	0/63	368	0.25	A (2)	1/0	283	0.19	A (1)	0/1

The AM peak hour at the intersection of Dixie Road & South Mall Entrance is forecasted to operate within capacity in the future with an overall V/C ratio of 0.37, delay time of 3 seconds and LOS of A. All movements are expected to operate within capacity.

The PM peak hour at this intersection is expected to operate within capacity in the future with an overall V/C ratio of 0.38, delay time of 5 seconds and LOS of A. All movements are expected to operate within capacity.

Lastly, the Saturday peak hour at this intersection is forecasted to operate within capacity in the future with an overall V/C ratio of 0.38, delay time of 11 seconds and LOS of B. All movements are expected to operate within capacity.

During all peak hours, queues are not expected to worsen significantly between future background and future total conditions.

5.3.6 Mid Mall Entrance & South Service Road

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Dixie Road and the Mid Mall Entrance. It is noted that this entrance will eventually be removed, so it is not included in the future total conditions.

Table 5-20: Intersection Capacity Analysis – Mid Mall Entrance & South Service Rd (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.22	A (1)	-/-	-	0.66	A (3)	-/-	-	-	- (-)	-/-
EBTR	531	0.22	A (0)	0/3	849	0.66	A (3)	0/17	-	-	- (-)	-/-
WBL	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0	-	-	- (-)	-/-
WBT	220	0.18	A (1)	0/15	348	0.27	A (2)	0/24	-	-	- (-)	-/-
NBL	5	0.18	D (54)	1/5	5	0.18	D (54)	1/5	-	-	- (-)	-/-
NBR	3	0.00	D (48)	0/3	3	0.00	D (48)	0/3	-	-	- (-)	-/-

Table 5-21: Intersection Capacity Analysis – Mid Mall Entrance & South Service Rd (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.24	A (8)	-/-	-	0.42	A (6)	-/-	-	-	- (-)	-/-
EBTR	291	0.11	A (0)	0/0	590	0.42	A (1)	5/5	-	-	- (-)	-/-
WBL	0	0.00	A (0)	0/0	6	0.01	A (2)	0/1	-	-	- (-)	-/-
WBLT	301	0.22	A (3)	15/27	324	0.23	A (3)	16/28	-	-	- (-)	-/-
NBL	56	0.36	D (46)	11/23	56	0.36	D (46)	11/23	-	-	- (-)	-/-
NBR	45	0.03	D (42)	0/11	45	0.03	D (42)	0/11	-	-	- (-)	-/-

Table 5-22: Intersection Capacity Analysis – Mid Mall Entrance & South Service Rd (SAT)

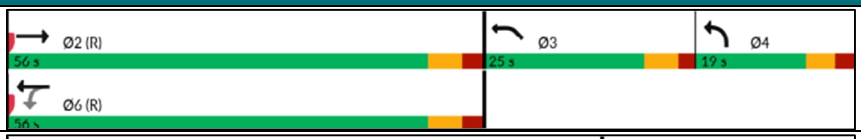
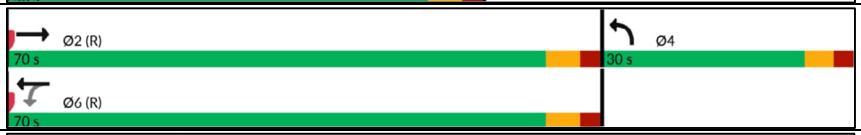
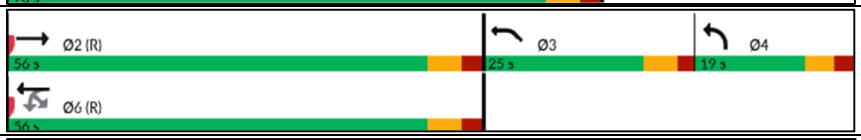
Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.22	B (14)	-/-	-	0.36	B (13)	-/-	-	-	- (-)	-/-
EBTR	379	0.16	A (6)	17/29	433	0.35	A (8)	45/61	-	-	- (-)	-/-
WBL	0	0.00	A (0)	0/0	31	0.05	A (3)	2/5	-	-	- (-)	-/-
WBLT	205	0.18	A (4)	11/22	249	0.19	A (4)	14/26	-	-	- (-)	-/-
NBL	84	0.41	D (43)	18/32	84	0.41	D (43)	18/32	-	-	- (-)	-/-
NBR	104	0.07	D (39)	0/15	104	0.07	D (39)	0/15	-	-	- (-)	-/-

The intersection operates within capacity during all peak hours in existing and future background conditions.

5.3.7 Haig Boulevard / West Mall Access & South Service Road

While the intersection of Haig Boulevard and the West Mall Access at South Service Road is an existing signalized intersection, a modified signal timing plan is being recommended for the future total conditions when the West Mall Access will be removed. The existing and proposed future total signal timing plans are shown in Table 5-23.

Table 5-23: Signal Timing Adjustments – Haig Blvd & South Service Rd

Peak Period	Cycle Length	Horizon	Splits
Weekday AM	100	Existing	
		Proposed (Future Total)	
Weekday PM	100	Existing	
		Proposed (Future Total)	
Saturday	100	Existing	
		Proposed (Future Total)	

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Haig Boulevard and South Service Road.

Table 5-24: Intersection Capacity Analysis – Haig Blvd & West Mall Access & South Service Rd (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.76**	**C (25)**	**-/-**	**-**	**1.11**	**F (146)**	**-/-**	**-**	**1.02**	**D (47)**	**-/-**
EBTR	**745**	**0.86**	**C (25)**	**108/244**	**1038**	**1.45**	**F (230)**	**304/381**	**1037**	**1.02**	**D (42)**	**252/333**
WBLT	225	0.25	B (11)	21/46	353	0.41	B (19)	43/64	372	0.29	A (9)	29/44
NBLR (Haig)	**225**	**0.57**	**D (36)**	**45/72**	**259**	**0.71**	**C (33)**	**73/159**	**261**	**1.00**	**F (84)**	**86/151**
NWLR (Mall)	2	0.07	D (51)	0/3	2	0.07	D (51)	0/3	-	-	- (-)	-/-

Table 5-25: Intersection Capacity Analysis – Haig Blvd & West Mall Access & South Service Rd (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.62**	**C (23)**	**-/-**	**-**	**1.06**	**F (89)**	**-/-**	**-**	**0.90**	**C (27)**	**-/-**
EBTR	**537**	**0.64**	**B (18)**	**84/123**	**947**	**1.20**	**F (120)**	**246/319**	**928**	**0.93**	**C (26)**	**175/279**
WBLT	351	0.37	B (14)	51/76	380	0.89	B (16)	54/79	438	0.38	B (12)	45/70
NBLR (Haig)	225	0.65	D (43)	44/82	404	1.02	F (89)	102/174	422	0.82	D (45)	76/111
NWLR (Mall)	67	0.42	D (46)	14/27	67	0.42	D (46)	14/27	-	-	- (-)	-/-

Table 5-26: Intersection Capacity Analysis – Haig Blvd & West Mall Access & South Service Rd (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.76	C (31)	-/-	-	0.79	C (33)	-/-	-	0.62	B (15)	-/-
EBTR	700	0.82	C (25)	119/184	736	0.86	C (27)	129/209	695	0.59	A (8)	72/120
WBLT	258	0.27	C (22)	40/60	333	0.32	C (20)	45/68	404	0.29	A (7)	28/48
NBLR (Haig)	225	0.78	D (55)	45/99	243	0.84	E (62)	49/108	261	0.70	D (44)	47/72
NWLR (Mall)	100	0.46	D (43)	21/36	100	0.46	D (43)	21/36	-	-	- (-)	-/-

During the AM peak hour, the signalized intersection of Haig Boulevard & South Service Road is expected to operate over capacity in the future total conditions, with an overall V/C ratio of 1.02, delay time of 47 seconds and LOS of D. Although above capacity, this is an improvement from future background conditions where the intersection is forecasted to operate with a V/C ratio of 1.11, delay time of 146 seconds and LOS of F. Similarly, the eastbound through-right movement is expected to operate with a V/C ratio of 1.02, delay time of 42 seconds and LOS of D in future total conditions, which is an improvement in comparison to the future background conditions where this movement is operating with a V/C ratio of 1.45, delay time of 230 seconds and LOS of F. Unfortunately, the improvement of eastbound operations and overall operations through signal timing plan optimization comes at the detriment of northbound operations, as the northbound movement is expected to operate with a V/C ratio of 1.00, delay of 84 seconds and LOS of F in the future total conditions. It should be noted that site-generated traffic does not add significant volume to this intersection, and the redevelopment will improve the operations of the intersection by removing one leg. Therefore, the congestion can be primarily attributed to background growth and changes in the overall road network. It should also be noted that projected delays during the future total scenario are not expected to exceed the cycle length, and thus all movements will be able to pass through intersection within one cycle. The City may want to study the benefit of adding exclusive turning lanes at this intersection in the future to accommodate background growth.

The PM peak hour at this intersection is expected to operate within capacity in future total conditions with an overall V/C ratio of 0.90, delay time of 27 seconds and LOS of C. This will be an improvement from existing conditions where the V/C ratio is expected to be 1.06. Similarly to morning peak conditions, the eastbound through-right movement will have a critical V/C ratio of 0.93, a delay of 26 seconds and LOS of C. This is also an improvement from future background conditions where the V/C ratio is expected to be 1.20. Therefore,

although the overall operations and eastbound operations are expected to operate near capacity, this is a result of background growth, not an impact of the proposed development. All other movements at this intersection are expected to operate with minimal delays and within capacity.

Lastly, the Saturday peak hour at this intersection is forecasted to operate within capacity in the future with an overall V/C ratio of 0.62, delay time of 15 seconds and LOS of B. All movements are expected to operate within capacity and with minimal delays.

During all peak hours, queues are not expected to worsen between future background and future total conditions. Therefore, the proposed development will improve queueing conditions.

5.3.8 Ogden Avenue & South Service Road

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Ogden Avenue and South Service Road. The existing signal timing plan was maintained for future conditions.

Table 5-27: Intersection Capacity Analysis – South Service Rd & Ogden Ave (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.46	A (7)	-/-	-	0.67	A (9)	-/-	-	0.67	A (9)	-/-
EBTR	538	0.49	A (6)	41/58	831	0.74	B (11)	96/125	830	0.73	B (11)	96/125
WBL	47	0.12	A (2)	1/2	47	0.21	A (3)	1/3	47	0.21	A (3)	2/3
WBT	317	0.28	A (3)	6/8	459	0.40	A (3)	16/21	465	0.40	A (3)	17/21
NBL	50	0.29	D (41)	12/21	50	0.27	D (41)	12/22	50	0.27	D (41)	12/22
NBR	81	0.06	A (3)	0/3	81	0.06	A (4)	0/3	81	0.06	A (4)	0/3

Table 5-28: Intersection Capacity Analysis – South Service Rd & Ogden Ave (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.34	A (5)	-/-	-	0.63	A (8)	-/-	-	0.61	A (8)	-/-
EBTR	460	0.37	A (5)	29/42	870	0.70	A (10)	89/128	851	0.68	A (9)	85/122
WBL	58	0.11	A (2)	2/3	58	0.22	A (3)	1/2	58	0.21	A (3)	2/4
WBT	429	0.33	A (3)	14/17	526	0.42	A (3)	9/11	505	0.40	A (3)	19/24
NBL	29	0.15	D (40)	6/15	29	0.15	D (40)	6/15	29	0.15	D (40)	6/15
NBR	51	0.03	A (3)	0/3	51	0.03	A (3)	0/3	51	0.03	A (3)	0/3

Table 5-29: Intersection Capacity Analysis – South Service Rd & Ogden Ave (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	0.40	A (4)	-/-	-	0.43	A (5)	-/-	-	0.40	A (5)	-/-
EBTR	546	0.44	A (6)	39/52	582	0.48	A (6)	45/61	541	0.44	A (6)	40/55
WBL	18	0.04	A (1)	0/1	18	0.04	A (2)	0/2	18	0.03	A (2)	1/2
WBT	442	0.35	A (2)	7/9	492	0.40	A (3)	11/28	460	0.37	A (3)	19/24
NBL	19	0.10	D (40)	4/11	19	0.10	D (40)	4/11	19	0.10	D (40)	4/11
NBR	65	0.04	A (3)	0/3	65	0.04	A (3)	0/3	65	0.04	A (3)	0/3

The peak hour operations at the signalized intersection of Odgen Avenue & South Service Road are expected to be acceptable in the future with all movements operating within capacity and with minimal delays. During

all peak hours, queues are not expected to worsen significantly between future background and future total conditions.

5.3.9 Lakeshore Road East & Haig Boulevard

The signal timing plans at the intersection of Dixie Road and Sherway Drive for the existing and future condition are shown in Table 5-30. The proposed signal timing plans include protected left turn phases to accommodate for the future BRT along the corridor.

Table 5-30: Signal Timing Adjustments – Lakeshore Rd E & Haig Blvd

Peak Period	Cycle Length	Horizon	Splits
Weekday AM	130	Existing	
		Proposed	
Weekday PM	130	Existing	
		Proposed	
Saturday	110	Existing	
		Proposed	

It should be noted that the subject development is proposed to generate minimal trips through this intersection, however Lakeshore Road is expected to experience significant background growth, and the intersection configuration under future conditions will include a new south (northbound) leg for the Lakeview Village background development. Additionally, a centre-running BRT along Lakeshore Road is anticipated to be in place by the horizon year. To reflect these network changes, LEA has provided a best estimate of the signal timing plan incorporating eastbound and westbound left turns restricted to protected only movements, and increased cycle lengths to accommodate additional east-west green time. However, this timing plan should be further refined as more information regarding the Lakeshore BRT and Lakeview Village development becomes available.

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Lakeshore Road East and Haig Boulevard.

Table 5-31: Intersection Capacity Analysis – Lakeshore Rd E & Haig Blvd (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.36**	**A (4)**	**-/-**	**-**	**1.16**	**F (83)**	**-/-**	**-**	**1.16**	**F (83)**	**-/-**
EBL	24	0.05	A (2)	1/3	99	0.56	E (62)	27/46	100	0.56	E (62)	27/47
EBTR	**965**	**0.35**	**A (3)**	**28/44**	**1875**	**0.98**	**D (46)**	**251/314**	**1875**	**0.98**	**D (46)**	**251/314**
WBL	-	-	- (-)	-/-	190	0.97	F (113)	55/105	190	0.97	F (113)	55/105
WBTR	926	0.34	A (1)	2/13	1206	0.62	C (21)	114/136	1205	0.62	C (21)	114/136
NBLTR	**-**	**-**	**- (-)**	**-/-**	**469**	**1.72**	**F (392)**	**184/254**	**469**	**1.72**	**F (392)**	**184/254**
SBLTR	80	0.36	E (56)	11/26	205	0.76	E (63)	50/91	205	0.76	E (63)	50/91

Table 5-32: Intersection Capacity Analysis – Lakeshore Rd E & Haig Blvd (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.34**	**A (3)**	**-/-**	**-**	**1.45**	**F (136)**	**-/-**	**-**	**1.45**	**F (137)**	**-/-**
EBL	25	0.06	A (2)	1/3	96	0.91	F (123)	27/63	97	0.92	F (125)	28/64
EBTR	**821**	**0.29**	**A (3)**	**21/31**	**1379**	**0.98**	**E (58)**	**188/239**	**1373**	**0.97**	**E (57)**	**186/237**
WBL	-	-	- (-)	-/-	301	0.95	F (82)	90/82	301	0.95	E (77)	76/71
WBTR	**964**	**0.34**	**A (1)**	**6/9**	**1794**	**0.95**	**B (16)**	**251/228**	**1783**	**0.95**	**B (17)**	**249/231**
NBLTR	**0**	**-**	**- (-)**	**-/-**	**682**	**2.36**	**F (671)**	**311/389**	**682**	**2.38**	**F (678)**	**311/389**
SBTR	45	0.26	D (55)	8/20	267	0.55	D (41)	58/89	269	0.56	D (41)	59/90

Table 5-33: Intersection Capacity Analysis – Lakeshore Rd E & Haig Blvd (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.30**	**A (4)**	**-/-**	**-**	**0.92**	**D (36)**	**-/-**	**-**	**0.92**	**D (35)**	**-/-**
EBL	21	0.04	A (2)	1/3	30	0.45	E (61)	7/18	31	0.45	E (61)	7/18
EBTR	**796**	**0.30**	**A (3)**	**21/33**	**1646**	**0.92**	**C (32)**	**186/237**	**1631**	**0.91**	**C (31)**	**182/228**
WBL	-	-	- (-)	-/-	129	0.73	E (64)	31/84	129	0.73	E (64)	31/84
WBTR	**769**	**0.30**	**A (2)**	**13/25**	**1963**	**0.98**	**D (36)**	**283/334**	**1944**	**0.97**	**C (34)**	**278/329**
NBLTR	-	-	- (-)	-/-	189	0.73	D (54)	38/62	189	0.73	D (54)	38/62
SBTR	58	0.26	D (45)	7/19	83	0.22	D (38)	10/24	85	0.22	D (38)	10/24

The AM peak hour at the intersection of Haig Boulevard & Lakeshore Road East is forecasted to operate over capacity in the future total conditions with an overall V/C ratio of 1.16, delay time of 83 seconds and LOS of F which is identical to the future background operations. It should be noted that an insignificant amount (i.e. increase of 1-2 vehicles per hour for each movement) of traffic volumes generated by the proposed development is forecasted to traverse through this intersection, and the congestion is primarily due to the background growth, particularly from the Lakeview Village background development. The northbound movement is expected to operate over capacity in the future total conditions with a V/C ratio of 1.72, delay time of 392 seconds and LOS of F. Also, the eastbound through-right movement is forecasted to operate with a V/C ratio of 0.98, delay time of 46 seconds and LOS of D.

The intersection operations during the PM peak hour are expected to be over capacity in the future total conditions with an overall V/C ratio of 1.45, delay time of 137 seconds and LOS of F. Similar to the AM peak, this condition is not a result of the proposed development, but rather background growth, primarily from the proposed Lakeview Village development.

Lastly, the Saturday peak hour at this intersection is expected to operate within capacity in the future with an overall V/C ratio of 0.92, delay time of 35 seconds and LOS of D. All movements are expected to operate sufficiently and within capacity, however the eastbound through-right and westbound through-right movements are expected to have critical V/C ratios of 0.91 and 0.97, respectively. However, both of these movements will improve from future background conditions, so this constraint is not being introduced by the proposed development.

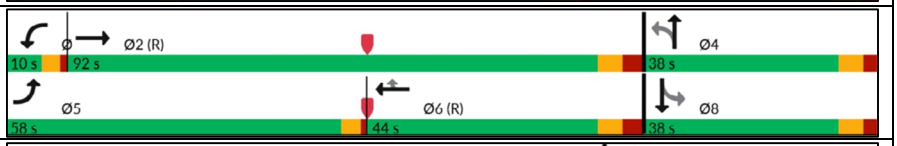
During all peak hours, queues are not expected to worsen significantly between future background and future total conditions.

Overall, the results demonstrate that the future total scenario will operate with little to no changes in comparison to the future background scenario. Therefore, LEA has not reviewed any additional mitigation measures for this intersection. Therefore, it is recommended that the City further monitor this intersection due to the high volume of trips the Lakeview Village development will impose at this intersection.

5.3.10 Dixie Road & Lakeshore Road East

The signal timing plans at the intersection of Dixie Road and Lakeshore Road East for the existing and future condition are shown in Table 5-34.

Table 5-34: Signal Timing Adjustments – Dixie Rd & Lakeshore Rd E

Peak Period	Cycle Length		Splits
Weekday AM	140	Existing	
		Proposed	
Weekday PM	130	Existing	
		Proposed	
Saturday	140	Existing	
		Proposed	

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Dixie Road and Lakeshore Road East.

Table 5-35: Intersection Capacity Analysis – Lakeshore Rd E & Dixie Rd (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.63**	**C (32)**	**-/-**	**-**	**0.90**	**D (44)**	**-/-**	**-**	**0.90**	**D (44)**	**-/-**
EBL	302	0.61	B (19)	28/69	718	0.95	E (60)	209/325	718	0.95	E (60)	209/325
EBTR	688	0.28	A (9)	29/71	1239	0.47	A (8)	69/101	1239	0.47	A (8)	69/101
WBL	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0	0	0.00	A (0)	0/0
WBT	**816**	**0.44**	**B (15)**	**55/98**	**889**	**0.96**	**E (72)**	**134/175**	**889**	**0.96**	**E (72)**	**134/175**
WBR	-	-	- (-)	-/-	182	0.25	D (42)	15/38	182	0.25	D (42)	15/38
NBLTR	4	0.01	D (42)	1/4	4	0.02	D (49)	1/4	4	0.02	D (49)	1/4
SBL	133	0.60	E (66)	37/58	146	0.64	E (62)	42/63	147	0.64	E (62)	42/63
SBTR	257	0.22	F (147)	17/46	495	0.37	D (54)	3/40	494	0.37	D (54)	3/40

Table 5-36: Intersection Capacity Analysis – Lakeshore Rd E & Dixie Rd (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.64**	**C (22)**	**-/-**	**-**	**1.11**	**F (83)**	**-/-**	**-**	**1.10**	**E (79)**	**-/-**
EBL	**238**	**0.58**	**C (22)**	**26/55**	**546**	**1.18**	**F (115)**	**194/172**	**540**	**1.17**	**F (114)**	**181/160**
EBTR	609	0.27	A (10)	31/59	936	0.43	B (12)	80/107	936	0.42	A (3)	6/43
WBL	2	0.00	B (13)	0/2	2	0.12	E (71)	1/4	2	0.12	E (71)	1/4
WBT	**880**	**0.50**	**B (19)**	**73/105**	**1446**	**1.15**	**F (123)**	**249/291**	**1446**	**1.14**	**F (115)**	**249/291**
WBR	-	-	- (-)	-/-	196	0.27	C (31)	21/43	191	0.26	C (31)	20/41
NBLTR	7	0.01	D (37)	1/5	7	0.02	D (38)	1/5	7	0.02	D (39)	1/5
SBL	207	0.73	E (55)	51/76	217	0.70	C (31)	53/89	210	0.69	C (30)	51/84
SBTR	**272**	**0.19**	**D (39)**	**1/23**	**656**	**0.95**	**F (104)**	**155/206**	**645**	**0.93**	**F (108)**	**156/198**

Table 5-37: Intersection Capacity Analysis – Lakeshore Rd E & Dixie Rd (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	**-**	**0.64**	**C (22)**	**-/-**	**-**	**1.02**	**E (55)**	**-/-**	**-**	**1.00**	**D (51)**	**-/-**
EBL	**304**	**0.61**	**C (22)**	**34/75**	**357**	**1.20**	**F (177)**	**136/201**	**342**	**1.15**	**F (158)**	**126/191**
EBTR	551	0.26	B (12)	27/60	1364	0.60	B (16)	131/153	1364	0.60	B (15)	127/153
WBL	24	0.07	B (16)	3/10	24	0.57	**F (93)**	8/18	24	0.57	F (93)	8/18
WBT	**665**	**0.45**	**B (20)**	**48/76**	**1743**	**1.01**	**E (60)**	**299/341**	**1743**	**1.00**	**E (56)**	**292/341**
WBR	-	-	- (-)	-/-	195	0.22	C (21)	19/37	173	0.19	C (20)	15/32
NBLTR	74	0.30	C (33)	11/23	74	0.89	F (123)	20/54	74	0.85	F (110)	20/52
SBL	201	0.63	D (40)	40/59	211	0.82	E (73)	62/101	198	0.80	E (72)	59/89
SBTR	295	0.23	C (32)	3/22	358	0.54	D (53)	31/71	339	0.49	D (53)	25/62

The AM peak hour at this intersection is expected to operate within capacity in the future with an overall V/C ratio of 0.90, delay time of 44 seconds and LOS of D. There is no change between future background and future total operations at this intersection, as the net vehicle volumes at the intersection will decrease due to the removal of existing site traffic. Therefore the congestion at this intersection can be attributed to background growth, particularly the Lakeview Village background development. All movements are expected to operate sufficiently and within capacity, however the westbound through movement will operate with a V/C ratio of 0.96, delay of 72 seconds and LOS of E in both future background and future total conditions.

The PM peak hour at this intersection is forecasted to operate over capacity in the future with an overall V/C ratio of 1.10, delay time of 79 seconds and LOS of E. The future total conditions are a slight improvement from future background conditions where the overall intersection will operate with a V/C ratio of 1.11. As discussed, this is because of the net removal of existing retail site trips from the road network due to the proposed development. Therefore, the congestion at this intersection can be attributed to background growth, particularly the Lakeview Village background development. Overall, despite the intersection operating over capacity, the forecasted delays indicate that all movements can sufficiently progress through the intersection within one cycle length. The eastbound left movement is expected to operate with a V/C ratio of 1.17, delay time of 114 seconds and LOS of F which is an improvement in comparison to the future background V/C ratio of 1.18. The westbound through movement is also expected to operate over capacity in future total conditions with a V/C ratio of 1.14, delay time of 115 seconds and LOS of F which is an improvement in comparison to the future background V/C ratio of 1.15. It is also noted that the southbound through-right movement is expected to approach capacity in the future total conditions, with a V/C ratio of 0.93, delay of 108 seconds and LOS of F, which is an improvement from future background conditions where a V/C ratio of 0.95 is expected. Therefore, the operations of these critical movements are constrained due to background growth, not the proposed development.

Lastly, the Saturday peak hour at this intersection is expected to operate at capacity in the future total conditions with a V/C ratio of 1.00, delay time of 51 seconds and LOS of D, which is an improvement from future background conditions where a V/C ratio of 1.02 is expected. The eastbound left movement is forecasted to operate with a V/C ratio of 1.15, delay time of 158 seconds and LOS of F in the future total conditions, which is an improvement in comparison to the future background scenario where the V/C ratio is expected to be 1.20. Despite the V/C ratio being over capacity, the queue lengths for this movement are forecasted to be within their provided storage for both the 50th and 95th percentile queue. Furthermore, the westbound through movement is expected to operate at capacity with a V/C ratio of 1.00, delay time of 56 seconds and LOS of E in future total conditions. This is a slight improvement from future background conditions, where a V/C ratio of 1.01 is expected. Therefore, the operations of critical movements are not worsened due to the proposed development, but rather are caused by background growth.

During all peak hours, queues are not expected to worsen significantly between future background and future total conditions.

5.4 UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS

The following tables show the results of the intersection capacity analysis at the unsignalized intersections in the study area.

5.4.1 East Mall Entrance & South Service Road

The following tables show the results of the peak hour intersection capacity analysis at the intersection of the East Mall Entrance and South Service Road.

Table 5-38: Intersection Capacity Analysis – South Service Rd & East Mall Entrance (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (0)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBL	14	0.01	A (8)	-/0	14	0.02	A (9)	-/0	11	0.01	A (9)	-/0
NBT	458	0.00	A (0)	-/0	348	0.00	- (0)	-/0	426	0.00	- (0)	-/0
EBR	2	0.00	A (9)	-/0	2	0.00	B (12)	-/0	4	0.01	B (14)	-/0
SBT	196	0.00	- (0)	-/0	514	0.00	- (0)	-/0	669	0.00	- (0)	-/0
SBR	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0

Table 5-39: Intersection Capacity Analysis – South Service Rd & East Mall Entrance (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (1)	-/-	-	-	- (1)	-/-	-	-	- (1)	-/-
NBL	49	0.03	A (8)	-/0	49	0.04	A (8)	-/0	42	0.04	A (8)	-/0
NBT	556	0.00	A (0)	-/0	330	0.00	- (0)	-/0	424	0.00	- (0)	-/0
EBR	38	0.04	A (9)	-/0	38	0.06	B (11)	-/0	64	0.10	B (12)	-/0
SBT	102	0.00	- (0)	-/0	401	0.00	- (0)	-/0	435	0.00	- (0)	-/0
SBR	2	0.00	A (0)	-/0	2	0.00	A (0)	-/0	2	0.00	A (0)	-/0

Table 5-40: Intersection Capacity Analysis – South Service Rd & East Mall Entrance (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (2)	-/-	-	-	- (3)	-/-	-	-	- (3)	-/-
NBL	127	0.10	A (8)	-/0	127	0.10	A (8)	-/0	122	0.09	A (8)	-/0
NBT	449	0.00	A (0)	-/0	280	0.00	- (0)	-/0	341	0.00	- (0)	-/0
EBR	67	0.08	A (9)	-/0	67	0.09	A (10)	-/0	132	0.17	B (10)	-/1
SBT	152	0.00	- (0)	-/0	206	0.00	- (0)	-/0	174	0.00	- (0)	-/0
SBR	3	0.00	A (0)	-/0	3	0.00	A (0)	-/0	2	0.00	A (0)	-/0

The unsignalized intersection of South Service Rd & East Mall Entrance is forecasted to operate well during all peak hours with all movements operating within capacity and with minimal delays.

5.4.2 Site Access 2 & South Service Road

The following tables show the results of the peak hour intersection capacity analysis at the intersection of the future Site Access 2 and South Service Road.

Table 5-41: Intersection Capacity Analysis – South Service Rd & Site Access 2 (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (-)	-/-	-	-	- (-)	-/-	-	-	- (3)	-/-
NBL	-	-	- (-)	-/-	-	-	- (-)	-/-	9	0.08	E (36)	-/0
NBR	-	-	- (-)	-/-	-	-	- (-)	-/-	126	0.44	C (25)	-/2
EBT	-	-	- (-)	-/-	-	-	- (-)	-/-	869	0.00	- (0)	-/0
EBR	-	-	- (-)	-/-	-	-	- (-)	-/-	22	0.00	- (0)	-/0
WBL	-	-	- (-)	-/-	-	-	- (-)	-/-	63	0.10	B (11)	-/0
WBT	-	-	- (-)	-/-	-	-	- (-)	-/-	361	0.00	(0)	-/0

Table 5-42: Intersection Capacity Analysis – South Service Rd & Site Access 2 (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (-)	-/-	-	-	- (-)	-/-	-	-	- (5)	-/-
NBL	-	-	- (-)	-/-	-	-	- (-)	-/-	95	0.55	E (46)	-/3
NBR	-	-	- (-)	-/-	-	-	- (-)	-/-	67	0.15	B (14)	-/1
EBT	-	-	- (-)	-/-	-	-	- (-)	-/-	562	0.00	- (0)	-/0
EBR	-	-	- (-)	-/-	-	-	- (-)	-/-	69	0.00	- (0)	-/0
WBL	-	-	- (-)	-/-	-	-	- (-)	-/-	81	0.10	A (9)	-/0
WBT	-	-	- (-)	-/-	-	-	- (-)	-/-	342	0.00	A (0)	-/0

Table 5-43: Intersection Capacity Analysis – South Service Rd & Site Access 2 (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (-)	-/-	-	-	- (-)	-/-	-	-	- (6)	-/-
NBL	-	-	- (-)	-/-	-	-	- (-)	-/-	137	0.54	D (33)	-/3
NBR	-	-	- (-)	-/-	-	-	- (-)	-/-	70	0.13	B (12)	-/0
EBT	-	-	- (-)	-/-	-	-	- (-)	-/-	369	0.00	- (0)	-/0
EBR	-	-	- (-)	-/-	-	-	- (-)	-/-	156	0.00	- (0)	-/0
WBL	-	-	- (-)	-/-	-	-	- (-)	-/-	74	0.08	A (9)	-/0
WBT	-	-	- (-)	-/-	-	-	- (-)	-/-	266	0.00	A (0)	-/0

The unsignalized intersection of South Service Rd & Site Access 2 is forecasted to operate well during all peak hours with all movements operating within capacity and with minimal delays. Furthermore, a signal warrant was also conducted at this intersection and was not warranted. The signal warrant analysis is provided in Appendix H.

5.4.3 Haig Boulevard & Site Access 1

The following tables show the results of the peak hour intersection capacity analysis at the intersection of the future Site Access 1 and Haig Boulevard.

Table 5-44: Intersection Capacity Analysis – Haig Blvd & Site Access 1 (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (-)	-/-	-	-	- (-)	-/-	-	-	- (1)	-/-
NBT	-	-	- (-)	-/-	-	-	- (-)	-/-	389	0.00	- (0)	-/0
NBR	-	-	- (-)	-/-	-	-	- (-)	-/-	1	0.00	- (0)	-/0
WBL	-	-	- (-)	-/-	-	-	- (-)	-/-	0	0.00	A (0)	-/0
WBR	-	-	- (-)	-/-	-	-	- (-)	-/-	35	0.06	B (11)	-/0
SBL	-	-	- (-)	-/-	-	-	- (-)	-/-	17	0.02	A (8)	-/0
SBT	-	-	- (-)	-/-	-	-	- (-)	-/-	350	0.00	A (0)	-/0

Table 5-45: Intersection Capacity Analysis – Haig Blvd & Site Access 1 (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (-)	-/-	-	-	- (-)	-/-	-	-	- (1)	-/-
NBT	-	-	- (-)	-/-	-	-	- (-)	-/-	404	0.00	- (0)	-/0
NBR	-	-	- (-)	-/-	-	-	- (-)	-/-	1	0.00	- (0)	-/0
WBL	-	-	- (-)	-/-	-	-	- (-)	-/-	2	0.01	C (18)	-/0
WBR	-	-	- (-)	-/-	-	-	- (-)	-/-	18	0.03	B (11)	-/0
SBL	-	-	- (-)	-/-	-	-	- (-)	-/-	21	0.02	A (8)	-/0
SBT	-	-	- (-)	-/-	-	-	- (-)	-/-	447	0.00	A (0)	-/0

Table 5-46: Intersection Capacity Analysis – Haig Blvd & Site Access 1 (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	- (-)	-/-	-	-	- (-)	-/-	-	-	- (1)	-/-
NBT	-	-	- (-)	-/-	-	-	- (-)	-/-	243	0.00	- (0)	-/0
NBR	-	-	- (-)	-/-	-	-	- (-)	-/-	1	0.00	- (0)	-/0
WBL	-	-	- (-)	-/-	-	-	- (-)	-/-	2	0.01	B (13)	-/0
WBR	-	-	- (-)	-/-	-	-	- (-)	-/-	17	0.02	A (10)	-/0
SBL	-	-	- (-)	-/-	-	-	- (-)	-/-	20	0.02	A (8)	-/0
SBT	-	-	- (-)	-/-	-	-	- (-)	-/-	250	0.00	A (0)	-/0

The unsignalized intersection of Site Access 1 and Haig Boulevard is forecasted to operate well during all peak hours with all movements operating within capacity and with minimal delays.

5.4.4 Haig Boulevard & Atwater Avenue

The following tables show the results of the peak hour intersection capacity analysis at the intersection of Atwater Avenue and Haig Boulevard.

Table 5-47: Intersection Capacity Analysis – Haig Blvd & Atwater Ave (AM)

AM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	A (8)	-/-	-	-	A (9)	-/-	-	-	A (9)	-/-
NBLTR	91	0.13	A (8)	-/0	255	0.37	A (10)	-/2	256	0.37	A (10)	-/2
EBLTR	60	0.08	A (8)	-/0	60	0.10	A (9)	-/0	60	0.10	A (9)	-/0
WBLTR	9	0.01	A (7)	-/0	9	0.02	A (8)	-/0	9	0.02	A (8)	-/0
SBLTR	66	0.09	A (7)	-/0	191	0.28	A (9)	-/1	191	0.28	A (9)	-/1

Table 5-48: Intersection Capacity Analysis – Haig Blvd & Atwater Ave (PM)

PM	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	A (7)	-/-	-	-	A (10)	-/-	-	-	A (10)	-/-
NBLTR	80	0.11	A (8)	-/0	259	0.38	B (10)	-/2	260	0.39	B (10)	-/2
EBLTR	40	0.05	A (7)	-/0	40	0.07	A (8)	-/0	40	0.07	A (8)	-/0
WBLTR	3	0.01	A (7)	-/0	3	0.01	A (8)	-/0	3	0.01	A (8)	-/0
SBLTR	45	0.06	A (7)	-/0	267	0.39	B (10)	-/2	269	0.39	B (10)	-/2

Table 5-49: Intersection Capacity Analysis – Haig Blvd & Atwater Ave (SAT)

Sat	Existing Conditions (2024)				Future Background (2029)				Future Total (2029)			
Mvmt	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
Overall	-	-	A (7)	-/-	-	-	A (7)	-/-	-	-	A (7)	-/-
NBLTR	50	0.07	A (7)	-/0	68	0.09	A (8)	-/0	69	0.09	A (8)	-/0
EBLTR	40	0.05	A (7)	-/0	40	0.05	A (7)	-/0	40	0.05	A (7)	-/0
WBLTR	6	0.01	A (7)	-/0	6	0.01	A (7)	-/0	6	0.01	A (7)	-/0
SBLTR	35	0.05	A (7)	-/0	60	0.08	A (7)	-/0	62	0.08	A (7)	-/0

The unsignalized intersection of Haig Boulevard and Atwater Avenue is forecasted to operate well during all peak hours with all movements operating within capacity and with minimal delays.

5.5 INTERSECTION CAPACITY ANALYSIS SUMMARY

In summary, the movements listed in Table 5-50 will be impacted by the proposed development such that their operations will be become critical.

Table 5-50: Intersection Capacity Analysis Summary – Critical Movements due to Development

Intersection /Movement	Time Period	V/C (Future Background)	V/C (Future Total)	Recommendation
Dixie Road & Rometown Drive / South Service Road: Overall intersection	AM Peak Hour	0.77	0.94	City to implement proposed signal timing plan optimization. City to monitor future traffic at intersection to respond to anticipated congestion.
Haig Boulevard & South Service Road: NBLR movement	AM Peak Hour	0.71	1.00	Note that worsening of NBLR operations is a result of STP optimization that is required to improve overall intersection capacity as V/C exceeds 1.0 in future background conditions. City to implement proposed STP when West Mall Access is removed. City to consider adding exclusive turn lanes to improve operations.

In addition, several movements have been noted to exceed the critical capacity, as defined by the City and Region, due to background growth. These movements are summarized in Table 5-51.

Table 5-51: Intersection Capacity Analysis Summary – Critical Movements due to Background

Intersection	Movement	Time Period	V/C (Future Background)	V/C (Future Total)
Dixie Road & North Service Road / QEW Westbound Off-Ramp	Overall intersection	PM Peak Hour	1.00	1.00
	WBT	PM Peak Hour	0.92	0.93
	SBT	PM Peak Hour	0.98	0.96
	Overall intersection	Saturday Peak Hour	0.91	0.88
Haig Boulevard & South Service Road	Overall intersection	AM Peak Hour	1.11	1.02
	EBTR	AM Peak Hour	1.45	1.02
	Overall intersection	PM Peak Hour	1.06	0.90
	EBTR	PM Peak Hour	1.20	0.93
Lakeshore Road East & Haig Boulevard	Overall intersection	AM Peak Hour	1.16	1.16
	EBTR	AM Peak Hour	0.98	0.98
	NBLTR	AM Peak Hour	1.72	1.72
	Overall intersection	PM Peak Hour	1.45	1.45
	EBTR	PM Peak Hour	0.98	0.97
	WBTR	PM Peak Hour	0.95	0.95
	NBLTR	PM Peak Hour	2.36	2.38
	Overall intersection	Saturday Peak Hour	0.92	0.92
	EBTR	Saturday Peak Hour	0.92	0.91
	WBTR	Saturday Peak Hour	0.98	0.97
Lakeshore Road East & Dixie Road	Overall intersection	AM Peak Hour	0.90	0.90
	WBT	AM Peak Hour	0.96	0.96
	Overall intersection	PM Peak Hour	1.11	1.10
	EBL	PM Peak Hour	1.18	1.17
	WBT	PM Peak Hour	1.15	1.14
	SBTR	PM Peak Hour	0.95	0.93
	Overall intersection	Saturday Peak Hour	1.02	1.00
	EBL	Saturday Peak Hour	1.20	1.15
	WBT	Saturday Peak Hour	1.01	1.00

The proposed development will have minimal impact or will improve these operations due to net volume reduction, so mitigation measures are not being proposed on behalf of the development.

5.6 RECOMMENDED MITIGATION MEASURES

Signal timing plan optimization has been proposed at the following intersections:

- Dixie Road & Sherway Drive;
- Dixie Road & South Service Road/QEW EB Off-Ramp;
- Dixie Road & Rometown Drive/South Service Road;
- Lakeshore Road East & Haig Boulevard;
- Dixie Road & Lakeshore Road East; and
- Haig Boulevard & South Service Road.

A signal warrant analysis was completed for the intersection of South Service Road & Site Access 2, however it was found that a signal was not warranted. The signal warrant analysis can be found in Appendix H.

As discussed in Section 5.5, the impact of the development's AM peak hour traffic on the intersection of Dixie Road & Rometown Drive should be monitored as development on the site is built-out, as the overall operations of the intersection are expected to approach capacity. Similarly, the operations of the intersection of Haig Boulevard and South Service Road should be monitored. The proposed development will improve the operations of this intersection by removing one leg and optimizing the signal timing plan, however the northbound movement is still expected to operate at capacity in the morning peak hour due to background growth.

In summary, there are several constraints identified in future background conditions because of the Lakeview Village masterplan development. The proposed development at Dixie Outlet Mall does not introduce any new capacity constraints and some movements will operate better due to the net volume reduction.

5.7 COMMUNITY IMPACTS

In summary, it is expected that the study area road network will develop some congestion issues in the 2029 horizon, and much of these issues will stem from the development of the Lakeview Village masterplan. In particular, the community will notice increased congestion in the following intersections:

- Dixie Road & Rometown Drive / South Service Road (AM peak hour only);
- Haig Boulevard & South Service Road (AM peak hour only);
- Dixie Road & North Service Road / QEW Westbound Off-Ramp (PM and Saturday peak hours);
- Haig Boulevard & South Service Road (AM and PM peak hours);
- Lakeshore Road East & Haig Boulevard (AM, PM and Saturday peak hours); and
- Lakeshore Road East & Dixie Road (AM, PM and Saturday peak hours).

However, the proposed Phase 1 development at Dixie Outlet Mall will improve operations for many movements and intersections in the study area, due to the net removal of vehicle trips generated by the existing retail on the site during afternoon and weekend peak periods. Therefore, the development will have a positive impact on the community. The proposed development will also increase the viability of non-auto transportation modes in the study area, through the implementation of TDM measures such as pedestrian amenities, wayfinding, bike parking and transit information displays, as will be discussed in Section 7.

6 PARKING AND LOADING ASSESSMENT

This section will discuss the vehicular parking, bicycle parking, and loading requirements applicable to the subject site based on the City of Mississauga's Zoning By-law 0225-2007. A review will also be undertaken of the proposed parking strategy for the subject site to provide a comparison to the applicable requirements and assess whether the proposed strategy is appropriate for the site.

Given the subject site's location, planning context, future transportation context, parking data, development precedents, and the proposed Transportation Demand Management (TDM) plan, a parking reduction compared to the zoning by-law requirements is recommended for this development. The reduced parking strategy and TDM Plan will enable the subject site to contribute to the area in a manner that reduces automobile dependency, supports daily travel by transit and active transportation, and creates a dynamic, mixed-use community on the subject site.

6.1 VEHICULAR PARKING REQUIREMENTS – ZONING BY-LAW 0225-2007

6.1.1 Vehicular Parking Requirements

The vehicle parking requirements for the proposed land uses have been determined based on the City of Mississauga's Zoning By-law 0225-2007, amended by By-law 0117-2022. The subject site is located in Parking Precinct 4, which covers the majority of the City outside designated transit-oriented areas.

Table 6-1 shows the zoning by-law parking requirements for Precinct 4 applied to the proposed development. As the residential tenure is still to be decided, the highest requirement (i.e. the required rates for condo tenure) has been assumed to be conservative.

Table 6-1: By-law 0225-2007 Precinct 4 Parking Requirements

Land Use	Units/ GFA (m^2)	Minimum Parking Rate	Minimum Required Parking
Residential	997	1.10 spaces per unit	1,097
Visitor	997	0.20 spaces per unit	199
Retail	53,929	5.4 spaces per 100 m^2 retail GFA	2,912
		TOTAL	**4,208**

As shown in Table 6-1, the proposed development and remaining mall would be required to provide a minimum of 4,208 parking spaces to meet the Precinct 4 parking requirements, consisting of 1,097 spaces for residents, 199 spaces for visitors and 2,912 spaces for retail.

Based on a survey of the Dixie Outlet Mall parking lot, there are approximately 2,950 existing parking spaces on-site. For the existing retail GFA of 69,810m^2, the existing supply is equivalent to 4.23 spaces per 100 m^2 retail GFA. More information about this survey is provided in Section 6.3.4.

6.1.2 Vehicular Parking Requirements Following MTO Expropriation

Approximately 279 existing retail parking spaces will be lost to the MTO expropriation for the QEW/Dixie interchange reconfiguration. According to article 2.1.7 of Zoning By-law 0225-2007, the acquisition of a portion of the parking area by the Province of Ontario does not result in a deficiency from the standard parking requirements.

The expropriation will leave the site with 2,671 spaces, equivalent to approximately 3.83 spaces per 100 m^2 retail GFA based on the existing retail GFA. Therefore, a parking supply of 3.83 spaces per 100 m^2 retail GFA will is the updated parking requirement for the site. Since the retail GFA will be reduced by approximately

15,881 m^2 due to the proposed development, applying the minimum rate of 3.83 spaces per 100 m^2 GFA to the future retail GFA results in a minimum requirement of 2,063 retail parking spaces. The parking requirements for the site are summarized in Table 6-2.

Table 6-2: Parking Requirements Following MTO Expropriation

Land Use	Units/ GFA (m^2)	Minimum Parking Rate	Minimum Required Parking
Residential	997	1.10 spaces per unit	1,097
Visitor	997	0.20 spaces per unit	199
Retail	53,929	Existing supply rate after MTO expropriation (Approximately 3.83 spaces per 100m^2 retail GFA)	2,063
		TOTAL	**3,359**

Therefore, the proposed development must provide a minimum of 1,097 residential parking spaces, 199 visitor parking spaces and 2,063 retail parking spaces.

6.1.3 Electric Vehicle Parking Requirements

Zoning By-law 0225-2007 also requires the provision of Electric Vehicle Ready parking spaces in accordance with Table 3.1.1.12. The requirements for the development are summarized in Table 6-3.

Table 6-3: By-law 0225-2007 Electric Vehicle Ready Parking Requirements

Land Use	Units	Minimum Parking Rate	Minimum Required Parking	Minimum Required EV-Ready Parking
Residential – Condominium or Rental Apartment	997	20% of the total required parking spaces	1,097	219
Visitor – Condominium or Rental Apartment	997	10% of the total required parking spaces	199	20
			TOTAL	**239**

A total of 239 Electric Vehicle Ready parking spaces are required for the proposed residential development. No Electric Vehicle Ready parking will be required for the existing retail use. This requirement will be satisfied.

6.2 PROPOSED VEHICULAR PARKING RATE

Recognizing the subject site's location, site design, planning context, and the surrounding transportation network, reduced rates are proposed for the development. The proposed rates and corresponding supply are summarized in Table 6-4.

Table 6-4: Proposed Parking Rates for the Development

Land Use	Units/GFA (m^2)	Proposed Minimum Parking Rate	Proposed Parking Supply	Shortfall from By-law Requirements
Residential	997	0.85 spaces per unit	848 spaces (0.85 sp/unit)	-249
Visitor		0.15 spaces per unit	161 spaces (0.16 sp/unit)	-38
Retail	53,929	3.8 spaces per 100 m^2 retail GFA	2,185 spaces (4.05 sp/100m^2)	N/A
		TOTAL	**3,194**	**-287**

The development proposes a supply of 848 residential parking spaces and 161 visitor parking spaces in an underground parking garage which will accommodate the projected parking demand for the site without a need for off-site parking arrangements. The proposed parking supply will meet the proposed reduced parking supply rates of 0.85 spaces per unit for residents and 0.15 spaces per unit for visitors.

The existing surface parking lot will provide a supply of 2,185 retail parking spaces, equivalent to 4.05 spaces per 100 m^2 retail GFA. The future retail parking supply accounts for the net loss of 279 existing spaces due to MTO expropriation and 486 spaces due to the addition of the proposed residential blocks.

With the proposed supply, the subject site will have a shortfall from Precinct 4 requirements for residents and visitors of 287 spaces overall.

6.3 VEHICULAR PARKING REDUCTION JUSTIFICATION

It is recognized that the proposed development is seeking to provide a parking supply that is reduced from the applicable Zoning By-law requirements. The following section will discuss the appropriateness of the proposed parking supply based on a review of applicable planning policy, the transportation context, parking demand data, and comparable precedent-setting developments.

6.3.1 Planning Justification

The following planning policies and documents were reviewed to establish an understanding of the current planning and transportation context and objectives applicable to the subject site:

- Provincial Policy Statement, 2020
- A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2020
- City of Mississauga Official Plan
- Lakeview Local Area Plan
- Mississauga Parking Master Plan and Implementation Strategy (PMPIS)

6.3.1.1 The Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) outlines the Ontario government's policies on land use planning and development direction. A key focus of the statement is to manage development to support population growth while minimizing impacts to the natural environment. For transportation systems, which are defined to include parking, key directives include providing efficient systems to address project needs, efficiently using existing and planned infrastructure through TDM strategies, and minimizing the length and number of vehicle trips, and supporting use of transit and active transportation modes.

Under Section 3 of the Planning Act, all decisions affecting land use planning matters "shall be consistent with" the PPS. One of the key matters pertaining to PPS policies includes the promotion of transportation decisions that increase active transportation and transit usage. As stated under Section 1.8.1 b. of the PPS, planning authorities shall support land use and development patterns which: "promote the use of active transportation and transit in and between residential, employment (including commercial and industrial) and institutional uses and other areas;"

The proposed development will provide less than one parking space per unit, supporting a shift away from automobile dependency. The subject site is located in close proximity to local and regional transit serving the City of Mississauga and providing connections to adjacent municipalities, including the City of Toronto, and is located in an area exhibiting a non-auto mode split around 26% during peak periods, as detailed in Section 4.2.1. Therefore, the decision to provide less parking aids to promote mobility options that are not automobile-dependent, such as active transportation and transit.

6.3.1.2 *Growth Plan for the Greater Golden Horseshoe (2020)*

The Growth Plan for the Greater Golden Horseshoe provides a framework for municipalities to better manage growth in the region that supports a high quality of life, environmental protection, as well as economic prosperity. The support of municipalities in land use choices is vital to achieving the long-term framework outlined by the Growth Plan. Some of the key issues listed in the Growth Plan includes:

- Reduce sprawl;
- Build complete communities that utilize transit to better connect where residents live, work, and play;
- Minimize the negative impacts of climate change.

By supplying a reduced parking supply for future residents and visitors of the subject site, the proposed development supports an increasing trend towards a reduction in car ownership. This benefits a range of members of the community, from younger individuals preferring to take advantage of transit and active transportation modes to travel to and from work, school, recreational, and shopping destinations, to elderly individuals preferring to walk shorter distances to access daily shopping and service needs. By planning for development that leverages the surrounding transit network and active transportation options, the proposed development discourages sprawl and limits the need for travelling long distances for daily needs. This change would also lower the negative environmental impact caused by vehicle usage. The proposed parking for this development aligns with transportation-related issues and goals outlined in the Growth Plan.

6.3.1.3 *City of Mississauga Official Plan*

The City's Official Plan sets out a framework for how the municipality will grow to the year 2031. The City of Mississauga Official Plan aims to direct growth in a sustainable manner that protects and enhances its natural and cultural heritage resources, as well as the urban form. The Official Plan's approach to land use planning focuses on strategic management of growth and integration of land use, transportation, and design.

The City plans to direct growth within locations supported by existing and planned higher order transit through high density and pedestrian-oriented development. In particular, one of the Plan's seven (7) guiding principles includes "Create a Multi-Modal City", which speaks to prioritizing transit and implementing an efficient active transportation network for cyclists and pedestrians. Section 8.4 addresses parking specifically and recognizes it as a tool to help influence travel behaviour and choice of transportation modes.

Specifically, Policy 8.4.3 states that "Consideration will be given to reducing off-street parking requirements for developments to reflect levels of vehicle ownership and usage, and as a means of encouraging the greater use of transit, cycling and walking…"

The reduced parking supply sought for the subject development is supportive of the City's Official Plan growth approach as it plans to leverage its location in proximity to the existing transit connections along Dixie Road, existing and proposed cycling facilities along Dixie Road, existing Dixie GO Train Station, and planned Lakeshore Road East higher order transit corridor. The proposed development will encourage future residents to utilize alternative transportation modes as opposed to vehicular travel.

6.3.1.4 *Lakeview Local Area Plan*

The purpose of the Lakeview Local Area Plan (LAP) is to introduce area specific policies that will advance the goals within Mississauga's strategic plan and official plan while considering the context and opportunities within the area. The defined boundaries of the Lakeview area are shown in Figure 6-1.

Figure 6-1: Lakeview Area Boundaries and Subject Site

Source: Mississauga Parking Master Plan and Implementation Strategy Appendices (May 2019)

Specifically, the LAP outlines policies that will help achieve Mississauga's important Multi-Modal City goal. These policies state that new developments will direct growth to support transit, help in developing walkable connected neighbourhoods, and promote sustainable neighbourhoods that will conserve, restore, and enhance the natural environment. The goals within such policies will in large part be achieved through vehicular parking strategies that include:

- Reduced parking requirements;
- Minimal surface parking; and
- Encouragement of underground parking.

The parking strategy of this proposed development clearly aligns with the parking strategies within the LAP. The parking spaces will be mostly located beneath each of the blocks and the proposed supply will represent a reduction from the requirements in-line with other major developments in the area. It is therefore anticipated that the parking strategy of this development will help achieve the goals within the LAP and for Mississauga as a whole.

6.3.1.5 Mississauga Parking Master Plan and Implementation Strategy (PMPIS)

Mississauga's PMPIS outlines how local parking will evolve as the City grows by setting parking goals, strategies, and implementation plans for various areas of the City. The PMPIS report document was approved by Mississauga City Council in June 2019. As of June 8, 2022, many of the recommendations of the PMPIS have been implemented through Zoning By-Law amendments 0117-2022 and 0118-2022 for vehicle parking and bicycle parking, respectively. This includes reduced parking rates and the introduction of parking precincts.

The PMPIS report provides policies that seek to manage parking through various measures, with one key measure being the reduction of parking supply for certain areas, classified through a precinct system. Precinct Policies categorize the City's areas into four precincts that each contain different parking strategies. Precinct 1 has the lowest minimum parking rates, while Precinct 4 has the highest. The areas that are recommended to have a parking reduction from the by-law rate are areas with mixed land-uses, built forms that promote density, available nearby transit, high walkability, and developments with robust TDM measures.

The guidance of the PMPIS relates to the proposed development because the proposed parking reduction is supported through the following proposed development characteristics:

- Mixed land use – Three residential blocks and a park area are introduced to supplement the existing on-site retail;
- Walkability – Ample sidewalks and trails within the internal subject site network, with critical links to pedestrian and cycling infrastructure improvements planned for Dixie Road;
- Built form – Dense development consisting of blocks with multiple buildings sharing a podium;
- Transit availability – many MiWay bus connections to higher-order transit options and key destinations; and
- Robust TDM measures – Extensive TDM plan proposed for the subject site in Section 7 .

Although the subject site has been designated Precinct 4, it is clear that the development context and transportation vision for the area exhibit the characteristics of a precinct with lower parking requirements.

6.3.1.6 Major Transit Station Areas (MTSA)

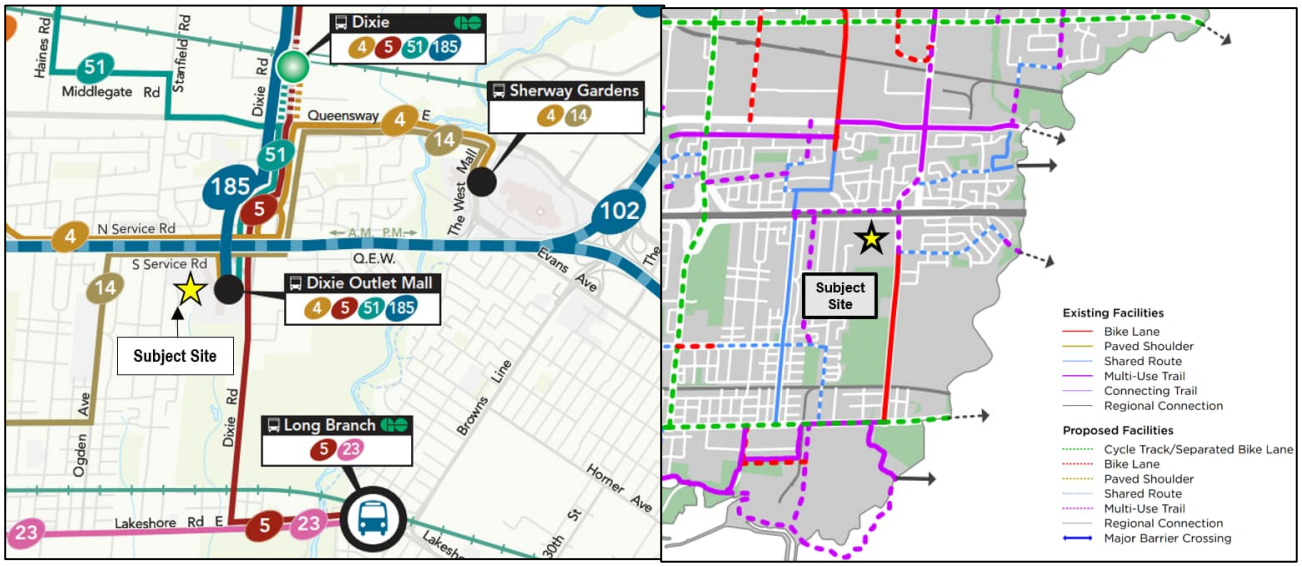
Provincial, regional and local policies for density and development are structured around the identification of Major Transit Station Areas (MTSA). Mississauga's MTSAs are located along future higher-order transit corridors including the Dundas BRT corridor, Hazel McCallion LRT corridor, Lakeshore BRT corridor and around GO Stations. Although the subject site is not within an official Major Transit Station Area, the proposed Phase 1 residential buildings are located within 800m of the Dixie Outlet Mall Bus Terminal and the Priority Bus Corridor along Dixie Road, designated by Metrolinx.

As per the PMPIS, MTSAs are generally categorized as Parking Precinct 1-3, whereas the subject site has been categorized as Parking Precinct 4. Due to the intensification proposed on the subject site and the availability of transit within a priority network, it is recommended that parking rates below those required in Precinct 4 be implemented on the site.

6.3.2 Future Transportation Context

As discussed in Section 3, the future transportation context of the subject site is supportive of non-auto transportation modes. As shown in Figure 6-2, several transit and active transportation improvements are proposed in the study area. Many routes will be extended or re-routed to serve the Dixie Mall Terminal, and a new route (14) will continue to provide service along South Service Road, directly adjacent to the proposed residential buildings.

Figure 6-2: Future Planned Transit and Cycling Network



6.3.3 Residential Parking Demand

6.3.3.1 Proxy Parking Demand Surveys

To justify the proposed residential parking supply, a residential parking utilization study was undertaken as per the *City of Mississauga's Terms of Reference for Parking Utilization Studies for Site Specific Applications*. LEA collected residential parking demand data from several proxy sites in the City of Mississauga to assess the existing parking demand for residential buildings with similar location and development contexts. The sites included in the study are described in Table 6-5.

Table 6-5: Residential Parking Proxy Sites

Address	Number of Units	Tenure	Transportation Context	Parking Precinct
1333 Bloor Street, Mississauga	442	Condo	Walk Score: 73 Transit Score: 52	4
1750 Bloor Street, Mississauga	153	Rental	Walk Score: 68 Transit Score: 53	4
Subject Site: 1250 South Service Road, Mississauga	Block 1: 159 Block 2: 338 Block 3: 500	TBD	Walk Score: 80 Transit Score: 37	4

The proxy sites were approved as appropriate proxy sites through a Terms of Reference letter circulated to the City of Mississauga's Transportation Works Department on October 27, 2023, which is provided in Appendix A. The surveys were undertaken in January 2024. For each survey, the residential parking demand was surveyed over 6 days (Sunday – Tuesday, for 2 weeks), making observations every half hour between 6:00 PM and 1:00 AM.

Vacancy rates for the proxy sites could not be confirmed. Instead, the average vacancy rates were obtained from the Canada Mortgage and Housing Corporation (CMHC) Rental Market Report (January 2024). In 2023, the average vacancy rate of purpose-built rental units for buildings with 100-199 units in the Mississauga Northeast zone was 2%. Vacancy data for condominium apartments was available for the Toronto Census Metropolitan Area only, rather than the Mississauga Northeast zone. The average condominium vacancy rate

in 2023 was 0.5% for buildings with 400-499 units. These vacancy rates were applied to the results of the parking demand surveys for their respective tenure, to be conservative.

The demand observed during each survey and the corresponding utilization is presented in Table 6-6. Full datasets are provided in Appendix I.

Table 6-6: Proxy Residential Parking Utilization Survey Results

Survey Date	Max Demand (spaces)		Utilization (spaces/unit)		Utilization (spaces/unit) – Unit Vacancy Adjustment Applied	
	Residents	Visitors	Residents	Visitors	Residents	Visitors
1333 Bloor Street						
Sunday, January 14, 2024	455	24	1.03	0.05	1.04	0.06
Monday, January 15, 2024	455	15	1.03	0.03	1.04	0.03
Tuesday, January 16, 2024	454	17	1.03	0.04	1.03	0.04
Sunday, January 21, 2024	**460**	**25**	**1.04**	**0.06**	**1.05**	**0.06**
Monday, January 22, 2024	459	16	1.04	0.04	1.04	0.04
Tuesday, January 23, 2024	457	10	1.03	0.02	1.04	0.02
1750 Bloor Street						
Sunday, January 14, 2024	**131**	12	**0.86**	0.08	**0.87**	0.08
Monday, January 15, 2024	119	**13**	0.78	**0.08**	0.79	**0.09**
Tuesday, January 16, 2024	127	**13**	0.83	**0.09**	0.85	**0.09**
Sunday, January 21, 2024	130	12	0.85	0.08	0.87	0.08
Monday, January 22, 2024	**131**	11	**0.86**	0.07	**0.87**	0.07
Tuesday, January 23, 2024	129	11	0.84	0.07	0.86	0.07

The maximum observed parking demand at 1333 Bloor Street was 1.05 spaces per unit for residents and 0.06 spaces per unit for visitors. At 1750 Bloor Street, the maximum observed parking demand was 0.87 spaces per unit for residents and 0.09 spaces per unit for visitors.

Although the results are slightly higher than the proposed residential parking rate of 0.85 spaces per unit, it is expected that Transportation Demand Management (TDM) measures to be implemented on the site will reduce the demand for residential parking on the subject site. The TDM Plan for the development is detailed in Section 7. It is also expected that the subject site will have higher Walk, Bicycle and Transit Scores than the proxy sites upon occupancy, as planned improvements are built out, as discussed in Section 3.

Further, it is expected that as the transportation and land use context of the subject site evolve through improvements to the transportation network and the proposed development, the context will resemble more mixed-use and less auto-dependent areas of the city as opposed to Precinct 4 lands, which the subject site is currently categorized.

The observed peak visitor parking demand during the surveys is supportive of the proposed visitor supply rate of 0.15 spaces per unit.

6.3.3.2 Other Parking Utilization Surveys

To further justify the proposed parking supply, past parking demand surveys from LEA Consulting's existing database were reviewed for four comparable residential sites. The proxy sites selected are located within the City of Mississauga, all in Parking Precinct 4. They have similar high-rise residential contexts and are all rental buildings.

The Transit Score and Walk Score were noted as a simple metric to compare the walkability and transit accessibility of each site. The subject site has a relatively high Walk Score of 80 due to the abundance of nearby amenities, primarily provided within Dixie Mall itself. However, it has a relatively low Transit Score of 37 due to the limited number of local bus routes available within the vicinity, and the distance to higher order transit.

The transit score is expected to increase with the proposed MiWay improvements discussed in Section 3.2. The site is also accessible to regional transit by way of Dixie GO and Long Branch GO Stations, which are accessible via local transit and active transportation modes. As such, the selected sites are considered to be suitable proxy site locations to assess the appropriateness of the proposed parking rates and supply for the development.

Table 6-7 shows the comparable proxy sites and the peak parking demand observed during the survey period. Detailed survey data summaries are provided in Appendix I.

Table 6-7: Historical Proxy Residential Parking Utilization Survey Results

Proxy Site Location	Site Stats	Walk Score/Distance to Higher-Order Transit	Survey Period	Observed Max. Parking Demand Rate	
				Spaces	Rate/Unit
1750 Bloor St (Precinct 4)	11-storey rental apartment; 153 units (150 occupied)	**Walk Score:** 68 **Transit Score:** 53 **Transit Context:** served by 2 local bus routes; 15 min bus ride to Kipling GO.	Thur. Feb 28, 2019 (6 PM – 1 AM) Fri. Mar 1, 2019 (6 PM – 1 AM) Sat. Mar 2, 2019 (6 PM – 1 AM) Sun. Mar 3, 2019 (6 PM – 1 AM)	Res: 120 Vis: 16	Res: 0.80 Vis: 0.11 Total: 0.91
3315 Fieldgate Dr (Precinct 4)	11-storey rental apartment; 149 units (147 occupied)	**Walk Score:** 68 **Transit Score:** 53 **Transit Context:** served by 2 local bus routes; 15 min bus ride to Kipling GO.	Thur. Feb 28, 2019 (6 PM – 1 AM) Fri. Mar 1, 2019 (6 PM – 1 AM) Sat. Mar 2, 2019 (6 PM – 1 AM) Sun. Mar 3, 2019 (6 PM – 1 AM)	Res: 121 Vis: 13	Res: 0.82 Vis: 0.09 Total: 0.91
1055 Bloor St (Precinct 4)	18-storey rental apartment; 323 units (fully occupied)	**Walk Score:** 69 **Transit Score:** 53 **Transit Context:** served by 2 local bus routes; 25 min bus ride to both Dixie GO and Kipling GO.	Thur. Oct 24, 2019 (11 PM – 3 AM) Fri. Oct 25, 2019 (11 PM – 3 AM)	Res: 275 Vis: 14	Res: 0.85 Vis: 0.04 Total: 0.89
3480 Havenwood Dr (Precinct 4)	8-storey rental apartment; 132 units	**Walk Score:** 59 **Transit Score:** 51 **Transit Context:** served by 2 local bus routes; 15 min bus ride to Kipling GO.	Thur. Aug 11, 2022 (6 PM – 1 AM) Fri. Aug 12, 2022 (6 PM – 3 AM) Sat. Aug 13, 2022 (12 PM – 3 AM) Fri. Aug 19, 2022 (6 PM – 3 AM) Sat. Aug 20, 2022 (12 PM – 3 AM)	Res: 103 Vis: 5	Res: 0.78 Vis: 0.04 Total: 0.82
Subject Site: 1250 South Service Road	**3 buildings: 8-19 stories, 159, 338 and 500 units Total: 997 units**	**Walk Score:** 80 **Transit Score:** 37 **Transit Context:** served by 2 local bus routes; 20 min bus ride to both Dixie GO and Long Branch GO.	**Proposed Rates**		**Res: 0.85 Vis: 0.15 Total: 1.00**

Based on the historical survey results, the observed peak residential parking demand at the proxy sites ranges from 0.78 to 0.85 spaces per unit, despite the zoning by-law requiring a parking supply of 1 space per unit for apartment units in Parking Precinct 4. These observed trends indicate that the proposed residential parking

supply of 0.85 spaces per unit will sufficiently meet the demand of future residents of the subject site, since residents of existing buildings located Precinct 4 are already utilizing alternatives modes of transportation for primary trips. This parking rate is also supportive of local policies to reduce parking, as discussed.

Similarly, the observed peak visitor parking demand at the proxy sites ranges from 0.04 to 0.11 spaces per unit, despite the zoning by-law requiring a parking supply of 0.2 spaces per unit for Parking Precinct 4. Therefore, the proposed visitor parking supply of 0.15 spaces per unit will sufficiently meet the future visitor demand of the subject site.

6.3.3.3 Development Precedents

In addition to the data collected above, several recent developments in Mississauga have sought to provide a reduced residential parking supply to support the City's Multi-Modal City and urban planning goals.

A review of development applications sharing a similar transportation context to the subject site, was conducted. The locations of the precedent sites are shown in Figure 6-3, and the development and location context for each is summarized in Table 6-8. The development statistics and proposed parking supply rates presented are from the respective transportation impact studies, parking justification studies or city council recommendation reports for each application, excerpts from which are provided in Appendix J.

Figure 6-3: Precedent Site Locations

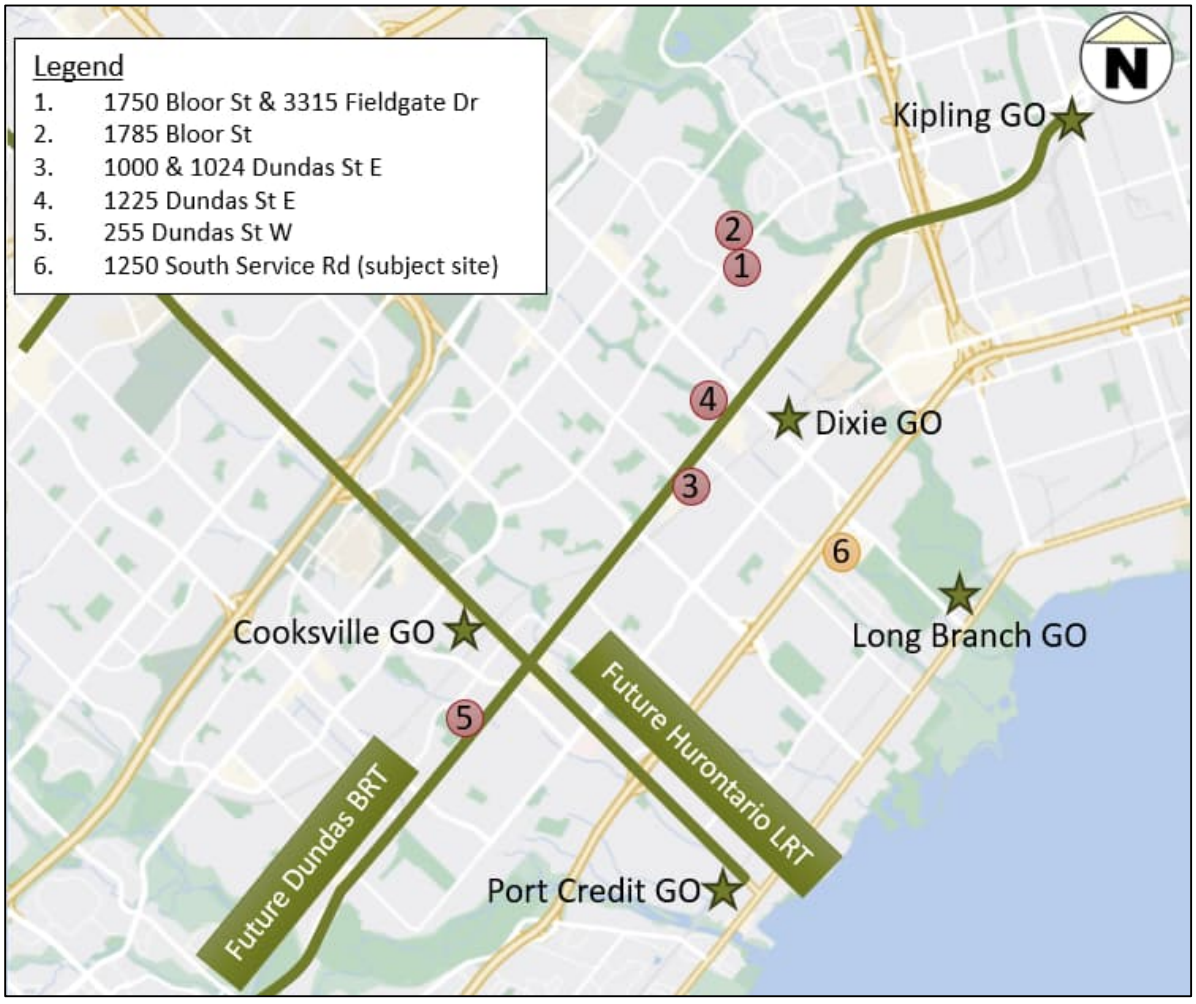


Table 6-8: Recently Pursued or Approved Residential Parking Rates

#	Site Location	Development Context	Unit Breakdown	Existing Transportation Context	Proposed Parking Rate (spaces/unit)	Application Status
1	1750 Bloor St & 3315 Fieldgate Dr (Precinct 4)	258 new units + 302 existing units	1-Bed: 54% 2-Bed: 43% 3-Bed: 3%	**Walk Score:** 68 **Transit Score:** 53 **Transit Access:** served by 2 local bus routes; 15-min bus ride to Kipling GO.	Res: 0.80 Vis: 0.09	Approved (By-law 0073-2022)
2	1785 Bloor St (Precinct 4)	238 new units + 76 existing units	Bachelor: 6% 1-Bed: 29% 2-Bed: 52% 3-Bed: 13%	**Walk Score:** 67 **Transit Score:** 53 **Transit Access:** served by 2 local bus routes; 15-min bus ride to Kipling GO.	Res: 0.77 Vis: 0.15	Application in Progress (OZ/OPA 22-14 W3)
3	1000 & 1024 Dundas St E (Precinct 3)	3 buildings: 543 units, 750 m^2 retail GFA	Bachelor: 43% 1-Bed: 31% 2-Bed: 26% 3-Bed: <1%	**Walk Score:** 84 **Transit Score:** 52 **Transit Access:** served by 3 local bus routes; 15-min bus ride to Dixie GO.	Res: 0.68 Vis: 0.12 Retail: shared with visitors	Application in Progress (OZ/OPA 22-18 W1)
4	1225 Dundas St E (Precinct 3)	462 condo units, 34 townhouse units, 676 m^2 retail GFA	1-Bed: 56% 2-Bed: 35% 3-Bed: 9%	**Walk Score:** 87 **Transit Score:** 54 **Transit Access:** served by 3 local bus routes; 15-min bus ride to Dixie GO.	Apartment Res: 0.51 Vis: 0.10 Townhouse Res: 0.90 Vis: 0.18	Application in Progress (OZ/OPA 22-20 W3)
5	255 Dundas St W (Precinct 3)	392 units, 1,288 m^2 retail GFA	1-Bed: 59% 2-Bed: 34% 3-Bed: 7%	**Walk Score:** 85 **Transit Score:** 59 **Transit Access:** served by 7 local bus routes; 16-min walk or 10-min bus ride to Cooksville GO.	Res: 0.85 Vis: 0.15	Application in Progress (OZ 21-004 W7)
6	**Subject Site: 1250 South Service Road (Precinct 4)**	**3 buildings: 997 units**	**1-Bed: 65% 2-Bed: 20% 3-Bed: 15%**	**Walk Score:** 80 **Transit Score:** 37 **Transit Access:** served by 2 local bus routes; 20-min bus ride to Dixie GO or Long Branch GO.	**Res: 0.85 Vis: 0.15**	**Proposed**

The future transportation context of the subject site is anticipated to be similar to that of the precedent developments in multiple ways.

Firstly, the pedestrian connectivity and transit options will both be improved in the study area as the development is built-out. Specifically, active transportation improvements adjacent to the site will be provided via implementation of the Dixie Road bicycle lanes from Rometown Drive to Lakeshore Road East along with a west side multi-use trail (MUT), east side sidewalk, and sidewalks along South Service Road.

Additionally, improvements to the MiWay bus route in the area are proposed to include a re-routing of Route 5 so that it will travel along Dixie Road instead of Ogden Avenue South Service Road to Lakeshore Road East, making for a seamless connection to the future higher order transit planned for Lakeshore Road East. It is therefore anticipated that the area will become much less reliant on vehicles in the future, similar to the areas of the other developments listed in the table.

Additionally, the precedent developments represent the vision of dense, mixed-use communities that will provide an interconnected multi-modal transportation network in the city. The subject site shares similarities with the precedent developments as each seek to add significant residential density to the surrounding community, while capitalizing on proposed or planned transit improvements underway.

A clear trend of providing reduced residential parking is observed within each of the comparable developments. The proposed residential parking rates of such developments are comparable to the proposed development's parking supply.

As previously mentioned, Mississauga's By-law 0225-2007 provides amended parking rates that reflect more appropriate rates for dense, compact, mixed-use built form in proximity to transit options. Despite this, lower rates are still being proposed. Since the subject site area is expected to exhibit these characteristics and enhance transit usage, it is anticipated that the proposed reduced parking supply is appropriate and can be justified based on the precedent developments also exhibiting these characteristics.

6.3.3.4 Residential Tenure

It is understood that the City of Mississauga sets different parking standards for condominiums and rental apartments. The set of proxy sites and precedent developments considered in this study represent a variety of tenure since the tenure of the proposed development is unconfirmed at this time.

It is noted that residential condominium buildings do not preclude rental tenure. According to the Canadian Mortgage and Housing Corporation (CMHC), many condominium buyers purchase their units as an investment and plan to rent them out. Therefore, it is anticipated that the parking demand would be similar between condos and rentals.

In addition, a reduced parking supply has been proposed for the subject site, as a car-free lifestyle will be encouraged and supported through improvements to the local multi-modal transportation network. A reduced parking demand is expected from residents of the proposed development because of this, no matter the tenure.

Furthermore, LEA completed a review of the Zoning By-law parking requirements for all 25 municipalities in the Greater Toronto Area, in order to determine if other municipalities differentiate between rental and condominium tenure for parking requirements. The results are summarized in Table 6-9.

Table 6-9: Jurisdictional Review of Zoning By-laws

Municipality	Current Zoning By-Law	Differentiation between Tenure Type?
York Region		
Aurora	Zoning By-law 6000-17	No
East Gwillimbury	Zoning By-law 2018-043	No
Georgina	Zoning By-law 500	No
King	Zoning By-laws 74-53 & 2017-66	No
Markham	Zoning By-law 28-97	No
Newmarket	Zoning By-law 2010-40	No
Richmond Hill	Zoning By-law 111-17	No
Vaughan	Zoning By-law 001-2021	No
Whitchurch-Stouffville	Zoning By-law 2010-001-ZO	No
Halton Region		
Burlington	Zoning By-law 2020	No
Halton Hills	Zoning By-law 2010-0050	No

Municipality	Current Zoning By-Law	Differentiation between Tenure Type?
Milton	Zoning By-laws 144-2003 & 016-2014	No
Oakville	Zoning By-laws 2014-014 & 2009-189	No
Peel Region		
Brampton	Zoning By-law 270-2004	Yes
Caledon	Town of Caledon Zoning By-law	No
Mississauga	Zoning By-law 0225-2007	Yes
Durham Region		
Ajax	Zoning By-law 95-2003	No
Clarington	Zoning By-law 84-63	No
Oshawa	Zoning By-law 60-94	Yes
Pickering	Zoning By-law 7553/17	No
Scugog	Zoning By-law 14-14	No
Uxbridge	Zoning By-law 81-19	No
Whitby	Zoning By-law 2585, 1784 and 5581-05	No
Brock	Zoning By-law 287-78-PL	No
City of Toronto		
Toronto	Zoning By-law 569-2013	No

Overall, it was determined that only 12% (3/25) of municipalities differentiate between rental and condominium tenure within their Zoning By-law. Therefore, it is evident that tenure type is not a significant factor in parking demand and the acceptance of the observed residential parking rates at the rental apartment buildings are considered good practice.

6.3.4 Retail Parking Demand

A parking utilization study was undertaken at Dixie Outlet Mall to determine the existing retail parking demand on the site in order to support a reduction in the existing retail parking supply. The parking utilization study was undertaken as per the *City of Mississauga's Terms of Reference for Parking Utilization Studies for Site Specific Applications*. The guidelines require parking utilization studies to be undertaken for a total of six (6) days across two (2) consecutive weeks.

Accordingly, the parking utilization survey was undertaken between October 28th and November 6th, 2022 in the Dixie Outlet Mall parking lot. Surveys were completed during the business hours of Dixie Outlet Mall (10:00 am – 9:00 pm on weekdays, 10:00 am – 7:00 pm on Saturdays, 11:00 am – 6:00 pm on Sundays), with observations being made every half hour.

A map of the surveyed parking lot is provided in Figure 6-4.

Figure 6-4: Retail Parking Utilization Study Boundaries

During the study, a total supply of 2,800 spaces was observed in the Dixie Outlet Mall parking lot. An unmarked paved area was also observed in Zone I (shown in Figure 6-4), estimated to provide approximately 150 spaces, but was not included in the supply as no vehicles were observed using the unmarked area. Therefore, the total parking supply on the site is approximately 2,950 spaces.

It should be noted that 240 spaces were obstructed during the survey due to construction, bringing the effective supply to 2,560 spaces. A summary of the parking supply and corresponding supply rates are provided in Table 6-10.

Table 6-10: Dixie Outlet Mall Existing Parking Supply

Parking Supply		Retail GFA (m^2)		Parking Supply Rate (spaces/100m^2 GFA)	
Total Mall Parking Supply	**2,950**	Total Retail GFA	69,810	Existing Parking Supply	4.23
Unmarked Area Parking Supply (Not surveyed)	150				
Parking Supply Obstructed During Survey	240				
Effective Parking Supply During Survey	**2,560**			Effective Parking Supply During Survey	3.67

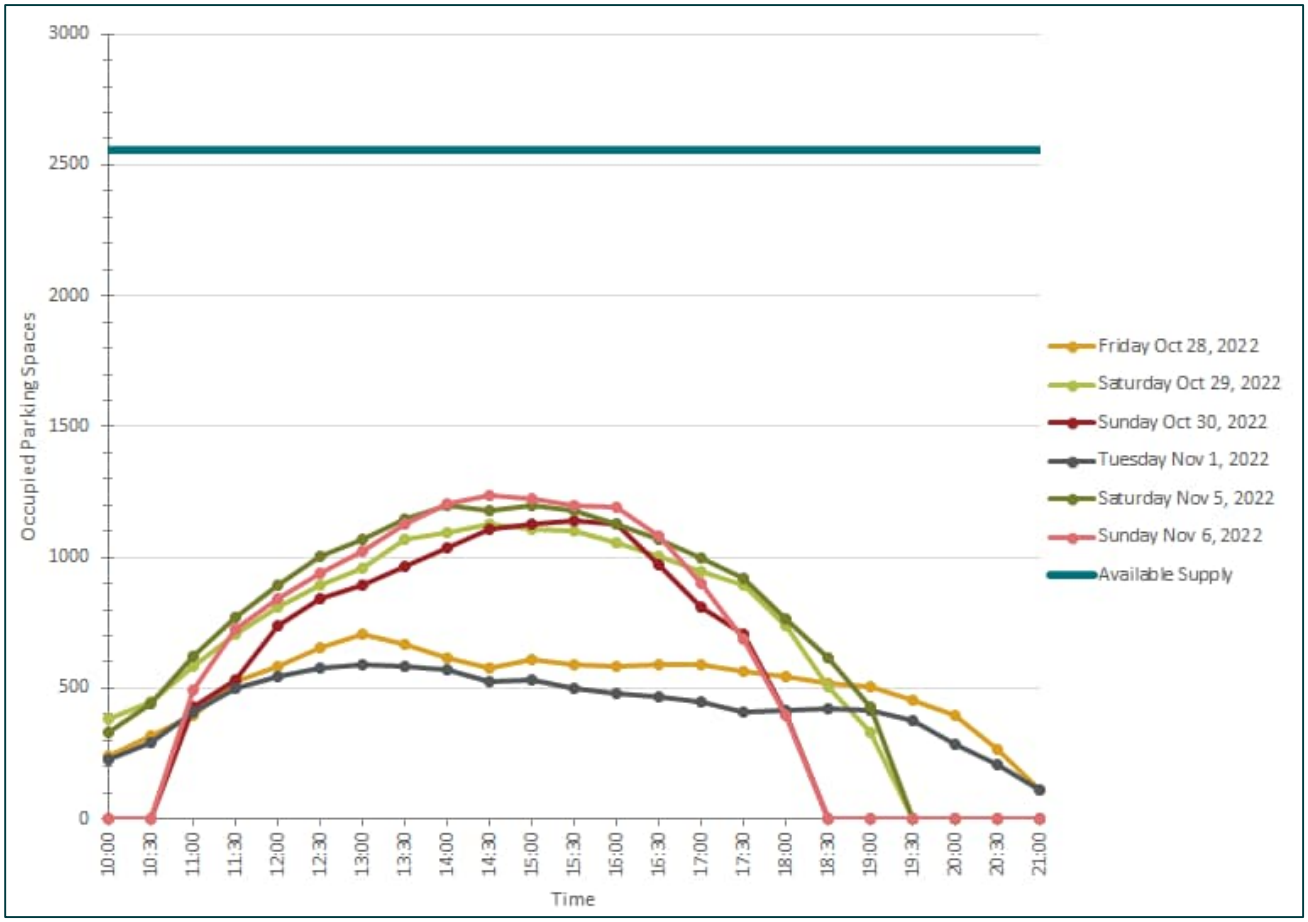
The existing mall provides a parking supply of 4.23 spaces per 100 m^2, however, during the parking utilization survey, only 3.67 spaces per 100 m^2 were available for use.

The occupied retail GFA at the time of the survey was 50,625 m^2, as per communications from SCREO.

The parking demand across the six survey dates is illustrated in Figure 6-5. The highest parking demand was observed on Sunday, November 6, 2022, at 2:30pm. Weekend parking demand trends were very consistent

throughout the survey, with the demand rising steadily until the peak around 2:30pm and then diminishing through the rest of the day. Weekday parking demand is more consistent through business hours, however lower overall compared to the weekend demand.

Figure 6-5: Retail Parking Utilization Survey Data



During the survey, a peak retail parking demand of 1,238 spaces was observed. Considering the occupied retail GFA of 50,625 m^2, the parking demand was 2.45 space per 100 m^2. Adjusting for time of year using the Monthly Adjustment Factor of 0.76 based on the *Urban Land Institute's Shared Parking* (see Appendix I), the maximum demand in the busiest season of the year (December) would be 1,629 spaces, or 3.22 spaces per 100 m^2.

LEA received the following comment on February 28, 2023, from City Parking staff regarding the December 2022 TIS submission:

"Staff advise that vacant retail store Gross Floor Area (GFA) is to be included in the survey calculations at the required zoning by-law parking rate. Please update calculations."

At the request of City staff, the zoning by-law required rate for Precinct 4 (5.4 spaces per 100 m^2 GFA) was applied to the vacant retail area (19,185 m^2) in place of parking demand data, resulting in a forecasted demand of 1,036 additional spaces for the vacant retail area.

Combining the observed demand and additional demand for retail vacancy, the peak retail parking demand on the subject site is 2,665 spaces, or 3.82 spaces per 100 m^2 GFA.

The survey results and demand calculations discussed above are summarized in Table 6-11. The full survey dataset is provided in Appendix I.

Table 6-11: Parking Utilization Study Results

Survey Date	Observed Peak Demand	Peak Demand, Adjusted for Peak Month[1]	Peak Demand Rate (spaces/100 m^2 GFA) – Adjusted for Peak Month[1]	Estimated Demand of Vacant Retail GFA	Total Peak Demand	Total Peak Demand Rate
Friday Oct 28, 2022	706	929	1.83	5.4 spaces per 100 m^2 * 19,185 m^2 = **1,036**	1965	2.81
Saturday Oct 29, 2022	1,126	1,482	2.93		2518	3.61
Sunday Oct 30, 2022	1,142	1,503	2.97		2539	3.64
Tuesday Nov 1, 2022	587	772	1.53		1808	2.59
Saturday Nov 5, 2022	1,199	1,578	3.12		2614	3.74
Sunday Nov 6, 2022	**1,238**	**1,629**	**3.22**		**2665**	**3.82**

[1]*Monthly adjustment factor for November applied as per Urban Land Institute's Shared Parking methodology for calculating maximum parking demand.*

It is expected that the future retail parking demand will be consistent with the data collected, as no significant changes are proposed for the mall, other than the reduction in GFA. Therefore, a minimum retail parking supply rate of 3.22 spaces per 100 m^2 is expected to be sufficient for the subject site. Following the methodology proposed by City staff, a parking supply rate of 3.82 spaces per 100 m^2 is justified.

Therefore, the proposed retail parking supply of 4.05 spaces per 100 m^2 retail GFA is supported by the results of the retail parking utilization survey completed at the subject site.

6.4 VEHICULAR PARKING SUMMARY

The justification for the proposed residential parking supply is summarized below:

- Zoning By-law 0225-2007 (Parking Precinct 4) minimum requirements:
  - Residential Requirement: 1,097 spaces (1.1 spaces per unit)
  - Visitor Requirement: 199 spaces (0.2 spaces per unit)
- Proposed parking supply:
  - Residential Supply: 848 spaces (0.85 spaces per unit)
  - Visitor Supply: 161 spaces (0.16 spaces per unit)
- Residential parking demand surveys at proxy sites:
  - Surveys completed at two sites in January 2024
  - Historical survey data from four sites
  - All residential sites located in Parking Precinct 4
  - Peak residential parking demand between 0.78 and 1.05 spaces per unit
  - Peak visitor parking demand between 0.04 and 0.11 spaces per unit
- Precedent development applications for residential developments in Parking Precincts 3 and 4:
  - Residential parking rates as low as 0.51 spaces per unit

- Visitor parking rates as low as 0.09 spaces per unit

The justification for the proposed retail parking supply is summarized below:

- Zoning By-law 0225-2007 (Parking Precinct 4) minimum requirements: 5.4 spaces per 100 m^2 GFA.
- Existing parking supply: 2,950 spaces (4.23 spaces per 100 m^2 existing GFA).
- Due to the expropriation of existing parking spaces on the site by the Ministry of Transportation, the Zoning By-law requirements is reduced to the post-expropriation supply of 2,671 spaces (3.83 spaces per 100 m^2 existing GFA). This rate can thus be applied to the future development.
- Proposed parking supply: 2,185 spaces (4.05 spaces per 100 m^2 future GFA).
- On-site parking demand survey:
  - Observed peak demand: 3.22 spaces per 100 m^2 GFA
  - Calculated peak demand, accounting for vacant mall area at by-law rate: 3.82 spaces per 100 m^2 GFA

In addition, the local policy context and future transportation context of the subject site support reduced parking requirements. Therefore, based on a review of applicable Mississauga planning policy, site context, observed parking demand, and precedent developments, the proposed rates are considered to be appropriate for the proposed development and will support and encourage travel to and from the subject site by alternative modes to the personal vehicle. Application of the proposed rates would support sustainable development of the subject site by avoiding an oversupply of parking and promoting non-single-occupant vehicle (non-SOV) travel for future residents and visitors of the proposed development.

In order to further support the pursued parking supply and encourage multi-mode travel to and from the subject site, a number of TDM measures have been recommended, as detailed in Section 7.

6.5 BICYCLE PARKING

The City of Mississauga Zoning By-law 0225-2007, recently amended by by-law 0118-2022 now requires bicycle parking for new developments. Bicycle parking will only be required for the proposed residential uses on site, as the retail is part of an existing building where bicycle parking is not required. The bicycle parking requirements for the proposed development are shown in Table 6-12.

Table 6-12: Bicycle Parking Requirements

Use	Units / GFA (m^2)	Bicycle Parking Space Requirement		Bicycle Parking Spaces Required		
		Short Term Rate	Long Term Rate	Short Term	Long Term	Total
Residential	997	0.05 spaces per unit	0.60 spaces per unit	50	598	648

In summary, a total of 648 bicycle parking spaces are required on the subject site. The development will meet or exceed the by-law requirements for bicycle parking. Secure bike storage will be provided on the ground floor of Blocks 2 and 3 and in the first underground parking level of Block 3. Short-term at-grade bicycle parking will also be provided in key locations on the site, including near building entrances and along trails.

6.6 LOADING REVIEW

The loading space requirements of the subject site are governed by the City's Zoning By-law 0225-2007. Loading spaces are required for each residential building. Table 6-13 lists the general loading requirements, which will be met by the proposed development.

Table 6-13: Loading Requirements

Loading Space Requirement (ZBL 0225-2007)	Total Required Loading Spaces	Proposed Loading Spaces
One loading space per apartment building	3	3

A functional design review, including swept path diagrams demonstrating vehicular and loading functionality of the subject site and proposed development, are provided in Appendix K.

7 TRANSPORTATION DEMAND MANAGEMENT PLAN

Transportation Demand Management (TDM) is a set of strategies which strive towards more efficient transportation networks by influencing travel behavior and ultimately reducing the need for single-occupant-vehicle (SOV) travel. Effective TDM measures can reduce vehicle usage and encourage people to engage in more sustainable methods of travel.

The City of Mississauga requires a TDM Scheme to be developed for large-scale development such as this one. TDM measures supported by the City that will be implemented in the proposed development are summarized in Table 7-1, along with the anticipated benefits. A TDM Checklist for the proposed development is provided in Appendix L.

Table 7-1: Summary of Recommended TDM Measures

TDM Measures	Benefits
Pedestrian Circulation	
▶ Located within walking distance of amenities and destinations ▶ Building entrances provide direct access to public streets, sidewalks, the proposed park, and nearby transit ▶ Passenger pick-up/drop-off areas located near the primary residential building entrances ▶ Sidewalks along proposed public street and within the site will be continuous and accessible ▶ Shelters and benches are provided at nearby transit stops ▶ Pedestrian amenities, wayfinding and lighting to be provided ▶ Safe pedestrian crossings to be provided throughout the site; nearby intersections are being reconfigured to reduce crossing distances (i.e. remove channelized turn lanes) ▶ Loading areas consolidated within ground floor of each residential area, away from pedestrian entrances.	▶ Provides amenities on-site, reducing the need to travel far ▶ Encourages people to conduct activity within walking distance ▶ Encourages travel by existing surface transit network ▶ Creates a safe and comfortable environment for active travel modes
Cyclist Orientation	
▶ Long-term and short-term bicycle parking provided in accordance with Zoning By-law minimum requirements ▶ Bicycle repair station provided for residents ▶ Provide wayfinding for cyclists on the site	▶ Supports the existing and future cycling network in study area ▶ Facilitates basic repairs / maintenance ▶ Encourages cycling as a travel mode
Transit Service	
▶ Provide information about public transit routes, schedules and fares in building lobbies	▶ Improves knowledge about available multi-modal travel options ▶ Capitalizes on planned transit improvements

TDM Measures	Benefits
Motor Vehicle Parking	
▶ Provide a reduced parking supply ▶ Provide priority parking for electric vehicles ▶ The majority of new parking will be located underground, screened from pedestrians	▶ Requires some residents to live car-free ▶ Avoids oversupplying parking where travel demand can be accommodated by alternative travel modes ▶ Encourages low-emission vehicles ▶ Reduces visual impact of parking
Incentives	
▶ TDM measures will reduce peak hour vehicle trips by >10% ▶ Parking cost will be unbundled from unit cost ▶ Property owner to become a member of local Transportation Management Association and appoint a TDM Coordinator	▶ Avoids oversupply of parking where travel demand can be accommodated by alternative travel modes ▶ Consistent TDM promotion

Overall, these TDM measures will reduce the reliance on vehicles for everyday travel, and the residents will be able to take advantage of the public transit and active transportation facilities in the area. The TDM measures summarized above are discussed in detail in the following sub-sections.

7.1 PEDESTRIAN CIRCULATION

TDM elements for the subject site have been planned in such a way that residents can access key destinations and run daily errands within walking distance, or by accessing the local transit network. The land use strategy and development form are crucial elements that directly affect the amount of travel, length of trips, and choice of travel mode. The goal for the development is to make non-SOV trips more viable.

Land Use Strategy: The development concept indicates plans for compact residential blocks that will be supported with retail in the existing Dixie Outlet Mall. Future residents will be able to walk to complete errands or leisure shopping activities. These varying land uses are expected to attract a significant number of internal trips as mentioned in Section 4, which would likely be completed via walking or cycling and therefore reduce vehicular traffic on the surrounding road network.

Development Form: Building entrances will provide direct access to South Service Road or the internal street network, which will provide continuous and accessible sidewalks, and safe crossings through the parking lot. A new public street will be provided, connecting directly to Haig Boulevard.

Pedestrian Amenities: In addition, pedestrian amenities such as frequent benches and garbage disposals, wayfinding and lighting will be provided to enhance the overall comfort of the site. Nearby transit stops have benches and shelters available as well.

Natural Space: A community park will also be provided as part of the proposed development. This space, in proximity to the residential buildings and existing retail, will provide natural community space to residents and visitors. The landscaping will also frame areas with high pedestrian traffic and meeting points.

Pick-Up/Drop-Off Facilities: A pick-up and drop-off area will be provided on the west side of the site, in close proximity to the primary residential entrances. This area will support the use of ride-sharing and ride-hailing, thereby reducing the need for auto-ownership and reducing the amount of SOV trips generated by the site.

Consolidated Loading: Finally, loading activities will take place within loading areas in the ground floor of each building, so should have minimal impacts to pedestrian flow.

7.2 CYCLIST ORIENTATION

As detailed in Section 2.4, a multi-use trail exists along the west side of Dixie Road. The trail will be extended north along Dixie Road and a new multi-use trail will be added to the north side of North Service Road as part of the proposed QEW Improvements.

The future trail network will connect the subject site to the existing cycling corridor along Lakeshore Road East, providing a safe route along the waterfront and to higher order transit service via Long Branch GO Station. Similarly, cycling infrastructure along Dixie Road will facilitate travel between the subject site and Dixie GO Station.

Bicycle Parking: The provision of bicycle parking facilities will support and encourage active transportation, while taking advantage of the planned cycling network nearby and within the broader area along Dixie Road. Short-term bicycle parking facilities should be located at-grade in a highly visible and convenient area close to building entrances and parks for residents and visitors. Long-term bicycle parking will be provided in secured and weather-protected locations, such as storage rooms and bicycle locker rooms located on the ground floor and first underground parking level of each building.

Bicycle Repair Station: The provision of a bicycle repair station increases the accessibility of cycling for residents and visitors as common tools will be available in the building. Therefore, residents don't need to worry about buying or keeping tools to maintain their bicycle. A bicycle repair station should be located at-grade or near long-term bicycle parking.

Cycling Information: It is also recommended that information packages be provided to residents to help encourage active transportation and increase awareness of different travel alternatives. The package should include information regarding the environmental and health benefits of cycling, rules of the road, and maps of active transportation infrastructure available in the surrounding area. Physical wayfinding should also be implemented through the development of the site, to assist cyclists in travelling between the site and the nearby dedicated facilities.

Cycling Amenities: Additional amenities for cyclists should be provided for residents. Amenities could include additional maintenance facilities such as bike wash stations, or could include community events like cycling skills training sessions or information sessions about nearby cycling routes. These amenities will further support residents who choose to use a bicycle for daily travel year-round.

7.3 TRANSIT SERVICE

The subject site is located in an area served by two MiWay bus routes that connect to nearby GO Transit and TTC services. As detailed in Section 2.2, the subject site is serviced by existing bus routes along South Service Road (Route 5), and Dixie Road (Route 4). Route 5 provides a connection to Long Branch GO Station along the Lakeshore West GO Line and the 508 TTC Streetcar Route to the south. Route 4 provides a connection to Dixie GO Station along the Milton GO Line to the north.

Major improvements are planned for the Lakeshore West and Milton GO Lines as part of the Metrolinx Regional Express Rail (RER) transit improvement plans. As indicated in GO Transit's 2020 strategic plan the

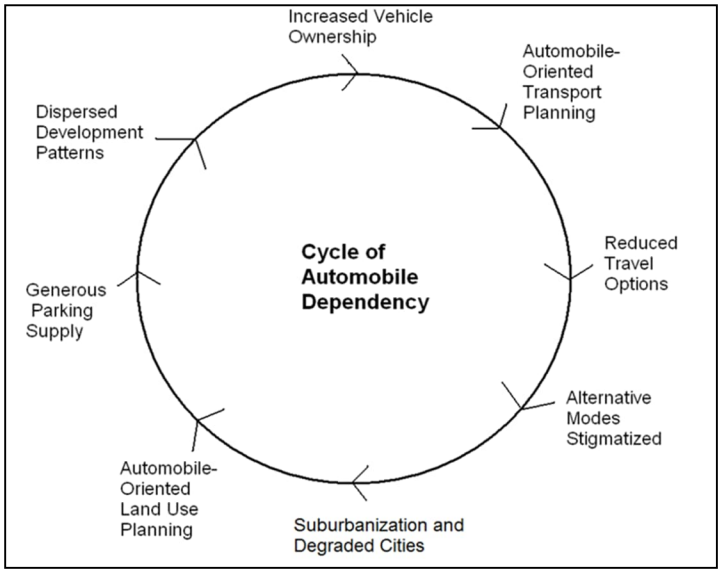
current goal for the Lakeshore West Line and Milton Line is to provide 15-minute or better train service at Long Branch Station and Dixie Station. Additionally, express service during high-demand periods and off-peak service every 30 minutes, is also planned at both stations. Improvements are also planned for the MiWay network as per the MiWay Five 2021-2025 study which seeks to improve connections to GO Stations and address service concerns voiced by the public. The proximity of the subject site to the identified corridors increases the desirability of transit usage for future residents of the proposed development. Both existing and future transit routes allow for residents and visitors to travel throughout Mississauga and to nearby Toronto conveniently with numerous connections to amenities, attractions, schools and employment destinations.

Transit Information: Public transit information should be made available to residents, such as MiWay and GO Transit route maps and seven-day schedule timetables for nearby stops. Route and scheduling information could be provided as displays in the lobby, or through real-time updated digital displays in a central location in the building. This will increase the likelihood of new residents incorporating alternatives in their travel patterns when residing at the development.

7.4 MOTOR VEHICLE PARKING

Minimize Parking: A reduced parking supply is proposed for the subject site. The proposed parking supply is deficient from Zoning By-law 0225-2007 requirements by 249 residential spaces and 38 visitor spaces. Parking availability can either encourage households to choose transit, or to purchase a vehicle. Figure 7-1 illustrates the self-reinforcing cycle of increased automobile dependency and urban sprawl, which has been reinforced by many transportation and land use planning practices observed during the last century. This was generally unintended, reflecting a lack of consideration of the consequences behind these decisions. For example, when deciding the amount of parking required for a particular type of land use, traffic engineers generally determine minimum parking rates disregarding the additional sprawl that may result from these supply rates.

Figure 7-1: Cycle of Automobile Dependency and Related Effects



Source: Evaluating Transportation Land Use Impacts Considering the Impacts, Benefits and Costs of Different Land Use Development Patterns 27 (February 2017).

As displayed by the figure it has been recognized that an oversupply of parking is becoming problematic in areas with strong transit access and active transportation networks, wherein the availability of parking greatly

reduces transit ridership, along with walking and cycling trips. Parking policies should be based on location, transit availability, context of the development, and strategic plans for the area outlined by the municipality. Mississauga addressed this issue though the Parking Masterplan and Implementation Strategy and associated zoning by-law amendments through recommending various parking reduction strategies for areas of the City with ample transit and active transportation options. Given that there are several transit and active transportation improvements planned for the area surrounding the subject site, there is substantial potential for a parking reduction strategy to reduce vehicle ownership and increase usage of the transit active transportation investments. Therefore, the provision of a reduced parking supply will be a key measure in ensuring that parking is not oversupplied, and vehicle dependency is not encouraged.

Prioritize low-emission vehicles: Priority parking will be provided for electric vehicles on the first parking level underground, to encourage residents to use low-emission vehicles.

7.5 INCENTIVES

Parking Disincentives: Parking spaces will be sold separately from units, to emphasize the cost of vehicle ownership on the transportation network as a whole.

TDM Support: The property owner will obtain a membership in the local Transportation Management Association and appoint a TDM Coordinator to maintain the promotion and utilization of the TDM Scheme.

7.6 TDM COST AND IMPACT

The estimated cost and impact of the proposed TDM Scheme is summarize in Table 7-2. Some measures that are already included in the site plan or that are required (i.e. bike parking), are included in the Design Cost. The proposed TDM Scheme is expected to result in a reduction of at least 10% of SOV trips.

Table 7-2: TDM Cost and Impact Summary

Category	TDM Measure	Estimated Cost	Impact (% Reduction in SOV Trips)
Pedestrian Circulation	Internal sidewalk network, connections to external sidewalk network, marked pedestrian crossings	Design Cost	1%
	Passenger pick-up/drop-off area	Design Cost	
	Pedestrian amenities (benches, waste disposal, lighting)	Design Cost	
Cyclist Orientation	Bicycle parking	Design Cost	5%
	Bicycle repair station	**$2,500** per station	
	Wayfinding	Design Cost	
	Cyclist amenities	**$2,000** (community event) **$5,000** (bike wash station)	
Transit Service	Transit information packages	$1 per unit * 997 units = **$997**	1%
Motor Vehicle Parking	Reduced parking supply	Design Cost	2%
	Electric vehicle parking	Design Cost	
Incentives	TMA Membership	TBD	1%
	Estimated Total	**Approx. $10,497 + Design Costs**	**10%**

It should be noted that the 10% reduction in single-occupancy vehicle trips is expected to occur for short trips that will be become easier to accomplish by walking, cycling or transit due to the proposed TDM measures.

8 CONCLUSIONS & RECOMMENDATIONS

- Phase 1 of the proposed development at Dixie Outlet Mall will introduce 3 residential blocks with 4 high-rise towers on the northwest portion of the site. The western wing of the existing mall will be demolished. The development will add 997 residential units to the site and reduce the retail GFA by approximately 15,881 m^2, leaving a remaining 53,929 m^2 of retail GFA.
- The proposed residential buildings will be accessed via a new internal road network within the Dixie Outlet Mall parking lot, and the three buildings will share an underground parking lot with 848 residential parking spaces and 161 visitor parking spaces. In addition, 50 short-term bicycle parking spaces and 598 long-term bicycle parking spaces will be provided on the site. One loading space will be provided in each residential block.
- Dixie Outlet Mall is currently accessible via three driveways on South Service Road and two driveways on Dixie Road, although one driveway on Dixie Road at Rometown Drive will be removed in the future as the west leg of the intersection will connect to South Service Road instead of the mall parking lot. A new connection to Haig Boulevard is proposed as part of the development.
- The study area is located within the study area for the Detail Design and Class Environmental Assessment Study (EA Study) for Contract 2 of improvements to the QEW from east of Cawthra Road to east of Dixie Road. It is noted that the existing traffic conditions are based on the road network in place as of February 2024, despite construction being underway. For intersections significantly impacted by construction, traffic data from previous years was used, with growth factors applied to extrapolate to the 2024 horizon. The impacts of the proposed development have been assessed on the future transportation network brought upon the area as part of the EA Study improvements in the future horizon year of 2029.
- For the future background analysis, the signal timing plans have been adjusted since the intersections within the study area will change drastically from what is observed on-site today and the provided signal timing plans will no longer apply. However, the cycle length from such plans has been maintained while the splits have been adjusted to better serve the change in traffic patterns that will arise as a result of the reconfiguration of the area road network.
- Under future background conditions, some signalized intersections are expected to approach or exceed capacity due to major background developments and background growth. Intersections of concern include Dixie Road & North Service Road / QEW Westbound Off-Ramp, Haig Boulevard & South Service Road, Lakeshore Road East & Haig Boulevard, and Lakeshore Road East & Dixie Road. The unsignalized intersections are expected to perform well.
- The development is anticipated to generate 205 net trips during the AM peak hour (55 inbound and 150 outbound), -2 net trips during the PM peak hour (+14 inbound and -16 outbound) and -198 net trips during the Saturday peak hour (-102 inbound and -96 outbound). The reduction in vehicle trips generated by the site is driven by the loss of approximately 15,881 m^2 of retail space on the site.
- Under future total conditions, the signalized intersections that experience capacity constraints in the future background scenario are expected to exhibit better LOS and V/C due to the modified site-generated traffic and intersection reconfigurations. It is noted that the intersection of Dixie Road & Rometown Drive / South Service Road is expected reach a critical V/C ratio of 0.94 in future total conditions, but no movements are projected to operate above capacity. It is recommended that the City monitor this intersection to assess the operations as background developments and the subject

site are built out. All unsignalized intersections were observed to perform well under future total conditions. For the most part, queues are not expected to increase significantly between future background and future total conditions, and in many cases queues are expected to decrease due to the proposed development.

- Overall, the development is expected to have a positive impact on the surrounding road network, as some retail-generated vehicle trips will be removed while new residential trips are added. Although there are several constrained movements anticipated in the future total conditions, many of them are caused by background developments and growth, not the proposed development. Therefore, the impact of the proposed development on local traffic is acceptable.
- Residential parking is proposed to be provided at a rate of 0.85 spaces per unit for residents and 0.15 spaces per unit for visitors. This represents a reduction from the Mississauga By-law 0225-2007 Precinct 4 parking rate requirements. However, with the review parking demand data, precedent development applications, policy, and TDM, it is our professional opinion that the proposed parking supply can accommodate the parking demand expected from the proposed development.
- The proposed parking supply of approximately 4.05 spaces per 100 m^2 retail GFA will be provided for retail parking. Based on a parking utilization study on-site, demand for retail parking is much lower than by-law requirements, with maximum demand observed to be 3.22 spaces per 100 m^2 retail GFA. Along with policy review and proposed TDM measures, the proposed parking supply is expected to satisfy demand from the development.
- A total of 50 short-term and 598 long-term bicycle parking spaces are required according to the rates identified within the amended City of Mississauga Zoning By-Law. The development will meet or exceed this requirement.
- Three loading spaces will be provided in the residential development, satisfying the Zoning By-law requirements. The retail building will continue to be served by existing loading spaces.
- A robust set of TDM measures is recommended for the subject site in order to facilitate the necessary change in travel behaviour sought for the area and reduce single occupant vehicle (SOV) trips generated by the proposed development. Such measures that are recommended include bicycle parking facilities, ample pedestrian connections, parks and active transportation infrastructure, promotion of multi-modal travel alternatives, and a reduced parking supply from the current by-law requirements.

APPENDIX A

Terms of Reference & Responses

LEA Consulting Ltd.
625 Cochrane Drive, 9th Floor
Markham, ON, L3R 9R9 Canada
T | 905 470 0015 F | 905 470 0030
WWW.LEA.CA

October 1, 2022 **Reference Number:** 19373

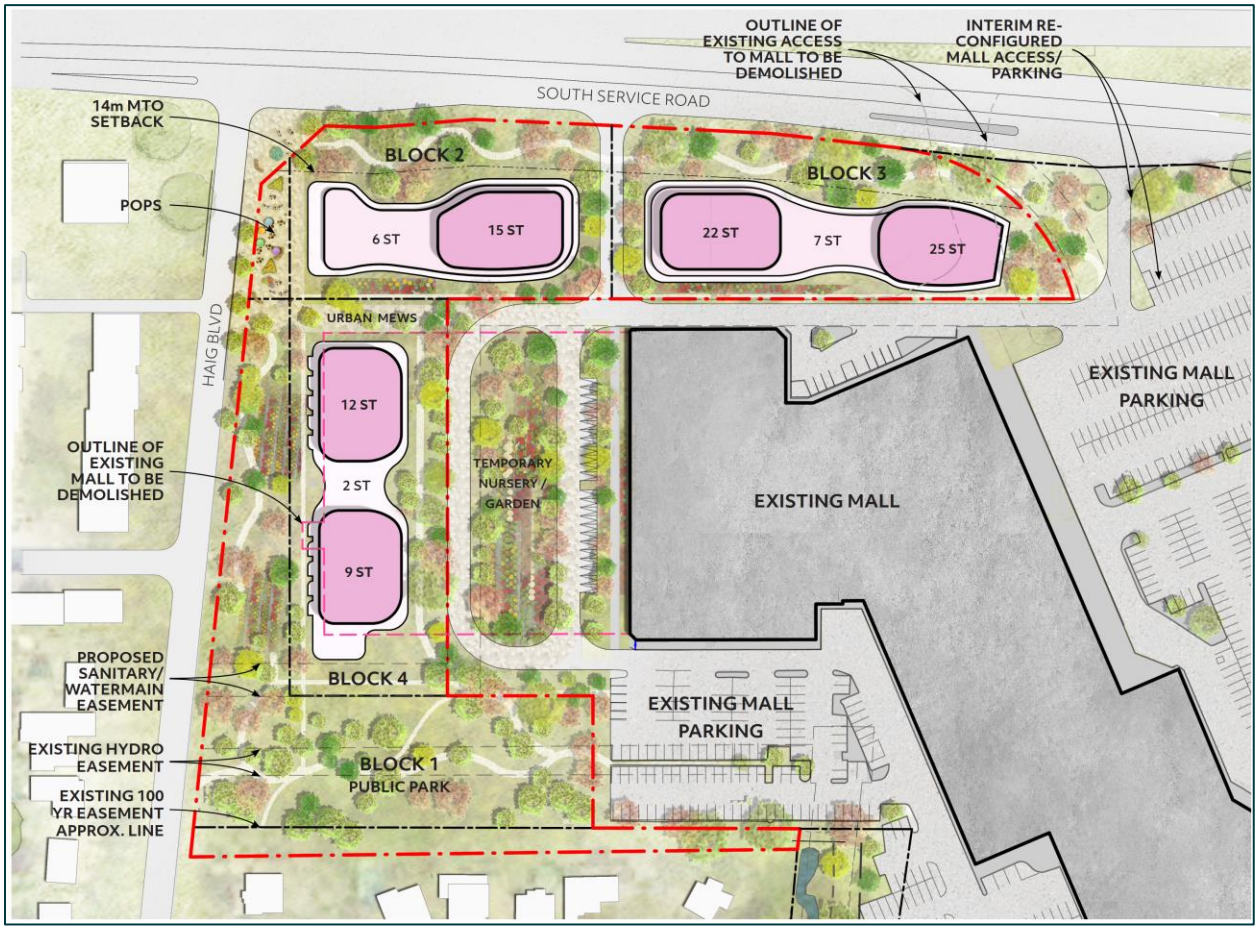
Ryan Au
City of Mississauga
300 City Center Drive
Mississauga, ON, L5B 3C1

RE: Terms of Reference – Transportation Study
Dixie Mall Redevelopment – Phase 1
1250 South Service Road, City of Mississauga

We wish to confirm the following work plan for a Transportation Impact Study (TIS) in support of the Phase 1 redevelopment of the Dixie Outlet Mall located at 1250 South Service Road in the City of Mississauga. The proposed redevelopment consists of the partial removal of the existing mall and the construction of multiple individual developments facilitated via a number of subdivided blocks. Alongside the redevelopment, consideration will be given to ongoing works by the Ontario Ministry of Transportation (MTO) for Contract 2 of improvements to the QEW from east of Cawthra Road to east of Dixie Road. The subject site is illustrated in **Figure 1**, with the conceptual site plan illustrated in **Figure 2**.

Figure 1: Subject Site

Figure 2: Conceptual Site Plan



STUDY AREA & TRAFFIC DATA

The proposed study area includes the analysis of the following intersections:

1. Dixie Road & Sherway Drive
2. Dixie Road & QEW Ramp / North Service Road
3. Dixie Road & QEW Ramp / South Service Road
4. Dixie Road & North Mall Entrance / Rometown Drive
5. Dixie Road & South Mall Entrance
6. South Service Road & East Mall Entrance
7. South Service Road & Mid Mall Entrance
8. South Service Road & West Mall Entrance / Haig Boulevard

TRAFFIC ASSESSMENT & STUDY HORIZON YEAR

The study will focus on weekday AM and PM peak hour traffic operations, as well as the Saturday peak. The analysis will be undertaken using Synchro 11.0 based on the Highway Capacity Manual (HCM) 2000 Methodology. Movements will be deemed critical in terms of operation if they have a V/C of 0.85 for through/right movements and 0.95 for left movements, or if they experience LOS E (or worse).

A 5-year horizon of 2027 is proposed to assess future conditions.

It is understood that the detailed design for Contract #2 of the QEW improvements is underway and that the construction is anticipated to be completed in 2026 pending receipt of all necessary permits and approvals. Therefore, since the Contract #2 improvements are forthcoming and will greatly alter the travel patterns within the study area, LEA proposes to assess future background and future total conditions only, while omitting an existing conditions assessment, as the existing conditions form no baseline for the future context of the study area.

Consequently, LEA proposes to utilize the traffic demand estimates from the *QEW Improvements from Evans Avenue to Cawthra Road Preliminary Design and Class Environmental Assessment Study Traffic Analysis Final Report* (herein referred to as the "EA Traffic Report") prepared for the Ontario Ministry of Transportation (MTO) in November 2016. The EA Traffic Report provides estimates for the future interchange configuration under 2021 and 2031 demand levels for the weekday AM and PM peak hours for the following intersections:

1. Dixie Road & Sherway Drive
2. Dixie Road & QEW Ramp / North Service Road
3. Dixie Road & QEW Ramp / South Service Road
4. Dixie Road & North Mall Entrance / Rometown Drive

Please note that LEA proposes to survey the remaining study area intersections under existing conditions and prorate the 2022 surveyed traffic volumes to 2027 levels to create the 2027 future background baseline condition.

BACKGROUND TRAFFIC

Road Network Improvements – LEA will note any road network improvements identified within the study area.

Background Development Traffic – LEA is requesting that City staff identify any relevant background developments and provide their supporting traffic study documents (if available).

General Corridor Growth Rate – LEA will review historical TMC data to identify appropriate corridor growth rates for major roadways within the study area.

TRIP GENERATION, DISTRIBUTION, & ASSIGNMENT

Trip generation associated with the proposed development will be forecasted using the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition. The general trip distribution and assignment of site traffic will be based on the latest Transportation Tomorrow Survey (TTS) data and existing traffic patterns. Trip assignment will reflect the configuration of site accesses, turning restrictions, and logical routings.

FUTURE TRAFFIC SCENARIOS

As previously mentioned, future background and future total analyses will be undertaken for the study area intersections over a five (5) year horizon to the year 2027.

REMEDIAL MEASURES

Any movements at the studied intersections that exceed a V/C ratio of 1.00 under future total conditions will be identified. If remedial actions such as signal optimization are unsuccessful, these will also be identified. If remedial measures are to be employed, a scenario will be provided demonstrating the change in intersection operations.

PARKING STUDY

A parking study will be undertaken at the subject site to assess the mall's current parking utilization and inform the amount of parking spaces that need to be provided to accommodate the reminder of the mall, with the addition of the Phase 1 development. In accordance with the City of Mississauga's Terms of Reference for Parking Utilization Studies, surveys will be completed two to three days per week over two consecutive weeks, with observations being made every half-hour during business hours (10:00 am – 9:00 pm on weekdays, 10:00 am – 7:00 pm on Saturdays, 11:00 am – 6:00 pm on Sundays).

TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGY

A robust and comprehensive TDM Plan will be completed and provide recommendations to promote alternate modes of travel. The TDM Plan will target all modes of transportation, and will provide transit, pedestrian, and cycling incentives combined with automotive disincentives. The TDM Plan will include a checklist and implementation plan.

OPERATIONS & SAFETY ASSESSMENT

LEA will perform an Operations and Safety Assessment for the site including all accesses and internal circulation. The assessment will include a review of:

- Pedestrian and vehicular sight line visibility with regard to ingress and egress
- Detailed turning movements for the most constrained vehicles expected (e.g. access, dead end drive aisle, etc.)
- Gaps and queuing
- Intersection capacity and level of service

Please note that the last three items will be included as part of the intersection capacity analysis assessments detailed above.

Should you have any questions regarding this Terms of Reference, please do not hesitate to contact the undersigned at (905) 470-0015 ext. 354 (ZGeorgis@lea.ca).

Yours truly,

LEA CONSULTING LTD.

Zara Georgis, M.Eng., P.Eng.
Project Manager, Transportation Engineering and Planning

Dana Usaty

From: Michael Turco <Michael.Turco@mississauga.ca>
Sent: January 31, 2024 7:20 AM
To: Zara Georgis
Cc: Mark Mueller; Kelsey Waugh; Harkarandeep Bains
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Good morning Zara,

Thanks for confirming with the MTO and Region of Peel staff. Based on the Region's response, they have indicated that "some type of analysis of the current condition should be incorporated into the study." I would agree that an existing conditions analysis is still important to establish a baseline and demonstrate the anticipated incremental impact to traffic volumes and operating conditions due to the proposed development. We would amenable to your suggestion below in using a combination of new and old counts. I understand calibrating will be challenging but as long as the methodologies and constraints are clearly documented, this approach would be acceptable. Considering how long term the construction project will be, new counts could arguably be considered representative of "existing conditions."

Regards,

Michael Turco, C.E.T., CPT, MITE
Traffic Planning Coordinator
T 905-615-3200 ext. 3597

From: Zara Georgis <ZGeorgis@lea.ca>
Sent: Tuesday, January 30, 2024 11:51 AM
To: Michael Turco <Michael.Turco@mississauga.ca>
Cc: Mark Mueller <Mark.Mueller@mississauga.ca>; Kelsey Waugh <KWaugh@lea.ca>; Harkarandeep Bains <HBains@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Michael,

I hope this message finds you well. We have received confirmation from both Region and MTO (attached) expressing their acceptance of our previous methodology, with some clarifications. They have indicated that, considering the limitations, an existing traffic conditions scenario is not requested.

In light of this, we seek your confirmation to proceed with the resubmission using the established approach.

Thank you for your prompt attention to this matter.

Thanks,

Zara Georgis, M.Eng., P.Eng.
Project Manager, Transportation Planning & Engineering
LEA Consulting Ltd.
C: 437-328-6306 E: ZGeorgis@lea.ca W: www.LEA.ca

From: Michael Turco <Michael.Turco@mississauga.ca>
Sent: Thursday, November 16, 2023 8:30 AM
To: Zara Georgis <ZGeorgis@lea.ca>
Cc: Mark Mueller <Mark.Mueller@mississauga.ca>; Kelsey Waugh <KWaugh@lea.ca>; Harkarandeep Bains <HBains@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Good morning Zara,

Thanks for reaching out regarding the TIS methodologies for the subject site. I agree, the pandemic and ongoing construction in the area do make things challenging for this one. As many of the study area intersections are under the jurisdiction of the MTO and the Region of Peel, have you confirmed methodologies with their staff? We need to ensure they are satisfied with whatever approach is carried forward.

Thank you,

Michael Turco, C.E.T., CPT, MITE
Traffic Planning Coordinator
T 905-615-3200 ext. 3597

From: Zara Georgis <ZGeorgis@lea.ca>
Sent: Wednesday, November 15, 2023 4:59 PM
To: Michael Turco <Michael.Turco@mississauga.ca>
Cc: Mark Mueller <Mark.Mueller@mississauga.ca>; Kelsey Waugh <KWaugh@lea.ca>; Harkarandeep Bains <HBains@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Michael,

I hope you are doing well. Further to the below, we have summarized all TMC data available for the requested study area intersections.

I wanted to confirm the approach once again with respect to existing, future background and future total conditions since we do not have pre-construction/pre-pandemic traffic counts for all intersections. Since the EA counts are not preferred by the City, would you like us to use the 2017 & 2018 counts at the available intersections, and then survey the remainder and use that as an existing conditions scenario? As mentioned before, since the 2017 & 2018 counts are outdated, and the area is currently under construction, it will be very difficult to calibrate the various counts to existing conditions or model the future with the QEW improvements, and will not be reflective of any real circumstances.

Could you kindly confirm how you would like us to proceed?

Location	Spectrum				
Dixie Rd & Sherway Dr	2022-05-03		2020-11-04		2018-03-1
Dixie Rd & QEW Ramp/North Service Rd	2021-10-21	2020-10-27	2019-09-26	2018-10-16	20

Dixie Rd & QEW Ramp/South Service Rd	2020-10-27	2019-09-26	2018-02
Dixie Rd & North Mall Entrance/Rometown Drive	2022-05-03		2017-11-07
Dixie Rd & South Mall Entrance	X		
South Service Rd & East Mall Entrance	X		
South Service Rd & Mid Mall Entrance	X		
South Service Rd & West Mall Entrance/Haige Blvd	X		
South Service Rd & Ogden Avenue	X		
Lakeshore Rd East & Haig Boulevard	X		
Lakeshore Rd East & Dixie Rd	2022-05-03	2018-03-08	2018-02
Atwater Ave & Haig Boulevard	X		

Thanks,

Zara Georgis, M.Eng., P.Eng.
Project Manager, Transportation Planning & Engineering
LEA Consulting Ltd.
T: 905-470-0015 ext. 354 C: 437-328-6306 E: ZGeorgis@lea.ca W: www.LEA.ca

From: Michael Turco <Michael.Turco@mississauga.ca>
Sent: Friday, October 6, 2023 7:37 AM
To: Zara Georgis <ZGeorgis@lea.ca>
Cc: Mark Mueller <Mark.Mueller@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Good morning Zara,

Thank you for your email. Please find Traffic's responses below in green:

Should you have any other questions, please feel free to contact me.

Regards,

Michael Turco, C.E.T., CPT, MITE
Traffic Planning Coordinator
T 905-615-3200 ext. 3597
michael.turco@mississauga.ca

City of Mississauga | Transportation & Works Department
300 City Centre Drive | Mississauga ON | L5B 3C1

From: Zara Georgis <ZGeorgis@lea.ca>
Sent: Thursday, October 5, 2023 10:43 PM
To: Michael Turco <Michael.Turco@mississauga.ca>; Mark Mueller <Mark.Mueller@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Michael and Mark,

I hope you both are doing well.

In advance of the resubmission for Phase 1 of Dixie Outlet Mall, could you kindly confirm and/or clarify the below:

1. City of Mississauga Comment #98: "Staff advise that Gross Floor Area is not the same as Ground Floor Area. Please update calculations.
    - Ground Floor Area was used because the basement is used for storage. Please confirm this is acceptable.
2. City of Mississauga Comment #176: "*[TRAFFIC IMPACT STUDY] A Transportation Impact Study prepared by LEA Consulting Ltd. dated December 2022 was submitted in support of the proposed development. Based on the information provided to date, staff provide the following comments: (A) GENERAL (iv) Modelling Software As per the ToR, the modelling analysis shall be undertaken using VISSIM. Please revise accordingly."*
    - As discussed at our meeting on June 2nd, 2023, it is our understanding that the City will accept SimTraffic in lieu of VISSIM. Please confirm. Confirmed.
3. City of Mississauga Comment #176: "*(B) EXISTING CONDITIONS (i) Existing Conditions Scenario As per the ToR, an Existing Conditions Scenario is required to be analyzed. While it is understood that there are infrastructure improvements currently under construction, it is crucial to complete an Existing Conditions Scenario to establish a baseline, compare to the future background/total scenarios, and identify any existing transportation constraints/issues. The Existing Conditions Scenario should assume configurations based on pre-MTO construction. (ii) Traffic Data While this report can reference and compare to the traffic volumes found in the QEW EA Study, the volumes should not be used directly. If new traffic counts cannot be completed due to the ongoing construction, preconstruction/pre-pandemic traffic counts should be utilized. Growth factors are to be applied to the traffic counts to mimic presumed existing traffic volumes. Please indicate the growth factors used for each roadway. The report must thoroughly justify all proposed growth rates and the methodology utilized to calculate them. Furthermore, all background work to calculate the growth rates must be appended to the report in a format that is easily verifiable to the reviewer.*
    - As discussed at our meeting on June 2nd, 2023, it is our understanding that the City is requesting an existing conditions scenario based on pre-construction/pre-pandemic traffic counts to be used as the baseline to compare future background/total scenarios. It is noted that future background/total scenarios will be hard to forecast since the City does not have any regional modelling to share for the QEW improvements.. As such, could the City provide appropriate growth rates to forecast the future scenarios? Please contact Tyler Xuereb from the City's Transportation Planning Section (tyler.xuereb@mississauga.ca, Ext. 4783) to confirm growth rates for the study area roadways that are under the City's jurisdiction. The Region and MTO would need to be contacted for growth rates on their respective roadways. The QEW Study should also be used as a reference to assist in establishing future traffic volumes.

Thanks,

Zara Georgis, M.Eng., P.Eng.
Project Manager, Transportation Planning & Engineering
LEA Consulting Ltd.
T: 905-470-0015 ext. 354 C: 437-328-6306 E: ZGeorgis@lea.ca W: www.LEA.ca

From: Michael Turco <Michael.Turco@mississauga.ca>
Sent: Wednesday, May 17, 2023 2:07 PM
To: Zara Georgis <ZGeorgis@lea.ca>
Cc: Kenneth Chan <KChan@lea.ca>; Trans Projects <Trans.Projects@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall - Background Development Traffic Update (Lakeview Village MZO)

External Sender

Good afternoon Zara,

Further to our meeting this morning, as you may be aware the Province has recently issued an MZO for Lakeview Village. Please ensure that the TIS for OZ-OPA 22-32 W1 1250 Dixie Road is revised to factor in the newly permitted densities for Lakeview Village (16,000 residential dwelling units).

Thank you,

Michael Turco, C.E.T., CPT, MITE
Traffic Planning Technologist
T 905-615-3200 ext. 3597
michael.turco@mississauga.ca

City of Mississauga | Transportation & Works Department
300 City Centre Drive | Mississauga ON | L5B 3C1

From: Michael Turco
Sent: Tuesday, November 8, 2022 2:44 PM
To: Zara Georgis <ZGeorgis@lea.ca>
Cc: 'Kenneth Chan' <KChan@lea.ca>; 'Harkarandeep Bains' <HBains@lea.ca>; 'Karen Montain' <KMontain@lea.ca>; 'Dana Usaty' <DUsaty@lea.ca>; 'Mackenzie Riggin' <mriggin@lea.ca>; Trans Projects <Trans.Projects@mississauga.ca>; Ryan Au <ryan.au@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hello Zara,

Thank you for providing a Transportation Impact Study Terms of Reference for Phase 1 of the proposed redevelopment of Dixie Outlet Mall. Our comments on the Terms of Reference document, dated October 1, 2022 are as follows:

STUDY AREA & TRAFFIC DATA

- Through DARC 22/409, the City has requested “a fine-grained grid network of public roads be implemented throughout the subject site to assist the City in creating a multi-modal transportation network for the movement of people and goods which supports the creation of a more sustainable community.”
    - Based on the above, please ensure to include all new public intersections within the proposed development.
- Please also add the following study area intersections:

    - South Service Road & Ogden Avenue
    - Lakeshore Road East & Haig Boulevard
    - Lakeshore Road East & Dixie Road
    - Atwater Avenue & Haig Boulevard
    - All site accesses
- New traffic counts are to be compared to pre-pandemic counts to ensure that there are no major discrepancies. Please contact Tyler Xuereb from Transportation Planning Section (tyler.xuereb@mississauga.ca, Ext. 4783) for historical AADT data and Turning Movement Counts for roadways/intersections under the City of Mississauga's jurisdiction.
    - Availability of traffic data for Provincial and Regional roadways would need to be confirmed with the MTO and Region of Peel, respectively.

TRAFFIC ASSESSMENT & STUDY HORIZON YEAR

- A Phased Traffic Analysis that is supported by technical studies, including a Traffic Analysis to ensure there is adequate infrastructure available and to understand what infrastructure is required for each phase of development is required. The Phasing Plan / Study shall include but not be limited to:
    - (i) The cumulative impacts for each phase of development on the existing and proposed road network;
    - (ii) The required existing and proposed road network improvements for each phase of development;
    - (iii) Any road network improvements that are not available to the developer (i.e. external private lands) that are required to support the development shall be identified.
- The modelling analysis shall be undertaken using VISSIM.
    - A few key reasons for this are:
        - We need to understand the impact of Queues on the study area network, including how one intersection may impact adjacent study area intersections/ the network in the area.
        - Travel demand re-distribution as a result of increase travel demand to/from the area, including potential infiltration to adjacent existing neighbourhoods
        - Delays and travel time impacts to transit vehicles
    - Note the following requirements for the VISSIM analysis:
        - The consultant will be responsible to produce a calibrated/ validated VISSIM model to ensure the model is representative of existing conditions.
        - The consultant will be responsible for collecting all necessary data needed to calibrate/ validate the VISSIM model.
        - This VISSIM model shall be calibrated as per industry accepted guidelines (example Federal Highway Administration Microsimulation Guidelines).
- Existing, Future Background, and Future Total analysis scenarios required for the AM, PM, and SAT peak periods
- Horizon years shall consist of 5 years from the date of the study and each major phase of the development including an ultimate buildout phase

BACKGROUND TRAFFIC

- Please contact Tyler Xuereb from Transportation Planning Section (tyler.xuereb@mississauga.ca, Ext. 4783) to confirm growth rates for the study area roadways under the jurisdiction of the City of Mississauga.
    - Please confirm growth rates for Provincial and Regional roadways with the MTO and Region of Peel, respectively.
- All in-stream and recently approved background developments within approximately 1km from the subject site must be included. Please use the following link to gather information on any developments proposed in the area for background traffic: http://www.mississauga.ca/portal/residents/developmentinformation
- The Ontario Ministry of Transportation (MTO) has undertaken Detailed Design and a Class Environmental Assessment Study to examine the rehabilitation and improvement needs for the Queen Elizabeth Way (QEW) from Evans Avenue to Cawthra Road. Construction is now underway. Details can be found at http://www.qewdixiedetaildesign.ca/
- Please be advised that City Council has endorsed the Lakeshore Connecting Communities Transportation Master Plan which sets out a long-term vision for transit and corridor improvements along Lakeshore Road from 2020

to 2041 that will support waterfront development. Project details can be found at: https://www.mississauga.ca/projects-andstrategies/city-projects/lakeshore-connecting-communities/

TRIP GENERATION, DISTRIBUTION, & ASSIGNMENT

- Please ensure that the Trip Distribution and Assignment considers planned infrastructure improvements (e.g. QEW improvements, etc)

FUTURE TRAFFIC SCENARIOS

- As previously noted, horizon years shall consist of 5 years from the date of the study and each major phase of the development including an ultimate buildout phase

REMEDIAL MEASURES

- The physical and operational road network deficiencies identified in the TIS must be addressed and feasible solutions to mitigate these deficiencies identified. Functional design plans and detailed design drawings would be required for identified improvements to ensure their feasibility. A cost estimate and detailed design drawings must be provided for all identified infrastructure improvements.

PARKING STUDY

- The Traffic Section does not review Parking Studies. Please contact parkingstudy.review@mississauga.ca to confirm the Parking Study ToR.

OPERATIONS & SAFETY ASSESSMENT

- Please also include the following:
    - Ensure that the site accesses conform to all TAC standards (e.g. corner clearances, clear throat lengths, veh & ped sight line distances for ingress/egress, proximity/alignment to other driveways/roads, etc.); Provide confirmation and technical justification of whether the site access location(s) and design(s) are safe for all roadway users and why.
    - Truck Access and Circulation (AutoTurn Swept-Path Analysis) - ensure that truck traffic (garbage/loading/fire) can enter and exit the site in a forward motion and access to the garbage, loading, and fire route areas are functional. On separate plans, illustrate truck turning movements with one continuous path with AutoTURN and insert the design vehicles on the plan. The site must be able to accommodate the largest design vehicles which will be accessing the property. An evaluation of the parking areas and ramps using a PTAC design vehicle should also be included.

GENERAL

- Community Impacts: Any transportation related impacts on the existing community and comments from the public through the planning approvals process shall be addressed in the report.
- Signal timing plans for signalized intersections under the City's jurisdiction can be obtained from Jim Kartsomanis (Jim.Kartsomanis@mississauga.ca, Ext. 3964).
    - Availability of signal timing plans for Provincial and Regional signalized intersections would need to be confirmed with the MTO and Region of Peel, respectively.
- Traffic Control warrants are to be provided, where applicable.
- Detailed Recommendations regarding on-site/off-site roadway improvements, site access, site circulation, and TDM measures shall be made.
- The Terms of Reference must also be circulated to the MTO and Region of Peel for comments.

Should you have any questions, please feel free to contact me.

Thank you,

MISSISSAUGA

Michael Turco, C.E.T., CPT, MITE
Traffic Planning Technologist
T 905-615-3200 ext. 3597
michael.turco@mississauga.ca

City of Mississauga | Transportation & Works Department
201 City Centre Drive, Suite 800 | Mississauga ON | L5B 2T4

From: Zara Georgis <ZGeorgis@lea.ca>
Sent: Tuesday, October 4, 2022 9:44 AM
To: Ryan Au <Ryan.Au@mississauga.ca>
Cc: Kate Vassilyev <Kate.Vassilyev@mississauga.ca>; Kenneth Chan <KChan@lea.ca>; Harkarandeep Bains <HBains@lea.ca>; Karen Montain <KMontain@lea.ca>; Dana Usaty <DUsaty@lea.ca>; Mackenzie Riggin <mriggin@lea.ca>
Subject: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Ryan,

Kindly find attached TOR for the Phase 1 redevelopment of Dixie Outlet Mall.

Please confirm our study methodology given the ongoing works by the MTO Contract 2 improvements, as well as please provide any relevant background development documents that should be included in the study.

Thanks,

Zara Georgis, M.Eng., P.Eng.
Project Manager, Transportation Planning & Engineering
LEA Consulting Ltd.
425 University Avenue, Suite 400 | Toronto, ON | M5G 1T6
T: 905-470-0015 ext. 354 C: 437-328-6306 E: ZGeorgis@lea.ca W: www.LEA.ca

Dana Usaty

From: Paulina Armacinski <Paulina.Armacinski@mississauga.ca> on behalf of Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Sent: October 27, 2022 4:24 PM
To: Dana Usaty
Cc: Zara Georgis; Parkingstudy Review
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Hi Dana,

Yes – visitor and non-residential uses may be provided as shared parking (as per the Zoning By-law provision).

You may survey October 28th, 29th, 30th and November 1st.

Thank you for confirming.

If you have any further questions. Please let us know.

Paulina

Paulina Armacinski, BURPl., MEDI.
Transportation Planner
T 905-615-3200 ext.4362
Paulina.Armacinski@mississauga.ca

City of Mississauga | Transportation and Works Department,
Traffic Management & Municipal Parking Division

From: Dana Usaty <DUsaty@lea.ca>
Sent: Thursday, October 27, 2022 4:03 PM
To: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Paulina,

Regarding visitor parking, none will be provided in the residential buildings' underground lots, however we're intending for visitors to share parking with the retail in the surface lot since the by-law allows for sharing between non-residential uses and the retail parking supply will be sufficient. Is that acceptable?
The deadline for our client's submission is coming up fast, so we were hoping to start the survey this weekend. Would it be acceptable so survey Oct 28, 29, 30, and Nov 1, to avoid Halloween?

Thanks,
Dana

From: Paulina Armacinski <Paulina.Armacinski@mississauga.ca> On Behalf Of Parkingstudy Review
Sent: October 27, 2022 3:57 PM
To: Dana Usaty <DUsaty@lea.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Good afternoon Dana,

Thank you for the below update.

Redevelopment

- Since you have confirmed that there will be enough residential parking in order to meet Precinct 4 requirements, there will no longer be a need for residential parking surveys.
- Can you advise about the visitor parking requirements and whether they will meet the Precinct 4 parking requirements?
- Additionally, since the retail requirement will also meet the Precinct 4 requirements, there will no longer be a need for retail parking surveys.

Existing Dixie Outlet Mall

Staff cannot support the below surveying parameters, as have been suggested. October 31st is Halloween, which means there will be less demands/traffic at the Dixie Outlet Mall. Staff suggest the following surveying parameters instead:

- Week 1: November 3rd, 4th, 5th and 6th.
- Week 2: two of the busiest days from week 1 (to be surveyed and chosen from November 10th to 13th).
- Observations to be made every half hour during business hours (10:00 am – 9:00 pm on weekdays, 10:00 am – 7:00 pm on Saturdays, 11:00 am – 6:00 pm on Sundays).

Please be advised, the City's Zoning Department must confirm Zoning By-law requirements. Should Zoning identify that the changes within the application's proposal is in contravention of the City's Zoning By-law (i.e. the parking is deficient), staff may request for additional information and/or surveys at such a time. Currently, staff's comments are reflective and going off of the information as provided within the e-mail from October 26th at 3:48 p.m.

Please continually reference the City's Parking Terms of Reference in order to cross-reference requirements and components of surveying and a PUS.

If you have any questions, please do let us know. Please also confirm receipt of e-mail and whether surveying will be conducted as recommended by staff.

Thank you kindly in advance,
Paulina

MISSISSAUGA

Paulina Armacinski, BURPl., MEDI.
Transportation Planner
T 905-615-3200 ext.4362
Paulina.Armacinski@mississauga.ca

City of Mississauga | Transportation and Works Department,
Traffic Management & Municipal Parking Division

From: Dana Usaty <DUsaty@lea.ca>
Sent: Wednesday, October 26, 2022 3:48 PM
To: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Paulina,

We received new site statistics from the architect yesterday which now provide enough residential parking for Precinct 4 requirements. Therefore, we no longer plan to do residential proxy surveys. Another note from the architect is that the City Record from June 2018 indicates that the mall has a surplus of parking of 358 spaces, and the development will only reduce the parking supply by 131 spaces, we will not be deficient for retail either. The purpose of the parking study is primarily to understand parking utilization on-site.

For the retail parking utilization survey at Dixie Mall, we would like to survey 4 days Oct 28-31. Then, we will survey the busiest 2 days during the following weekend. As stated in the Parking Utilization Study Terms of Reference, observations will be made every half hour during business hours (10:00 am – 9:00 pm on weekdays, 10:00 am – 7:00 pm on Saturdays, 11:00 am – 6:00 pm on Sundays).

Let me know if any more information is required for the study.

Thank you,
Dana

Dana Usaty
Transportation Analyst
T: 905-470-0015, ext. 265 E: dusaty@lea.ca W: www.LEA.ca
LEA Consulting Ltd.

From: Paulina Armacinski <Paulina.Armacinski@mississauga.ca> On Behalf Of Parkingstudy Review
Sent: October 24, 2022 11:34 AM
To: Dana Usaty <DUsaty@lea.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Hi Dana,

Thanks for your below e-mail and clarifications.

Seeing how a reduction is being proposed for the redeveloped Phase 1 site, proxy survey data is required for all retail and residential/visitor (on top of surveying Dixie Outlet Mall). Therefore, we do require the below information within my e-mail to be answered (as was sent: October 21, 2022 at 2:37 PM; both the chart and questions).

We will review the surveying parameters you are requesting for Dixie Outlet Mall once we have all of the information in hand.

Additionally, the applicant shall be advised that the City's Zoning By-law 0117-2022 has been in effect since June 8th, 2022. The updated rates were derived from the Parking Regulations Study (PRS) which undertook a thorough review of

off-street parking rates throughout the City. These developed rates were carefully tailored to Mississauga's context as well as current needs. Staff recommended rates are those within the City's Zoning By-law 0117-2022; and we emphasize, these newly updated rates have been carefully researched, and are tailored to Mississauga's context, reflecting the City's existing and most recent parking needs. Staff have concerns with lower parking rates than those now in-effect, especially since the work has just recently been completed to validate the demands across Mississauga. Staff strongly advise against proposals with a parking deficiency. Although, should the Applicant still wish to pursue a reduction in parking spaces, the submission of a satisfactory and thorough PUS is required (in this case surveys for Dixie Outlet Mall in additional to proxy sites for the newly proposed developments within Phase 1 of the redevelopment and 6 surveying dates will be required for each survey i.e. 4 in week one and 2 of the busiest in week two).

We look forward to your follow-up.

Thank you,
Paulina

From: Dana Usaty <DUsaty@lea.ca>
Sent: Monday, October 24, 2022 10:58 AM
To: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi,

Yes, as the site is within Parking Precinct 4, there will be a deficiency proposed for both retail and residential parking. The developer is proposing the following rates, more in line with Parking Precinct 2 rates:

USE / UNIT TYPE	RECOMMENDED PARKING RATES (spaces / unit or 100 m^2)
1 bedroom	0.80 spaces/unit
2 bedroom	0.90 spaces/unit
3 bedroom	1.10 spaces/unit
Blended residential rate	0.85 spaces/unit
Visitor	0.15 spaces/unit
Retail	4.3 spaces/100m^2 + 10% share parking reduction

At this point, we are studying the retail parking utilization. Eventually, we may have to do proxy surveys to justify lower residential rates as well, but we haven't started looking into potential sites yet.

Thanks,
Dana

From: Paulina Armacinski <Paulina.Armacinski@mississauga.ca> On Behalf Of Parkingstudy Review
Sent: October 21, 2022 4:29 PM
To: Dana Usaty <DUsaty@lea.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Hi Dana,

Is there a deficiency in parking spaces that is proposed for the redeveloped Phase 1 blocks (i.e. the three mixed-use buildings)? Or is the deficiency only being proposed for the remaining portion of Dixie Outlet Mall?

Thank you for clarifying,
Paulina

From: Dana Usaty <DUsaty@lea.ca>
Sent: Friday, October 21, 2022 3:12 PM
To: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Paulina,

I can definitely check and provide this information.
I just wanted to clarify first – we're not looking to do proxy surveys here, we just want to survey the existing Dixie Mall parking lot to understand the current retail parking demand. Do you still need to know all of the proposed residential stats for that?

As for survey details, we're planning to survey Friday, Saturday and Sunday during 2 consecutive weeks, with observations to be made every half hour during business hours (10:00 am – 9:00 pm on weekdays, 10:00 am – 7:00 pm on Saturdays, 11:00 am – 6:00 pm on Sundays). Tentatively, we're looking at next weekend (Nov 28-30) and the weekend after (Nov 4-6). This was our plan as per the parking utilization survey terms of reference, where it asks for 2-3 days per week over two consecutive weeks. If you would rather us do 4 days one week, then the busiest 2 the next week, I'll have to re-confirm dates with our survey team.

Thank you,
Dana

Dana Usaty
Transportation Analyst
T: 905-470-0015, ext. 265 E: dusaty@lea.ca W: www.LEA.ca
LEA Consulting Ltd.

From: Paulina Armacinski <Paulina.Armacinski@mississauga.ca> On Behalf Of Parkingstudy Review
Sent: October 21, 2022 2:37 PM
To: Dana Usaty <DUsaty@lea.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Hi Dana,

Thank you for the below information.

A few additional bits of information just to make it clearer for me to follow:

- May you please populate the columns/rows within the below chart:
  - Please clarify whether the 3 buildings will be condominium or apartment? If a mix of both, please capture this information thoroughly within the chart.
  - Please specify the type of retail that is being planned for/proposed?

- You identified 186 retail/visitor spaces, are you able to clarify whether the intent is to have retail and visitor share parking spaces? If so, I have added that layer of detail to be populated within the chart, if not, please disregard that row.
- Please specify whether Zoning has confirmed the requirements within the column titled "*0117-2022 Zoning By-law Requirements (space/unit) Precinct 4".*

	Use	Unit Type	Proposed # of Units	0117-2022 Zoning By-law Requirements (space/unit) Precinct 4	0117-2022 Required Parking
Building #1	Condominium and/or Rental Apartment?	Studio			
		1 bedroom			
		2 bedroom			
		3 bedroom			
Building #2	Condominium and/or Rental Apartment?	Studio			
		1 bedroom			
		2 bedroom			
		3 bedroom			
Building #3	Condominium and/or Rental Apartment?	Studio			
		1 bedroom			
		2 bedroom			
		3 bedroom			
	Residential Sub-total				
	Apartment Visitor*				
	Visitor Sub-total				
	SUB-TOTAL PARKING				
	Parking Deficiency				
			Non-Residential		
			Proposed GFA		
Building # 1	Retail				
Building # 2	Retail				
Building # 3	Retail				
	SUB-TOTAL PARKING				
	Parking Deficiency				
	TOTAL PARKING				
	TOTAL PARKING w/Shared Arrangement				

*Shared parking for the greater of all non-residential uses to be shared with the visitor parking onsite as per Zoning By-law Regulation 3.1.2.1.3

Additionally, it is the consultant's due diligence to present surveying parameters for consideration to the City's Municipal Parking staff, please specify:

- 6 surveying days (4 days in week 1 and 2 of the busiest days from week 1 shall be surveyed in week 2),
- surveying times corresponding for all uses of the development (residential, visitor, retail),
- type of survey to be conducted, and

- Mississauga based comparable proxy sites including a brief rationale as to how the recommended site(s) are comparable to the subject site.

Please keep in mind to thoroughly review the requirements and follow the guidelines of the Parking Terms of Reference for detailed context to the above parameters.

Looking forward to continuing our correspondences and to reviewing the parameters.

Thank you,
Paulina

From: Dana Usaty <DUsaty@lea.ca>
Sent: Thursday, October 20, 2022 9:20 AM
To: Paulina Armacinski <Paulina.Armacinski@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Paulina,

No problem. Happy to provide more information.
I've responded to your questions below in red. Let me know if any more details are required!

Thanks for your support on this project,
Dana

From: Paulina Armacinski <Paulina.Armacinski@mississauga.ca>
Sent: October 19, 2022 4:36 PM
To: Dana Usaty <DUsaty@lea.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

External Sender

Hi Dana,

Thank you for the attached, unfortunately, the information is not detailed enough for us to assist in advising on Parking Utilization Study (PUS) parameters. We do not have access to DARC files. We require the following information:

- Proposed redevelopment consists of the partial removal of the existing mall – what is the existing GFA of the Dixie Outlet mall; what is the GFA of the portion that will remain; is the portion of the mall that will remain have any changes in use/alterations?
    The existing mall is 70,200 square meters and only the westernmost portion, approximately 8,281 square meters will be removed. This would leave approximately 61,919 square meters that will not be changed. Note that this is only Phase 1 of the Dixie Mall Master Plan Area redevelopment, so eventually the entire mall will be replaced by a community of mixed-use buildings.
- Construction of multiple individual developments facilitated via a number of subdivided blocks – what will the construction consist of; how many buildings; and within each building what is the number of 'x' residential units, 'x' commercial, 'x' retail, 'x' community, etc…?

Phase 1 will consist of 3 residential buildings (1,234 units total) and a public park (7,059 square meters). Block 1 is the public park, Block 2 will have 288 residential units, Block 3 will have 666 residential units and Block 4 will have 280 units.

- How many existing parking spaces are there currently on the subject site?
  There are approximately 2400 parking spaces on site
- How many parking spaces will be eliminated?
  Approximately 600 parking spaces will be eliminated
- How many parking spaces will be provided within the reconstructed site?
  Each residential building will have an underground garage, providing a total of 1,235 parking spaces (1,049 residential, 186 retail/visitor)
- How are the parking spaces going to be provided for each use? I.e. will there be designated parking spaces; will the parking spaces be unbundled and for additional purchase per use; will the parking spaces be shared across the site…etc.

We don't have full details for this. I would assume the parking will be unbundled since the proposed rate is less than 1 space per unit. Each building has its own residential parking.

- Please be advised the City's Zoning Department is required to confirm variances. A preliminary zoning review is warranted so that any parking deficiency may be confirmed.
  Noted

As you already know, the consultant should confirm survey dates and times with the City's Municipal Parking section by email to ParkingStudy.Review@mississauga.ca and prior to conducting parking surveys. Although, the duration of the surveys and the type of survey to be conducted must be considered in advance (i.e. it is the consultant's due diligence to recommend Mississauga based comparable proxy sites that can be surveyed alongside a brief rationale as to how the recommended site(s) are comparable to the subject site).

Upon providing the answers to the above questions, staff may have some follow-up questions before an approval can be granted for any recommended surveying parameters.

Please do let us know if you have any specific questions.

We look forward to continuing our discussions.

Thank you,
Paulina

From: Dana Usaty <DUsaty@lea.ca>
Sent: Wednesday, October 19, 2022 1:08 PM
To: Paulina Armacinski <Paulina.Armacinski@mississauga.ca>
Cc: Jamie Brown <Jamie.Brown@mississauga.ca>; Ryan Au <Ryan.Au@mississauga.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>; Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: Terms of Reference - Phase 1 Redevelopment of Dixie Outlet Mall

Hi Paulina,

I've attached the Terms of Reference for Phase 1 of our project at Dixie Outlet Mall. As a part of the project, we will be undertaking a parking utilization study to assess the current parking demand of the existing retail on-site. We will be following the Parking Terms of Reference.
We're hoping to get approval for the study so we can get out on site within the next few weeks.

Thank you,
Dana

LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON, L3R 9R9 Canada
T | 905 470 0015 F | 905 470 0030
WWW.LEA.CA

October 27, 2023

Reference Number: 19373

Parking Study Review
Planning and Building Department
City of Mississauga

Via Email: ParkingStudy.Review@mississauga.ca

RE: Terms of Reference
Parking Utilization Study for Proposed Residential Development
1250 South Service Road, City of Mississauga

Dear Sir/Madam,

In December 2022, LEA Consulting prepared a Transportation Impact Study (TIS) for the proposed mixed-use redevelopment of Dixie Outlet Mall, located at 1250 South Service Road (herein referred to as the "subject site") in the City of Mississauga. The subject site is located at the southwest corner of the QEW and Dixie Road interchange, as illustrated in Figure 1.

Figure 1: Site Location

The December 2022 TIS was prepared in support of the Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBA) applications for the subject site, and included a parking justification and Transportation Demand Management (TDM) Plan that proposed a minimum parking rate of 0.90 spaces per unit for residents and 5.2 spaces per 100 m^2 retail GFA shared between visitors and retail. The TIS included a parking demand survey of the subject site to assess the existing retail demand. However, no residential proxy parking survey was completed to justify the proposed residential parking supply.

With the forthcoming TIS resubmission, LEA intends to conduct a Parking Utilization Study to support the residential parking supply proposed in the TIS for the OPA and ZBA applications. LEA would like to receive confirmation from the City on the proxy sites chosen for the study, discussed below.

The following outlines the proposed Terms of Reference for the study.

PROPOSED DEVELOPMENT

Based on the latest site plan received, the proposed development will provide approximately 1,263 residential units, replacing approximately 8,600 m^2 of the existing retail GFA. Three buildings are proposed, with a total of 5 towers – 9, 12, 18, 22 and 25-storeys tall. Each building provides between 297 and 610 units, for a total of 1,263 units. The residential tenure has not been determined at this stage.

Parking will be provided underground for residents and in the surface lot for visitors.

STUDY AREA AND TRAFFIC DATA COLLECTION

LEA proposes to undertake proxy surveys at 1-2 residential buildings with similar contexts to the subject site to assess their current parking demand. Survey sites will be high-rise residential buildings in Parking Precinct 4 in Mississauga. It is noted that the tenancy of the proposed development is undecided at this stage, so both condos and rental buildings have been proposed for the study.

LEA would like to confirm the feasibility of the following proxy sites with the City. A summary of the sites is provided in Table 1.

Table 1: Suggested Proxy Sites for Parking Study

Proxy Site	Units	Type & Tenure	Location Context	Parking Supply	Parking Location
1333 Bloor St	442	High-Rise Condo	Walk Score: 73 Transit Score: 52	Unknown	Surface Lot and Underground Garage
1300 Bloor St	300	High-Rise Condo	Walk Score: 55 Transit Score: 53	Unknown	Surface Lot and Underground Garage
1400 Dixie Rd	270	High-Rise Condo	Walk Score: 55 Transit Score: 49	Unknown	Underground Garage
1140 & 1150 Parkwest Pl	242	High-Rise Condo	Walk Score: 71 Transit Score: 41	Unknown	Surface Lot and Underground Garage
200 Burnhamthorpe Rd E	149	High-Rise Condo	Walk Score: 83 Transit Score: 70	Unknown	Underground Garage
1660 Bloor St	129	High-Rise Condo	Walk Score: 64 Transit Score: 52	Res: 130 (1.0/unit) Vis: 14 (0.1/unit)	Surface Lot
1665 Bloor St	158	High-Rise Rental	Walk Score: 59 Transit Score: 53	Res: 174 (1.1/unit) Vis: 16 (0.1/unit)	Surface Lot
3315 Fieldgate Dr	149	High-Rise Rental	Walk Score: 66 Transit Score: 53	Res: 172 (1.2/unit) Vis: 15 (0.1/unit)	Surface Lot and Underground Garage

Proxy Site	Units	Type & Tenure	Location Context	Parking Supply	Parking Location
1750 Bloor St	153	High-Rise Rental	Walk Score: 68 Transit Score: 53	Res: 173 (1.1/unit) Vis: 18 (0.1/unit)	Surface Lot and Underground Garage
3480 Havenwood Dr	132	High-Rise Rental	Walk Score: 68 Transit Score: 51	Res: 156 (1.2/unit) Vis: 10 (0.08/unit)	Surface Lot and Underground Garage
1485 Williamsport Dr	132	High-Rise Rental	Walk Score: 75 Transit Score: 51	Res: 156 (1.2/unit) Vis: 10 (0.08/unit)	Surface Lot and Underground Garage
3355 Ponytrail Dr	118	High-Rise Rental	Walk Score: 64 Transit Score: 53	Unknown	Surface Lot and Underground Garage
3375 Ponytrail Dr	116	High-Rise Rental	Walk Score: 65 Transit Score: 53	Unknown	Surface Lot and Underground Garage
1759 Bloor St	106	High-Rise Rental	Walk Score: 43 Transit Score: 53	Unknown	Surface Lot and Underground Garage
Subject Site: 1250 South Service Road	**1,263**	**High-Rise, Tenure TBD**	**Walk Score: 77 Transit Score: 37**	**Res: 0.9/unit Vis: >0.20/unit**	**Surface Lot and Underground Garage**

Please confirm which of the above sites are acceptable proxy sites for the subject development. Survey sites will be selected from the list above based on City preference and property owner permission.

As per City of Mississauga's Terms of Reference for Parking Utilization Studies, surveys will be completed two to three days per week over two consecutive weeks, with observations being made every half-hour between 6:00pm and 1:00am. The surveys will also note illegally parked vehicles and vehicles parked off-site, if applicable. The studies will determine the site's peak residential parking demand. Results will provide justification for the proposed rates at the Dixie Mall redevelopment.

Should you have any comments with our assumptions or have any concerns, please contact the undersigned at dusaty@lea.ca.

Yours truly,

LEA CONSULTING LTD.

Dana Usaty, EIT
Transportation Analyst

Dana Usaty

From: Evan Pu <Evan.Pu@mississauga.ca>
Sent: December 8, 2023 4:47 PM
To: Dana Usaty; Parkingstudy Review
Cc: Zara Georgis
Subject: RE: LEA Terms of Reference - Residential Parking Utilization Survey - Dixie Outlet Mall OPA/ZBA

External Sender

Hi Dana,

Thanks for providing the proposed date of survey.

To ensure more accurate results of the survey, staff recommend it be held until after New Year's holiday since some residents may choose to leave early or there may be an increased demand for visitor parking during the holiday season.

Thank you

Evan

From: Dana Usaty <DUsaty@lea.ca>
Sent: Thursday, December 7, 2023 15:13
To: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: LEA Terms of Reference - Residential Parking Utilization Survey - Dixie Outlet Mall OPA/ZBA

Hi Evan,

Thank you for the response. We would like to confirm whether the following survey dates are acceptable:

- Sunday December 10, Monday December 11, Tuesday December 12
- Sunday December 17, Monday December 18, Tuesday December 19

We anticipate that these dates will not be significantly affected by the upcoming holidays, however if the City has concerns we can push the survey into the new year.

Thank you,
Dana

From: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Sent: Tuesday, November 14, 2023 3:46 PM
To: Dana Usaty <DUsaty@lea.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: LEA Terms of Reference - Residential Parking Utilization Survey - Dixie Outlet Mall OPA/ZBA

External Sender

Hello Dana,

Thank you for contacting Municipal Parking regarding the proposed parking survey parameters.

It seems like the most appropriate proxy sites for surveying purposes would be 1333 Boor St and 1400 Dixie Rd for condominium apartment due to their scale and location. For rental apartment, staff suggest that 1750 Bloor St would be an appropriate site.

Please note that if the proposed development contains more than 1000 residential units, it would be more appropriate to survey a proxy site with a similar scale if such a site is available.

The proposed number of days and timeframe to conduct the survey look good, please note:

- Suggested times to survey residential parking are Sunday, Monday and Tuesday evenings and nights, 6pm-1am. Spot counts are not acceptable.
- Suggested times to survey visitor parking are Friday evenings (6pm-1am), and Saturday and Sunday afternoons and evenings (2pm-1am).

Please let us know if you have additional questions.

Thank you

MISSISSAUGA

Evan Pu
Transportation Planner, Municipal Parking
T 905-615-3200 ext. 4705
evan.pu@mississauga.ca

City of Mississauga | Transportation and Works Department,
Traffic Management and Municipal Parking Division I Municipal Parking Section

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From: Dana Usaty <DUsaty@lea.ca>
Sent: Monday, November 13, 2023 10:00
To: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: RE: LEA Terms of Reference - Residential Parking Utilization Survey - Dixie Outlet Mall OPA/ZBA

Hi,

Following up on the request below. Let me know if there are any comments or concerns.

Best,
Dana

From: Dana Usaty
Sent: Friday, October 27, 2023 9:42 AM
To: Parkingstudy Review <Parkingstudy.Review@mississauga.ca>
Cc: Zara Georgis <ZGeorgis@lea.ca>
Subject: LEA Terms of Reference - Residential Parking Utilization Survey - Dixie Outlet Mall OPA/ZBA

Good morning,

Kindly find attached TOR for a Parking Utilization Study supporting the redevelopment of Dixie Outlet Mall.

Please confirm our study methodology and the suitability of proposed proxy sites.

Thanks,
Dana

Dana Usaty, EIT
Transportation Planner
LEA Consulting Ltd.
40 University Avenue, Suite 503 | Toronto, ON | M5J 1T1
T: 905 470 0015 ext. 265 E: dusaty@lea.ca W: www.LEA.ca

APPENDIX B

TIS Certification Form

Appendix A

Certification Form

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

By submitting the attached report (and any associated documents) and signing this document, I acknowledge that:

- I have reviewed and have a sound understanding of the objectives, needs, and requirements of the City of Mississauga's Official Plan, Transportation Master Plan, and the Transportation Impact Study Guidelines as they apply to this submission;
- I have sound knowledge of industry standard practices pertaining to the preparation of development-related transportation study reports;
- I have substantial experience (more than five years) in completing development-related transportation studies and strong background knowledge of the transportation planning and engineering principles underpinning these studies; and
- I am registered as a Professional Engineer (P.Eng.), Licensed Engineering Technologist (LET), Certified Engineering Technologist (C.E.T.), or Registered Professional Planner (RPP) in good standing in the Province of Ontario with specific training in transportation planning and engineering.

Dated at Markham (City) this 1st day of April, 2024.

Name: Zara Georgis

Professional Title: Project Manager

Signature: 

Office Contact Information (Please Print)

Address: 625 Cochrane Drive, 5th Floor

City/Postal Code: Markham, ON L3R 9R9

Telephone/Extension: (905) 470-0015

E-mail Address: ZGeorgis@lea.ca

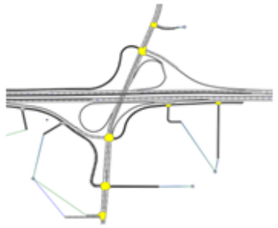
APPENDIX C

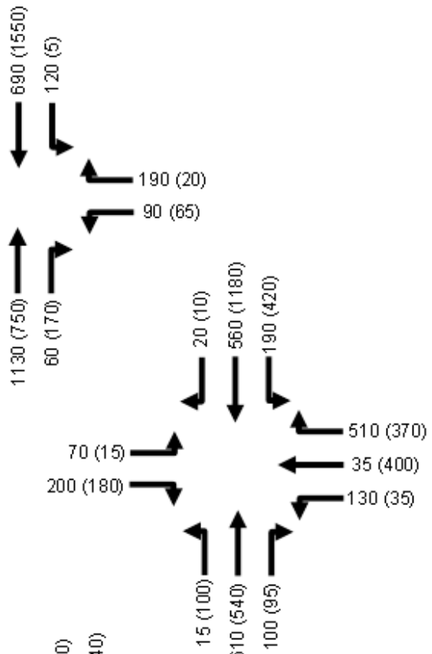
QEW Improvements from Evans Avenue to Cawthra Road

Final Preferred Alternative Design

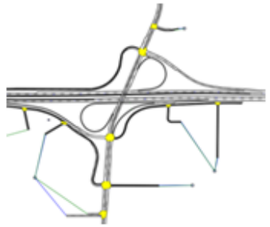
STUDY LIMITS
WESTFIELD DRIVE
INSLEY ROAD
OGDEN AVENUE
S. SERVICE ROAD
APPLEWOOD PLAZA
STANFIELD ROAD
RUSSETT ROAD
NORTH SERVICE ROAD
ACCESS TO BE CONFIRMED IN DETAIL DESIGN
QEW
TOLMAN ROAD
HARVEST DRIVE
COURTLAND COURT
PLATE 1
PLATE 2
SOUTH SERVICE ROAD
APPLEWOOD ROAD
HAIG BOULEVARD
DIXIE OUTLET MALL
PRIMATE ROAD
DIXIE ROAD
WEALTHY PL.
SHERWAY DRIVE
BRENTANO BOULEVARD
FELMWOOD ROAD
PROVERBS DRIVE
PLATE 5
PLATE 2
N/S W RAMP
E-N/S RAMP
N/S E RAMP
BRENTANO BOULEVARD
CLOSED
FAMILY CRESCENT
LAUGHTON AVENUE
TARN ROAD
PLATE 3
PLATE 4
BOXWOOD WAY
SOUTH SERVICE ROAD EXTENSION
FUTURE CONFIGURATION TO BE CONFIRMED IN DETAIL DESIGN
N-E RAMP
W/B RAMP
E/B RAMP
LINCOLNSHIRE BOULEVARD
WINTERHAVEN ROAD
CLEARWATER DRIVE
PARK ROYALE BOULEVARD/ ROYALE BOULEVARD
LIVEOAK DRIVE
CORMACK ANIMAL CLINIC
ACCESS TO BE CONFIRMED IN DETAIL DESIGN
PLATE 2
PLATE 6
STAR ACADEMY
SOUTH SERVICE ROAD
DIXIE ROAD
ROMETOWN DRIVE
DEDICATED BUS EXIT TO BE CONFIRMED WITH FURTHER TRAFFIC ANALYSIS IN DETAIL DESIGN
BUS LAYBY
DIXIE OUTLET MALL / NO FRILLS ENTRANCE
LONDONDERRY BOULEVARD

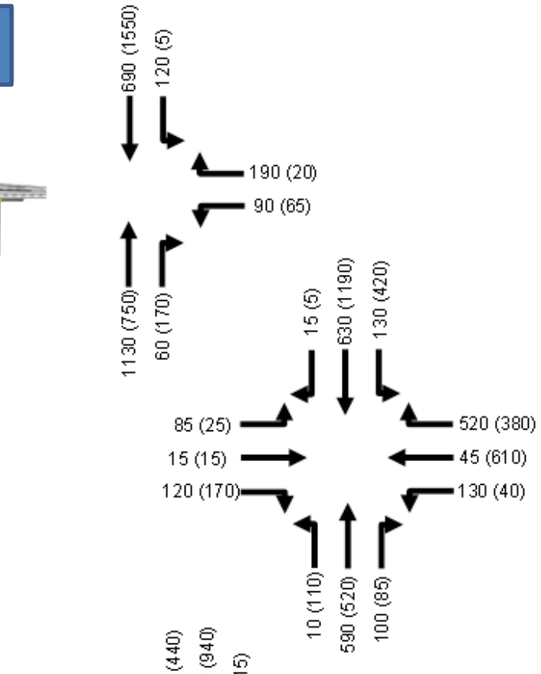
Provisional Preferred





Final Preferred





2031 Turning Movement diagrams

AM (PM)

Figure 48 – Turning movement diagrams – preferred alternative Dixie Road – 2031 AM and PM peak hours

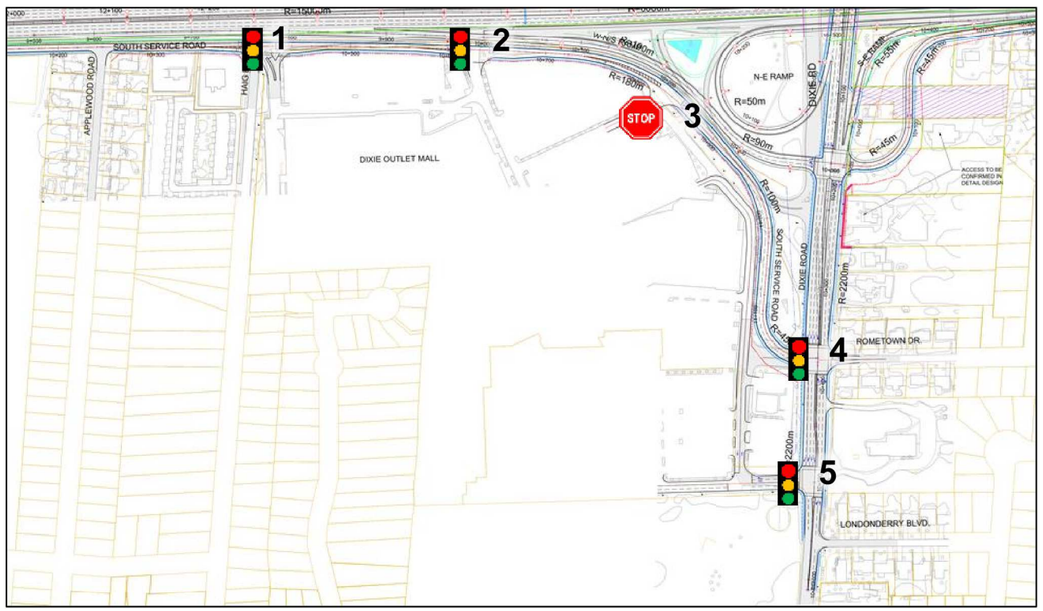


Figure 51 – Dixie Outlet Mall proposed configuration

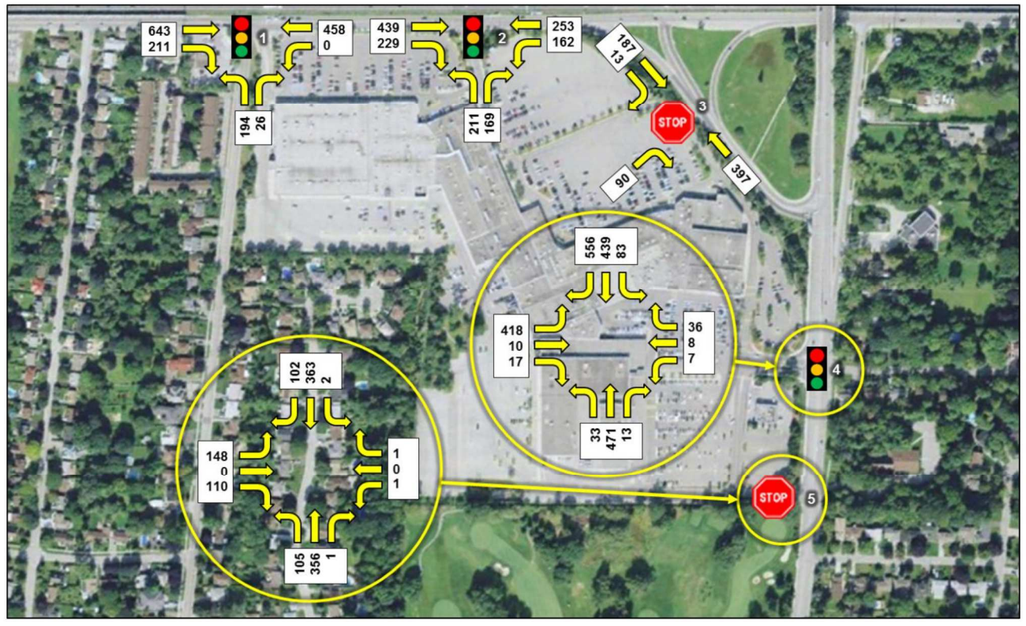


Figure 52 – Existing (2013) turning movement volumes – Dixie Outlet Mall – Saturday peak hour

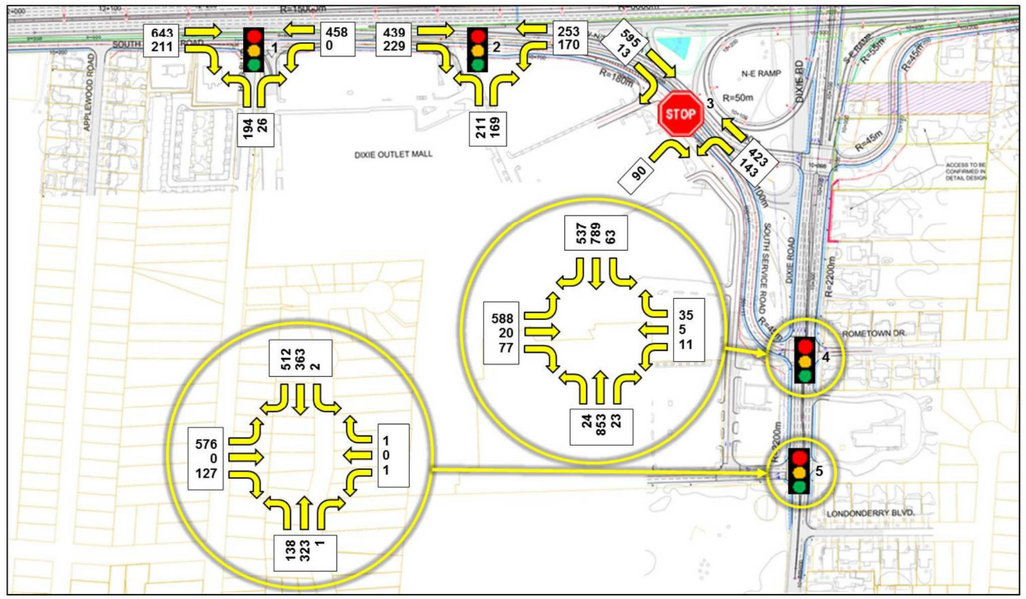


Figure 53 – Reassigned turning movement volumes – Dixie Outlet Mall – Saturday peak hour

11.2 Operational analysis

Operation of the 5 intersections surrounding Dixie Outlet Mall were evaluated using SYNCHRO for both the existing and proposed configurations with 2013 Saturday peak hour demand. Saturday afternoon on a pre-Christmas weekend was deemed to be the critical time for mall related traffic. Future estimates of mall-related traffic are not available to permit analysis of future traffic conditions as part of this analysis although a significant increase in mall-related traffic is not anticipated in the foreseeable future.

11.2.1 Intersection 1 – Signalized intersection at South Service Road and Haig Boulevard

The intersection of South Service Road and Haig Boulevard will remain unchanged under the new configuration. Operation of this intersection under the existing and proposed configuration of Dixie Outlet Mall is therefore summarized in a single table, **Table 17**.

Table 17 – Intersection 1 operation - existing and future configuration

	South Service Rd		South Service Rd		Haig Blvd		Dixie Mall	
	EBT	EBR	WBL	WBT	NBL	NBR	NWL	NWR
Volume	643	211	20	458	20	20	194	26
v/c Ratio	0.77	-	0.10	0.39	0.34	-	0.86	-
Delay	23.5	-	8.8	9.9	60.4	-	86.2	-
95th % Queue	319.6	-	4.3	121.5	23.5	-	113.2	-
LOS	C	-	A	A	E	-	F	-
Approach Delay	23.5		9.9		60.4		86.2	
Approach LOS	C		A		E		F	
Intersection LOS	C							

APPENDIX D

TMC & STP Data

Spectrum

Turning Movement Count
Location Name: DIXIE RD & ROMETOWN DR
Date: Tue, May 03, 2022 Deployment Lead: Peter Ilias

Turning Movement Count (39 . DIXIE RD & ROMETOWN DR) CustID: 00401575

Start Time	N Approach DIXIE RD						E Approach ROMETOWN DR						S Approach DIXIE RD						W Approach ROMETOWN DR						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	UTurn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	UTurn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
07:00:00	4	54	3	0	0	61	0	0	12	0	1	12	0	40	0	0	0	40	4	0	0	0	0	4	117	
07:15:00	5	59	6	2	0	72	0	0	10	0	4	10	0	60	0	0	2	60	3	1	0	0	0	4	146	
07:30:00	2	53	5	0	1	60	2	1	14	0	0	17	0	72	2	0	0	74	8	1	0	0	1	9	160	
07:45:00	15	95	6	0	1	116	2	0	29	0	1	31	0	77	2	0	0	79	9	0	1	0	0	10	236	659
08:00:00	9	85	14	0	0	108	3	2	24	0	0	29	0	95	3	0	0	98	14	0	0	0	0	14	249	791
08:15:00	15	101	15	1	0	132	0	1	27	0	1	28	0	89	4	0	0	93	6	1	1	0	0	8	261	906
08:30:00	17	77	10	0	0	104	7	0	19	0	0	26	0	104	5	0	4	109	16	1	1	0	0	18	257	1003
08:45:00	18	96	15	0	0	129	4	0	19	0	4	23	1	110	7	0	0	118	7	1	1	0	0	9	279	1046
BREAK																										
11:00:00	3	69	48	1	0	121	2	2	11	0	0	15	6	74	2	0	0	82	19	1	3	0	0	23	241	
11:15:00	11	88	52	0	1	151	4	1	12	0	8	17	5	61	2	0	4	68	28	1	3	0	0	32	268	
11:30:00	11	64	55	0	0	130	4	1	15	0	1	20	5	82	4	0	0	91	31	3	2	0	0	36	277	
11:45:00	12	85	58	0	0	155	0	1	12	0	3	13	5	69	1	0	1	75	39	1	4	0	0	44	287	1073
12:00:00	12	83	62	0	0	157	1	2	11	0	1	14	4	84	2	0	1	90	42	1	4	0	1	47	308	1140
12:15:00	15	83	53	2	0	153	4	2	9	0	0	15	10	78	2	1	0	91	41	1	5	0	0	47	306	1178
12:30:00	10	87	55	1	0	153	1	5	17	0	2	23	4	76	7	0	1	87	39	3	6	0	1	48	311	1212
12:45:00	20	73	62	0	1	155	1	1	8	0	2	10	7	96	3	0	2	106	47	2	13	0	2	62	333	1258
13:00:00	24	88	65	0	1	177	5	0	19	0	0	24	7	83	4	0	0	94	31	3	5	0	0	39	334	1284
13:15:00	15	90	53	0	0	158	3	2	14	0	2	19	4	82	2	0	1	88	58	3	3	0	1	64	329	1307
13:30:00	24	94	56	2	0	176	2	1	20	0	0	23	6	88	2	0	1	96	36	2	6	0	0	44	339	1335
13:45:00	8	83	57	0	1	148	1	3	14	0	0	18	6	79	0	0	0	85	45	3	4	0	0	52	303	1305
BREAK																										
15:00:00	19	121	65	0	0	205	2	0	14	0	1	16	7	98	0	0	0	105	40	3	2	0	0	45	371	
15:15:00	25	109	49	0	0	183	5	2	6	0	0	13	4	91	6	0	1	101	37	3	5	0	1	45	342	
15:30:00	18	108	55	0	0	181	4	1	12	0	0	17	4	113	2	0	0	119	49	2	1	0	0	52	369	
15:45:00	20	96	62	0	1	178	3	1	16	0	0	20	5	99	6	0	1	110	42	3	8	0	0	53	361	1443
16:00:00	19	100	52	0	0	171	3	1	13	0	0	17	0	124	3	0	0	127	27	2	7	0	1	36	351	1423
16:15:00	19	110	46	0	0	175	2	0	13	0	0	15	5	91	5	0	2	101	43	0	3	0	0	46	337	1418
16:30:00	19	125	58	0	2	202	3	0	13	0	1	16	5	92	7	0	2	104	34	1	4	0	1	39	361	1410
16:45:00	28	130	41	0	0	199	1	3	10	0	0	14	9	100	5	0	2	114	37	3	3	0	0	43	370	1419
17:00:00	27	110	44	0	0	181	0	6	13	0	0	19	9	117	7	0	1	133	36	2	6	0	0	44	377	1445
17:15:00	30	110	56	0	0	196	3	2	11	0	0	16	4	89	8	0	0	101	23	1	6	0	0	30	343	1451
17:30:00	24	124	56	0	1	204	2	0	19	0	1	21	3	93	3	0	1	99	34	4	9	0	1	47	371	1461
17:45:00	31	123	54	0	0	208	0	3	6	0	0	9	6	68	6	0	0	80	39	5	3	0	0	47	344	1435
Grand Total	529	2973	1388	9	10	4899	74	44	462	0	33	580	131	2774	112	1	27	3018	964	58	119	0	10	1141	**9638**	-
Approach%	10.8%	60.7%	28.3%	0.2%		-	12.8%	7.6%	79.7%	0%		-	4.3%	91.9%	3.7%	0%		-	84.5%	5.1%	10.4%	0%		-	**-**	-
Totals %	5.5%	30.8%	14.4%	0.1%		50.8%	0.8%	0.5%	4.8%	0%		6%	1.4%	28.8%	1.2%	0%		31.3%	10%	0.6%	1.2%	0%		11.8%	**-**	-
Heavy	30	232	22	0		-	8	1	24	0		-	2	118	3	0		-	123	2	3	0		-	**-**	-
Heavy %	5.7%	7.8%	1.6%	0%		-	10.8%	2.3%	5.2%	0%		-	1.5%	4.3%	2.7%	0%		-	12.8%	3.4%	2.5%	0%		-	**-**	-
Bicycles	0	0	0	0		-	0	0	0	0		-	0	1	0	0		-	0	0	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: DIXIE RD & ROMETOWN DR
Date: Tue, May 03, 2022 Deployment Lead: Peter Ilias

Peak Hour: 08:00 AM - 09:00 AM Weather: Mist (7.99 °C)

Start Time	N Approach DIXIE RD						E Approach ROMETOWN DR						S Approach DIXIE RD						W Approach ROMETOWN DR						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	
08:00:00	9	85	14	0	0	108	3	2	24	0	0	29	0	95	3	0	0	98	14	0	0	0	0	14	249
08:15:00	15	101	15	1	0	132	0	1	27	0	1	28	0	89	4	0	0	93	6	1	1	0	0	8	261
08:30:00	17	77	10	0	0	104	7	0	19	0	0	26	0	104	5	0	4	109	16	1	1	0	0	18	257
08:45:00	18	96	15	0	0	129	4	0	19	0	4	23	1	110	7	0	0	118	7	1	1	0	0	9	279
Grand Total	59	359	54	1	0	473	14	3	89	0	5	106	1	398	19	0	4	418	43	3	3	0	0	49	**1046**
Approach%	12.5%	75.9%	11.4%	0.2%		-	13.2%	2.8%	84%	0%		-	0.2%	95.2%	4.5%	0%		-	87.8%	6.1%	6.1%	0%		-	**-**
Totals %	5.6%	34.3%	5.2%	0.1%		45.2%	1.3%	0.3%	8.5%	0%		10.1%	0.1%	38%	1.8%	0%		40%	4.1%	0.3%	0.3%	0%		4.7%	**-**
PHF	0.82	0.89	0.9	0.25		0.9	0.5	0.38	0.82	0		0.91	0.25	0.9	0.68	0		0.89	0.67	0.75	0.75	0		0.68	**-**
Heavy	10	36	2	0		48	3	0	8	0		11	0	19	0	0		19	16	1	0	0		17	**-**
Heavy %	16.9%	10%	3.7%	0%		10.1%	21.4%	0%	9%	0%		10.4%	0%	4.8%	0%	0%		4.5%	37.2%	33.3%	0%	0%		34.7%	**-**
Lights	49	323	52	1		425	11	3	81	0		95	1	379	19	0		399	27	2	3	0		32	**-**
Lights %	83.1%	90%	96.3%	100%		89.9%	78.6%	100%	91%	0%		89.6%	100%	95.2%	100%	0%		95.5%	62.8%	66.7%	100%	0%		65.3%	**-**
Single-Unit Trucks	7	14	1	0		22	0	0	6	0		6	0	15	0	0		15	1	0	0	0		1	**-**
Single-Unit Trucks %	11.9%	3.9%	1.9%	0%		4.7%	0%	0%	6.7%	0%		5.7%	0%	3.8%	0%	0%		3.6%	2.3%	0%	0%	0%		2%	**-**
Buses	3	20	1	0		24	3	0	2	0		5	0	2	0	0		2	15	1	0	0		16	**-**
Buses %	5.1%	5.6%	1.9%	0%		5.1%	21.4%	0%	2.2%	0%		4.7%	0%	0.5%	0%	0%		0.5%	34.9%	33.3%	0%	0%		32.7%	**-**
Articulated Trucks	0	2	0	0		2	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	**-**
Articulated Trucks %	0%	0.6%	0%	0%		0.4%	0%	0%	0%	0%		0%	0%	0.5%	0%	0%		0.5%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	4	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	55.6%		-	-	-	-	44.4%		-	-	-	-	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%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: DIXIE RD & ROMETOWN DR
Date: Tue, May 03, 2022 Deployment Lead: Peter Ilias

Peak Hour: 12:45 PM - 01:45 PM Weather: Overcast Clouds (12.46 °C)

Start Time	N Approach DIXIE RD						E Approach ROMETOWN DR						S Approach DIXIE RD						W Approach ROMETOWN DR						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	
12:45:00	20	73	62	0	1	155	1	1	8	0	2	10	7	96	3	0	2	106	47	2	13	0	2	62	333
13:00:00	24	88	65	0	1	177	5	0	19	0	0	24	7	83	4	0	0	94	31	3	5	0	0	39	334
13:15:00	15	90	53	0	0	158	3	2	14	0	2	19	4	82	2	0	1	88	58	3	3	0	1	64	329
13:30:00	24	94	56	2	0	176	2	1	20	0	0	23	6	88	2	0	1	96	36	2	6	0	0	44	339
Grand Total	83	345	236	2	2	666	11	4	61	0	4	76	24	349	11	0	4	384	172	10	27	0	3	209	**1335**
Approach%	12.5%	51.8%	35.4%	0.3%		-	14.5%	5.3%	80.3%	0%		-	6.3%	90.9%	2.9%	0%		-	82.3%	4.8%	12.9%	0%		-	**-**
Totals %	6.2%	25.8%	17.7%	0.1%		49.9%	0.8%	0.3%	4.6%	0%		5.7%	1.8%	26.1%	0.8%	0%		28.8%	12.9%	0.7%	2%	0%		15.7%	**-**
PHF	0.86	0.92	0.91	0.25		0.94	0.55	0.5	0.76	0		0.79	0.86	0.91	0.69	0		0.91	0.74	0.83	0.52	0		0.82	**-**
Heavy	3	32	5	0		40	1	0	2	0		3	1	16	0	0		17	15	0	2	0		17	**-**
Heavy %	3.6%	9.3%	2.1%	0%		6%	9.1%	0%	3.3%	0%		3.9%	4.2%	4.6%	0%	0%		4.4%	8.7%	0%	7.4%	0%		8.1%	**-**
Lights	80	313	231	2		626	10	4	59	0		73	23	333	11	0		367	157	10	25	0		192	**-**
Lights %	96.4%	90.7%	97.9%	100%		94%	90.9%	100%	96.7%	0%		96.1%	95.8%	95.4%	100%	0%		95.6%	91.3%	100%	92.6%	0%		91.9%	**-**
Single-Unit Trucks	3	19	5	0		27	1	0	2	0		3	1	14	0	0		15	6	0	2	0		8	**-**
Single-Unit Trucks %	3.6%	5.5%	2.1%	0%		4.1%	9.1%	0%	3.3%	0%		3.9%	4.2%	4%	0%	0%		3.9%	3.5%	0%	7.4%	0%		3.8%	**-**
Buses	0	10	0	0		10	0	0	0	0		0	0	0	0	0		0	9	0	0	0		9	**-**
Buses %	0%	2.9%	0%	0%		1.5%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	5.2%	0%	0%	0%		4.3%	**-**
Articulated Trucks	0	3	0	0		3	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	**-**
Articulated Trucks %	0%	0.9%	0%	0%		0.5%	0%	0%	0%	0%		0%	0%	0.6%	0%	0%		0.5%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	-	7.7%		-	-	-	-	23.1%		-	-	-	-	30.8%		-	-	-	-	7.7%		**-**
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%		**-**
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	**-**
Bicycles on Crosswalk%	-	-	-	-	7.7%		-	-	-	-	7.7%		-	-	-	-	0%		-	-	-	-	15.4%		**-**

Spectrum

Turning Movement Count
Location Name: DIXIE RD & ROMETOWN DR
Date: Tue, May 03, 2022 Deployment Lead: Peter Ilias

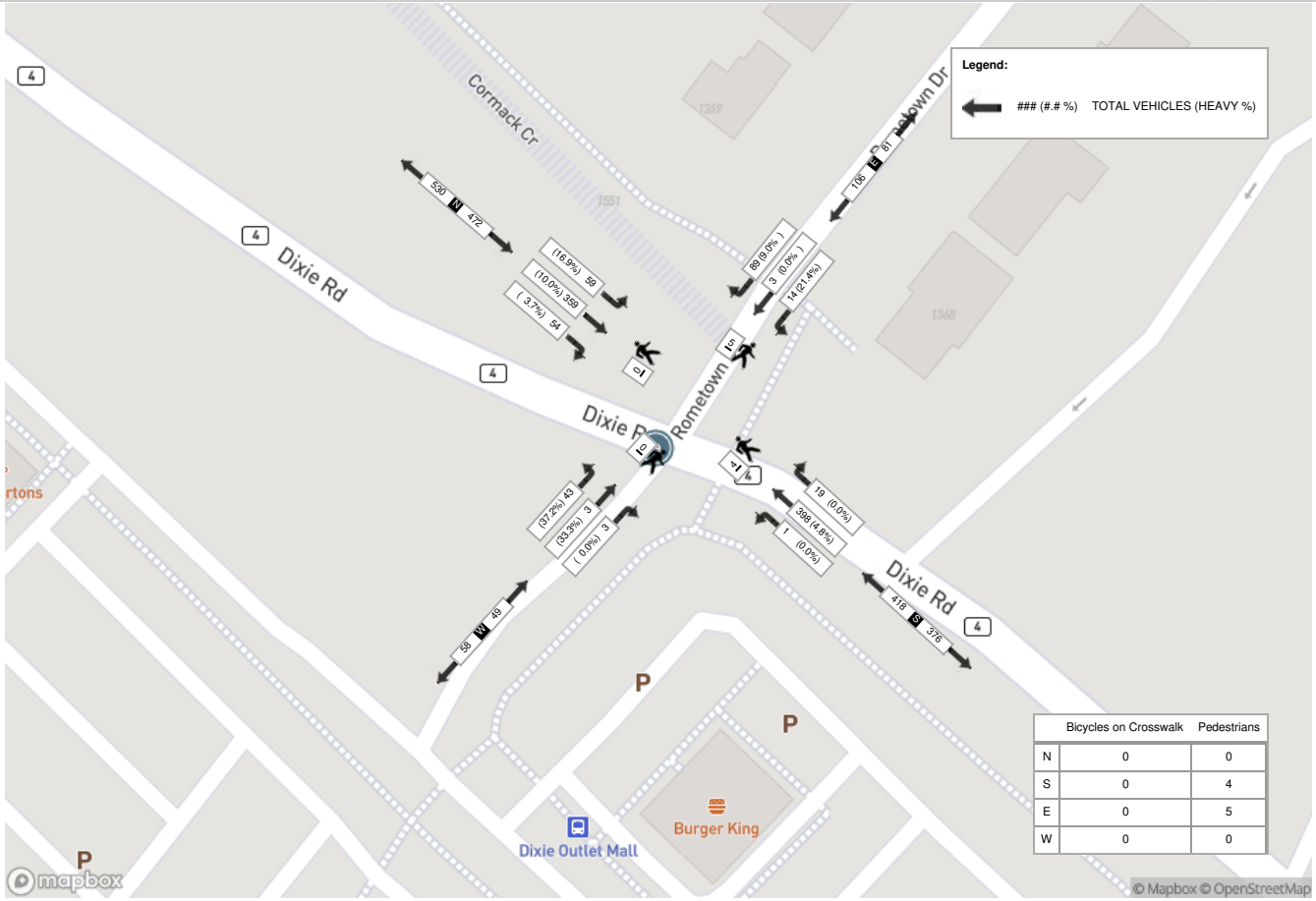
Peak Hour: 04:45 PM - 05:45 PM Weather: Light Rain (9.67 °C)

Start Time	N Approach DIXIE RD						E Approach ROMETOWN DR						S Approach DIXIE RD						W Approach ROMETOWN DR						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
16:45:00	28	130	41	0	0	199	1	3	10	0	0	14	9	100	5	0	2	114	37	3	3	0	0	43	370
17:00:00	27	110	44	0	0	181	0	6	13	0	0	19	9	117	7	0	1	133	36	2	6	0	0	44	377
17:15:00	30	110	56	0	0	196	3	2	11	0	0	16	4	89	8	0	0	101	23	1	6	0	0	30	343
17:30:00	24	124	56	0	1	204	2	0	19	0	1	21	3	93	3	0	1	99	34	4	9	0	1	47	371
Grand Total	109	474	197	0	1	780	6	11	53	0	1	70	25	399	23	0	4	447	130	10	24	0	1	164	**1461**
Approach%	14%	60.8%	25.3%	0%		-	8.6%	15.7%	75.7%	0%		-	5.6%	89.3%	5.1%	0%		-	79.3%	6.1%	14.6%	0%		-	**-**
Totals %	7.5%	32.4%	13.5%	0%		53.4%	0.4%	0.8%	3.6%	0%		4.8%	1.7%	27.3%	1.6%	0%		30.6%	8.9%	0.7%	1.6%	0%		11.2%	**-**
PHF	0.91	0.91	0.88	0		0.96	0.5	0.46	0.7	0		0.83	0.69	0.85	0.72	0		0.84	0.88	0.63	0.67	0		0.87	**-**
Heavy	1	23	1	0		25	0	1	0	0		1	0	6	1	0		7	16	0	0	0		16	**-**
Heavy %	0.9%	4.9%	0.5%	0%		3.2%	0%	9.1%	0%	0%		1.4%	0%	1.5%	4.3%	0%		1.6%	12.3%	0%	0%	0%		9.8%	**-**
Lights	108	451	196	0		755	6	10	53	0		69	25	393	22	0		440	114	10	24	0		148	**-**
Lights %	99.1%	95.1%	99.5%	0%		96.8%	100%	90.9%	100%	0%		98.6%	100%	98.5%	95.7%	0%		98.4%	87.7%	100%	100%	0%		90.2%	**-**
Single-Unit Trucks	1	4	1	0		6	0	1	0	0		1	0	2	1	0		3	0	0	0	0		0	**-**
Single-Unit Trucks %	0.9%	0.8%	0.5%	0%		0.8%	0%	9.1%	0%	0%		1.4%	0%	0.5%	4.3%	0%		0.7%	0%	0%	0%	0%		0%	**-**
Buses	0	17	0	0		17	0	0	0	0		0	0	0	0	0		0	16	0	0	0		16	**-**
Buses %	0%	3.6%	0%	0%		2.2%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	12.3%	0%	0%	0%		9.8%	**-**
Articulated Trucks	0	2	0	0		2	0	0	0	0		0	0	4	0	0		4	0	0	0	0		0	**-**
Articulated Trucks %	0%	0.4%	0%	0%		0.3%	0%	0%	0%	0%		0%	0%	1%	0%	0%		0.9%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	14.3%		-	-	-	-	14.3%		-	-	-	-	57.1%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	14.3%		**-**

Spectrum

Turning Movement Count
Location Name: DIXIE RD & ROMETOWN DR
Date: Tue, May 03, 2022 Deployment Lead: Peter Ilias

Peak Hour: 08:00 AM - 09:00 AM Weather: Mist (7.99 °C)

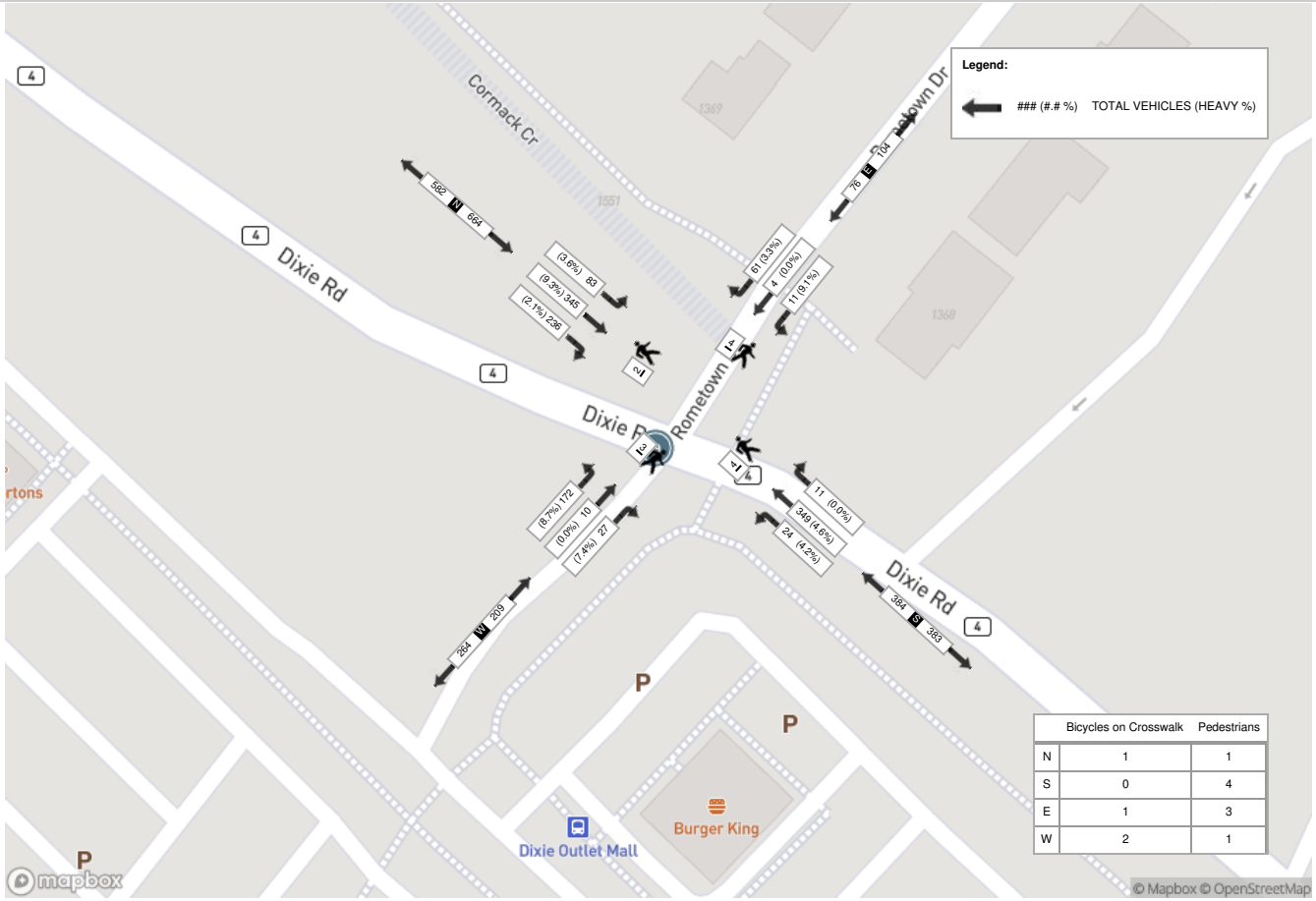


	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	4
E	0	5
W	0	0

Spectrum

Turning Movement Count
Location Name: DIXIE RD & ROMETOWN DR
Date: Tue, May 03, 2022 Deployment Lead: Peter Ilias

Peak Hour: 12:45 PM - 01:45 PM Weather: Overcast Clouds (12.46 °C)

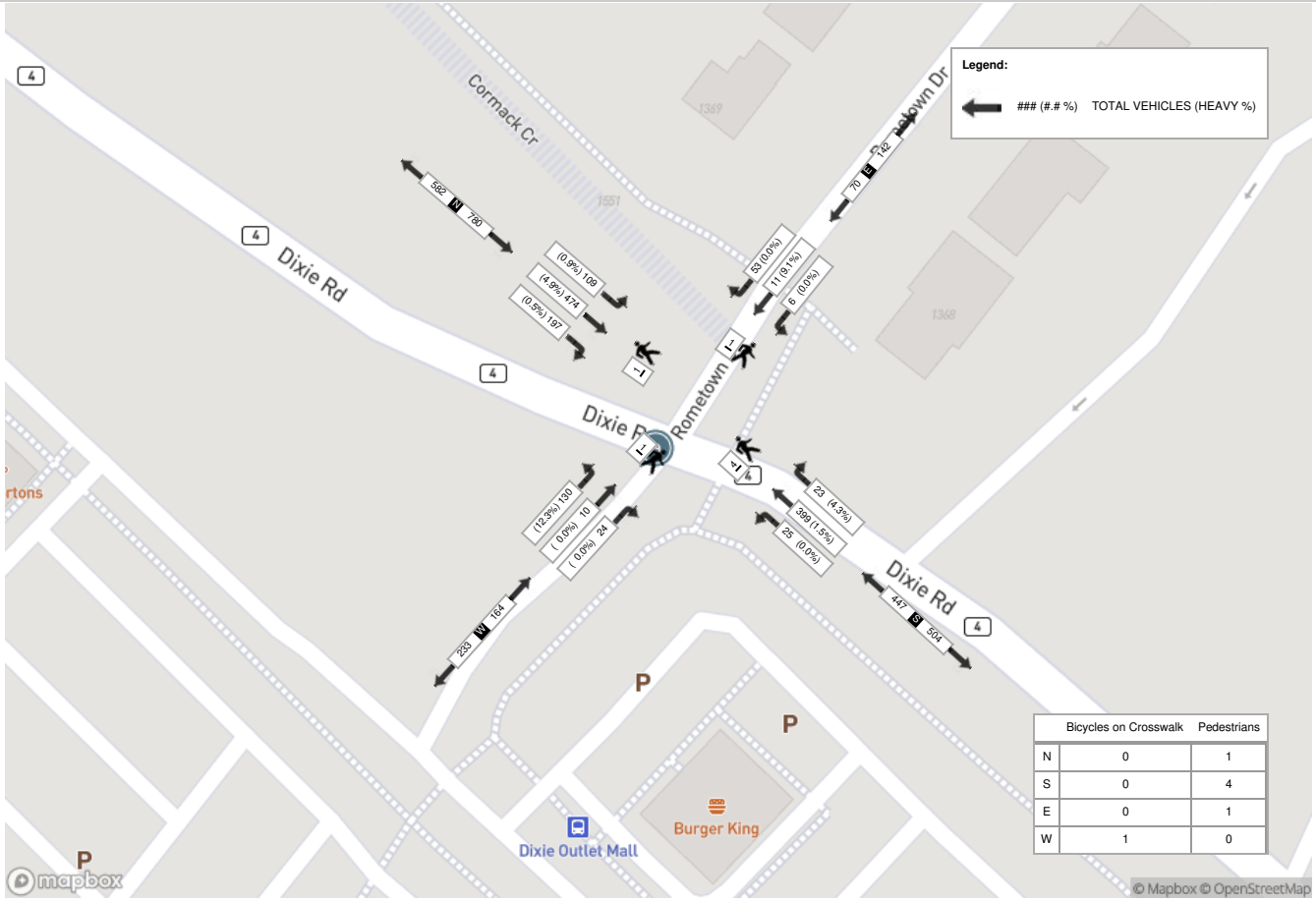


	Bicycles on Crosswalk	Pedestrians
N	1	1
S	0	4
E	1	3
W	2	1

Spectrum

Turning Movement Count
Location Name: DIXIE RD & ROMETOWN DR
Date: Tue, May 03, 2022 Deployment Lead: Peter Ilias

Peak Hour: 04:45 PM - 05:45 PM Weather: Light Rain (9.67 °C)



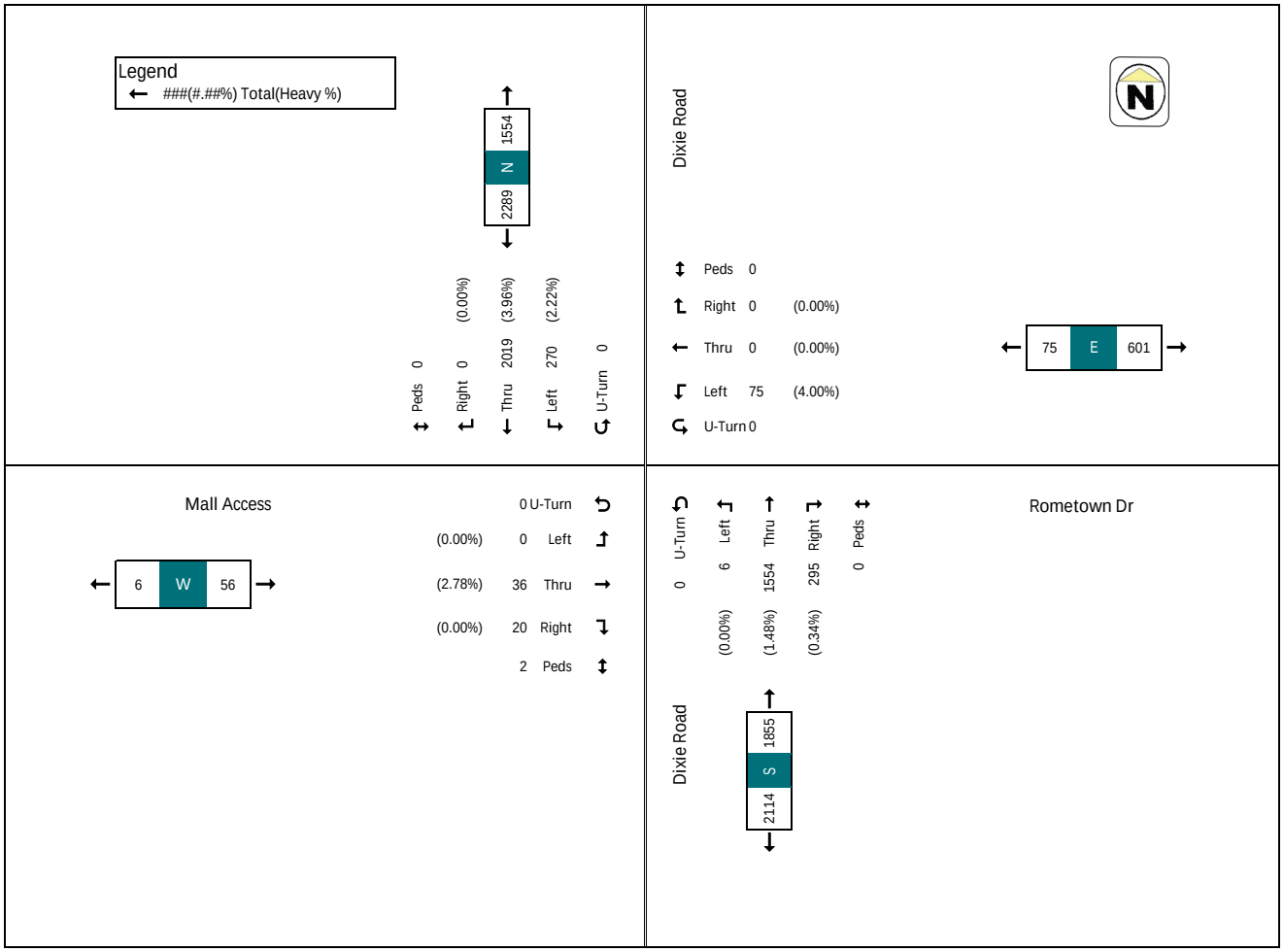
	Bicycles on Crosswalk	Pedestrians
N	0	1
S	0	4
E	0	1
W	1	0

LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

Turning Movement Count - Dixie Road & Mall Access

	Dixie Road Southbound						Rometown Dr Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:30	0	9	68	0	0	77	0	1	0	8	0	9	0	0	81	13	0	94	0	3	1	0	0	4	184
7:45	0	7	93	0	0	100	0	4	0	5	0	9	0	0	76	22	0	98	0	2	0	0	0	2	209
Hourly Total	0	23	269	0	0	292	0	9	0	21	0	30	0	0	249	59	0	308	0	11	2	0	0	13	643
8:00	0	5	101	0	0	106	0	11	0	17	0	18	0	0	98	28	0	126	0	3	0	0	0	3	253
8:15	0	8	117	0	0	125	0	2	0	10	0	12	0	0	106	30	0	136	0	4	0	0	0	4	277
8:30	0	18	116	0	0	134	0	3	0	23	0	26	0	0	104	27	0	131	0	5	2	0	0	7	298
8:45	0	18	107	0	0	125	0	5	0	15	0	20	0	0	99	17	0	116	0	5	2	0	0	7	268
Hourly Total	0	49	441	0	0	490	0	11	0	65	0	76	0	0	407	102	0	509	0	18	3	0	0	21	1096
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* Break *																									
16:00	0	33	211	0	0	244	0	12	0	49	0	61	0	1	115	25	0	141	0	23	9	11	0	43	489
16:15	0	44	227	0	0	271	0	14	0	29	0	43	0	0	149	13	0	162	0	22	10	6	0	38	514
16:30	0	14	141	0	0	155	0	5	0	13	0	18	0	1	108	10	0	119	0	22	1	1	0	24	316
16:45	0	25	123	0	0	148	0	7	0	6	0	13	0	0	99	25	0	124	0	14	0	1	0	15	300
Hourly Total	0	116	702	0	0	818	0	38	0	97	0	135	0	2	471	73	0	546	0	81	20	19	0	120	1619
17:00	0	30	169	0	0	199	0	3	0	9	0	12	0	0	118	19	0	137	0	15	1	0	0	16	364
17:15	0	21	158	0	0	179	0	6	0	5	0	11	0	1	98	17	0	116	0	9	3	0	0	12	318
17:30	0	16	141	0	0	157	0	5	0	11	0	16	0	1	106	8	0	115	0	20	3	1	0	24	312
17:45	0	15	139	0	0	154	0	3	0	10	0	13	0	2	105	17	0	124	0	11	4	0	0	15	306
Hourly Total	0	82	607	0	0	689	0	17	0	35	0	52	0	4	427	61	0	492	0	55	11	1	0	67	1300
Grand Total	0	270	2019	0	0	2289	0	75	0	218	0	293	0	6	1554	295	0	1855	2	165	36	20	2	223	4660
Approach %	0.0%	11.8%	88.2%	0.0%	-	-	0.0%	25.6%	0.0%	74.4%	-	-	0.0%	0.3%	83.8%	15.9%	-	-	0.9%	74.0%	16.1%	9.0%	-	-	-
Total %	0.0%	5.8%	43.3%	0.0%	-	49.1%	0.0%	1.6%	0.0%	4.7%	-	6.3%	0.0%	0.1%	33.3%	6.3%	-	39.8%	0.0%	3.5%	0.8%	0.4%	-	4.8%	-
Lights	0	264	1939	0	-	2203	0	72	0	216	-	288	0	6	1531	294	-	1831	0	114	35	20	-	169	4491
% Lights	-	97.8%	96.0%	-	-	96.2%	-	96.0%	-	99.1%	-	98.3%	-	100.0%	98.5%	99.7%	-	98.7%	0.0%	69.1%	97.2%	100.0%	-	75.8%	96.4%
Buses	-	6	58	0	-	64	-	3	0	2	-	5	-	0	5	0	-	5	-	51	1	0	-	52	126
% Buses	-	2.2%	2.9%	-	-	2.8%	-	4.0%	0.0%	0.9%	-	1.7%	-	0.0%	0.3%	0.0%	-	0.3%	-	30.9%	2.8%	0.0%	-	23.3%	2.7%
Trucks	-	0	22	0	-	22	-	0	0	0	-	0	-	0	18	1	-	19	-	0	0	0	-	0	41
% Trucks	-	0.0%	1.1%	-	-	1.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1.2%	0.3%	-	1.0%	-	0.0%	0.0%	0.0%	-	0.0%	0.9%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	2

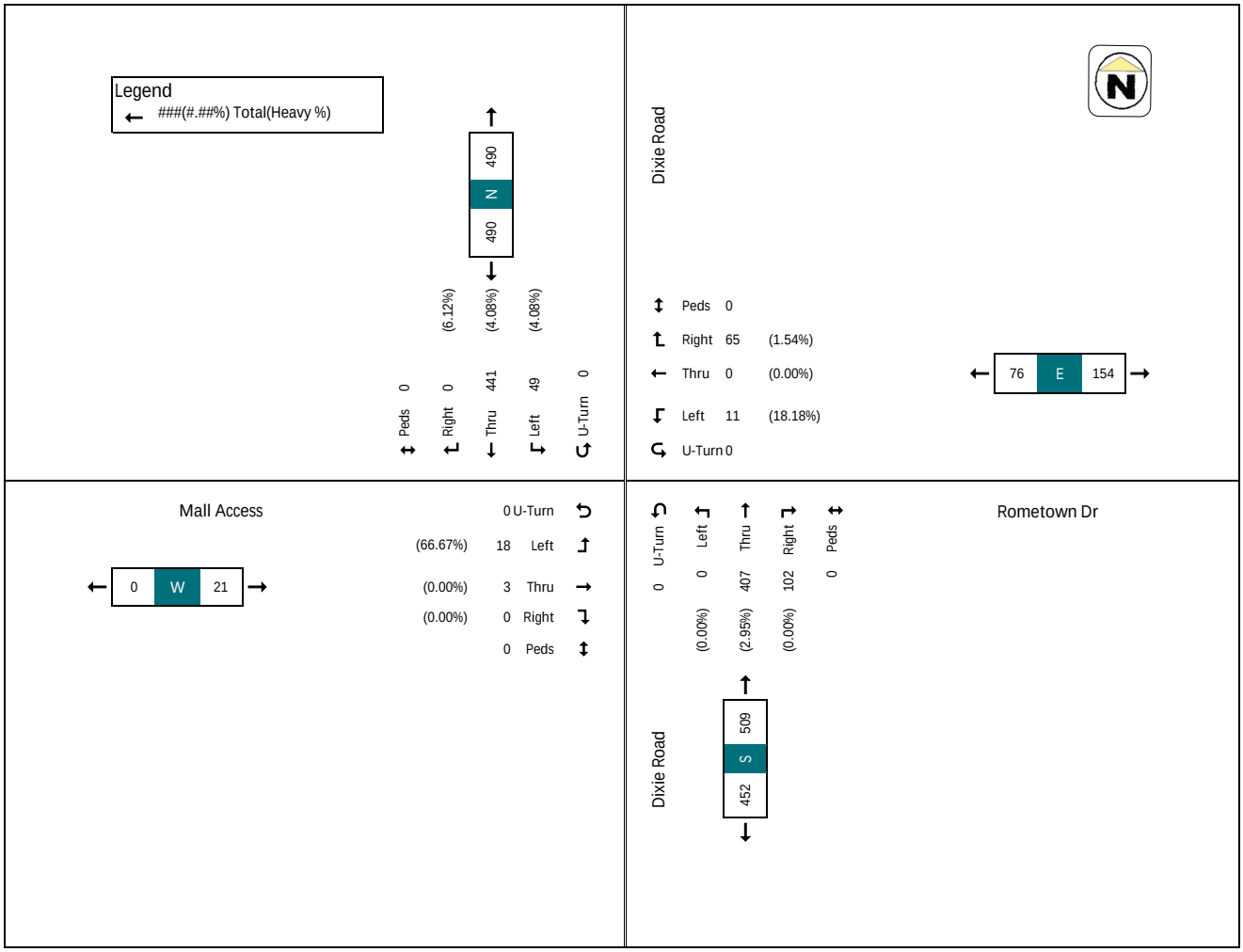


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

AM Peak Hour - Dixie Road & Mall Access

	Dixie Road Southbound						Rometown Dr Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	5	101	0	0	106	0	1	0	17	0	18	0	0	98	28	0	126	0	3	0	0	0	3	253
8:15	0	8	117	0	0	125	0	2	0	10	0	12	0	0	106	30	0	136	0	4	0	0	0	4	277
8:30	0	18	116	0	0	134	0	3	0	23	0	26	0	0	104	27	0	131	0	6	1	0	0	7	298
8:45	0	18	107	0	0	125	0	5	0	15	0	20	0	0	99	17	0	116	0	5	2	0	0	7	268
Hourly Total	0	49	441	0	0	490	0	11	0	65	0	76	0	0	407	102	0	509	0	18	3	0	0	21	1096
Approach %	0.0%	10.0%	90.0%	0.0%			0.0%	14.5%	0.0%	85.5%			0.0%	0.0%	80.0%	20.0%			0.0%	85.7%	14.3%	0.0%			
Total %	0.0%	4.5%	40.2%	0.0%		44.7%	0.0%	1.0%	0.0%	5.9%		6.9%	0.0%	0.0%	37.1%	9.3%		46.4%	0.0%	1.6%	0.3%	0.0%		1.9%	
PHF	0	0.68	0.94	0		0.91	0	0.55	0	0.71		0.73	0	0	0.98	0.85		0.94	0	0.75	0.38	0		0.75	0.92
Lights	0	47	414	0		461	0	9	0	64		73	0	0	395	102		497	0	6	3	0		9	1040
% Lights	-	95.9%	93.9%	-		94.1%	-	81.8%	-	98.5%		96.1%	-	-	97.1%	100.0%		97.6%	-	33.3%	100.0%	-		42.9%	94.9%
Buses	-	2	19	0		21	-	2	0	1		3	-	0	2	0		2	-	12	0	0		12	38
% Buses	-	4.1%	4.3%	-		4.3%	-	18.2%	-	1.5%		3.9%	-	-	0.5%	0.0%		0.4%	-	66.7%	0.0%	-		57.1%	3.5%
Trucks	-	0	8	0		8	-	0	0	0		0	-	0	10	0		10	-	0	0	0		0	18
% Trucks	-	0.0%	1.8%	-		1.6%	-	0.0%	-	0.0%		0.0%	-	-	2.5%	0.0%		2.0%	-	0.0%	0.0%	-		0.0%	1.6%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

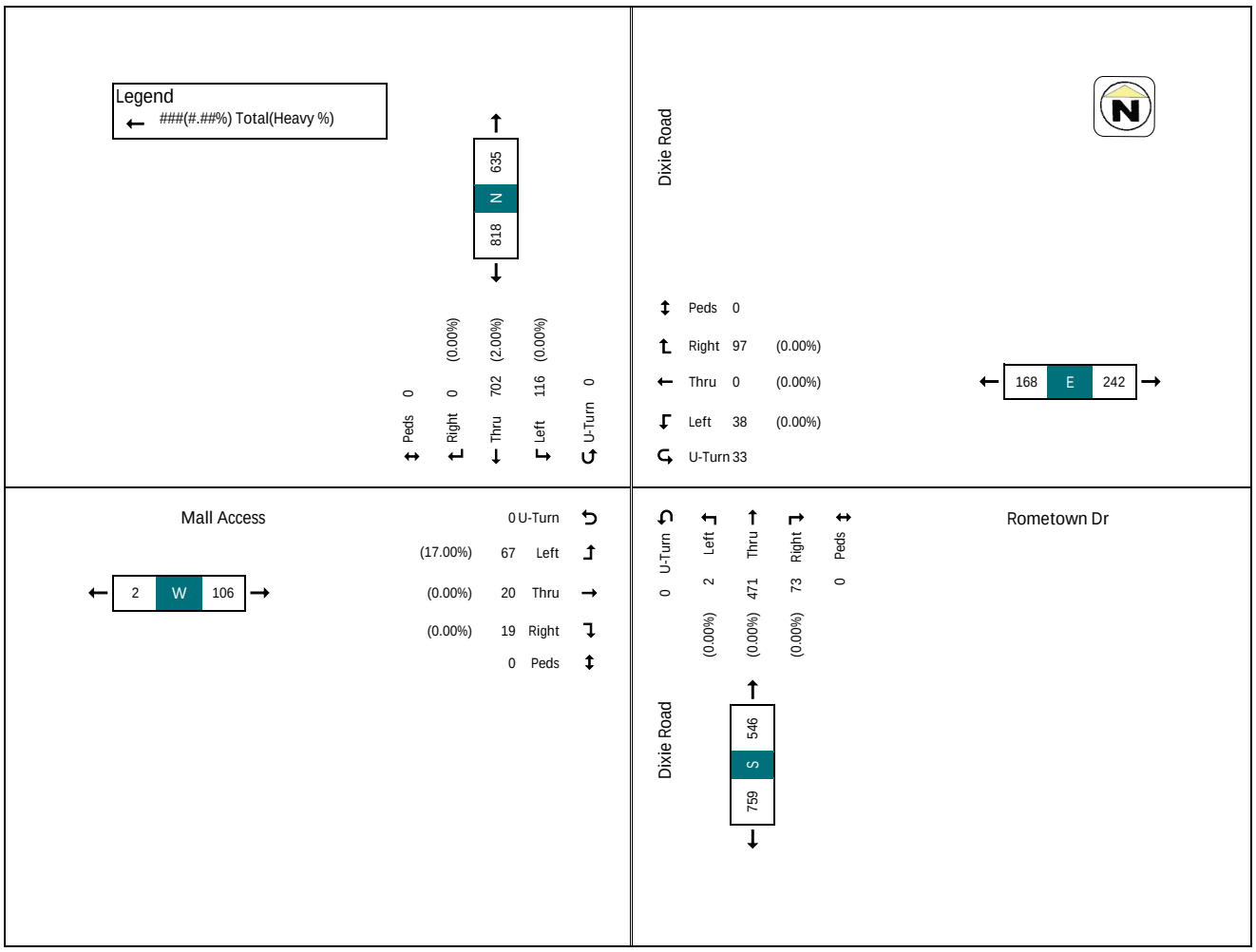


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

PM Peak Hour - Dixie Road & Mall Access

	Dixie Road Southbound						Rometown Dr Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
16:00	0	33	211	0	0	244	0	12	0	49	0	61	0	1	115	25	0	141	0	23	9	11	0	43	489
16:15	0	44	227	0	0	271	0	14	0	29	0	43	0	0	149	13	0	162	0	22	10	6	0	38	514
16:30	0	14	141	0	0	155	0	5	0	13	0	18	0	1	108	10	0	119	0	22	1	1	0	24	316
16:45	0	25	123	0	0	148	0	7	0	6	0	13	0	0	99	25	0	124	0	14	0	1	0	15	300
Hourly Total	0	116	702	0	0	818	0	38	0	97	0	135	0	2	471	73	0	546	0	81	20	19	0	120	1619
Approach %	0.0%	14.2%	85.8%	0.0%	-		0.0%	28.1%	0.0%	71.9%	-		0.0%	0.4%	86.3%	13.4%	-		0.0%	67.5%	16.7%	15.8%	-		
Total %	0.0%	7.2%	43.4%	0.0%	-	50.5%	0.0%	2.3%	0.0%	6.0%	-	8.3%	0.0%	0.1%	29.1%	4.5%	-	33.7%	0.0%	5.0%	1.2%	1.2%	-	7.4%	
PHF	0	0.66	0.77	0	-	0.75	0	0.68	0	0.49	-	0.55	0	0.5	0.79	0.73	-	0.84	0	0.88	0.5	0.43	-	0.7	0.79
Lights	0	116	687	0	-	803	0	38	0	97	-	135	0	2	470	73	-	545	0	67	20	19	-	106	1589
% Lights	-	100.0%	97.9%	-	-	98.2%	-	100.0%	-	100.0%	-	100.0%	-	100.0%	99.8%	100.0%	-	99.8%	-	82.7%	100.0%	100.0%	-	88.3%	98.1%
Buses	-	2	19	0	-	21	-	0	0	0	-	0	-	0	1	0	-	1	-	14	0	0	-	14	36
% Buses	-	1.7%	2.7%	-	-	2.6%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	0.2%	0.0%	-	0.2%	-	17.3%	0.0%	0.0%	-	11.7%	2.2%
Trucks	-	0	4	0	-	4	-	0	0	0	-	0	-	0	0	0	-	0	-	0	0	0	-	0	4
% Trucks	-	0.0%	0.6%	-	-	0.5%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	0.0%	0.0%	-	0.0%	0.2%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0		-	-	-	-	0		-	-	-	-	0		-	-	-	-	0		0

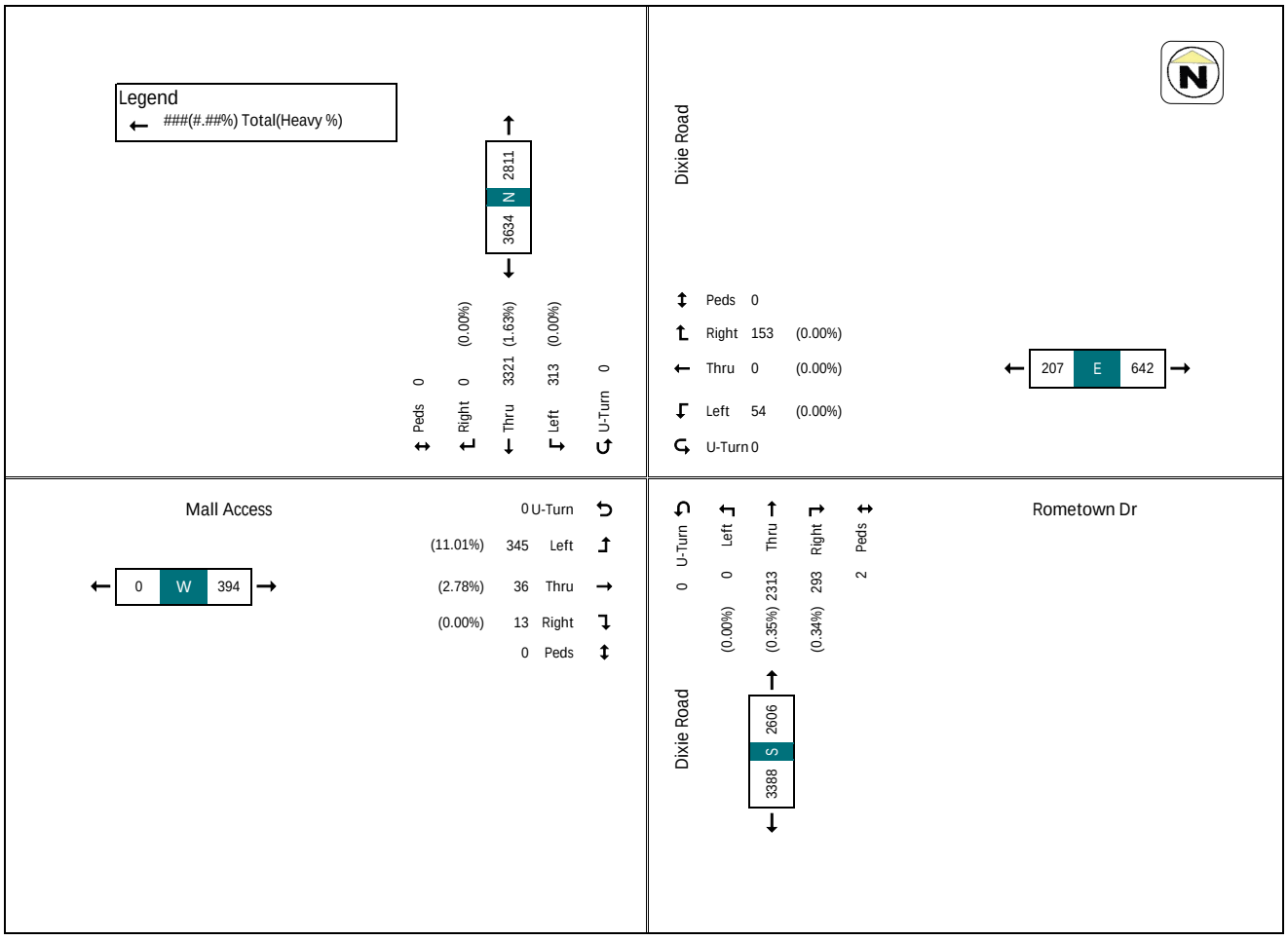


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24066

Turning Movement Count - Dixie Road & Mall Access

	Dixie Road Southbound						Rometown Dr Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	9	140	0	0	149	0	5	0	9	0	14	0	0	76	12	0	88	0	4	0	0	0	4	255
10:15	0	8	116	0	0	124	0	2	0	9	0	11	0	0	78	16	0	94	0	7	0	2	0	9	238
10:30	0	12	126	0	0	138	0	4	0	7	0	11	0	0	86	10	0	96	0	7	2	0	0	9	254
10:45	0	8	151	0	0	159	0	4	0	4	0	8	0	0	91	9	0	100	0	19	0	0	0	19	286
Hourly Total	0	37	533	0	0	570	0	15	0	29	0	44	0	0	331	47	0	378	0	37	2	2	0	41	1033
11:00	0	17	150	0	0	167	0	0	0	6	0	6	0	0	97	11	1	108	0	13	1	1	0	15	296
11:15	0	9	158	0	0	167	0	3	0	13	0	16	0	0	103	11	0	114	0	13	1	1	0	15	312
11:30	0	19	170	0	0	189	0	1	0	12	0	13	0	0	106	12	0	118	0	19	3	0	0	22	342
11:45	0	19	146	0	0	165	0	3	0	5	0	8	0	0	109	16	1	125	0	18	4	0	0	22	320
Hourly Total	0	64	624	0	0	688	0	7	0	36	0	43	0	0	415	50	2	465	0	63	9	2	0	74	1270
12:00	0	13	152	0	0	165	0	0	0	12	0	12	1	0	130	16	0	147	0	20	0	2	0	22	346
12:15	0	15	197	0	0	212	0	2	0	2	0	4	0	0	124	7	0	131	0	21	1	0	0	22	369
12:30	0	18	184	0	0	202	0	4	0	5	0	9	0	0	111	7	0	118	0	13	1	0	0	14	343
12:45	0	23	172	0	0	195	0	3	0	6	0	9	0	0	142	28	0	170	0	16	0	0	0	16	390
Hourly Total	0	69	705	0	0	774	0	9	0	25	0	34	1	0	507	58	0	565	0	70	2	2	0	74	1447
13:00	0	23	178	0	0	201	0	2	0	9	0	11	0	0	122	21	0	143	0	20	2	0	0	22	377
13:15	0	20	191	0	0	211	0	6	0	13	0	19	0	0	126	26	0	152	0	19	1	0	0	20	402
13:30	0	16	176	0	0	192	0	5	0	7	0	12	0	0	132	15	0	147	0	30	5	0	0	35	386
13:45	0	13	216	0	0	229	0	3	0	8	0	11	0	0	150	25	0	175	0	25	6	0	0	31	446
Hourly Total	0	72	761	0	0	833	0	16	0	37	0	53	0	0	533	84	0	617	0	94	14	0	0	108	1611
14:00	0	8	167	0	0	175	0	0	0	7	0	7	0	0	127	14	0	141	0	26	2	3	0	31	354
14:15	0	23	180	0	0	203	0	2	0	5	0	7	0	0	147	7	0	154	0	15	3	1	0	19	383
14:30	0	16	187	0	0	203	0	5	0	9	0	14	0	0	121	23	0	144	0	23	3	1	0	27	388
14:45	0	24	164	0	0	188	0	0	0	5	0	5	0	0	132	10	0	142	0	17	1	2	0	20	355
Hourly Total	0	71	698	0	0	769	0	7	0	26	0	33	0	0	527	54	0	581	0	81	9	7	0	97	1480
Grand Total	0	313	3321	0	0	3634	0	54	0	153	0	207	0	0	2313	293	2	2606	0	345	36	13	0	394	6841
Approach %	0.0%	8.6%	91.4%	0.0%	-	-	0.0%	26.1%	0.0%	73.9%	-	-	0.0%	0.0%	88.8%	11.2%	-	-	0.0%	87.6%	9.1%	3.3%	-	-	-
Total %	0.0%	4.6%	48.5%	0.0%	-	53.1%	0.0%	0.8%	0.0%	2.2%	-	3.0%	0.0%	0.0%	33.8%	4.3%	-	38.1%	0.0%	5.0%	0.5%	0.2%	-	5.8%	-
Lights	0	313	3267	0	-	3580	0	54	0	153	-	207	1	0	2305	292	-	2598	0	307	35	13	-	355	6740
% Lights	-	100.0%	98.4%	-	-	98.5%	-	100.0%	-	100.0%	-	100.0%	-	-	99.7%	99.7%	-	99.7%	-	89.0%	97.2%	100.0%	-	90.1%	98.5%
Buses	-	0	7	0	-	7	-	0	0	0	-	0	-	0	2	0	-	2	-	38	1	0	-	39	48
% Buses	-	0.0%	0.2%	-	-	0.2%	-	0.0%	0.0%	0.0%	-	0.0%	-	-	0.1%	0.0%	-	0.1%	-	11.0%	2.8%	0.0%	-	9.9%	0.7%
Trucks	-	0	15	0	-	15	-	0	0	0	-	0	-	0	6	1	-	7	-	0	0	0	-	0	22
% Trucks	-	0.0%	0.5%	-	-	0.4%	-	0.0%	0.0%	0.0%	-	0.0%	-	-	0.3%	0.3%	-	0.3%	-	0.0%	0.0%	0.0%	-	0.0%	0.3%
Bicycles	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	2

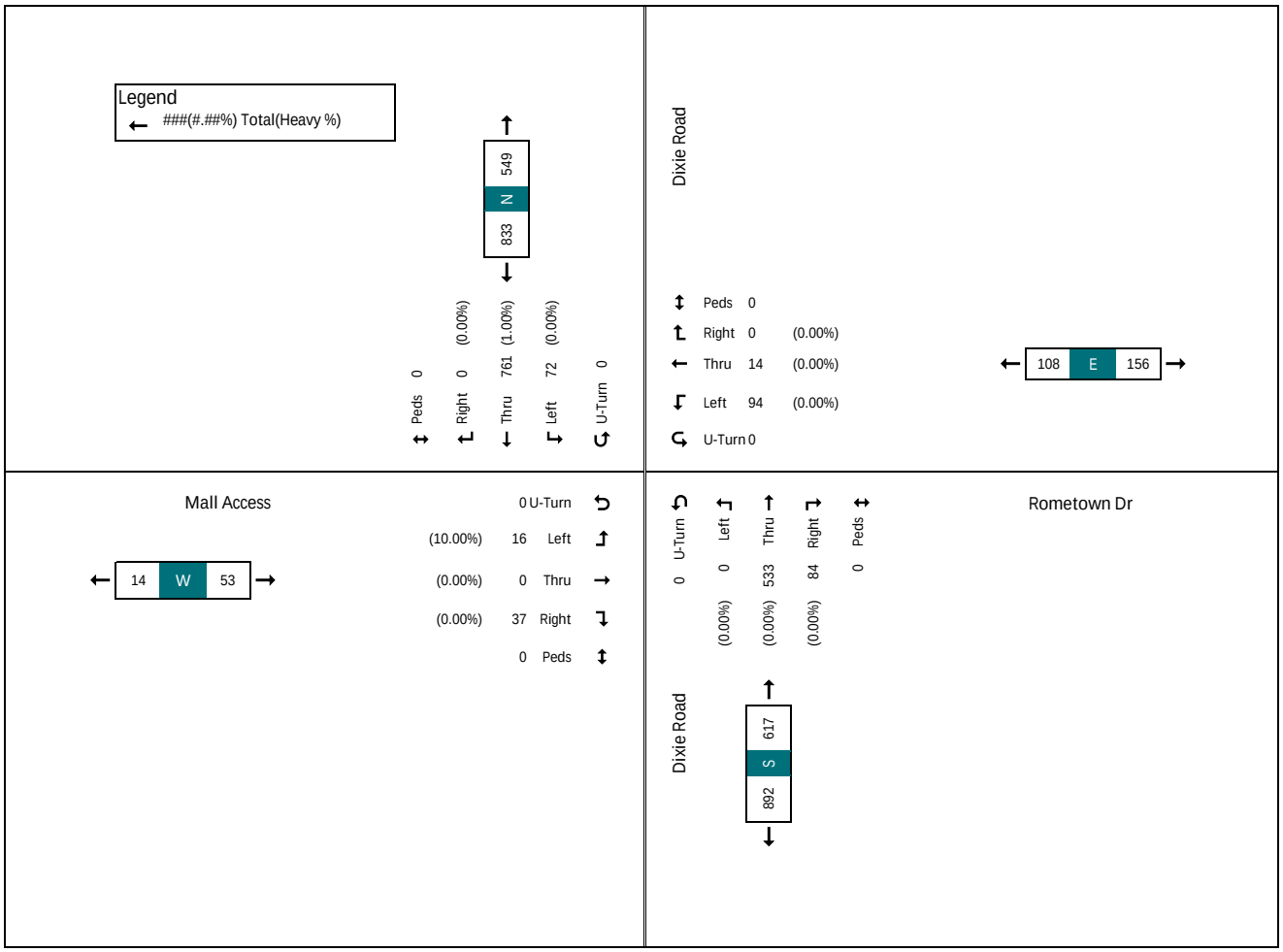


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24066

SAT Peak Hour - Dixie Road & Mall Access

	Dixie Road Southbound						Rometown Dr Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:00	0	23	178	0	0	201	0	2	0	9	0	11	0	0	122	21	0	143	0	20	2	0	0	22	377
13:15	0	20	191	0	0	211	0	6	0	13	0	19	0	0	129	23	0	152	0	19	1	0	0	20	402
13:30	0	16	176	0	0	192	0	5	0	7	0	12	0	0	132	15	0	147	0	30	5	0	0	35	386
13:45	0	13	216	0	0	229	0	3	0	8	0	11	0	0	150	25	0	175	0	25	6	0	0	31	446
Hourly Total	0	72	761	0	0	833	0	16	0	37	0	53	0	0	533	84	0	617	0	94	14	0	0	108	1611
Approach %	0.0%	8.6%	91.4%	0.0%			0.0%	30.2%	0.0%	69.8%			0.0%	0.0%	86.4%	13.6%			0.0%	87.0%	13.0%	0.0%			
Total %	0.0%	4.5%	47.2%	0.0%		51.7%	0.0%	1.0%	0.0%	2.3%		3.3%	0.0%	0.0%	33.1%	5.2%		38.3%	0.0%	5.8%	0.9%	0.0%		6.7%	
PHF		0.78	0.88			0.91		0.67		0.71		0.7			0.89	0.84		0.88		0.78	0.58			0.77	0.9
Lights	0	72	753	0		825	0	16	0	37		53	0	0	533	84		617	0	85	14	0		99	1594
% Lights	-	100.0%	98.9%	-		99.0%	-	100.0%	-	100.0%		100.0%	-	-	100.0%	100.0%		100.0%	-	90.4%	100.0%	-		91.7%	98.9%
Buses	-	0	7	0		7	-	0	0	0		0	-	0	0	0		0	-	9	0	0		9	16
% Buses	-	0.0%	0.9%	-		0.8%	-	0.0%	-	0.0%		0.0%	-	0.0%	0.0%	0.0%		0.0%	-	9.6%	0.0%	-		8.3%	1.0%
Trucks	-	0	1	0		1	-	0	0	0		0	-	0	0	0		0	-	0	0	0		0	1
% Trucks	-	0.0%	0.1%	-		0.1%	-	0.0%	-	0.0%		0.0%	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	0.0%	-		0.0%	0.1%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

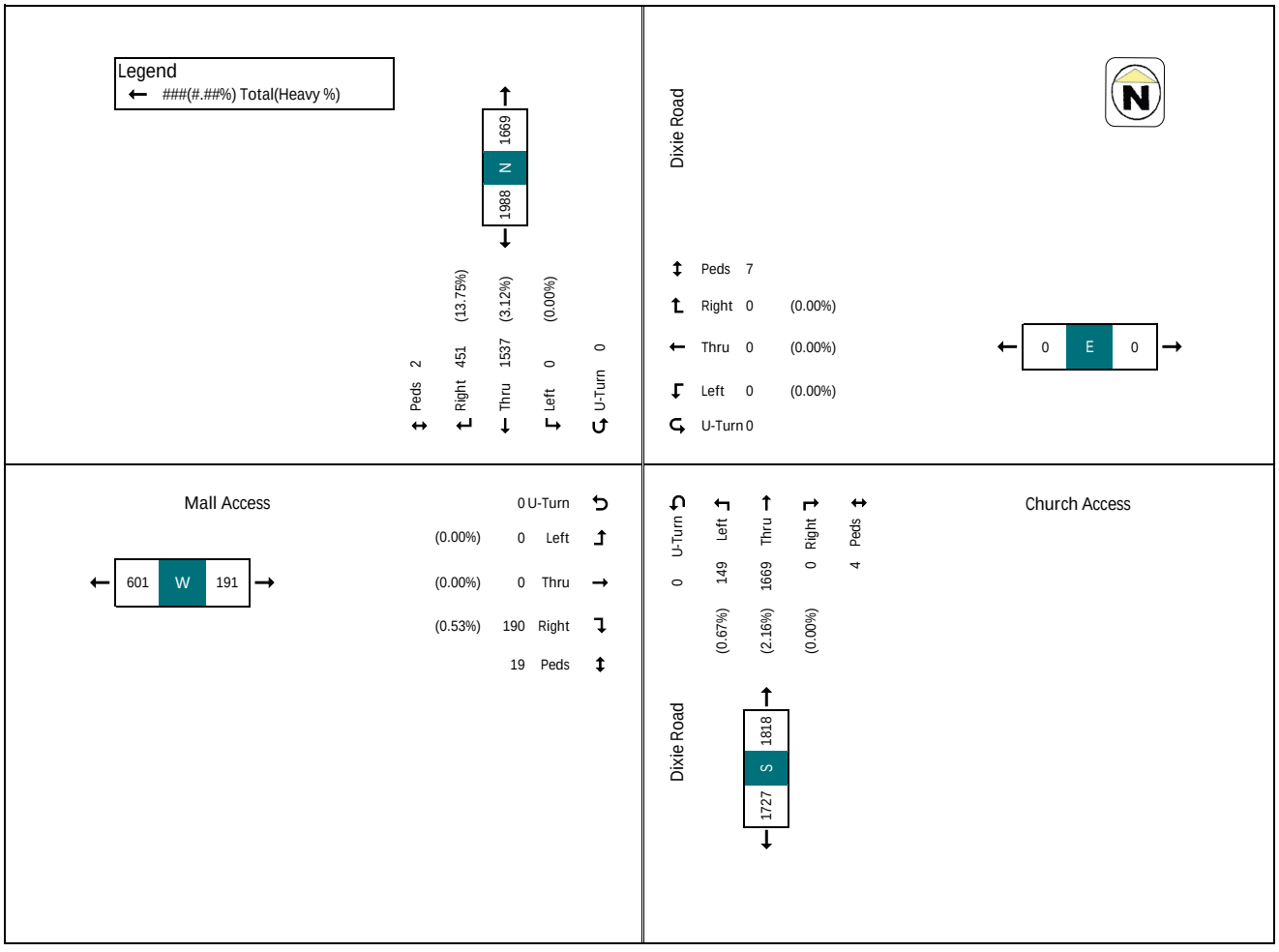


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24065

Turning Movement Count - Dixie Road & Mall Access

	Dixie Road Southbound						Church Access Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	0	48	5	0	53	0	0	0	0	0	0	0	0	52	0	0	52	0	1	0	0	0	1	106
7:15	0	0	56	4	1	60	0	0	0	0	1	0	0	1	61	0	0	62	0	1	0	1	0	2	124
7:30	0	0	83	8	0	71	0	0	0	0	0	0	0	1	93	0	0	94	0	1	0	0	0	1	166
7:45	0	0	90	6	0	96	0	0	0	0	0	0	0	3	99	0	0	102	0	1	0	1	1	2	200
Hourly Total	0	0	257	23	1	280	0	0	0	0	1	0	0	5	305	0	0	310	0	4	0	2	1	6	596
8:00	0	0	92	10	0	102	0	0	0	0	1	0	0	2	127	0	0	129	0	2	0	5	0	7	238
8:15	0	0	98	12	0	110	0	0	0	0	0	0	0	6	137	0	0	145	0	1	0	3	2	4	259
8:30	0	0	102	28	0	130	0	0	0	0	0	0	0	2	136	0	0	138	0	3	0	6	0	9	277
8:45	0	0	98	20	0	118	0	0	0	0	0	0	0	5	115	0	0	120	0	4	0	6	2	10	248
Hourly Total	0	0	390	70	0	460	0	0	0	0	1	0	0	17	515	0	0	532	0	10	0	20	4	30	1022
* Break *																									
16:00	0	0	101	45	0	146	0	0	0	0	0	0	0	20	107	0	0	127	0	18	0	27	0	45	318
16:15	0	0	120	56	0	176	0	0	0	0	0	0	0	15	102	0	0	117	0	25	0	24	0	49	342
16:30	0	0	101	39	0	140	0	0	0	0	0	0	0	17	100	0	1	117	1	21	0	16	3	38	295
16:45	0	0	105	36	0	141	0	0	0	0	1	0	0	15	112	0	1	127	0	18	0	15	1	33	301
Hourly Total	0	0	427	176	0	603	0	0	0	0	1	0	0	67	421	0	2	488	1	82	0	82	4	165	1256
17:00	0	0	125	49	0	174	0	0	0	0	1	0	0	14	128	0	1	142	0	18	0	23	3	41	357
17:15	0	0	118	49	0	167	0	0	0	0	0	0	0	14	99	0	0	113	0	19	0	16	1	35	315
17:30	0	0	105	48	0	153	0	0	0	0	2	0	0	13	97	0	1	110	0	18	0	28	2	46	309
17:45	0	0	110	36	1	146	0	0	0	0	1	0	0	19	93	0	0	112	0	32	0	19	4	51	309
Hourly Total	0	0	458	182	1	640	0	0	0	0	4	0	0	60	417	0	2	477	0	87	0	86	10	173	1290
Grand Total	0	0	1537	451	2	1988	0	0	0	0	7	0	0	149	1669	0	4	1818	1	184	0	190	19	375	4181
Approach %	0.0%	0.0%	77.3%	22.7%	-	-	-	-	-	-	-	-	0.0%	8.2%	91.8%	0.0%	-	-	0.3%	49.1%	0.0%	50.7%	-	-	-
Total %	0.0%	0.0%	36.8%	10.8%	-	47.5%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	3.6%	39.9%	0.0%	-	43.5%	0.0%	4.4%	0.0%	4.5%	-	9.0%	-
Lights	0	0	1489	389	-	1878	0	0	0	0	-	0	0	148	1633	0	-	1781	1	179	0	189	-	369	4028
% Lights	-	-	96.9%	86.3%	-	94.5%	-	-	-	-	-	-	-	99.3%	97.8%	-	-	98.0%	100.0%	97.3%	-	99.5%	-	98.4%	96.3%
Buses	-	0	12	51	-	63	-	0	0	0	-	0	-	0	5	0	-	5	-	0	0	0	-	0	68
% Buses	-	-	0.8%	11.3%	-	3.2%	-	-	-	-	-	-	-	0.0%	0.3%	-	-	0.3%	-	0.0%	-	0.0%	-	0.0%	1.6%
Trucks	-	0	36	11	-	47	-	0	0	0	-	0	-	1	31	0	-	32	-	5	0	1	-	6	85
% Trucks	-	-	2.3%	-	-	2.4%	-	-	-	-	-	-	-	0.7%	1.9%	-	-	1.8%	-	2.7%	-	0.5%	-	1.6%	2.0%
Bicycles	-	-	-	-	3	3	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	3
Pedestrians	-	-	-	-	2	-	-	-	-	-	7	-	-	-	-	-	4	-	-	-	-	-	19	-	32

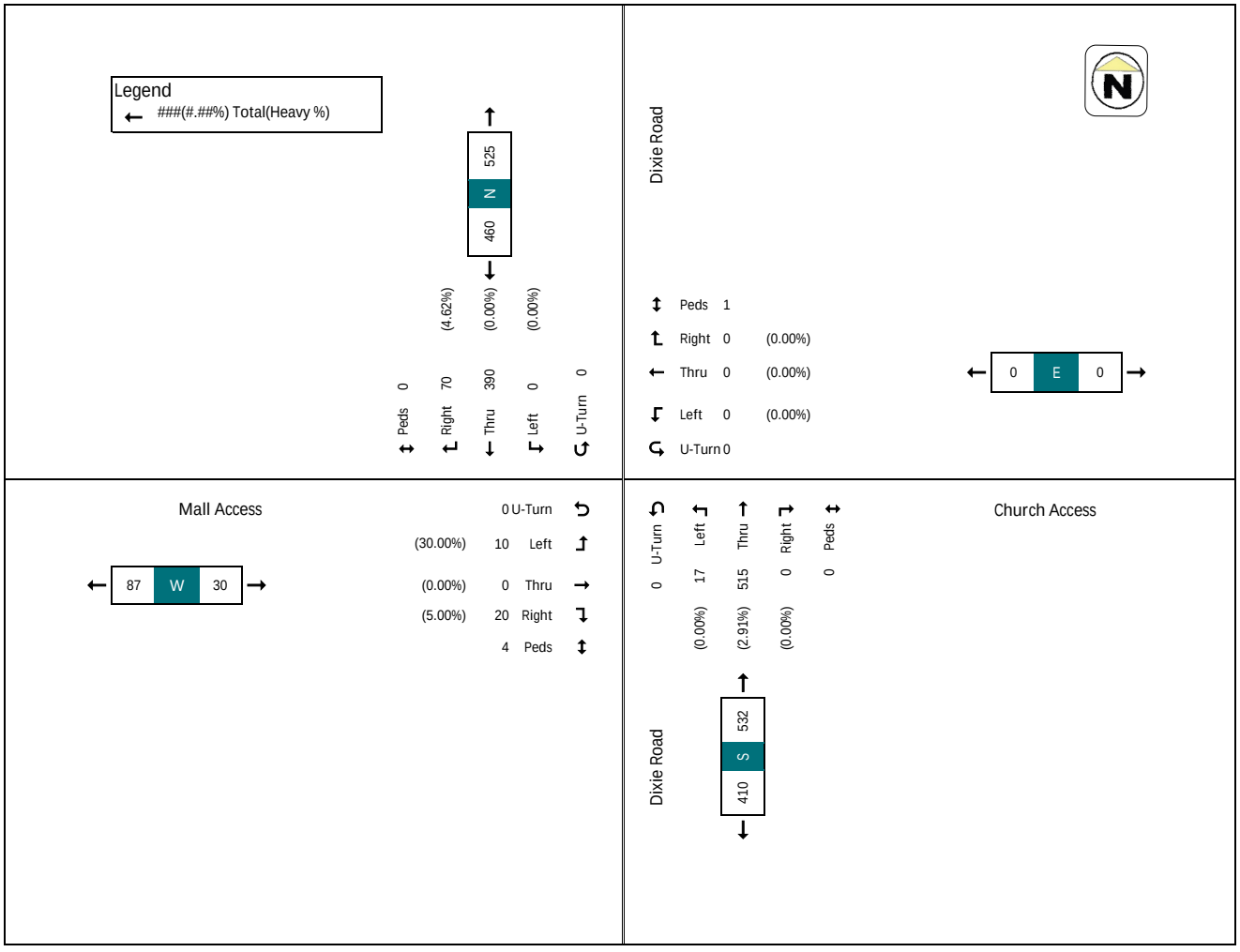


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24065

AM Peak Hour - Dixie Road & Mall Access

	Dixie Road Southbound						Church Access Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	0	92	10	0	102	0	0	0	0	1	0	0	2	127	0	0	129	0	2	0	5	0	7	238
8:15	0	0	98	12	0	110	0	0	0	0	0	0	0	8	137	0	0	145	0	1	0	3	2	4	259
8:30	0	0	102	28	0	130	0	0	0	0	0	0	0	2	136	0	0	138	0	3	0	6	0	9	277
8:45	0	0	98	20	0	118	0	0	0	0	0	0	0	5	115	0	0	120	0	4	0	6	2	10	248
Hourly Total	0	0	390	70	0	460	0	0	0	0	1	0	0	17	515	0	0	532	0	10	0	20	4	30	1022
Approach %	0.0%	0.0%	84.8%	15.2%	-	-	-	-	-	-	-	-	0.0%	3.2%	96.8%	0.0%	-	-	0.0%	33.3%	0.0%	66.7%	-	-	
Total %	0.0%	0.0%	38.2%	6.8%	-	45.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.7%	50.4%	0.0%	-	52.1%	0.0%	1.0%	0.0%	2.0%	-	2.9%	
PHF	0	0	0.96	0.63	-	0.88	0	0	0	0	-	0	0	0.53	0.94	0	-	0.92	0	0.63	0	0.83	-	0.75	0.92
Lights	0	0	372	51	-	423	0	0	0	0	-	0	0	17	500	0	-	517	0	7	0	18	-	25	965
% Lights	-	-	95.4%	72.9%	-	92.0%	-	-	-	-	-	-	-	100.0%	97.1%	-	-	97.2%	-	70.0%	-	95.0%	-	86.7%	94.5%
Buses	-	0	6	14	-	20	-	0	0	0	-	0	-	0	2	0	-	2	-	0	0	0	-	0	22
% Buses	-	-	1.5%	20.0%	-	4.3%	-	-	-	-	-	-	-	0.0%	0.4%	-	-	0.4%	-	0.0%	-	0.0%	-	0.0%	2.2%
Trucks	-	0	12	5	-	17	-	0	0	0	-	0	-	0	13	0	-	13	-	3	0	1	-	4	34
% Trucks	-	-	3.1%	7.1%	-	3.7%	-	-	-	-	-	-	-	0.0%	2.5%	-	-	2.4%	-	30.0%	-	5.0%	-	13.3%	3.3%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	4	-	5

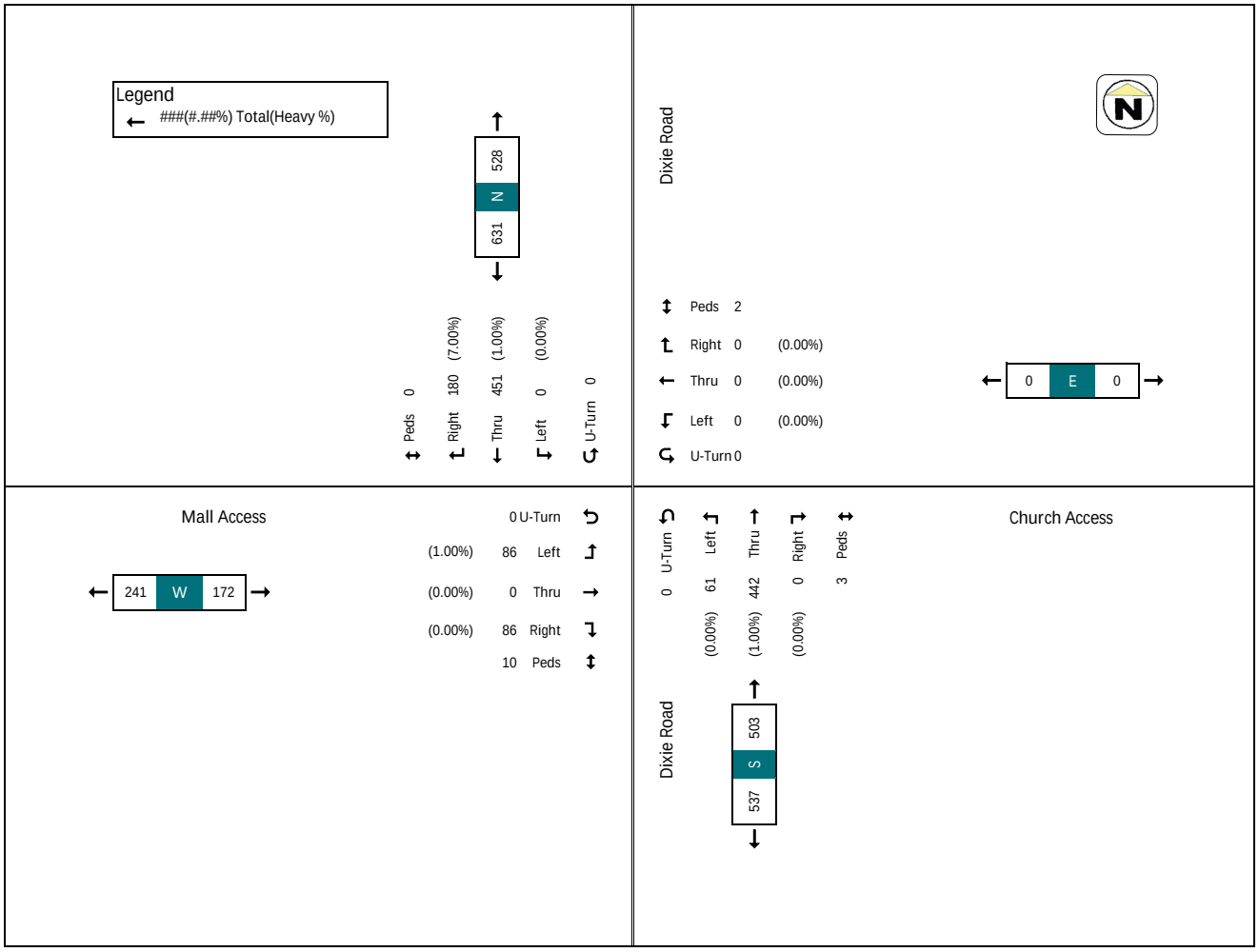


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24065

PM Peak Hour - Dixie Road & Mall Access

	Dixie Road Southbound						Church Access Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
16:15	0	0	120	56	0	176	0	0	0	0	0	0	0	15	102	0	0	117	0	25	0	24	0	49	342
16:30	0	0	101	39	0	140	0	0	0	0	0	0	0	17	100	0	1	117	1	21	0	16	3	38	295
16:45	0	0	105	36	0	141	0	0	0	0	1	0	0	15	112	0	1	127	0	18	0	15	1	33	301
17:00	0	0	125	49	0	174	0	0	0	0	1	0	0	14	128	0	1	142	0	18	0	23	3	41	357
Hourly Total	0	0	451	180	0	631	0	0	0	0	2	0	0	61	442	0	3	503	1	82	0	78	7	161	1295
Approach %	0.0%	0.0%	71.5%	28.5%	-		-	-	-	-	-		0.0%	12.1%	87.9%	0.0%	-		0.6%	50.9%	0.0%	48.4%	-		
Total %	0.0%	0.0%	34.8%	13.9%	-	48.7%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	6.0%	43.2%	0.0%	-	38.8%	0.1%	8.0%	0.0%	7.6%	-	12.4%	
PHF	0	0	0.9	0.8	-	0.9	0	0	0	0	-	0	0	0.9	0.86	0	-	0.89	0.25	0.82	0	0.81	-	0.82	0.91
Lights	0	0	454	169	-	623	0	0	0	0	-	0	0	60	413	0	-	473	0	86	0	86	-	172	1268
% Lights	-	-	100.7%	93.9%	-	98.7%	-	-	-	-	-	-	-	98.4%	93.4%	-	-	94.0%	-	104.9%	-	110.3%	-	106.8%	97.9%
Buses	-	0	6	14	-	20	-	0	0	0	-	0	-	0	0	0	-	0	-	0	0	0	-	0	20
% Buses	-	-	1.3%	7.8%	-	3.2%	-	-	-	-	-	-	-	0.0%	0.0%	-	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1.5%
Trucks	-	0	4	1	-	5	-	0	0	0	-	0	-	0	4	0	-	4	-	1	0	0	-	1	10
% Trucks	-	-	0.9%	0.6%	-	0.8%	-	-	-	-	-	-	-	0.0%	0.9%	-	-	0.8%	-	1.2%	-	0.0%	-	0.6%	0.8%
Bicycles	-	-	-	-	1		-	-	-	-	0		-	-	-	-	0		-	-	-	-	0		
Pedestrians	-	-	-	-	1		-	-	-	-	0		-	-	-	-	0		-	-	-	-	0		

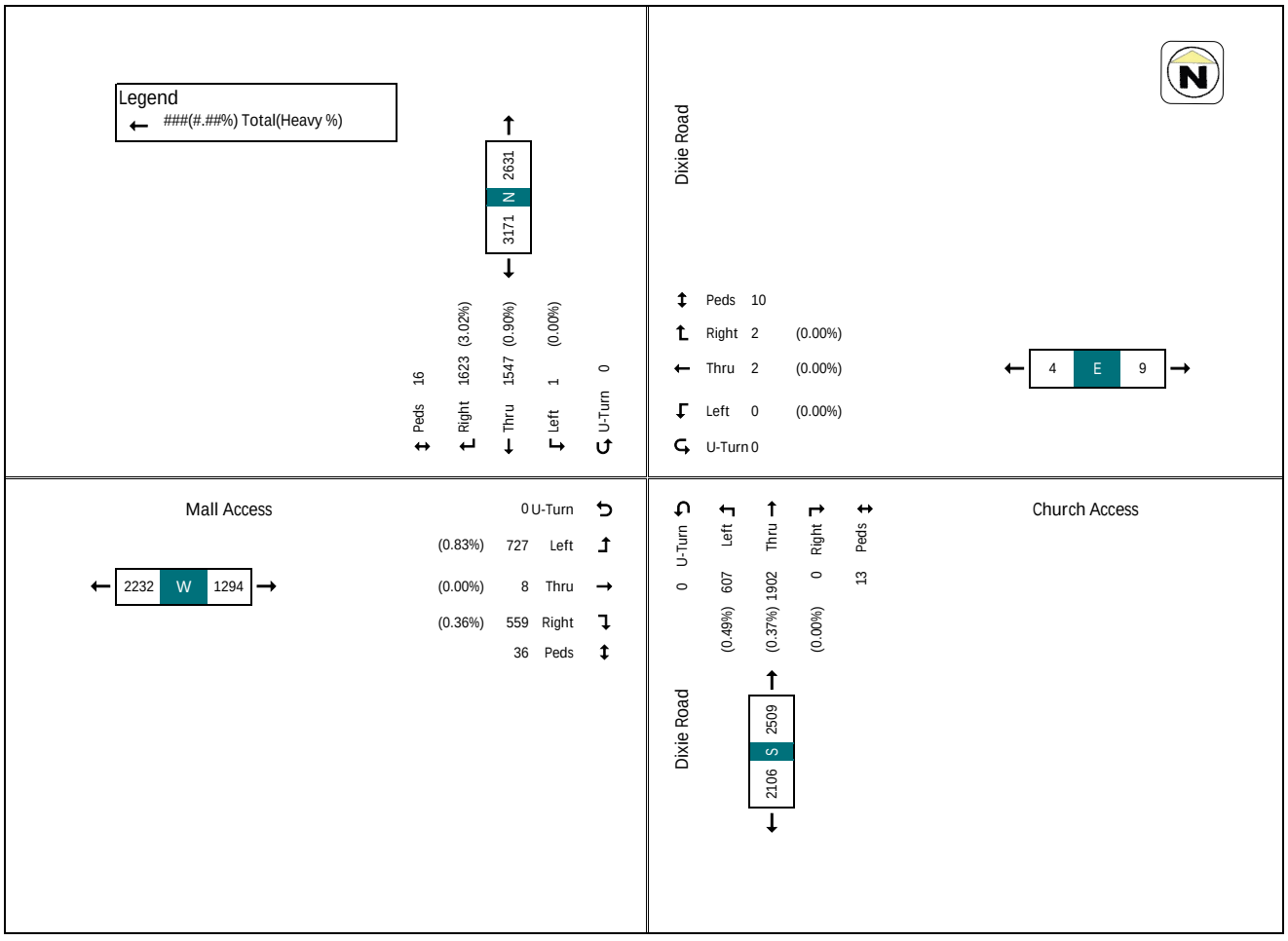


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24065

Turning Movement Count - Dixie Road & Mall Access

	Dixie Road Southbound						Church Access Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	77	71	0	148	0	0	0	0	0	0	0	19	79	0	0	98	0	15	0	12	0	27	273
10:15	0	0	58	59	0	117	0	0	0	0	1	0	0	33	79	0	0	112	0	11	0	22	2	33	262
10:30	0	0	68	66	1	134	0	0	0	0	0	0	0	24	78	0	1	102	0	21	0	22	3	43	279
10:45	0	0	79	77	0	156	0	0	0	1	1	1	0	21	75	0	0	96	0	20	0	17	0	37	290
Hourly Total	0	0	282	273	1	555	0	0	0	1	2	1	0	97	311	0	1	408	0	67	0	73	5	140	1104
11:00	0	0	76	72	0	148	0	0	0	0	0	0	36	36	80	0	0	152	0	30	0	25	0	55	355
11:15	0	0	82	83	0	165	0	0	0	0	0	0	22	22	87	0	0	131	0	29	0	30	0	59	355
11:30	0	0	76	87	0	163	0	0	0	0	0	0	26	26	93	0	0	145	0	29	0	27	4	56	364
11:45	0	0	80	69	0	149	0	0	0	0	0	0	42	42	95	0	0	179	0	30	1	33	0	64	392
Hourly Total	0	0	314	311	0	625	0	0	0	0	0	0	0	126	355	0	0	481	0	118	1	115	4	234	1340
12:00	1	0	94	59	0	154	0	0	0	1	0	1	0	22	103	0	0	125	0	47	1	36	2	84	364
12:15	0	0	106	83	2	189	0	0	0	0	1	0	0	23	101	0	0	124	0	32	0	27	1	59	372
12:30	1	0	100	84	0	185	0	0	0	0	0	0	0	36	87	0	1	122	0	34	0	26	1	60	369
12:45	1	0	99	84	0	184	0	0	0	0	0	0	0	44	121	0	1	165	0	49	4	39	1	92	441
Hourly Total	3	0	399	310	2	712	0	0	0	1	1	1	0	124	412	0	2	536	0	162	5	128	5	295	1546
13:00	0	0	98	76	0	174	0	0	0	0	0	0	0	49	112	0	1	161	0	31	0	27	2	58	393
13:15	0	0	105	102	0	207	0	0	0	0	0	0	0	32	105	0	2	137	0	47	0	34	1	81	425
13:30	2	1	76	102	0	180	0	0	0	0	0	0	0	37	94	0	2	131	0	53	0	26	1	79	393
13:45	0	0	117	88	11	205	0	0	0	0	0	0	0	25	110	0	0	135	0	63	0	40	2	103	443
Hourly Total	2	1	398	368	11	769	0	0	0	0	0	0	0	143	421	0	5	564	0	194	0	127	6	321	1654
14:00	0	0	49	76	0	125	0	0	0	0	2	0	0	30	100	0	1	130	0	41	2	37	7	80	335
14:15	0	0	0	97	0	97	0	0	0	0	0	0	0	32	104	0	2	136	0	50	0	29	5	79	312
14:30	0	0	21	101	1	122	0	0	0	0	2	0	0	27	95	0	0	122	0	49	0	21	0	70	314
14:45	1	0	84	87	1	172	0	0	0	0	3	0	0	28	104	0	0	132	0	46	0	29	4	75	379
Hourly Total	1	0	154	361	2	516	0	0	0	0	7	0	0	117	403	0	3	520	0	186	2	116	16	304	1340
Grand Total	6	1	1547	1623	16	3177	0	0	2	2	10	4	0	607	1902	0	13	2509	0	727	8	559	36	1294	6984
Approach %	0.2%	0.0%	48.7%	51.1%	-	-	0.0%	0.0%	50.0%	50.0%	-	-	0.0%	24.2%	75.8%	0.0%	-	-	0.0%	56.2%	0.6%	43.2%	-	-	-
Total %	0.1%	0.0%	22.2%	23.2%	-	45.5%	0.0%	0.0%	0.0%	0.0%	-	0.1%	0.0%	8.7%	27.2%	0.0%	-	35.9%	0.0%	10.4%	0.1%	8.0%	-	18.5%	-
Lights	6	1	1533	1574	-	3114	0	0	2	2	-	4	0	604	1895	0	-	2499	0	721	8	557	-	1286	6903
% Lights	100.0%	100.0%	99.1%	97.0%	-	98.0%	-	-	100.0%	100.0%	-	100.0%	-	99.5%	99.6%	-	-	99.6%	-	99.2%	100.0%	99.6%	-	99.4%	98.8%
Buses	0	0	7	-	-	7	-	0	0	0	-	0	0	1	1	0	-	1	0	0	0	0	-	0	8
% Buses	-	0.0%	0.0%	0.4%	-	0.2%	-	-	0.0%	0.0%	-	0.0%	-	0.0%	0.1%	-	-	0.0%	-	0.0%	0.0%	0.0%	-	0.0%	0.1%
Trucks	-	0	14	11	-	25	-	0	0	0	-	0	-	3	6	0	-	9	-	6	0	2	-	8	42
% Trucks	-	0.0%	0.9%	0.7%	-	0.8%	-	-	0.0%	0.0%	-	0.0%	-	0.5%	0.3%	-	-	0.4%	-	0.8%	0.0%	0.4%	-	0.6%	0.6%
Bicycles	-	-	-	-	5	5	-	-	-	-	3	3	-	-	-	-	9	9	-	-	-	-	0	0	17
Pedestrians	-	-	-	-	16	-	-	-	-	-	10	-	-	-	-	-	13	-	-	-	-	-	35	-	74

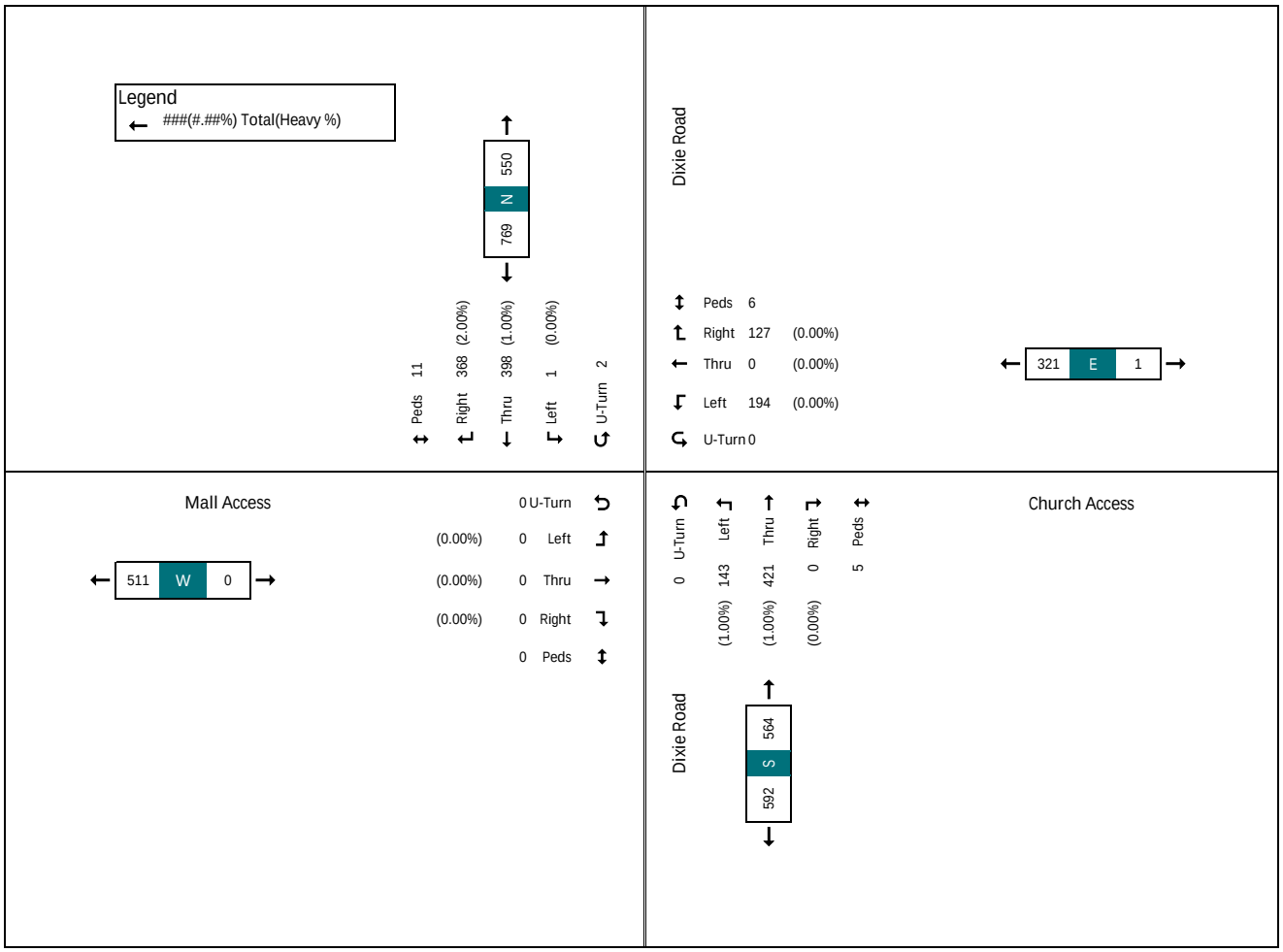


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Mall Access
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24065

SAT Peak Hour - Dixie Road & Mall Access

	Dixie Road Southbound						Church Access Westbound						Dixie Road Northbound						Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:00	0	0	98	76	0	174	0	0	0	0	0	0	0	49	112	0	1	161	0	31	0	27	2	58	393
13:15	0	0	105	102	0	207	0	0	0	0	0	0	0	32	105	0	2	137	0	47	0	34	1	81	425
13:30	2	1	78	102	0	183	0	0	0	0	0	0	0	37	94	0	2	131	0	53	0	26	1	79	393
13:45	0	0	117	88	11	205	0	0	0	0	0	0	0	25	110	0	0	135	0	63	0	40	2	103	443
Hourly Total	2	1	398	368	11	769	0	0	0	0	0	0	0	143	421	0	5	564	0	194	0	127	6	321	1654
Approach %	0.3%	0.1%	51.8%	47.9%									0.0%	25.4%	74.6%	0.0%			0.0%	60.4%	0.0%	39.6%			
Total %	0.1%	0.1%	24.1%	22.2%		46.5%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	14.0%	41.2%	0.0%		34.1%	0.0%	19.0%	0.0%	12.4%		19.4%	
PHF	0.25	0.25	0.85	0.9		0.93							0	0.72	0.94			0.88	0	0.77	0	0.79		0.79	0.93
Lights	2	1	394	359		756	0	0	0	0		0	0	143	416	0		560	0	194	0	127		321	1637
% Lights	100.0%	100.0%	99.0%	97.6%		98.3%	-	-	-	-	-	-	-	99.3%	99.3%	-	-	99.3%	-	100.0%	-	100.0%	-	100.0%	99.0%
Buses	-	0	0	7		7	-	0	0	0	-	0	-	0	1	0	-	1	-	0	0	0	-	0	8
% Buses	-	0.0%	0.0%	1.9%		0.9%	-	-	-	-	-	-	-	0.0%	0.2%	-	-	0.2%	-	0.0%	-	0.0%	-	0.0%	0.5%
Trucks	-	0	4	2		6	-	0	0	0	-	0	-	1	2	0	-	3	-	0	0	0	-	0	9
% Trucks	-	0.0%	1.0%	0.5%		0.8%	-	-	-	-	-	-	-	0.7%	0.5%	-	-	0.5%	-	0.0%	-	0.0%	-	0.0%	0.5%
Bicycles	-	-	-	-	1	1	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	1
Pedestrians	-	-	-	-	11		-	-	-	-	0	-	-	-	-	-	0		-	-	-	-	5	-	16

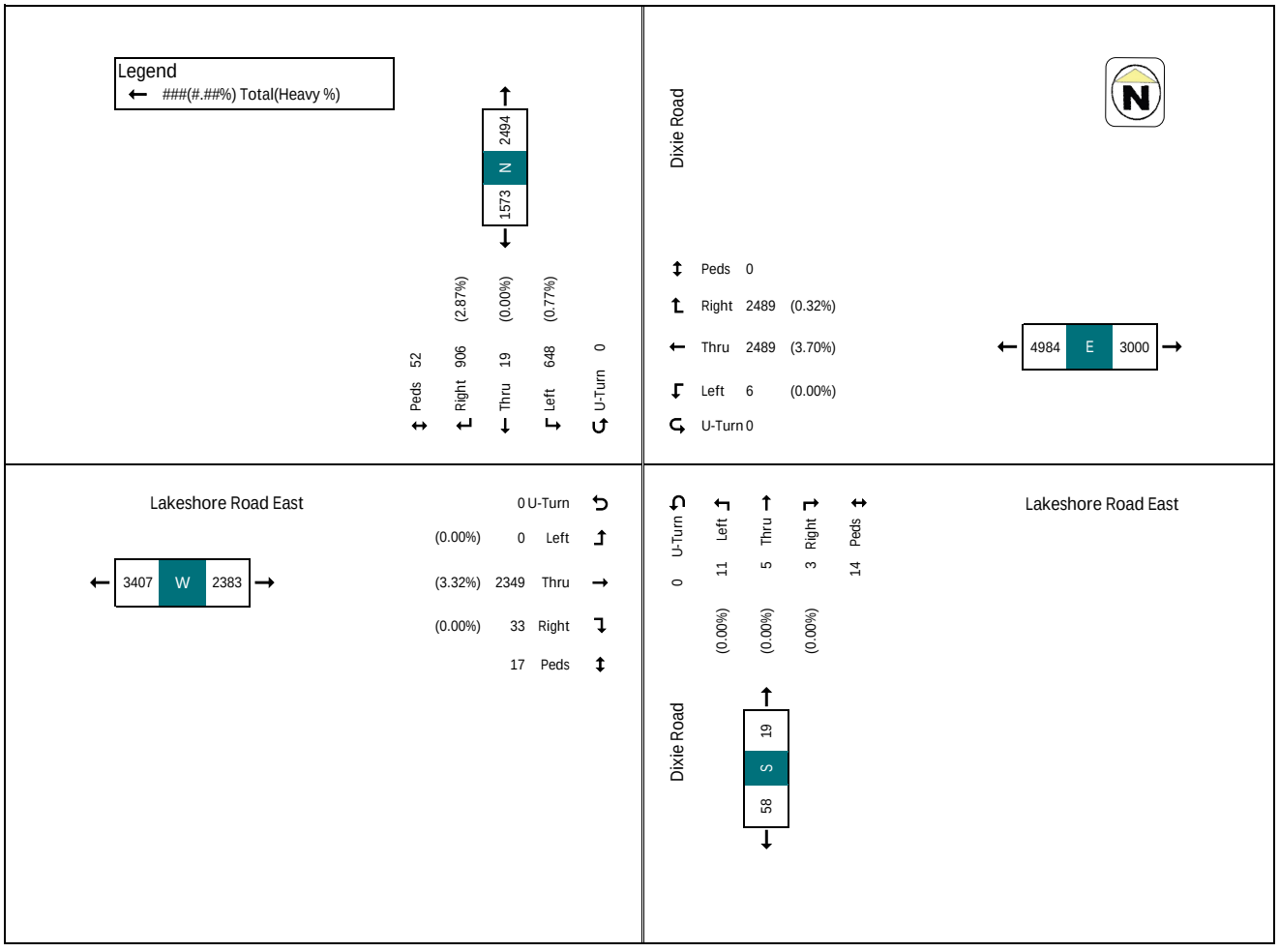


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Lakeshore Road East
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24062

Turning Movement Count - Dixie Road & Lakeshore Road East

	Dixie Road Southbound						Lakeshore Road East Westbound						Dixie Road Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	17	0	24	2	41	0	1	80	16	0	97	0	0	0	0	0	0	0	26	81	0	2	107	245
7:15	0	18	0	28	2	46	0	0	83	17	0	100	0	0	0	0	0	0	0	35	112	1	0	148	294
7:30	0	38	0	29	1	67	0	0	121	35	0	156	0	0	0	0	0	0	0	41	132	1	0	174	397
7:45	0	40	0	47	1	87	0	0	130	44	0	174	0	2	0	0	1	2	0	42	165	1	0	208	471
Hourly Total	0	113	0	128	6	241	0	1	414	112	0	527	0	2	0	0	1	2	0	144	490	3	2	637	1407
8:00	0	40	0	51	0	91	0	0	165	39	0	204	0	0	1	0	0	1	0	68	181	2	1	251	547
8:15	0	26	2	73	3	100	0	0	172	55	0	227	0	0	0	0	0	0	0	92	165	1	1	259	586
8:30	0	42	5	61	4	108	0	0	164	44	0	208	0	1	0	0	1	1	0	87	145	4	1	236	553
8:45	0	26	5	60	0	91	0	0	139	38	0	177	0	1	1	0	1	2	0	65	175	15	1	255	525
Hourly Total	0	133	12	245	7	390	0	0	640	176	0	816	0	2	2	0	1	4	0	302	666	22	4	990	2200
* Break *																									
16:00	0	56	1	69	6	126	0	0	177	38	0	215	0	1	1	0	2	2	0	99	130	1	2	230	573
16:15	0	53	0	75	4	128	0	2	188	30	0	220	0	0	1	0	1	1	1	54	135	2	1	192	541
16:30	0	33	0	66	3	99	0	0	196	48	0	244	0	2	0	0	0	2	0	61	167	0	0	228	573
16:45	0	53	1	56	3	110	0	1	195	44	0	240	0	1	0	0	1	1	0	70	157	0	1	227	578
Hourly Total	0	195	2	266	16	463	0	3	738	180	0	921	0	4	2	0	4	6	1	284	589	3	4	877	2267
17:00	0	52	3	65	7	120	0	0	191	66	0	257	0	0	0	3	3	3	0	59	147	1	3	207	587
17:15	0	58	1	72	6	131	0	0	171	36	0	207	0	1	0	0	1	1	0	62	165	0	0	227	566
17:30	0	40	1	60	3	101	0	1	190	45	0	236	0	1	0	0	3	1	0	59	151	1	1	211	549
17:45	0	57	0	70	7	127	0	1	144	37	0	182	0	1	1	0	1	2	0	58	141	3	3	202	513
Hourly Total	0	207	5	267	23	479	0	2	696	184	0	882	0	3	1	3	8	7	0	238	604	5	7	847	2215
Grand Total	0	648	19	906	52	1573	0	6	2489	653	0	3148	0	11	5	3	14	19	1	968	2349	33	17	3351	8091
Approach %	0.0%	41.2%	1.2%	57.6%	-	-	0.0%	0.2%	79.1%	20.7%	-	-	0.0%	57.9%	26.3%	15.8%	-	-	0.0%	28.9%	70.1%	1.0%	-	-	-
Total %	0.0%	8.0%	0.2%	11.2%	-	19.4%	0.0%	0.1%	30.8%	8.1%	-	38.9%	0.0%	0.1%	0.1%	0.0%	-	0.2%	0.0%	12.0%	29.0%	0.4%	-	41.4%	-
Lights	0	643	19	880	-	1542	0	6	2397	645	-	3048	0	11	5	3	-	19	1	945	2271	33	-	3250	7859
% Lights	-	99.2%	100.0%	97.1%	-	98.0%	-	100.0%	96.3%	98.8%	-	96.8%	-	100.0%	100.0%	100.0%	-	100.0%	100.0%	97.6%	96.7%	100.0%	-	97.0%	97.1%
Buses	-	1	0	3	-	4	-	0	43	3	-	46	-	0	0	0	-	0	-	4	35	0	-	39	89
% Buses	-	0.2%	0.0%	0.3%	-	0.3%	-	0.0%	1.7%	0.5%	-	1.5%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.4%	1.5%	0.0%	-	1.2%	1.1%
Trucks	-	4	0	23	-	27	-	0	49	5	-	54	-	0	0	0	-	0	-	19	43	0	-	62	143
% Trucks	-	0.6%	0.0%	-	-	1.7%	-	0.0%	2.0%	0.8%	-	1.7%	-	0.0%	0.0%	0.0%	-	0.0%	-	2.0%	1.8%	0.0%	-	1.9%	1.8%
Bicycles	-	-	-	-	0	0	-	-	-	-	2	2	-	-	-	-	4	4	-	-	-	-	4	4	19
Pedestrians	-	-	-	-	52	-	-	-	-	-	0	-	-	-	-	-	14	-	-	-	-	-	17	-	83

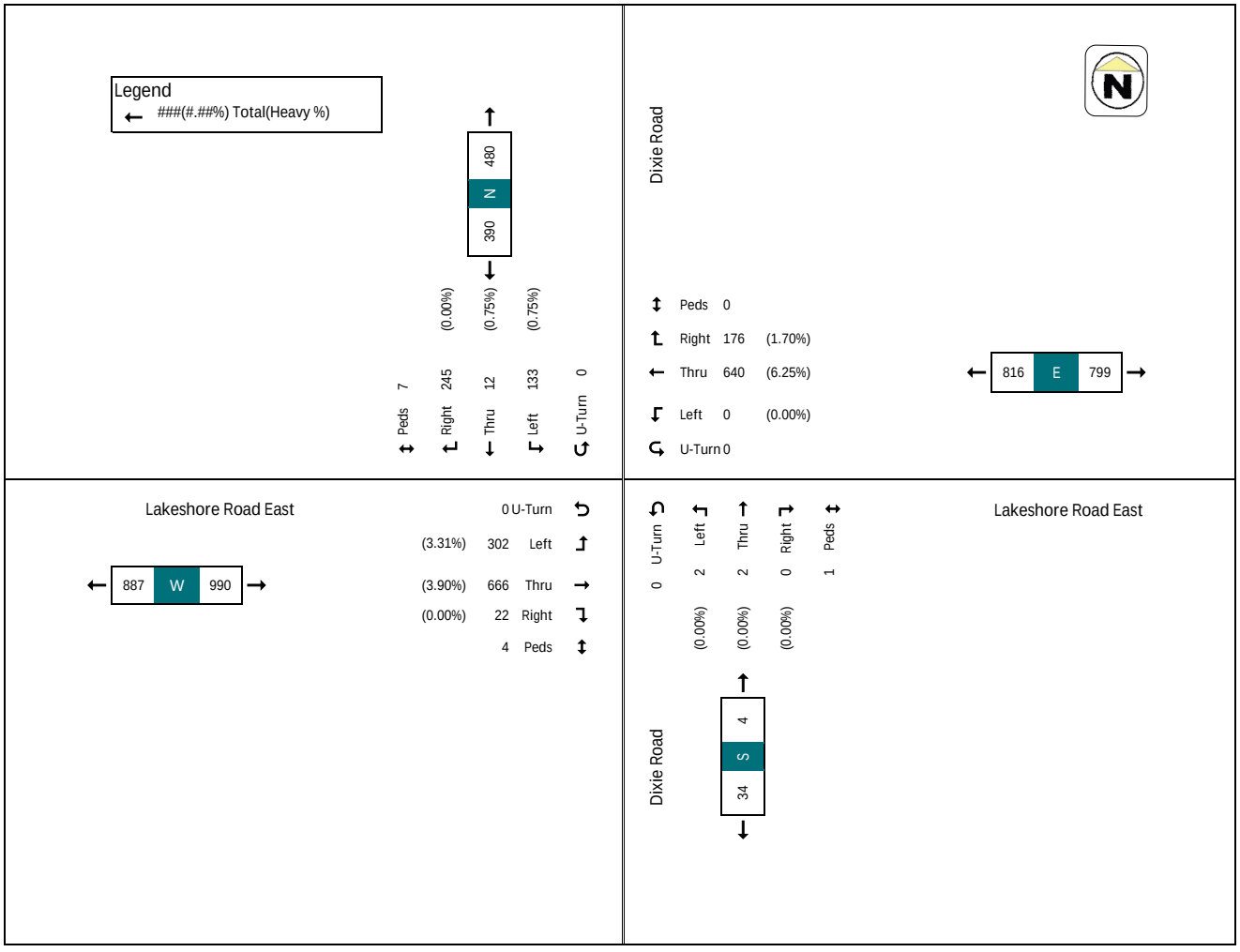


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Lakeshore Road East
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24062

AM Peak Hour - Dixie Road & Lakeshore Road East

	Dixie Road Southbound						Lakeshore Road East Westbound						Dixie Road Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	40	0	51	0	91	0	0	165	39	0	204	0	0	1	0	0	1	0	68	181	2	1	251	547
8:15	0	25	2	73	3	100	0	0	172	55	0	227	0	0	0	0	0	0	0	82	165	1	1	248	575
8:30	0	42	5	61	4	108	0	0	164	44	0	208	0	1	0	0	0	1	0	87	145	4	1	236	553
8:45	0	26	5	60	0	91	0	0	139	38	0	177	0	1	1	0	1	2	0	65	175	15	1	255	525
Hourly Total	0	133	12	245	7	390	0	0	640	176	0	816	0	2	2	0	1	4	0	302	666	22	4	990	2200
Approach %	0.0%	34.1%	3.1%	62.8%	-	-	0.0%	0.0%	78.4%	21.6%	-	-	0.0%	50.0%	50.0%	0.0%	-	-	0.0%	30.5%	67.3%	2.2%	-	-	-
Total %	0.0%	6.0%	0.5%	11.1%	-	17.7%	0.0%	0.0%	29.1%	8.0%	-	37.1%	0.0%	0.1%	0.1%	0.0%	-	0.2%	0.0%	13.7%	30.3%	1.0%	-	45.0%	-
PHF	0	0.79	0.6	0.84	-	0.9	0	0	0.93	0.8	-	0.9	0	0.5	0.5	0	-	0.5	0	0.87	0.92	0.37	-	0.97	0.96
Lights	0	132	12	235	-	379	0	0	600	173	-	773	0	2	2	0	-	4	0	292	640	22	-	954	2110
% Lights	-	99.2%	100.0%	95.9%	-	97.2%	-	-	93.8%	98.3%	-	94.7%	-	100.0%	100.0%	-	-	100.0%	-	96.7%	96.1%	100.0%	-	96.4%	95.9%
Buses	-	0	0	2	-	2	-	0	16	1	-	17	-	0	0	0	-	0	-	2	10	0	-	12	31
% Buses	-	0.0%	0.0%	0.8%	-	0.5%	-	-	2.5%	0.6%	-	2.1%	-	0.0%	0.0%	-	-	0.0%	-	0.7%	1.5%	0.0%	-	1.2%	1.4%
Trucks	-	1	0	8	-	9	-	0	24	2	-	26	-	0	0	0	-	0	-	8	16	0	-	24	59
% Trucks	-	0.8%	0.0%	3.3%	-	2.3%	-	-	3.8%	1.1%	-	3.2%	-	0.0%	0.0%	-	-	0.0%	-	2.6%	2.4%	0.0%	-	2.4%	2.7%
Bicycles	-	-	-	-	3	3	-	-	-	-	2	2	-	-	-	-	1	1	-	-	-	-	0	0	6
Pedestrians	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	-	11

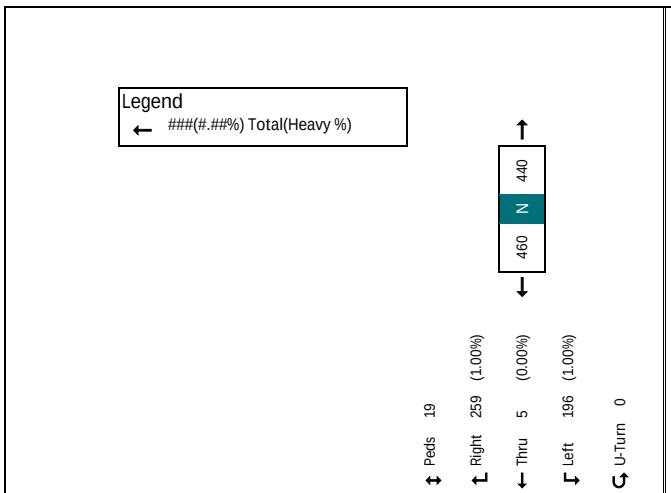


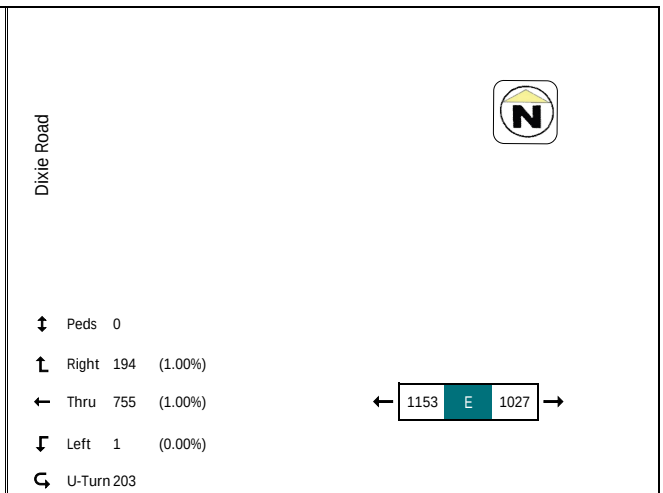
LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

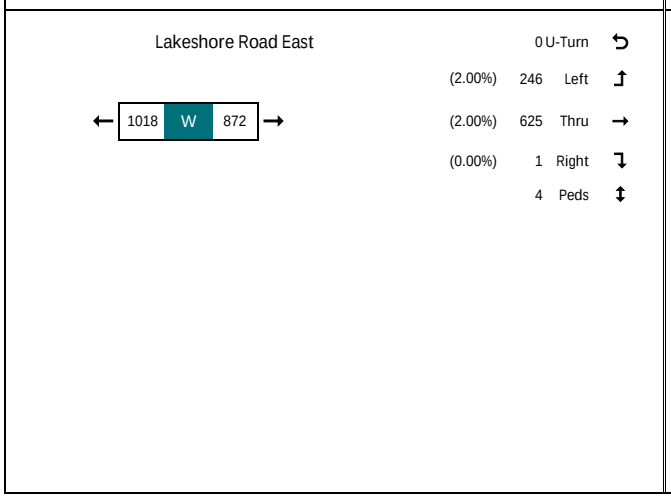
Intersection : Dixie Road & Lakeshore Road East
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24062

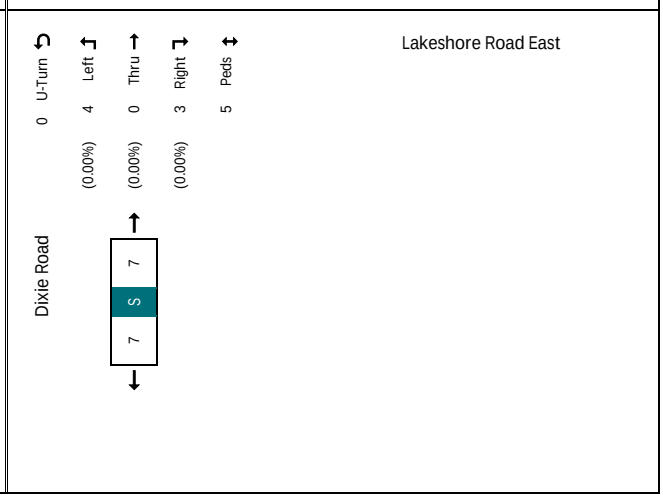
PM Peak Hour - Dixie Road & Lakeshore Road East

	Dixie Road Southbound						Lakeshore Road East Westbound						Dixie Road Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
16:30	0	33	0	66	3	99	0	0	198	48	0	246	0	2	0	0	0	2	0	61	167	0	0	228	575
16:45	0	53	1	56	3	110	0	1	195	44	0	240	0	1	0	0	1	1	0	70	157	0	1	227	578
17:00	0	52	3	65	7	120	0	0	191	66	0	257	0	0	0	3	3	3	0	59	147	1	3	207	587
17:15	0	58	1	72	6	131	0	0	171	36	0	207	0	1	0	0	1	1	0	62	165	0	0	227	566
Hourly Total	0	196	5	259	19	460	0	1	755	194	0	950	0	4	0	3	5	7	0	252	636	1	4	889	2306
Approach %	0.0%	42.6%	1.1%	56.3%	-	-	0.0%	0.1%	79.5%	20.4%	-	-	0.0%	57.1%	0.0%	42.9%	-	-	0.0%	28.3%	71.5%	0.1%	-	-	-
Total %	0.0%	8.5%	0.2%	11.2%	-	19.9%	0.0%	0.0%	34.3%	8.4%	-	41.2%	0.0%	0.2%	0.0%	0.1%	-	0.3%	0.0%	11.5%	28.9%	0.0%	-	38.6%	-
PHF	-	0.84	0.42	0.9	-	0.88	-	0.25	0.95	0.73	-	0.92	-	0.5	-	0.25	-	0.58	-	0.9	0.95	0.25	-	0.97	0.98
Lights	0	195	5	255	-	455	0	1	744	193	-	938	0	4	0	3	-	7	0	246	625	1	-	872	2272
% Lights	-	99.5%	100.0%	98.8%	-	99.1%	-	100.0%	98.5%	99.5%	-	98.7%	-	100.0%	-	100.0%	-	100.0%	-	97.6%	98.3%	100.0%	-	98.1%	98.6%
Buses	-	0	0	2	-	2	-	0	8	0	-	8	-	0	0	0	-	0	-	1	6	0	-	7	17
% Buses	-	0.0%	0.0%	0.8%	-	0.4%	-	0.0%	1.1%	0.0%	-	0.8%	-	0.0%	-	0.0%	-	0.0%	-	0.4%	0.9%	0.0%	-	0.8%	0.7%
Trucks	-	1	0	3	-	4	-	0	3	1	-	4	-	0	0	0	-	0	-	5	5	0	-	10	18
% Trucks	-	0.5%	0.0%	1.2%	-	0.9%	-	0.0%	0.4%	0.5%	-	0.4%	-	0.0%	-	0.0%	-	0.0%	-	2.0%	0.8%	0.0%	-	1.1%	0.8%
Bicycles	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	1
Pedestrians	-	-	-	-	19	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	19







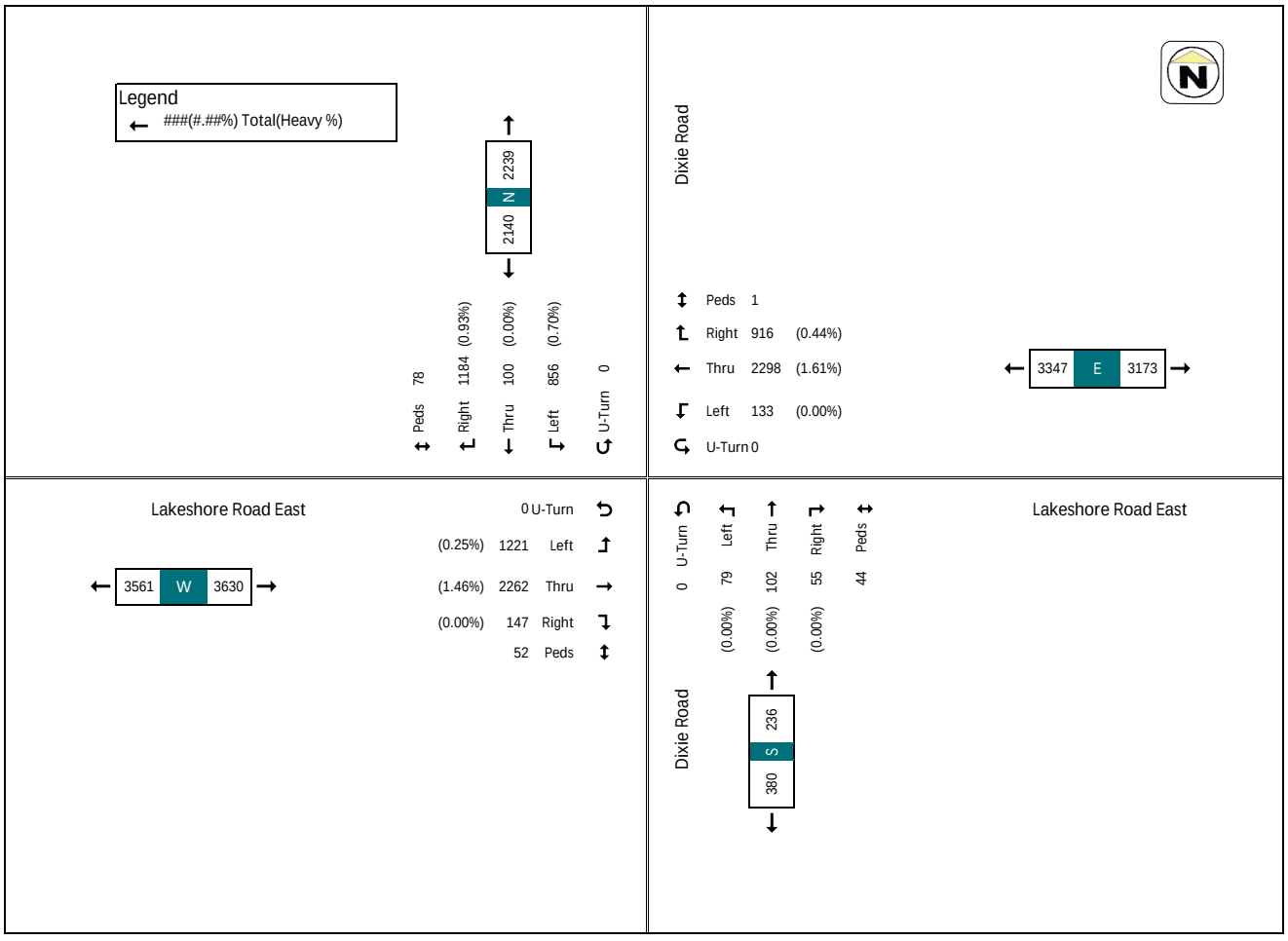


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Lakeshore Road East
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24062

Turning Movement Count - Dixie Road & Lakeshore Road East

	Dixie Road Southbound						Lakeshore Road East Westbound						Dixie Road Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	32	8	43	2	83	0	5	92	26	0	123	0	0	4	0	0	4	0	48	83	8	0	139	349
10:15	0	19	6	50	0	75	0	14	93	44	1	151	0	1	5	1	1	7	0	52	80	10	0	142	375
10:30	0	32	1	40	5	73	0	12	101	41	0	154	0	3	2	4	1	9	0	41	65	11	4	117	353
10:45	0	29	9	50	1	88	0	8	90	38	0	136	0	0	1	4	0	5	0	53	75	10	1	138	367
Hourly Total	0	112	24	183	8	319	0	39	376	149	1	564	0	4	12	9	2	25	0	194	303	39	5	536	1444
11:00	0	38	5	42	8	85	0	13	108	35	0	156	1	1	2	1	2	5	0	46	99	14	5	159	405
11:15	0	25	9	62	7	96	0	9	93	53	0	155	1	1	1	0	0	3	0	45	105	10	3	160	414
11:30	0	39	9	41	3	89	0	5	126	44	0	175	2	2	8	7	2	19	0	58	93	13	2	164	447
11:45	0	43	5	57	7	105	0	6	135	45	0	186	2	2	5	5	4	14	0	60	125	5	7	190	495
Hourly Total	0	145	28	202	25	375	0	33	462	177	0	672	0	6	16	13	8	35	0	209	422	42	17	673	1755
12:00	0	42	6	63	3	111	0	5	107	51	0	163	0	1	4	2	0	7	0	64	103	15	0	182	463
12:15	0	60	6	61	2	127	0	8	106	48	0	162	0	2	5	2	0	9	0	55	126	5	3	186	484
12:30	0	41	5	64	0	110	0	8	113	59	0	180	0	0	6	1	3	10	0	63	113	7	4	183	489
12:45	0	50	3	75	7	128	0	6	111	61	0	178	0	4	1	3	6	14	0	70	132	4	8	215	535
Hourly Total	0	193	20	263	14	476	0	27	440	219	0	683	0	10	22	8	13	46	0	261	474	31	15	781	1971
13:00	0	44	4	72	1	120	0	5	119	48	0	172	0	6	7	3	3	16	0	81	125	8	0	214	522
13:15	0	50	3	75	7	128	0	6	116	39	0	161	0	10	9	5	0	24	0	68	131	5	3	204	517
13:30	0	50	5	54	7	109	0	6	122	40	0	168	0	7	4	3	0	14	0	84	126	5	3	215	506
13:45	0	57	3	79	6	139	0	7	125	56	0	188	0	12	5	3	2	20	0	71	146	5	3	222	569
Hourly Total	0	201	15	280	21	496	0	24	482	183	0	689	0	35	25	14	11	74	0	304	528	23	9	855	2114
14:00	0	53	5	77	1	135	0	4	143	47	0	194	0	4	9	3	1	16	0	61	142	3	2	206	551
14:15	0	53	6	62	0	121	0	2	126	50	0	178	0	5	5	3	1	13	0	77	142	4	1	223	535
14:30	0	52	1	61	6	114	0	3	109	40	0	152	0	4	8	3	0	15	0	51	129	3	3	183	464
14:45	0	47	1	56	3	104	0	1	160	54	0	215	0	5	5	2	5	12	0	64	122	2	0	188	519
Hourly Total	0	205	13	256	10	474	0	10	538	191	0	739	0	18	27	11	10	56	0	253	535	12	6	800	2069
Grand Total	0	856	100	1184	78	2140	0	133	2298	916	1	3347	0	79	102	55	44	236	0	1221	2262	147	52	3630	9353
Approach %	0.0%	40.0%	4.7%	55.3%	-	-	0.0%	4.0%	68.7%	27.4%	-	-	0.0%	33.5%	43.2%	23.3%	-	-	0.0%	33.6%	62.3%	4.0%	-	-	-
Total %	0.0%	9.2%	1.1%	12.7%	0.8%	22.9%	0.0%	1.4%	24.6%	9.8%	0.0%	35.8%	0.0%	0.8%	1.1%	0.6%	0.5%	2.5%	0.0%	13.1%	24.2%	1.6%	0.6%	38.8%	-
Lights	0	850	100	1173	-	2123	0	133	2261	912	-	3306	1	79	102	55	-	237	0	1218	2229	147	-	3594	9260
% Lights	-	99.3%	100.0%	99.1%	-	99.2%	-	100.0%	98.4%	99.6%	-	98.8%	-	100.0%	100.0%	100.0%	-	100.4%	-	99.8%	98.5%	100.0%	-	99.0%	99.0%
Buses	-	0	0	0	-	0	-	0	23	0	-	23	-	0	0	0	-	0	-	1	23	0	-	24	47
% Buses	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	1.0%	0.0%	-	0.7%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.1%	1.0%	0.0%	-	0.7%	0.5%
Trucks	-	6	0	10	-	16	-	0	14	4	-	18	-	0	0	0	-	0	-	2	10	0	-	12	46
% Trucks	-	0.7%	0.0%	0.8%	-	0.7%	-	0.0%	0.6%	0.4%	-	0.5%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.2%	0.4%	0.0%	-	0.3%	0.5%
Bicycles	-	-	-	-	5	5	-	-	-	-	18	18	-	-	-	-	2	2	-	-	-	-	27	27	52
Pedestrians	-	-	-	-	80	-	-	-	-	-	2	-	-	-	-	-	49	-	-	-	-	-	52	-	177

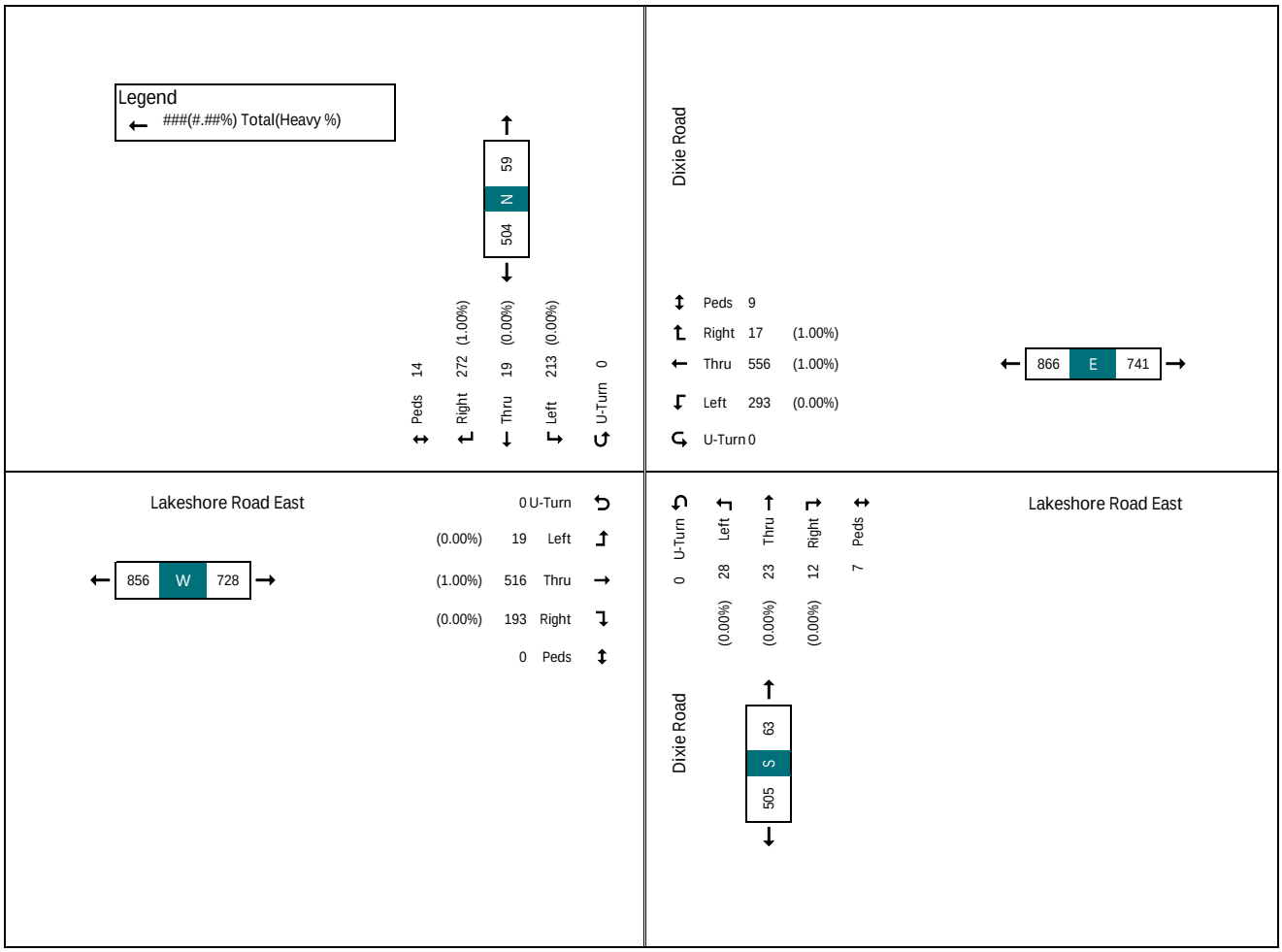


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Lakeshore Road East
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24062

SAT Peak Hour - Dixie Road & Lakeshore Road East

	Dixie Road Southbound						Lakeshore Road East Westbound						Dixie Road Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:30	0	50	5	54	7	109	0	6	122	40	0	168	0	7	4	3	3	14	0	84	126	5	3	215	506
13:45	0	57	3	79	6	139	0	7	129	56	0	188	0	12	5	3	2	20	0	71	146	5	3	222	569
14:00	0	53	5	77	1	135	0	4	143	47	0	194	0	4	9	3	1	16	0	61	142	3	2	206	551
14:15	0	53	6	62	0	121	0	2	126	50	0	178	0	5	5	3	1	13	0	77	142	4	1	223	535
Hourly Total	0	213	19	272	14	504	0	19	516	193	0	728	0	28	23	12	7	63	0	293	556	17	9	866	2161
Approach %	0.0%	42.3%	3.8%	54.0%			0.0%	2.6%	70.9%	26.5%			0.0%	44.4%	36.5%	19.0%			0.0%	33.8%	64.2%	2.0%			
Total %	0.0%	9.9%	0.9%	12.6%		23.3%	0.0%	0.9%	23.9%	8.9%		33.7%	0.0%	1.3%	1.0%	0.5%		2.9%	0.0%	13.6%	25.7%	0.8%		40.1%	
PHF		0.93	0.79	0.86		0.91		0.68	0.93	0.84		0.94		0.58	0.64	1		0.79		0.87	0.95	0.85		0.97	0.95
Lights	0	212	18	269		500	0	18	509	193		720	0	28	23	12		63	0	293	549	17		859	2142
% Lights	-	99.5%	100.0%	98.9%		99.2%	-	100.0%	98.6%	99.5%		98.9%	-	100.0%	100.0%	100.0%		100.0%	-	100.0%	98.7%	100.0%		99.2%	99.1%
Buses	-	0	0	0		0	-	0	5	0		5	-	0	0	0		0	-	0	5	0		5	10
% Buses	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	1.0%	0.0%		0.7%	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	0.9%	0.0%		0.6%	0.5%
Trucks	-	1	0	3		4	-	0	2	0		3	-	0	0	0		0	-	0	2	0		2	9
% Trucks	-	0.5%	0.0%	1.1%		0.8%	-	0.0%	0.4%	0.5%		0.4%	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	0.4%	0.0%		0.2%	0.4%
Bicycles	-	-	-	-	4	4	-	-	-	-	2	2	-	-	-	-	0	0	-	-	-	-	4	4	10
Pedestrians	-	-	-	-	10	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	9	-	26

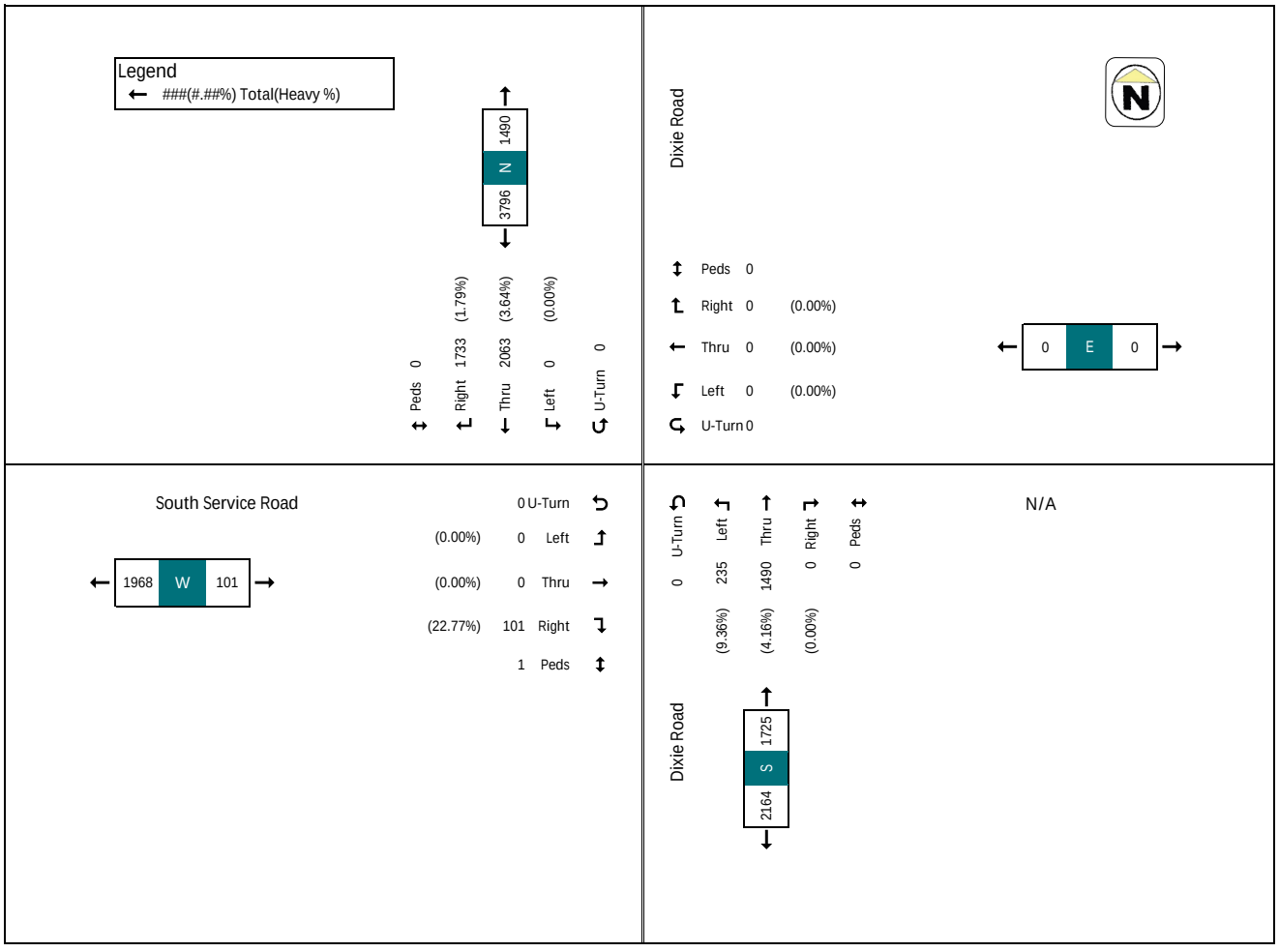


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & South Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24064

Turning Movement Count - Dixie Road & South Service Road

	Dixie Road Southbound						N/A Westbound						Dixie Road Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	0	47	54	0	101	0	0	0	0	0	0	0	13	41	0	0	54	0	10	0	5	0	15	170
7:15	0	0	60	62	0	122	0	0	0	0	0	0	0	13	43	0	0	56	0	6	0	3	0	9	187
7:30	0	0	79	76	0	155	0	0	0	0	0	0	0	13	74	0	0	87	0	10	0	2	0	12	254
7:45	0	0	92	95	0	187	0	0	0	0	0	0	0	14	68	0	0	82	0	18	0	5	0	23	292
Hourly Total	0	0	278	287	0	565	0	0	0	0	0	0	0	53	226	0	0	279	0	44	0	15	0	59	903
8:00	0	0	88	114	0	202	0	0	0	0	0	0	0	15	105	0	0	120	0	36	0	3	0	39	361
8:15	0	0	121	115	0	236	0	0	0	0	0	0	0	17	96	0	0	113	0	40	0	8	0	48	397
8:30	0	0	121	88	0	209	0	0	0	0	0	0	0	20	114	0	0	134	0	55	0	8	0	63	406
8:45	0	0	128	84	0	212	0	0	0	0	0	0	0	21	96	0	0	117	0	26	0	3	0	29	358
Hourly Total	0	0	458	401	0	859	0	0	0	0	0	0	0	73	411	0	0	484	0	157	0	22	0	179	1522
* Break *																									
16:00	0	0	147	135	0	282	0	0	0	0	0	0	0	11	100	0	0	111	0	19	0	11	1	30	423
16:15	0	0	174	140	0	314	0	0	0	0	0	0	0	6	107	0	0	116	0	18	0	10	0	28	458
16:30	0	0	150	119	0	269	0	0	0	0	0	0	0	12	109	0	0	121	0	19	0	4	0	23	413
16:45	0	0	131	111	0	242	0	0	0	0	0	0	0	11	100	0	0	111	0	20	0	11	0	31	384
Hourly Total	0	0	602	505	0	1107	0	0	0	0	0	0	0	43	416	0	0	459	0	76	0	36	1	112	1678
17:00	0	0	200	139	0	339	0	0	0	0	0	0	0	19	121	0	0	140	0	13	0	6	0	19	498
17:15	0	0	192	132	0	324	0	0	0	0	0	0	0	15	94	0	0	109	0	24	0	7	0	31	464
17:30	0	0	161	130	0	291	0	0	0	0	0	0	0	17	113	0	0	130	0	19	0	12	0	31	452
17:45	0	0	172	139	0	311	0	0	0	0	0	0	0	15	109	0	0	124	0	21	0	3	0	24	459
Hourly Total	0	0	725	540	0	1265	0	0	0	0	0	0	0	66	437	0	0	503	0	77	0	28	0	105	1873
Grand Total	0	0	2063	1733	0	3796	0	0	0	0	0	0	0	235	1490	0	0	1725	0	354	0	101	1	455	5976
Approach %	0.0%	0.0%	54.3%	45.7%			-	-	-	-	-	-	0.0%	13.6%	86.4%	0.0%			0.0%	77.8%	0.0%	22.2%	-	-	-
Total %	0.0%	0.0%	34.5%	29.0%	-	63.5%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	3.9%	24.9%	0.0%	-	28.9%	0.0%	5.9%	0.0%	1.7%	-	7.6%	-
Lights	0	0	1988	1702	-	3690	0	0	0	0	-	0	0	213	1428	0	-	1641	0	346	0	78	-	424	5755
% Lights	-	-	96.4%	98.2%	-	97.2%	-	-	-	-	-	-	-	90.6%	95.8%	-	-	95.1%	-	97.7%	-	77.2%	-	93.2%	96.3%
Buses	-	0	41	4	-	45	-	0	0	0	-	0	-	20	36	0	-	56	-	2	0	23	-	25	126
% Buses	-	-	2.0%	0.2%	-	1.2%	-	-	-	-	-	-	-	8.5%	2.4%	-	-	3.2%	-	0.6%	-	22.8%	-	5.5%	2.1%
Trucks	-	0	34	27	-	61	-	0	0	0	-	0	-	2	26	0	-	28	-	6	0	0	-	6	95
% Trucks	-	-	1.6%	-	-	1.6%	-	-	-	-	-	-	-	0.9%	1.7%	-	-	1.6%	-	1.7%	-	0.0%	-	1.3%	1.6%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	1

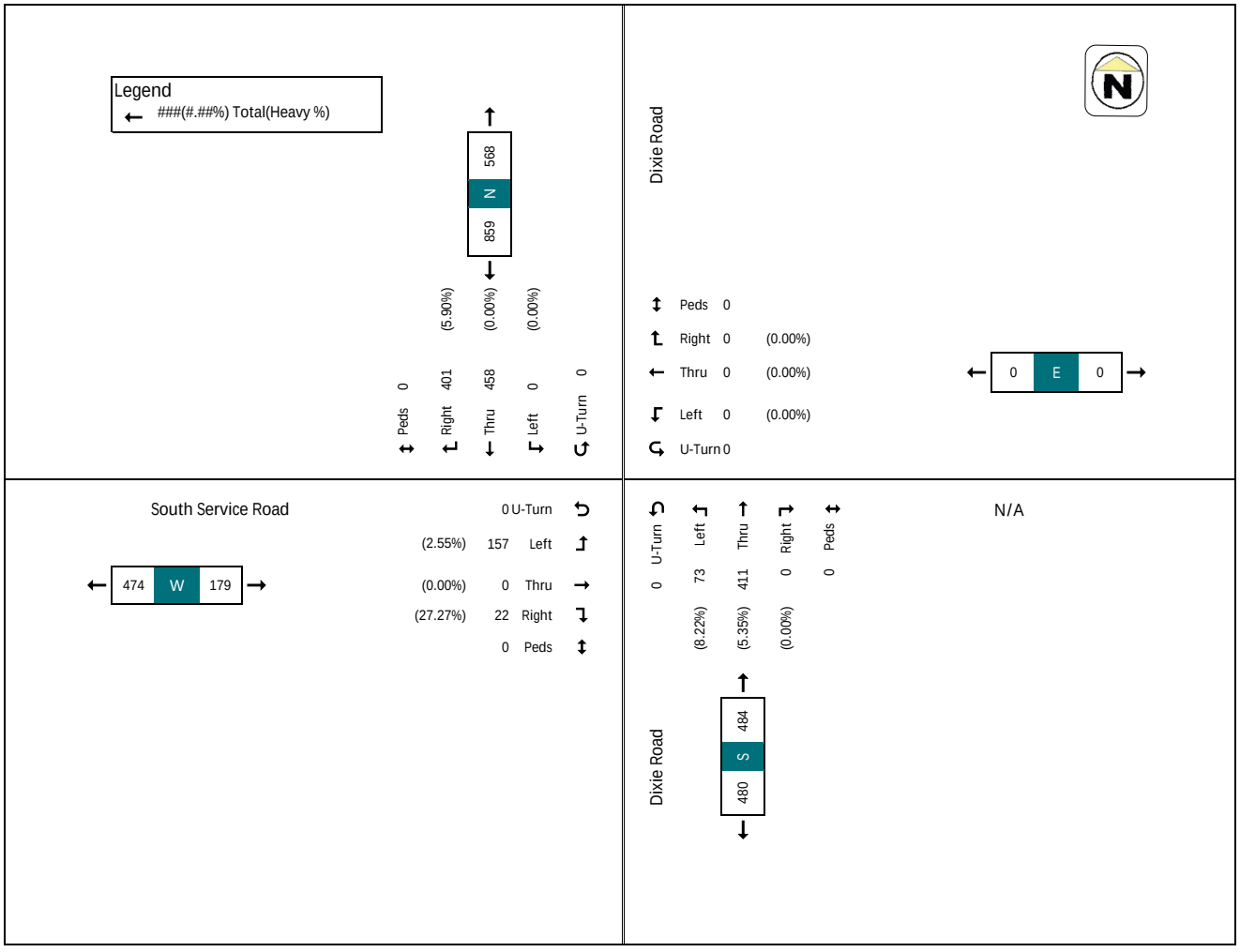


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & South Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24064

AM Peak Hour - Dixie Road & South Service Road

	Dixie Road Southbound						N/A Westbound						Dixie Road Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	0	88	114	0	202	0	0	0	0	0	0	0	15	105	0	0	120	0	36	0	3	0	39	361
8:15	0	0	121	115	0	236	0	0	0	0	0	0	0	17	96	0	0	113	0	40	0	8	0	48	397
8:30	0	0	121	88	0	209	0	0	0	0	0	0	0	20	114	0	0	134	0	55	0	8	0	63	406
8:45	0	0	128	84	0	212	0	0	0	0	0	0	0	21	96	0	0	117	0	26	0	3	0	29	358
Hourly Total	0	0	458	401	0	859	0	0	0	0	0	0	0	73	411	0	0	484	0	157	0	22	0	179	1522
Approach %	0.0%	0.0%	53.3%	46.7%									0.0%	15.1%	84.9%	0.0%			0.0%	87.7%	0.0%	12.3%			
Total %	0.0%	0.0%	30.1%	26.3%		56.4%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	4.8%	27.0%	0.0%		31.8%	0.0%	10.3%	0.0%	1.4%		11.8%	
PHF	0	0	0.89	0.87		0.91	0	0	0	0		0	0	0.87	0.9	0		0.9	0	0.71	0	0.69		0.71	0.94
Lights	0	0	431	390		821	0	0	0	0		0	0	67	389	0		456	0	153	0	16		169	1446
% Lights	-	-	94.1%	97.3%		95.6%	-	-	-	-		-	-	91.8%	94.6%	-		94.2%	-	97.5%	-	72.7%		94.4%	95.0%
Buses	-	0	13	2		15	-	-	0	0		0	-	5	11	0		16	-	1	0	6		7	38
% Buses	-	-	2.8%	0.5%		1.7%	-	-	-	-		-	-	6.8%	2.7%	-		3.3%	-	0.6%	-	27.3%		3.9%	2.5%
Trucks	-	0	14	9		23	-	-	0	0		0	-	1	11	0		12	-	3	0	0		3	38
% Trucks	-	-	3.1%	2.2%		2.7%	-	-	-	-		-	-	1.4%	2.7%	-		2.5%	-	1.9%	-	0.0%		1.7%	2.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

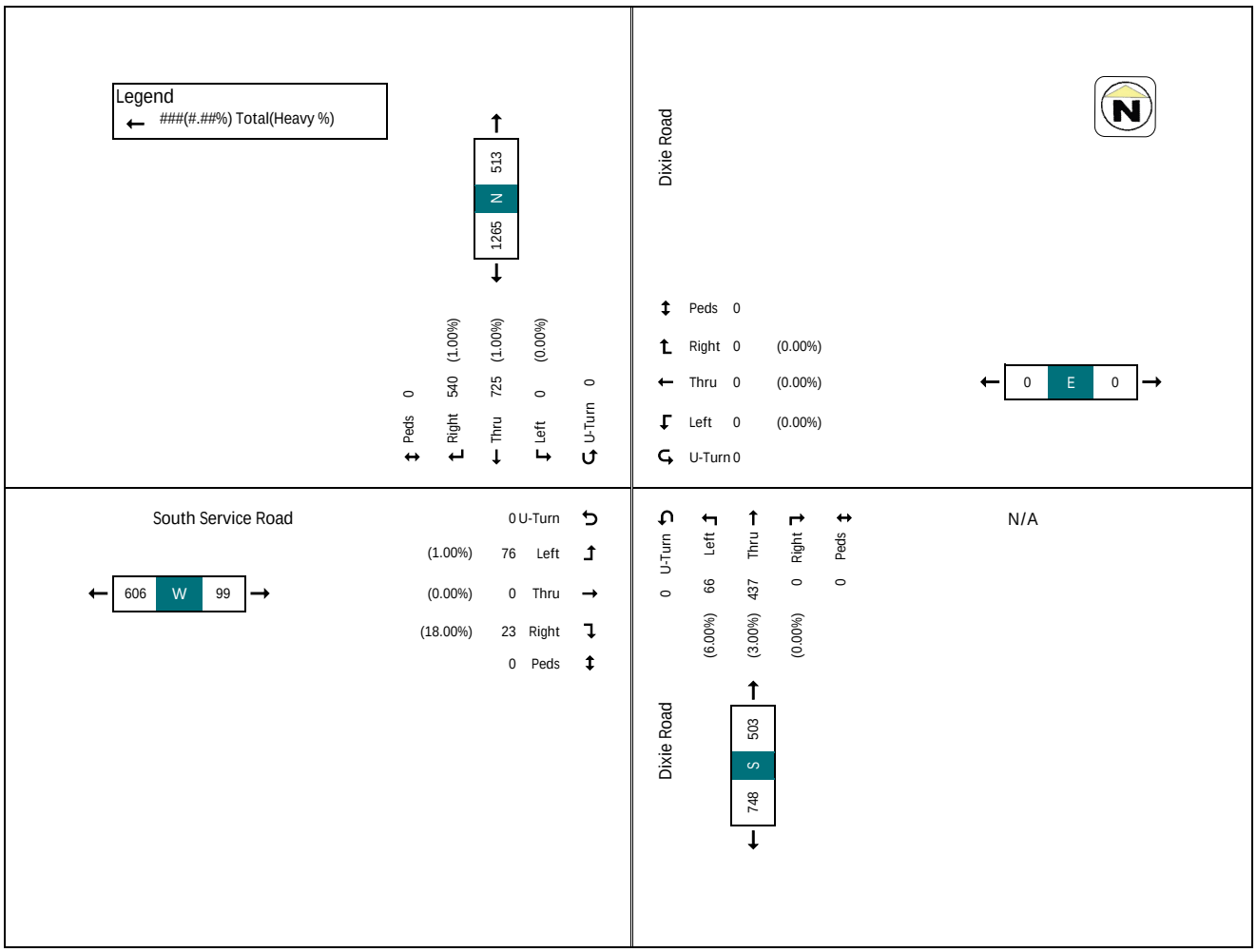


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & South Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24064

PM Peak Hour - Dixie Road & South Service Road

	Dixie Road Southbound						N/A Westbound						Dixie Road Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
17:00	0	0	200	139	0	339	0	0	0	0	0	0	0	19	121	0	0	140	0	13	0	6	0	19	498
17:15	0	0	192	132	0	324	0	0	0	0	0	0	0	15	94	0	0	109	0	24	0	7	0	31	464
17:30	0	0	161	130	0	291	0	0	0	0	0	0	0	17	113	0	0	130	0	19	0	12	0	31	452
17:45	0	0	172	139	0	311	0	0	0	0	0	0	0	15	109	0	0	124	0	21	0	3	0	24	459
Hourly Total	0	0	725	540	0	1265	0	0	0	0	0	0	0	66	437	0	0	503	0	77	0	28	0	105	1873
Approach %	0.0%	0.0%	57.3%	42.7%	-	-	-	-	-	-	-	-	0.0%	13.1%	86.9%	0.0%	-	-	0.0%	73.3%	0.0%	26.7%	-	-	-
Total %	0.0%	0.0%	38.7%	28.8%	-	67.5%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	4.3%	28.7%	0.0%	-	26.9%	0.0%	5.1%	0.0%	1.8%	-	5.6%	-
PHF	0	0	0.91	0.97	-	0.93	0	0	0	0	-	0	0	0.82	0.9	0	-	0.9	0	0.8	0	0.58	-	0.85	0.94
Lights	0	0	717	535	-	1252	0	0	0	0	-	0	0	62	425	0	-	487	0	76	0	23	-	99	1838
% Lights	-	-	98.9%	99.1%	-	99.0%	-	-	-	-	-	-	-	93.9%	97.3%	-	-	96.8%	-	98.7%	-	82.1%	-	94.3%	98.1%
Buses	-	0	13	2	-	15	-	0	0	0	-	0	-	4	8	0	-	12	-	0	0	5	-	5	32
% Buses	-	-	1.8%	0.4%	-	1.2%	-	-	-	-	-	-	-	6.1%	1.8%	-	-	2.4%	-	0.0%	-	17.9%	-	4.8%	1.7%
Trucks	-	0	1	4	-	5	-	0	0	0	-	0	-	0	4	0	-	4	-	1	0	0	-	1	10
% Trucks	-	-	0.1%	0.7%	-	0.4%	-	-	-	-	-	-	-	0.0%	0.9%	-	-	0.8%	-	1.3%	-	0.0%	-	1.0%	0.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

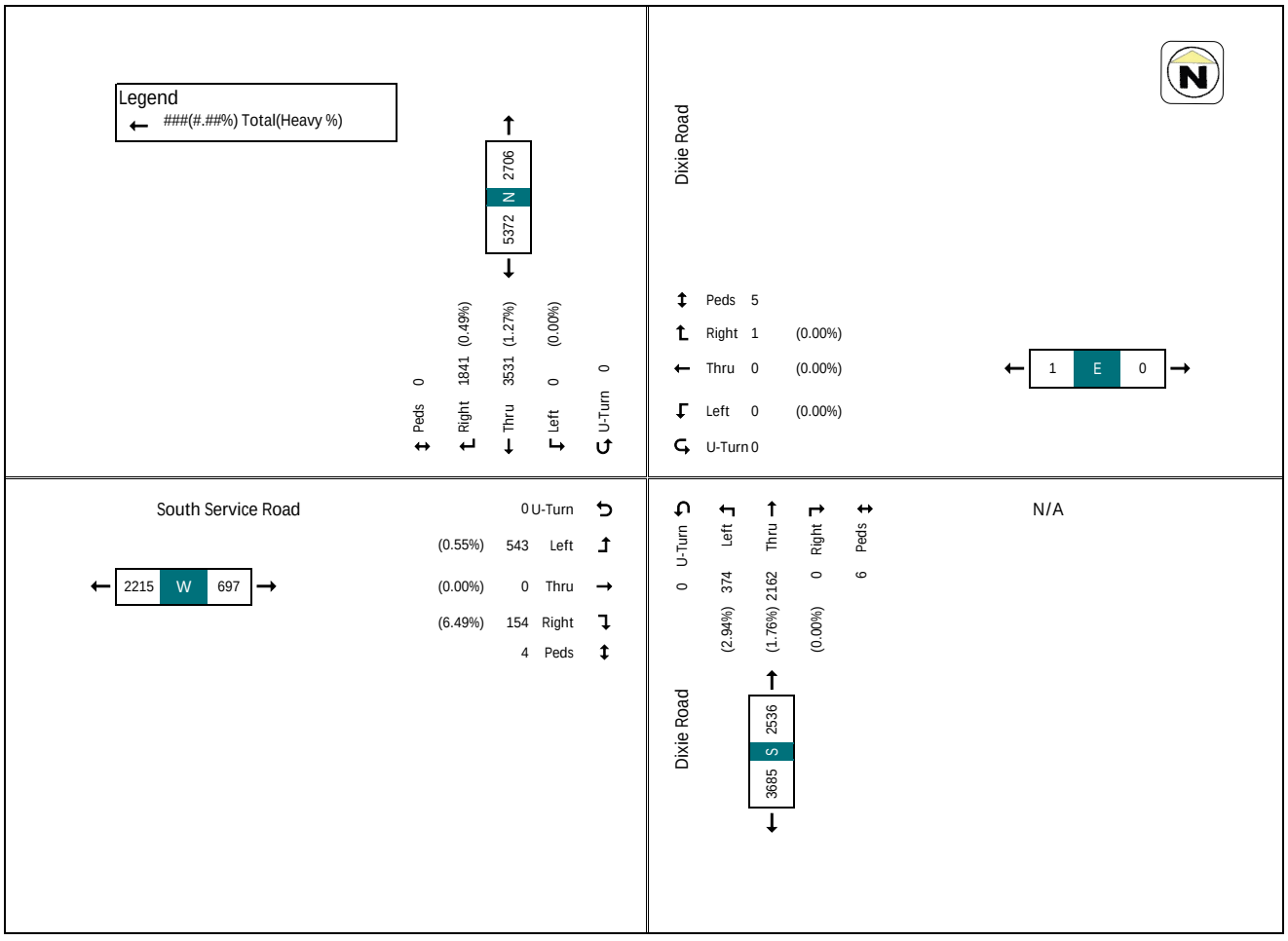


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & South Service Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24064

Turning Movement Count - Dixie Road & South Service Road

	Dixie Road Southbound						N/A Westbound						Dixie Road Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	149	75	0	224	0	0	0	0	1	0	0	10	83	0	1	93	0	24	0	2	0	26	343
10:15	0	0	116	75	0	191	0	0	0	0	0	0	0	11	86	0	0	97	0	22	0	6	1	30	318
10:30	0	0	132	88	0	220	0	0	0	0	0	0	0	15	84	0	0	99	0	12	0	9	0	21	340
10:45	0	0	156	53	0	209	0	0	0	0	0	0	0	14	82	0	1	96	0	21	0	2	0	23	328
Hourly Total	0	0	553	291	0	844	0	0	0	0	1	0	0	50	335	0	2	385	0	79	0	21	1	100	1329
11:00	0	0	163	56	0	219	0	0	0	0	1	0	16	16	96	0	1	128	0	23	0	9	0	32	379
11:15	0	0	169	50	0	219	0	0	0	0	0	0	12	12	106	0	0	130	0	28	0	6	0	34	383
11:30	0	0	184	55	0	239	0	0	0	0	0	0	13	13	109	0	0	135	0	33	0	5	0	38	412
11:45	0	0	156	35	0	191	0	0	0	0	2	0	14	14	102	0	1	130	0	22	0	6	0	28	349
Hourly Total	0	0	672	196	0	868	0	0	0	0	3	0	0	55	413	0	2	468	0	106	0	26	0	132	1468
12:00	0	0	165	111	0	276	0	0	0	0	0	0	0	20	140	0	0	160	0	21	0	13	0	34	470
12:15	0	0	189	110	0	299	0	0	0	0	0	0	0	14	121	0	0	135	0	28	0	12	0	40	474
12:30	0	0	193	94	0	287	0	0	0	0	0	0	0	28	111	0	0	139	0	33	0	11	0	44	470
12:45	0	0	188	94	0	282	0	0	0	0	1	0	0	32	132	0	0	164	0	31	0	8	0	39	485
Hourly Total	0	0	735	409	0	1144	0	0	0	0	1	0	0	94	504	0	0	598	0	113	0	44	0	157	1899
13:00	1	0	190	106	0	297	0	0	0	0	0	0	0	20	121	0	0	141	0	36	0	12	2	48	486
13:15	0	0	206	109	0	315	0	0	0	0	0	0	0	26	113	0	0	142	0	47	0	8	0	55	512
13:30	0	0	193	134	0	327	0	0	0	0	0	0	0	24	140	0	0	164	0	35	0	8	0	43	534
13:45	0	0	217	128	0	345	0	0	0	0	0	0	0	26	141	0	0	167	0	29	0	9	0	38	550
Hourly Total	1	0	806	477	0	1284	0	0	0	0	0	0	0	99	515	0	0	614	0	147	0	37	2	184	2082
14:00	0	0	170	119	0	289	0	0	0	0	0	0	0	22	111	0	0	133	0	30	0	7	0	37	459
14:15	0	0	205	127	0	332	0	0	0	0	0	0	0	18	105	0	1	123	0	26	0	7	1	33	488
14:30	0	0	196	96	0	292	0	0	0	1	0	1	0	19	89	0	0	108	0	21	0	6	0	27	428
14:45	0	0	194	126	0	320	0	0	0	0	0	0	0	17	90	0	1	107	0	21	0	6	0	27	454
Hourly Total	0	0	765	468	0	1233	0	0	0	1	0	1	0	76	395	0	2	471	0	98	0	26	1	124	1829
Grand Total	1	0	3531	1841	0	5373	0	0	0	1	5	1	0	374	2162	0	6	2536	0	543	0	154	4	697	8607
Approach %	0.0%	0.0%	65.7%	34.3%	-	-	0.0%	0.0%	0.0%	100.0%	-	-	0.0%	14.7%	85.3%	0.0%	-	-	0.0%	77.9%	0.0%	22.1%	-	-	-
Total %	0.0%	0.0%	41.0%	21.4%	-	62.4%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	4.3%	25.1%	0.0%	-	29.5%	0.0%	6.3%	0.0%	1.8%	-	8.1%	-
Lights	1	0	3486	1832	-	5319	0	0	0	1	-	1	0	363	2124	0	-	2487	0	540	0	144	-	684	8491
% Lights	100.0%	-	98.7%	99.5%	-	99.0%	-	-	-	100.0%	-	100.0%	-	97.1%	98.2%	-	-	98.1%	-	99.4%	-	93.5%	-	98.1%	98.7%
Buses	-	0	5	0	-	5	-	0	0	0	-	0	-	9	26	0	-	35	-	0	0	10	-	10	50
% Buses	-	-	0.1%	0.0%	-	0.1%	-	-	0.0%	0.0%	-	0.0%	-	2.4%	1.2%	0.0%	-	1.4%	-	0.0%	-	6.5%	-	1.4%	0.6%
Trucks	-	0	18	9	-	27	-	0	0	0	-	0	-	2	12	0	-	14	-	3	0	0	-	3	44
% Trucks	-	-	0.5%	0.5%	-	0.5%	-	-	0.0%	0.0%	-	0.0%	-	0.5%	0.6%	0.0%	-	0.6%	-	0.6%	-	0.0%	-	0.4%	0.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	4	4	-	-	-	-	0	0	-	-	-	-	0	0	4
Pedestrians	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	6	-	-	-	-	-	4	-	16

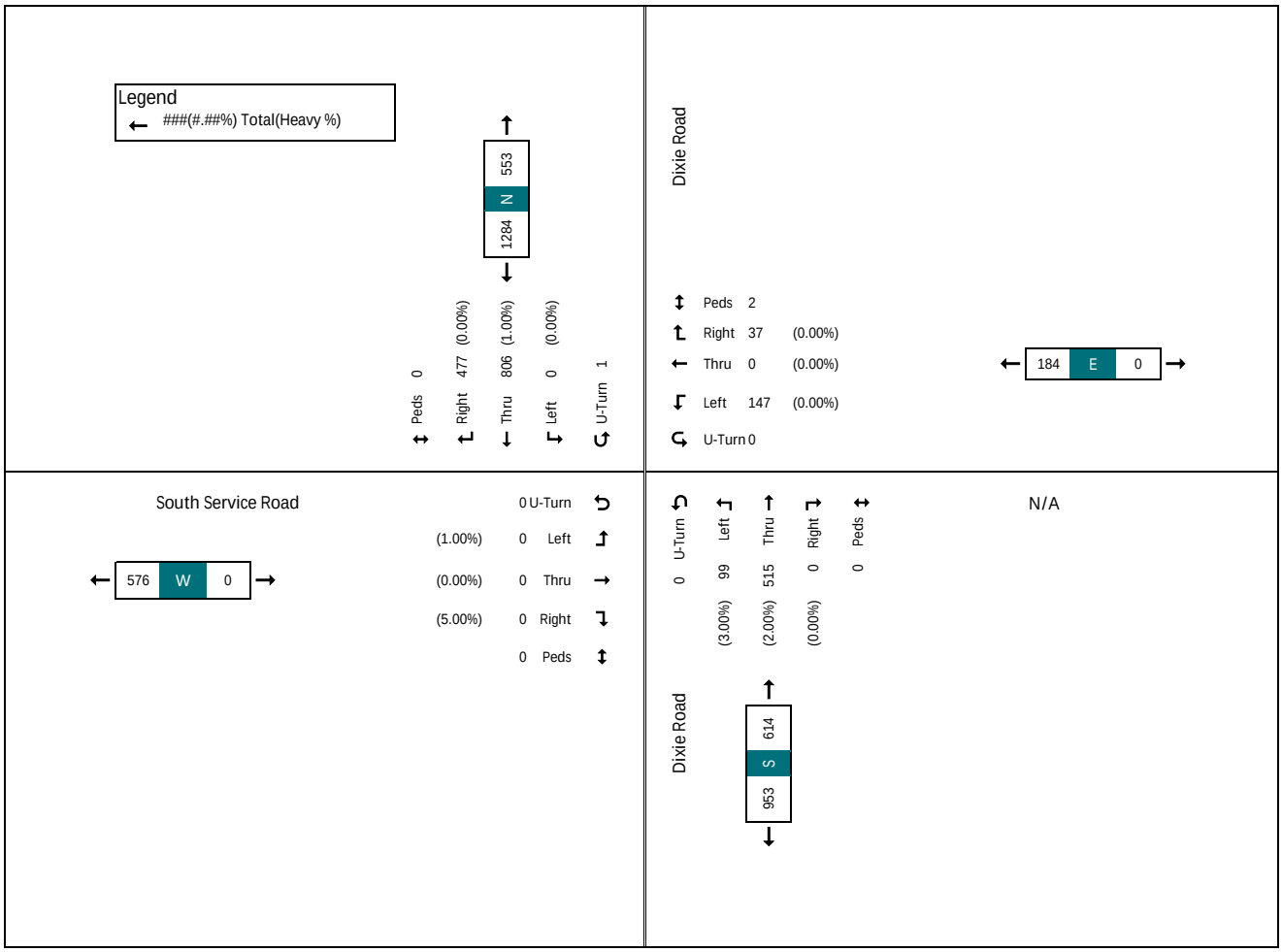


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & South Service Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24064

SAT Peak Hour - Dixie Road & South Service Road

	Dixie Road Southbound						N/A Westbound						Dixie Road Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:00	1	0	190	106	0	297	0	0	0	0	0	0	0	20	121	0	0	141	0	36	0	12	2	48	486
13:15	0	0	206	109	0	315	0	0	0	0	0	0	0	29	113	0	0	142	0	47	0	8	0	55	512
13:30	0	0	193	134	0	327	0	0	0	0	0	0	0	24	140	0	0	164	0	35	0	8	0	43	534
13:45	0	0	217	128	0	345	0	0	0	0	0	0	0	26	141	0	0	167	0	29	0	9	0	38	550
Hourly Total	1	0	806	477	0	1284	0	0	0	0	0	0	0	99	515	0	0	614	0	147	0	37	2	184	2082
Approach %	0.1%	0.0%	62.8%	37.1%									0.0%	16.1%	83.9%	0.0%			0.0%	79.9%	0.0%	20.1%			
Total %	0.0%	0.0%	38.7%	22.9%		61.7%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	6.5%	33.8%	0.0%		29.5%	0.0%	9.7%	0.0%	2.4%		8.8%	
PHF	0.25		0.93	0.89		0.93							0.00	0.85	0.91			0.92	0.00	0.78		0.77		0.84	0.95
Lights	1	0	800	476		1277	0	0	0	0		0	0	96	507	0		603	0	145	0	35		180	2060
% Lights	100.0%	-	99.3%	99.8%		99.5%	-	-	-	-		-	-	97.0%	98.4%	-		98.2%	-	98.6%	-	94.6%		97.8%	98.9%
Buses	-	0	5	0		5	-	0	0	0		0	-	3	5	0		8	-	0	0	2		2	15
% Buses	-	-	0.6%	0.0%		0.4%	-	-	-	-		-	-	3.0%	1.0%	-		1.3%	-	0.0%	-	5.4%		1.1%	0.7%
Trucks	-	0	1	1		2	-	0	0	0		0	-	0	3	0		3	-	2	0	0		2	7
% Trucks	-	-	0.1%	0.2%		0.2%	-	-	-	-		-	-	0.0%	0.6%	-		0.5%	-	1.4%	-	0.0%		1.1%	0.3%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	3

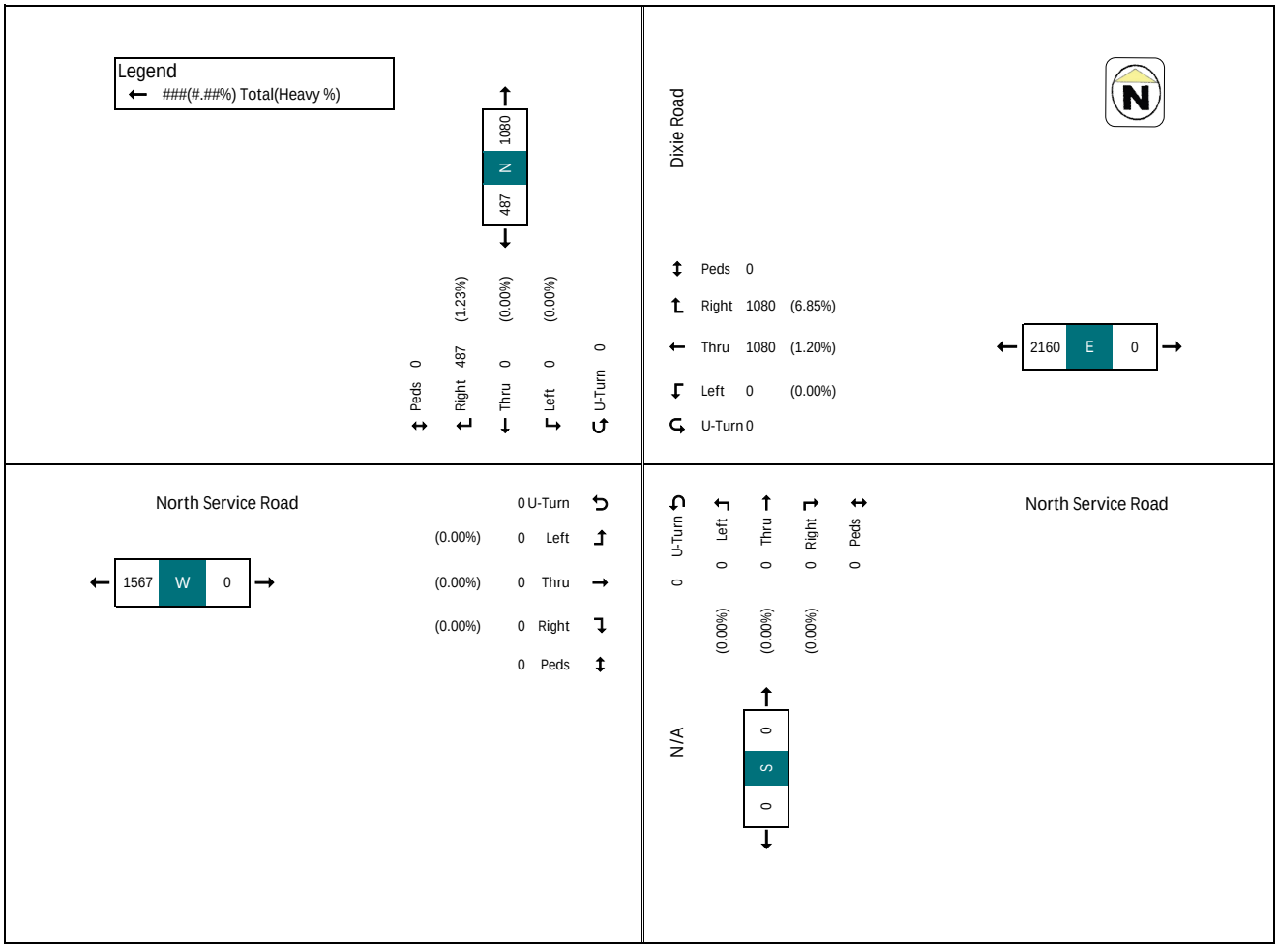


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & North Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24063

Turning Movement Count - Dixie Road & North Service Road

	Dixie Road Southbound						North Service Road Westbound						N/A Northbound						North Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	0	0	6	0	6	0	0	28	78	0	106	0	0	0	0	0	0	0	0	0	0	0	0	112
7:15	0	0	0	3	0	3	0	0	18	114	0	132	0	0	0	0	0	0	0	0	0	0	0	0	135
7:30	0	0	0	17	0	17	0	0	33	123	0	156	0	0	0	0	0	0	0	0	0	0	0	0	173
7:45	0	0	0	12	0	12	0	0	68	141	0	209	0	0	0	0	0	0	0	0	0	0	0	0	221
Hourly Total	0	0	0	38	0	38	0	0	147	456	0	603	0	0	0	0	0	0	0	0	0	0	0	0	641
8:00	0	0	0	33	0	33	0	0	59	159	0	218	0	0	0	0	0	0	0	0	0	0	0	0	251
8:15	0	0	0	28	0	28	0	0	83	192	0	275	0	0	0	0	0	0	0	0	0	0	0	0	303
8:30	0	0	0	52	0	52	0	0	75	200	0	275	0	0	0	0	0	0	0	0	0	0	0	0	327
8:45	0	0	0	21	0	21	0	0	74	159	0	233	0	0	0	0	0	0	0	0	0	0	0	0	254
Hourly Total	0	0	0	144	0	144	0	0	291	710	0	1001	0	0	0	0	0	0	0	0	0	0	0	0	1145
* Break *																									
16:00	0	0	0	31	0	31	0	0	89	160	0	249	0	0	0	0	0	0	0	0	0	0	0	0	280
16:15	0	0	0	33	0	33	0	0	83	136	0	219	0	0	0	0	0	0	0	0	0	0	0	0	252
16:30	0	0	0	33	0	33	0	0	79	133	0	212	0	0	0	0	0	0	0	0	0	0	0	0	245
16:45	0	0	0	40	0	40	0	0	79	134	0	213	0	0	0	0	0	0	0	0	0	0	0	0	253
Hourly Total	0	0	0	137	0	137	0	0	330	563	0	893	0	0	0	0	0	0	0	0	0	0	0	0	1030
17:00	0	0	0	52	0	52	0	0	81	133	0	214	0	0	0	0	0	0	0	0	0	0	0	0	266
17:15	0	0	0	41	0	41	0	0	79	117	0	196	0	0	0	0	0	0	0	0	0	0	0	0	237
17:30	0	0	0	41	0	41	0	0	84	163	0	247	0	0	0	0	0	0	0	0	0	0	0	0	288
17:45	0	0	0	34	0	34	0	0	68	129	0	197	0	0	0	0	0	0	0	0	0	0	0	0	231
Hourly Total	0	0	0	168	0	168	0	0	312	542	0	854	0	0	0	0	0	0	0	0	0	0	0	0	1022
Grand Total	0	0	0	487	0	487	0	0	1080	2272	0	3352	0	0	0	0	0	0	0	0	0	0	0	0	3839
Approach %	0.0%	0.0%	0.0%	100.0%		-	0.0%	0.0%	32.2%	67.8%		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total %	0.0%	0.0%	0.0%	12.7%		12.7%	0.0%	0.0%	28.1%	59.2%		87.3%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	-
Lights	0	0	0	481		481	0	0	1067	2198		3265	0	0	0	0		0	0	0	0	0		0	3746
% Lights	-	-	-	98.8%		98.8%	-	-	98.8%	96.7%		97.4%	-	-	-	-		-	-	-	-	-		-	97.6%
Buses	-	0	0	4		4	-	0	3	1		4	-	0	0	0		0	-	0	0	0		0	8
% Buses	-	-	-	0.8%		0.8%	-	-	0.3%	0.0%		0.1%	-	-	-	-		-	-	-	-	-		-	0.2%
Trucks	-	0	0	2		2	-	0	10	73		83	-	0	0	0		0	-	0	0	0		0	85
% Trucks	-	-	-	-		0.4%	-	-	0.9%	3.2%		2.5%	-	-	-	-		-	-	-	-	-		-	2.2%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

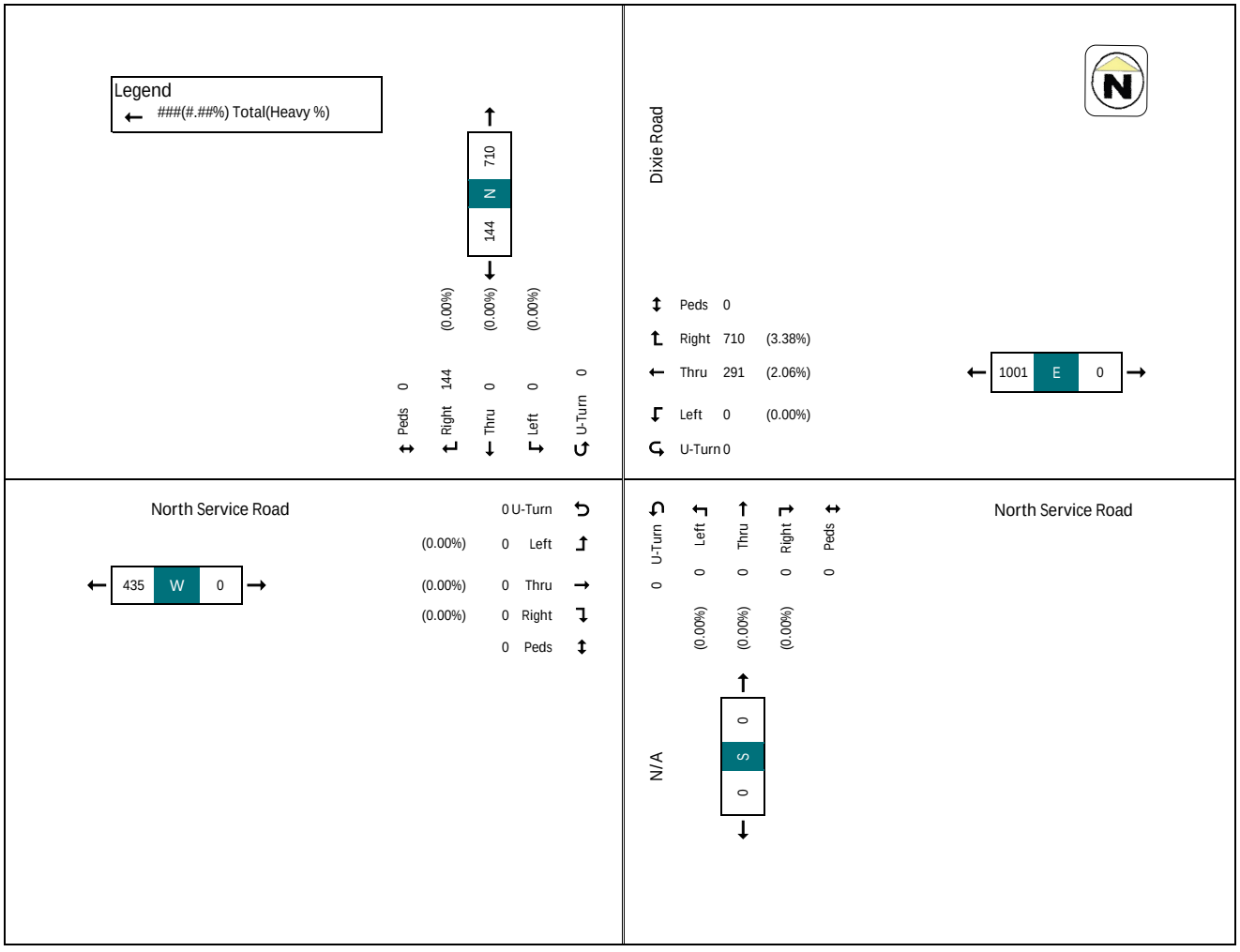


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & North Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24063

AM Peak Hour - Dixie Road & North Service Road

	Dixie Road Southbound						North Service Road Westbound						N/A Northbound						North Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	0	0	33	0	33	0	0	59	159	0	218	0	0	0	0	0	0	0	0	0	0	0	0	251
8:15	0	0	0	38	0	38	0	0	83	192	0	275	0	0	0	0	0	0	0	0	0	0	0	0	313
8:30	0	0	0	52	0	52	0	0	75	200	0	275	0	0	0	0	0	0	0	0	0	0	0	0	327
8:45	0	0	0	21	0	21	0	0	74	159	0	233	0	0	0	0	0	0	0	0	0	0	0	0	254
Hourly Total	0	0	0	144	0	144	0	0	291	710	0	1001	0	0	0	0	0	0	0	0	0	0	0	0	1145
Approach %	0.0%	0.0%	0.0%	100.0%			0.0%	0.0%	29.1%	70.9%															
Total %	0.0%	0.0%	0.0%	12.6%		12.6%	0.0%	0.0%	25.4%	62.0%		87.4%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	
PHF	0	0	0	0.69		0.69	0	0	0.88	0.89		0.91	0	0	0	0		0	0	0	0	0		0	0.88
Lights	0	0	0	141		141	0	0	285	686		971	0	0	0	0		0	0	0	0	0		0	1112
% Lights	-	-	-	97.9%		97.9%	-	-	97.9%	96.6%		97.0%	-	-	-	-		-	-	-	-	-		-	97.1%
Buses	0	0	0	2		2	0	0	2	0		2	0	0	0	0		0	0	0	0	0		0	4
% Buses	-	-	-	1.4%		1.4%	-	-	0.7%	0.0%		0.2%	-	-	-	-		-	-	-	-	-		-	0.3%
Trucks	0	0	0	1		1	0	0	4	24		28	0	0	0	0		0	0	0	0	0		0	29
% Trucks	-	-	-	0.7%		0.7%	-	-	1.4%	3.4%		2.8%	-	-	-	-		-	-	-	-	-		-	2.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

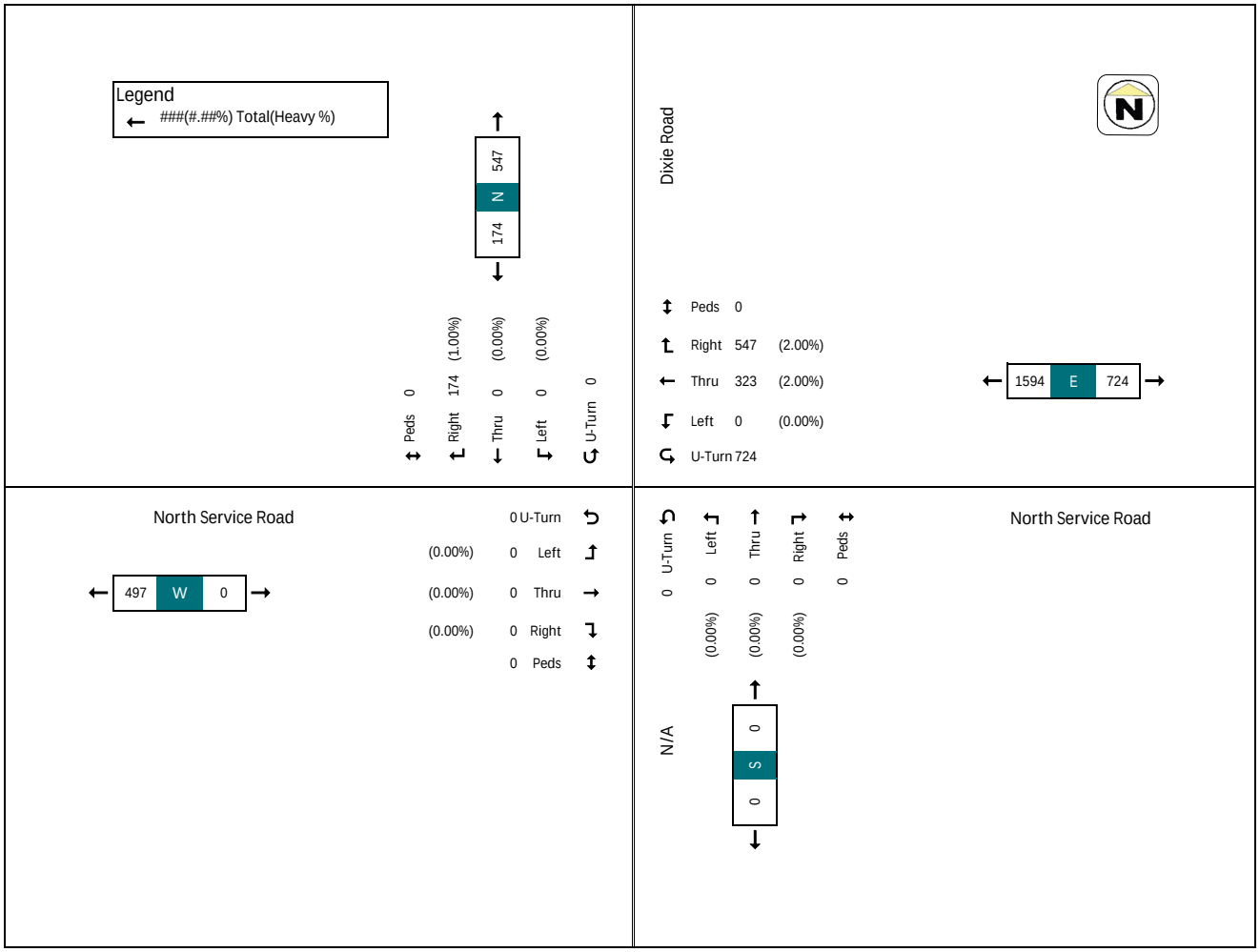


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & North Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24063

PM Peak Hour - Dixie Road & North Service Road

	Dixie Road Southbound						North Service Road Westbound						N/A Northbound						North Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
16:45	0	0	0	40	0	40	0	0	79	134	0	213	0	0	0	0	0	0	0	0	0	0	0	0	253
17:00	0	0	0	52	0	52	0	0	81	133	0	214	0	0	0	0	0	0	0	0	0	0	0	0	266
17:15	0	0	0	41	0	41	0	0	79	117	0	196	0	0	0	0	0	0	0	0	0	0	0	0	237
17:30	0	0	0	41	0	41	0	0	84	163	0	247	0	0	0	0	0	0	0	0	0	0	0	0	288
Hourly Total	0	0	0	174	0	174	0	0	323	547	0	870	0	0	0	0	0	0	0	0	0	0	0	0	1044
Approach %	0.0%	0.0%	0.0%	100.0%	-	-	0.0%	0.0%	37.1%	62.9%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total %	0.0%	0.0%	0.0%	16.7%	-	16.7%	0.0%	0.0%	28.2%	52.4%	-	83.3%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	-
PHF	0	0	0	0.84	-	0.84	0	0	0.96	0.84	-	0.88	0	0	0	0	-	0	0	0	0	0	-	0	0.91
Lights	0	0	0	173	-	173	0	0	318	535	-	853	0	0	0	0	-	0	0	0	0	0	-	0	1026
% Lights	-	-	-	99.4%	-	99.4%	-	-	98.5%	97.8%	-	98.0%	-	-	-	-	-	-	-	-	-	-	-	-	98.3%
Buses	-	0	0	2	-	2	-	0	1	1	-	2	-	0	0	0	-	0	-	0	0	0	-	0	4
% Buses	-	-	-	1.1%	-	1.1%	-	-	0.3%	0.2%	-	0.2%	-	-	-	-	-	-	-	-	-	-	-	-	0.4%
Trucks	-	0	0	0	-	0	-	0	4	11	-	15	-	0	0	0	-	0	-	0	0	0	-	0	15
% Trucks	-	-	-	0.0%	-	0.0%	-	-	1.2%	2.0%	-	1.7%	-	-	-	-	-	-	-	-	-	-	-	-	1.4%
Bicycles	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

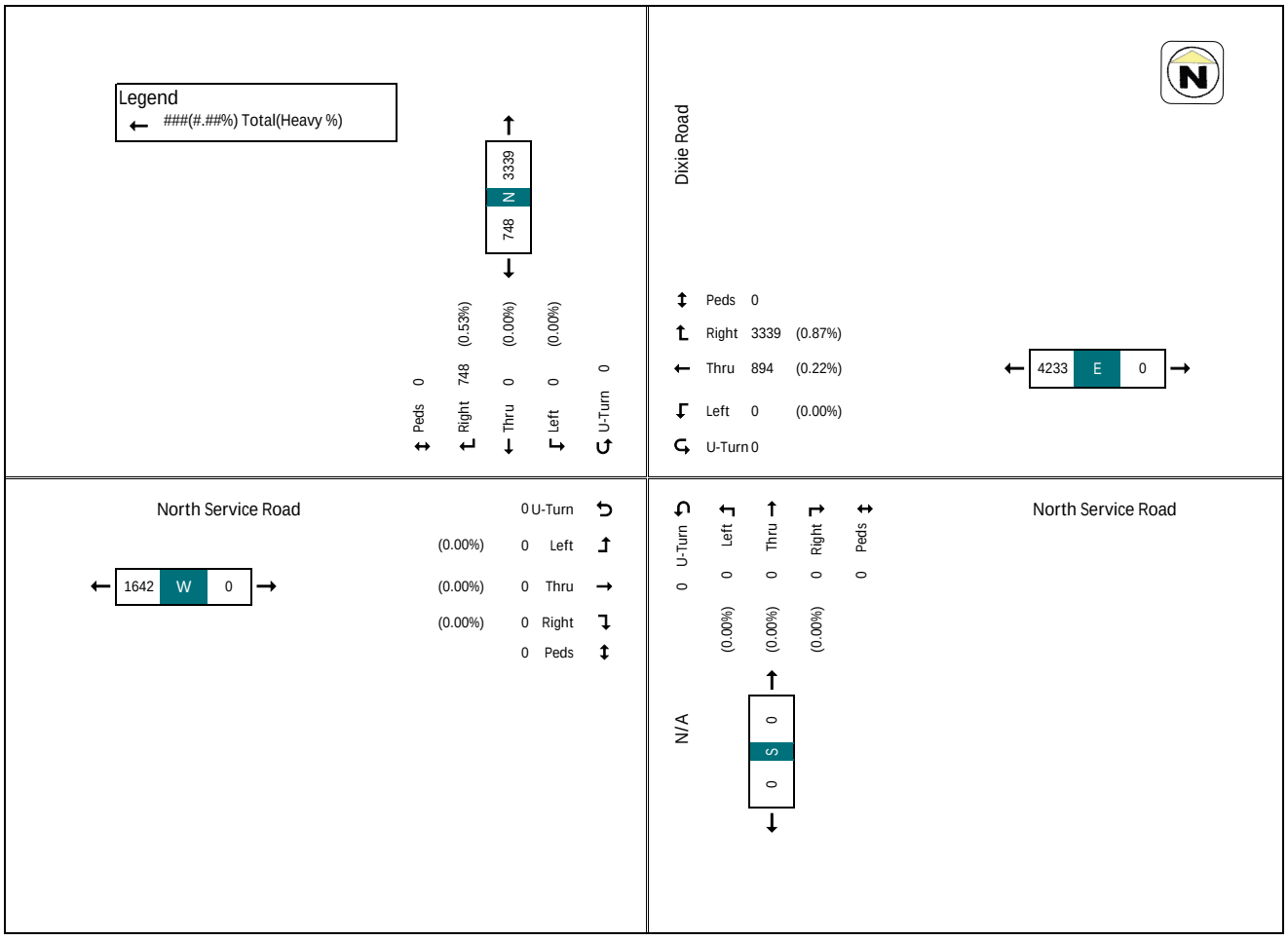


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & North Service Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24063

Turning Movement Count - Dixie Road & North Service Road

	Dixie Road Southbound						North Service Road Westbound						N/A Northbound						North Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	0	26	0	26	0	0	32	137	0	169	0	0	0	0	0	0	0	0	0	0	0	0	195
10:15	0	0	0	30	0	30	0	0	34	130	0	164	0	0	0	0	0	0	0	0	0	0	0	0	194
10:30	0	0	0	34	0	34	0	0	31	156	0	187	0	0	0	0	0	0	0	0	0	0	0	0	221
10:45	0	0	0	34	0	34	0	0	37	158	0	195	0	0	0	0	0	0	0	0	0	0	0	0	229
Hourly Total	0	0	0	124	0	124	0	0	134	581	0	715	0	0	0	0	0	0	0	0	0	0	0	0	839
11:00	0	0	0	30	0	30	0	0	28	151	0	179	0	0	0	0	0	0	0	0	0	0	0	0	209
11:15	0	0	0	35	0	35	0	0	36	174	0	210	0	0	0	0	0	0	0	0	0	0	0	0	245
11:30	0	0	0	39	0	39	0	0	39	155	0	194	0	0	0	0	0	0	0	0	0	0	0	0	233
11:45	0	0	0	38	0	38	0	0	42	187	0	229	0	0	0	0	0	0	0	0	0	0	0	0	267
Hourly Total	0	0	0	142	0	142	0	0	145	667	0	812	0	0	0	0	0	0	0	0	0	0	0	0	954
12:00	0	0	0	50	0	50	0	0	56	152	0	208	0	0	0	0	0	0	0	0	0	0	0	0	258
12:15	0	0	0	33	0	33	0	0	60	197	0	257	0	0	0	0	0	0	0	0	0	0	0	0	290
12:30	0	0	0	29	0	29	0	0	48	169	0	217	0	0	0	0	0	0	0	0	0	0	0	0	245
12:45	0	0	0	38	0	38	0	0	51	187	0	238	0	0	0	0	0	0	0	0	0	0	0	0	276
Hourly Total	0	0	0	149	0	149	0	0	215	705	0	920	0	0	0	0	0	0	0	0	0	0	0	0	1069
13:00	0	0	0	32	0	32	0	0	51	165	0	216	0	0	0	0	0	0	0	0	0	0	0	0	248
13:15	0	0	0	39	0	39	0	0	37	203	0	240	0	0	0	0	0	0	0	0	0	0	0	0	279
13:30	0	0	0	46	0	46	0	0	37	204	0	241	0	0	0	0	0	0	0	0	0	0	0	0	287
13:45	0	0	0	50	0	50	0	0	41	179	0	220	0	0	0	0	0	0	0	0	0	0	0	0	270
Hourly Total	0	0	0	167	0	167	0	0	166	751	0	917	0	0	0	0	0	0	0	0	0	0	0	0	1084
14:00	0	0	0	54	0	54	0	0	57	162	0	219	0	0	0	0	0	0	0	0	0	0	0	0	273
14:15	0	0	0	38	0	38	0	0	57	164	0	221	0	0	0	0	0	0	0	0	0	0	0	0	259
14:30	0	0	0	41	0	41	0	0	53	145	0	198	0	0	0	0	0	0	0	0	0	0	0	0	239
14:45	0	0	0	33	0	33	0	0	66	163	0	229	0	0	0	0	0	0	0	0	0	0	0	0	262
Hourly Total	0	0	0	166	0	166	0	0	233	634	0	867	0	0	0	0	0	0	0	0	0	0	0	0	1033
Grand Total	0	0	0	748	0	748	0	0	894	3339	0	4233	0	0	0	0	0	0	0	0	0	0	0	0	4981
Approach %	0.0%	0.0%	0.0%	100.0%	-	-	0.0%	0.0%	21.1%	78.9%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total %	0.0%	0.0%	0.0%	15.0%	-	15.0%	0.0%	0.0%	17.9%	67.0%	-	85.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	-
Lights	0	0	0	744	-	744	0	0	892	3310	-	4202	0	0	0	0	-	0	0	0	0	0	-	0	4946
% Lights	-	-	-	99.5%	-	99.5%	-	-	99.8%	99.1%	-	99.3%	-	-	-	-	-	-	-	-	-	-	-	-	99.3%
Buses	-	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%
Trucks	-	0	0	3	-	3	-	0	2	29	-	31	-	0	0	0	-	0	-	0	0	0	-	0	34
% Trucks	-	-	-	0.4%	-	0.4%	-	-	0.2%	0.9%	-	0.7%	-	-	-	-	-	-	-	-	-	-	-	-	0.7%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

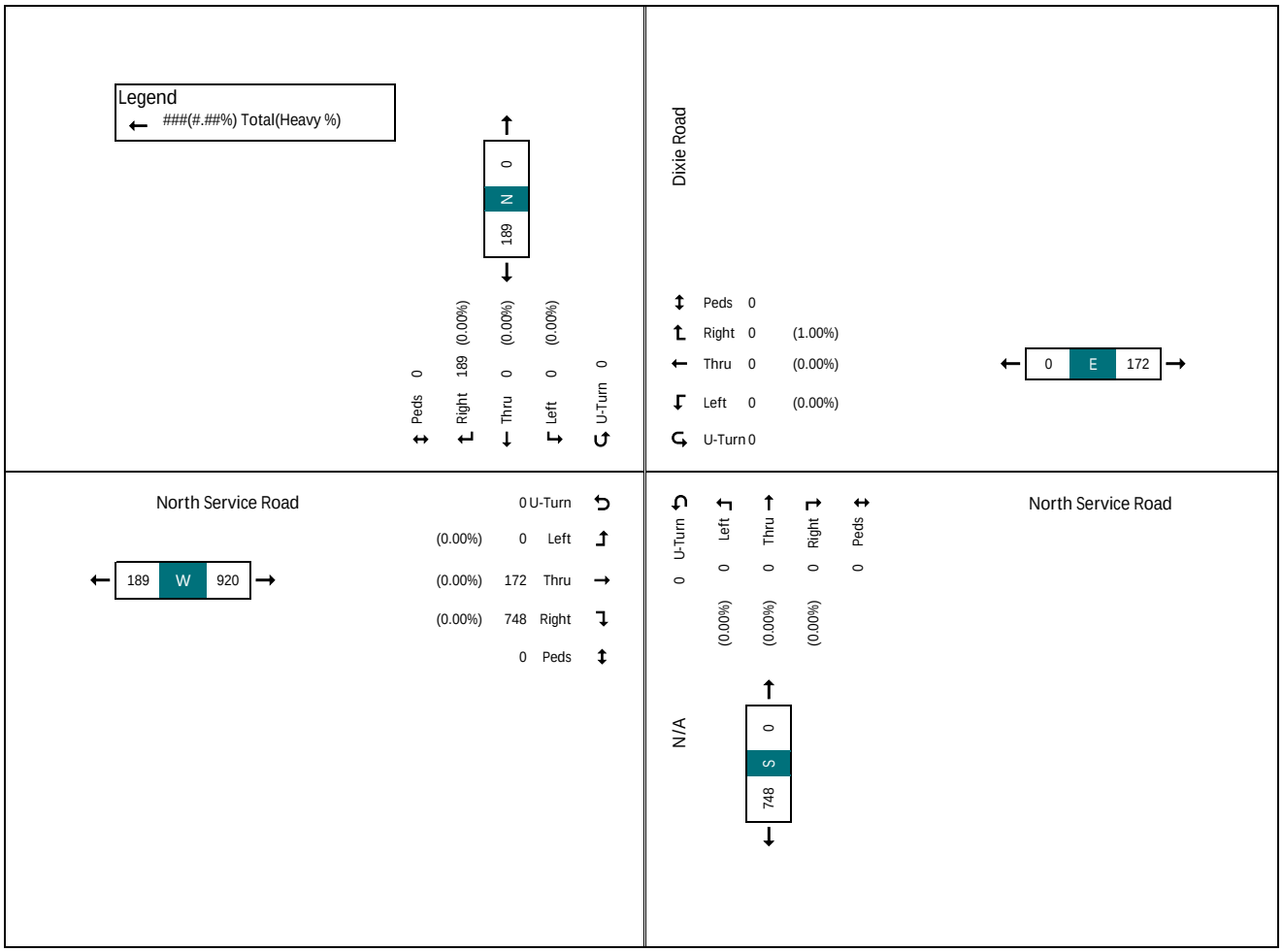


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & North Service Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24063

SAT Peak Hour - Dixie Road & North Service Road

	Dixie Road Southbound						North Service Road Westbound						N/A Northbound						North Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:15	0	0	0	39	0	39	0	0	37	203	0	240	0	0	0	0	0	0	0	0	0	0	0	0	279
13:30	0	0	0	46	0	46	0	0	37	204	0	241	0	0	0	0	0	0	0	0	0	0	0	0	287
13:45	0	0	0	50	0	50	0	0	41	179	0	220	0	0	0	0	0	0	0	0	0	0	0	0	270
14:00	0	0	0	54	0	54	0	0	57	162	0	219	0	0	0	0	0	0	0	0	0	0	0	0	273
Hourly Total	0	0	0	189	0	189	0	0	172	748	0	920	0	0	0	0	0	0	0	0	0	0	0	0	1109
Approach %	0.0%	0.0%	0.0%	100.0%			0.0%	0.0%	18.7%	81.3%															
Total %	0.0%	0.0%	0.0%	17.0%		17.0%	0.0%	0.0%	15.5%	67.4%		83.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	
PHF				0.88		0.88			0.75	0.92		0.96													0.97
Lights	0	0	0	189		189	0	0	172	744		916	0	0	0	0		0	0	0	0	0		0	1105
% Lights	-	-	100.0%			100.0%	-	-	100.0%	99.5%		99.6%	-	-	-	-		-	-	-	-	-		-	99.6%
Buses	-	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%
Trucks	-	0	0	0		0	-	0	0	4		4	-	0	0	0		0	-	0	0	0		0	4
% Trucks	-	-	-	0.0%		0.0%	-	-	0.0%	0.5%		0.4%	-	-	-	-		-	-	-	-	-		-	0.4%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

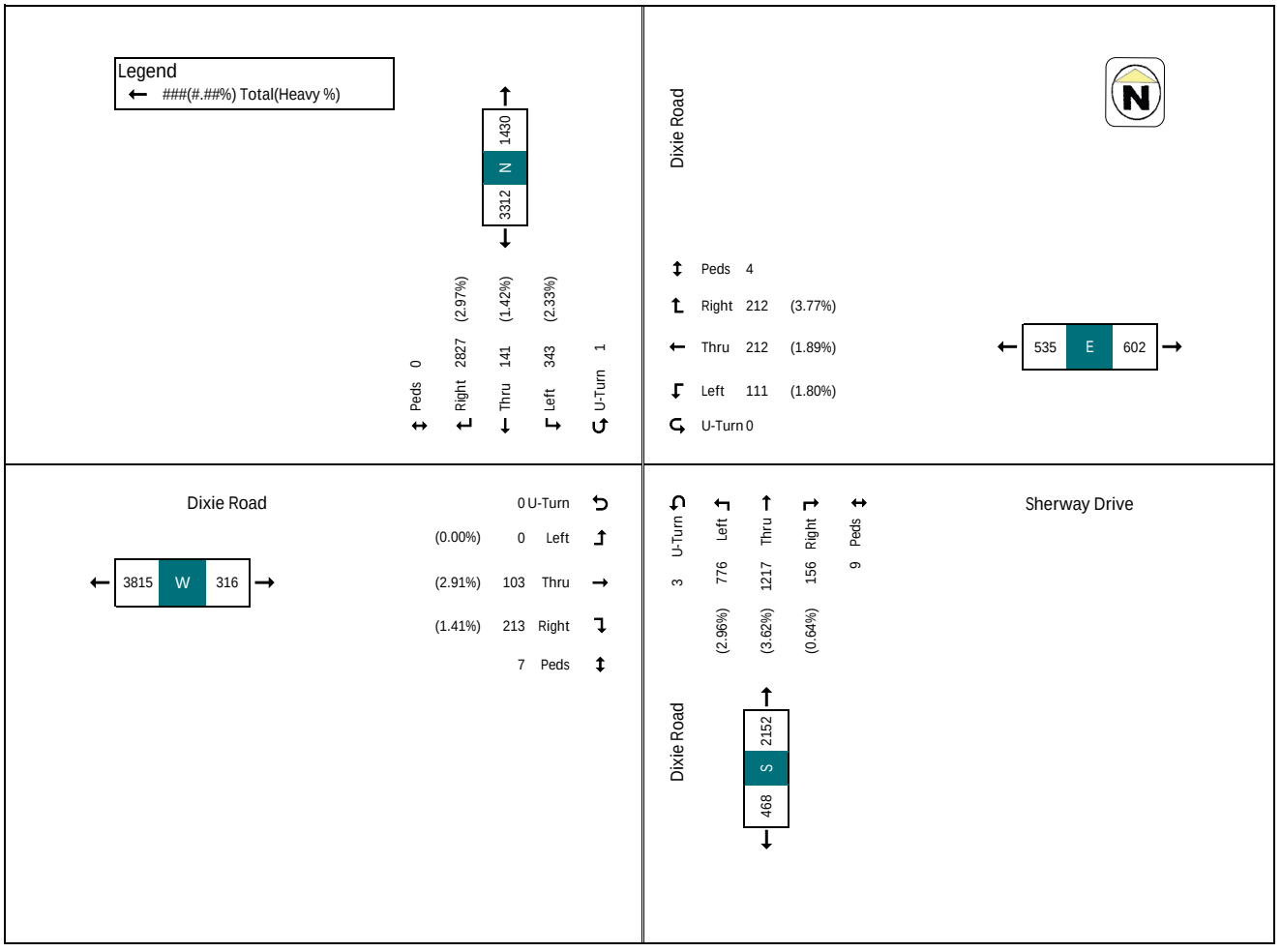


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Dixie Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

Turning Movement Count - Dixie Road & Dixie Road

	Dixie Road Southbound						Sherway Drive Westbound						Dixie Road Northbound						Dixie Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	2	2	69	0	73	0	2	6	9	0	17	0	30	43	6	0	79	0	50	0	0	0	50	219
7:15	0	4	1	87	0	92	0	2	14	14	0	30	1	28	83	1	2	113	0	39	1	0	1	40	275
7:30	0	8	7	102	0	117	0	5	13	21	0	39	0	28	77	4	1	109	0	75	3	3	0	81	346
7:45	0	22	2	132	0	156	0	5	26	28	0	59	1	44	88	11	0	144	0	68	5	3	0	76	435
Hourly Total	0	36	12	390	0	438	0	14	59	72	0	145	0	130	291	22	3	443	0	232	9	6	1	247	1273
8:00	0	29	5	150	0	184	0	10	21	27	0	58	0	48	89	5	0	142	0	97	6	16	0	119	503
8:15	0	51	4	143	0	198	0	16	26	45	0	87	1	73	92	17	0	183	0	96	14	21	0	131	599
8:30	0	38	4	145	0	187	0	22	26	91	0	139	0	47	103	21	0	171	0	117	21	17	0	155	652
8:45	0	38	2	148	0	188	0	4	10	44	0	58	1	47	111	8	0	167	0	99	8	14	0	121	534
Hourly Total	0	156	15	586	0	757	0	52	83	207	1	342	0	215	395	51	0	661	0	409	49	68	0	526	2286
* Break *																									
16:00	0	16	6	209	0	231	0	9	8	27	1	44	0	59	85	9	1	153	0	92	4	15	0	111	539
16:15	0	15	16	258	0	289	0	3	9	13	0	25	0	42	74	12	0	128	0	79	2	13	1	94	536
16:30	0	20	16	219	0	253	0	3	9	19	0	25	0	52	60	8	1	125	0	89	6	9	1	104	507
16:45	0	18	16	187	0	221	0	4	5	12	2	21	0	52	61	15	1	128	0	89	11	19	1	119	489
Hourly Total	0	69	52	873	0	994	0	19	25	71	3	115	0	205	285	44	3	534	0	349	23	56	3	428	2071
17:00	0	24	19	267	0	310	0	10	13	6	0	29	1	62	58	9	1	130	0	83	9	25	1	117	586
17:15	0	13	10	258	0	281	0	4	10	17	0	31	0	44	57	12	2	113	0	92	4	23	2	119	544
17:30	0	29	15	213	0	257	0	8	9	17	0	34	0	70	73	13	0	156	0	99	2	19	0	120	567
17:45	1	16	18	240	0	275	0	4	13	19	0	36	0	50	58	5	0	113	0	88	7	16	0	111	535
Hourly Total	1	82	62	978	0	1123	0	26	45	59	0	130	0	226	246	39	3	511	0	362	22	83	3	467	2231
Grand Total	1	343	141	2827	0	3312	0	111	212	409	4	732	0	776	1217	156	9	2149	0	1352	103	213	7	1668	7861
Approach %	0.0%	10.4%	4.3%	85.4%	-	-	0.0%	15.2%	29.0%	55.9%	-	-	0.0%	36.1%	56.6%	7.3%	-	-	0.0%	81.1%	6.2%	12.8%	-	-	-
Total %	0.0%	4.4%	1.8%	36.0%	-	42.1%	0.0%	1.4%	2.7%	5.2%	-	9.3%	0.0%	9.9%	15.5%	2.0%	-	27.3%	0.0%	17.2%	1.3%	2.7%	-	21.2%	-
Lights	1	335	139	2743	-	3218	0	109	208	401	-	718	3	753	1173	155	-	2084	0	1295	100	210	-	1605	7625
% Lights	100.0%	97.7%	98.6%	97.0%	-	97.2%	-	98.2%	98.1%	98.0%	-	98.1%	-	97.0%	96.4%	99.4%	-	97.0%	-	95.8%	97.1%	98.6%	-	96.2%	97.0%
Buses	-	4	0	41	-	45	-	2	4	7	-	13	-	1	3	0	-	4	-	33	2	2	-	37	99
% Buses	#VALUE!	1.2%	0.0%	1.5%	-	1.4%	-	1.8%	1.9%	1.7%	-	1.8%	-	0.1%	0.2%	0.0%	-	0.2%	-	2.4%	1.9%	0.9%	-	2.2%	1.3%
Trucks	-	4	2	43	-	49	-	0	0	1	-	1	-	22	41	1	-	64	-	24	1	1	-	26	140
% Trucks	#VALUE!	1.2%	1.4%	-	-	1.5%	-	0.0%	0.0%	0.2%	-	0.1%	-	2.8%	3.4%	0.6%	-	3.0%	-	1.8%	1.0%	0.5%	-	1.6%	1.8%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	2	2	-	-	-	-	0	0	2
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	9	-	-	-	-	-	7	-	20

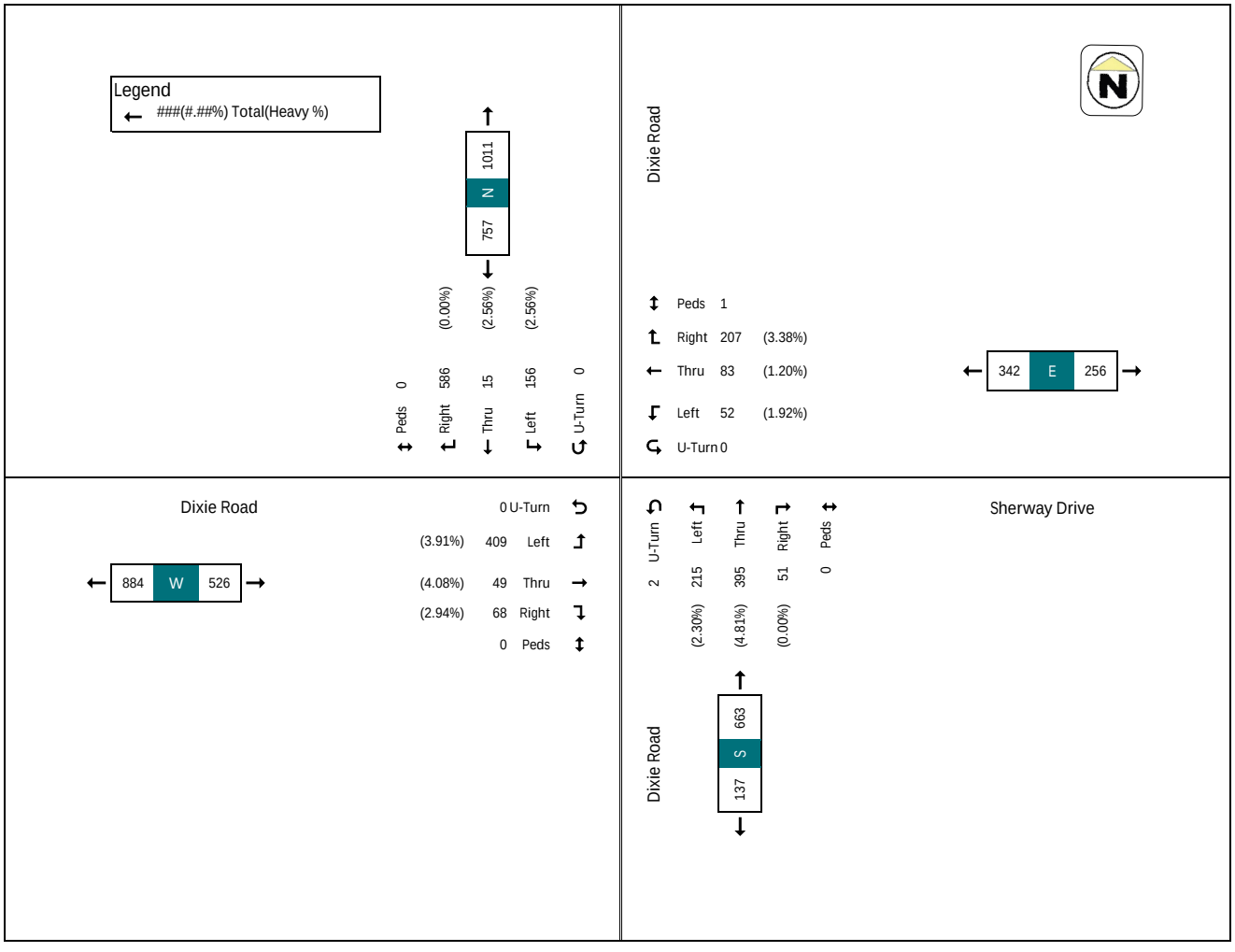


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Dixie Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

AM Peak Hour - Dixie Road & Dixie Road

	Dixie Road Southbound						Sherway Drive Westbound						Dixie Road Northbound						Dixie Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	29	5	150	0	184	0	10	21	27	1	58	0	48	89	5	0	142	0	97	6	16	0	119	503
8:15	0	51	4	143	0	198	0	16	26	45	0	87	1	73	92	17	0	183	0	96	14	21	0	131	599
8:30	0	38	4	145	0	187	0	22	26	91	0	139	0	47	103	21	0	171	0	117	21	17	0	155	652
8:45	0	38	2	148	0	188	0	4	10	44	0	58	1	47	111	8	0	167	0	99	8	14	0	121	534
Hourly Total	0	156	15	586	0	757	0	52	83	207	1	342	0	215	395	51	0	661	0	409	49	68	0	526	2288
Approach %	0.0%	20.6%	2.0%	77.4%			0.0%	15.2%	24.3%	60.5%			0.0%	32.5%	59.8%	7.7%			0.0%	77.8%	9.3%	12.9%			
Total %	0.0%	6.8%	0.7%	25.6%		33.1%	0.0%	2.3%	3.6%	9.0%		14.9%	0.0%	9.4%	17.3%	2.2%		28.9%	0.0%	17.9%	2.1%	3.0%		23.0%	
PHF	0	0.76	0.75	0.98		0.96	0	0.59	0.8	0.57		0.62	0	0.74	0.89	0.61		0.91	0	0.87	0.58	0.81		0.85	0.88
Lights	0	152	15	556		723	0	51	82	200		333	1	210	376	51		639	0	393	47	66		506	2201
% Lights	-	97.4%	100.0%	94.9%		95.5%	-	98.1%	98.8%	96.6%		97.4%	-	97.7%	95.2%	100.0%		96.7%	-	96.1%	95.9%	97.1%	-	96.2%	96.2%
Buses	-	3	0	15		18	-	1	1	6		8	-	0	2	0		2	-	9	2	1	-	12	40
% Buses	-	1.9%	0.0%	2.6%		2.4%	-	1.9%	1.2%	2.9%		2.3%	-	0.0%	0.5%	0.0%		0.3%	-	2.2%	4.1%	1.5%	-	2.3%	1.7%
Trucks	-	1	0	15		16	-	0	0	1		1	-	5	17	0		22	-	7	0	1	-	8	47
% Trucks	-	0.6%	0.0%	2.6%		2.1%	-	0.0%	0.0%	0.5%		0.3%	-	2.3%	4.3%	0.0%		3.3%	-	1.7%	0.0%	1.5%	-	1.5%	2.1%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	3

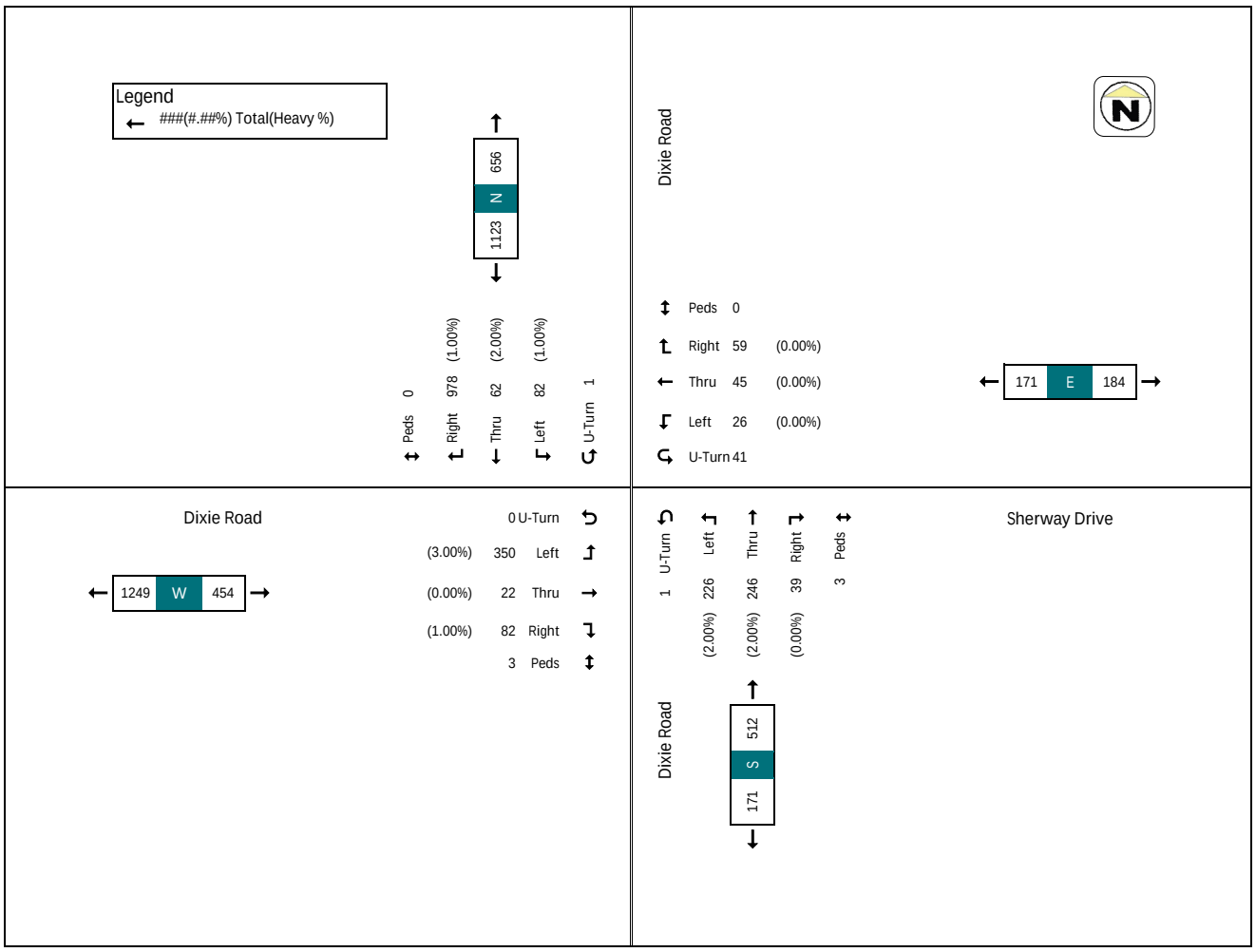


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Dixie Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

PM Peak Hour - Dixie Road & Dixie Road

	Dixie Road Southbound						Sherway Drive Westbound						Dixie Road Northbound						Dixie Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
17:00	0	24	19	267	0	310	0	10	13	6	0	29	1	62	58	9	1	130	0	83	9	25	1	117	586
17:15	0	13	10	258	0	281	0	4	10	17	0	31	0	44	57	12	2	113	0	92	4	23	2	119	544
17:30	0	29	15	213	0	257	0	8	9	17	0	34	0	70	73	13	0	156	0	99	2	19	0	120	567
17:45	1	16	18	240	0	275	0	4	13	19	0	36	0	50	58	5	0	113	0	88	7	16	0	111	535
Hourly Total	1	82	62	978	0	1123	0	26	45	59	0	130	0	226	246	39	3	511	0	362	22	83	3	467	2232
Approach %	0.1%	7.3%	5.5%	87.1%	-	-	0.0%	20.0%	34.6%	45.4%	-	-	0.0%	44.2%	48.1%	7.6%	-	-	0.0%	77.5%	4.7%	17.8%	-	-	-
Total %	0.0%	3.7%	2.8%	43.8%	-	50.3%	0.0%	1.2%	2.0%	2.6%	-	5.8%	0.0%	9.9%	10.8%	1.7%	-	22.9%	0.0%	15.6%	1.0%	3.6%	-	20.9%	-
PHF	0.25	0.71	0.82	0.92	-	0.91	0	0.65	0.87	0.78	-	0.9	0	0.81	0.84	0.75	-	0.82	0	0.91	0.61	0.83	-	0.97	0.95
Lights	1	81	61	967	-	1110	0	26	45	59	-	130	1	222	242	39	-	504	0	350	22	82	-	454	2198
% Lights	100.0%	98.8%	98.4%	98.9%	-	98.8%	-	100.0%	100.0%	100.0%	-	100.0%	-	98.2%	98.4%	100.0%	-	98.6%	-	96.7%	100.0%	98.8%	-	97.2%	98.5%
Buses	-	3	0	15	-	18	-	0	0	0	-	0	-	1	0	0	-	1	-	7	0	1	-	8	27
% Buses	#VALUE!	3.7%	0.0%	1.5%	-	1.6%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.4%	0.0%	0.0%	-	0.2%	-	1.9%	0.0%	1.2%	-	1.7%	1.2%
Trucks	-	1	1	4	-	6	-	0	0	0	-	0	-	3	4	0	-	7	-	5	0	0	-	5	18
% Trucks	#VALUE!	1.2%	1.6%	0.4%	-	0.5%	-	0.0%	0.0%	0.0%	-	0.0%	-	1.3%	1.6%	0.0%	-	1.4%	-	1.4%	0.0%	0.0%	-	1.1%	0.8%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	1

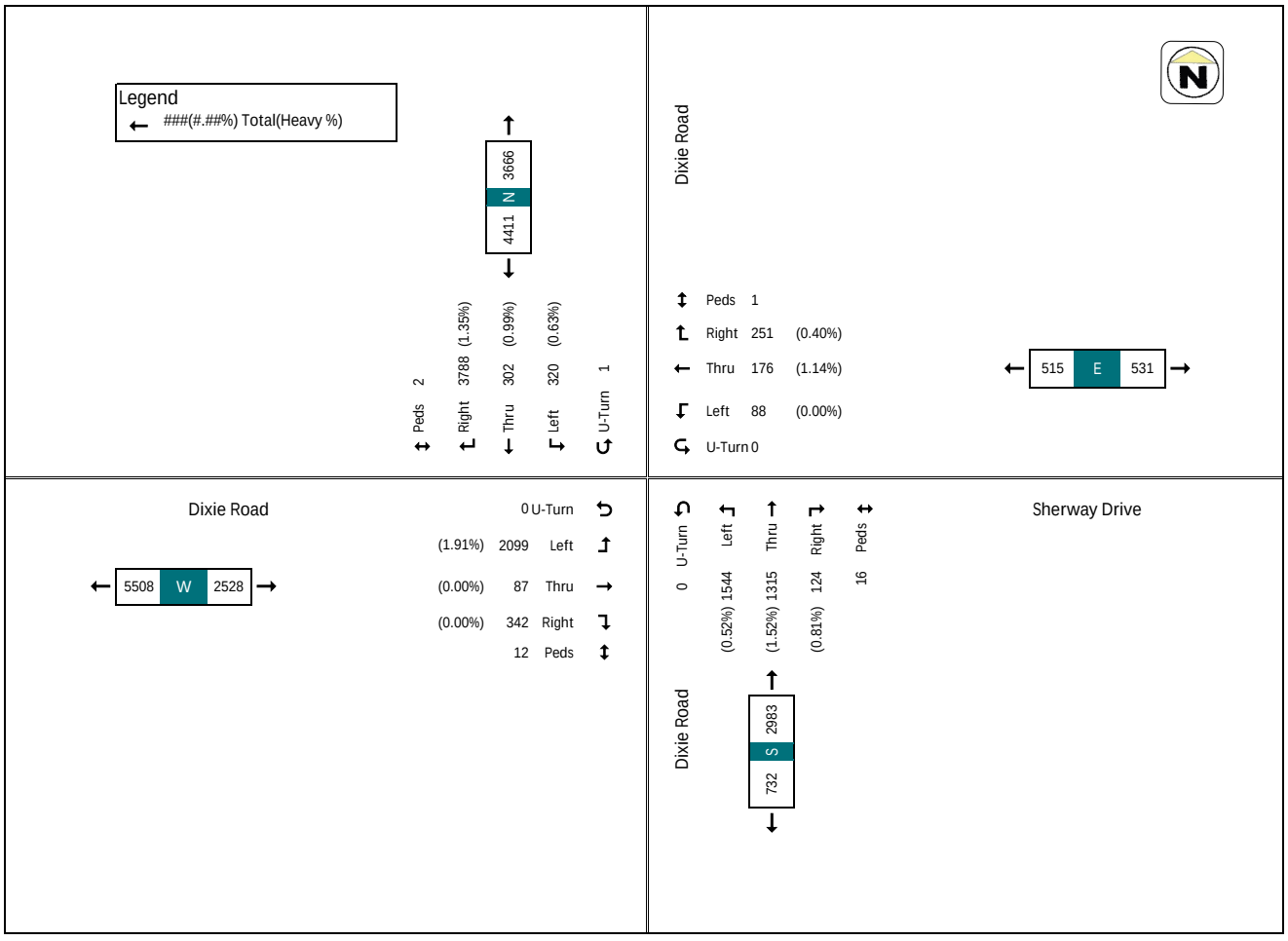


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Dixie Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24066

Turning Movement Count - Dixie Road & Dixie Road

	Dixie Road Southbound						Sherway Drive Westbound						Dixie Road Northbound						Dixie Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	5	10	135	0	150	0	5	9	11	0	25	0	64	58	10	0	132	0	73	2	11	0	86	393
10:15	0	9	13	126	1	148	0	4	15	10	0	29	0	53	47	10	0	110	0	72	2	11	1	86	372
10:30	0	12	15	139	0	166	0	4	12	7	0	23	0	71	52	4	1	127	0	76	4	13	1	93	409
10:45	0	14	7	159	0	180	0	6	5	13	0	24	0	80	58	4	0	142	0	70	1	22	0	93	439
Hourly Total	0	40	45	559	1	644	0	19	41	41	0	101	0	268	215	28	1	511	0	291	9	57	2	357	1613
11:00	0	18	9	167	0	194	0	0	12	12	0	24	58	58	73	5	0	194	0	90	1	18	0	109	521
11:15	0	17	18	179	0	214	0	2	6	17	0	25	84	84	67	7	0	242	0	94	6	15	0	115	596
11:30	0	13	12	187	0	212	0	6	11	15	0	32	74	74	67	4	1	219	0	108	6	17	0	131	594
11:45	0	10	17	179	0	206	0	4	10	16	0	30	91	91	67	5	2	254	0	103	2	21	4	126	616
Hourly Total	0	58	56	712	0	826	0	12	39	60	0	111	0	307	274	21	3	602	0	395	15	71	4	481	2020
12:00	0	18	16	188	0	222	0	5	11	14	0	30	0	81	66	6	0	143	0	113	0	23	0	136	531
12:15	0	19	16	201	0	236	0	5	9	14	0	28	0	77	76	9	2	164	0	101	8	11	0	120	548
12:30	0	19	9	206	0	234	0	6	6	17	0	29	0	73	65	6	0	144	0	100	5	12	2	117	523
12:45	0	15	16	205	0	236	0	6	9	10	1	25	0	73	73	4	0	150	0	104	3	17	0	124	535
Hourly Total	0	71	57	800	0	928	0	22	35	55	1	111	0	304	272	25	2	601	0	418	16	63	2	497	2137
13:00	0	26	17	199	0	242	0	2	8	7	0	17	0	73	71	6	0	150	0	119	6	14	0	139	548
13:15	0	15	10	220	0	245	0	4	6	7	0	19	0	93	79	6	0	178	0	123	6	24	0	153	595
13:30	0	11	16	215	0	246	0	8	5	15	0	28	0	98	66	10	0	174	0	117	5	20	0	142	589
13:45	0	16	21	226	0	263	0	6	13	22	0	41	0	90	83	4	0	177	0	114	4	23	0	141	622
Hourly Total	0	68	67	860	0	995	0	20	34	51	0	105	0	354	299	26	0	679	0	473	21	81	0	575	2354
14:00	0	22	20	197	0	239	0	2	6	6	0	14	0	83	68	7	1	158	0	119	4	32	0	155	566
14:15	0	16	15	226	0	257	0	4	9	14	0	27	0	83	58	7	0	148	0	141	5	14	0	160	592
14:30	0	25	25	218	1	268	0	5	4	10	0	19	0	72	58	7	2	137	0	127	8	12	3	147	571
14:45	0	20	17	214	0	251	0	4	9	14	0	27	0	73	69	3	0	145	0	135	9	11	1	155	578
Hourly Total	0	83	77	855	1	1015	0	15	28	44	0	87	0	311	253	24	3	588	0	522	26	69	4	617	2307
Grand Total	0	320	302	3788	2	4410	0	88	176	251	1	515	0	1544	1315	124	16	2983	0	2099	87	342	12	2528	10436
Approach %	0.0%	7.3%	6.8%	85.9%	-	-	0.0%	17.1%	34.2%	48.7%	-	-	0.0%	51.8%	44.1%	4.2%	-	-	0.0%	83.0%	3.4%	13.5%	-	-	-
Total %	0.0%	3.1%	2.9%	36.3%	-	42.3%	0.0%	0.8%	1.7%	2.4%	-	4.9%	0.0%	14.8%	12.6%	1.2%	-	28.6%	0.0%	20.1%	0.8%	3.3%	-	24.2%	-
Lights	0	318	299	3737	-	4354	0	88	174	250	-	512	0	1536	1295	123	-	2954	0	2059	87	342	-	2488	10308
% Lights	-	99.4%	99.0%	98.7%	-	98.7%	-	100.0%	98.9%	99.6%	-	99.4%	-	99.5%	98.5%	99.2%	-	99.0%	-	98.1%	100.0%	100.0%	-	98.4%	98.8%
Buses	0	0	0	6	-	6	0	0	0	0	-	0	0	0	1	0	-	1	0	27	0	0	-	27	34
% Buses	-	0.0%	0.0%	0.2%	-	0.1%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	0.1%	0.0%	-	0.0%	-	1.3%	0.0%	0.0%	-	1.1%	0.3%
Trucks	-	2	3	24	-	29	0	0	2	1	-	3	-	8	19	1	-	28	-	13	0	0	-	13	73
% Trucks	-	0.6%	1.0%	0.6%	-	0.7%	-	0.0%	1.1%	0.4%	-	0.6%	-	0.5%	1.4%	0.8%	-	0.9%	-	0.6%	0.0%	0.0%	-	0.5%	0.7%
Bicycles	-	-	-	-	1	1	-	-	-	-	0	0	-	-	-	-	2	2	-	-	-	-	2	2	5
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	16	-	-	-	-	-	12	-	31

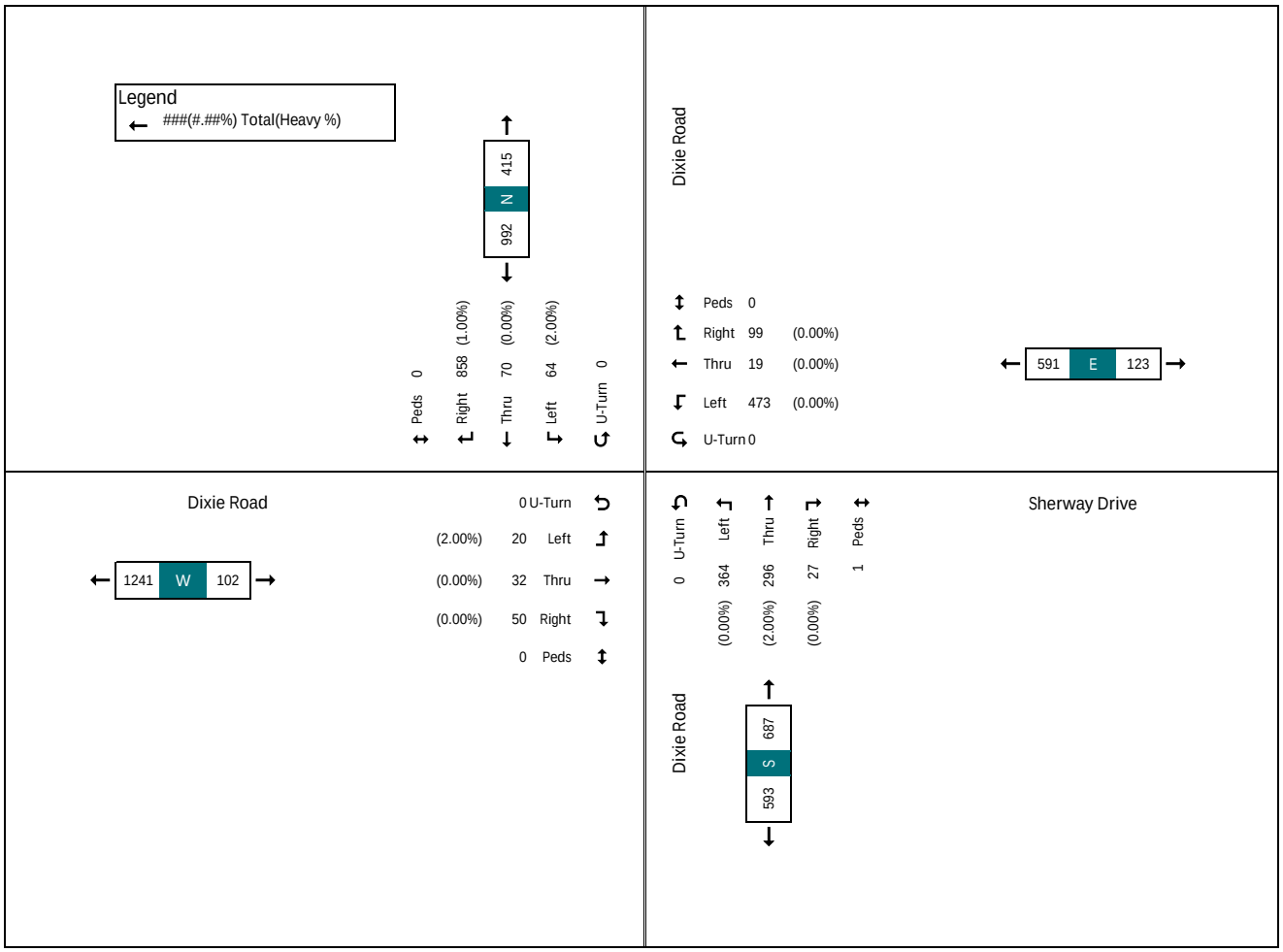


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Dixie Road & Dixie Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24066

SAT Peak Hour - Dixie Road & Dixie Road

	Dixie Road Southbound						Sherway Drive Westbound						Dixie Road Northbound						Dixie Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:15	0	15	10	220	0	245	0	4	8	7	0	19	0	93	79	6	0	178	0	123	6	24	0	153	595
13:30	0	11	19	215	0	245	0	8	5	15	0	28	0	98	66	10	0	174	0	117	5	20	0	142	589
13:45	0	16	21	226	0	263	0	6	13	22	0	41	0	90	83	4	0	177	0	114	4	23	0	141	622
14:00	0	22	20	197	0	239	0	2	6	6	0	14	0	83	68	7	1	158	0	119	4	32	0	155	566
Hourly Total	0	64	70	858	0	992	0	20	32	50	0	102	0	364	296	27	1	687	0	473	19	99	0	591	2372
Approach %	0.0%	6.5%	7.1%	86.5%			0.0%	19.6%	31.4%	49.0%			0.0%	53.0%	43.1%	3.9%			0.0%	80.0%	3.2%	16.8%			
Total %	0.0%	2.7%	3.0%	36.2%		41.8%	0.0%	0.8%	1.4%	2.1%		4.3%	0.0%	15.3%	12.5%	1.2%		29.0%	0.0%	20.7%	0.8%	4.2%		24.9%	
PHF		0.73	0.83	0.95		0.94		0.63	0.62	0.57		0.62		0.93	0.89	0.68		0.96		0.96	0.79	0.77		0.95	0.95
Lights		63	70	848		981		20	32	50		102		364	288	27		680		462	19	99		580	2343
% Lights		98.4%	100.0%	98.8%		98.9%		100.0%	100.0%	100.0%		100.0%		100.0%	97.6%	100.0%		99.0%		97.7%	100.0%	100.0%		98.1%	98.8%
Buses	-	0	0	6		6	-	0	0	0		0	-	0	0	0		0	-	5	0	0	-	5	11
% Buses	-	0.0%	0.0%	0.7%		0.6%	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	0.0%	0.0%		0.0%	-	1.1%	0.0%	0.0%	-	0.8%	0.5%
Trucks	-	1	0	4		5	-	0	0	0		0	-	0	7	0		7	-	6	0	0	-	6	18
% Trucks	-	1.6%	0.0%	0.5%		0.5%	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	2.4%	0.0%		1.0%	-	1.3%	0.0%	0.0%	-	1.0%	0.8%
Bicycles	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	0	-	-	-	-	0	-	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	0	-	-	-	-	0	-	0

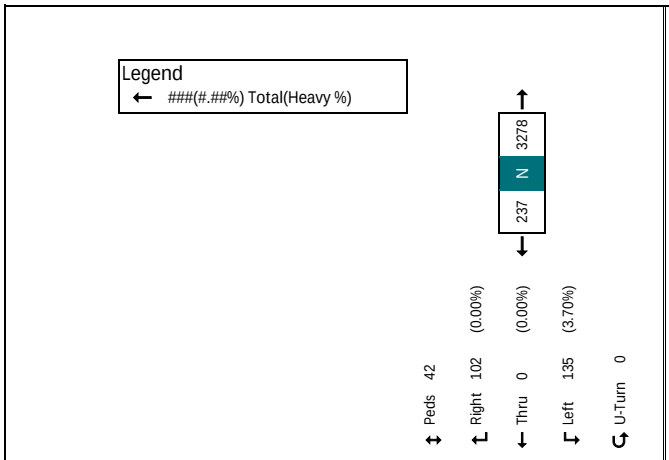


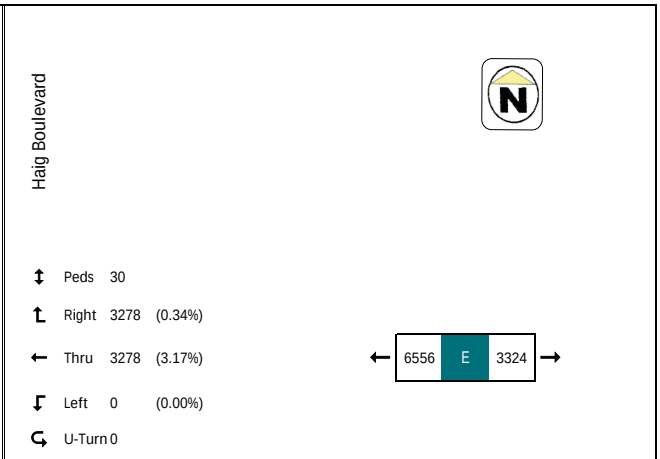
LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

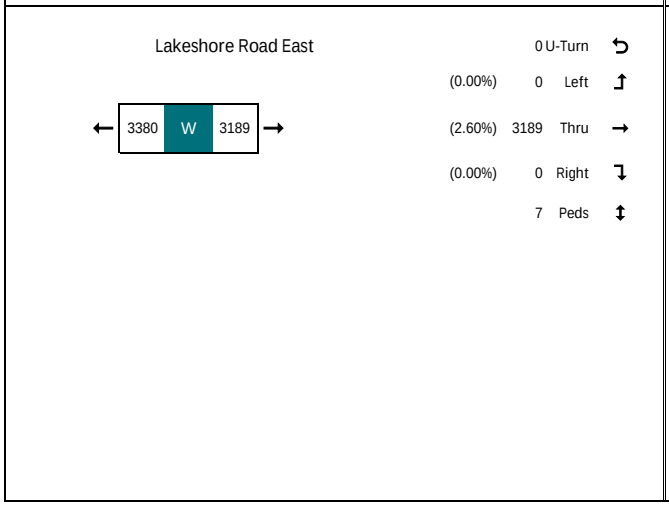
Intersection : Haig Boulevard & Lakeshore Road East
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

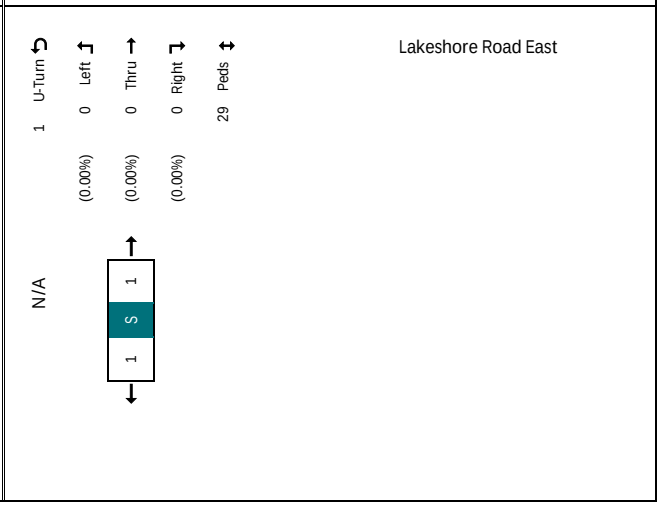
Turning Movement Count - Haig Boulevard & Lakeshore Road East

	Haig Boulevard Southbound						Lakeshore Road East Westbound						N/A Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	6	0	3	0	9	0	0	99	9	1	108	0	0	0	0	3	0	0	2	108	0	0	110	227
7:15	0	10	0	4	0	14	0	0	92	6	1	98	0	0	0	0	2	0	0	4	128	0	0	132	244
7:30	0	7	0	4	4	11	0	0	156	7	1	163	0	0	0	0	2	0	0	3	163	0	1	166	340
7:45	0	9	0	6	0	15	0	0	159	8	1	167	0	0	0	0	1	0	0	1	177	0	0	178	360
Hourly Total	0	32	0	17	4	49	0	0	506	30	4	536	0	0	0	0	8	0	0	10	576	0	1	586	1171
8:00	0	14	0	10	1	24	0	0	225	13	1	239	0	0	0	0	0	0	0	4	257	0	0	261	523
8:15	0	10	0	10	3	20	0	0	232	8	0	240	0	0	0	0	1	0	0	9	229	0	1	239	499
8:30	0	9	0	8	1	17	0	0	244	6	0	250	0	0	0	0	0	0	0	6	252	0	1	258	525
8:45	0	7	0	12	0	19	0	0	191	7	2	198	0	0	0	0	4	0	0	5	227	0	0	232	449
Hourly Total	0	40	0	40	5	80	0	0	892	34	3	926	0	0	0	0	5	0	0	24	965	0	2	989	1995
* Break *																									
16:00	0	4	0	9	3	13	0	0	240	21	2	261	0	0	0	0	4	0	0	5	225	0	0	230	504
16:15	0	5	0	10	3	15	0	0	223	11	4	234	0	0	0	0	1	0	0	5	190	0	0	195	444
16:30	0	10	0	4	7	14	0	0	271	12	2	283	0	0	0	0	3	0	0	8	214	0	3	222	519
16:45	0	13	0	8	4	21	0	0	245	11	5	256	0	0	0	0	4	0	0	8	198	0	0	206	483
Hourly Total	0	32	0	31	17	63	0	0	979	55	13	1034	0	0	0	0	12	0	0	26	827	0	3	853	1950
17:00	0	7	0	2	3	9	0	0	236	16	3	252	0	0	0	0	1	0	0	6	215	0	0	221	482
17:15	0	8	0	0	4	8	0	0	233	9	0	242	0	0	0	0	1	0	0	8	208	0	1	216	466
17:30	0	4	0	9	5	13	0	0	227	23	1	250	0	0	0	0	1	0	0	4	196	0	0	200	463
17:45	0	12	0	3	4	15	0	0	205	15	6	220	0	0	0	0	1	0	0	7	202	0	0	209	444
Hourly Total	0	31	0	14	16	45	0	0	901	63	10	964	0	0	0	0	4	0	0	25	821	0	1	846	1855
Grand Total	0	135	0	102	42	237	0	0	3278	182	30	3460	0	0	0	0	29	0	0	85	3189	0	7	3274	6971
Approach %	0.0%	57.0%	0.0%	43.0%			0.0%	0.0%	94.7%	5.3%		-							0.0%	2.6%	97.4%	0.0%		-	-
Total %	0.0%	1.9%	0.0%	1.5%		3.4%	0.0%	0.0%	47.0%	2.6%		49.6%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	1.2%	45.7%	0.0%		47.0%	-
Lights	0	130	0	102		232	0	0	3174	171		3345	0	0	0	0		0	0	84	3106	0		3190	6767
% Lights	-	96.3%	-	100.0%		97.9%	-	-	96.8%	94.0%		96.7%	-	-	-	-		-	-	98.8%	97.4%	-		97.4%	97.1%
Buses	-	4	0	0		4	-	0	46	9		55	-	0	0	0		0	-	1	36	0		37	96
% Buses	-	3.0%	-	0.0%		1.7%	-	-	1.4%	4.9%		1.6%	-	-	-	-		-	-	1.2%	1.1%	-		1.1%	1.4%
Trucks	-	1	0	0		1	-	0	58	2		60	-	0	0	0		0	-	0	47	0		47	108
% Trucks	-	0.7%	-	-		0.4%	-	-	1.8%	1.1%		1.7%	-	-	-	-		-	-	0.0%	1.5%	-		1.4%	1.5%
Bicycles	-	-	-	-	4	4	-	-	-	-	10	10	-	-	-	-	36	36	-	-	-	-	0	0	50
Pedestrians	-	-	-	-	42	-	-	-	-	-	30	-	-	-	-	-	29	-	-	-	-	-	7	-	108







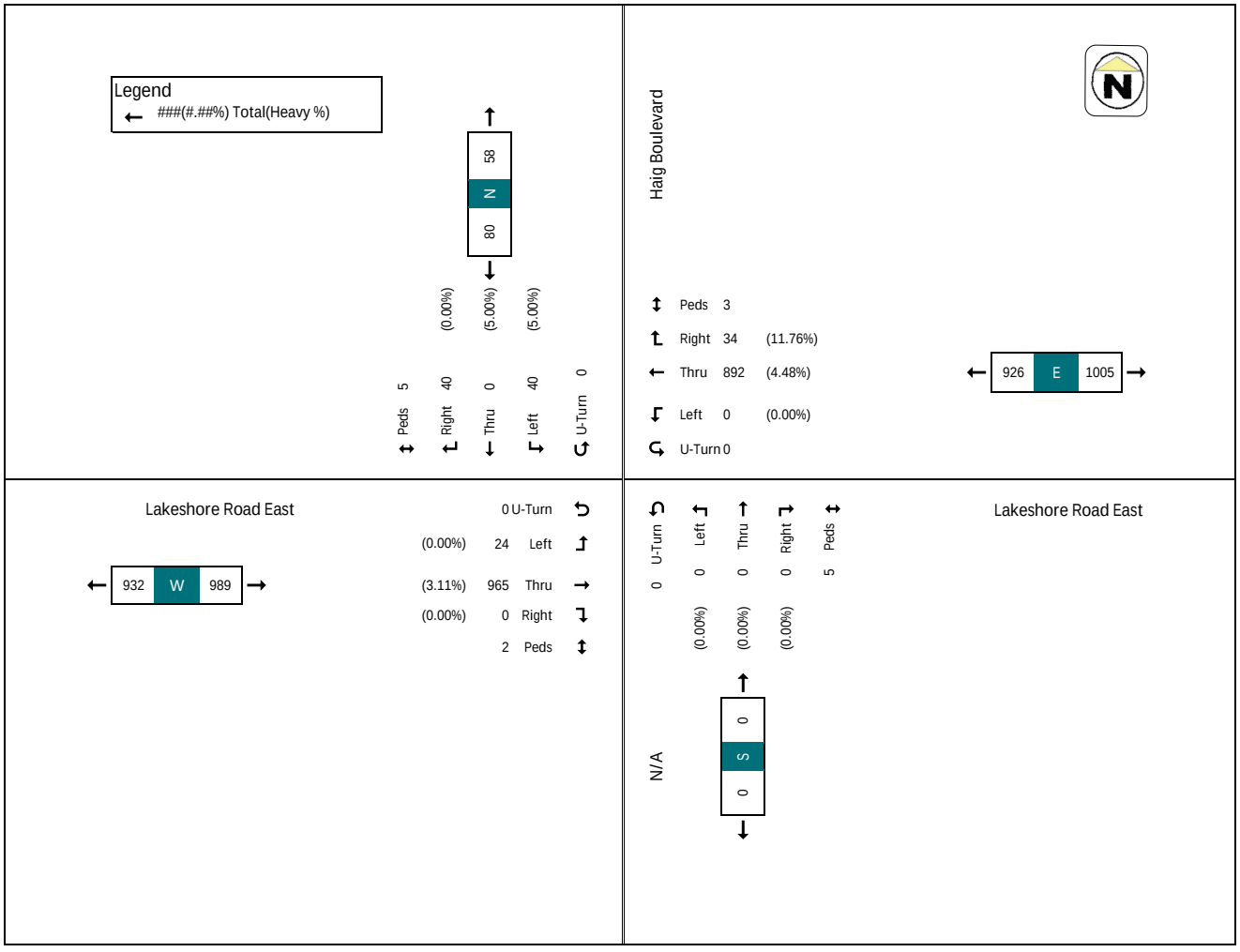


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Lakeshore Road East
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

AM Peak Hour - Haig Boulevard & Lakeshore Road East

	Haig Boulevard Southbound						Lakeshore Road East Westbound						N/A Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	14	0	10	1	24	0	0	225	13	1	238	0	0	0	0	0	0	0	4	257	0	0	261	523
8:15	0	10	0	10	3	20	0	0	232	8	0	240	0	0	0	0	1	0	0	9	229	0	1	238	498
8:30	0	9	0	8	1	17	0	0	244	6	0	250	0	0	0	0	0	0	0	6	252	0	1	258	525
8:45	0	7	0	12	0	19	0	0	191	7	2	198	0	0	0	0	4	0	0	5	227	0	0	232	449
Hourly Total	0	40	0	40	5	80	0	0	892	34	3	926	0	0	0	0	5	0	0	24	965	0	2	989	1995
Approach %	0.0%	50.0%	0.0%	50.0%	-	-	0.0%	0.0%	96.3%	3.7%	-	-	-	-	-	-	-	-	0.0%	2.4%	97.6%	0.0%	-	-	
Total %	0.0%	2.0%	0.0%	2.0%	-	4.0%	0.0%	0.0%	44.7%	1.7%	-	46.4%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.2%	48.4%	0.0%	-	49.6%	
PHF	0	0.71	0	0.83	-	0.83	0	0	0.91	0.65	-	0.93	0	0	0	0	-	0	0	0.67	0.94	0	-	0.95	0.95
Lights	0	38	0	40	-	78	0	0	852	30	-	882	0	0	0	0	-	0	0	24	935	0	-	959	1919
% Lights	-	95.0%	-	100.0%	-	97.5%	-	-	95.5%	88.2%	-	95.2%	-	-	-	-	-	-	-	100.0%	96.9%	-	-	97.0%	96.2%
Buses	-	1	0	0	-	1	-	0	17	3	-	20	-	0	0	0	-	0	-	0	11	0	-	11	32
% Buses	-	2.5%	-	0.0%	-	1.3%	-	-	1.9%	8.8%	-	2.2%	-	-	-	-	-	-	-	0.0%	1.1%	-	-	1.1%	1.6%
Trucks	-	1	0	0	-	1	-	0	23	1	-	24	-	0	0	0	-	0	-	0	19	0	-	19	44
% Trucks	-	2.5%	-	0.0%	-	1.3%	-	-	2.6%	2.9%	-	2.6%	-	-	-	-	-	-	-	0.0%	2.0%	-	-	1.9%	2.2%
Bicycles	-	-	-	-	1	1	-	-	-	-	2	2	-	-	-	-	3	3	-	-	-	-	0	0	6
Pedestrians	-	-	-	-	5	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	10

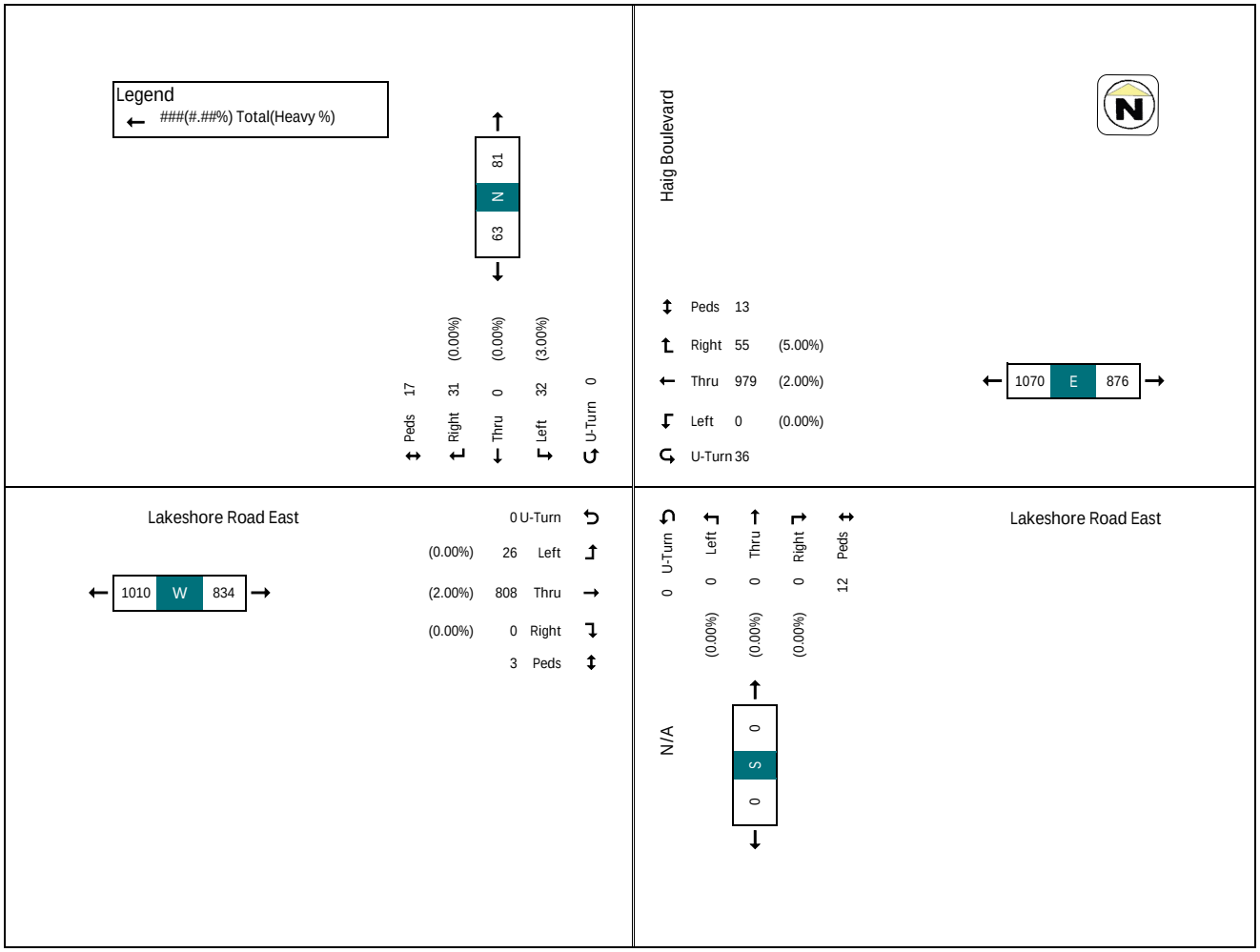


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Lakeshore Road East
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24066

PM Peak Hour - Haig Boulevard & Lakeshore Road East

	Haig Boulevard Southbound						Lakeshore Road East Westbound						N/A Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
16:00	0	4	0	9	3	13	0	0	240	21	2	261	0	0	0	0	4	0	0	5	225	0	0	230	504
16:15	0	5	0	10	3	15	0	0	223	11	4	234	0	0	0	0	1	0	0	5	190	0	0	195	444
16:30	0	10	0	4	7	14	0	0	271	12	2	283	0	0	0	0	3	0	0	8	214	0	3	222	519
16:45	0	13	0	8	4	21	0	0	245	11	5	256	0	0	0	0	4	0	0	8	198	0	0	206	483
Hourly Total	0	32	0	31	17	63	0	0	979	55	13	1034	0	0	0	0	12	0	0	26	827	0	3	853	1950
Approach %	0.0%	50.8%	0.0%	49.2%	-	-	0.0%	0.0%	94.7%	5.3%	-	-	-	-	-	-	-	-	0.0%	3.0%	97.0%	0.0%	-	-	-
Total %	0.0%	1.6%	0.0%	1.6%	-	3.2%	0.0%	0.0%	49.1%	2.8%	-	53.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.3%	41.5%	0.0%	-	43.7%	-
PHF	0	0.62	0	0.78	-	0.75	0	0	0.9	0.65	-	0.91	0	0	0	0	-	0	0	0.81	0.92	0	-	0.93	0.94
Lights	0	31	0	31	-	62	0	0	959	52	-	1011	0	0	0	0	-	0	0	26	808	0	-	834	1907
% Lights	-	96.9%	-	100.0%	-	98.4%	-	-	98.0%	94.5%	-	97.8%	-	-	-	-	-	-	-	100.0%	97.7%	-	-	97.8%	97.8%
Buses	-	1	0	0	-	1	-	0	10	2	-	12	-	0	0	0	-	0	-	0	10	0	-	10	23
% Buses	-	3.1%	-	0.0%	-	1.6%	-	-	1.0%	3.6%	-	1.2%	-	-	-	-	-	-	-	0.0%	1.2%	-	-	1.2%	1.2%
Trucks	-	0	0	0	-	0	-	0	10	1	-	11	-	0	0	0	-	0	-	0	9	0	-	9	20
% Trucks	-	0.0%	-	0.0%	-	0.0%	-	-	1.0%	1.8%	-	1.1%	-	-	-	-	-	-	-	0.0%	1.1%	-	-	1.1%	1.0%
Bicycles	-	-	-	-	-	-	-	-	-	-	6	6	-	-	-	-	17	17	-	-	-	-	0	0	24
Pedestrians	-	-	-	-	17	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	17

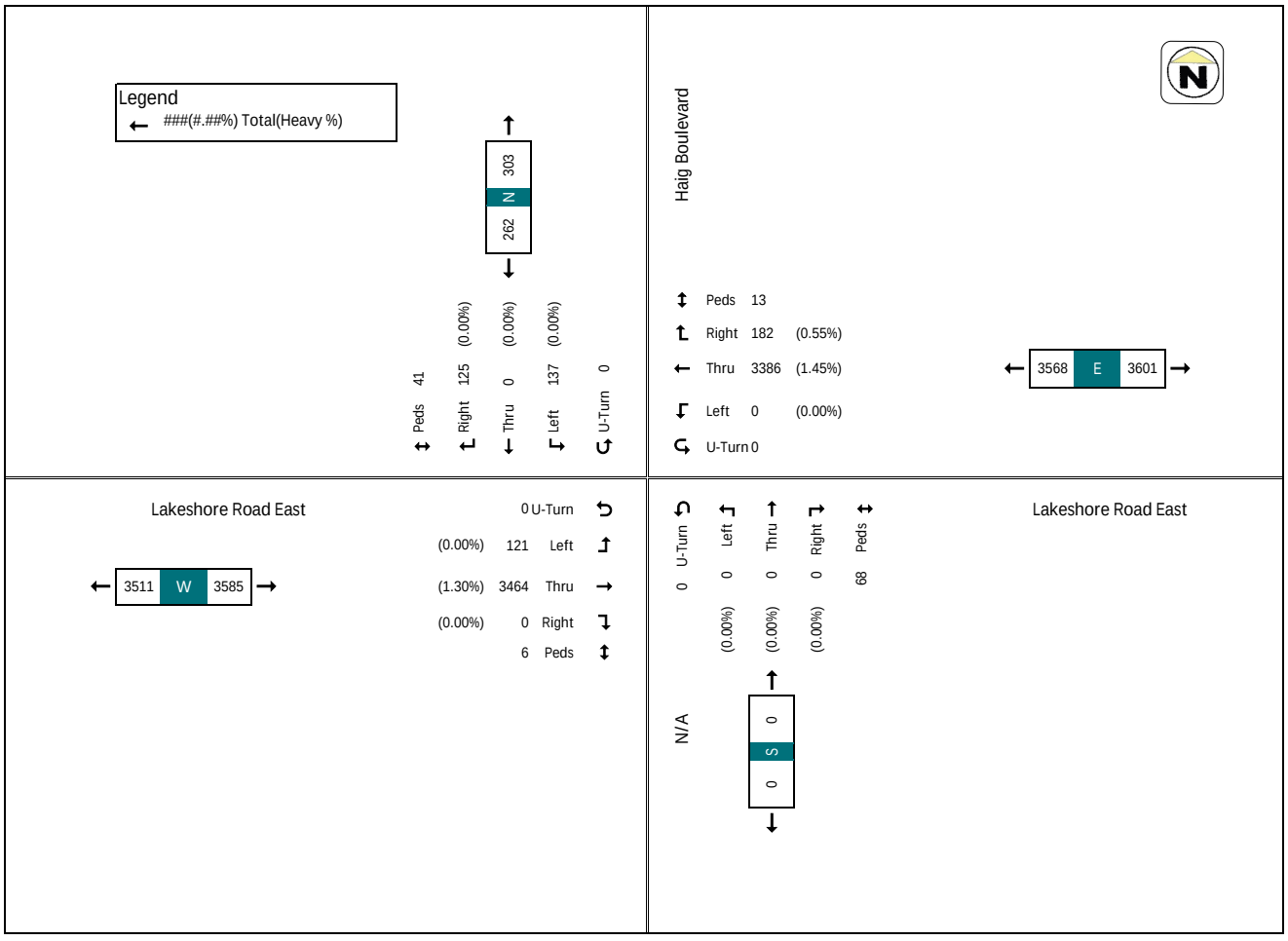


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Lakeshore Road East
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24066

Turning Movement Count - Haig Boulevard & Lakeshore Road East

	Haig Boulevard Southbound						Lakeshore Road East Westbound						N/A Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	7	0	6	4	13	0	0	124	14	0	138	0	0	0	0	8	0	0	7	129	0	0	136	287
10:15	0	2	0	8	0	10	0	0	130	10	0	140	0	0	0	0	5	0	0	3	126	0	0	129	279
10:30	0	7	0	5	2	12	0	0	135	8	0	143	0	0	0	0	3	0	0	4	121	0	0	125	280
10:45	0	7	0	9	4	16	0	0	145	3	1	148	0	0	0	0	1	0	0	7	133	0	0	140	304
Hourly Total	0	23	0	28	10	51	0	0	534	35	1	569	0	0	0	0	17	0	0	21	509	0	0	530	1150
11:00	0	5	0	10	1	15	0	0	138	8	1	146	0	0	0	0	2	0	0	5	155	0	0	160	321
11:15	0	8	0	6	2	14	0	0	142	11	0	153	0	0	0	0	4	0	0	5	156	0	0	161	328
11:30	0	6	0	9	1	15	0	0	158	7	0	165	0	0	0	0	2	0	0	7	170	0	0	177	357
11:45	0	7	0	4	2	11	0	0	200	6	4	206	0	0	0	0	3	0	0	10	173	0	0	183	400
Hourly Total	0	26	0	29	6	55	0	0	638	32	5	670	0	0	0	0	11	0	0	27	654	0	0	681	1406
12:00	0	4	0	6	4	10	0	0	171	8	0	179	0	0	0	0	3	0	0	8	167	0	2	175	364
12:15	0	8	0	6	2	14	0	0	154	12	0	166	0	0	0	0	5	0	0	5	179	0	0	184	364
12:30	0	7	0	6	4	13	0	0	191	6	0	197	0	0	0	0	4	0	0	8	179	0	0	187	397
12:45	0	7	0	6	1	13	0	0	186	13	1	199	0	0	0	0	3	0	0	3	211	0	0	214	426
Hourly Total	0	26	0	24	11	50	0	0	702	39	1	741	0	0	0	0	14	0	0	24	736	0	2	760	1551
13:00	0	9	0	6	2	15	0	0	179	10	0	189	0	0	0	0	2	0	0	4	196	0	0	200	404
13:15	0	7	0	4	1	11	0	0	188	7	0	195	0	0	0	0	4	0	0	3	188	0	2	191	397
13:30	0	9	0	4	1	13	0	0	167	7	0	174	0	0	0	0	4	0	0	5	202	0	2	207	394
13:45	0	9	0	10	6	19	0	0	200	11	1	211	0	0	0	0	3	0	0	9	210	0	0	219	449
Hourly Total	0	34	0	24	10	58	0	0	734	35	1	769	0	0	0	0	13	0	0	21	796	0	4	817	1644
14:00	0	7	0	7	2	14	0	0	204	9	2	213	0	0	0	0	4	0	0	3	193	0	0	196	423
14:15	0	10	0	5	1	15	0	0	195	11	1	206	0	0	0	0	2	0	0	11	219	0	0	230	451
14:30	0	4	0	5	1	9	0	0	159	13	2	172	0	0	0	0	7	0	0	8	180	0	0	188	369
14:45	0	7	0	3	0	10	0	0	220	8	0	228	0	0	0	0	0	0	0	6	177	0	0	183	421
Hourly Total	0	28	0	20	4	48	0	0	778	41	5	819	0	0	0	0	13	0	0	28	769	0	0	797	1664
Grand Total	0	137	0	125	41	262	0	0	3386	182	13	3568	0	0	0	0	68	0	0	121	3464	0	6	3585	7415
Approach %	0.0%	52.3%	0.0%	47.7%	-	-	0.0%	0.0%	94.9%	5.1%	-	-	-	-	-	-	-	-	0.0%	3.4%	96.6%	0.0%	-	-	-
Total %	0.0%	1.8%	0.0%	1.7%	-	3.5%	0.0%	0.0%	45.7%	2.5%	-	48.1%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.6%	46.7%	0.0%	-	48.3%	-
Lights	0	137	0	125	-	262	0	0	3337	181	-	3518	0	0	0	0	-	0	0	121	3419	0	-	3540	7320
% Lights	-	100.0%	-	100.0%	-	100.0%	-	-	98.6%	99.5%	-	98.6%	-	-	-	-	-	-	-	100.0%	98.7%	-	-	98.7%	98.7%
Buses	0	0	0	0	-	0	0	0	25	1	-	26	0	0	0	0	-	0	0	0	26	0	-	26	52
% Buses	-	0.0%	-	0.0%	-	0.0%	-	-	0.7%	0.5%	-	0.7%	-	-	-	-	-	-	-	0.0%	0.8%	-	-	0.7%	0.7%
Trucks	0	0	0	0	-	0	0	0	24	0	-	24	0	0	0	0	-	0	0	0	19	0	-	19	43
% Trucks	-	0.0%	-	0.0%	-	0.0%	-	-	0.7%	0.0%	-	0.7%	-	-	-	-	-	-	-	0.0%	0.5%	-	-	0.5%	0.6%
Bicycles	-	-	-	-	5	5	-	-	-	-	22	22	-	-	-	-	94	94	-	-	-	-	21	21	142
Pedestrians	-	-	-	-	40	-	-	-	-	-	16	-	-	-	-	-	67	-	-	-	-	-	4	-	127

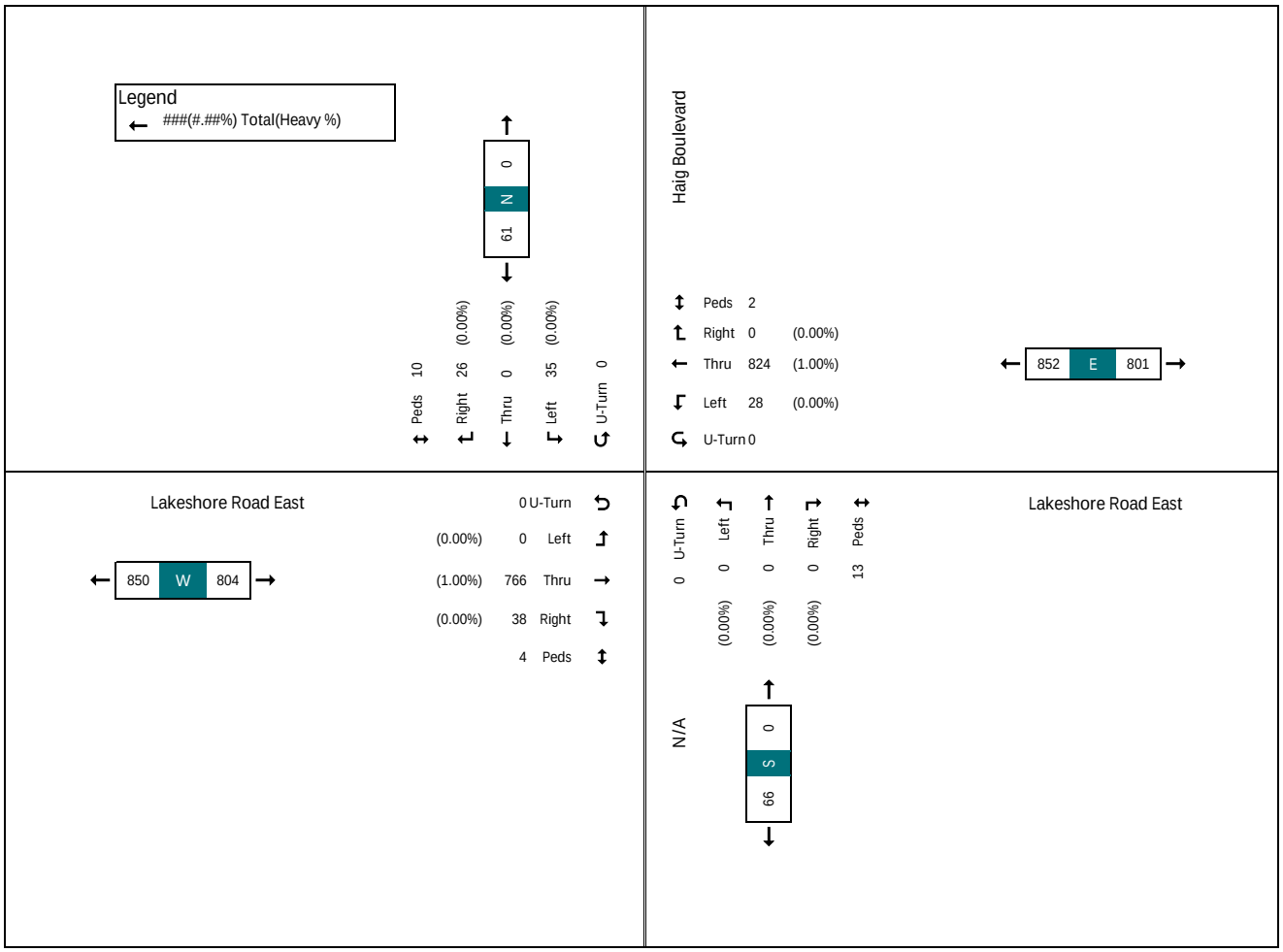


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Lakeshore Road East
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24066

SAT Peak Hour - Haig Boulevard & Lakeshore Road East

	Haig Boulevard Southbound						Lakeshore Road East Westbound						N/A Northbound						Lakeshore Road East Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:30	0	9	0	4	1	13	0	0	167	7	0	174	0	0	0	0	4	0	0	5	202	0	2	207	394
13:45	0	9	0	10	6	19	0	0	200	11	1	211	0	0	0	0	3	0	0	9	210	0	0	219	449
14:00	0	7	0	7	2	14	0	0	204	9	2	213	0	0	0	0	4	0	0	3	193	0	0	196	423
14:15	0	10	0	5	1	15	0	0	195	11	1	206	0	0	0	0	2	0	0	11	219	0	0	230	451
Hourly Total	0	35	0	26	10	61	0	0	766	38	4	804	0	0	0	0	13	0	0	28	824	0	2	852	1717
Approach %	0.0%	57.4%	0.0%	42.6%			0.0%	0.0%	95.3%	4.7%									0.0%	3.3%	96.7%	0.0%			
Total %	0.0%	2.0%	0.0%	1.5%		3.6%	0.0%	0.0%	44.6%	2.2%		46.8%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	1.6%	48.0%	0.0%		49.6%	
PHF		0.88		0.65		0.8			0.94	0.86		0.94								0.64	0.94			0.93	0.95
Lights		35		26		61			759	34		793								28	815			843	1697
% Lights		100.0%		100.0%		100.0%			98.6%	100.0%		98.6%								100.0%	98.9%			98.9%	98.8%
Buses		0		0		0			6	0		6								0	5			5	11
% Buses		0.0%		0.0%		0.0%			0.8%	0.0%		0.7%								0.0%	0.6%			0.6%	0.6%
Trucks		0		0		0			5	0		5								0	4			4	9
% Trucks		0.0%		0.0%		0.0%			0.7%	0.0%		0.6%								0.0%	0.5%			0.5%	0.5%
Bicycles					2	2					4	4					0	0					2	2	8
Pedestrians					9						7						0						0		16

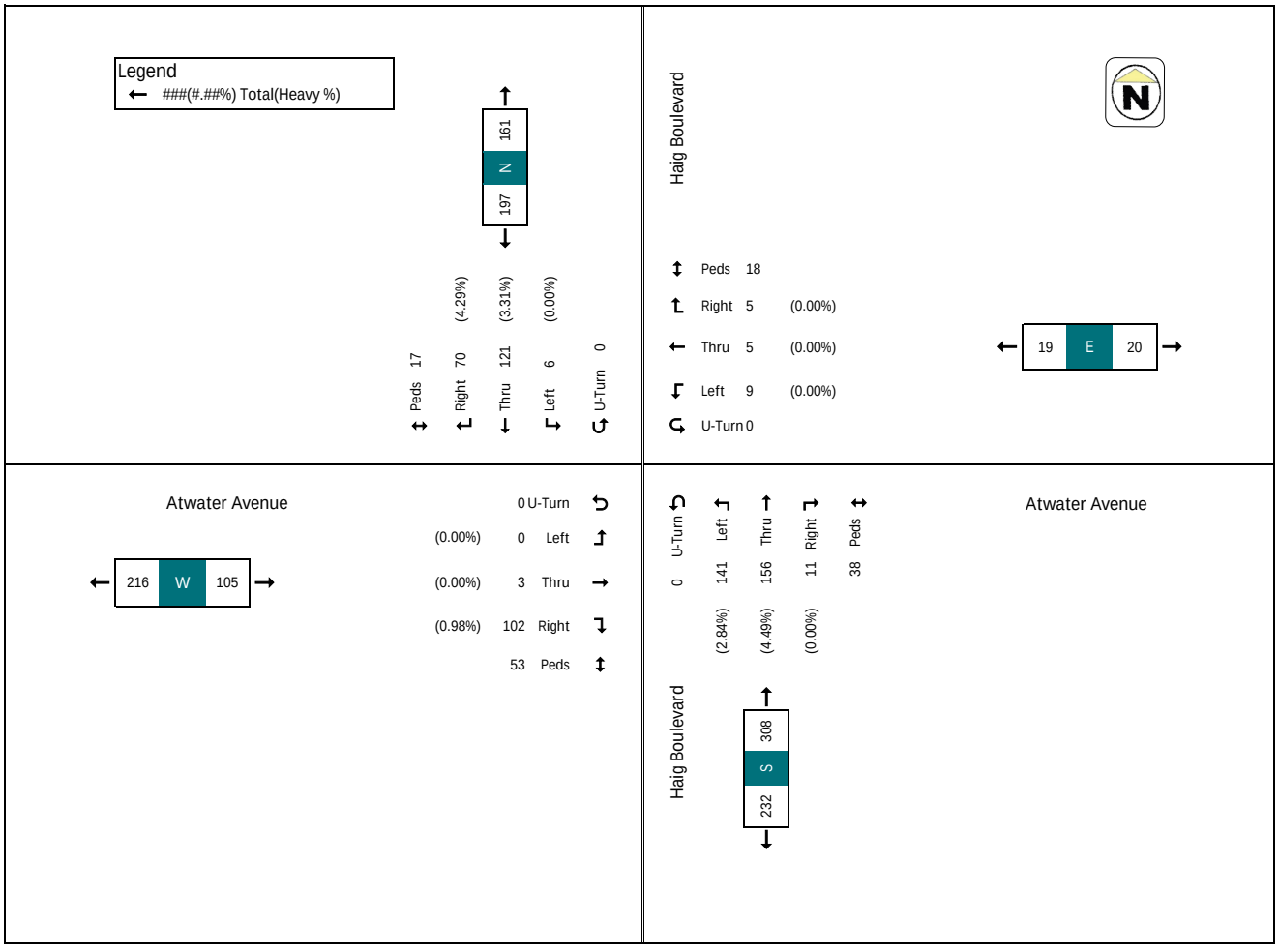


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Atwater Avenue
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24061

Turning Movement Count - Haig Boulevard & Atwater Avenue

	Haig Boulevard Southbound						Atwater Avenue Westbound						Haig Boulevard Northbound						Atwater Avenue Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	0	2	2	0	4	0	0	0	0	1	0	0	2	5	0	0	7	0	3	0	1	0	4	15
7:15	0	0	6	3	0	9	0	1	0	0	0	1	0	7	11	0	0	18	0	1	0	6	2	7	35
7:30	0	0	4	3	1	7	0	0	1	1	1	2	0	4	7	0	0	11	0	1	0	5	0	6	26
7:45	0	0	10	4	4	14	0	0	0	0	6	0	0	12	11	0	2	23	0	1	0	6	2	7	44
Hourly Total	0	0	22	12	5	34	0	1	1	1	8	3	0	25	34	0	2	59	0	6	0	18	4	24	120
8:00	0	0	12	8	1	21	0	1	1	0	0	2	0	20	15	0	0	35	0	4	0	1	2	5	63
8:15	0	1	10	10	1	21	0	0	1	1	1	2	0	10	11	1	0	22	0	11	0	11	1	23	68
8:30	0	0	9	4	3	13	0	2	0	0	2	2	0	7	7	1	0	15	0	10	0	11	8	21	51
8:45	0	0	6	5	1	11	0	1	0	2	1	3	0	12	6	1	1	19	0	5	0	6	11	11	44
Hourly Total	0	1	38	27	6	66	0	4	2	3	4	9	0	49	39	3	1	91	0	30	1	29	22	60	226
* Break *																									
16:00	0	2	8	5	0	15	0	1	0	0	0	1	0	9	17	1	0	27	0	4	0	7	6	11	54
16:15	0	1	7	2	0	10	0	0	1	0	0	1	0	7	11	1	0	19	0	7	1	5	7	13	43
16:30	0	1	8	6	0	15	0	0	0	0	0	0	0	11	6	1	0	18	0	5	0	5	1	10	43
16:45	0	0	9	3	0	12	0	1	1	1	1	3	0	6	6	2	0	14	0	8	1	11	1	20	49
Hourly Total	0	4	32	16	0	52	0	2	2	1	1	5	0	33	40	5	0	78	0	24	2	28	15	54	189
17:00	0	0	8	3	2	11	0	0	0	0	1	0	0	6	10	1	1	17	0	4	0	4	7	8	36
17:15	0	0	4	3	0	7	0	0	0	0	0	0	0	9	9	0	0	18	0	4	0	9	1	13	38
17:30	0	1	7	4	1	12	0	1	0	0	1	1	0	11	15	1	0	27	0	3	0	8	1	11	51
17:45	0	0	10	5	3	15	0	1	0	1	3	2	0	8	9	1	0	18	0	2	0	6	3	8	43
Hourly Total	0	1	29	15	6	45	0	2	0	1	5	3	0	34	43	3	1	80	0	13	0	27	12	40	168
Grand Total	0	6	121	70	17	197	0	9	5	6	18	20	0	141	156	11	38	308	0	73	3	102	53	178	703
Approach %	0.0%	3.0%	61.4%	35.5%	-	-	0.0%	45.0%	25.0%	30.0%	-	-	0.0%	45.8%	50.6%	3.6%	-	-	0.0%	41.0%	1.7%	57.3%	-	-	-
Total %	0.0%	0.9%	17.2%	10.0%	-	28.0%	0.0%	1.3%	0.7%	0.9%	-	2.8%	0.0%	20.1%	22.2%	1.6%	-	43.8%	0.0%	10.4%	0.4%	14.5%	-	25.3%	-
Lights	0	6	117	67	-	190	0	9	5	6	-	20	0	137	149	11	-	297	0	70	3	101	-	174	681
% Lights	-	100.0%	96.7%	95.7%	-	96.4%	-	100.0%	100.0%	100.0%	-	100.0%	-	97.2%	95.5%	100.0%	-	96.4%	-	95.9%	100.0%	99.0%	-	97.8%	96.9%
Buses	-	0	2	3	-	5	-	0	0	0	-	0	-	3	6	0	-	9	-	3	0	1	-	4	18
% Buses	-	0.0%	1.7%	4.3%	-	2.5%	-	0.0%	0.0%	0.0%	-	0.0%	-	2.1%	3.8%	0.0%	-	2.9%	-	4.1%	0.0%	1.0%	-	2.2%	2.6%
Trucks	-	0	2	0	-	2	-	0	0	0	-	0	-	1	1	0	-	2	-	0	0	0	-	0	4
% Trucks	-	0.0%	1.7%	-	-	1.0%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.7%	0.6%	0.0%	-	0.6%	-	0.0%	0.0%	0.0%	-	0.0%	0.6%
Bicycles	-	-	-	-	0	0	-	-	-	-	1	1	-	-	-	-	0	0	-	-	-	-	9	9	10
Pedestrians	-	-	-	-	17	-	-	-	-	-	18	-	-	-	-	-	38	-	-	-	-	-	53	-	126

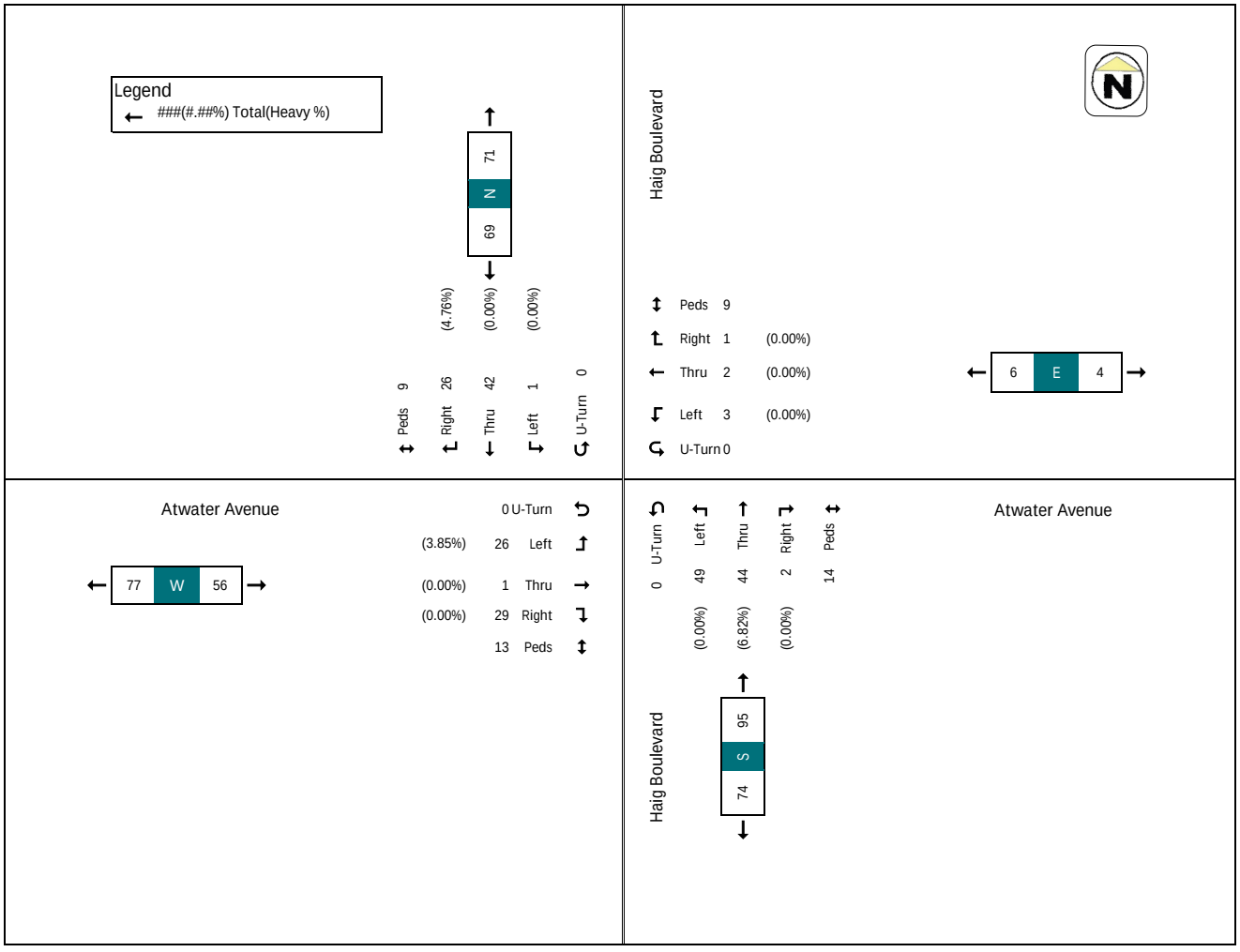


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Atwater Avenue
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24061

AM Peak Hour - Haig Boulevard & Atwater Avenue

	Haig Boulevard Southbound						Atwater Avenue Westbound						Haig Boulevard Northbound						Atwater Avenue Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:45	0	0	10	4	4	14	0	0	0	0	6	0	0	12	11	0	2	23	0	1	0	6	2	7	44
8:00	0	0	13	8	1	21	0	1	1	0	0	2	0	20	15	0	6	35	0	4	0	1	2	5	63
8:15	0	1	10	10	1	21	0	0	1	1	1	2	0	10	11	1	1	22	0	11	1	11	1	23	68
8:30	0	0	9	4	3	13	0	2	0	0	2	2	0	7	7	1	5	15	0	10	0	11	8	21	51
Hourly Total	0	1	42	26	9	69	0	3	2	1	9	6	0	49	44	2	14	95	0	26	1	29	13	56	226
Approach %	0.0%	1.4%	60.9%	37.7%	-	-	0.0%	50.0%	33.3%	16.7%	-	-	0.0%	51.6%	46.3%	2.1%	-	-	0.0%	46.4%	1.8%	51.8%	-	-	-
Total %	0.0%	0.4%	18.6%	11.5%	-	30.5%	0.0%	1.3%	0.9%	0.4%	-	2.7%	0.0%	21.7%	19.5%	0.9%	-	42.0%	0.0%	11.5%	0.4%	12.8%	-	24.8%	-
PHF	0	0.25	0.81	0.65	-	0.82	0	0.38	0.5	0.25	-	0.75	0	0.61	0.73	0.5	-	0.68	0	0.59	0.25	0.66	-	0.61	0.83
Lights	0	1	40	23	-	64	0	3	2	1	-	6	0	49	41	2	-	92	0	25	1	29	-	55	217
% Lights	-	100.0%	95.2%	88.5%	-	92.8%	-	100.0%	100.0%	100.0%	-	100.0%	-	100.0%	93.2%	100.0%	-	96.8%	-	96.2%	100.0%	100.0%	-	98.2%	96.0%
Buses	-	0	1	3	-	4	-	0	0	0	-	0	-	0	2	0	-	2	-	1	0	0	-	1	7
% Buses	-	0.0%	2.4%	11.5%	-	5.8%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	4.5%	0.0%	-	2.1%	-	3.8%	0.0%	0.0%	-	1.8%	3.1%
Trucks	-	0	1	0	-	1	-	0	0	0	-	0	-	0	1	0	-	1	-	0	0	0	-	0	2
% Trucks	-	0.0%	2.4%	0.0%	-	1.4%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	2.3%	0.0%	-	1.1%	-	0.0%	0.0%	0.0%	-	0.0%	0.9%
Bicycles	-	-	-	-	0	0	-	-	-	-	1	1	-	-	-	-	0	0	-	-	-	-	4	4	5
Pedestrians	-	-	-	-	9	-	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	13	-	31

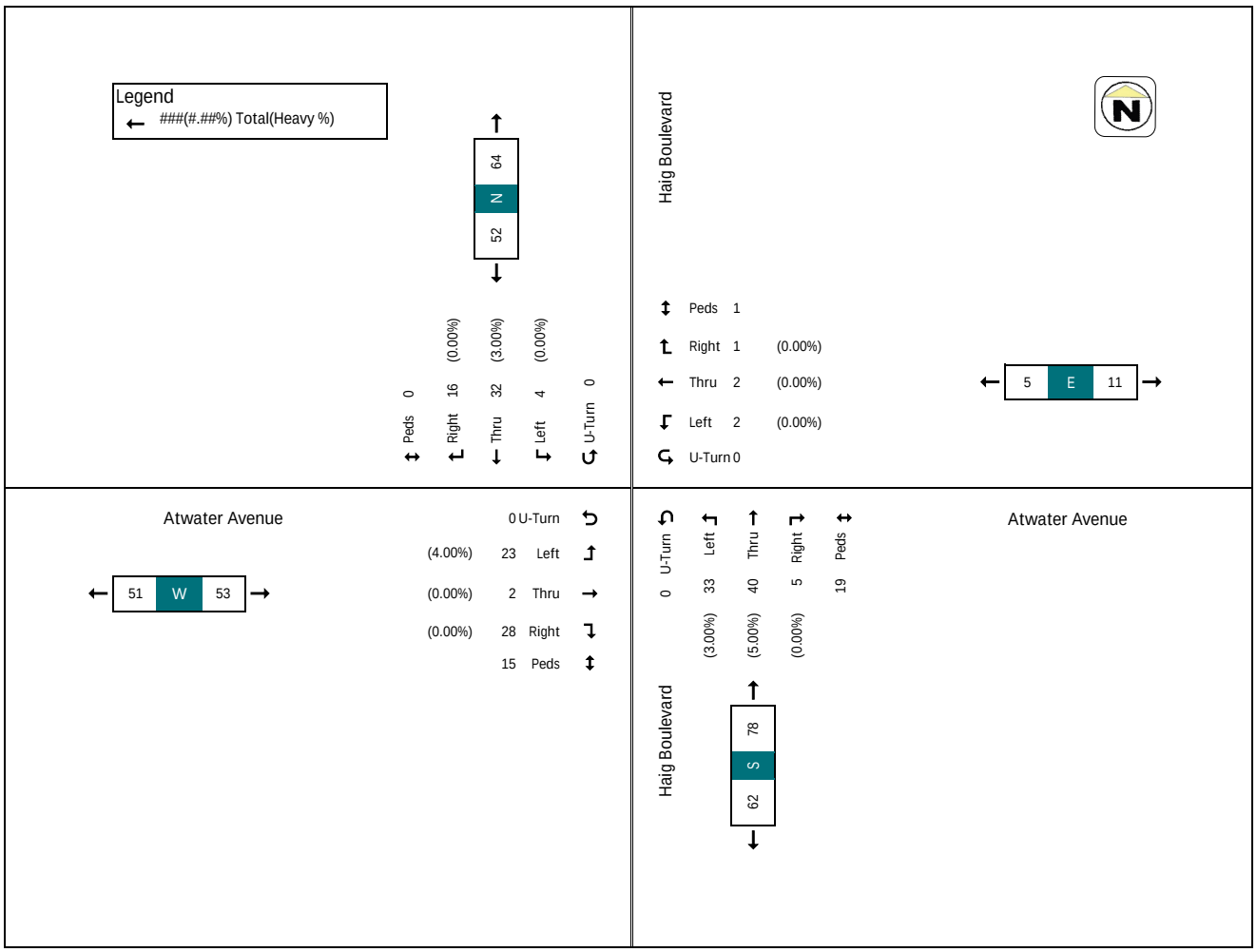


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Atwater Avenue
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24061

PM Peak Hour - Haig Boulevard & Atwater Avenue

	Haig Boulevard Southbound						Atwater Avenue Westbound						Haig Boulevard Northbound						Atwater Avenue Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
16:00	0	2	8	5	0	15	0	1	0	0	0	1	0	9	17	1	9	27	0	4	0	7	6	11	54
16:15	0	1	7	2	0	10	0	0	1	0	0	1	0	7	11	1	3	19	0	7	1	5	7	13	43
16:30	0	1	8	6	0	15	0	0	0	0	0	0	0	11	6	1	7	18	0	5	0	5	1	10	43
16:45	0	0	9	3	0	12	0	1	1	1	1	3	0	6	6	2	0	14	0	8	1	11	1	20	49
Hourly Total	0	4	32	16	0	52	0	2	2	1	1	5	0	33	40	5	19	78	0	24	2	28	15	54	189
Approach %	0.0%	7.7%	61.5%	30.8%	-	-	0.0%	40.0%	40.0%	20.0%	-	-	0.0%	42.3%	51.3%	6.4%	-	-	0.0%	44.4%	3.7%	51.9%	-	-	-
Total %	0.0%	2.1%	16.9%	8.5%	-	27.5%	0.0%	0.9%	0.9%	0.5%	-	2.6%	0.0%	14.6%	17.7%	2.2%	-	41.3%	0.0%	10.6%	0.9%	12.4%	-	28.6%	-
PHF	0	0.5	0.89	0.67	-	0.87	0	0.5	0.5	0.25	-	0.42	0	0.75	0.63	0.63	-	0.72	0	0.75	0.5	0.64	-	0.68	0.88
Lights	0	4	31	16	-	51	0	2	2	1	-	5	0	32	38	5	-	75	0	23	2	28	-	53	184
% Lights	-	100.0%	96.9%	100.0%	-	98.1%	-	100.0%	100.0%	100.0%	-	100.0%	-	97.0%	95.0%	100.0%	-	96.2%	-	95.8%	100.0%	100.0%	-	98.1%	97.4%
Buses	-	0	1	3	-	4	-	0	0	0	-	0	-	0	2	0	-	2	-	1	0	0	-	1	7
% Buses	-	0.0%	3.1%	18.8%	-	7.7%	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	5.0%	0.0%	-	2.6%	-	4.2%	0.0%	0.0%	-	1.9%	3.7%
Trucks	-	0	0	0	-	0	-	0	0	0	-	0	-	1	0	0	-	1	-	0	0	0	-	0	1
% Trucks	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	0.0%	0.0%	-	0.0%	-	3.0%	0.0%	0.0%	-	1.3%	-	0.0%	0.0%	0.0%	-	0.0%	0.5%
Bicycles	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

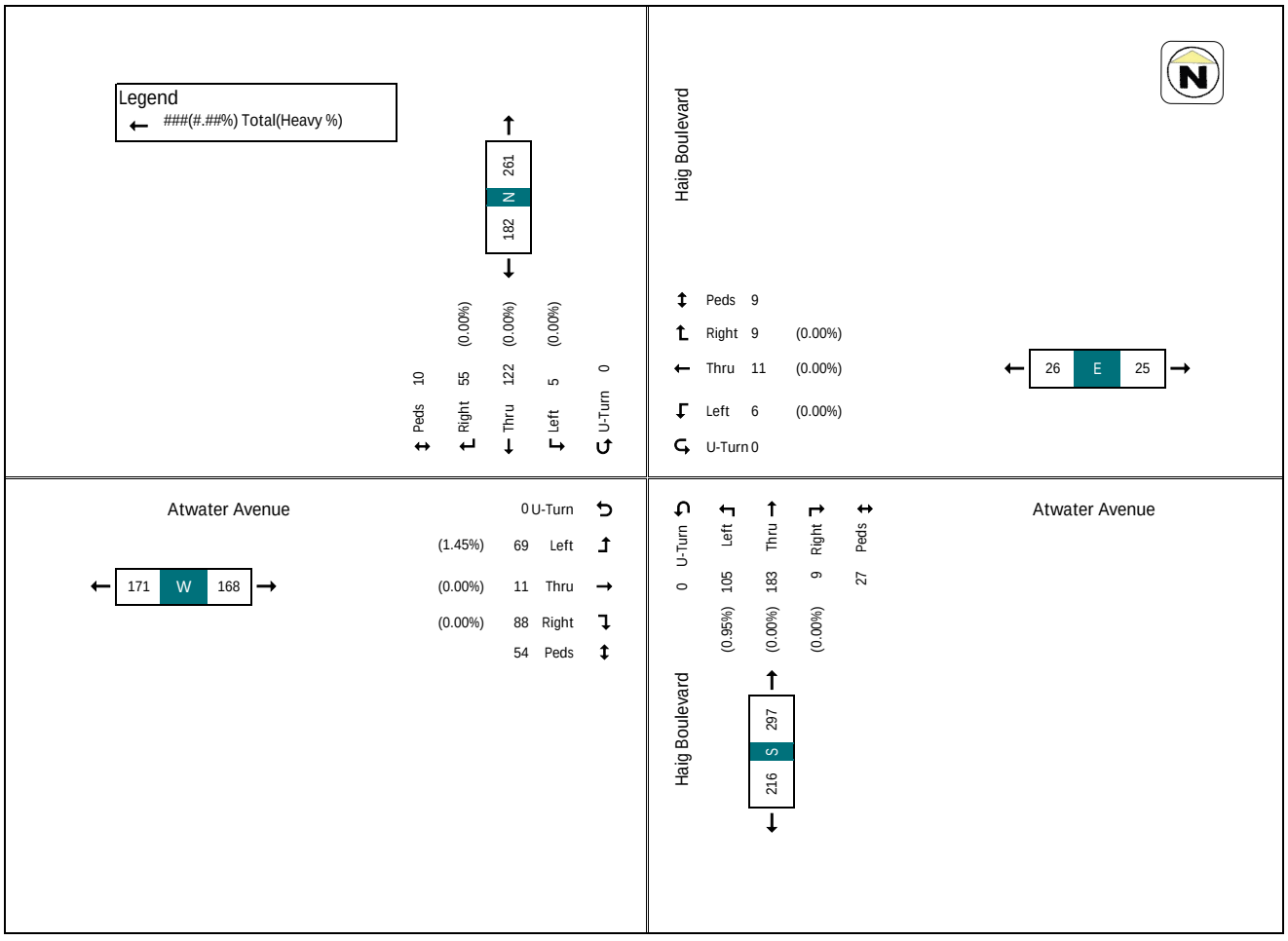


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Atwater Avenue
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24061

Turning Movement Count - Haig Boulevard & Atwater Avenue

	Haig Boulevard Southbound						Atwater Avenue Westbound						Haig Boulevard Northbound						Atwater Avenue Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	5	1	1	6	0	1	1	0	1	2	0	5	12	0	4	17	0	5	1	5	2	11	36
10:15	0	0	9	2	1	11	0	0	0	2	0	2	0	7	9	1	1	17	0	3	1	3	0	7	37
10:30	0	1	1	5	0	7	0	1	0	0	0	1	0	7	11	1	0	19	0	3	0	6	4	9	36
10:45	0	0	6	1	1	7	0	0	0	0	1	0	0	3	4	0	1	7	0	3	1	3	2	7	21
Hourly Total	0	1	21	9	3	31	0	2	1	2	2	5	0	22	36	2	6	60	0	14	3	17	8	34	130
11:00	0	1	8	0	0	9	0	0	2	0	1	2	4	4	3	0	2	11	0	2	0	6	4	8	30
11:15	0	0	6	1	0	7	0	1	0	0	0	1	4	4	8	1	2	17	0	2	1	3	9	6	31
11:30	0	0	12	3	0	15	0	0	1	0	0	1	5	5	10	0	2	20	0	6	0	7	2	13	49
11:45	0	1	6	1	0	8	0	1	0	1	0	2	5	5	10	1	1	21	0	2	0	1	3	3	34
Hourly Total	0	2	32	5	0	39	0	2	3	1	1	6	0	18	31	2	7	51	0	12	1	17	18	30	126
12:00	0	0	8	3	0	11	0	0	0	2	1	2	0	5	10	3	0	18	0	3	1	3	7	7	38
12:15	0	0	10	2	0	12	0	0	2	0	0	2	0	5	13	0	0	18	0	3	0	2	1	5	37
12:30	0	1	3	6	0	10	0	1	1	0	0	1	0	7	11	0	0	18	0	5	0	8	1	13	43
12:45	0	0	4	4	0	8	0	0	1	0	0	1	0	7	11	0	0	18	0	5	0	1	4	6	33
Hourly Total	0	1	25	15	0	41	0	1	4	2	1	7	0	24	45	3	0	72	0	16	1	14	13	31	151
13:00	0	0	6	2	1	8	0	0	1	0	1	1	0	3	10	0	1	13	0	4	0	5	0	9	31
13:15	0	0	3	3	2	8	0	0	1	0	1	1	0	5	7	0	0	12	0	4	0	7	1	11	30
13:30	0	0	7	0	2	7	0	1	0	2	1	3	0	4	8	0	0	12	0	0	4	5	1	9	31
13:45	0	0	11	3	2	14	0	0	1	0	0	1	0	3	10	0	2	13	0	5	1	5	3	11	39
Hourly Total	0	0	27	8	7	35	0	1	3	2	3	6	0	15	35	0	3	50	0	13	5	22	5	40	131
14:00	0	0	6	6	0	12	0	0	0	1	2	1	0	6	8	0	5	14	0	3	1	7	0	11	38
14:15	0	0	4	4	0	8	0	0	0	0	0	0	0	6	14	2	0	22	0	4	0	4	2	8	38
14:30	0	0	3	1	0	4	0	0	0	1	0	1	0	7	6	0	4	13	0	1	0	3	7	4	22
14:45	0	1	4	7	0	12	0	0	0	0	0	0	0	7	8	0	0	15	0	6	0	4	1	10	37
Hourly Total	0	1	17	18	0	36	0	0	0	2	2	2	0	26	36	2	9	64	0	14	1	18	10	33	135
Grand Total	0	5	122	55	10	182	0	6	11	9	9	26	0	105	183	9	27	297	0	69	11	88	54	168	673
Approach %	0.0%	2.7%	67.0%	30.2%	-	-	0.0%	23.1%	42.3%	34.6%	-	-	0.0%	35.4%	61.6%	3.0%	-	-	0.0%	41.1%	6.5%	52.4%	-	-	-
Total %	0.0%	0.7%	18.1%	8.2%	-	27.0%	0.0%	0.9%	1.6%	1.3%	-	3.9%	0.0%	15.6%	27.2%	1.3%	-	44.1%	0.0%	10.3%	1.6%	13.1%	-	25.0%	-
Lights	0	5	122	55	-	182	0	6	11	9	-	26	0	104	183	9	-	296	0	68	11	88	-	167	671
% Lights	-	100.0%	100.0%	100.0%	-	100.0%	-	100.0%	100.0%	100.0%	-	100.0%	-	99.0%	100.0%	100.0%	-	99.7%	-	98.6%	100.0%	100.0%	-	99.4%	99.7%
Buses	-	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%	0.0%	-	0.0%	-	0.0%	0.0%	0.0%	-	0.0%	0.0%
Trucks	-	0	0	0	-	0	-	0	0	0	-	0	-	1	0	0	-	1	-	1	0	0	-	1	2
% Trucks	-	0.0%	0.0%	0.0%	-	0.0%	-	0.0%	0.0%	0.0%	-	0.0%	-	1.0%	0.0%	0.0%	-	0.3%	-	1.4%	0.0%	0.0%	-	0.6%	0.3%
Bicycles	-	-	-	-	0	0	-	-	-	-	2	2	-	-	-	-	20	20	-	-	-	-	13	13	35
Pedestrians	-	-	-	-	10	-	-	-	-	-	9	-	-	-	-	-	29	-	-	-	-	-	53	-	99

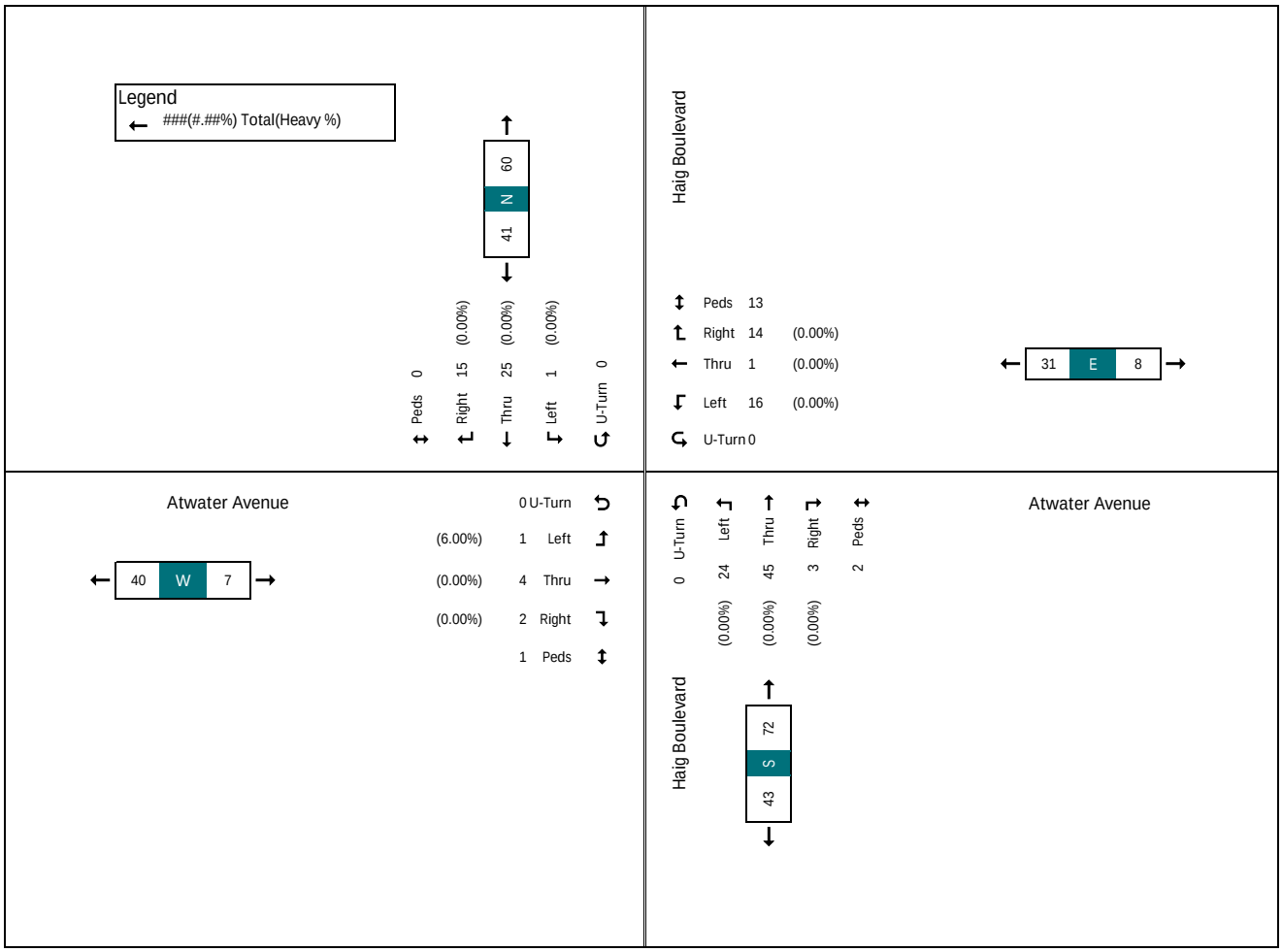


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Haig Boulevard & Atwater Avenue
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24061

SAT Peak Hour - Haig Boulevard & Atwater Avenue

	Haig Boulevard Southbound						Atwater Avenue Westbound						Haig Boulevard Northbound						Atwater Avenue Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
12:00	0	0	8	3	0	11	0	0	0	2	1	2	0	5	10	3	0	18	0	3	1	3	7	7	38
12:15	0	0	10	2	0	12	0	0	2	0	0	2	0	5	13	0	2	18	0	3	0	2	1	5	37
12:30	0	1	3	6	0	10	0	1	1	0	0	2	0	7	11	0	0	18	0	5	0	8	1	13	43
12:45	0	0	4	4	0	8	0	0	1	0	0	1	0	7	11	0	0	18	0	5	0	1	4	6	33
Hourly Total	0	1	25	15	0	41	0	1	4	2	1	7	0	24	45	3	2	72	0	16	1	14	13	31	151
Approach %	0.0%	2.4%	61.0%	36.6%			0.0%	14.3%	57.1%	28.6%			0.0%	33.3%	62.5%	4.2%			0.0%	51.6%	3.2%	45.2%			
Total %	0.0%	0.7%	16.6%	9.9%		27.2%	0.0%	0.4%	1.8%	1.3%		4.6%	0.0%	10.6%	19.9%	1.3%		47.7%	0.0%	7.1%	0.4%	6.2%		20.5%	
PHF		0.25	0.63	0.63		0.85		0.25	0.50	0.25		0.88		0.86	0.92	0.25		0.94		0.80	0.25	0.44		0.60	0.89
Lights	0	1	25	15		41	0	1	4	2		7	0	24	45	3		72	0	15	1	14		30	150
% Lights	-	100.0%	100.0%	100.0%		100.0%	-	100.0%	100.0%	100.0%		100.0%	-	100.0%	100.0%	100.0%		100.0%	-	93.8%	100.0%	100.0%		96.8%	99.3%
Buses	-	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%	0.0%		0.0%	-	0.0%	0.0%	0.0%		0.0%	0.0%
Trucks	-	0	0	0		0	-	0	0	0		0	-	0	0	0		0	-	1	0	0		1	1
% Trucks	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	0.0%	0.0%		0.0%	-	0.0%	0.0%	0.0%		0.0%	-	6.3%	0.0%	0.0%		3.2%	0.7%
Bicycles	-				0	0	-				2	2	-				0	0	-				3	3	5
Pedestrians	-				0		-				1		-				0		-				13		14

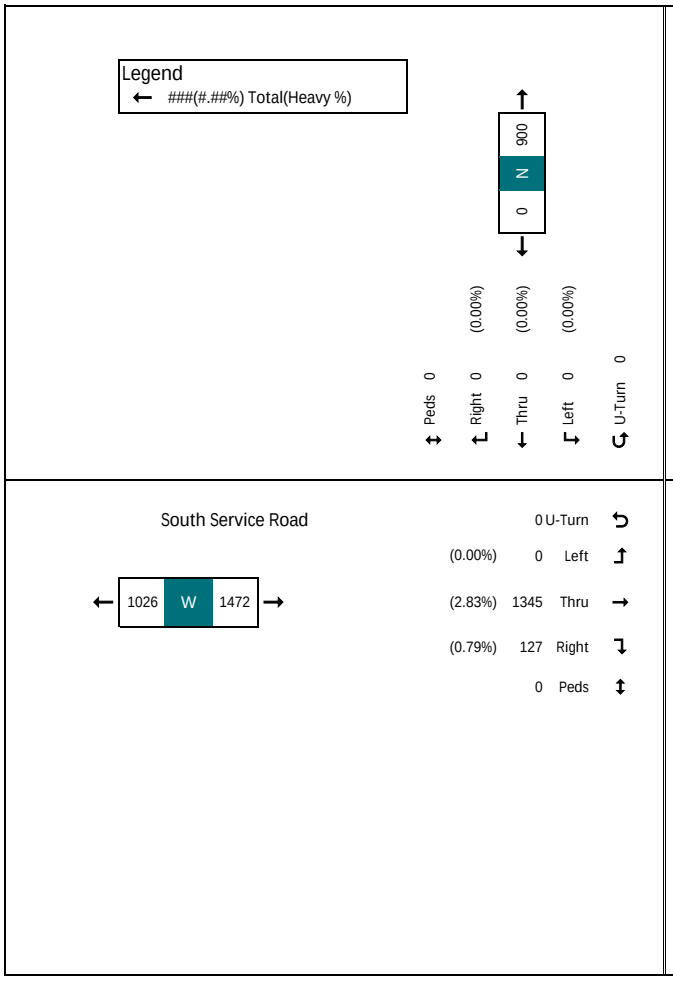


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : West Mall Access & South Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24068

Turning Movement Count - West Mall Access & South Service Road

	N/A Southbound						South Service Road Westbound						West Mall Access Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	0	0	0	72	1	0	73	92
7:15	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	0	0	0	80	0	0	80	99
7:30	0	0	0	0	0	0	0	0	25	0	0	25	0	0	0	0	0	0	0	0	105	0	0	105	130
7:45	0	0	0	0	0	0	0	0	38	0	0	38	0	0	0	0	1	0	0	0	100	1	0	101	139
Hourly Total	0	0	0	0	0	0	0	0	101	0	1	101	0	0	0	0	1	0	0	0	357	2	0	359	460
8:00	0	0	0	0	0	0	0	0	71	0	0	71	0	0	0	0	0	0	0	0	126	0	0	126	197
8:15	0	0	0	0	0	0	0	0	72	0	0	72	0	1	0	0	1	1	0	0	127	3	0	130	203
8:30	0	0	0	0	0	0	0	0	51	0	1	51	0	0	0	0	0	0	0	0	131	4	0	135	186
8:45	0	0	0	0	0	0	0	0	31	0	1	31	0	1	0	0	0	1	0	0	107	7	0	114	146
Hourly Total	0	0	0	0	0	0	0	0	225	0	2	225	0	2	0	0	1	2	0	0	491	14	0	505	732
* Break *																									
16:00	0	0	0	0	0	0	0	1	69	0	0	70	0	10	0	1	0	11	0	0	72	13	0	85	166
16:15	0	0	0	0	0	0	0	0	57	0	0	57	0	23	0	1	0	24	0	0	57	14	0	71	152
16:30	0	0	0	0	0	0	0	0	65	0	1	65	0	17	0	1	0	18	0	0	49	11	0	60	143
16:45	0	0	0	0	0	0	0	0	64	0	0	64	0	11	0	1	0	12	0	0	73	23	0	96	172
Hourly Total	0	0	0	0	0	0	0	1	255	0	1	256	0	61	0	4	0	65	0	0	251	61	0	312	633
17:00	0	0	0	0	0	0	0	0	74	0	0	74	0	17	0	0	0	17	0	0	62	7	0	69	160
17:15	0	0	0	0	0	0	0	1	76	0	0	77	0	15	0	0	0	15	0	0	68	16	0	84	176
17:30	0	0	0	0	0	0	0	0	85	0	0	85	0	17	0	0	0	17	0	0	60	14	0	74	176
17:45	0	0	0	0	0	0	0	0	84	0	0	84	0	14	0	4	0	18	0	0	56	13	0	69	171
Hourly Total	0	0	0	0	0	0	0	1	319	0	0	320	0	63	0	4	0	67	0	0	246	50	0	296	683
Grand Total	0	0	0	0	0	0	0	2	900	0	4	902	0	126	0	8	9	134	0	0	1345	127	0	1472	2508
Approach %	-	-	-	-	-		0.0%	0.2%	99.8%	0.0%	-	-	0.0%	94.0%	0.0%	6.0%	-		0.0%	0.0%	91.4%	8.6%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.1%	35.9%	0.0%	-	36.0%	0.0%	5.0%	0.0%	0.3%	-	5.3%	0.0%	0.0%	53.6%	5.1%	-	58.7%	-
Lights	0	0	0	0	-	0	0	2	867	0	-	869	0	125	0	8	-	133	0	0	1307	126	-	1433	2435
% Lights	-	-	-	-	-		-	100.0%	96.3%	-	-	96.3%	-	99.2%	-	100.0%	-	99.3%	-	-	97.2%	99.2%	-	97.4%	97.1%
Buses	-	0	0	0	-	0	-	0	29	0	-	29	-	0	0	0	-	0	-	0	32	0	-	32	61
% Buses	-	-	-	-	-		-	0.0%	3.2%	-	-	3.2%	-	0.0%	-	0.0%	-	0.0%	-	-	2.4%	0.0%	-	2.2%	2.4%
Trucks	-	0	0	0	-	0	-	0	4	0	-	4	-	1	0	0	-	1	-	0	6	1	-	7	12
% Trucks	-	-	-	-	-		-	0.0%	0.4%	-	-	0.4%	-	0.8%	-	0.0%	-	0.7%	-	-	0.4%	0.8%	-	0.5%	0.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	9	-	-	-	-	-	0	-	13

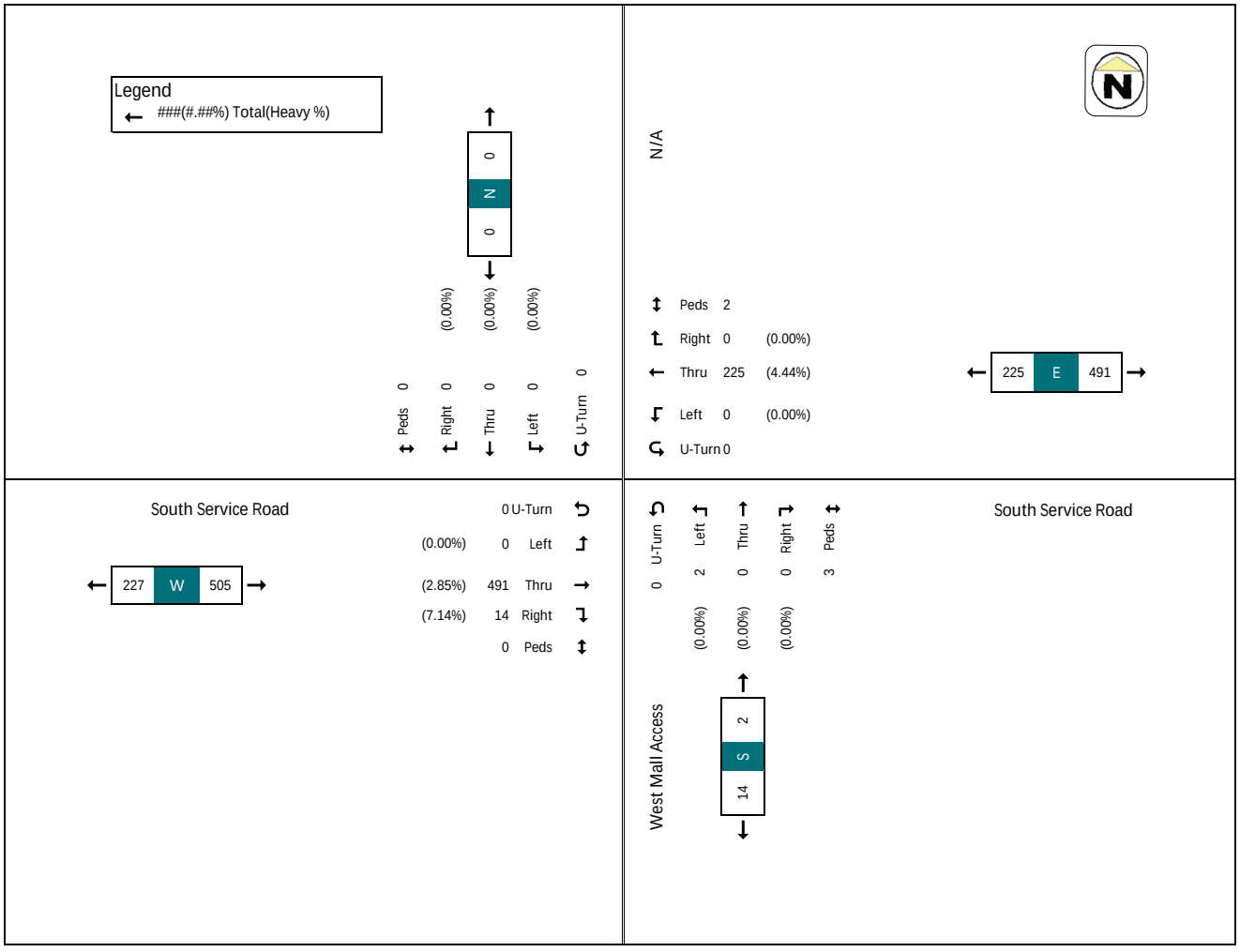


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : West Mall Access & South Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24068

AM Peak Hour - West Mall Access & South Service Road

	N/A Southbound						South Service Road Westbound						West Mall Access Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	0	0	0	0	0	0	0	71	0	0	71	0	0	0	0	0	0	0	0	126	0	0	126	197
8:15	0	0	0	0	0	0	0	0	72	0	0	72	0	1	0	0	1	1	0	0	127	3	0	130	203
8:30	0	0	0	0	0	0	0	0	51	0	1	51	0	0	0	0	0	0	0	0	131	4	0	135	186
8:45	0	0	0	0	0	0	0	0	31	0	1	31	0	1	0	0	0	1	0	0	107	7	0	114	146
Hourly Total	0	0	0	0	0	0	0	0	225	0	2	225	0	2	0	0	1	2	0	0	491	14	0	505	732
Approach %	-	-	-	-	-	-	0.0%	0.0%	100.0%	0.0%	-	-	0.0%	100.0%	0.0%	0.0%	-	-	0.0%	0.0%	97.2%	2.8%	-	-	
Total %	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	30.7%	0.0%	-	30.7%	0.0%	0.3%	0.0%	0.0%		0.3%	0.0%	0.0%	67.1%	1.9%	-	69.0%	
PHF	0	0	0	0		0	0	0	0.78	0	-	0.78	0	0.5	0	0		0.5	0	0	0.94	0.5	-	0.94	0.9
Lights	0	0	0	0		0	0	0	215	0	-	215	0	2	0	0		2	0	0	477	13	-	490	707
% Lights	-	-	-	-		-	-	-	95.6%	-	-	95.6%	-	100.0%	-	-		100.0%	-	-	97.1%	92.9%	-	97.0%	96.6%
Buses	-	0	0	0		0	-	0	8	0	-	8	-	0	0	0		0	-	0	11	0	-	11	19
% Buses	-	-	-	-		-	-	-	3.6%	-	-	3.6%	-	0.0%	-	-		0.0%	-	-	2.2%	0.0%	-	2.2%	2.6%
Trucks	-	0	0	0		0	-	0	2	0	-	2	-	0	0	0		0	-	0	3	1	-	4	6
% Trucks	-	-	-	-		-	-	-	0.9%	-	-	0.9%	-	0.0%	-	-		0.0%	-	-	0.6%	7.1%	-	0.8%	0.8%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	2

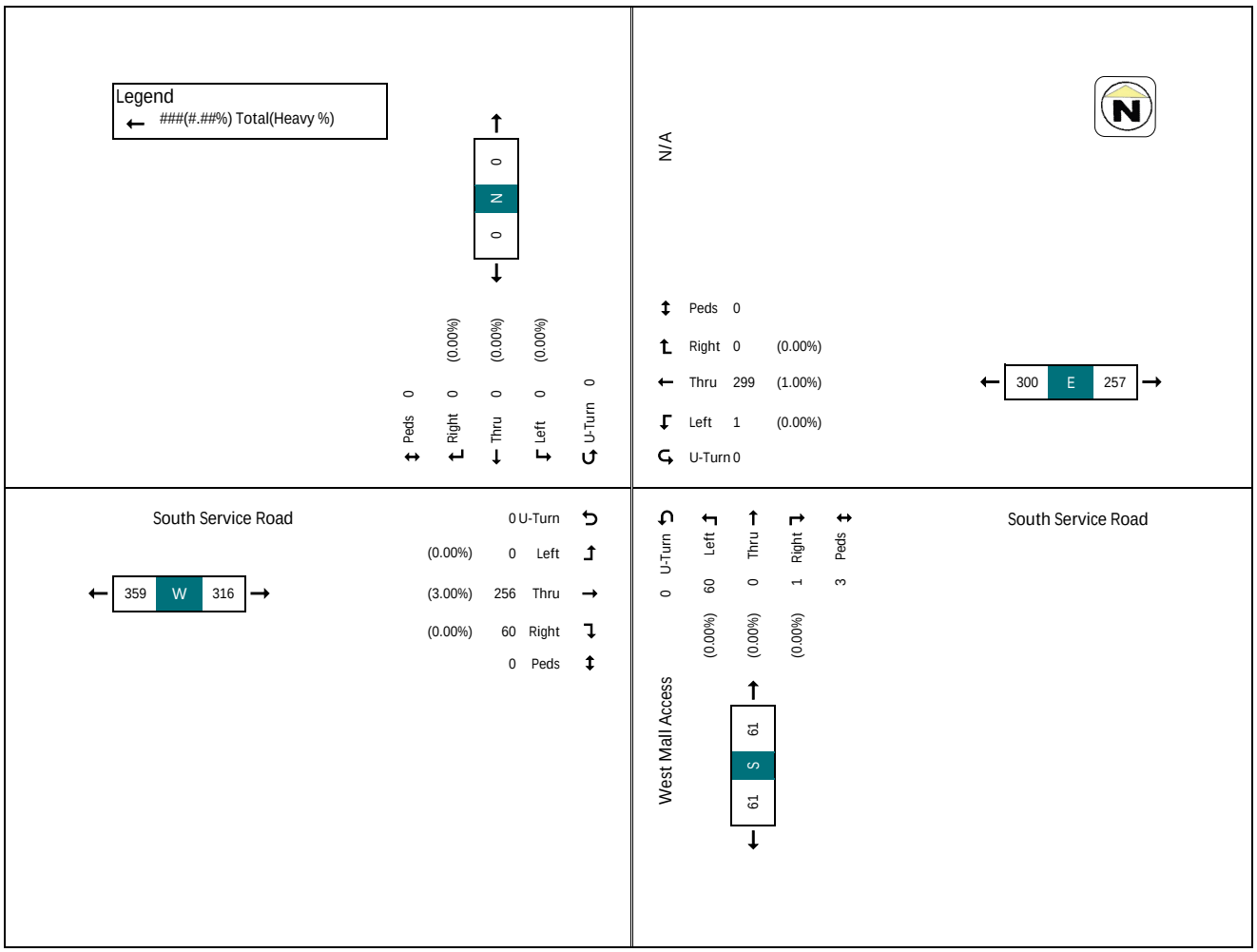


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : West Mall Access & South Service Road
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24068

PM Peak Hour - West Mall Access & South Service Road

	N/A Southbound						South Service Road Westbound						West Mall Access Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
16:45	0	0	0	0	0	0	0	0	64	0	0	64	0	11	0	1	3	12	0	0	73	23	0	96	172
17:00	0	0	0	0	0	0	0	0	74	0	0	74	0	17	0	0	0	17	0	0	62	7	0	69	160
17:15	0	0	0	0	0	0	0	1	76	0	0	77	0	15	0	0	0	15	0	0	68	16	0	84	176
17:30	0	0	0	0	0	0	0	0	85	0	0	85	0	17	0	0	0	17	0	0	60	14	0	74	176
Hourly Total	0	0	0	0	0	0	0	1	299	0	0	300	0	60	0	1	3	61	0	0	263	60	0	323	684
Approach %	-	-	-	-	-	-	0.0%	0.3%	99.7%	0.0%	-	-	0.0%	98.4%	0.0%	1.6%	-	-	0.0%	0.0%	81.4%	18.6%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.1%	43.7%	0.0%	-	43.9%	0.0%	8.8%	0.0%	0.1%	-	8.9%	0.0%	0.0%	38.5%	8.8%	-	47.2%	-
PHF	0	0	0	0	-	0	0	0.25	0.88	0	-	0.88	0	0.88	0	0.25	-	0.9	0	0	0.9	0.65	-	0.84	0.97
Lights	0	0	0	0	-	0	0	1	296	0	-	297	0	60	0	1	-	61	0	0	256	60	-	316	674
% Lights	-	-	-	-	-	-	-	100.0%	99.0%	-	-	99.0%	-	100.0%	-	100.0%	-	100.0%	-	-	97.3%	100.0%	-	97.8%	98.5%
Buses	-	0	0	0	-	0	-	0	3	0	-	3	-	0	0	0	-	0	-	0	6	0	-	6	9
% Buses	-	-	-	-	-	-	-	0.0%	1.0%	0	-	1.0%	-	0.0%	-	0.0%	-	0.0%	-	-	2.3%	0.0%	-	1.9%	1.3%
Trucks	-	0	0	0	-	0	-	0	0	0	-	0	-	0	0	0	-	0	-	0	1	0	-	1	1
% Trucks	-	-	-	-	-	-	-	0.0%	0.0%	0	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	-	0.4%	0.0%	-	0.3%	0.1%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

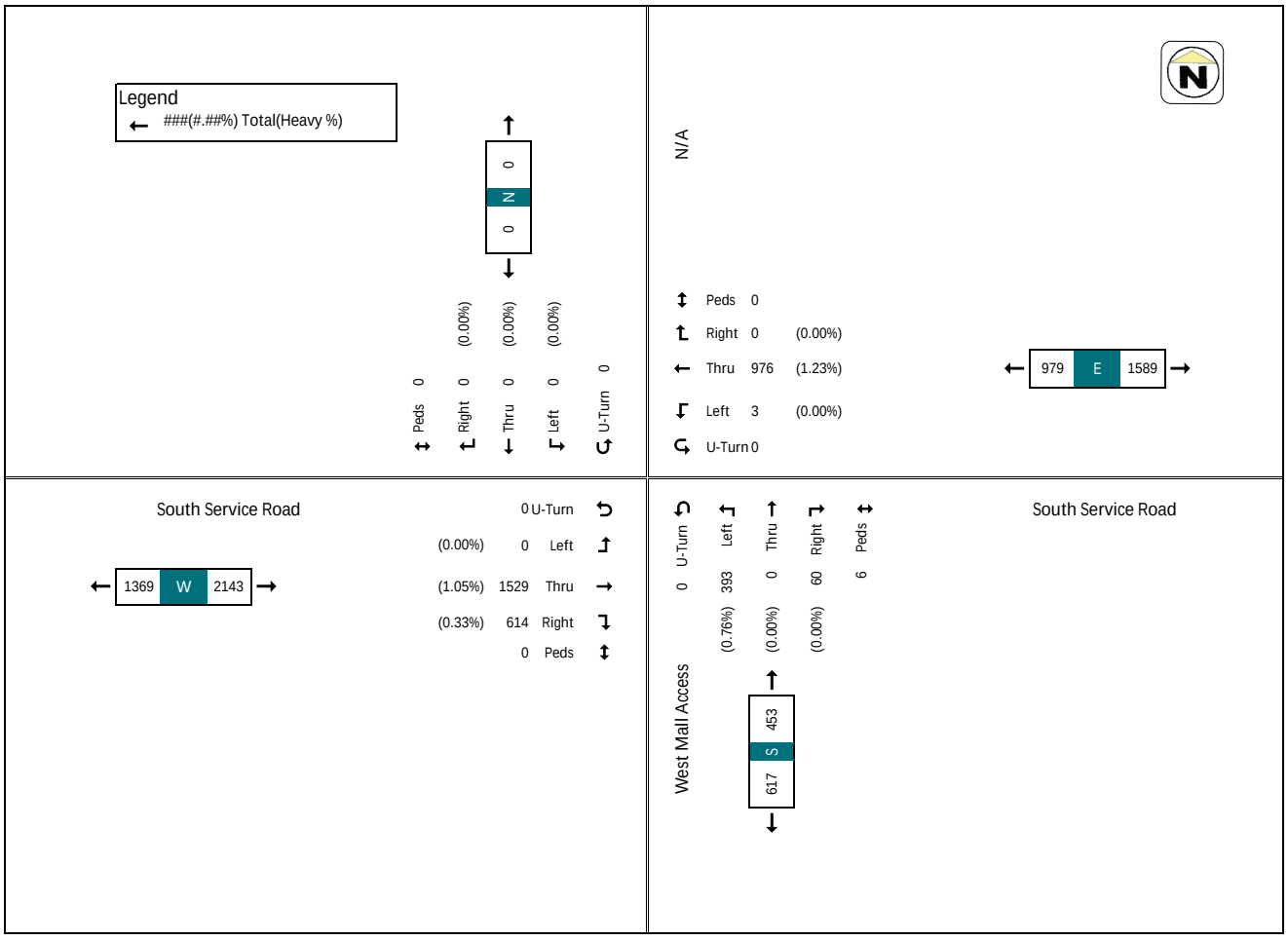


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : West Mall Access & South Service Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24068

Turning Movement Count - West Mall Access & South Service Road

	N/A Southbound						South Service Road Westbound						West Mall Access Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	0	0	0	0	0	1	30	0	0	31	0	8	0	4	0	12	0	0	67	30	0	97	140
10:15	0	0	0	0	0	0	0	0	33	0	0	33	0	6	0	2	0	8	0	0	76	28	0	104	145
10:30	0	0	0	0	0	0	0	0	29	0	0	29	0	9	0	1	0	10	0	0	69	28	0	97	136
10:45	0	0	0	0	0	0	0	0	27	0	0	27	0	16	0	0	0	16	0	0	66	29	0	95	138
Hourly Total	0	0	0	0	0	0	0	1	119	0	0	120	0	39	0	7	0	46	0	0	278	115	0	393	559
11:00	0	0	0	0	0	0	0	0	34	0	0	34	16	16	0	2	0	34	0	0	68	29	0	97	165
11:15	0	0	0	0	0	0	0	0	36	0	0	36	18	18	0	1	0	37	0	0	69	23	0	92	165
11:30	0	0	0	0	0	0	0	0	44	0	0	44	27	27	0	1	0	55	0	0	73	29	0	102	201
11:45	0	0	0	0	0	0	0	0	50	0	0	50	15	15	0	2	1	32	0	0	63	41	0	104	186
Hourly Total	0	0	0	0	0	0	0	0	164	0	0	164	0	76	0	6	1	82	0	0	273	122	0	395	641
12:00	0	0	0	0	0	0	0	0	64	0	0	64	0	26	0	5	1	31	0	0	65	27	0	92	187
12:15	0	0	0	0	0	0	0	0	40	0	0	40	0	19	0	1	0	20	0	0	89	35	0	124	184
12:30	0	0	0	0	0	0	0	0	51	0	0	51	0	20	0	4	0	24	0	0	84	24	0	108	183
12:45	0	0	0	0	0	0	0	2	57	0	0	59	0	20	0	2	0	22	0	0	76	33	0	109	190
Hourly Total	0	0	0	0	0	0	0	2	212	0	0	214	0	85	0	12	1	97	0	0	314	119	0	433	744
13:00	0	0	0	0	0	0	0	0	52	0	0	52	0	24	0	2	1	26	0	0	96	26	0	122	200
13:15	0	0	0	0	0	0	0	0	50	0	0	50	0	21	0	4	0	25	0	0	93	36	0	129	204
13:30	0	0	0	0	0	0	0	0	66	0	0	66	0	21	0	3	0	24	0	0	72	42	0	114	204
13:45	0	0	0	0	0	0	0	0	61	0	0	61	0	21	0	4	0	25	0	0	80	30	0	110	196
Hourly Total	0	0	0	0	0	0	0	0	229	0	0	229	0	87	0	13	1	100	0	0	341	134	0	475	804
14:00	0	0	0	0	0	0	0	0	65	0	0	65	0	33	0	6	1	39	0	0	82	38	0	120	224
14:15	0	0	0	0	0	0	0	0	67	0	0	67	0	21	0	4	0	25	0	0	97	20	0	117	209
14:30	0	0	0	0	0	0	0	0	65	0	0	65	0	34	0	5	0	39	0	0	73	32	0	105	209
14:45	0	0	0	0	0	0	0	0	55	0	0	55	0	18	0	7	0	25	0	0	71	34	0	105	185
Hourly Total	0	0	0	0	0	0	0	0	252	0	0	252	0	106	0	22	1	128	0	0	323	124	0	447	827
Grand Total	0	0	0	0	0	0	0	3	976	0	0	979	0	393	0	60	6	453	0	0	1529	614	0	2143	3575
Approach %	-	-	-	-	-	-	0.0%	0.3%	99.7%	0.0%	-	-	0.0%	86.8%	0.0%	13.2%	-	-	0.0%	0.0%	71.3%	28.7%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	27.3%	0.0%	-	27.4%	0.0%	11.0%	0.0%	1.7%	-	12.7%	0.0%	0.0%	42.8%	17.2%	-	59.9%	-
Lights	0	0	0	0	-	0	0	3	964	0	-	967	0	390	0	60	-	450	0	0	1513	612	-	2125	3542
% Lights	-	-	-	-	-	-	-	100.0%	98.8%	-	-	98.8%	-	99.2%	-	100.0%	-	99.3%	-	-	99.0%	99.7%	-	99.2%	99.1%
Buses	-	0	0	0	-	0	-	0	10	0	-	10	-	0	0	0	-	0	-	0	11	0	-	11	21
% Buses	-	-	-	-	-	-	-	0.0%	1.0%	-	-	1.0%	-	0.0%	-	0.0%	-	0.0%	-	-	0.7%	0.0%	-	0.5%	0.6%
Trucks	-	0	0	0	-	0	-	0	2	0	-	2	-	3	0	0	-	3	-	0	5	2	-	7	12
% Trucks	-	-	-	-	-	-	-	0.0%	0.2%	-	-	0.2%	-	0.8%	-	0.0%	-	0.7%	-	-	0.3%	0.3%	-	0.3%	0.3%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	4	4	4
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	6

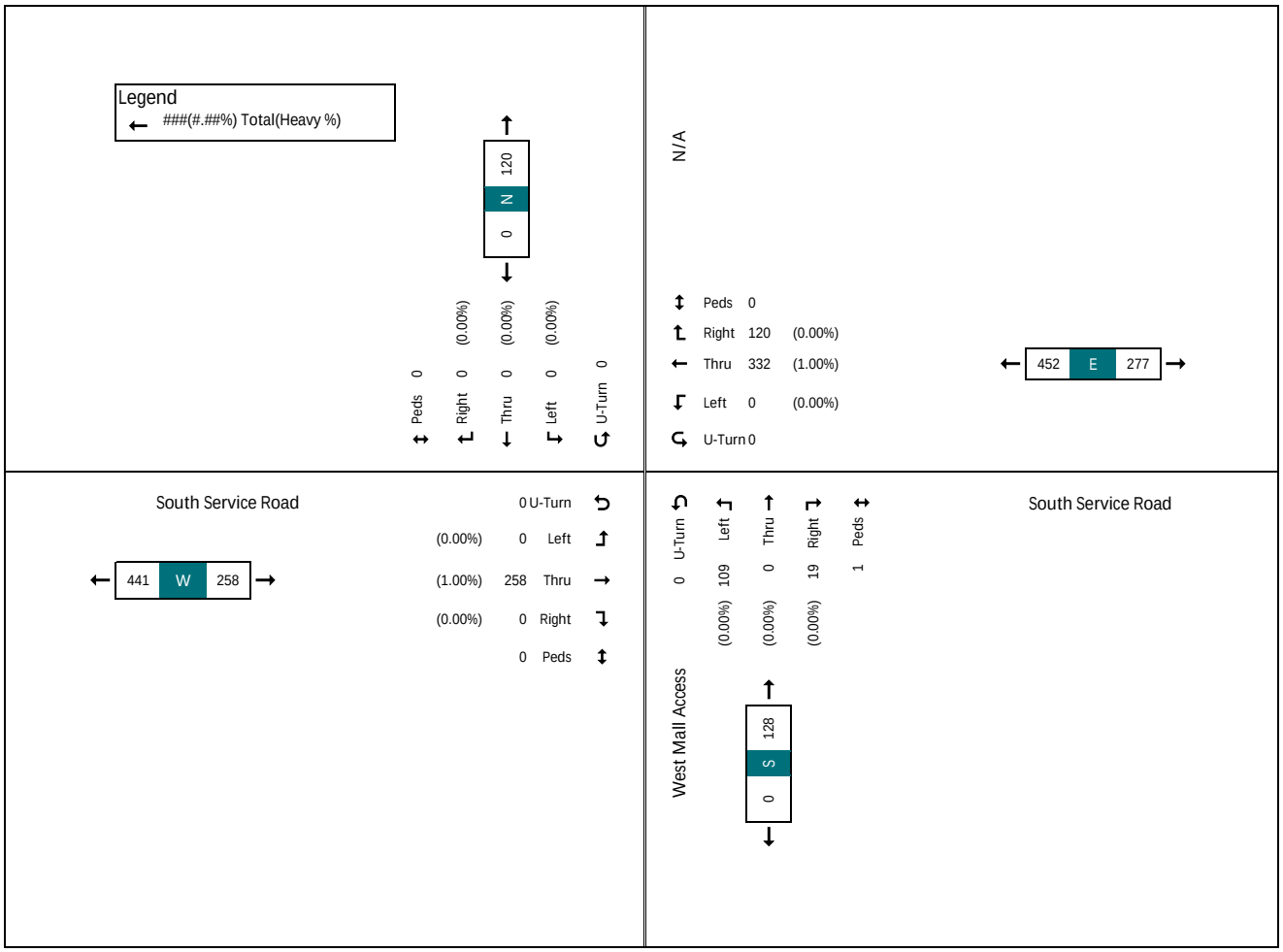


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : West Mall Access & South Service Road
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24068

SAT Peak Hour - West Mall Access & South Service Road

	N/A Southbound						South Service Road Westbound						West Mall Access Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:45	0	0	0	0	0	0	0	0	61	0	0	61	0	21	0	4	0	25	0	0	80	30	0	110	196
14:00	0	0	0	0	0	0	0	0	65	0	0	65	0	33	0	6	1	39	0	0	82	38	0	120	224
14:15	0	0	0	0	0	0	0	0	67	0	0	67	0	21	0	4	0	25	0	0	97	20	0	117	209
14:30	0	0	0	0	0	0	0	0	65	0	0	65	0	34	0	5	0	39	0	0	73	32	0	105	209
Hourly Total	0	0	0	0	0	0	0	0	258	0	0	258	0	109	0	19	1	128	0	0	332	120	0	452	838
Approach %	-	-	-	-	-	-	0.0%	0.0%	100.0%	0.0%	-	-	0.0%	85.2%	0.0%	14.8%	-	-	0.0%	0.0%	73.5%	26.5%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	30.8%	0.0%	-	30.8%	0.0%	14.9%	0.0%	2.6%	-	15.3%	0.0%	0.0%	45.4%	16.4%	-	61.8%	53.9%
PHF	0	0	0	0	-	0	0	0	0.96	0	-	0.96	0	0.81	0	0.79	-	0.82	0	0	0.88	0.79	-	0.94	0.94
Lights	0	0	0	0	-	0	0	0	256	0	-	256	0	109	0	19	-	128	0	0	329	120	-	449	833
% Lights	-	-	-	-	-	-	-	-	99.2%	-	-	99.2%	-	100.0%	-	100.0%	-	100.0%	-	-	99.1%	100.0%	-	99.3%	99.4%
Buses	-	0	0	0	-	0	-	0	2	0	-	2	0	0	0	0	-	0	-	0	2	0	-	2	4
% Buses	-	-	-	-	-	-	-	-	0.8%	0.0%	-	0.8%	0.0%	0.0%	0.0%	0.0%	-	0.0%	-	-	0.6%	0.0%	-	0.4%	0.5%
Trucks	-	0	0	0	-	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	1	0	-	1	1
% Trucks	-	-	-	-	-	-	-	-	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	-	-	0.3%	0.0%	-	0.2%	0.1%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

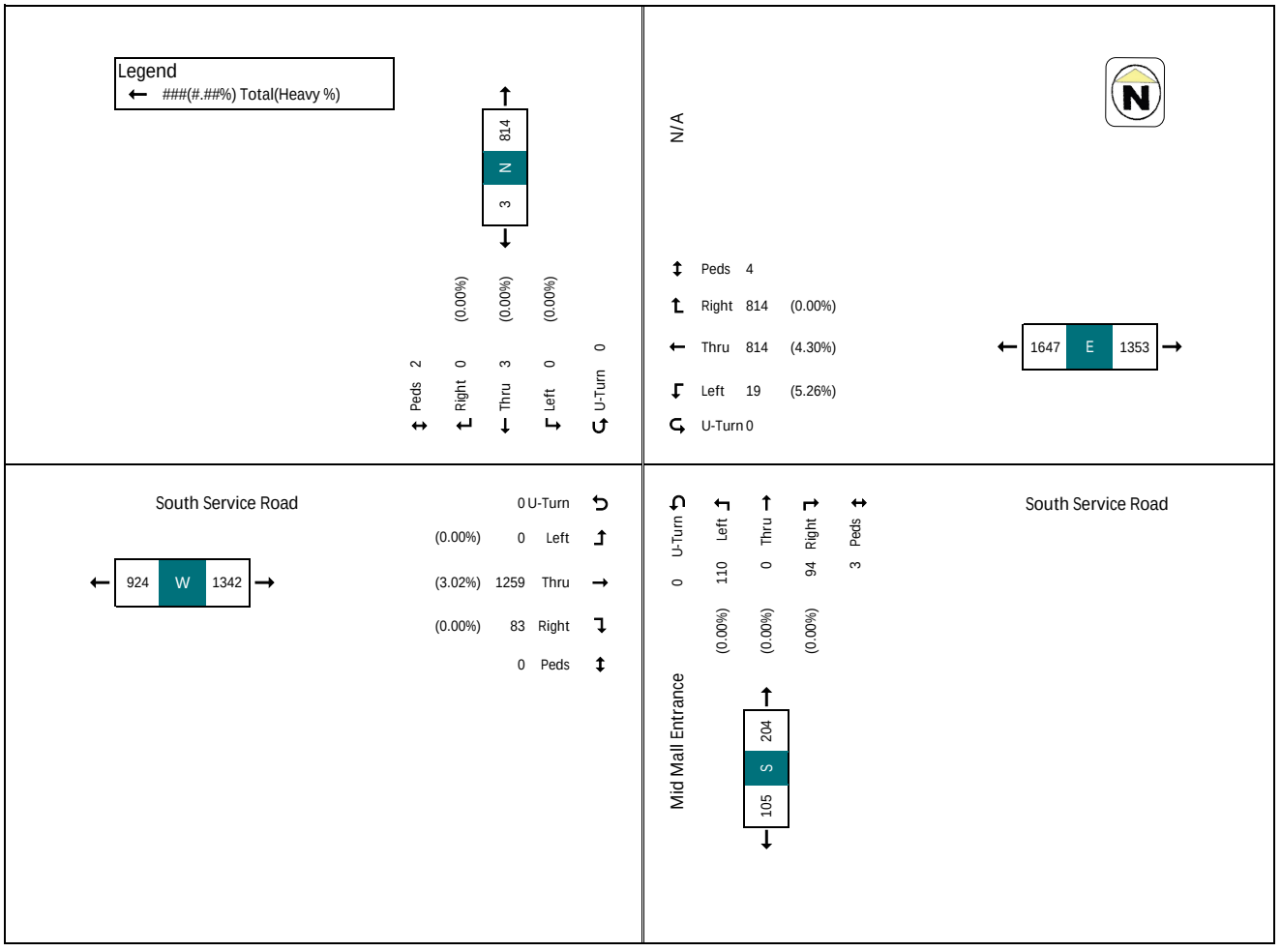


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Mid Mall Entrance & South Service Road
Survey Date : February 8, 2024
Project No. : 19373
Count ID : 24067

Turning Movement Count - Mid Mall Entrance & South Service Road

	N/A Southbound						South Service Road Westbound						Mid Mall Entrance Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	0	0	0	0	0	0	0	24	0	0	24	0	1	0	0	0	1	0	0	62	2	0	64	89
7:15	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	65	0	0	65	80
7:30	0	0	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	0	0	88	1	0	89	111
7:45	0	0	0	0	0	0	0	0	34	0	0	34	0	1	0	0	0	1	0	0	91	2	0	93	128
Hourly Total	0	0	0	0	0	0	0	0	95	0	0	95	0	2	0	0	0	2	0	0	306	5	0	311	408
8:00	0	0	0	0	0	0	0	0	64	0	0	64	0	1	0	0	0	1	0	0	106	3	0	109	174
8:15	0	0	0	0	0	0	0	0	59	0	0	59	0	1	0	2	0	3	0	0	159	1	0	160	222
8:30	0	0	0	0	0	0	0	0	44	0	0	44	0	1	0	1	0	2	0	0	124	3	0	127	173
8:45	0	0	0	0	0	0	0	0	33	0	0	33	0	2	0	0	0	2	0	0	106	4	0	110	145
Hourly Total	0	0	0	0	0	0	0	0	200	0	0	200	0	5	0	3	0	8	0	0	495	11	0	506	714
* Break *																									
16:00	0	0	0	0	1	0	0	3	70	0	0	73	0	15	0	10	1	25	0	0	62	3	0	65	163
16:15	0	0	0	0	0	0	0	3	41	0	1	44	0	14	0	11	0	25	0	0	50	10	0	60	129
16:30	0	0	0	0	0	0	0	2	59	0	0	61	0	11	0	16	0	27	0	0	52	7	0	59	147
16:45	0	0	0	0	1	0	0	5	54	0	0	59	0	7	0	9	0	16	0	0	67	8	0	75	150
Hourly Total	0	0	0	0	2	0	0	13	224	0	1	237	0	47	0	46	1	93	0	0	231	28	0	259	589
17:00	0	0	0	0	0	0	0	3	77	0	2	80	0	10	0	11	0	21	0	0	48	16	0	64	165
17:15	0	0	0	0	0	0	0	1	73	0	0	74	0	14	0	11	0	25	0	0	58	6	0	64	163
17:30	0	0	0	0	0	0	0	2	61	0	0	63	0	19	0	12	0	31	0	0	71	10	0	81	175
17:45	0	0	0	0	0	0	0	0	84	0	1	84	0	13	0	11	1	24	0	0	50	7	0	57	165
Hourly Total	0	0	0	0	0	0	0	6	295	0	3	301	0	56	0	45	1	101	0	0	227	39	0	266	668
Grand Total	0	0	3	0	2	3	0	19	814	0	4	833	0	110	0	94	3	204	0	0	1259	83	0	1342	2382
Approach %	0.0%	0.0%	100.0%	0.0%	-	-	0.0%	2.3%	97.7%	0.0%	-	-	0.0%	53.9%	0.0%	46.1%	-	-	0.0%	0.0%	93.8%	6.2%	-	-	-
Total %	0.0%	0.0%	0.1%	0.0%	-	0.1%	0.0%	0.8%	34.2%	0.0%	-	35.0%	0.0%	4.6%	0.0%	3.9%	-	8.6%	0.0%	0.0%	52.9%	3.5%	-	56.3%	-
Lights	0	0	3	0	-	3	0	18	779	0	-	797	0	110	0	94	-	204	0	0	1221	83	-	1304	2308
% Lights	-	-	100.0%	-	-	100.0%	-	94.7%	95.7%	-	-	95.7%	-	100.0%	-	100.0%	-	100.0%	-	-	97.0%	100.0%	-	97.2%	96.9%
Buses	-	0	0	0	-	0	-	0	32	0	-	32	-	0	0	0	-	0	-	0	32	0	-	32	64
% Buses	-	-	0.0%	-	-	0.0%	-	0.0%	3.9%	-	-	3.8%	-	0.0%	-	0.0%	-	0.0%	-	-	2.5%	0.0%	-	2.4%	2.7%
Trucks	-	0	0	0	-	0	-	1	3	0	-	4	-	0	0	0	-	0	-	0	6	0	-	6	10
% Trucks	-	-	0.0%	-	-	0.0%	-	5.3%	0.4%	-	-	0.5%	-	0.0%	-	0.0%	-	0.0%	-	-	0.5%	0.0%	-	0.4%	0.4%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	0	-	9

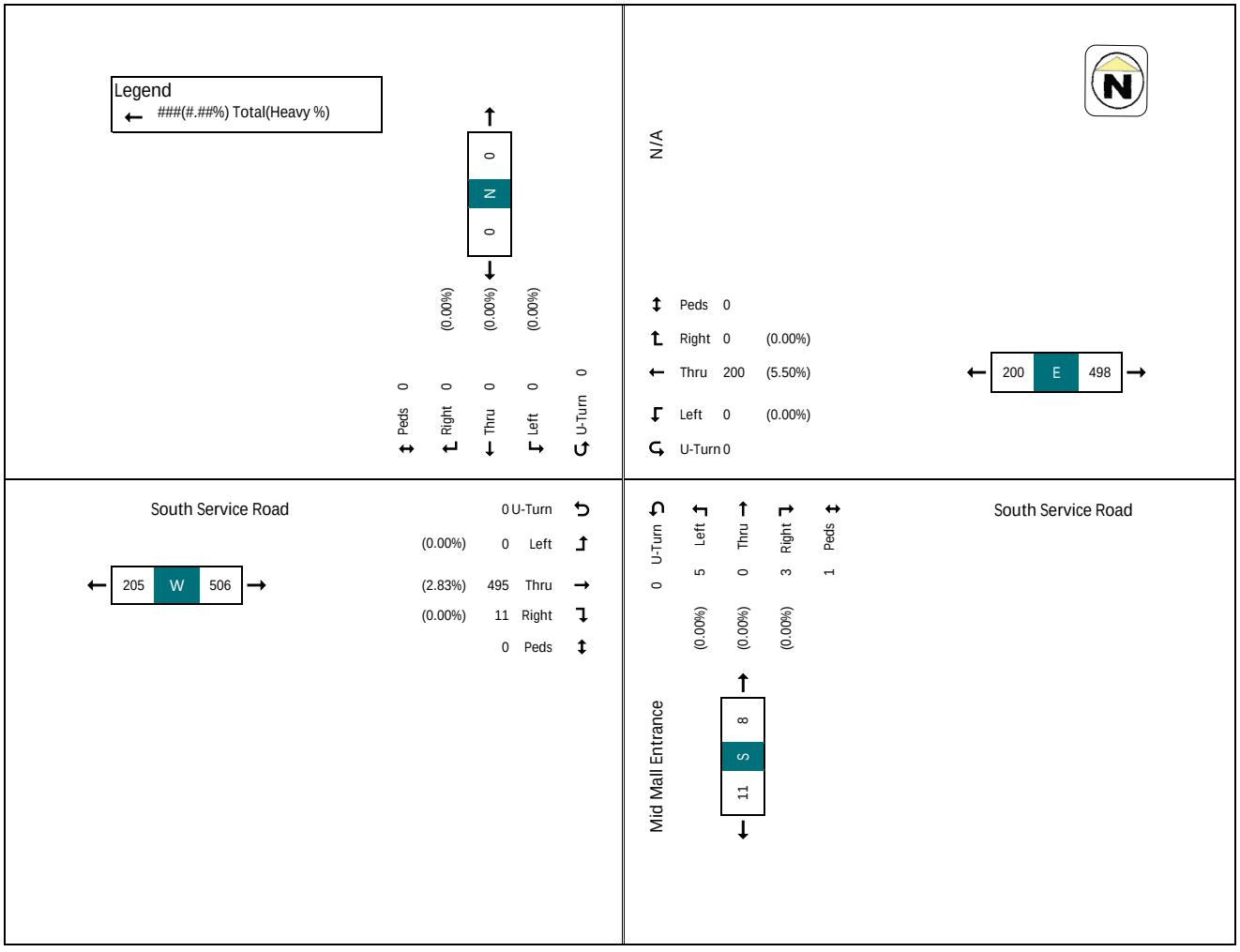


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Mid Mall Entrance & South Service Road
Survey Date : February 8, 2024
Project No. : 19373
Count ID : 24067

AM Peak Hour - Mid Mall Entrance & South Service Road

	N/A Southbound						South Service Road Westbound						Mid Mall Entrance Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	0	0	0	0	0	0	0	64	0	0	64	0	1	0	0	0	1	0	0	106	3	0	109	174
8:15	0	0	0	0	0	0	0	0	59	0	0	59	0	1	0	2	0	3	0	0	159	1	0	160	222
8:30	0	0	0	0	0	0	0	0	44	0	0	44	0	1	0	1	0	2	0	0	124	3	0	127	173
8:45	0	0	0	0	0	0	0	0	33	0	0	33	0	2	0	0	0	2	0	0	106	4	0	110	145
Hourly Total	0	0	0	0	0	0	0	0	200	0	0	200	0	5	0	3	1	8	0	0	495	11	0	506	714
Approach %	-	-	-	-	-	-	0.0%	0.0%	100.0%	0.0%	-	-	0.0%	62.5%	0.0%	37.5%	-	-	0.0%	0.0%	97.8%	2.2%	-	-	
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	28.0%	0.0%	-	28.0%	0.0%	0.7%	0.0%	0.4%	-	1.1%	0.0%	0.0%	69.3%	1.5%	-	70.9%	
PHF	0	0	0	0	-	0	0	0	0.76	0	-	0.76	0	0.63	0	0.38	-	0.67	0	0	0.78	0.69	-	0.79	0.8
Lights	0	0	0	0	-	0	0	0	189	0	-	189	0	5	0	3	-	8	0	0	481	11	-	492	689
% Lights	-	-	-	-	-	-	-	-	94.5%	-	-	94.5%	-	100.0%	-	100.0%	-	100.0%	-	-	97.2%	100.0%	-	97.2%	96.5%
Buses	-	0	0	0	-	0	-	0	10	0	-	10	-	0	0	0	-	0	-	0	12	0	-	12	22
% Buses	-	-	-	-	-	-	-	-	5.0%	-	-	5.0%	-	0.0%	-	0.0%	-	0.0%	-	-	2.4%	0.0%	-	2.4%	3.1%
Trucks	-	0	0	0	-	0	-	0	1	0	-	1	-	0	0	0	-	0	-	0	2	0	-	2	3
% Trucks	-	-	-	-	-	-	-	-	0.5%	-	-	0.5%	-	0.0%	-	0.0%	-	0.0%	-	-	0.4%	0.0%	-	0.4%	0.4%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

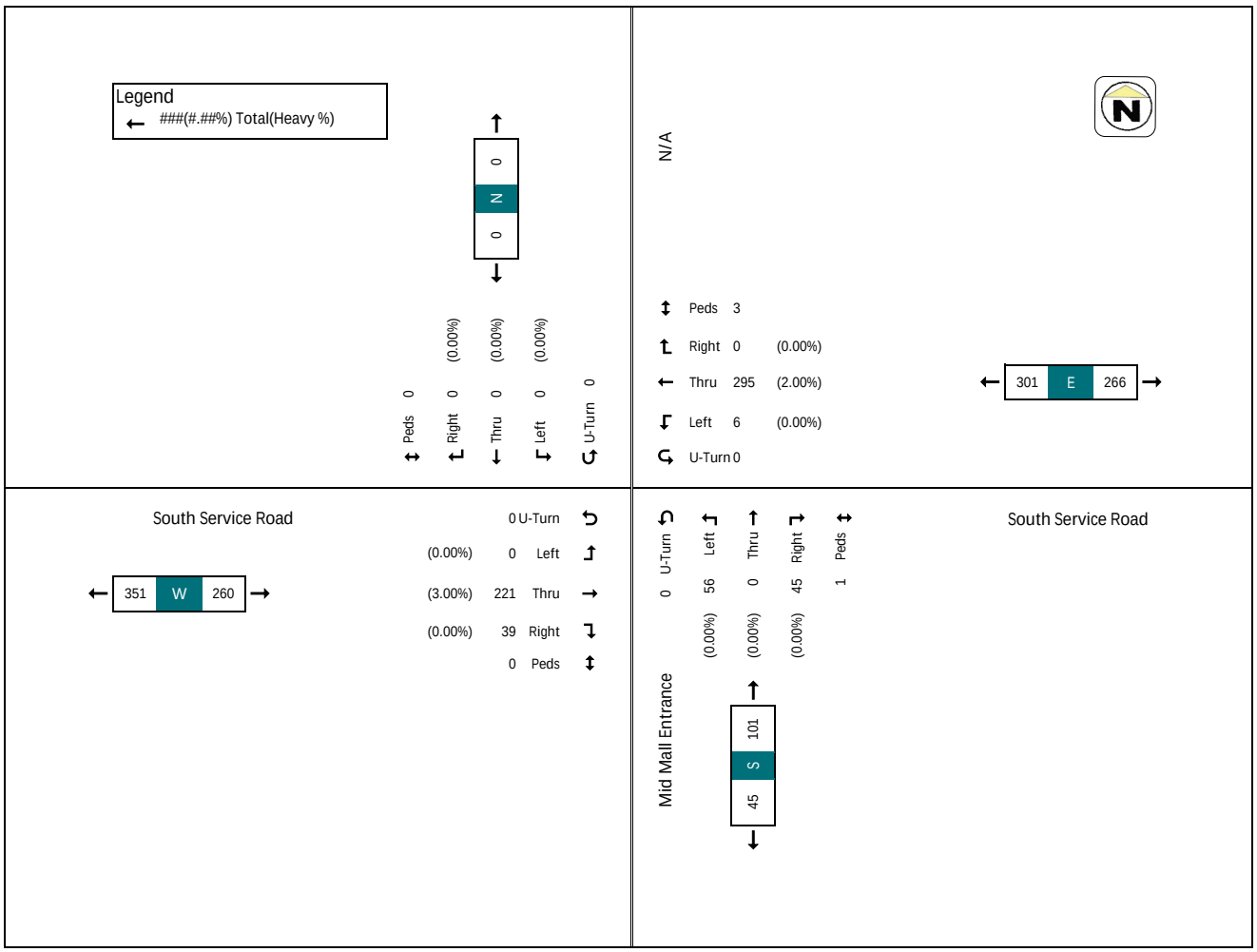


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Mid Mall Entrance & South Service Road
Survey Date : February 8, 2024
Project No. : 19373
Count ID : 24067

PM Peak Hour - Mid Mall Entrance & South Service Road

	N/A Southbound						South Service Road Westbound						Mid Mall Entrance Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
17:00	0	0	0	0	0	0	0	3	77	0	2	80	0	10	0	11	0	21	0	0	48	16	0	64	165
17:15	0	0	0	0	0	0	0	1	73	0	0	74	0	14	0	11	0	25	0	0	58	6	0	64	163
17:30	0	0	0	0	0	0	0	2	61	0	0	63	0	19	0	12	0	31	0	0	71	10	0	81	175
17:45	0	0	0	0	0	0	0	0	84	0	1	84	0	13	0	11	1	24	0	0	50	7	0	57	165
Hourly Total	0	0	0	0	0	0	0	6	295	0	3	301	0	56	0	45	1	101	0	0	227	39	0	266	668
Approach %	-	-	-	-	-	-	0.0%	2.0%	98.0%	0.0%	-	-	0.0%	55.4%	0.0%	44.6%	-	-	0.0%	0.0%	85.3%	14.7%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.9%	41.3%	0.0%	-	45.1%	0.0%	7.8%	0.0%	6.3%	-	15.1%	0.0%	0.0%	31.8%	5.5%	-	39.8%	-
PHF	0	0	0	0	-	0	0	0.5	0.88	0	-	0.9	0	0.74	0	0.94	-	0.81	0	0	0.8	0.61	-	0.82	0.95
Lights	0	0	0	0	-	0	0	6	288	0	-	294	0	56	0	45	-	101	0	0	221	39	-	260	655
% Lights	-	-	-	-	-	-	-	100.0%	97.6%	-	-	97.7%	-	100.0%	-	100.0%	-	100.0%	-	-	97.4%	100.0%	-	97.7%	98.1%
Buses	-	0	0	0	-	0	-	0	6	0	-	6	-	0	0	0	-	0	-	0	6	0	-	6	12
% Buses	-	-	-	-	-	-	-	0.0%	2.0%	-	-	2.0%	-	0.0%	-	0.0%	-	0.0%	-	-	2.6%	0.0%	-	2.3%	1.8%
Trucks	-	0	0	0	-	0	-	0	1	0	-	1	-	0	0	0	-	0	-	0	0	0	-	0	1
% Trucks	-	-	-	-	-	-	-	0.0%	0.3%	-	-	0.3%	-	0.0%	-	0.0%	-	0.0%	-	-	0.0%	0.0%	-	0.0%	0.1%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

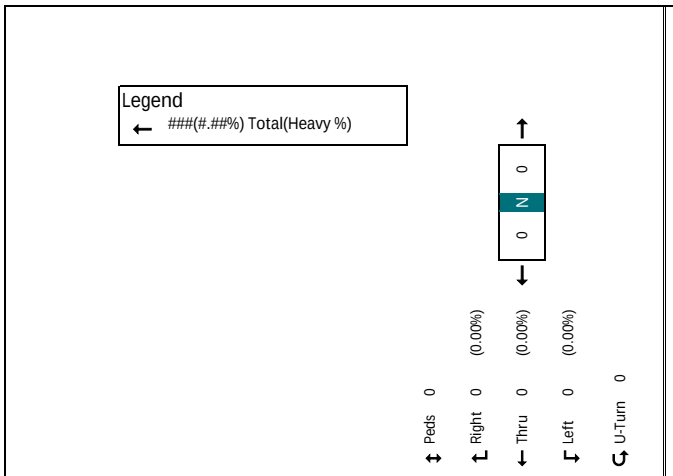


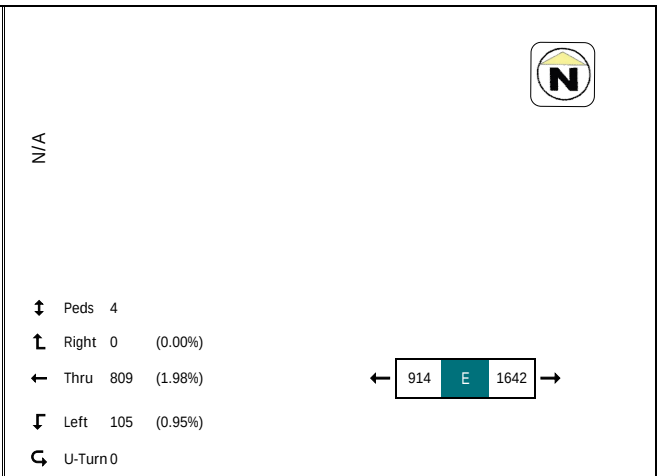
LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

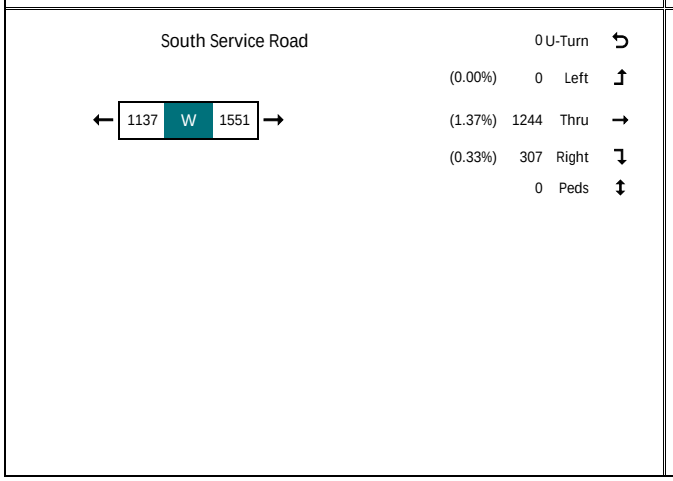
Intersection : Mid Mall Entrance & South Service Road
Survey Date : February 10, 2024
Project No. : 19373
Count ID : 24067

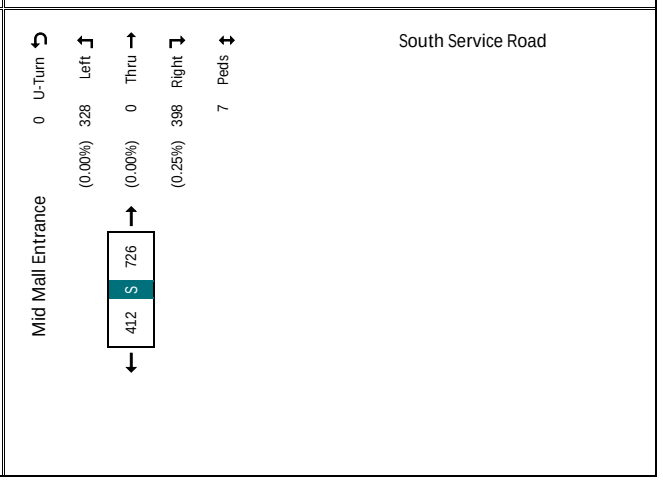
Turning Movement Count - Mid Mall Entrance & South Service Road

	N/A Southbound						South Service Road Westbound						Mid Mall Entrance Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	0	0	0	0	0	5	29	0	0	34	0	6	0	2	0	8	0	0	72	7	0	79	121
10:15	0	0	0	0	0	0	0	3	28	0	0	31	0	4	0	1	0	5	0	0	58	14	0	72	108
10:30	0	0	0	0	0	0	0	6	34	0	0	40	0	7	0	14	2	21	0	0	64	8	0	72	133
10:45	0	0	0	0	0	0	0	10	36	0	1	46	0	8	0	11	0	19	0	0	79	12	0	91	156
Hourly Total	0	0	0	0	0	0	0	24	127	0	1	151	0	25	0	28	2	53	0	0	273	41	0	314	518
11:00	0	0	0	0	0	0	0	3	44	0	0	47	11	11	0	11	0	33	0	0	49	18	0	67	147
11:15	0	0	0	0	0	0	0	5	35	0	0	40	15	15	0	11	0	41	0	0	66	19	0	85	166
11:30	0	0	0	0	0	0	0	4	37	0	0	41	14	14	0	16	0	44	0	0	69	14	0	83	168
11:45	0	0	0	0	0	0	0	5	42	0	0	47	13	13	0	24	0	50	0	0	61	18	0	79	176
Hourly Total	0	0	0	0	0	0	0	17	158	0	0	175	0	53	0	62	0	115	0	0	245	69	0	314	604
12:00	0	0	0	0	0	0	0	2	41	0	1	43	0	21	0	28	0	49	0	0	68	13	0	81	173
12:15	0	0	0	0	0	0	0	4	48	0	0	52	0	17	0	21	0	38	0	0	54	19	0	73	163
12:30	0	0	0	0	0	0	0	7	38	0	0	45	0	13	0	21	0	34	0	0	66	18	0	84	163
12:45	0	0	0	0	0	0	0	5	50	0	0	55	0	23	0	18	0	41	0	0	59	17	0	76	172
Hourly Total	0	0	0	0	0	0	0	18	177	0	1	195	0	74	0	88	0	162	0	0	247	67	0	314	671
13:00	0	0	0	0	0	0	0	6	49	0	0	55	0	22	0	25	0	47	0	0	76	19	0	95	197
13:15	0	0	0	0	0	0	0	10	44	0	0	54	0	15	0	21	2	36	0	0	63	13	0	76	166
13:30	0	0	0	0	0	0	0	7	42	0	0	49	0	19	0	31	2	50	0	0	60	11	0	71	170
13:45	0	0	0	0	0	0	0	8	39	0	0	47	0	28	0	27	1	55	0	0	49	22	0	71	173
Hourly Total	0	0	0	0	0	0	0	31	174	0	0	205	0	84	0	104	5	188	0	0	248	65	0	313	706
14:00	0	0	0	0	0	0	0	1	35	0	1	36	0	13	0	28	0	41	0	0	48	14	0	62	139
14:15	0	0	0	0	0	0	0	4	42	0	0	46	0	30	0	22	0	52	0	0	53	21	0	74	172
14:30	0	0	0	0	0	0	0	8	35	0	0	43	0	24	0	36	0	60	0	0	55	16	0	71	174
14:45	0	0	0	0	0	0	0	2	61	0	1	63	0	25	0	30	0	55	0	0	75	13	0	88	206
Hourly Total	0	0	0	0	0	0	0	15	173	0	2	188	0	92	0	116	0	208	0	0	231	64	0	295	691
Grand Total	0	0	0	0	0	0	0	105	809	0	4	914	0	328	0	398	7	726	0	0	1244	307	0	1551	3191
Approach %	-	-	-	-	-	-	0.0%	11.5%	88.5%	0.0%	-	-	0.0%	45.2%	0.0%	54.8%	-	-	0.0%	0.0%	80.2%	19.8%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	3.3%	25.4%	0.0%	-	28.6%	0.0%	10.3%	0.0%	12.5%	-	22.8%	0.0%	0.0%	39.0%	9.6%	-	48.6%	-
Lights	0	0	0	0	-	0	0	104	793	0	-	897	0	328	0	397	-	725	0	0	1227	306	-	1533	3155
% Lights	-	-	-	-	-	-	-	99.0%	98.0%	-	-	98.1%	-	100.0%	-	99.7%	-	99.9%	-	-	98.6%	99.7%	-	98.8%	98.9%
Buses	-	0	0	0	-	0	-	0	11	0	-	11	-	0	0	0	-	0	-	0	11	0	-	11	22
% Buses	-	-	-	-	-	-	-	0.0%	1.4%	0.0%	-	1.2%	-	0.0%	-	0.0%	-	0.0%	-	-	0.9%	0.0%	-	0.7%	0.7%
Trucks	-	0	0	0	-	0	-	1	5	0	-	6	-	0	0	1	-	1	-	0	6	1	-	7	14
% Trucks	-	-	-	-	-	-	-	1.0%	0.6%	-	-	0.7%	-	0.0%	-	0.3%	-	0.1%	-	-	0.5%	0.3%	-	0.5%	0.4%
Bicycles	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	3
Pedestrians	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	5	-	-	-	-	-	0	-	11







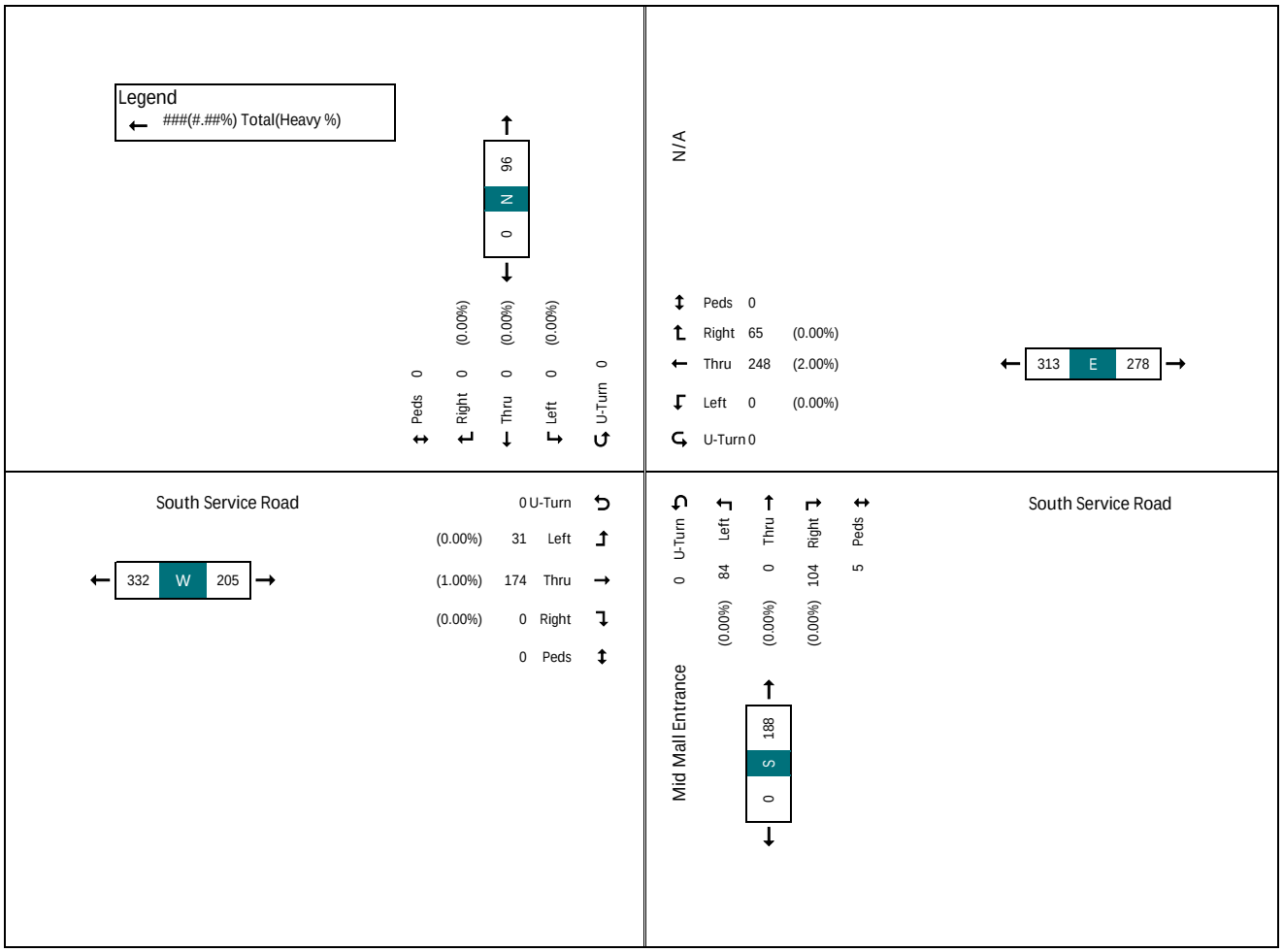


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Mid Mall Entrance & South Service Road
Survey Date : February 10, 2024
Project No. : 19373
Count ID : 24067

SAT Peak Hour - Mid Mall Entrance & South Service Road

	N/A Southbound						South Service Road Westbound						Mid Mall Entrance Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:00	0	0	0	0	0	0	0	6	49	0	0	55	0	22	0	25	0	47	0	0	76	19	0	95	197
13:15	0	0	0	0	0	0	0	10	44	0	0	54	0	15	0	21	2	36	0	0	63	13	0	76	166
13:30	0	0	0	0	0	0	0	7	42	0	0	49	0	19	0	31	2	50	0	0	60	11	0	71	170
13:45	0	0	0	0	0	0	0	8	39	0	0	47	0	28	0	27	1	55	0	0	49	22	0	71	173
Hourly Total	0	0	0	0	0	0	0	31	174	0	0	205	0	84	0	104	5	188	0	0	248	65	0	313	706
Approach %	-	-	-	-	-	-	0.0%	15.1%	84.9%	0.0%	-	-	0.0%	44.7%	0.0%	55.3%	-	-	0.0%	0.0%	79.2%	20.8%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	4.4%	24.6%	0.0%	-	29.0%	0.0%	11.9%	0.0%	14.6%	-	26.6%	0.0%	0.0%	34.7%	9.1%	-	44.3%	-
PHF	0	0	0	0	-	0	0	0.72	0.89	0	-	0.93	0	0.75	0	0.84	-	0.85	0	0	0.82	0.74	-	0.82	0.9
Lights	0	0	0	0	-	0	0	31	171	0	-	202	0	84	0	104	-	188	0	0	246	65	-	311	701
% Lights	-	-	-	-	-	-	-	100.0%	98.3%	-	-	98.5%	-	100.0%	-	100.0%	-	100.0%	-	-	99.2%	100.0%	-	99.4%	99.3%
Buses	-	0	0	0	-	0	-	0	2	0	-	2	-	0	0	0	-	0	-	0	2	0	-	2	4
% Buses	-	-	-	-	-	-	-	0.0%	1.1%	0.0%	-	1.0%	-	0.0%	-	0.0%	-	0.0%	-	-	0.8%	0.0%	-	0.6%	0.6%
Trucks	-	0	0	0	-	0	-	0	1	0	-	1	-	0	0	0	-	0	-	0	0	0	-	0	1
% Trucks	-	-	-	-	-	-	-	0.0%	0.6%	-	-	0.5%	-	0.0%	-	0.0%	-	0.0%	-	-	0.0%	0.0%	-	0.0%	0.1%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	2

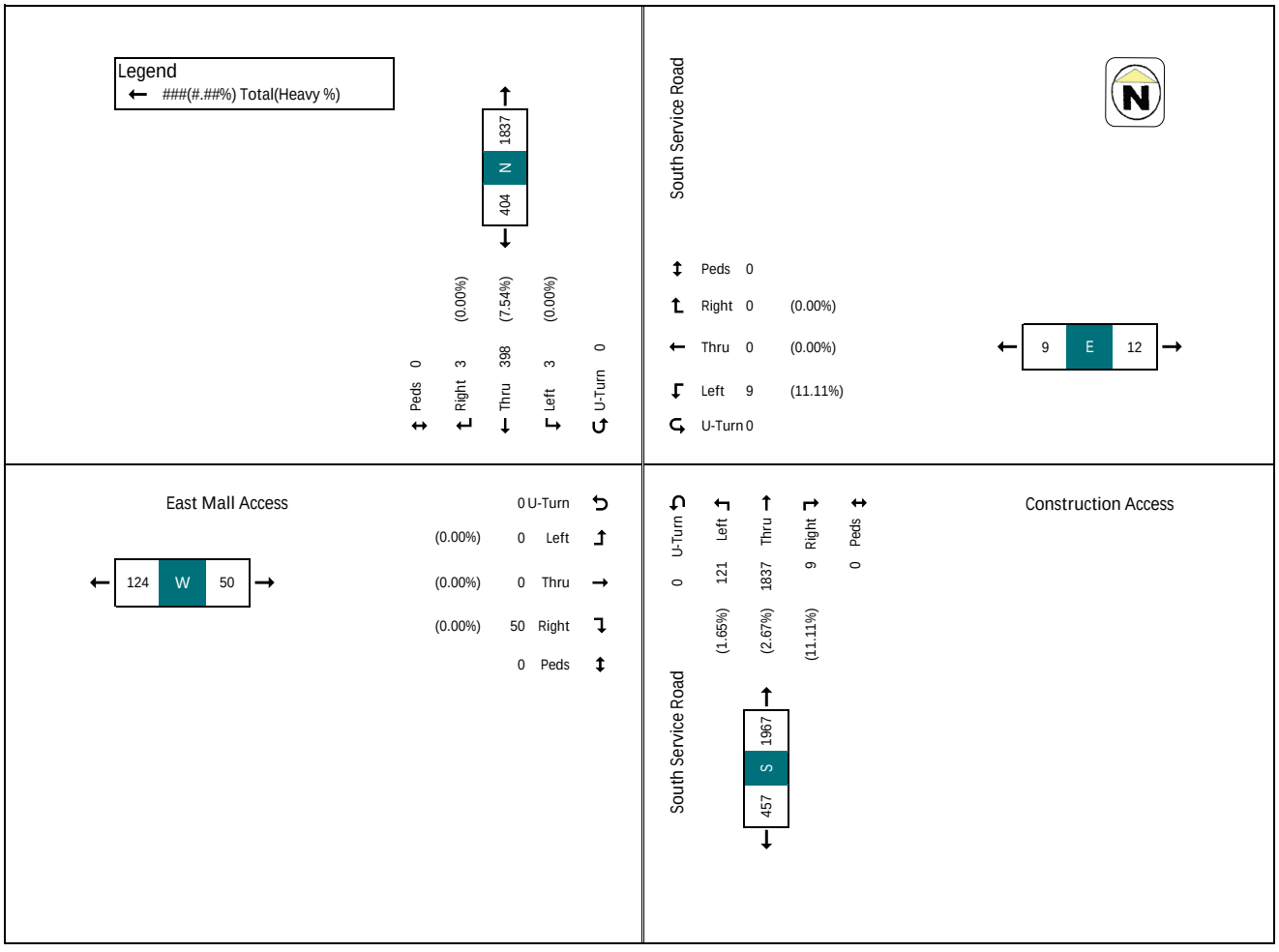


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : South Service Road & East Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24070

Turning Movement Count - South Service Road & East Mall Access

	South Service Road Southbound						Construction Access Westbound						South Service Road Northbound						East Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	1	15	0	0	16	0	0	0	2	0	2	0	0	65	2	0	67	0	0	0	0	0	0	85
7:15	0	0	8	0	0	8	0	0	0	0	0	0	0	0	74	1	0	75	0	0	0	1	0	1	84
7:30	0	0	12	0	0	12	0	0	0	0	0	0	0	2	86	1	0	89	0	0	0	0	0	0	101
7:45	0	2	22	0	0	24	0	0	0	0	0	0	0	1	105	3	0	109	0	0	0	1	0	1	134
Hourly Total	0	3	57	0	0	60	0	0	0	2	0	2	0	3	330	7	0	340	0	0	0	2	0	2	404
8:00	0	0	38	0	0	38	0	1	0	0	0	1	0	0	128	1	0	129	0	0	0	0	0	0	168
8:15	0	0	43	0	0	43	0	5	0	0	0	5	0	3	128	1	0	132	0	0	0	0	0	0	180
8:30	0	0	62	0	0	62	0	0	0	0	0	0	0	6	102	0	0	108	0	1	0	1	0	2	172
8:45	0	0	28	0	0	28	0	1	0	0	0	1	0	5	100	0	0	105	0	0	0	0	0	0	134
Hourly Total	0	0	171	0	0	171	0	7	0	0	0	7	0	14	458	2	0	474	0	1	0	1	0	2	654
* Break *																									
16:00	0	0	25	0	0	25	0	0	0	0	0	0	0	10	136	0	0	146	0	2	0	5	0	7	178
16:15	0	0	24	0	0	24	0	0	0	0	0	0	0	13	136	0	0	149	0	2	0	4	0	6	179
16:30	0	0	20	1	0	21	0	0	0	0	0	0	0	14	117	0	0	131	0	0	0	3	0	3	155
16:45	0	0	24	0	0	24	0	2	0	2	0	4	0	18	104	0	0	122	0	1	0	7	0	8	158
Hourly Total	0	0	93	1	0	94	0	2	0	2	0	4	0	55	493	0	0	548	0	5	0	19	0	24	670
17:00	0	0	14	1	0	15	0	0	0	2	0	2	0	19	139	0	0	158	0	1	0	5	0	6	181
17:15	0	0	25	1	0	26	0	0	0	1	0	1	0	10	137	0	0	147	0	3	0	5	0	8	182
17:30	0	0	24	0	0	24	0	0	0	0	0	0	0	11	136	0	0	147	0	4	0	8	0	12	183
17:45	0	0	14	0	0	14	0	0	0	1	0	1	0	9	144	0	0	153	0	2	0	10	0	12	180
Hourly Total	0	0	77	2	0	79	0	0	0	4	0	4	0	49	556	0	0	605	0	10	0	28	0	38	726
Grand Total	0	3	398	3	0	404	0	9	0	8	0	17	0	121	1837	9	0	1967	0	16	0	50	0	66	2454
Approach %	0.0%	0.7%	98.5%	0.7%			0.0%	52.9%	0.0%	47.1%		-	0.0%	6.2%	93.4%	0.5%			0.0%	24.2%	0.0%	75.8%		-	-
Total %	0.0%	0.1%	16.2%	0.1%		16.5%	0.0%	0.4%	0.0%	0.3%		0.7%	0.0%	4.9%	74.9%	0.4%		80.2%	0.0%	0.7%	0.0%	2.0%		2.7%	-
Lights	0	3	368	3		374	0	8	0	7		15	0	119	1788	8		1915	0	15	0	50		65	2369
% Lights	-	100.0%	92.5%	100.0%		92.6%	-	88.9%	-	87.5%		88.2%	-	98.3%	97.3%	88.9%		97.4%	-	93.8%	-	100.0%	-	98.5%	96.5%
Buses	-	0	25	0		25	-	0	0	1		1	-	0	23	0		23	-	0	0	0	-	0	49
% Buses	-	0.0%	6.3%	0.0%		6.2%	-	0.0%	-	12.5%		5.9%	-	0.0%	1.3%	0.0%		1.2%	-	0.0%	-	0.0%	-	0.0%	2.0%
Trucks	-	0	5	0		5	-	1	0	0		1	-	2	26	1		29	-	1	0	0	-	1	36
% Trucks	-	0.0%	1.3%	-		1.2%	-	11.1%	-	0.0%		5.9%	-	1.7%	1.4%	11.1%		1.5%	-	6.3%	-	0.0%	-	1.5%	1.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

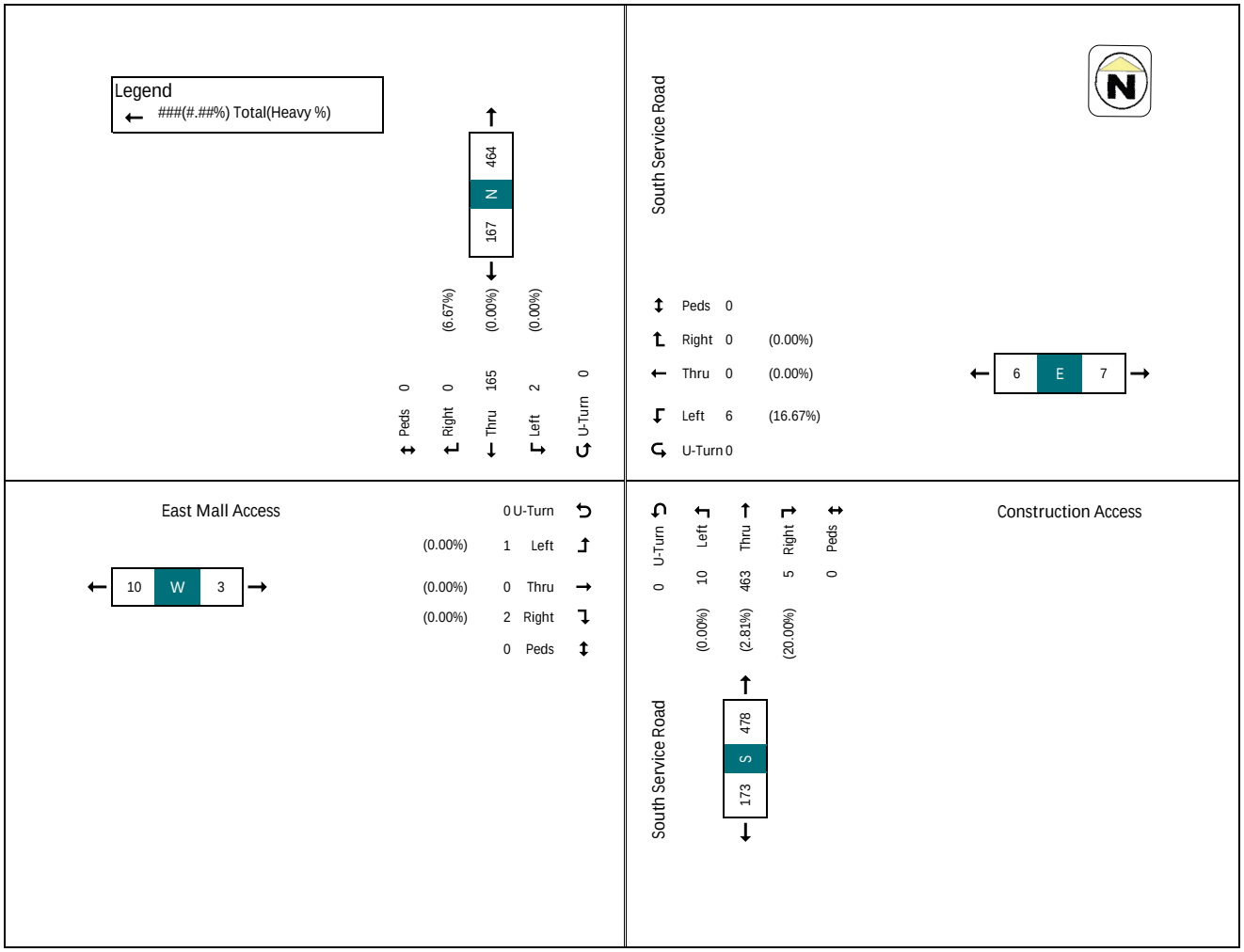


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : South Service Road & East Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24070

AM Peak Hour - South Service Road & East Mall Access

	South Service Road Southbound						Construction Access Westbound						South Service Road Northbound						East Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:45	0	2	22	0	0	24	0	0	0	0	0	0	0	1	105	3	0	109	0	0	0	1	0	1	134
8:00	0	0	38	0	0	38	0	1	0	0	0	1	0	0	128	1	0	129	0	0	0	0	0	0	168
8:15	0	0	43	0	0	43	0	5	0	0	0	5	0	3	128	1	0	132	0	0	0	0	0	0	180
8:30	0	0	62	0	0	62	0	0	0	0	0	0	0	6	102	0	0	108	0	1	0	1	0	2	172
Hourly Total	0	2	165	0	0	167	0	6	0	0	0	6	0	10	463	5	0	478	0	1	0	2	0	3	654
Approach %	0.0%	1.2%	98.8%	0.0%			0.0%	100.0%	0.0%	0.0%			0.0%	2.1%	96.9%	1.0%			0.0%	33.3%	0.0%	66.7%			
Total %	0.0%	0.3%	25.2%	0.0%		25.5%	0.0%	0.9%	0.0%	0.0%		0.9%	0.0%	1.5%	70.8%	0.8%		73.1%	0.0%	0.2%	0.0%	0.3%		0.5%	
PHF	0	0.25	0.67	0		0.67	0	0.3	0	0		0.3	0	0.42	0.9	0.42		0.91	0	0.25	0	0.5		0.38	0.91
Lights	0	2	154	0		156	0	5	0	0		5	0	10	455	4		464	0	1	0	2		3	628
% Lights	-	100.0%	93.3%	-		93.4%	-	83.3%	-	-		83.3%	-	100.0%	97.2%	80.0%		97.1%	-	100.0%	-	100.0%		100.0%	96.0%
Buses	-	0	10	0		10	-	0	0	0		0	-	0	8	0		8	-	0	0	0		0	18
% Buses	-	0.0%	6.1%	-		6.0%	-	0.0%	-	-		0.0%	-	0.0%	1.7%	0.0%		1.7%	-	0.0%	-	0.0%		0.0%	2.8%
Trucks	-	0	1	0		1	-	1	0	0		1	-	0	5	1		6	-	0	0	0		0	8
% Trucks	-	0.0%	0.6%	-		0.6%	-	16.7%	-	-		16.7%	-	0.0%	1.1%	20.0%		1.3%	-	0.0%	-	0.0%		0.0%	1.2%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

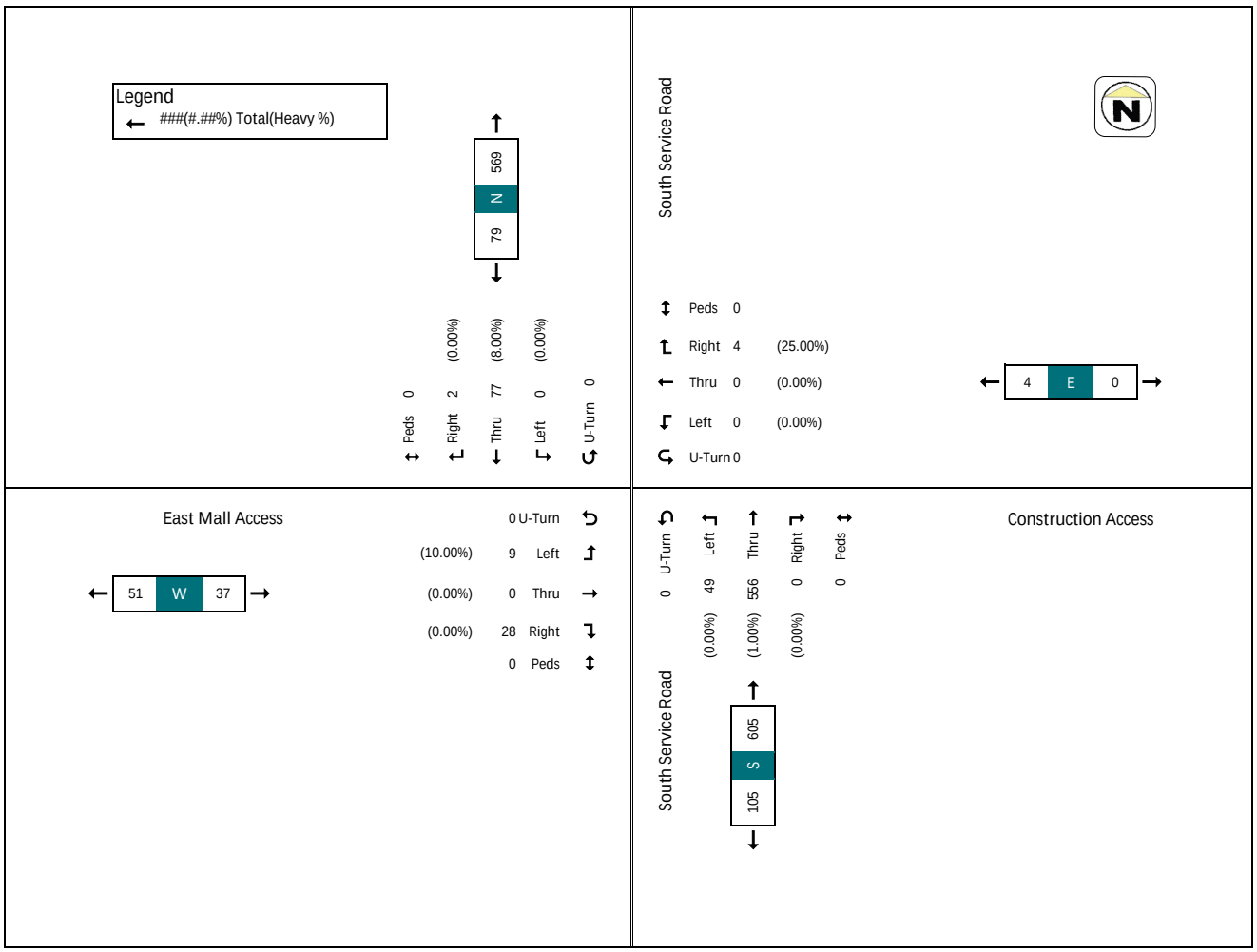


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : South Service Road & East Mall Access
Survey Date : February 6, 2024
Project No. : 19373
Count ID : 24070

PM Peak Hour - South Service Road & East Mall Access

	South Service Road Southbound						Construction Access Westbound						South Service Road Northbound						East Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
17:00	0	0	14	1	0	15	0	0	0	2	0	2	0	19	139	0	0	158	0	1	0	5	0	6	181
17:15	0	0	25	1	0	26	0	0	0	1	0	1	0	10	137	0	0	147	0	3	0	5	0	8	182
17:30	0	0	24	0	0	24	0	0	0	0	0	0	0	11	136	0	0	147	0	4	0	8	0	12	183
17:45	0	0	14	0	0	14	0	0	0	1	0	1	0	9	144	0	0	153	0	2	0	10	0	12	180
Hourly Total	0	0	77	2	0	79	0	0	0	4	0	4	0	49	556	0	0	605	0	10	0	28	0	38	726
Approach %	0.0%	0.0%	97.5%	2.5%	-	-	0.0%	0.0%	0.0%	100.0%	-	-	0.0%	8.1%	91.9%	0.0%	-	-	0.0%	26.3%	0.0%	73.7%	-	-	-
Total %	0.0%	0.0%	10.6%	0.3%	-	10.9%	0.0%	0.0%	0.0%	0.6%	-	0.6%	0.0%	7.5%	85.5%	0.0%	-	83.3%	0.0%	1.5%	0.0%	4.3%	-	5.2%	-
PHF	0	0	0.77	0.5	-	0.76	0	0	0	0.5	-	0.5	0	0.64	0.97	0	-	0.96	0	0.63	0	0.7	-	0.79	0.99
Lights	0	0	71	2	-	73	0	0	0	3	-	3	0	49	548	0	-	597	0	9	0	28	-	37	710
% Lights	-	-	92.2%	100.0%	-	92.4%	-	-	-	75.0%	-	75.0%	-	100.0%	98.6%	-	-	98.7%	-	90.0%	-	100.0%	-	97.4%	97.8%
Buses	-	0	10	0	-	10	-	0	0	1	-	1	-	0	4	0	-	4	-	0	0	0	-	0	15
% Buses	-	-	13.0%	0.0%	-	12.7%	-	-	-	25.0%	-	25.0%	-	0.0%	0.7%	-	-	0.7%	-	0.0%	-	0.0%	-	0.0%	2.1%
Trucks	-	0	1	0	-	1	-	0	0	0	-	0	-	0	4	0	-	4	-	1	0	0	-	1	6
% Trucks	-	-	1.3%	0.0%	-	1.3%	-	-	-	0.0%	-	0.0%	-	0.0%	0.7%	-	-	0.7%	-	10.0%	-	0.0%	-	2.6%	0.8%
Bicycles	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

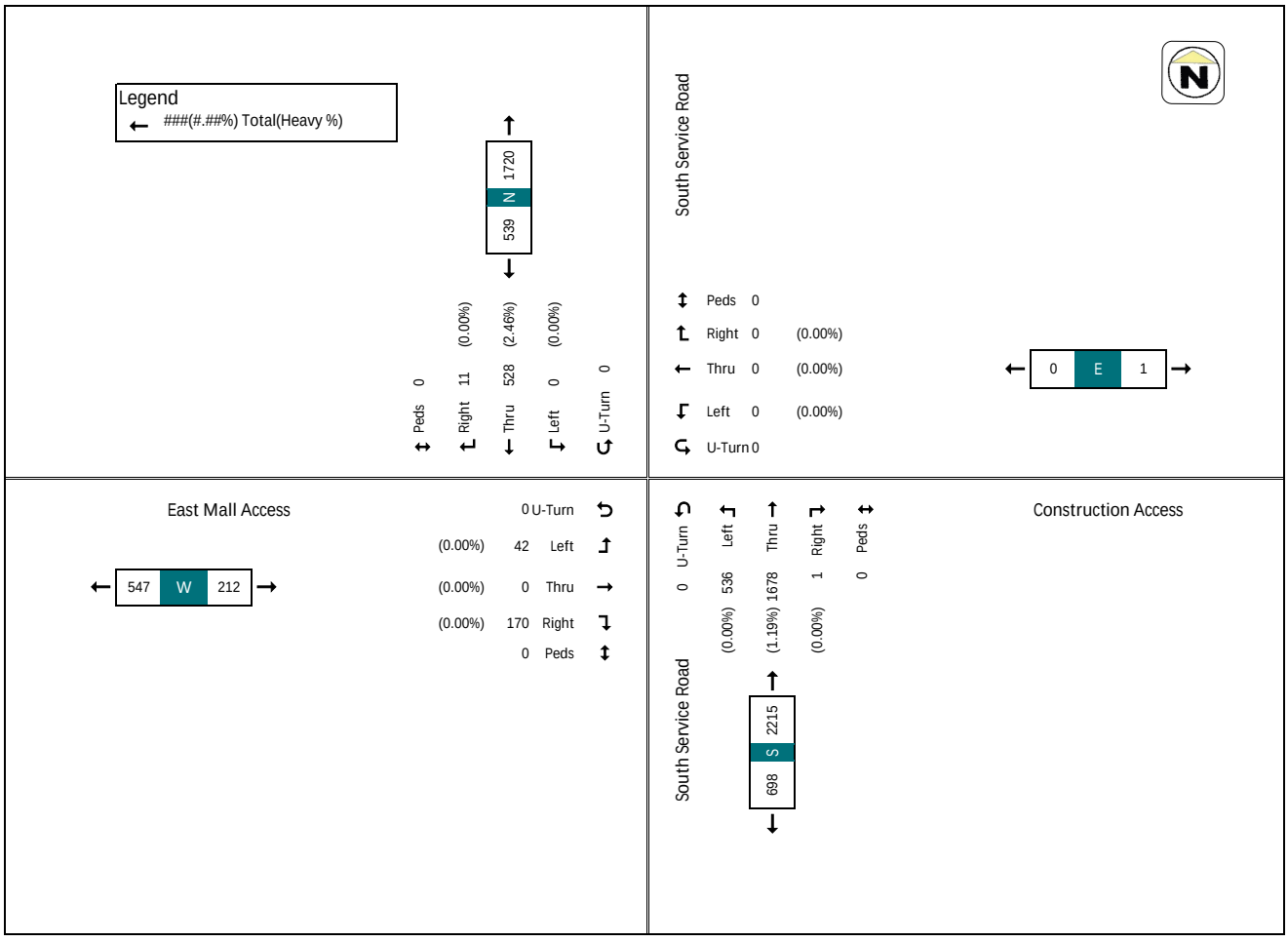


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : South Service Road & East Mall Access
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24070

Turning Movement Count - South Service Road & East Mall Access

	South Service Road Southbound						Construction Access Westbound						South Service Road Northbound						East Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	25	2	0	27	0	0	0	0	0	0	0	16	69	0	0	85	0	0	0	1	0	1	113
10:15	0	0	28	0	0	28	0	0	0	0	0	0	0	11	75	0	0	86	0	0	0	2	0	2	116
10:30	0	0	19	2	0	21	0	0	0	0	0	0	0	19	84	0	0	103	0	3	0	2	0	5	129
10:45	0	0	20	0	0	20	0	0	0	0	0	0	0	25	42	0	0	67	0	2	0	3	0	5	92
Hourly Total	0	0	92	4	0	96	0	0	0	0	0	0	0	71	270	0	0	341	0	5	0	8	0	13	450
11:00	0	0	19	0	0	19	0	0	0	0	0	0	13	13	59	0	0	85	0	1	0	13	0	14	118
11:15	0	0	29	0	0	29	0	0	0	0	0	0	22	22	40	0	0	84	0	1	0	5	0	6	119
11:30	0	0	32	0	0	32	0	0	0	0	0	0	35	35	33	0	0	103	0	1	0	7	0	8	143
11:45	0	0	18	0	0	18	0	0	0	0	0	0	30	30	19	0	0	79	0	4	0	10	0	14	111
Hourly Total	0	0	98	0	0	98	0	0	0	0	0	0	0	100	151	0	0	251	0	7	0	35	0	42	391
12:00	0	0	23	0	0	23	0	0	0	0	0	0	0	25	106	0	0	131	0	3	0	11	0	14	168
12:15	0	0	33	1	0	34	0	0	0	0	0	0	0	33	91	0	0	124	0	0	0	7	0	7	165
12:30	0	0	37	1	0	38	0	0	0	0	0	0	0	18	104	0	0	122	0	2	0	7	0	9	169
12:45	0	0	30	1	0	31	0	0	0	0	0	0	0	31	95	0	0	126	0	6	0	9	0	15	172
Hourly Total	0	0	123	3	0	126	0	0	0	0	0	0	0	107	396	0	0	503	0	11	0	34	0	45	674
13:00	0	0	33	2	0	35	0	0	0	0	0	0	0	33	93	0	0	126	0	1	0	15	0	16	177
13:15	0	0	45	0	0	45	0	0	0	0	0	0	0	29	109	0	0	138	0	1	0	10	0	11	194
13:30	0	0	28	1	0	29	0	0	0	0	0	0	0	29	129	0	0	158	0	5	0	15	0	20	207
13:45	0	0	21	0	0	21	0	0	0	0	0	0	0	36	118	0	0	154	0	3	0	17	0	20	195
Hourly Total	0	0	127	3	0	130	0	0	0	0	0	0	0	127	449	0	0	576	0	10	0	57	0	67	773
14:00	0	0	30	0	0	30	0	0	0	0	0	0	0	38	103	0	0	141	0	0	0	7	0	7	178
14:15	0	0	24	0	0	24	0	0	0	0	0	0	0	37	107	0	0	144	0	3	0	9	0	12	180
14:30	0	0	17	0	0	17	0	0	0	0	0	0	0	21	94	1	0	116	0	4	0	10	0	14	147
14:45	0	0	17	1	0	18	0	0	0	0	0	0	0	35	108	0	0	143	0	2	0	10	0	12	173
Hourly Total	0	0	88	1	0	89	0	0	0	0	0	0	0	131	412	1	0	544	0	9	0	36	0	45	678
Grand Total	0	0	528	11	0	539	0	0	0	0	0	0	0	536	1678	1	0	2215	0	42	0	170	0	212	2966
Approach %	0.0%	0.0%	98.0%	2.0%	-	-	-	-	-	-	-	-	0.0%	24.2%	75.8%	0.0%	-	-	0.0%	19.8%	0.0%	80.2%	-	-	-
Total %	0.0%	0.0%	17.8%	0.4%	-	18.2%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	18.1%	56.6%	0.0%	-	74.7%	0.0%	1.4%	0.0%	5.7%	-	7.1%	-
Lights	0	0	515	11	-	526	0	0	0	0	-	0	0	536	1658	1	-	2195	0	42	0	170	-	212	2933
% Lights	-	-	97.5%	100.0%	-	97.6%	-	-	-	-	-	-	-	100.0%	98.8%	100.0%	-	99.1%	-	100.0%	-	100.0%	-	100.0%	98.9%
Buses	-	0	2	0	-	2	-	0	0	0	-	0	-	0	9	0	-	9	0	0	0	0	-	0	11
% Buses	-	-	0.4%	0.0%	-	0.4%	-	-	-	-	-	-	-	0.0%	0.5%	0.0%	-	0.4%	-	0.0%	-	0.0%	-	0.0%	0.4%
Trucks	-	0	3	0	-	3	-	0	0	0	-	0	-	0	11	0	-	11	0	0	0	0	-	0	14
% Trucks	-	-	0.6%	0.0%	-	0.6%	-	-	-	-	-	-	-	0.0%	0.7%	0.0%	-	0.5%	-	0.0%	-	0.0%	-	0.0%	0.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0

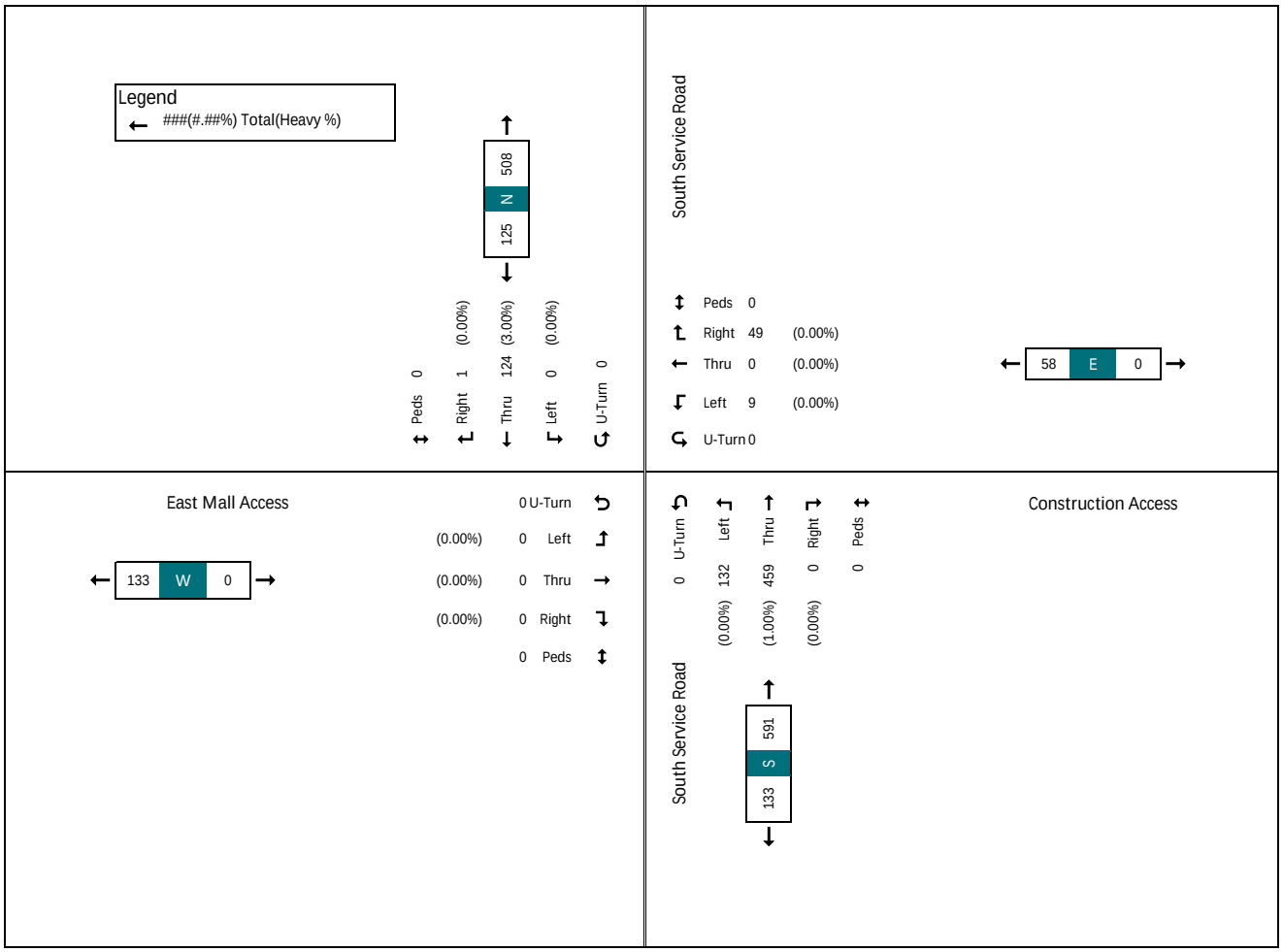


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : South Service Road & East Mall Access
Survey Date : February 3, 2024
Project No. : 19373
Count ID : 24070

SAT Peak Hour - South Service Road & East Mall Access

	South Service Road Southbound						Construction Access Westbound						South Service Road Northbound						East Mall Access Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
13:15	0	0	45	0	0	45	0	0	0	0	0	0	0	29	109	0	0	138	0	1	0	10	0	11	194
13:30	0	0	28	1	0	29	0	0	0	0	0	0	0	29	129	0	0	158	0	5	0	15	0	20	207
13:45	0	0	21	0	0	21	0	0	0	0	0	0	0	36	118	0	0	154	0	3	0	17	0	20	195
14:00	0	0	30	0	0	30	0	0	0	0	0	0	0	38	103	0	0	141	0	0	0	7	0	7	178
Hourly Total	0	0	124	1	0	125	0	0	0	0	0	0	0	132	459	0	0	591	0	9	0	49	0	58	774
Approach %	0.0%	0.0%	99.2%	0.8%									0.0%	22.3%	77.7%	0.0%			0.0%	15.5%	0.0%	84.5%			
Total %	0.0%	0.0%	16.0%	0.1%		16.1%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	20.2%	70.2%	0.0%		76.4%	0.0%	1.4%	0.0%	7.5%		7.5%	
PHF			0.69	0.25		0.69								0.83	0.88			0.94		0.45		0.72		0.73	0.93
Lights	0	0	120	1		121	0	0	0	0		0	0	132	455	0		587	0	9	0	49		58	766
% Lights	-	-	96.8%	100.0%		96.8%	-	-	-	-		-	-	100.0%	99.1%	-		99.3%	-	100.0%	-	100.0%		100.0%	99.0%
Buses	-	0	2	0		2	-	0	0	0		0	-	0	2	0		2	-	0	0	0		0	4
% Buses	-	-	1.6%	0.0%		1.6%	-	-	-	-		-	-	0.0%	0.4%	-		0.3%	-	0.0%	-	0.0%		0.0%	0.5%
Trucks	-	0	2	0		2	-	0	0	0		0	-	0	2	0		2	-	0	0	0		0	4
% Trucks	-	-	1.6%	0.0%		1.6%	-	-	-	-		-	-	0.0%	0.4%	-		0.3%	-	0.0%	-	0.0%		0.0%	0.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

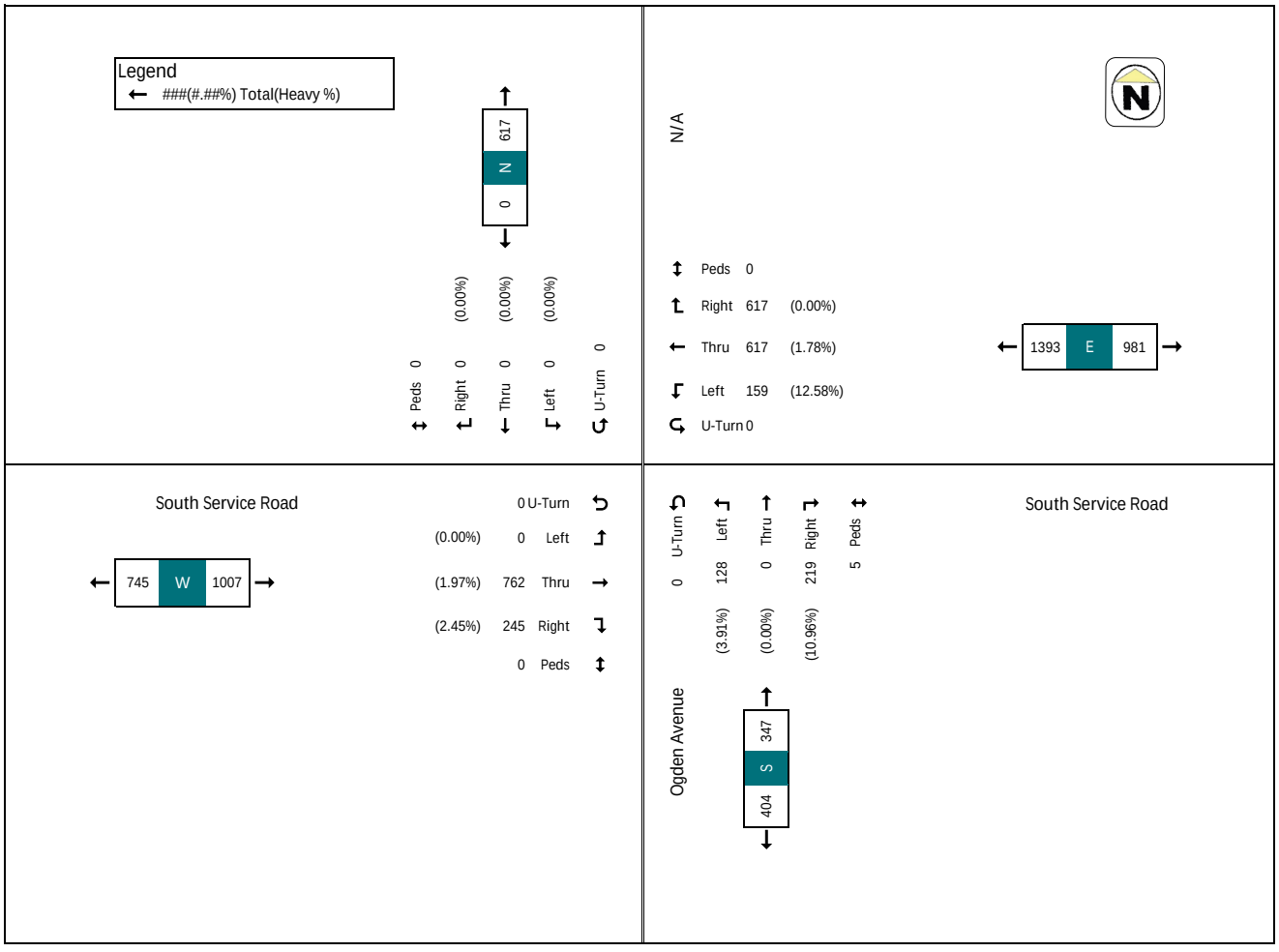


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Ogden Avenue & South Service Road
Survey Date : February 8, 2024
Project No. : 19373
Count ID : 24069

Turning Movement Count - Ogden Avenue & South Service Road

	N/A Southbound						South Service Road Westbound						Ogden Avenue Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
7:00	0	0	0	0	0	0	0	3	19	0	0	22	0	6	0	8	0	14	0	0	34	8	0	42	78
7:15	0	0	0	0	0	0	0	5	14	0	0	19	0	5	0	6	0	11	0	0	28	7	0	35	65
7:30	0	0	0	0	0	0	0	5	14	0	0	19	0	6	0	5	0	11	0	0	45	13	0	58	88
7:45	0	0	0	0	0	0	0	6	20	0	0	26	0	7	0	12	0	19	0	0	44	19	0	63	108
Hourly Total	0	0	0	0	0	0	0	19	67	0	0	86	0	24	0	31	0	55	0	0	151	47	0	198	339
8:00	0	0	0	0	0	0	0	14	40	0	0	54	0	21	0	18	0	39	0	0	48	40	0	88	181
8:15	0	0	0	0	0	0	0	16	34	0	0	50	0	13	0	23	1	36	0	0	71	28	0	99	185
8:30	0	0	0	0	0	0	0	10	22	0	0	32	0	12	0	25	0	37	0	0	43	10	0	53	122
8:45	0	0	0	0	0	0	0	7	21	0	0	28	0	4	0	15	0	19	0	0	54	19	0	73	120
Hourly Total	0	0	0	0	0	0	0	47	117	0	0	164	0	50	0	81	1	131	0	0	216	97	0	313	608
* Break *																									
16:00	0	0	0	0	0	0	0	10	64	0	0	74	0	5	0	11	0	16	0	0	51	14	0	65	155
16:15	0	0	0	0	0	0	0	5	45	0	0	50	0	4	0	14	1	18	0	0	57	19	0	76	144
16:30	0	0	0	0	0	0	0	10	42	0	0	52	0	14	0	14	0	28	0	0	50	11	0	61	141
16:45	0	0	0	0	0	0	0	10	53	0	0	63	0	2	0	17	1	19	0	0	49	9	0	58	140
Hourly Total	0	0	0	0	0	0	0	35	204	0	0	239	0	25	0	56	2	81	0	0	207	53	0	260	580
17:00	0	0	0	0	0	0	0	13	52	0	0	65	0	6	0	9	1	15	0	0	41	14	0	55	135
17:15	0	0	0	0	0	0	0	11	72	0	0	83	0	8	0	7	0	15	0	0	54	17	0	71	169
17:30	0	0	0	0	0	0	0	18	53	0	0	71	0	10	0	24	1	34	0	0	47	3	0	50	155
17:45	0	0	0	0	0	0	0	16	52	0	0	68	0	5	0	11	0	16	0	0	45	14	0	59	143
Hourly Total	0	0	0	0	0	0	0	58	229	0	0	287	0	29	0	51	2	80	0	0	187	48	0	235	602
Grand Total	0	0	0	0	0	0	0	159	617	0	0	776	0	128	0	219	5	347	0	0	762	245	0	1007	2130
Approach %	-	-	-	-	-		0.0%	20.5%	79.5%	0.0%	-	-	0.0%	36.9%	0.0%	63.1%	-		0.0%	0.0%	75.7%	24.3%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	7.5%	29.0%	0.0%	-	36.4%	0.0%	6.0%	0.0%	10.3%	-	16.3%	0.0%	0.0%	35.8%	11.5%	-	47.3%	-
Lights	0	0	0	0	-	0	0	139	606	0	-	745	0	123	0	195	-	318	0	0	747	239	-	986	2049
% Lights	-	-	-	-	-		-	87.4%	98.2%	-	-	96.0%	-	96.1%	-	89.0%	-	91.6%	-	-	98.0%	97.6%	-	97.9%	96.2%
Buses	-	0	0	0	-	0	-	20	8	0	-	28	-	5	0	23	-	28	-	0	7	5	-	12	68
% Buses	-	-	-	-	-		-	12.6%	1.3%	-	-	3.6%	-	3.9%	-	10.5%	-	8.1%	-	-	0.9%	2.0%	-	1.2%	3.2%
Trucks	-	0	0	0	-	0	-	0	3	0	-	3	-	0	0	1	-	1	-	0	8	1	-	9	13
% Trucks	-	-	-	-	-		-	0.0%	0.5%	-	-	0.4%	-	0.0%	-	0.5%	-	0.3%	-	-	1.0%	0.4%	-	0.9%	0.6%
Bicycles	-	-	-	-	2	2	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	2
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	0	-	5

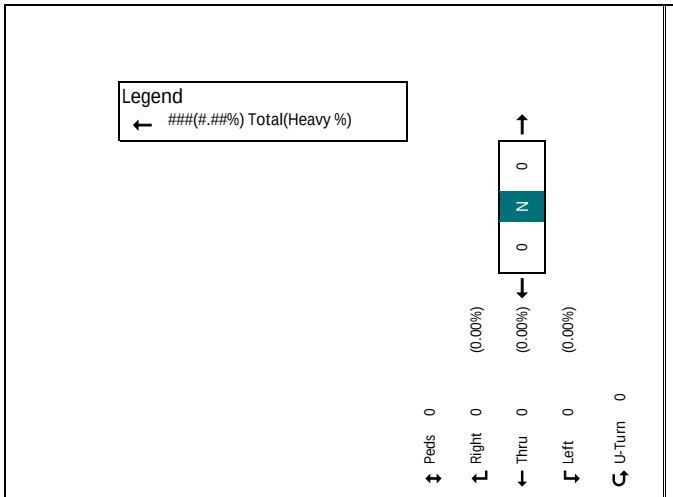


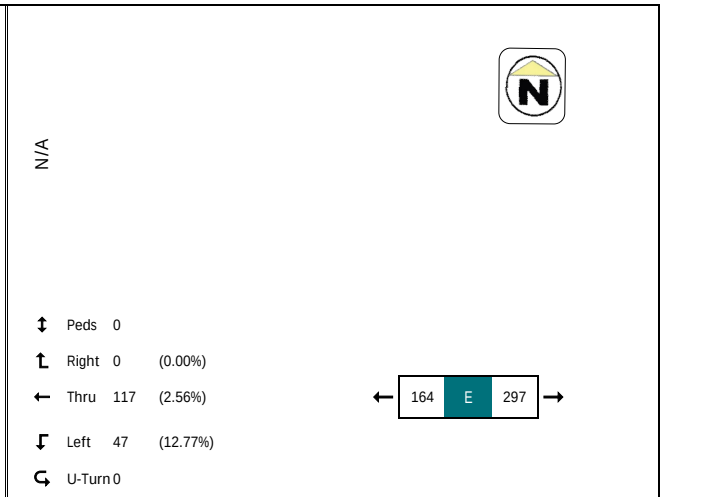
LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

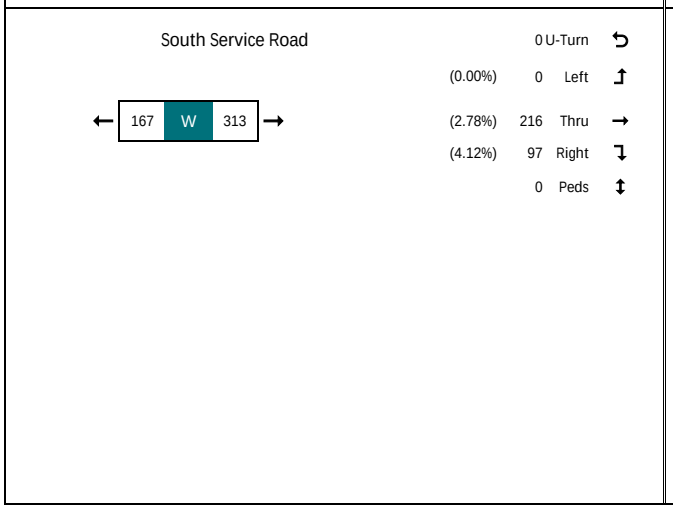
Intersection : Ogden Avenue & South Service Road
Survey Date : February 8, 2024
Project No. : 19373
Count ID : 24069

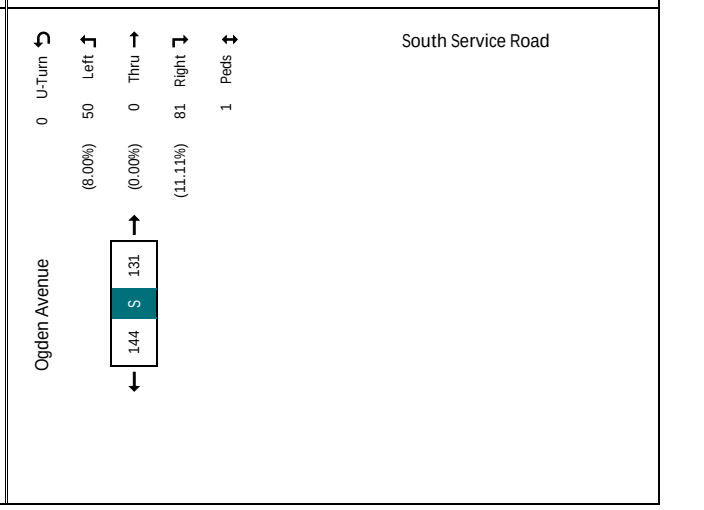
AM Peak Hour - Ogden Avenue & South Service Road

	N/A Southbound						South Service Road Westbound						Ogden Avenue Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
8:00	0	0	0	0	0	0	0	14	40	0	0	54	0	21	0	18	0	39	0	0	48	40	0	88	181
8:15	0	0	0	0	0	0	0	16	34	0	0	50	0	13	0	23	1	36	0	0	71	28	0	99	185
8:30	0	0	0	0	0	0	0	10	22	0	0	32	0	12	0	25	0	37	0	0	43	10	0	53	122
8:45	0	0	0	0	0	0	0	7	21	0	0	28	0	4	0	15	0	19	0	0	54	19	0	73	120
Hourly Total	0	0	0	0	0	0	0	47	117	0	0	164	0	50	0	81	1	131	0	0	216	97	0	313	608
Approach %	-	-	-	-	-	-	0.0%	28.7%	71.3%	0.0%	-	-	0.0%	38.2%	0.0%	61.8%	-	-	0.0%	0.0%	69.0%	31.0%	-	-	
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	7.7%	19.2%	0.0%	-	27.0%	0.0%	8.2%	0.0%	13.3%	-	21.5%	0.0%	0.0%	35.5%	16.0%	-	51.5%	
PHF	0	0	0	0	-	0	0	0.73	0.73	0	-	0.76	0	0.63	0	0.81	-	0.84	0	0	0.76	0.61	-	0.79	0.82
Lights	0	0	0	0	-	0	0	41	114	0	-	155	0	46	0	72	-	118	0	0	210	93	-	303	576
% Lights	-	-	-	-	-	-	-	87.2%	97.4%	-	-	94.5%	-	92.0%	-	88.9%	-	90.1%	-	-	97.2%	95.9%	-	96.8%	94.7%
Buses	-	0	0	0	-	0	-	6	2	0	-	8	-	4	0	9	-	13	-	0	3	3	-	6	27
% Buses	-	-	-	-	-	-	-	12.8%	1.7%	0.0%	-	4.9%	-	8.0%	-	11.1%	-	9.9%	-	-	1.4%	3.1%	-	1.9%	4.4%
Trucks	-	0	0	0	-	0	-	0	1	0	-	1	-	0	0	0	-	0	-	0	3	1	-	4	5
% Trucks	-	-	-	-	-	-	-	0.0%	0.9%	-	-	0.6%	-	0.0%	-	0.0%	-	0.0%	-	-	1.4%	1.0%	-	1.3%	0.8%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0







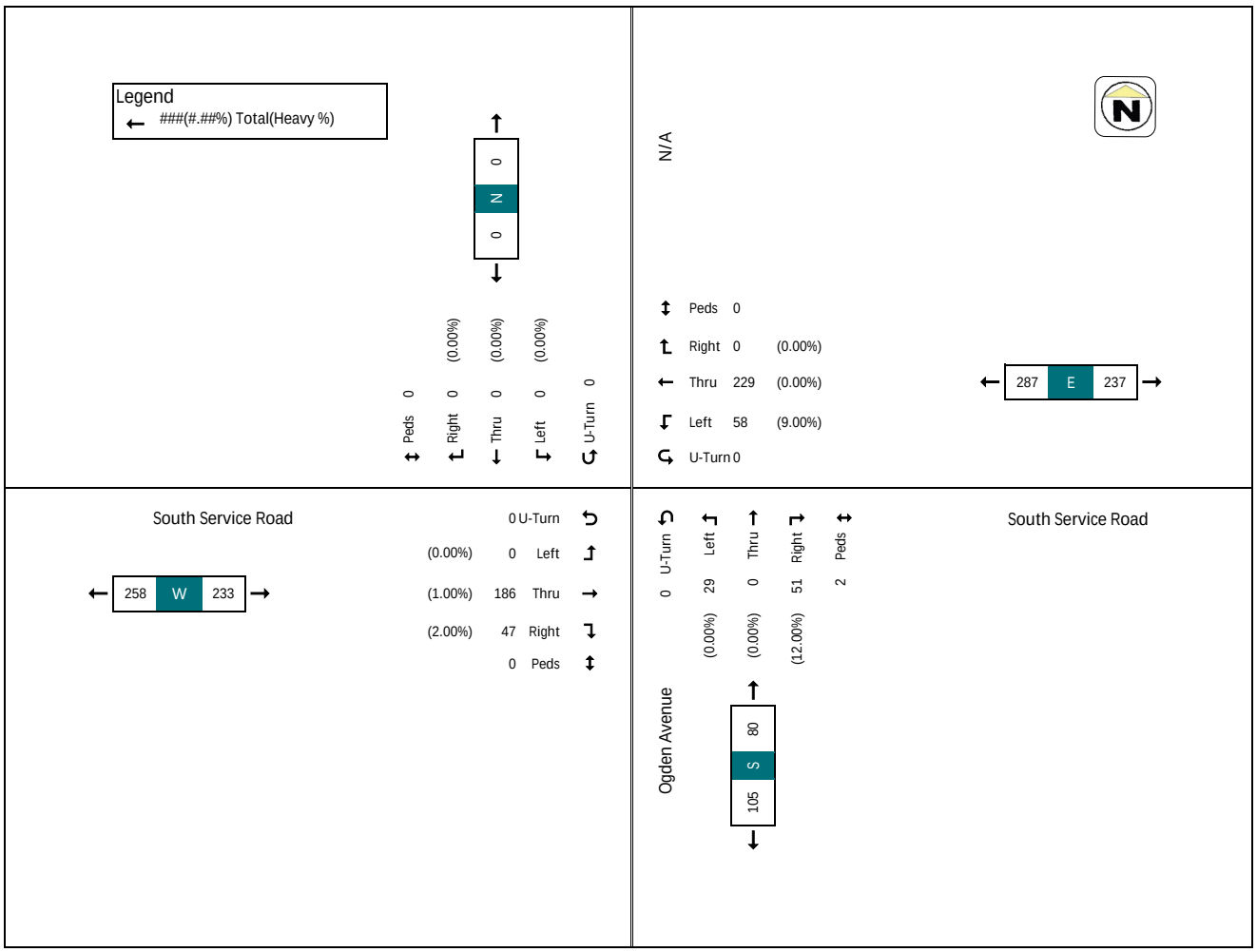


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Ogden Avenue & South Service Road
Survey Date : February 8, 2024
Project No. : 19373
Count ID : 24069

PM Peak Hour - Ogden Avenue & South Service Road

	N/A Southbound						South Service Road Westbound						Ogden Avenue Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
17:00	0	0	0	0	0	0	0	13	52	0	0	65	0	6	0	9	1	15	0	0	41	14	0	55	135
17:15	0	0	0	0	0	0	0	11	72	0	0	83	0	8	0	7	0	15	0	0	54	17	0	71	169
17:30	0	0	0	0	0	0	0	18	53	0	0	71	0	10	0	24	1	34	0	0	47	3	0	50	155
17:45	0	0	0	0	0	0	0	16	52	0	0	68	0	5	0	11	0	16	0	0	45	14	0	59	143
Hourly Total	0	0	0	0	0	0	0	58	229	0	0	287	0	29	0	51	2	80	0	0	187	48	0	235	602
Approach %	-	-	-	-	-	-	0.0%	20.2%	79.8%	0.0%	-	-	0.0%	36.3%	0.0%	63.8%	-	-	0.0%	0.0%	79.6%	20.4%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	9.6%	37.7%	0.0%	-	47.7%	0.0%	4.8%	0.0%	8.4%	-	13.3%	0.0%	0.0%	30.8%	7.9%	-	39.0%	-
PHF	0	0	0	0	-	0	0	0.81	0.8	0	-	0.86	0	0.73	0	0.53	-	0.59	0	0	0.87	0.71	-	0.83	0.89
Lights	0	0	0	0	-	0	0	53	228	0	-	281	0	29	0	45	-	74	0	0	186	47	-	233	588
% Lights	-	-	-	-	-	-	-	91.4%	99.6%	-	-	97.9%	-	100.0%	-	88.2%	-	92.5%	-	-	99.5%	97.9%	-	99.1%	97.7%
Buses	-	0	0	0	-	0	-	5	0	0	-	5	-	0	0	5	-	5	-	0	0	1	-	1	11
% Buses	-	-	-	-	-	-	-	8.6%	0.0%	-	-	1.7%	-	0.0%	-	9.8%	-	6.3%	-	-	0.0%	2.1%	-	0.4%	1.8%
Trucks	-	0	0	0	-	0	-	0	1	0	-	1	-	0	0	1	-	1	-	0	1	0	-	1	3
% Trucks	-	-	-	-	-	-	-	0.0%	0.4%	-	-	0.3%	-	0.0%	-	2.0%	-	1.3%	-	-	0.5%	0.0%	-	0.4%	0.5%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0

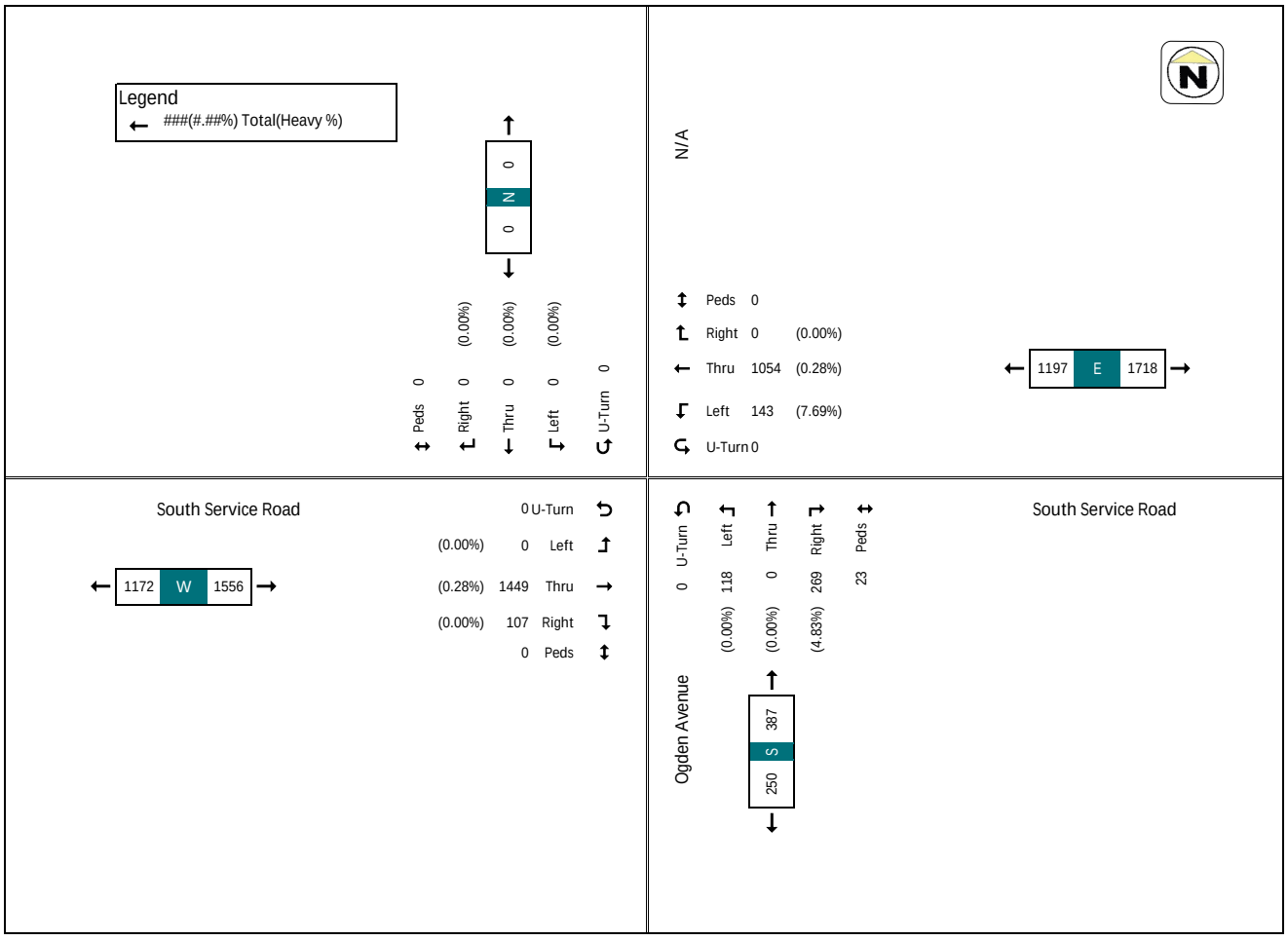


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Ogden Avenue & South Service Road
Survey Date : February 10, 2024
Project No. : 19373
Count ID : 24069

Turning Movement Count - Ogden Avenue & South Service Road

	N/A Southbound						South Service Road Westbound						Ogden Avenue Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
10:00	0	0	0	0	0	0	0	4	34	0	0	38	0	13	0	13	0	26	0	0	72	4	0	76	140
10:15	0	0	0	0	0	0	0	4	27	0	0	31	0	4	0	11	0	15	0	0	58	4	0	62	108
10:30	0	0	0	0	0	0	0	5	33	0	0	38	0	8	0	11	4	19	0	0	67	4	0	71	128
10:45	0	0	0	0	0	0	0	7	35	0	0	42	0	3	0	10	0	13	0	0	58	3	0	61	116
Hourly Total	0	0	0	0	0	0	0	20	129	0	0	149	0	28	0	45	4	73	0	0	255	15	0	270	492
11:00	0	0	0	0	0	0	0	10	46	0	0	56	4	4	0	9	0	17	0	0	62	4	0	66	139
11:15	0	0	0	0	0	0	0	5	58	0	0	63	7	7	0	21	1	35	0	0	81	4	0	85	183
11:30	0	0	0	0	0	0	0	10	37	0	0	47	6	6	0	16	1	28	0	0	79	7	0	86	161
11:45	0	0	0	0	0	0	0	14	47	0	0	61	3	3	0	15	0	21	0	0	75	5	0	80	162
Hourly Total	0	0	0	0	0	0	0	39	188	0	0	227	0	20	0	61	2	81	0	0	297	20	0	317	625
12:00	0	0	0	0	0	0	0	8	57	0	0	65	0	7	0	12	1	19	0	0	78	12	0	90	174
12:15	0	0	0	0	0	0	0	12	70	0	0	82	0	3	0	8	1	12	0	0	80	5	0	85	179
12:30	0	0	0	0	0	0	0	8	47	0	0	56	0	8	0	17	5	25	0	0	80	2	0	82	163
12:45	0	0	0	0	0	0	0	5	72	0	0	77	0	11	0	12	0	23	0	0	66	9	0	75	175
Hourly Total	0	0	0	0	0	0	0	34	246	0	0	280	0	29	0	50	10	79	0	0	304	28	0	332	691
13:00	0	0	0	0	0	0	0	7	67	0	0	74	0	6	0	30	0	36	0	0	75	6	0	81	191
13:15	0	0	0	0	0	0	0	3	52	0	0	55	0	1	0	11	0	12	0	0	74	3	0	77	144
13:30	0	0	0	0	0	0	0	4	61	0	0	65	0	6	0	13	0	19	0	0	86	3	0	89	173
13:45	0	0	0	0	0	0	0	4	62	0	0	66	0	6	0	11	1	17	0	0	63	11	0	74	157
Hourly Total	0	0	0	0	0	0	0	18	242	0	0	260	0	19	0	65	1	84	0	0	298	23	0	321	665
14:00	0	0	0	0	0	0	0	6	56	0	0	62	0	5	0	11	1	16	0	0	80	6	0	86	164
14:15	0	0	0	0	0	0	0	8	61	0	0	69	0	8	0	7	0	15	0	0	64	7	0	71	155
14:30	0	0	0	0	0	0	0	9	65	0	0	74	0	4	0	16	4	20	0	0	67	2	0	69	163
14:45	0	0	0	0	0	0	0	9	67	0	0	76	0	5	0	14	1	19	0	0	84	6	0	90	185
Hourly Total	0	0	0	0	0	0	0	32	249	0	0	281	0	22	0	48	6	70	0	0	295	21	0	316	667
Grand Total	0	0	0	0	0	0	0	143	1054	0	0	1197	0	118	0	269	23	387	0	0	1449	107	0	1556	3140
Approach %	-	-	-	-	-	-	0.0%	11.9%	88.1%	0.0%	-	-	0.0%	30.5%	0.0%	69.5%	-	-	0.0%	0.0%	93.1%	6.9%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	4.6%	33.6%	0.0%	-	38.1%	0.0%	3.8%	0.0%	8.6%	12.3%	12.3%	0.0%	0.0%	46.1%	3.4%	-	49.6%	-
Lights	0	0	0	0	-	0	0	132	1051	0	-	1183	0	118	0	256	-	374	0	0	1445	107	-	1552	3109
% Lights	-	-	-	-	-	-	-	92.3%	99.7%	0	-	98.8%	-	100.0%	-	95.2%	-	96.6%	-	-	99.7%	100.0%	-	99.7%	99.0%
Buses	-	0	0	0	-	0	-	11	0	0	-	11	-	0	0	11	-	11	-	0	0	0	-	0	22
% Buses	-	-	-	-	-	-	-	7.7%	0.0%	0	-	0.9%	-	0.0%	-	4.1%	-	2.8%	-	-	0.0%	0.0%	-	0.0%	0.7%
Trucks	-	0	0	0	-	0	-	0	3	0	-	3	-	0	0	2	-	2	-	0	4	0	-	4	9
% Trucks	-	-	-	-	-	-	-	0.0%	0.3%	0	-	0.3%	-	0.0%	-	0.7%	-	0.5%	-	-	0.3%	0.0%	-	0.3%	0.3%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	1	1	1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	23	-	-	-	-	-	0	-	23

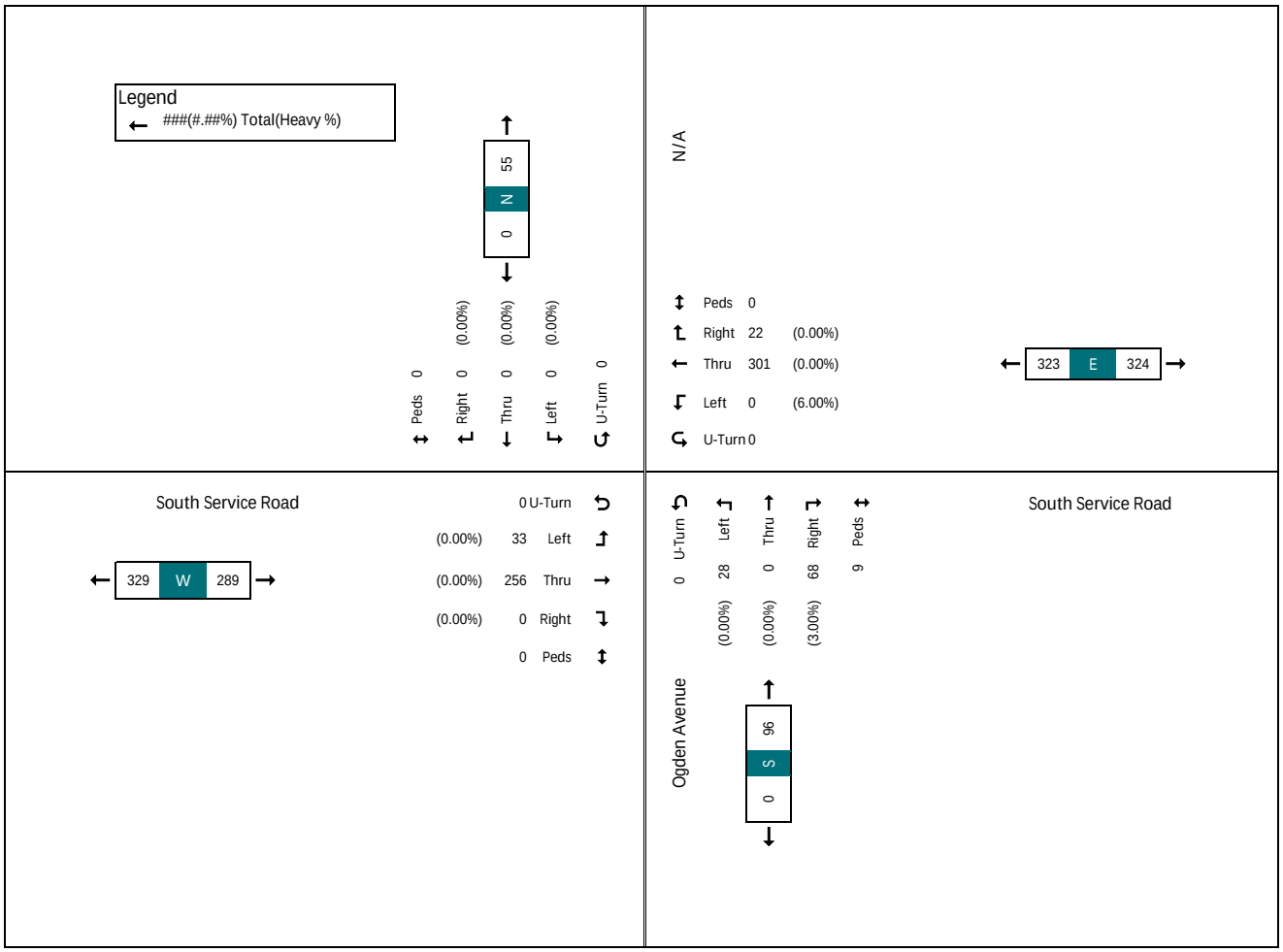


LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON L3R 9R9

Intersection : Ogden Avenue & South Service Road
Survey Date : February 10, 2024
Project No. : 19373
Count ID : 24069

SAT Peak Hour - Ogden Avenue & South Service Road

	N/A Southbound						South Service Road Westbound						Ogden Avenue Northbound						South Service Road Eastbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Grand Total
12:15	0	0	0	0	0	0	0	12	70	0	0	82	0	3	0	9	2	12	0	0	80	5	0	85	179
12:30	0	0	0	0	0	0	0	9	47	0	0	56	0	8	0	17	5	25	0	0	80	2	0	82	163
12:45	0	0	0	0	0	0	0	5	72	0	0	77	0	11	0	12	2	23	0	0	66	9	0	75	175
13:00	0	0	0	0	0	0	0	7	67	0	0	74	0	6	0	30	0	36	0	0	75	6	0	81	191
Hourly Total	0	0	0	0	0	0	0	33	256	0	0	289	0	28	0	68	9	96	0	0	301	22	0	323	708
Approach %	-	-	-	-	-	-	0.0%	11.4%	88.6%	0.0%	-	-	0.0%	29.2%	0.0%	70.8%	-	-	0.0%	0.0%	93.2%	6.8%	-	-	-
Total %	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	4.7%	36.2%	0.0%	-	40.8%	0.0%	4.0%	0.0%	9.6%	-	13.6%	0.0%	0.0%	42.5%	3.1%	-	45.6%	-
PHF	0	0	0	0	-	0	0	0.69	0.89	0	-	0.88	0	0.64	0	0.57	-	0.67	0	0	0.94	0.61	-	0.95	0.93
Lights	0	0	0	0	-	0	0	31	256	0	-	287	0	28	0	66	-	94	0	0	300	22	-	322	703
% Lights	-	-	-	-	-	-	-	93.9%	100.0%	-	-	99.3%	-	100.0%	-	97.1%	-	97.9%	-	-	99.7%	100.0%	-	99.7%	99.3%
Buses	-	0	0	0	-	0	-	2	0	0	-	2	-	0	0	2	-	2	-	0	0	0	-	0	4
% Buses	-	-	-	-	-	-	-	6.1%	0.0%	0.0%	-	0.7%	-	0.0%	-	2.9%	-	2.1%	-	-	0.0%	0.0%	-	0.0%	0.6%
Trucks	-	0	0	0	-	0	-	0	0	0	-	0	-	0	0	0	-	0	-	0	1	0	-	1	1
% Trucks	-	-	-	-	-	-	-	0.0%	0.0%	-	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	-	0.3%	0.0%	-	0.3%	0.1%
Bicycles	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0



Intelight 0604 SOUTH SERVICE ROAD E @ Dixie Plaza Access

Phase - Parameter 1-16	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Phase Description*	String								
Walk	Sec	0	10	0	10	0	0	0	0
Ped Clear	Sec	0	25	0	10	0	0	0	0
Min Green	Sec	0	8	0	8	0	0	0	0
Passage	Sec	0.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0
Maximum 1	Sec	0	23	0	30	0	0	0	0
Maximum 2	Sec	0	23	0	30	0	0	0	0
Yellow Change	Sec	3.0	4.0	3.0	3.5	3.0	4.0	3.0	4.0
Red Clearance	Sec	0.0	3.0	0.0	2.0	0.0	0.0	0.0	0.0
Red Revert	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	other	redClear	other	phaseNotOn	other	other	other	other
[P2] Options	Bit		0:Enabled Phase 3:Non-Actuated 1 7:Max Vehicle Recall 8:Ped. Recall 13:Actuated Rest In Walk		0:Enabled Phase 5:Non Lock Detector Memory				
[P2] Ring	Ring	0	1	0	1	0	0	0	0
[P2] Concurrency	Phase (,)	()	()	()	()	()	()	()	()

Coordination - Pattern 1-32	Units	1	2	3	4	5	6	7	8
Cycle Time	Sec	100	100	100	0	0	0	0	0
Offset	Sec	47	85	99	0	0	0	0	0
Split	Split	1	2	3	0	0	0	0	0
Sequence	Sequence	1	1	1	0	0	0	0	0
Phase Parameter Table*	Number	1	1	1	1	1	1	1	1
Coord Phase Reference Point*	Enum	green	green	green	green	green	green	green	green
Coord Mode*	Enum	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none
Split 1 - Time	Sec	0	75	0	25	0	0	0	0
Split 1 - Coord	Enum	False	True	False	False	False	False	False	False
Split 1 - Coord Phase Options*	Bit		0: Reference Point						
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	55	0	45	0	0	0	0
Split 2 - Coord	Enum	False	True	False	False	False	False	False	False
Split 2 - Coord Phase Options*	Bit		0: Reference Point						
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none
Split 3 - Time	Sec	0	75	0	25	0	0	0	0
Split 3 - Coord	Enum	False	True	False	False	False	False	False	False
Split 3 - Coord Phase Options*	Bit		0: Reference Point						

Time Base - Schedule 1-16	Units	1	2	3	4	5	6	7	8
Month	Bit	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	J----------	-F----------	--M---------	----M-------	------J-----
Day of Week	Bit	-MTWTF-	S------	------S	---W---	-M-----	-----F-	-M-----	-M-----

Day of Month	Bit	12345678901234567	12345678901234567	12345678901234567	1----------	----------9---------	----------	----------0--------	1----------
		89012345678901	89012345678901	89012345678901	---	---	9--	---	---
Day Plan	Number	1	3	2	3	3	3	3	3
Time Base - Schedule 1-16	**Units**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Month	Bit	--------A----	--------S---	---------O--	----------D	----------D	----------D	--------S---	----------
Day of Week	Bit	-M-----	-M-----	-M-----	---W---	----T--	--T----	-M-----	SMTWTFS
Day of Month	Bit	----5----------	-2----------	----------4----------	----------5---	----------6--	----------4----	----------	----------
		---	---	---	---	---	---	0-	--
Day Plan	Number	3	3	3	3	3	3	3	0
Time Base - Day Plans	**Units**	**Evt 1**	**Evt 2**	**Evt 3**	**Evt 4**	**Evt 5**	**Evt 6**		
Plan 1 Hour	Hour	0	7	9	16	18	3		
Plan 1 Minute	Min	0	0	0	0	30	0		
Plan 1 Action	Number	8	1	8	3	8	7		
Plan 2 Hour	Hour	0	9	21	3	0	0		
Plan 2 Minute	Min	0	0	30	0	0	0		
Plan 2 Action	Number	8	2	8	7	0	0		
Plan 3 Hour	Hour	0	3	0	0	0	0		
Plan 3 Minute	Min	0	0	0	0	0	0		
Plan 3 Action	Number	8	7	0	0	0	0		
Time Base - Action 1-32	**Units**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Free	Free
Aux. Functions	Bit								
Spec. Functions	Bit								
Time Base - Action 1-32	**Units**	**9**	**10**						
Pattern	Enum	Pattern 9	Pattern 10						
Aux. Functions	Bit								
Spec. Functions	Bit								

Location	SOUTH SERVICE ROAD E @ Dixie Plaza Access
Phase 2	E/W
Phase 4	NB

Intelight 0107 LAKESHORE ROAD E @ Haig Boulevard

Phase - Parameter 1-16	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Phase Description*	String								
Walk	Sec	0	10	0	10	0	0	0	0
Ped Clear	Sec	0	11	0	18	0	0	0	0
Min Green	Sec	0	10	0	10	0	0	0	0
Passage	Sec	0.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0
Maximum 1	Sec	0	40	0	20	0	0	0	0
Maximum 2	Sec	0	40	0	20	0	0	0	0
Yellow Change	Sec	3.0	3.5	3.0	3.0	3.0	4.0	3.0	4.0
Red Clearance	Sec	0.0	2.5	0.0	3.0	0.0	0.0	0.0	0.0
Red Revert	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	other	redClear	other	phaseNotOn	other	other	other	other
[P2] Options	Bit		0:Enabled Phase 3:Non-Actuated 1 7:Max Vehicle Recall 8:Ped. Recall 13:Actuated Rest In Walk		0:Enabled Phase 5:Non Lock Detector Memory				
[P2] Ring	Ring	0	1	0	1	0	0	0	0
[P2] Concurrency	Phase (,)	()	()	()	()	()	()	()	()

Coordination - Pattern 1-32	Units	1	2	3
Cycle Time	Sec	120	100	120
Offset	Sec	106	68	112
Split	Split	1	2	3
Sequence	Sequence	1	1	1
Phase Parameter Table*	Number			
Coord Phase Reference Point*	Enum			
Coord Mode*	Enum			

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none
Split 1 - Time	Sec	0	86	0	34	0	0	0	0
Split 1 - Coord	Enum	False	True	False	False	False	False	False	False
Split 1 - Coord Phase Options*	Bit								
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	66	0	34	0	0	0	0
Split 2 - Coord	Enum	False	True	False	False	False	False	False	False
Split 2 - Coord Phase Options*	Bit								
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none
Split 3 - Time	Sec	0	86	0	34	0	0	0	0
Split 3 - Coord	Enum	False	True	False	False	False	False	False	False

Time Base - Schedule 1-16	Units	1	2	3	4	5	6	7	8
Month	Bit	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	J----------	-F----------	--M---------	----M-------	------J-----
Day of Week	Bit	-MTWTF-	S------	------S	---W---	-M-----	-----F-	-M-----	-M-----
Day of Month	Bit	12345678901234567890123456789012	12345678901234567890123456789012	12345678901234567890123456789012	1---------- ---------- ----------	----------9--------- ---	---------- 9--	----------0--------- ---	1---------- ---
Day Plan	Number	1	3	2	3	3	3	3	3

Time Base - Schedule 1-16	Units	9	10	11	12	13	14	15	16
Month	Bit	-------A----	--------S---	---------O--	----------D	----------D	----------D	--------S---	----------
Day of Week	Bit	-M-----	-M-----	-M-----	---W---	----T--	--T----	-M-----	SMTWTFS
Day of Month	Bit	----5----------	-2----------	----------4----------	----------5---	----------6--	----------4----	----------	----------
		---	---	---	---	---	---	0-	--
Day Plan	Number	3	3	3	3	3	3	3	0

Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6
Plan 1 Hour	Hour	0	6	9	15	19	3
Plan 1 Minute	Min	0	0	30	0	30	0
Plan 1 Action	Number	8	1	2	3	2	7
Plan 2 Hour	Hour	0	7	3	0	0	0
Plan 2 Minute	Min	0	0	0	0	0	0
Plan 2 Action	Number	8	2	7	0	0	0
Plan 3 Hour	Hour	0	8	23	3	0	0
Plan 3 Minute	Min	0	0	0	0	0	0
Plan 3 Action	Number	8	2	8	7	0	0

Time Base - Action 1-32	Units	1	2	3	4	5	6	7	8
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Free	Free
Aux. Functions	Bit								
Spec. Functions	Bit								

Time Base - Action 1-32	Units	9	10
Pattern	Enum	Pattern 9	Pattern 10
Aux. Functions	Bit		
Spec. Functions	Bit		

Location	LAKESHORE ROAD E @ Haig Boulevard
Phase 2	E/W
Phase 4	SB

Intelight 0602 SOUTH SERVICE ROAD E @ Ogden Road

Phase - Parameter 1-16	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Phase Description*	String								
Walk	Sec	0	10	0	0	0	0	0	0
Ped Clear	Sec	0	13	0	0	0	0	0	0
Min Green	Sec	0	10	0	12	0	0	0	0
Passage	Sec	0.0	3.0	0.0	4.0	0.0	0.0	0.0	0.0
Maximum 1	Sec	0	30	0	30	0	0	0	0
Maximum 2	Sec	0	30	0	30	0	0	0	0
Yellow Change	Sec	3.0	4.0	3.0	3.0	3.0	4.0	3.0	4.0
Red Clearance	Sec	0.0	3.0	0.0	2.5	0.0	0.0	0.0	0.0
Red Revert	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	other	redClear	other	phaseNotOn	other	other	other	other
[P2] Options	Bit		0:Enabled Phase 3:Non-Actuated 1 7:Max Vehicle Recall 8:Ped. Recall 13:Actuated Rest In Walk		0:Enabled Phase 5:Non Lock Detector Memory 6:Min. Vehicle Recall				
[P2] Ring	Ring	0	1	0	1	0	0	0	0
[P2] Concurrency	Phase (,)	()	()	()	()	()	()	()	()

Coordination - Pattern 1-32	Units	1	2	3
Cycle Time	Sec	100	100	100
Offset	Sec	41	70	2
Split	Split	1	2	3
Sequence	Sequence	1	1	1
Phase Parameter Table*	Number			
Coord Phase Reference Point*	Enum			
Coord Mode*	Enum			

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none
Split 1 - Time	Sec	0	68	0	32	0	0	0	0
Split 1 - Coord	Enum	False	True	False	False	False	False	False	False
Split 1 - Coord Phase Options*	Bit								
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	72	0	28	0	0	0	0
Split 2 - Coord	Enum	False	True	False	False	False	False	False	False
Split 2 - Coord Phase Options*	Bit								
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none
Split 3 - Time	Sec	0	70	0	30	0	0	0	0
Split 3 - Coord	Enum	False	True	False	False	False	False	False	False

Time Base - Schedule 1-16	Units	1	2	3	4	5	6	7	8
Month	Bit	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	J----------	-F----------	---A--------	----M-------	------J-----
Day of Week	Bit	-MTWTF-	S------	------S	-M-----	-M-----	-----F-	-M-----	-----F-
Day of Month	Bit	12345678901234567890123456789012345678901	12345678901234567890123456789012345678901	12345678901234567890123456789012345678901	--3---------- ---	----------1------- ---	----------5---------- ---	----------3----- ---	1---------- ---
Day Plan	Number	1	3	2	3	3	3	3	3

Time Base - Schedule 1-16	Units	9	10	11	12	13	14	15	16
Month	Bit	-------A----	--------S---	---------O--	----------D	----------D	----------D	--------S---	----------
Day of Week	Bit	-M-----	-M-----	-M-----	--T----	-M-----	---W---	-----F-	SMTWTFS
Day of Month	Bit	1----------	----5----------	---------0----------	----------7-	----------6--	----------	----------	----------
		---	---	---	---	---	8---	0-	--
Day Plan	Number	3	3	3	3	3	3	3	0

Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6
Plan 1 Hour	Hour	0	7	9	16	18	3
Plan 1 Minute	Min	0	0	0	0	30	0
Plan 1 Action	Number	8	1	8	3	8	7
Plan 2 Hour	Hour	0	9	21	3	0	0
Plan 2 Minute	Min	0	0	30	0	0	0
Plan 2 Action	Number	8	2	8	7	0	0
Plan 3 Hour	Hour	0	3	0	0	0	0
Plan 3 Minute	Min	0	0	0	0	0	0
Plan 3 Action	Number	8	7	0	0	0	0

Time Base - Action 1-32	Units	1	2	3	4	5	6	7	8
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Pattern 7	Free
Aux. Functions	Bit								
Spec. Functions	Bit								

Time Base - Action 1-32	Units	9	10
Pattern	Enum	Pattern 9	Pattern 10
Aux. Functions	Bit		
Spec. Functions	Bit		

Location	SOUTH SERVICE ROAD E @ Ogden Road
Phase 2	E/W
Phase 4	NB

Intelight 0603 SOUTH SERVICE ROAD E @ Haig Boulevard

Phase - Parameter 1-16	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Phase Description*	String								
Walk	Sec	0	10	10	0	0	0	0	0
Ped Clear	Sec	0	19	12	0	0	0	0	0
Min Green	Sec	0	8	8	8	0	0	0	0
Passage	Sec	0.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0
Maximum 1	Sec	0	27	20	20	0	0	0	0
Maximum 2	Sec	0	27	20	20	0	0	0	0
Yellow Change	Sec	3.0	4.0	4.0	3.5	3.0	4.0	3.0	4.0
Red Clearance	Sec	0.0	2.5	2.0	2.5	0.0	0.0	0.0	0.0
Red Revert	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	other	redClear	phaseNotOn	phaseNotOn	other	other	other	other
[P2] Options	Bit		0:Enabled Phase 3:Non-Actuated 1 7:Max Vehicle Recall 8:Ped. Recall 13:Actuated Rest In Walk	0:Enabled Phase 5:Non Lock Detector Memory	0:Enabled Phase 5:Non Lock Detector Memory				
[P2] Ring	Ring	0	1	1	1	0	0	0	0
[P2] Concurrency	Phase (,)	()	()	()	()	()	()	()	()

Coordination - Pattern 1-32	Units	1	2	3	4	5	6	7	8
Cycle Time	Sec	100	100	100	0	0	0	0	0
Offset	Sec	51	95	4	0	0	0	0	0
Split	Split	1	2	3	0	0	0	0	0
Sequence	Sequence	1	1	1	0	0	0	0	0
Phase Parameter Table*	Number	1	1	1	1	1	1	1	1
Coord Phase Reference Point*	Enum	green	green	green	green	green	green	green	green
Coord Mode*	Enum	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none
Split 1 - Time	Sec	0	56	25	19	0	0	0	0
Split 1 - Coord	Enum	False	True	False	False	False	False	False	False
Split 1 - Coord Phase Options*	Bit		0: Reference Point						
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	58	25	17	0	0	0	0
Split 2 - Coord	Enum	False	True	False	False	False	False	False	False
Split 2 - Coord Phase Options*	Bit		0: Reference Point						
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none
Split 3 - Time	Sec	0	56	25	19	0	0	0	0
Split 3 - Coord	Enum	False	True	False	False	False	False	False	False

Time Base - Schedule 1-16	Units	1	2	3	4	5	6	7	8
Month	Bit	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	J----------	-F----------	--M---------	----M-------	------J-----
Day of Week	Bit	-MTWTF-	S------	------S	---W---	-M-----	-----F-	-M-----	-M-----
Day of Month	Bit	12345678901234567890123456789012	12345678901234567890123456789012	12345678901234567890123456789012	1---------- ---	----------9--------- ---	---------- 9--	----------0--------- ---	1---------- ---
Day Plan	Number	1	3	2	3	3	3	3	3

Time Base - Schedule 1-16	Units	9	10	11	12	13	14	15	16
Month	Bit	-------A----	--------S---	---------O--	----------D	----------D	----------D	--------S---	----------
Day of Week	Bit	-M-----	-M-----	-M-----	---W---	----T--	--T----	-M-----	SMTWTFS
Day of Month	Bit	----5----------	-2----------	----------4----------	----------5---	----------6--	----------4----	----------	----------
		---	---	---	---	---	---	0-	--
Day Plan	Number	3	3	3	3	3	3	3	0

Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6
Plan 1 Hour	Hour	0	7	9	16	18	3
Plan 1 Minute	Min	0	0	0	0	30	0
Plan 1 Action	Number	8	1	8	3	8	7
Plan 2 Hour	Hour	0	9	21	3	0	0
Plan 2 Minute	Min	0	0	30	0	0	0
Plan 2 Action	Number	8	2	8	7	0	0
Plan 3 Hour	Hour	0	3	0	0	0	0
Plan 3 Minute	Min	0	0	0	0	0	0
Plan 3 Action	Number	8	7	0	0	0	0

Time Base - Action 1-32	Units	1	2	3	4	5	6	7	8
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Free	Free
Aux. Functions	Bit								
Spec. Functions	Bit								

Time Base - Action 1-32	Units	9	10
Pattern	Enum	Pattern 9	Pattern 10
Aux. Functions	Bit		
Spec. Functions	Bit		

Location	SOUTH SERVICE ROAD E @ Haig Boulevard/ Dixie Mall Access
Phase 2	E/W
Phase 3	NBLT
Phase 4	NB

Signal Timing Report

Runtime: 2020-10-28 11:10:10

Device: 0604

Region: Mississauga **Signal ID:** 0604 **Location:** SOUTH SERVICE ROAD E at Dixie Plaza Access

Phase	Units	1	2	3	4	5	6	7	8
Walk	Sec	0	11	0	8	0	0	0	0
Ped Clear	Sec	0	17	0	8	0	0	0	0
Min Green	Sec	0	8	0	8	0	0	0	0
Passage	Sec	0.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0
Maximum 1	Sec	0	23	0	30	0	0	0	0
Maximum 2	Sec	0	23	0	30	0	0	0	0
Yellow Change	Sec	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
Red Clearance	Sec	0.0	2.5	0.0	2.0	0.0	0.0	0.0	0.0
Red Revert	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before	Sec	0	0	0	0	0	0	0	0
Cars Before	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	other	redClear	other	phaseNotOn	other	other	other	other
[P2] Options	Bit	0	Enabled Non-Actuated 1 Max Veh Recall Ped Recall Act Rest In Walk	0	Enabled Non Lock Det	0	0	0	0
[P2] Ring	Ring	0	1	0	1	0	0	0	0
[P2] Concurrency	Phase (,)	()	()	()	()	()	()	()	()

Coord Pattern	Units	1	2	3	4	5	6	7	8
Cycle Time	Sec	100	100	100	0	0	0	0	0
Offset	Sec	47	85	99	0	0	0	0	0
Split	Split	1	2	3	0	0	0	0	0
Sequence	Sequence	1	1	1	0	0	0	0	0

Coord Split	Units	1	2	3	4	5	6	7	8
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none
Split 1 - Time	Sec	0	75	0	25	0	0	0	0
Split 1 - Coord	Enum	false	true	false	false	false	false	false	false
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	55	0	45	0	0	0	0
Split 2 - Coord	Enum	false	true	false	false	false	false	false	false
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none
Split 3 - Time	Sec	0	75	0	25	0	0	0	0
Split 3 - Coord	Enum	false	true	false	false	false	false	false	false

TB Schedule	Units	1	2	3	4	5	6	7	8
Month	Bit	JFMAMJJASON	JFMAMJJASON	JFMAMJJASON	J----------	-F---------	---A-------	----M------	------J-----
Day of Week	Bit	-MTWTF-	S------	------S	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS
Day of Month	Bit	12345678901234567890123456789012345678901	12345678901234567890123456789012345678901	12345678901234567890123456789012345678901	1----------	----------7----------	---------0----------	----------8----------	1----------
Day Plan	Number	1	3	2	3	3	3	3	3

TB Schedule	Units	9	10	11	12	13	14	15	16
Month	Bit	-------A----	--------S---	---------O--	----------D	----------D	----------D	0	0
Day of Week	Bit	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS
Day of Month	Bit	--3----------	------7----------	----------2----------	----------	----------	----------	0	0
Day Plan	Number	3	3	3	3	3	3	0	0

TB Dayplan	Units	1	2	3	4	5	6	7	8
Plan 1 Hour	Hour	0	7	9	16	18	3	0	0
Plan 1 Minute	Min	0	0	0	0	30	0	0	0
Plan 1 Action	Number	8	1	8	3	8	7	0	0
Plan 2 Hour	Hour	0	9	21	3	0	0	0	0
Plan 2 Minute	Min	0	0	30	0	0	0	0	0
Plan 2 Action	Number	8	2	8	7	0	0	0	0

Plan 3 Hour	Hour	0	3	0	0	0	0	0	0
Plan 3 Minute	Min	0	0	0	0	0	0	0	0
Plan 3 Action	Number	8	7	0	0	0	0	0	0
TB Action	**Units**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Free	Free
Aux. Functions	Bit	0	0	0	0	0	0	0	0
Spec. Functions	Bit	0	0	0	0	0	0	0	0

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	**October 22, 2020**	**Prepared Date**	**October 22, 2020**
Database Rev	**iNET**	**Completed By**	**BL**
Timing Card / Field rev	**-**	**Checked By**	**RC**

Location: **Dixie Road @ Sherway Drive**

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
1	Dixie Road - N/B P.P LT	5	0	0	3	0	17	15	20
2	Dixie Road - NB/SB	8	8	12	4.0	2.0	38	38	48
3	Sherway Drive - W/B P.P LT & W/B	8	10	15	4.0	2.6	27	27	27
4	Sherway Drive - E/B P.P LT & E/B	8	10	15	4.0	2.6	38	30	35
5	Not in use	-	-	-	-	-	-	-	-
6	Not in use	-	-	-	-	-	-	-	-
7	Not in use	-	-	-	-	-	-	-	-
8	Not in use	-	-	-	-	-	-	-	-

System Control
Yes

Semi-Actuated Mode
Yes

TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:00 - 09:30	AM	120	80
09:30 - 15:00 19:30 - 03:00	OFF	110	102
15:00 - 19:30	PM	130	27

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	**October 22, 2020**	**Prepared Date**	**October 22, 2020**
Database Rev	**iNET**	**Completed By**	**BL**
Timing Card / Field rev	**-**	**Checked By**	**RC**
Location	**Dixie Road @ South Service Road**		

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
1	Not in use	-	-	-	-	-	-	-	-
2	Dixie Road - S/B	8	9	14	4.0	2.4	71	73	82
3	Not in use	-	-	-	-	-	-	-	-
4	Ring Balance - W/B	8	8	14	4.0	2.2	49	37	48
5	Not in use	-	-	-	-	-	-	-	-
6	Dixie Road - N/B	8	9	14	4.0	2.4	71	73	82
7	Not in use	-	-	-	-	-	-	-	-
8	South Service Road - E/B	8	0	0	4.0	0.0	49	37	48

System Control
Yes

Semi-Actuated Mode
Yes

TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:00 - 09:30	AM	120	42
09:30 - 15:00 19:30 - 03:00	OFF	110	39
15:00 - 19:30	PM	130	117

File: CA.13.SIG
Signal Timing Request
RT.07.0603
RT.07.0604

November 2, 2020

LEA Consulting LTD
625 Cochrane Drive, 9th Floor
Markham, Ontario
L3R 9R9

Dear Zara Georgis:

Re: Traffic Signal Timing

Please find the attached traffic signal timing for the intersections of:

South Service Rd E @ Haig Blvd (West Dixie Mall Entrance)
South Service Rd E @ Dixie Plaza Access (Mid Dixie Mall Entrance)

The side street phase (4) is actuated; meaning a vehicle or pedestrian must be present on the side street before the side street is given a green indication. Vehicle presence on the side street would result in a possible green time of between the minimum and maximum time noted, depending on demand. Similarly, phase (3) is also actuated. Pedestrian "Walk" and flashing "Don't Walk" time on the side street, as noted, would be used in the event that the pedestrian push button is activated. During the side street pedestrian indications, the side street vehicle green is concurrently displayed. Should there be no demand on the actuated phase, the signals would result in a green indication on the major street (2).

Note: All times recorded in seconds, based on full demand.

The time of day plan is used for system control operation. In the event that the coordination pattern has a cycle length, offset and split value identified, the cycle length, split and offset values, as noted, would be used. However, when the time of day plan is programed using 'Action' 8, the mode is 'Free', meaning no cycle length, split and offset values are given and the intersection operates using the phase timings provided in the report.

Should you require further information, please contact Yelena Klimenko, at 905-615-3200 ext. 3211.

Sincerely,

Yelena Klimenko
Acting Traffic Systems Coordinator, Traffic Systems and ITS
Traffic Signals and Street Lighting
Transportation and Works Department
City of Mississauga
905-615-3200 ext. 3211
yelena.klimenko@mississauga.ca

c: Javed Khan, Manager, Traffic Signals and Street Lighting
Jim Kartsomanis, Supervisor, Traffic Systems and ITS

File: CA.13.SIG
Signal Timing Request
RT.07.0107
RT.07.0602
RT.07.0603

February 15, 2024

To Ian Dinsmore:

Re: Traffic Signal Timing

South Service Road at Haig Boulevard
South Service Road at Ogden Avenue
Lakeshore Road at Haig Boulevard

The side street phase (4) is actuated, unless noted in the timing plan, this means a vehicle or pedestrian must be present on the side street before the side street is given a green indication. Vehicle presence on the side street would result in a possible green time of between the minimum and maximum time noted, depending on demand. Pedestrian "Walk" and flashing "Don't Walk" time on the side street, as noted, would be used in the event that the pedestrian push button is activated. During the side street pedestrian indications, the side street vehicle green is concurrently displayed. Should there be no demand on the actuated phase, the signals would result in a green indication on the major street (2).

Note: All times recorded in seconds, based on full demand.

The time of day plan is used for system control operation. In the event that the coordination pattern has a cycle length, offset and split value identified, the cycle length, split and offset values, as noted, would be used. However, when the time of day plan is programmed using 'Action' 8, the mode is 'Free', meaning no cycle length, split and offset values are given and the intersection operates using the phase timings provided in the report.

Should you require further information, please contact Steve Gee, at 905-615-3200 ext. 5169.

Sincerely,

Steve Gee
Traffic System Coordinator, Traffic Systems and ITS
Traffic Systems and ITS
Transportation and Works Department
City of Mississauga
905-615-3200 ext. 5169
steve.gee@mississauga.ca

c: Jim Kartsomanis, Supervisor, Traffic Systems and ITS

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	**Feb. 22, 2024**	**Prepared Date**	**Feb. 22, 2024**
Database Rev	**iNet**	**Completed By**	**A.P.**
Timing Card / Field rev	**N/A**	**Checked By**	**M.H.**

Location: **Dixie Road @ Rometown_South Service Road**

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
1	Not in Use	-	-	-	-	-	-	-	-
2	Dixie Road - SB	8.0	10.0	19.0	4.0	2.6	71.0	60.0	77.0
3	Not in Use	-	-	-	-	-	-	-	-
4	Rometown - WB	8.0	10.0	24.0	4.0	3.1	49.0	50.0	53.0
5	Not in Use	-	-	-	-	-	-	-	-
6	Dixie Road - NB	8.0	10.0	19.0	4.0	2.6	71.0	60.0	77.0
7	Not in Use	-	-	-	-	-	-	-	-
8	Rometown - EB	8.0	10.0	24.0	4.0	3.1	49.0	50.0	53.0

System Control
Yes

Semi-Actuated Mode
Yes

TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:00 - 09:30	AM	120	45
09:30 - 15:00 19:30 - 03:00	OFF	110	49
15:00 - 19:30	PM	130	113

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	**Feb. 21, 2024**	**Prepared Date**	**Feb. 26, 2024**
Database Rev	**iNet**	**Completed By**	**A.P.**
Timing Card / Field rev	**N/A**	**Checked By**	**M.H.**

Location: Dixie Road @ Lakeshore Road

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
1	Not In Use	-	-	-	-	-	-	-	-
2	Lakeshore Road - EB	8.0	10.0	23.0	4.0	3.0	82.0	62.0	82.0
3	Not In Use	-	-	-	-	-	-	-	-
4	Dixie Road - NB	8.0	0.0	0.0	4.0	2.5	38.0	38.0	38.0
5	Lakeshore Road - EB P.P LT.	5.0	0.0	0.0	3.0	0.0	24.0	20.0	19.0
6	Lakeshore Road - WB	8.0	10.0	23.0	4.0	3.0	58.0	42.0	63.0
7	Not In Use	-	-	-	-	-	-	-	-
8	Dixie Road - SB	8.0	10.0	21.0	4.0	2.5	38.0	38.0	38.0

System Control
Yes

Semi-Actuated Mode
Yes

TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:00 - 09:30	AM	120	83
09:30 - 15:00 19:30 - 03:00	OFF	100	58
15:00 - 19:00	PM	120	83

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	**Feb. 02, 2024**	**Prepared Date**	**Feb. 26, 2024**
Database Rev	**iNet**	**Completed By**	**A.P**
Timing Card / Field rev	**N/A**	**Checked By**	**M.H**
Location	**Dixie Road @ Mall Entrance**		

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
1	Not In Use	-	-	-	-	-	-	-	-
2	Dixie Rd. - SB	10.0	10.0	17.0	4.0	2.2	78.0	68.0	88.0
3	Not In Use	-	-	-	-	-	-	-	-
4	Mall Entrance - EB	10.0	10.0	24.0	4.0	3.7	42.0	42.0	42.0
5	Not In Use	-	-	-	-	-	-	-	-
6	Dixie Rd. - NB	10.0	10.0	17.0	4.0	2.2	78.0	68.0	88.0
7	Not in Use	-	-	-	-	-	-	-	-
8	Church Ent. - WB	10.0	10.0	24.0	4.0	3.7	42.0	42.0	42.0

System Control
Yes

Semi-Actuated Mode
Yes

TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:00 - 09:30	AM	120	45
09:30 - 15:00 19:30 - 00:00	OFF	110	49
15:00 - 19:30	PM	130	113

APPENDIX E

Background Developments & Corridor Growth

Correspondence with City/MTO on Corridor Growth Rates

RE: Redevelopment of Dixie Outlet Mall - Growth Rates

Tyler Xuereb <Tyler.Xuereb@mississauga.ca>
Mon 3/11/2024 2:18 PM
To:Zara Georgis <ZGeorgis@lea.ca>
Cc:Harkarandeep Bains <HBains@lea.ca>;Norbert Orzel <Norbert.Orzel@mississauga.ca>;Cambas, Matthew <matthew.cambas@peelregion.ca>;Saha, Ucchas <ucchas.saha@peelregion.ca>

External Sender

Hi Zara,

Thank you for your patience.

Using the City's Travel Demand Model and supporting traffic count data, the City's Transportation Planning section has determined the projected growth along Dixie Road, Lakeshore Road and South Service Road. Atwater was not included in this analysis as we only provide rates for major collectors and arterials; Atwater east of Ogden is considered a minor collector, therefore rates will not be provided. Please note that these rates are compounded annually from existing to 2029.

In addition, these rates do not capture the Lakeview site and as such, you will need to capture the Lakeview site as a background development.

Below are the recommended growth rates to be used for your study.

	Dixie Road	
	NB	SB
AM Peak	2.0%	2.0%
PM Peak	1.0%	1.0%

	Lakeshore Road	
	EB	WB
AM Peak	0.5%	0.5%
PM Peak	1.0%	1.0%

	South Service Road	
	EB	WB
AM Peak	0.0%	0.0%
PM Peak	0.0%	0.0%

Please let me know if you have any questions.

Regards,

MISSISSAUGA

RE: Redevelopment of Dixie Outlet Mall - Growth Rates

Akhtar, Usman (MTO) <Usman.Akhtar@ontario.ca>

Thu 2/15/2024 1:43 PM

To:Zara Georgis <ZGeorgis@lea.ca>;Tyler Xuereb <Tyler.Xuereb@mississauga.ca>;transportationplanningdata@peelregion.ca <transportationplanningdata@peelregion.ca>
Cc:Harkarandeep Bains <HBains@lea.ca>;Malik, Rafiq (MTO) <Rafiq.Malik@ontario.ca>

External Sender

Hi Zara,

1% annual Growth Rate is applicable to QEW/Dixie Rd Ramps.

Thanks,

Usman

From: Zara Georgis <ZGeorgis@lea.ca>
Sent: February 14, 2024 9:09 PM
To: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>; Akhtar, Usman (MTO) <Usman.Akhtar@ontario.ca>; transportationplanningdata@peelregion.ca
Cc: Harkarandeep Bains <HBains@lea.ca>
Subject: Redevelopment of Dixie Outlet Mall - Growth Rates

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi All,

I hope this email finds you well.

I am writing to seek confirmation on the growth rates applicable to the study area roadways listed below, considering the challenges associated with calibrating existing traffic counts and the anticipated long-term effects of the Ministry of Transportation (MTO) construction. If you could kindly indicate the recommended growth rates to be applied to the municipal, regional and MTO roadways that would be greatly appreciated!

Study Area Intersections

- Dixie Rd & Sherway Dr
- Dixie Rd & QEW Ramp/North Service Rd
- Dixie Rd & QEW Ramp/South Service Rd
- Dixie Rd & North Mall Entrance/Rometown Drive
- Dixie Rd & South Mall Entrance
- South Service Rd & East Mall Entrance
- South Service Rd & Mid Mall Entrance
- South Service Rd & West Mall Entrance/Haige Blvd
- South Service Rd & Ogden Avenue
- Lakeshore Rd East & Haig Boulevard
- Lakeshore Rd East & Dixie Rd
- Atwater Ave & Haig Boulevard

Thanks,

Zara Georgis, M.Eng., P.Eng.
Project Manager, Transportation Planning & Engineering
LEA Consulting Ltd.
625 Cochrane Drive, Markham, ON L3R 9R9
C: 437-328-6306 **E:** ZGeorgis@lea.ca **W:** www.LEA.ca

Background Development:
Lakeview Development

7.3.1 Multi-Modal Demand Forecasting

The presence of mixed land uses within the development (residential, retail, office, etc.) was taken into consideration in order to determine the peak hour vehicular traffic generated by Lakeview Village. The residential component of site traffic was determined based on a first principles assessment of the site using a person trip methodology. Vehicular traffic generated by non-residential land uses was calculated using ITE 10th edition methodology. Finally, considerations were made for additional adjustments to vehicular trips due to the multi-use nature of the Lakeview Village development and the close proximity of residential, retail, and office uses.

As previously mentioned in Section 1.2, the Lakeview Village Land Use Plan and Development Phasing Concept adopted in this study was developed based on the latest Development Master Plan 'DMP 4.0', submitted in October 2019 by LCPL. The build-out land uses for the Lakeview Lands that have been utilized for the traffic analysis detailed in this report are based on the current Development Master Plan 4.0 elements but refined to align with planning documents recently submitted to the City, specifically the Draft Plan of Subdivision application submitted in December 2019.

It should be noted that DMP 4.0 proposes a total of 8,026 residential units, while the Draft Plan of Subdivision proposes 8,050 residential units. For the purposes of our study, the 'extra' 24 residential units were assumed to be a mix of mid-rise and high-rise residential units. The non-residential components of the latest Lakeview Plan proposed in DMP 4.0 have been faithfully incorporated into the traffic analysis 'as-is'.

Please note that the previous version of this report (August, 2019) analyzed the Lakeview Village development based on 9,700 residential units compared to the current 8,050 (a decrease of 1,650 units). A summary of the previous 9,700-unit analysis has been provided in this report to continue to present this more conservative operational assessment and to confirm that the higher unit count continues to be supported. Similar non-residential uses and G.F.A. statistics were used for both the current DMP 4.0 and August 2019 analyses.

7.3.2 Residential Trip Generation

The residential multi-modal trip demand was based on the planned number of residential units and estimated occupancy levels. Transportation Tomorrow Survey (TTS) 2011 data was then used to develop residential travel demand for each travel mode (e.g. auto-driver, transit, walk, cycle, etc.) during both the a.m. and p.m. peak hours using person trip methodology.

Residential trip demand was calculated based on the overall number of residential units planned for the development and site traffic was assigned to the road network according to the ultimate buildout for the 2031 and 2041 analysis. A total of 8,050 residential units were planned for the development at the time this report was written.

Table 7-1 details the number of units assigned to each type of residential dwelling and the assumed number of residents based on person per unit (PPU) rates outlined in the City of Mississauga's 2019 Development Charges Background Study, dated April 2019.

The number of residents living in each type of residential dwelling was calculated based on the associated PPU rate listed in the Development Charges study. An overall average occupancy rate of 1.96 PPU was based on the dwelling unit mix, which includes the classification of 67% of all apartments as "small apartments" (units less than 700 square feet). Assuming all 9,700 units will be occupied, 18,956 residents would be living in the Lakeview Village community upon full buildout. Based on 2011 TTS data, Port Credit and the Lakeview area have current occupancy rates of 1.64 and 1.90 people per unit, respectively. As such, an average occupancy of 1.96 people per unit in Lakeview Village is a more conservative estimate than existing occupancy levels.

Table 7-1 – Residential Unit Types

Type of Unit	Number of Units	Persons per Unit (PPU)	Resident Population
Town House	355	3.13	1,111
Apartment	2,539	2.74	6,957
Small Apartment	5,156	1.49	7,682
Total	**8,050**	**1.96**	**15,750**

TTS data was collected to determine the percentage of residents that are expected to travel during the a.m. and p.m. hours using all modes of transportation. TTS data was also used to determine the modal split of individuals traveling during the peak hours and what percentage of travel is inbound and outbound. Detailed TTS data and calculations can be found in Appendix C.

TTS data was collected for the Lakeview area south of the Lakeshore West Rail Corridor to analyze existing travel patterns in the area surrounding Lakeview Village. In addition to the data collected for the Lakeview area, TTS data for Port Credit was also collected and analyzed as a proxy site. Lakeview TTS data was collected from 2006 GTA Traffic Zones 3642, 3643, 3875, and 3876, while Port Credit data was taken from traffic zone 3877.

Port Credit was used as a proxy site for Lakeview Village due to its high residential density, variety of dwelling unit types, and mixed-use retail and office buildings. The residential and mixed-use composition of the Port Credit area is similar to what is planned for the Lakeview Village development. Port Credit is located approximately 3 km to the west of the Lakeview site via Lakeshore Road, representing a similar regional context and exposure to alternative travel modes.

TMIG acknowledges that the current levels of transit connectivity in Port Credit and the Lakeview area vary greatly, in particular with the influence of a GO train station in Port Credit to draw additional transit routes and alternative transportation modes to the area. However, it is expected the introduction of BRT service and city-wide transit initiatives will drive a shift in the existing Lakeview mode split, and transit ridership levels similar to those currently observed in Port Credit can be achieved in the Lakeview area. Similarly, it can be expected that existing transit usage levels in Port Credit will also increase in the future.

Although Port Credit can be considered a viable proxy site for Lakeview Village, the TTS data gathered for the existing Lakeview area and Port Credit were averaged in order to present a more conservative analysis. The averaged data points include the transportation mode splits and percentage of residents traveling during the peak hours, as per 2011 TTS data.

Table 7-2 details the person trip methodology used to forecast residential trip generation of the entire Lakeview Village site based on the averaged Lakeview and Port Credit TTS data. The total residential-based auto-driver trips shown in Table 7-2 include minor adjustments to trip volumes due to interaction with the retail and office land uses within the site. The multi-use adjustment methodology will be discussed in Section 7.3.4.

Based on Table 7-2, the residential component of the Lakeview Village development is expected to generate 1,595 new two-way auto-driver trips during the a.m. peak hour consisting of 401 inbound and 1,194 outbound trips. During the p.m. peak hour, the development is expected to generate 1,966 new two-way auto-driver trips consisting of 1,202 inbound and 764 outbound trips. As stated previously, these total vehicle trip volumes take into account minor adjustments due to interactions with mixed-use nodes within the site that will not require the use of a vehicle trip by residents.

Table 7-2 – Residential Site Trip Generation

Component	Residential Peak Hour Trip Generation					
Number of Units	8,050					
Occupancy	Assume 100% Occupancy					
	Unit Occupancy of 1.96 person/unit					
Number of Residents	15,750					
Residential Trips[1]	Assumed % of residents travelling during the weekday AM peak hour		18.0%	Assumed % of residents travelling during the weekday PM peak hour		20.5%
	# trips during AM peak		2,835	# trips during PM peak		3,229
Modal Split[2]	Split Percentage		Trips	Split Percentage		Trips
Transit	22.5%		638	17.5%		566
Auto-Driver	57.5%		1,630	65.0%		2,099
Auto-Passenger	12.5%		354	15.0%		484
Walk	6.5%		184	1.5%		48
Cycle	1.0%		28	1.0%		32
Directional Distribution[3]	Inbound	Outbound	Total	Inbound	Outbound	Total
	25%	75%	100%	61%	39%	100%
Person Trips						
Transit	160	479	639	345	221	566
Auto-Driver	408	1,223	1,631	1,280	819	2,099
Auto-Passenger	89	266	355	295	189	484
Walk	46	138	184	29	19	48
Cycle	7	21	28	20	12	32
Total Trips	710	2,127	2,837	1,969	1,260	3,229
Auto Trip Rate (veh trips/unit)	0.05	0.15	0.20	0.16	0.10	0.26
Total Auto-Driver Trips used for analysis[4]	**401**	**1,194**	**1,595**	**1,202**	**764**	**1,966**

Notes:
1. Based on 2011 TTS Data for apartment and townhouse dwelling units within 2006 GTA Traffic Zone 3877
2. Based on 2011 TTS Data for residential trips to/from apartment and townhouse dwelling units within 2006 GTA Traffic Zone 3877
3. Directional Distribution based on average of ITE 10e Multi-family Housing LUC 221 (mid-rise) and 222 (High-rise)
4. Mixed-use adjustments hae been applied to the total auto-driver volumes used for analysis and will be discussed in Section 7.3.4.

7.3.3 Non-Residential Trip Generation

Non-residential site traffic was developed using ITE 10th edition trip generation rates. Table 7-3 lists the types of Land Use Codes (LUC) that were applied to each non-residential use. The non-residential components of the latest Lakeview Plan proposed in DMP 4.0 have been incorporated into our traffic model.

The gross trips of the non-residential uses planned within Lakeview Village were calculated using ITE 10th edition trip generation rates with mixed-use adjustments and transit reductions applied. Based on the mode splits obtained from the averaged Lakeview and Port Credit TTS 2011 data, a transit reduction of 22.5% was applied to the a.m. peak hour trips, and 17.5% was applied to the p.m. peak hour trips. Table 7-4 and Table 7-5 summarize the estimated total trip generation of the non-residential component of the site in 2031 and 2041, respectively. It is important to note that the trip totals presented in Table 7-4 and Table 7-5 take into account minor adjustments due to the interaction of residential and non-residential uses within the site that will not warrant a vehicle trip. This mixed-use adjustment is discussed in Section 7.3.4 in greater detail.

Due to the physical layout of the development site, only the multi-use node at Lakeshore Road East and Hydro Road was considered eligible to attract pass-by trips from existing traffic. However, its close proximity to a signalized intersection with median-running BRT bus lanes make it a problematic location for cars to enter and exit the multi-use node without considerable deviations to their travel route along Lakeshore Road.

The relatively close spacing of 170 metres between the signalized intersections of Hydro Road and Haig Boulevard on Lakeshore Road makes the placement of a mid-block access to Lakeshore Road unlikely. The main access to the multi-use node will likely be placed on the east side of Hydro Road. Southbound traffic from Lakeshore Road seeking to turn left into the mixed-use node may have to contend with the peak hour northbound queue from the Hydro Road and Lakeshore Road intersection extending past the access point. As such, the analysis did not consider the addition of pass-by traffic to the multi-use node due to its anticipated lack of ease of access.

Table 7-3 – Lakeview Village Non-Residential Land Use Statistics

ITE Land Use Code	Proposed G.F.A. (sq. ft.) or # of Rooms
LUC 820 – Retail, Shopping Center	147,078 G.F.A.
LUC 710 – General Office Building	876,817 G.F.A.
LUC 760 – Research and Development Center	876,807 G.F.A.
LUC 495 – Recreational Community Center	194,278 G.F.A.
LUC 310 – Hotel	191 Rooms

TMIG investigated developing non-residential 'person trip' based generation rates instead of the more traditional methods of GFA-based trip rates presented in this report. However, TMIG maintains that using GFA-based ITE trip generation rates for the non-residential component of the Lakeview Village development is the most appropriate course of action at this time based on the minimal amount of non-residential 'person-derived' trip data available (the GFA-based method is represented by many more surveys, and therefore carries more legitimacy and credibility).

Furthermore, many other assumptions and/or data sets would be needed to provide a wholesome trip generation exercise for non-residential uses in addition to using Floor Space per Worker (FSW) rates. Some examples of additional assumptions and information that would need to be determined are:

- Varying shift start and end times for workers that effect the percentage of total employees traveling during the adjacent street peak hours (unpredictable based on current breakdown of land uses)
- Volume of customers and patrons traveling to non-residential uses during the adjacent street peak hours is not determined by the number of employees (customer volumes are highly driven by the type of land use, of which such level of detail is not yet available)
- The percentage of people both living and working within the development, i.e. highly likely to be non-auto based trips

Table 7-4 – 2031 Non-Residential Site Trip Generation

Land Use	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	Gross Trips	140	85	225	347	376	723
	Mixed-Use Adjustments	66	37	103	63	106	169
	Transit Reduction	17	11	28	50	47	97
	New Trips	57	37	94	234	223	457
Office	Gross Trips	732	119	851	143	753	896
	Mixed-Use Adjustments	40	25	65	40	34	74
	Transit Reduction	156	21	177	18	126	144
	New Trips	536	73	609	85	593	678
Research & Development	Gross Trips	276	92	368	65	365	430
	Mixed-Use Adjustments	15	20	35	18	16	34
	Transit Reduction	59	16	75	8	61	69
	New Trips	202	56	258	39	288	327
Community Center	Gross Trips	174	90	264	190	215	405
	Mixed-Use Adjustments	0	0	0	0	0	0
	Transit Reduction	39	20	59	33	38	71
	New Trips	135	70	205	157	177	334
Hotel	Gross Trips	53	37	90	60	57	117
	Mixed-Use Adjustments	0	0	0	0	0	0
	Transit Reduction	0	0	0	0	0	0
	New Trips	53	37	90	60	57	117
Total	New Trips	983	273	1,256	575	1,338	1,913

- An employee could make multiple trips to and from, or within the development in a given hour e.g. deliveries, running errands for a company, morning check-in before working off-site, etc.
- A customer could enter and exit the site within a given peak hour.

A greater degree of detail can be applied to non-residential trip generation at a later date, such as at site plan application level when the specific tenant or non-residential use is known with greater certainty. As stated previously, the total non-residential vehicle trip volumes take into account minor adjustments due to the interaction of mixed-use nodes and residential areas within the site that will not require the use of a vehicle trip by residents. In 2031, Including mixed-use adjustments and transit reductions, the non-residential component of the Lakeview Village development is expected to generate 1,256 new two-way auto-driver trips during the a.m. peak hour consisting of 983 inbound and 273 outbound trips. During the p.m. peak hour, the development is expected to generate 1,913 new two-way auto-driver trips consisting of 575 inbound and 1,338 outbound trips.

7.3.4 Mixed-Use Considerations and Adjustments

An integral part of the vision for Lakeview Village is to design a community that is multi-modal in nature. In addition to providing the infrastructure, such as bicycle lanes and multi-use pathways, creating destinations within the community that are within walking distance of residential areas is a key consideration in the planning process.

The presence of multi-use nodes throughout the development will encourage residents to use an alternate mode of transportation to reach their destination. This will aid in reducing auto-driver trips generated that travel from one destination to another within the site itself. To account for the interaction of residential and non-residential uses present within the site, the study adopted the mixed-use development trip generation methodology presented in chapter 6 of the ITE 3rd edition Trip Generation Handbook.

The ITE mixed-use development trip generation methodology looks at on-site land use pairs within a multi-use development to determine internal capture volumes. The types of land uses that can be applied to this method are:

- Office
- Retail
- Restaurant
- Cinema/Entertainment
- Residential
- Hotel

In the context of the Lakeview Village development, residential, retail, and office land uses were considered as a part of the multi-use internal capture calculations. The cultural hub, although likely to attract a high number of trips internal from Lakeview Village, is expected to generate the majority of its trips outside of the peak hours. The ITE method provides internal capture percentages that have been observed between land-use pairs and identifies the demand of internal person trips in each direction between land uses. The lower of the two-person trip demands between a land use pair is then used to adjust the number of trips generated by a given land use by separating generated trips into internal and external trips.

The internal capture calculations performed on site trips generated during the 2031 a.m. and p.m. peak hour by residential, retail, and office land uses are in Appendix D.

The internal capture adjustments that were applied to the total vehicle trips generated by the residential and non-residential components of the Lakeview Village development are summarized in Table 7-2 and Table 7-4, respectively.

Table 7-5 – 2041 Non-Residential Site Trip Generation

Land Use	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	Gross Trips	140	85	225	347	376	723
	Mixed-Use Adjustments	66	37	106	63	106	169
	Transit Reduction	17	11	28	50	47	97
	New Trips	57	37	94	234	223	457
Office	Gross Trips	732	119	851	143	753	896
	Mixed-Use Adjustments	36	20	56	31	30	61
	Transit Reduction	157	22	179	20	127	147
	New Trips	539	77	616	92	596	688
Research & Development	Gross Trips	276	92	368	65	365	430
	Mixed-Use Adjustments	14	16	30	14	14	28
	Transit Reduction	59	17	76	9	61	70
	New Trips	203	59	262	42	290	332
Community Center	Gross Trips	174	90	264	190	215	405
	Mixed-Use Adjustments	0	0	0	0	0	0
	Transit Reduction	39	20	59	33	38	71
	New Trips	135	70	205	157	177	334
Hotel	Gross Trips	53	37	90	60	57	117
	Mixed-Use Adjustments	0	0	0	0	0	0
	Transit Reduction	53	37	90	60	57	117
	New Trips	47	32	79	56	54	110
Total	**New Trips**	**987**	**280**	**1,267**	**585**	**1,343**	**1,928**

In 2031, with transit and internal capture adjustments taken into consideration, the Lakeview Village development is expected to generate a total of 2,851 new two-way auto-driver trips during the a.m. peak hour consisting of 1,384 inbound and 1,467 outbound trips. During the p.m. peak hour, the development is expected to generate 3,879 new two-way auto-driver trips consisting of 1,777 inbound and 2,102 outbound trips.

As discussed in the background development trip generation section of this report, Section 7.5.2, the northern portion of the Serson Innovation Corridor (herein referred to as Serson North), located north of Serson Creek, is expected to be constructed by the 2041 planning horizon. Although the northern Serson extension is not a part of the Lakeview Village development, its placement directly east of the mixed-use node at Hydro Road and Lakeshore Road East will allow for direct interaction between the developments in 2041.

The Lakeview Village mixed-use internal capture calculations were recreated for the 2041 scenario with the interaction between the Lakeview Village multi-use node and the office component of Serson North taken into account. The 2041 mixed-use internal capture calculations are located in Appendix D. Table 7-6 provides a comparison of the 2031 and 2041 site traffic volumes. The 2041 site traffic volumes were produced by updating the 2031 site volume calculations with the 2041 mixed-use internal capture volumes.

Table 7-6 – 2031 and 2041 Total Residential and Non-Residential Site Trip Generation

Year	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
2031	Residential Trips	401	1,194	1,595	1,202	764	1,966
	Non-Residential Trips	983	273	1,256	575	1,338	1,913
	Total Trips	**1,384**	**1,467**	**2,851**	**1,777**	**2,102**	**3,879**
2041	Residential Trips	401	1,189	1,590	1,198	764	1,962
	Non-Residential Trips	987	280	1,267	585	1,343	1,928
	Total Trips	**1,388**	**1,469**	**2,857**	**1,783**	**2,107**	**3,890**

Table 7-7 – Site Trip Distribution

Direction To/From		AM Peak Hour		PM Peak Hour	
		In (%)	Out (%)	In (%)	Out (%)
East	Dixie Road	12	15	12	10
	Brown's Line	13	20	23	10
West	Cawthra Road	30	20	15	25
	Lakeshore Road west of Cawthra Road	25	25	30	35
North	Alexandra Avenue	0	2	0	2
	Ogden Avenue	13	12	13	12
	Haig Boulevard	7	6	7	6
Total		**100**	**100**	**100**	**100**

In 2041, with transit and internal capture adjustments taken into consideration, the Lakeview Village development is expected to generate 2,857 new two-way auto-driver trips during the a.m. peak hour consisting of 1,388 inbound and 1,469 outbound trips. During the p.m. peak hour, the development is expected to generate 3,890 new two-way auto-driver trips consisting of 1,783 inbound and 2,107 outbound trips.

7.3.5 Site Trip Distribution and Assignment

The distribution of site traffic was derived from 2011 TTS data for the Lakeview Village study area (2006 GTA Traffic Zones 3642, 3643, 3875, and 3876). Site traffic for each development phase was assigned a north-south

route from the Lakeview Village site to Lakeshore Road East before being distributed to the larger road network according to the directional splits presented in Table 7-7. TTS data used to develop the distribution of site traffic can be found in Appendix C.

As presented in Table 7-7, there are several entrance/exit points to/from the site to the east, west, and north. Although the majority of traffic is identified as having an origin/destination to the east or west of the site, many of these routes require travel to/from the QEW north of the study area. Interchanges at Cawthra Road and Dixie Road (which will be converted to a full moves interchange before 2031) provide motorists direct access to both Cawthra Road and Dixie Road, but also the South Service Road. Using the south service road, motorists are able to access three additional north-south roads that connect to Lakeshore Road to the south; Alexandra Avenue, Ogden Avenue, and Haig Boulevard.

It was assumed that traffic would not travel south to the Lakeview Village development via Alexandra Avenue upon the conversion of its intersection at Lakeshore Road East to right-in/right-out operations to accommodate the median-running BRT lanes. A southbound vehicle on Alexandra would be required to turn right at Lakeshore Road and travel west, away from the Lakeview Village development, before either turning left or performing a U-turn at East Avenue to access a north-south route into the Lakeview site. Accordingly, it was assumed that southbound traffic from South Service Road would use a more direct, convenient route to Lakeview Village, such as Ogden Avenue or Haig Boulevard.

As will be discussed in further detail in Section 7.6.2, Ogden Avenue and Haig Boulevard are currently classified as a major and minor collector roads, respectively, as documented in the Mississauga Official Plan Amendment 89. Although these local north-south roads do not currently attract a significant number of trips as an alternative to Cawthra Road and Dixie Road, as confirmed through discussions with City staff, both Ogden Avenue and Haig Boulevard have the potential to accommodate additional traffic as collector roads. Some of this infiltration will be due to existing and future capacity constraints at Cawthra Road and Dixie Road.

The conversion of the existing QEW and Dixie Road interchange to a full-moves interchange has the potential to attract additional trips to Dixie Road in the future. However, the recent reduction of Dixie Road from two travel lanes in each direction to one lane south of Londonderry Boulevard must also be considered. The loss of a travel lane in each direction has provided space for bicycle lanes to promote active transportation in the area, however, Dixie Road's vehicular capacity has been diminished by the reduction of lanes.

Accordingly, changes to existing travel patterns were considered to account for increased congestion along Dixie Road and at the intersection of Dixie Road and Lakeshore Road East. Despite the small detour to access the Dixie Road or Cawthra Road interchanges via South Service Road, Lakeview Village traffic will view the north-south roads, such as Ogden Avenue, as a viable and attractive option when compared to the anticipated increase in congestion along Lakeshore Road East, Dixie Road, and Cawthra Road. As such, a non-trivial amount of north-south traffic is expected to make use of the South Service Road, via Ogden Avenue and Haig Boulevard, to access the QEW interchanges.

It was assumed that all the transportation infrastructure required to accommodate the full build-out of the Lakeview Village development will be implemented by 2031.

The estimated site trips generated by the Lakeview Village development in 2031 and 2041 were assigned to the study area road network for the weekday a.m. and p.m. peak hours as shown in Figure 7-1 and Figure 7-2 respectively.

Existing traffic patterns along Rangeview Road were assumed to be unchanged in 2031, as the Rangeview Estates background development will not be complete until the 2041 planning horizon. Adjustments made to Rangeview Road traffic patterns in 2041 are discussed in Section 7.5.1.2 of this report.

7.3.6 Transit Trip Generation

As seen in Table 7-2 and Table 7-4 of Section 7.3, transit reductions of 22.5% and 17.5% were applied to site traffic during the a.m. and p.m. peak hours, respectively. The transit reductions were applied to both residential and non-residential trips generated by Lakeview Village. The total transit trips that will originate or be destined for Lakeview Village are summarized in Table 7-8.

Calculations were performed to determine the number of buses and associated headways required to service the transit demand of Lakeview Village. Both the BRT route along Lakeshore Road East and the local route servicing the Lakeview Village site were considered.

Table 7-8 – Lakeview Village Estimated Transit Ridership

Generator of Transit Ridership	AM Peak Hour		PM Peak Hour	
	IN	OUT	IN	OUT
Residential	160	479	345	221
Retail	17	11	50	47
Office	156	21	18	126
R&D	59	16	8	61
Recreation Center	39	20	33	38
Hotel	0	0	0	0
Total	**431**	**547**	**454**	**493**

Table 7-9 – Nova Bus LFS Diesel and LFS Arctic Passenger Capacities

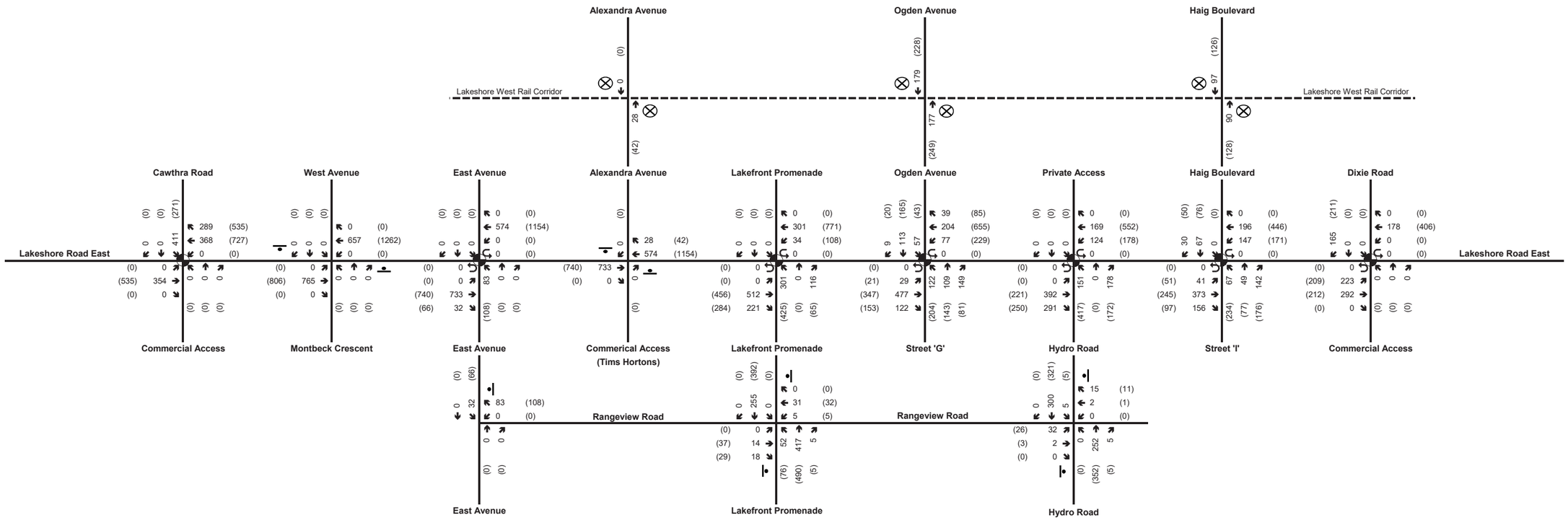
Type of Capacity	LFS Diesel 40′ (Local Route)	LFS Artic 62′ (BRT Route)
Seating Capacity	Up to 41 passengers	Up to 62 passengers
Loading Capacity (max. seated and standing)	Up to 80 passengers	Up to 112 passengers
Average	Up to 61 passengers	Up to 87 passengers

For the purpose of calculations, capacity statistics for bus models from MiWay's most recent Nova Bus order were taken from the manufacturer's website. The local route was assumed to run 40′ Nova Bus LFS models, while the BRT was assumed to run 62′ articulated Nova Bus LFS Artic models. Bus specification summary sheets for both Nova Bus models can be found in Appendix H.

A range of capacities were considered, as each will provide a varying degree of passenger comfort and the minimum number of buses required to cover the transit demand of the development. MiWay staff will be able to perform more detailed calculations in the future to optimize the number of buses required for each route based on MiWay guidelines for capacity and passenger comfort levels. Table 7-9 summarizes the range of passenger capacities used to calculate the required number of buses for each route.

In order to reach the BRT route, residents and employees of Lakeview Village may either walk or cycle north to Lakeshore Road East or use the proposed local bus loop circulating through the site along the planned collector road network. To account for transit users that will use active transportation options to reach the BRT route, it was assumed that any residents or employees located north of Street 'B' would use alternate transportation methods to reach Lakeshore Road East.

2031 SITE TRAFFIC VOLUMES



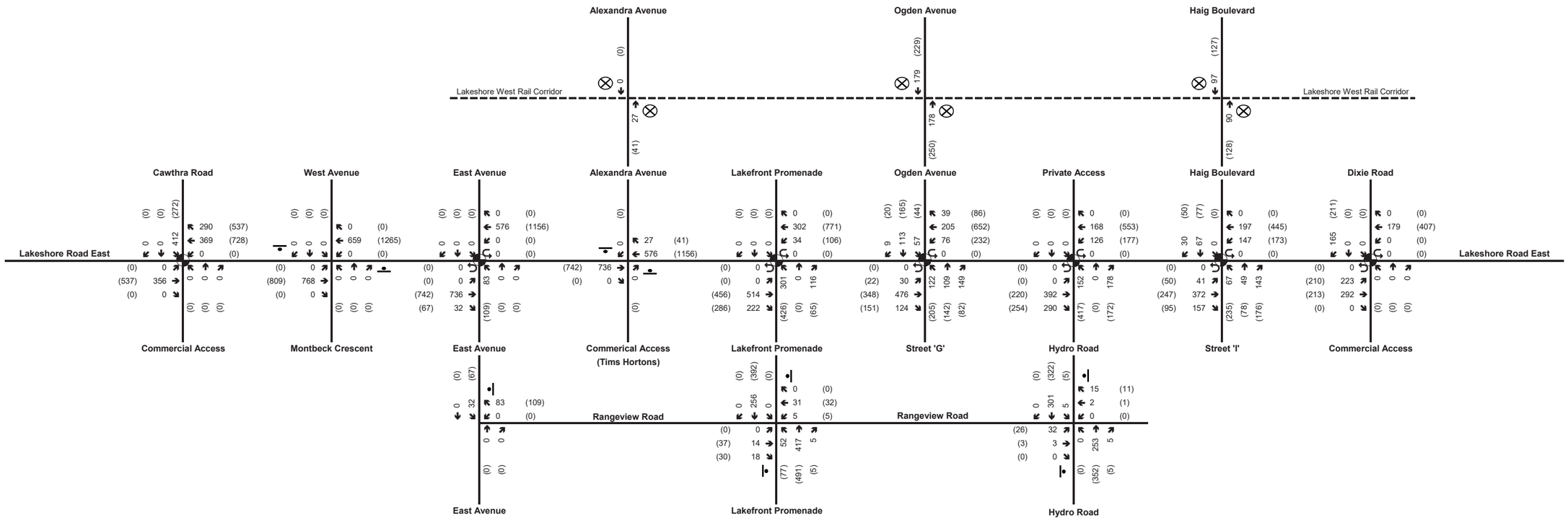
LEGEND

XX AM Peak Hour Volumes
(XX) PM Peak Hour Volumes
Signalized Intersection
Stop Control
Railroad Crossing

NOT TO SCALE

Figure 7-1 – 2031 Site Traffic Volumes

2041 SITE TRAFFIC VOLUMES



LEGEND

XX AM Peak Hour Volumes
(XX) PM Peak Hour Volumes
Signalized Intersection
Stop Control
Railroad Crossing

NOT TO SCALE

Figure 7-2 – 2041 Site Traffic Volumes

Table 7-10 – Reduced Lakeview Village Local Transit Ridership

Ridership Description	AM Peak Hour		PM Peak Hour	
	IN	OUT	IN	OUT
Total Lakeview Village Ridership	431	547	454	493
Active Transportation Reduction	80	97	78	88
Local Loop Transit Ridership	351	450	376	405
Percentage of Total Lakeview Village Ridership removed from Local Loop	19%	18%	17%	18%

Table 7-11 – Local Transit Loop Route – Minimum Operational Requirements

Capacity Level	Capacity (passengers)	Number of Nova Bus LFS 40′ Required (Min. Headway in minutes)					
		AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Seating	41	9 (7)	11 (5)	20 (--)	10 (6)	10 (6)	20 (--)
Average	61	6 (10)	8 (8)	14 (--)	7 (9)	7 (9)	14 (--)
Loading	80	5 (12)	6 (10)	11 (--)	5 (12)	6 (10)	11 (--)

Table 7-12 – Adjusted Auto-Driver Directional Splits Applied to Transit Trips

Direction To/From	AM Peak Hour		PM Peak Hour	
	IN	OUT	IN	OUT
East via Dixie Road, Brown's Line, and Lakeshore Road	35%	45%	45%	30%
West via Cawthra Road and Lakeshore Road	65%	55%	55%	70%
North via Ogden Avenue and Haig Boulevard	0%	0%	0%	0%
Total	100%	100%	100%	100%

Table 7-13 – Lakeshore Road BRT Route – Minimum Operational Requirements

Capacity Level	Capacity (passengers)	Number of Nova Bus LFS Artic 62′ Required (Min. Headway in minutes)							
		Eastbound				Westbound			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		IN	OUT	IN	OUT	IN	OUT	IN	OUT
Seating	62	5 (12)	4 (15)	5 (12)	3 (20)	3 (20)	5 (12)	4 (15)	6 (10)
Average	87	4 (15)	3 (20)	3 (20)	2 (30)	2 (30)	4 (15)	3 (20)	4 (15)
Loading	112	3 (20)	3 (20)	3 (20)	2 (30)	2 (30)	3 (20)	2 (30)	4 (15)

Table 7-10 details the transit ridership reductions made to the local transit loop route to account for the use of active transportation to reach the planned BRT/local transit service. Overall, approximately 19% or less of the total transit ridership generated by Lakeview Village is estimated to be within 450m of Lakeshore Road East. It was assumed that this 19% or less ridership will use active transportation instead of the local transit loop to reach the Lakeshore BRT/local transit service.

It was assumed that all Lakeview Transit users would utilize the Lakeshore Road BRT line to travel to their destinations, transfer to other MiWay routes, or travel to either Long Branch GO, or Port Credit GO to access other transit providers such as the TTC or Metrolinx (GO trains and buses). As such, the ridership numbers shown in Table 7-8 were used without any reductions for BRT calculations.

The ridership and bus model capacity for each route was used to determine the number of buses required during the a.m. and p.m. peak hours, along with the corresponding minimum headway. It is important to note that these calculations only took into account ridership to and from the Lakeview Village site. In reality, a greater number of buses and smaller headways between buses will be required to account for any existing and future ridership demand in the Lakeview area and along the Lakeshore Road corridor.

Table 7-11 summarizes the calculations performed for the local loop bus route through the Lakeview Village site. On average, a total of 14 Nova Bus LFS 40′ buses will be required to meet demand during both the a.m. and p.m. peak hour. To accommodate the estimated Lakeview Village transit ridership, the average minimum headway required between buses during the a.m. peak hour is eight minutes, and nine minutes during the p.m. peak hour.

As a part of determining the minimum operational requirements for the BRT route, the directional splits applied to the auto-driver component of trips generated by Lakeview Village were also applied to the transit trips. The 20% of traffic that was assigned to the north was divided evenly between the east and west, as the BRT will connect to north-south local routes at both Cawthra Road and Dixie Road, to the west and east of the site, respectively. Table 7-12 provides the adjusted directional splits that were applied to transit trips after adjusting the northern component of the original auto-driver directional splits.

The directional splits presented in Table 7-12 were applied to the Lakeview Village transit trips to determine the number of 62′ articulated buses that would be needed in the eastbound and westbound directions during the a.m. and p.m. peak hours. The minimum operational requirements for the BRT route to support the Lakeview Village transit demand are summarized in Table 7-13.

At an average capacity level, a maximum of four eastbound buses with minimum headways of 15 minutes will be required during the a.m. and p.m. peak hours. On average, a maximum of four westbound buses during both the a.m. and p.m. peak hours would be required to operate at minimum headways of 15 minutes to accommodate the estimated Lakeview Village transit ridership.

7.4 2031 Business as Usual Sensitivity

TMIG analyzed a 'Business as Usual' (BAU) scenario at the 2031 planning horizon to determine the potential impacts of development in the area (including full build-out of Lakeview Village) without the planned BRT service along the Lakeshore Road corridor.

To identify the effects of the median-running BRT service not being in place by the projected 2031 full build-out of Lakeview Village, the following assumptions were made to create the 2031 Total BAU model:

- No exclusive median-running BRT lanes;
- No right-in/right-out intersections within study area;
- 2018 existing lane configurations will be maintained with the exception of modifications to the south legs of Lakefront Promenade, Ogden Avenue, and Hydro Road at Lakeshore Road East to accommodate Lakeview Village traffic demand;
- Signalization of Hydro Road and Lakeshore Road East;
- 2018 existing signal timings optimized; and
- Lakeview Village site trip generation updated to reflect the existing modal split (with lower transit / active transportation usage) during a.m. and p.m. peak hours.

7.4.1 BAU Multi-Modal Demand Forecasting

The site trip generation methodology presented in Section 7.3.1 of this report was also used to determine the number of trips that would be generated by the Lakeview Village development at full-build out if the BRT route was not in place within the study area.

While the 2031 Total trip generation calculations made use of modal splits based on averaged 2011 TTS data from Port Credit and the Lakeview area, the 2031 Total BAU trip generation calculations used a modal split derived solely from 2011 TTS data for the Lakeview area. A comparison of modal split values for Port Credit and the Lakeview area, and an average of both is presented in Table 7-14.

As shown in Table 7-14, The 2031 BAU trip generation had a transit reduction of 15% applied to both the a.m. and p.m. peak hour traffic, a decrease of 7.5% and 2.5% respectively when compared to the transit modal splits applied to the 2031 Total trip generation. To keep the results of the 2031 Total and 2031 Total BAU a.m. scenarios directly comparable, the assumed percentage of Lakeview Village residents traveling during the a.m. and p.m. peak hours remained the same as the values derived for the 2031 Total residential trip generation.

Table 7-15 summarizes the residential person-trip calculations performed for the 2031 BAU scenario, and Table 7-16 shows the ITE 10th edition trip generation results for the non-residential land uses with the new transit modal split values applied. Finally, Table 7-17 provides the total residential and non-residential trips used for the purposes of analysis.

Table 7-14 – 2011 TTS Modal Splits for Port Credit and Lakeview

Mode of Transportation	Port Credit[1]		Lakeview[2]		Average	
	AM	PM	AM	PM	AM	PM
Transit	30.0%	20.0%	15.0%	15.0%	22.5%	17.5%
Auto-Driver	60.0%	60.0%	55.0%	70.0%	57.5%	65.0%
Auto-Passenger	5.0%	15.0%	20.0%	15.0%	12.5%	15.0%
Walk	3.0%	3.0%	10.0%	0.0%	6.5%	1.5%
Cycle	2.0%	2.0%	0.0%	0.0%	1.0%	1.0%
Total	100%	100%	100%	100%	100%	100%

Notes:
1. Based on 2011 TTS Data for residential trips to/from apartment and townhouse dwelling units within 2006 GTA Traffic Zones 3877
2. Based on 2011 TTS Data for residential trips to/from apartment and townhouse dwelling units within 2006 GTA Traffic Zones 3642, 3643, 3875, and 3876

Table 7-15 – 2031 BAU Residential Site Trip Generation

Component	Residential Peak Hour Trip Generation					
Number of Units	8,050					
Occupancy	Assume 100% Occupancy					
	Unit Occupancy of 1.96 persons/unit					
Number of Residents	15,750					
Residential Trips[1]	Assumed % of residents traveling during the weekday AM peak hour		18%	Assumed % of residents traveling during the weekday PM peak hour		20.5%
	# trips during AM peak		2,835	# trips during PM peak		3,229
Modal Split[2]	Split Percentage		Trips	Split Percentage		Trips
Transit	15%		425	15%		484
Auto-Driver	55%		1,559	70%		2,260
Auto-Passenger	20%		567	15%		484
Walk	10%		284	0%		0
Cycle	0%		0	0%		0
Directional Distribution[3]	Inbound	Outbound	Total	Inbound	Outbound	Total
	25%	75%	100%	61%	39%	100%
Person Trips						
Transit	106	319	425	295	189	484
Auto-Driver	390	1,169	1,559	1,379	881	2,260
Auto-Passenger	142	425	567	295	189	484
Walk	71	213	284	0	0	0
Cycle	0	0	0	0	0	0
Total Trips	709	2,126	2,835	1,969	1,259	3,228
Auto Trip Rate (veh trips/unit)	0.05	0.15	0.19	0.17	0.11	0.28
Total Auto-Driver Trips used for analysis[4]	**383**	**1,141**	**1,524**	**1,295**	**821**	**2,116**

Notes:
1. Based on 2011 TTS Data for apartment and townhouse dwelling units within 2006 GTA Traffic Zone 3642, 3643, 3875, 3876, and 3877
2. Based on 2011 TTS Data for residential trips to/from apartment and townhouse dwelling units within 2006 GTA Traffic Zones 3642, 3643, 3875, 3876, and 3877
3. Directional Distribution based on average of ITE 10e Multi-family Housing LUC 221 (mid-rise) and 222 (High-rise)
4. Mixed-use adjustments have been applied to the total auto-driver volumes used for analysis and will be discussed in Section 7.3.4.

Table 7-16 – 2031 BAU Non-Residential Site Trip Generation

Land Use	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	Gross Trips	140	85	225	347	376	723
	Mixed-Use Adjustment	66	37	103	63	106	169
	Transit	11	7	18	43	40	83
	New Trips	63	41	104	241	230	471
Office	Gross Trips	732	119	851	143	753	896
	Mixed-Use Adjustment	40	25	65	40	34	74
	Transit	104	14	118	15	108	123
	New Trips	588	80	668	88	611	699
Research & Development	Gross Trips	276	92	368	65	365	430
	Mixed-Use Adjustment	15	20	35	18	16	34
	Transit	39	11	50	7	52	59
	New Trips	222	61	283	40	297	337
Community Center	Gross Trips	174	90	264	190	215	405
	Mixed-Use Adjustment	0	0	0	0	0	0
	Transit	26	13	39	28	32	60
	New Trips	148	77	225	162	183	345
Hotel	Gross Trips	53	37	90	60	57	117
	Mixed-Use Adjustment	0	0	0	0	0	0
	Transit	0	0	0	0	0	0
	New Trips	53	37	90	60	57	117
Total	**New Trips**	**1,074**	**296**	**1,370**	**591**	**1,378**	**1,969**

Table 7-17 – 2031 BAU Total Residential and Non-Residential Site Trip Generation

Year	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
2031 BAU	Residential Trips	383	1,141	1,524	1,295	821	2,116
	Non-Residential Trips	1,074	296	1,370	591	1,378	1,969
	Total Trips	**1,457**	**1,437**	**2,894**	**1,886**	**2,199**	**4,085**

7.4.2 Trip Distribution and Assignment

The site trip distribution and assignment methodology presented in Section 7.3.5 of this report was also applied to the trips that would be generated by the Lakeview Village development at full-build out if the BRT route was not in place within the study area.

The estimated site trips generated by the Lakeview Village development under the 2031 BAU scenario were assigned to the study area road network for the weekday a.m. and p.m. peak hours as shown in Figure 7-3.

7.5 Background Developments

7.5.1 Rangeview Estates

The Rangeview Estates development north of Lakeview Village lands is made up of parcels of land not owned by LCPL but are included in the Lakeview Major Node Character Area of the City's Official Plan. These parcels are subject to the City's MOP policies and have the potential to develop over a longer period of time compared to Lakeview Village, as they contain existing businesses, and development will require the sale and land assembly of various parcels. During pre-consultation with City transportation staff, it was determined that the Rangeview Estates development will commence construction post 2031 and will reach full-build out by the 2041 planning horizon.

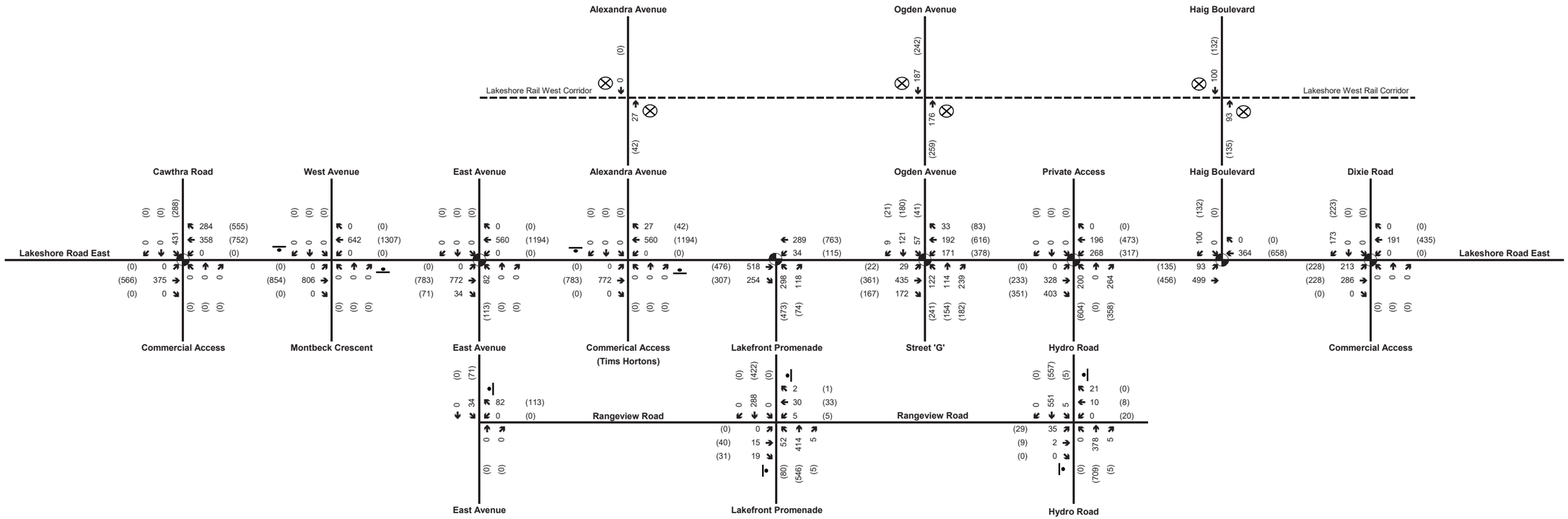
The Rangeview Estates development will span from East Avenue in the west to Hydro Road in the east. Lakeshore Road East acts as the Lakeview Village development's northern boundary, and its limits abut Lakeview Village lands south of Rangeview Road. Figure 7-4 details the extent of the Rangeview Estate lands and its location relative to the Lakeview Village development.

7.5.1.1 Trip Generation

The Rangeview Estates site has been envisioned as a mixed-use development, comprised of residential, retail, and commercial uses. While site statistics for the Rangeview Estates development are still preliminary, the site statistics have been extracted from 'Inspiration Lakeview Conceptual Municipal Servicing Strategy – Appendix A & C', dated July 23, 2014, prepared by TMIG (2014 TMIG Servicing Strategy), see Appendix E, and were used for trip generation purposes. The total commercial GFA proposed was 59,502ft^2 located within Private Parcel Areas #4 and #5, as summarized in 2014 TMIG Servicing Strategy Appendix A & C.

The Lakeview Waterfront OPA provides for a mixed-use community that includes a wide range and mix of uses including residential, employment, institutional, recreational, park and open space. The distribution of land uses reflects opportunities on Lakeshore Road providing visibility for commercial uses. Comparison of the 2014 TMIG Servicing Strategy land use assumptions with MOPA89 observed an increase in the total mixed-use development lands proposed along Lakeshore Road East. The 34,800ft^2 commercial GFA estimated for Private Parcel #4 was therefore doubled to reflect mixed-uses located in Private Parcel #3. As a result, the Rangeview Estates total mixed-use GFA estimates increased from 59,502ft^2 to 94,303ft^2 and subsequently

2031 BUSINESS AS USUAL
SITE TRAFFIC VOLUMES



LEGEND

XX AM Peak Hour Volumes
(XX) PM Peak Hour Volumes
Signalized Intersection
Stop Control
Railroad Crossing

NOT TO SCALE

Figure 7-3 – 2031 Business as Usual Site Traffic Volumes

Figure 7-4 – Rangeview Estates Site Location

split in half between office and retail commercial uses. The estimated Rangeview Estates land use summary is presented in Table 7-18.

The same trip generation methodology applied to the Lakeview Village development was also applied to the Rangeview Estates lands. Trips produced by the residential component of the site were developed on a person trip basis using 2011 TTS data, drawing upon Port Credit's modal split patterns as a proxy site to account for the higher-order transit that is planned for the Lakeshore Road corridor.

Table 7-18 – Rangeview Estates Land Use Summary

Land Use	Number of Units or GFA (ft^2)
Residential	2,981 Units
Retail	47,151 ft^2
Office	47,152 ft^2

Source: Inspiration Lakeview Conceptual Municipal Servicing Strategy – Appendix C

The average PPU rate was adjusted to reflect the estimated residential unit mix of Rangeview Estates instead of the Lakeview Village PPU. It was assumed that no townhouses will be built in Rangeview Estates lands, but only apartments. A standard 40% of the units were assumed to be "small apartments" with 700 ft2 G.F.A. or less, as per the City of Mississauga's Development Charges Study. These assumptions resulted in a PPU of 2.18.

Table 7-19 summarizes the trip generation results of the residential component of the Rangeview Estates development. The residential trip generation methodology is discussed in greater detail in Section 7.3.2 of this report.

Table 7-19 – Rangeview Estates Residential Site Trip Generation

Component	Residential Peak Hour Trip Generation					
Number of Units	2,981					
Occupancy	Assume 100% Occupancy					
	Unit Occupancy of 2.18 persons/unit					
Number of Residents	6,492					
Residential Trips[1]	Assumed % of residents traveling during the weekday AM peak hour		18.0%	Assumed % of residents traveling during the weekday PM peak hour		20.5%
	# trips during AM peak		1,169	# trips during PM peak		1,331
Modal Split[2]	Split Percentage		Trips	Split Percentage		Trips
Transit	22.5%		263	17.5%		233
Auto-Driver	57.5%		672	65.0%		865
Auto-Passenger	12.5%		146	15.0%		200
Walk	6.5%		76	1.5%		20
Cycle	1.0%		12	1.0%		13
Directional Distribution[3]	Inbound	Outbound	Total	Inbound	Outbound	Total
	25%	75%	100%	61%	39%	100%
Person Trips						
Transit	66	197	263	142	91	233
Auto-Driver	168	504	672	528	337	865
Auto-Passenger	37	110	147	122	78	200
Walk	19	57	76	12	8	20
Cycle	3	9	12	8	5	13
Total Trips	293	877	1,170	812	519	1,331
Auto Trip Rate (veh trips/unit)	0.06	0.17	0.23	0.18	0.11	0.29
Mixed-use Adjustment	3	6	9	28	13	41
Total Auto-Driver Trips used for analysis[4]	**165**	**498**	**663**	**500**	**324**	**824**

Notes:
1. Based on 2011 TTS Data for apartment and townhouse dwelling units within 2006 GTA Traffic Zone 3877
2. Based on 2011 TTS Data for residential trips to/from apartment and townhouse dwelling units within 2006 GTA Traffic Zone 3877
3. Directional Distribution based on average of ITE 10e Multi-family Housing LUC 221 (mid-rise) and 222 (High-rise)
4. Mixed-use adjustments have been applied to the total auto-driver volumes used for analysis and will be discussed in Section 7.3.4.

Accordingly, the residential component of Rangeview Estates is expected to generate 663 new two-way auto-driver trips during the a.m. peak hour consisting of 165 inbound and 498 outbound trips. During the p.m. peak hour, the development is expected to generate 824 new two-way auto-driver trips consisting of 500 inbound and 324 outbound trips. These total vehicle trip volumes do not take into account minor adjustments due to interactions with mixed-use nodes within the site that will not require the use of a vehicle trip by residents.

Non-residential site traffic was developed using ITE 10th edition trip generation rates. The gross non-residential site trips were then adjusted based on mixed-use calculations and the transit component of the modal splits applied to the site – 22.5% transit in the a.m. peak hour, and 17.5% transit in the p.m. peak hour. Table 7-20 summarizes the gross trips generated by ITE 10th edition trip generation rates and the total number of new trips after adjustments were made to account for mixed-use interaction and transit use.

The non-residential component of Rangeview Estates is expected to generate 169 new two-way auto-driver trips during the a.m. peak hour consisting of 119 inbound and 50 outbound trips. During the p.m. peak hour, the non-residential uses are expected to generate 237 new two-way auto-driver trips consisting of 109 inbound and 128 outbound trips. These total vehicle trip volumes take into account minor adjustments due to the interaction of mixed-use nodes and residential areas within the site that will not require the use of a vehicle trip by residents.

As summarized in Table 7-21, with transit and internal capture adjustments taken into consideration, the Rangeview Estates development is expected to generate 832 new two-way auto-driver trips during the a.m. peak hour consisting of 284 inbound and 548 outbound trips. During the p.m. peak hour, the development is expected to generate 1,061 new two-way auto-driver trips consisting of 609 inbound and 452 outbound trips.

7.5.1.2 Trip Distribution and Assignment

Before the 2041 Rangeview Estates site traffic was assigned to the study area road network, the existing Rangeview traffic was removed from the road network's background traffic.

The process to remove the existing Rangeview traffic from the study area was based on existing traffic volumes and travel patterns along Rangeview Road. The following general assumptions were used to guide the process of removing existing Rangeview Road traffic:

- Only existing Rangeview Road traffic attributable to the light industrial uses with accesses to Rangeview Road were removed. In theory, additional traffic could have been removed from Lakeshore Road East (due to the light industrial uses with accesses to Lakeshore Road being a part of the Rangeview Estates land as well. However, it would prove difficult to identify all traffic currently associated with these uses from TMCs alone).
- Traffic accessing Rangeview Road via East Ave was removed, however, traffic accessing the Lakeview Water Treatment plant remained and was re-routed as required.
- Traffic accessing Rangeview Road via Hydro Road was removed, as was the traffic traveling to/from the lands south of Rangeview Road via Hydro Road.
- Traffic at the Lakefront Promenade intersection was removed or rerouted based on whether it was traveling to/from the Lakefront Promenade recreational uses located south of Rangeview Road.
- Existing traffic that was removed from Rangeview Road was also removed from Lakeshore Road East to the extents of the study area.

Figure 7-5 illustrates the removal of existing traffic volumes generated by the existing Rangeview Estates lands to account for the shift in traffic patterns upon redevelopment of Rangeview Estates within the 2041 planning horizon.

Table 7-20 – Rangeview Estates Non-Residential Site Trip Generation

Land Use Code	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail (LUC 820 – Retail, Shopping Center)	Gross Trips	109	66	175	150	162	312
	Mixed-Use Adjustment	12	8	20	24	45	69
	Transit Reduction	22	13	35	22	20	42
	New Trips	75	45	120	104	97	201
Office (LUC 710 – General Office Building)	Gross Trips	61	10	71	9	47	56
	Mixed-Use Adjustment	4	3	7	2	10	12
	Transit Reduction	13	2	15	2	6	8
	New Trips	44	5	49	5	31	36
Total	**New Trips**	**119**	**50**	**169**	**109**	**128**	**237**

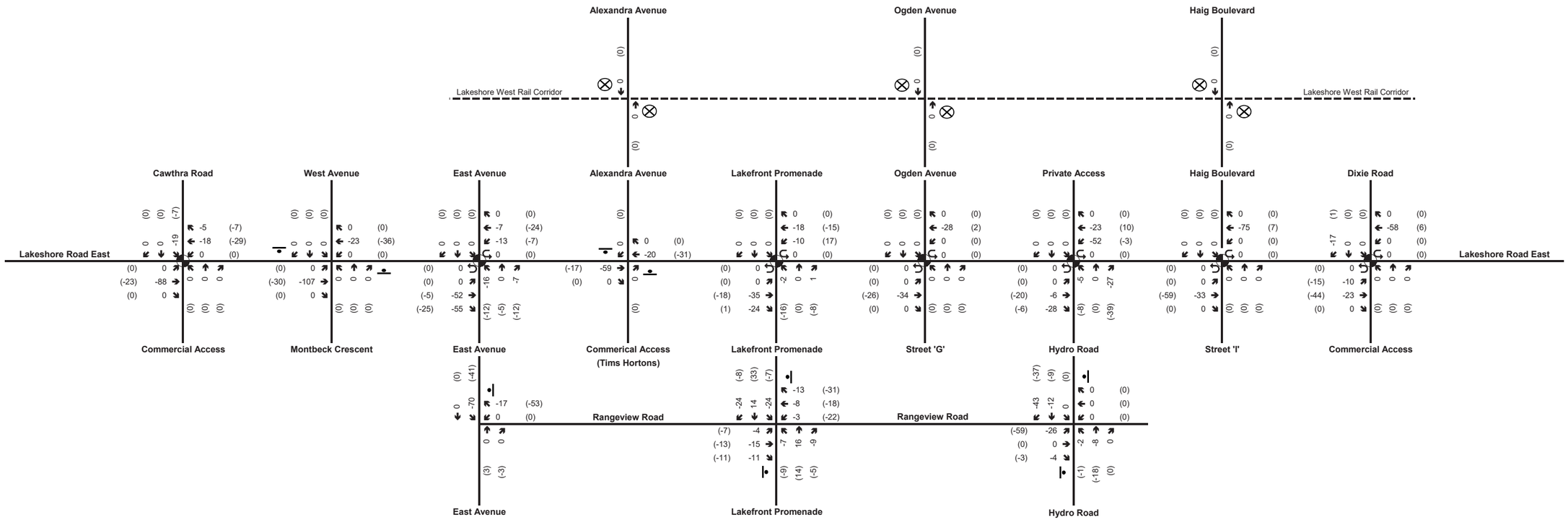
Table 7-21 – Rangeview Estates Residential and Non-Residential Total Site Trip Generation

Year	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
2041	Residential	165	498	663	500	324	824
	Non-Residential	119	50	169	109	128	237
	Total Trips	**284**	**548**	**832**	**608**	**452**	**1,061**

Table 7-22 – Rangeview Estates North-South Trip Distribution

North-South Access Location	AM Peak Hour Inbound / Outbound Traffic	PM Peak Hour Inbound / Outbound Traffic
East Avenue	20%	20%
Lakeshore R-I/R-O Access	5%	5%
Lakefront Promenade	30%	30%
Ogden Avenue	30%	30%
Hydro Road	14%	14%
Haig Boulevard	1%	1%

REROUTING AND REMOVAL
OF EXISTING RANGEVIEW ROAD TRAFFIC



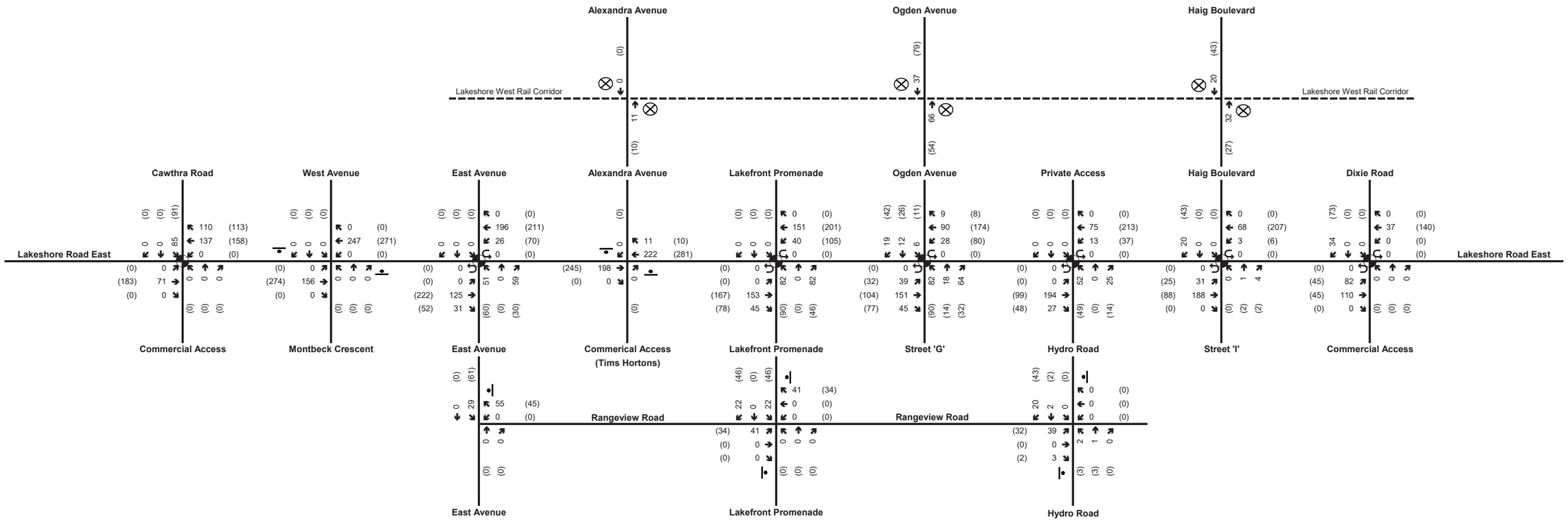
LEGEND

XX AM Peak Hour Volumes
(XX) PM Peak Hour Volumes
Signalized Intersection
Stop Control
Railroad Crossing

NOT TO SCALE

Figure 7-5 – Removal of Existing Rangeview Road Traffic

2041 RANGEVIEW ESTATES
SITE TRAFFIC VOLUMES



LEGEND

XX AM Peak Hour Volumes
(XX) PM Peak Hour Volumes
Signalized Intersection
Stop Control
Railroad Crossing

NOT TO SCALE

Figure 7-6 – 2041 Rangeview Estates Site Traffic Volumes

Figure 7-7 – Serson North Site Location

Rangeview Estates site traffic was assigned to the study area road network in a similar fashion as the trip assignment method used for Lakeview Village site traffic. In 2041, it was assumed that Rangeview Estates traffic would have access to 6 different roads/accesses that provide connections to the development south of Lakeshore Road East.

East Avenue, Lakefront Promenade, Ogden Avenue, Hydro Road, and Haig Boulevard were all considered as connecting roads to Lakeshore Road East. The sixth access point is a mid-block right-in/right-out access that will directly connect Rangeview Estates to Lakeshore Road East. The direct access to Lakeshore Road East was assumed to be located half way between the signalized intersections at East Avenue and Lakefront Promenade.

The Rangeview Estates site traffic was first assigned to one of the north-south access points to Lakeshore Road East and then assigned to travel east, west, or north based on the overall directional splits presented in Table 7-7 that were developed from existing traffic patterns as per 2011 TTS data. Table 7-22 summarizes the percentage of Rangeview Estates site traffic that was assigned to each north-south access during the a.m. and p.m. peak hours. Detailed Rangeview Estates trip assignment calculations are located in Appendix F.

The estimated site trips generated by the Rangeview Estates development in 2041 were assigned to the study area road network for the weekday a.m. and p.m. peak hours as shown in Figure 7-6.

7.5.2 Serson North

The Serson North campus will act as an extension of the southern portion of the Serson Innovation Corridor built on LCPL lands. For the purposes of this study, it has been assumed that construction of Serson North will begin post 2031 and be fully built-out by the 2041 planning horizon. As shown in Figure 7-7, Serson North is located south of Lakeshore Road East, north of Serson Creek. The eastern boundary of Serson North is defined by the existing access road (Fergus Ave) to the Lakeview Wastewater Treatment plant.

Table 7-23 – Serson North Total Site Trip Generation

Land Use Code	G.F.A. (sq. ft.)	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Research & Development (LUC 760 – Office, R&D Center)	224,428	Gross Trips	71	23	94	17	93	110
		Mixed-Use Adjustment	3	3	6	4	4	8
		Transit Reduction	15	4	19	2	16	18
		New Trips	53	16	69	11	73	84
Office (LUC 710 – General Office Building)	224,427	Gross Trips	204	33	237	39	206	245
		Mixed-Use Adjustment	10	6	16	9	8	17
		Transit Reduction	44	6	50	5	35	40
		New Trips	150	21	171	25	163	188
Total	448,855	New Trips	203	37	240	36	236	272

7.5.2.1 Trip Generation

The specific land use of Serson North has yet to be decided, but it has been envisioned to be a hub of innovation and research that could work cooperatively with the potential post-secondary/research and development campus located in Serson South. For the purposes of this study, it was assumed that half of the planned GFA of Serson North would be office space, and the other half used as research and development space.

Serson North site traffic was developed using ITE 10th edition trip generation rates. The gross site trips were then adjusted based on the transit component of the modal splits applied to the site – 22.5% transit in the a.m. peak hour, and 17.5% transit in the p.m. peak hour.

The Serson North development is not planned as a mixed-use development. However, if viewed as an extension of Serson South, the office land use within Serson North will interact with the Lakeview Village development as if it were a part of a mixed-use development. This is especially true if the mixed-use node at the intersection of Lakeshore Road East and Hydro Road, directly west of the Serson North, is taken into consideration. As such, the office component of the Serson North development was incorporated into the Lakeview Village ITE internal capture calculations for the 2041 planning horizon.

Table 7-23 summarizes the gross number of vehicle trips generated by the ITE 10th edition trip generation rates based on Serson North GFA estimates that were extracted from the 2014 TMIG Servicing Strategy – Appendix C. Mixed-use internal capture adjustments and transit reductions were applied to the gross trips generated by the development.

In 2041, with transit and mixed-use adjustments taken into consideration, the Serson North development is expected to generate 240 new two-way auto-driver trips during the a.m. peak hour consisting of 203 inbound and 37 outbound trips. During the p.m. peak hour, the development is expected to generate 272 new two-way auto-driver trips consisting of 36 inbound and 236 outbound trips.

7.5.2.2 Trip Distribution and Assignment

Trip assignment of Serson North traffic was approached with a methodology similar to that of the Rangeview Estates development. First, possible north-south connections from the site to Lakeshore Road East were identified and traffic assigned proportionately before then being assigned to travel east, west, or north from

the site to the boundaries of the study area.

Two main points of access to Lakeshore Road East from Serson North were considered; a full-moves intersection at Haig Boulevard, and a right-in/right-out access opposite of Fergus Avenue. Based on this assumption, all westbound and northbound traffic exiting the Serson North site would default to using the full-moves intersection at Haig Boulevard to avoid performing an eastbound U-turn at Dixie Road. Assignment of all outbound west and north traffic to Haig Boulevard represents a worst-case scenario at the Lakeshore Road East intersections as the analysis assumes there will be no dispersion of site traffic through Lakeview Village and further west before accessing Lakeshore Road East.

Given that the main access to the Serson North development will be located on Haig Boulevard, the directional splits determined from 2011 TTS data were adjusted to account for cars travelling to/from the north being more likely to use Haig Boulevard versus Ogden Avenue to access Serson North directly. The overall percentage of cars travelling to/from the north remained the same.

Table 7-24 shows the adjustments made to the original site trip distribution values developed for Lakeview Village. Adjusted numbers are in bold, with the corresponding original values in parentheses. Detailed Serson North trip assignment calculations can be found in Appendix G.

The estimated site trips generated by Serson North in 2041 were assigned to the study area road network for the weekday a.m. and p.m. peak hours as shown in Figure 7-8.

Table 7-24 – Serson North Site Trip Distribution

Direction To/From		AM Peak Hour		PM Peak Hour	
		IN (%)	OUT (%)	IN (%)	OUT (%)
East	Dixie Road	12	15	12	10
	Brown's Line	13	20	23	10
West	Cawthra Road	30	20	15	25
	Lakeshore Road west of Cawthra Road	25	25	30	35
North	Alexandra Avenue	0	2	0	2
	Ogden Avenue	**7** (13)	**6** (12)	**7** (13)	**6** (12)
	Haig Boulevard	**13** (7)	**12** (6)	**13** (7)	**12** (6)

7.6 Traffic Infiltration

During TMIG's initial consultation with City of Mississauga staff, it was requested that the potential infiltration of Lakeview Village traffic into the neighbourhoods north of Lakeshore Road East be investigated. The impacts of converting several intersections along Lakeshore Road East to right-in/right-out operations due to the median-running BRT lanes were also considered.

Overall, traffic pattern changes due to the BRT lane conversion, new site trips generated by Lakeview Village, and additional traffic generated by the Rangeview Estates and Serson North background developments will be the main contributors of traffic infiltration into the northern study area neighbourhoods.

7.6.1 Lakeshore Road East BRT Conversion

The installation of median-running BRT lanes on Lakeshore Road East in the study area will require eight intersections to be converted to right-in/right-out (RI/RO) operations. These Lakeshore Road East intersections are:

- Greaves Avenue;
- Westmount Avenue;
- Alexandra Avenue;
- Meredith Avenue;
- Edgeleigh Avenue;
- Strathy Avenue;
- Orchard Road; and
- Fergus Avenue.

Of these eight intersections, only Alexandra Avenue provides a continuous north-south connection between Lakeshore Road East and the QEW's South Service Road. While some traffic will still use Alexandra Avenue as a north-south connection to Lakeshore Road East, its conversion to RI/RO operations at Lakeshore will make it a less desirable route than other north-south roads through the northern Lakeview neighbourhood, such as Ogden Avenue and Haig Boulevard. Traffic patterns specific to these north-south roads is discussed in greater detail in Section 7.6.2.

To account for a shift in existing traffic patterns at intersections subject to right-in/right-out conversion, through and left-turning traffic from the north and south legs were re-routed. These trips were either re-routed to the closest full-moves intersection, or they were converted to a right-turn movement before making a U-turn manoeuvre at a downstream full-moves intersection to return to their intended direction of travel within the network.

Existing eastbound and westbound left-turning traffic were also re-routed from RI/RO intersections by either performing a U-turn manoeuvre or completing a left-turn at a full-moves intersection. In general, vehicles that were re-routed from intersections converted to RI/RO operations only made use of the northern local road network as needed to navigate to their intended destination.

The re-routing of vehicles at each RI/RO intersection was dependent upon the proximity of the intersection to a full-moves intersection and the level of connectivity to the broader local road network north of Lakeshore Road East. As such, unique re-routing assignments were required at each RI/RO intersection. A detailed summary of re-routing decisions for each RI/RO intersection can be found in Appendix J.

Figure 7-9 details the shift in existing traffic patterns due to the RI/RO conversion of eight intersections. Positive and negative traffic volume adjustments throughout the study area network are shown.

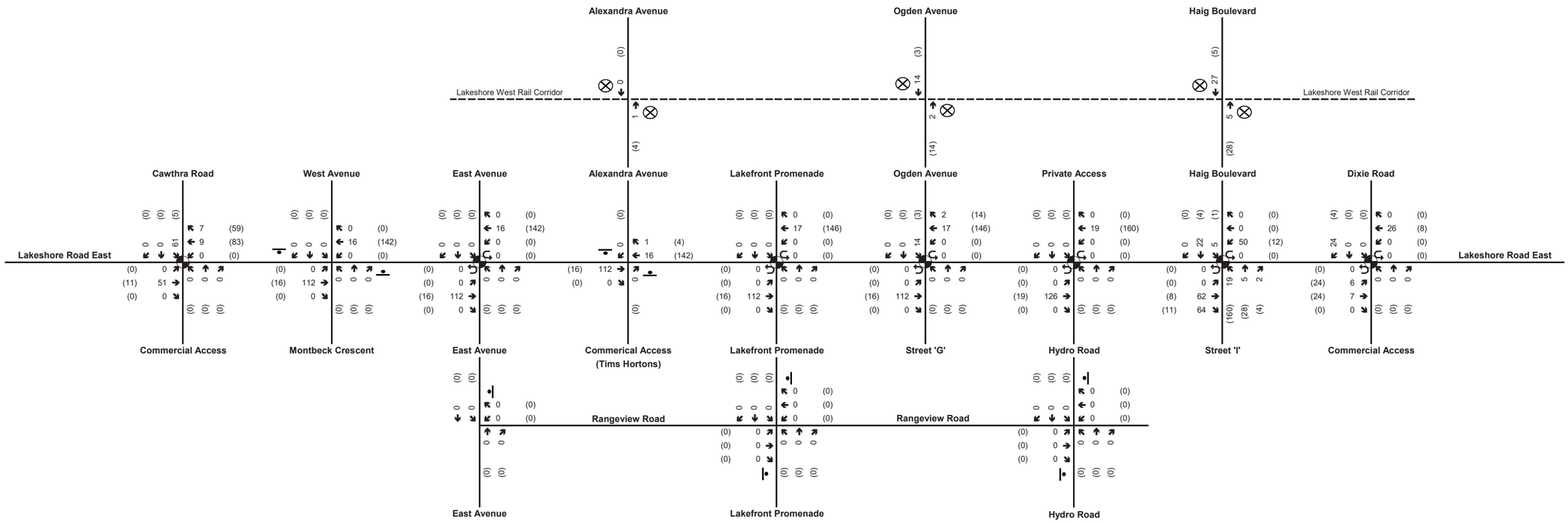
7.6.2 2031 Traffic Infiltration

Based on existing traffic patterns in the Lakeview area, as determined from 2011 TTS data, 20% of Lakeview Village site traffic was assumed to be traveling to/from the northern boundary of the study area. The north-south Lakeview Village site traffic was assigned to Alexandra Avenue, Ogden Avenue, and Haig Boulevard as detailed in Table 7-25.

The existing peak hour volume of northbound and southbound traffic at the intersections of the three north-south roads and Lakeshore Road East are listed in Table 7-26. The volume of traffic added or removed at these intersections is also listed in Table 7-26, which includes changes to traffic patterns due to RI/RO conversions and projected 2031 Lakeview Village site traffic volumes.

The highest anticipated increase of north-south traffic volume in 2031 is predicted to occur along Ogden

SERSON NORTH 2041
SITE TRAFFIC VOLUMES



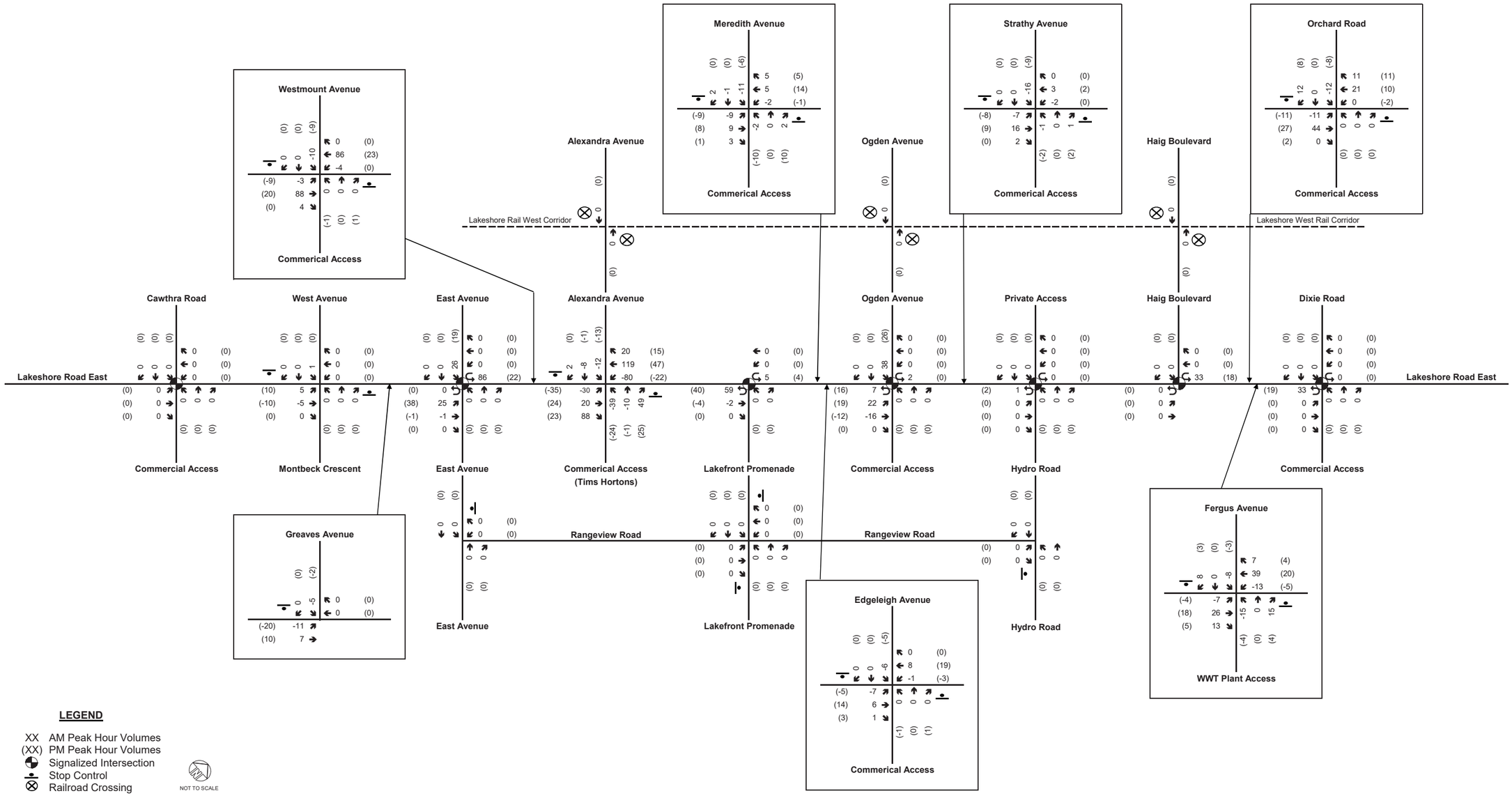
LEGEND

XX AM Peak Hour Volumes
(XX) PM Peak Hour Volumes
Signalized Intersection
Stop Control
Railroad Crossing

NOT TO SCALE

Figure 7-8 – Serson North 2041 Site Traffic Volumes

RIGHT-IN / RIGHT-OUT CONVERSION
EXISTING TRAFFIC VOLUME ADJUSTMENTS



LEGEND

XX AM Peak Hour Volumes
(XX) PM Peak Hour Volumes
Signalized Intersection
Stop Control
Railroad Crossing

NOT TO SCALE

Figure 7-9 – Right-In / Right-Out Conversion Existing Traffic Volume Adjustments

Avenue during both the a.m. and p.m. peak hours, with between 206 and 284 additional trips added to each direction. Compared to Ogden Avenue, Haig Boulevard is expected to experience a smaller increase in traffic, with between 90 to 128 additional peak hour trips in either direction.

Ogden Avenue is predicted to experience percent increases between existing traffic and 2031 total traffic that range between approximately 170% and 379% during the a.m. and p.m. peak hours. Haig Boulevard is predicted to experience a generally lower range of percent increases, approximately between 119% and 274%.

TMIG acknowledges that when compared to relatively low existing volumes, that the number of vehicle trips added to Ogden Avenue and Haig Boulevard in 2031 are a significant change from the current status quo vehicular operations on these roads. However, as per the City of Mississauga's Official Plan, Schedule 5, Ogden Avenue and Haig Boulevard are currently classified as a major and minor collector road, respectively, and these projected volumes are consistent with the typical volumes expected along these types of roads.

Figure 7-10 is an excerpt from the Mississauga Official Plan Amendment 89 document and identifies both the existing and future road classifications within the vicinity of Lakeview Village.

According to Table 2.6.5 in Chapter 2 of the Transportation Association of Canada's (TAC) Geometric Design Guide for Canadian Roads, a local residential road will have a typical traffic volume of approximately 1,000 vehicles per day whereas a residential collector will typically see approximately 8,000 vehicles per day. A copy of TAC's Table 2.6.5: Characteristics of Urban Roads has been provided in Appendix K.

Table 7-25 – 2031 North-South Site Trip Distribution

Direction To/From		AM Peak Hour		PM Peak Hour	
		IN (%)	OUT (%)	IN (%)	OUT (%)
North	Alexandra Avenue	0	2	0	2
	Ogden Avenue	13	12	13	12
	Haig Boulevard	7	6	7	6
	Total	20	20	20	20

Table 7-26 – 2031 North-South Traffic Volume Comparison – Lakeview Village

Planning Horizon / Traffic Volume Source	Alexandra Avenue		Ogden Avenue		Haig Boulevard	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
2018 Existing (Baseline)	65	56	121	86	60	61
	(79)	(39)	(109)	(67)	(108)	(46)
2031 BRT Re-route and Lakeview Village	8	-18	206	217	90	97
	(21)	(-14)	(284)	(254)	(128)	(126)
2031 Total	73	38	327	303	150	158
	(100)	(25)	(393)	(321)	(236)	(172)
2031 Total Percent Increase	12.3%	-32.1%	170.2%	252.3%	150.0%	159.0%
	(26.6%)	(-35.9%)	(260.6%)	(379.1%)	(118.5%)	(273.9%)

A.M. Peak Hour (P.M. Peak Hour)

The existing 2018 and future 2031 peak hour traffic volumes were used to estimate daily traffic volumes for Alexandra Avenue, Ogden Avenue, and Haig Boulevard. A typical peak hour to AADT conversion formula was applied to estimate the daily volumes; a.m. and p.m. peak hour volumes were added together and divided by 20% (a long-standing Ministry of Transportation methodology for estimating daily volumes). The results are presented in Table 7-27.

Due to the conversion of Alexandra Avenue to right-in/right-out operations at Lakeshore Road East, the daily volume of cars traveling along Alexandra Avenue is expected to marginally decrease from 1,195 to 1,180 vehicles per day. Ogden Avenue is predicted to see an increase from 1,915 existing trips to 6,720 trips in 2031, while Haig Boulevard is expected to see an increase from 1,375 to 3,580 vehicles per day.

Table 7-27 – Existing and 2031 North-South Daily Traffic Volume Comparison

Road	TAC Road Classification (Vehicles / Day)	Daily Volume (Vehicles / Day)	
		Existing	2031
Alexandra Avenue	Local Residential (< 1,000)	1,195	1,180
Ogden Avenue	Residential Collector (< 8,000)	1,915	6,720
Haig Boulevard	Residential Collector (< 8,000)	1,375	3,580

Although there will be a notable increase in traffic along Ogden Avenue and Haig Boulevard in 2031 compared to existing conditions, the estimated daily volume of traffic will be well below TAC's expectation of approximately 8,000 vehicles per day on residential collector roads. Alexandra Avenue will continue to operate at similar traffic volume levels in 2031 compared to existing traffic (an overall decrease of 15 vehicles). Based on TAC Guidelines, the estimated increase in traffic along Ogden Avenue and Haig Boulevard under projected 2031 traffic conditions is acceptable.

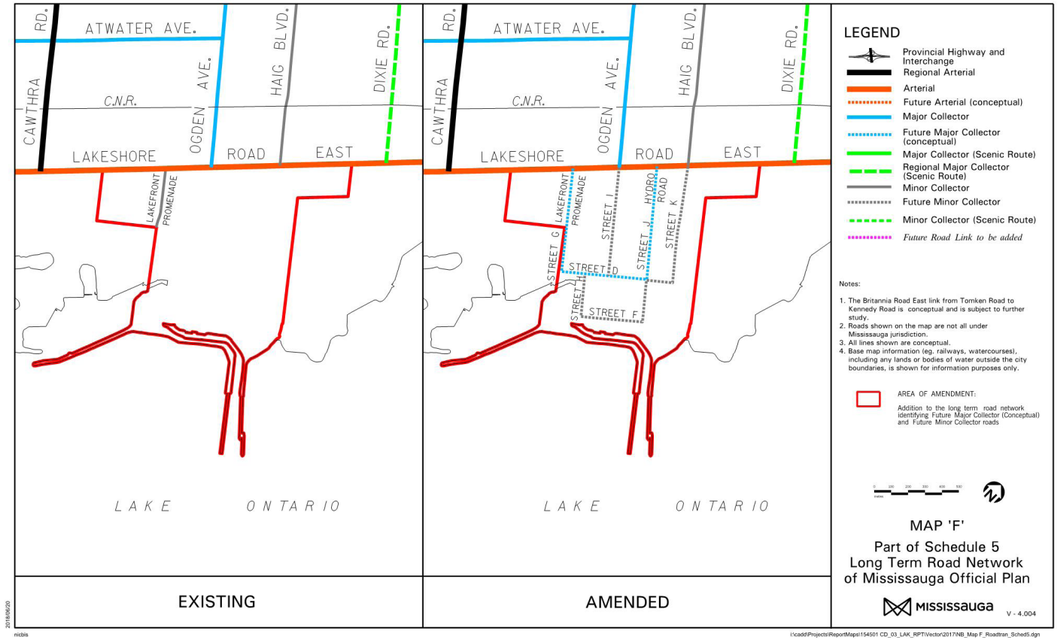


Figure 7-10 – Map 'F', Schedule 5 of MOPA 89 – Lakeview Long Term Road Network

Source: MOPA89

7.6.3 2041 Traffic Infiltration

In addition to Lakeview Village site traffic, the 2041 planning horizon includes traffic generated by the Rangeview Estates and Serson North background developments. Following a similar site traffic assignment methodology as Lakeview Village, 20% of the total vehicle trips generated by the background developments were assumed to be traveling to/from the northern boundary of the study area. The north-south Lakeview Village and background development site traffic was assigned to Alexandra Avenue, Ogden Avenue, and Haig Boulevard as detailed in Table 7-28.

Of note, the assumed percentage of Serson North site traffic traveling on Haig Boulevard was adjusted, compared to Lakeview Village and Rangeview Estates north-south traffic distribution, to account for the south leg of Haig Boulevard providing a direct connection between the Serson Innovation Corridor and Lakeshore Road East. The percentage of Serson North site traffic traveling on Alexandra Avenue and Ogden Avenue was updated accordingly to maintain the overall 20% of site traffic assigned to the three north-south roads.

Table 7-29 compares existing traffic volumes to the total volume of 2041 traffic added to Alexandra Avenue, Ogden Avenue, and Haig Boulevard. The additional 2041 traffic volumes include changes to traffic patterns due to RI/RO conversions, projected 2041 Lakeview Village site traffic, and traffic generated by background developments. A more detailed breakdown of the volume calculations presented in Table 7-26 and Table 7-29 can be found in Appendix L.

The highest anticipated increase of north-south traffic volume in 2041 is predicted to occur along Ogden Avenue during both the a.m. and p.m. peak hours, with between 268 and 353 additional trips added to each direction. Compared to Ogden Avenue, Haig Boulevard is expected to experience a smaller increase in traffic, with between 127 to 183 additional peak hour trips in either direction.

Ogden Avenue is predicted to experience percent increases between existing traffic and 2041 total traffic that range between approximately 227% and 503% during the a.m. and p.m. peak hours. Haig Boulevard is predicted to experience a generally lower range of percent increases, approximately between 169% and 380%.

Using the same methodology outlined in Section 7.6.2., the existing and future 2041 AADT volumes for Alexandra Avenue, Ogden Avenue, and Haig Boulevard were estimated using the existing 2018 and future 2041 peak hour traffic volumes. The resulting AADT estimates are presented in Table 7-30.

In 2041, daily traffic traveling on Alexandra Avenue is expected to experience a slight increase from 1,195 to 1,300 vehicles per day, a total of 105 additional vehicles per day compared to existing volumes, and is only marginally more than the typical daily volume of 1,000 vehicles on local residential roads according to TAC. Ogden Avenue is predicted to see an increase from 1,915 existing trips to 8,080 trips in 2041, while Haig Boulevard is expected to see an increase from 1,375 to 4,520 vehicles per day.

Alexandra Avenue, Ogden Avenue, and Haig Boulevard are expected to see an estimated increase of 120, 1,360, and 940 vehicles per day, respectively, between 2031 and 2041. Despite the additional increase in traffic from 2031 to 2041 due to background developments, the estimated daily volumes on Ogden Avenue and Haig Boulevard are expected to fall within TAC's typical expectations of daily traffic volumes (approximately 8,000 vehicles) on a residential collector road. Based on TAC's typical daily traffic volumes along residential collectors, theoretical "at-capacity" daily traffic volumes may occur on some local roadways, however, significant operational impacts to these roadways on an hour-to-hour basis are not expected to occur.

Table 7-28 – 2041 North-South Site Trip Distribution

Direction To/From		2041 – Lakeview Village and Rangeview Estates		2041 – Serson North	
		IN (%)	OUT (%)	IN (%)	OUT (%)
North	Alexandra Avenue	0 (0)	2 (2)	0 (0)	2 (2)
	Ogden Avenue	13 (13)	12 (12)	7 (7)	6 (6)
	Haig Boulevard	7 (7)	6 (6)	13 (13)	12 (12)
	Total	**20 (20)**	**20 (20)**	**20 (20)**	**20 (20)**

A.M. Peak Hour (P.M. Peak Hour)

Table 7-29 – 2041 North-South Site Traffic Volume Comparison – Lakeview Village

Planning Horizon / Traffic Volume Source	Alexandra Avenue		Ogden Avenue		Haig Boulevard	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
2018 Existing (Baseline)	65	56	121	86	60	61
	(79)	(39)	(109)	(67)	(108)	(46)
2041 New Trips	19	-18	275	268	127	144
	(34)	(-14)	(353)	(337)	(183)	(175)
2041 Total	**84**	**38**	**396**	**354**	**187**	**205**
	(113)	**(25)**	**(462)**	**(404)**	**(291)**	**(221)**
2041 Total Percent Increase	29.2%	-32.1%	227.3%	311.6%	211.7%	236.1%
	(43.0%)	(-35.9%)	(323.9%)	(503.0%)	(169.4%)	(380.4%)

A.M. Peak Hour (P.M. Peak Hour)

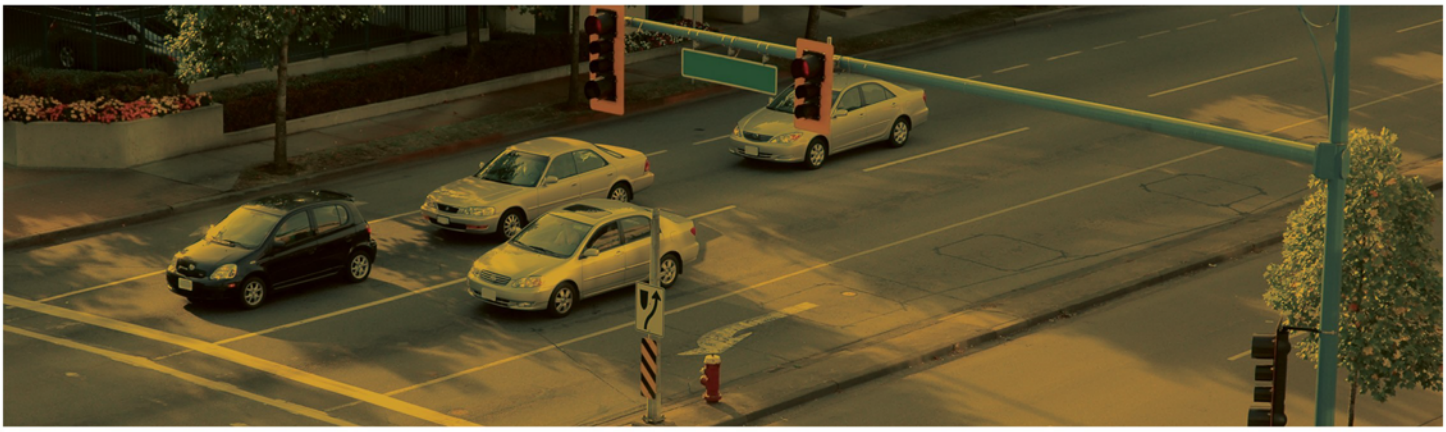
Table 7-30 – Existing and 2041 North-South Daily Traffic Volume Comparison

Road	TAC Road Classification (Vehicles / Day)	Daily Volume (Vehicles / Day)	
		Existing	2041
Alexandra Avenue	Local Residential (< 1,000)	1,195	1,300
Ogden Avenue	Residential Collector (< 8,000)	1,915	8,080
Haig Boulevard	Residential Collector (< 8,000)	1,375	4,520

Background Development:
1583 Cormach Crescent

TATHAM ENGINEERING

Enhancing our communities



1583 Cormack Crescent

TRAFFIC IMPACT STUDY & TRANSPORTATION DEMAND MANAGEMENT STRATEGY

Elm Cormack (2017) Inc.

File 419352 | May 10, 2019

4 Proposed Development

This section will provide additional details with respect to the proposed residential development, including its location, the projected site generated traffic volumes and the assignment of such to the adjacent road network.

4.1 SITE LOCATION

As illustrated in Figure 1, the subject site is located on the east side of Dixie Road, north of Edencrest Drive within the City of Mississauga, Regional Municipality of Peel. The property is bound by Cormack Crescent to the west, undeveloped lands to the north and existing residential lands to the east and south.

4.2 PROPOSED LAND-USE & PHASING

The proposed 1583 Cormack Crescent development will consist of 22 single detached units. Full build-out is expected by 2024.

A site plan is provided in Figure 6.

4.3 SITE ACCESS

As illustrated in Figure 6, the development will be served via a connection to Edencrest Drive. The existing access onto Cormack Crescent will be decommissioned as part of the QEW/Dixie Road interchange improvements.

4.4 ON-SITE CIRCULATION

The internal road will provide two-way operations and maintain a minimum paved width of 7.0 metres throughout the site. The road as proposed is sufficient with respect to the circulation of site generated traffic and the manoeuvering requirements of the design vehicles accessing the parking areas (i.e. passenger cars, SUV's, vans, etc.).

4.5 SITE TRAFFIC

4.5.1 Trip Generation

The number of vehicle trips to be generated by the proposed development has been determined based on the type of use, development size, and consideration of the following ITE trip generation rates as per ITE Trip Generation Manual[4] 10th Edition. Based on the proposed residential use, the *single family detached* (ITE code 210) land use has been applied to the development. Trip estimates have been established using the fitted curve equations derived

[4] *ITE Trip Generation Manual, 10th Edition*. Institute of Transportation Engineers, September 2017.

from the ITE survey data for the respective land-use and peak hour, considering 22 residential units. The resulting trip estimates are provided in Table 6.

Table 6: Trip Estimates

Land-use		Weekday AM Peak Hour			Weekday PM Peak Hour		
		in	out	total	in	out	total
single family detached (ITE 210)	equation[1]	(T) = 0.71(X) + 4.80			Ln(T) = 0.96Ln(X) + 0.20		
	distribution	25%	75%	100%	58%	42%	100%
	estimate	5	15	20	15	9	24

[1] ITE fitted curve equations - where T = the number of trips, and X = the number of residential units

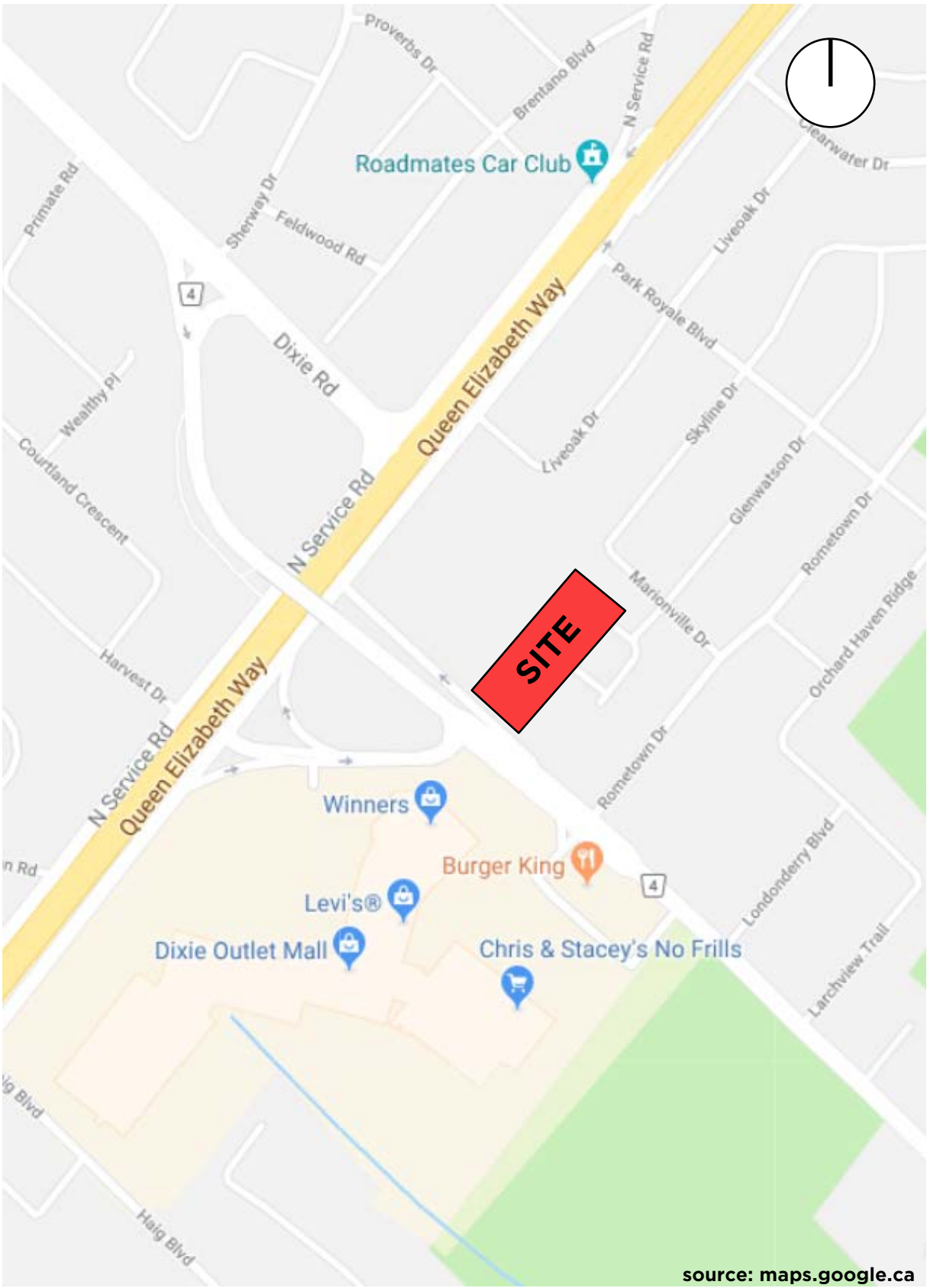
Overall, the proposed development is expected to generate 20 trips during the weekday AM peak hour and 24 trips during the weekday PM peak hour (total of inbound and outbound trips).

4.5.2 Trip Distribution & Assignment

The distribution of the new trips generated by the site has been developed based on the location of the site in relation to surrounding development and population centres, and existing traffic patterns observed at the study area intersection. The following distribution has been assumed:

- to/from the north (via Dixie Road) – 50%;
- to/from the south (via Dixie Road) – 40%; and
- to/from the west (via South Service Road) – 10%.

The assignment of the trips generated by the development to the area road network is based on the trip distribution noted above with consideration given to the expected travel routes. The resulting site generated traffic volumes assigned to the road network is illustrated in Figure 7.

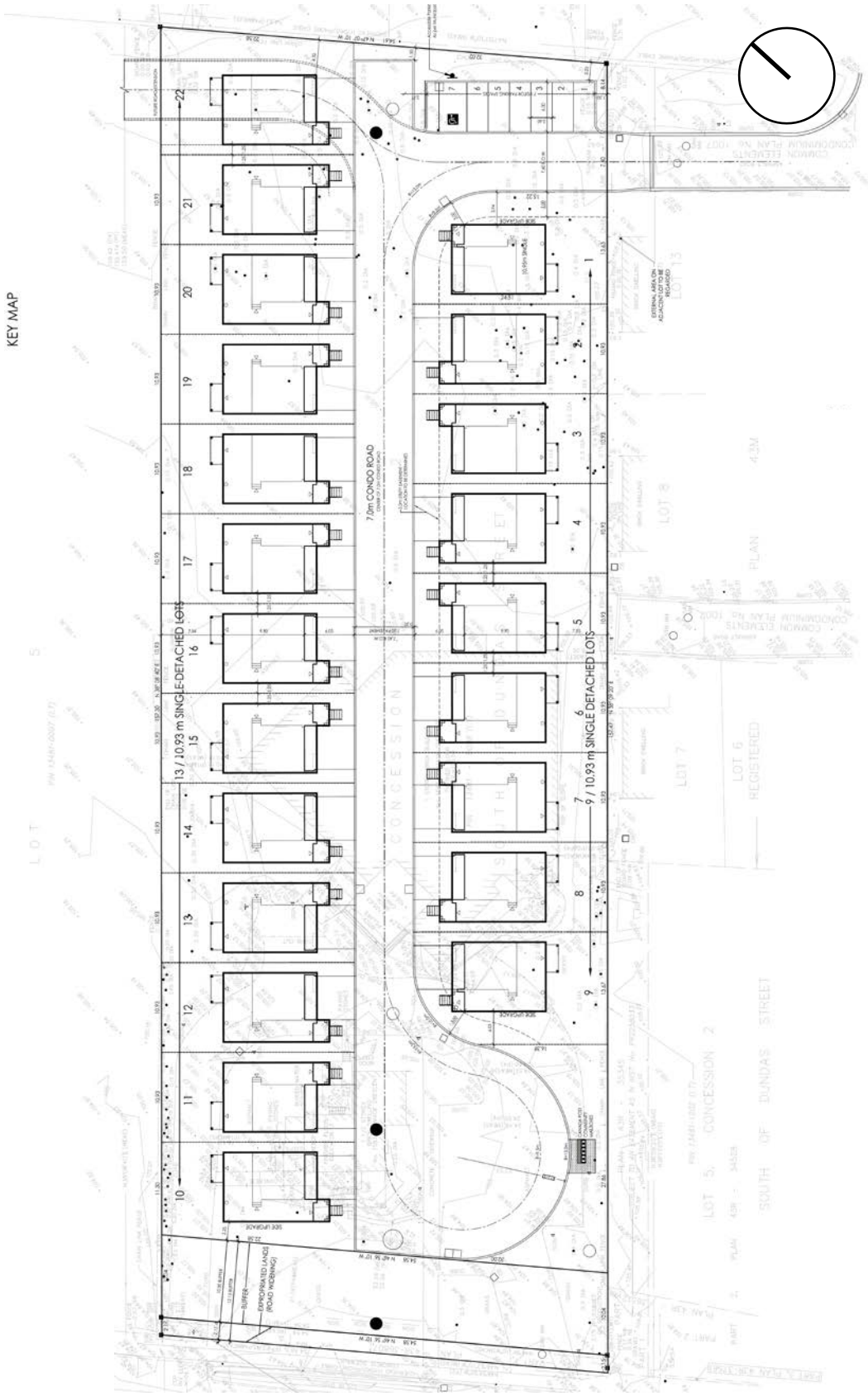


1583 Cormack Crescent

Figure 1: Site Location

1583 Cormack Crescent

Figure 2A: Area Road Network



1583 Cormack Crescent

Figure 6: Site Plan

1583 Cormack Crescent

Figure 7: Site Traffic

APPENDIX F

TTS 2016 Data

TTS 2016 Data: Residential Trips, AM Peak Period, Inbound

Mon Apr 26 2021 14:02:41 GMT-0400 (Eastern Daylight Time) - Run Time: 3329ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig
Column: 2006 GTA zone of destination - gta06_dest

Filters:
(Start time of trip - start_time In 0700-0900
and
2006 GTA zone of destination - gta06_dest In 3653 3648 3654 3649
and
Primary travel mode of trip - mode_prime In D
and
Trip purpose of destination - purp_dest In H)

Trip 2016
Table:

	3648	3649	3653	3654
127	0	22	0	0
295	0	0	0	4
296	0	32	0	0
307	0	0	16	0
308	0	0	20	0
312	38	0	63	27
323	0	0	54	0
409	0	0	15	0
3632	0	29	0	0
3639	0	0	46	0
3640	0	11	0	0
3642	0	26	0	0
3643	0	0	11	0
3648	46	18	59	0
3649	0	73	0	0
3652	0	0	15	0
3653	6	0	151	0
3654	0	0	0	15
3655	0	0	42	0
3659	0	0	12	0
3661	0	0	35	0
3675	0	29	0	0
3689	0	0	0	48
3818	0	0	33	0
3861	0	0	9	0
3871	0	0	13	0
3874	0	0	0	32
3876	0	9	0	0
3877	10	0	0	0
4014	17	0	0	0

TTS 2016 Data: Residential Trips, AM Peak Period, Outbound

Mon Apr 26 2021 14:28:45 GMT-0400 (Eastern Daylight Time) - Run Time: 2841ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of destination - gta06_dest
Column: 2006 GTA zone of origin - gta06_orig

Filters:
(Start time of trip - start_time In 0700-0900
and
2006 GTA zone of origin - gta06_orig In 3653 3648 3654 3649
and
Primary travel mode of trip - mode_prime In D
and
Trip purpose of origin - purp_orig In H)

Trip 2016
Table:

	3648	3649	3653	3654
21	0	29	0	0
29	18	0	0	0
32	0	0	35	0
36	0	35	0	0
37	24	0	0	0
38	0	26	0	0
40	0	0	33	0
41	11	0	0	0
46	0	38	0	0
49	0	14	0	0
54	0	0	35	0
55	28	0	0	0
57	0	14	0	0
63	11	0	0	0
65	0	9	35	0
67	0	37	0	0
69	0	0	0	43
76	15	0	0	0
82	8	0	0	0
90	0	0	32	0
106	0	11	0	0
113	0	18	0	0
126	5	0	0	0
138	19	0	0	0
150	23	0	0	0
157	21	0	0	0
160	0	11	16	0
167	0	0	0	38
179	0	59	0	0
196	0	22	0	0
197	0	11	0	0
204	63	24	0	0
206	0	14	0	0
210	0	8	0	0

231	0	11	6	0
236	0	34	0	0
270	0	0	23	0
286	0	9	0	0
288	0	17	0	0
289	0	16	0	0
290	27	21	0	26
292	0	0	28	31
294	0	11	0	0
295	0	0	45	4
296	0	34	0	0
297	17	0	0	0
299	0	48	13	31
301	0	0	0	18
306	0	0	17	0
307	0	0	52	16
308	31	0	42	8
309	11	0	40	0
310	0	0	18	0
312	38	50	63	54
315	0	25	0	0
323	0	23	22	0
327	0	9	20	0
329	0	0	23	0
330	0	0	0	18
342	0	0	11	0
344	0	9	0	0
347	26	0	0	0
354	0	26	0	0
356	0	0	38	0
357	48	0	0	0
368	0	51	0	0
371	49	0	0	26
379	13	0	28	27
387	0	0	75	0
442	0	0	0	8
452	0	11	0	26
484	13	0	0	0
493	0	59	0	0
507	0	0	0	18
528	0	0	42	0
532	23	0	0	0
540	0	9	0	0
605	24	0	0	0
1088	0	0	0	24
2003	0	0	0	8
2072	48	0	0	0
2082	0	9	0	0
2083	0	0	0	26
2095	0	0	35	0
2114	45	0	0	0
2137	0	0	0	17
2270	22	0	0	0
2370	0	0	0	17
3010	0	0	0	49

3338	0	0	31	0
3340	0	0	0	36
3344	17	0	0	0
3373	0	0	16	0
3421	15	0	0	0
3435	0	0	0	19
3495	6	25	0	0
3505	0	0	0	24
3506	0	0	35	0
3604	0	15	0	0
3605	0	42	0	38
3609	0	24	12	0
3612	0	11	75	0
3613	0	11	105	0
3618	15	0	26	0
3621	0	0	9	0
3622	0	0	0	16
3626	38	0	0	0
3627	0	0	15	0
3629	0	29	0	0
3630	18	0	0	0
3632	0	11	0	0
3633	36	17	15	27
3634	0	0	37	8
3635	0	37	0	0
3639	11	0	9	18
3640	23	0	0	0
3641	0	36	0	0
3642	17	26	8	8
3643	62	25	0	17
3645	0	8	15	0
3647	21	32	0	27
3648	187	59	59	0
3649	58	253	0	165
3650	0	18	6	0
3651	0	0	20	0
3652	9	0	0	0
3653	6	34	336	8
3654	11	31	0	94
3655	10	0	57	0
3659	0	0	69	41
3660	61	27	42	0
3664	0	15	42	0
3665	21	0	0	26
3668	15	0	0	0
3669	0	13	35	0
3670	16	0	0	0
3671	0	0	29	0
3673	9	0	0	0
3674	11	0	0	0
3675	0	38	0	0
3677	4	0	0	0
3678	0	0	0	24
3680	0	0	0	22
3690	0	0	54	0

3693	0	22	0	0
3697	0	0	30	36
3698	0	22	0	0
3699	7	40	9	0
3700	0	21	11	0
3701	0	0	12	0
3702	14	0	0	26
3703	23	0	13	0
3704	0	17	0	0
3705	11	0	0	0
3710	15	11	0	0
3713	21	0	22	0
3715	0	7	0	0
3717	23	0	0	23
3719	0	0	15	0
3720	0	0	23	0
3721	0	0	0	17
3723	0	0	36	0
3809	0	0	0	23
3816	23	0	13	0
3824	0	0	33	0
3825	57	0	0	32
3828	0	25	0	0
3834	0	60	0	26
3835	14	27	0	0
3843	0	26	0	0
3847	0	0	0	8
3849	12	0	0	0
3851	26	27	23	0
3854	0	0	0	17
3861	0	0	9	0
3863	0	0	12	0
3867	0	0	21	0
3868	0	0	20	0
3870	0	52	0	0
3871	0	0	48	0
3874	0	16	31	32
3876	9	0	0	0
3877	33	7	0	0
3879	0	15	0	0
4002	0	0	0	64
4008	13	0	0	0
4012	0	0	25	0
4014	17	0	0	0
4016	15	19	0	49
4019	22	0	0	0
4021	0	30	0	0
4023	15	0	0	0
4024	23	0	0	0
4025	0	26	0	0
4027	0	17	8	0
4029	0	0	0	24
4040	0	0	0	26
4053	0	0	35	0
4061	14	0	0	0

4078	10	0	40	0
4148	0	0	0	18
4183	0	0	75	0
4192	11	0	0	0
5127	0	27	0	0
5159	0	0	0	18
5252	9	0	0	0
6044	0	13	0	0
6092	24	0	0	0
6110	0	21	0	0
8194	18	0	0	0
9032	0	0	0	8
9998	0	0	12	0

TTS 2016 Data: Residential Trips, PM Peak Period, Inbound

Mon Apr 26 2021 14:26:15 GMT-0400 (Eastern Daylight Time) - Run Time: 3056ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig
Column: 2006 GTA zone of destination - gta06_dest

Filters:
(Start time of trip - start_time In 1600-1800
and
2006 GTA zone of destination - gta06_dest In 3653 3648 3654 3649
and
Primary travel mode of trip - mode_prime In D
and
Trip purpose of destination - purp_dest In H)

Trip 2016
Table:

	3648	3649	3653	3654
25	0	11	0	0
36	0	48	0	0
38	15	0	0	0
40	0	0	33	0
41	11	0	0	0
46	0	38	0	0
50	0	62	0	0
55	13	0	0	0
57	0	28	0	0
63	11	0	0	0
65	0	9	35	0
69	0	0	0	18
90	18	0	32	0
91	10	0	0	0
116	0	12	0	0
125	11	0	0	0
146	0	0	0	18
147	0	0	0	17
150	23	0	0	0
156	0	0	0	52
157	21	0	0	0
160	0	11	16	0
167	0	0	0	38
177	0	29	0	0
184	0	30	0	0
197	0	11	0	0
204	63	24	0	0
210	0	8	0	0
227	18	0	0	0
228	0	15	0	0
231	0	11	6	0
236	0	34	0	0
246	0	14	0	0
270	0	0	23	0

286	15	0	0	0
288	0	17	0	0
289	0	9	0	0
290	0	0	43	0
292	0	14	28	0
293	0	0	0	48
294	0	11	0	0
295	0	0	45	0
296	0	34	0	0
297	0	0	0	9
299	24	33	24	56
300	0	8	0	0
301	0	24	0	16
306	0	0	17	0
307	18	0	81	16
308	31	18	53	8
309	45	48	78	4
310	0	0	18	0
312	0	20	17	50
315	0	25	0	0
317	0	11	0	0
323	0	36	0	0
324	5	0	0	0
327	0	9	20	0
329	0	0	23	0
332	0	23	0	0
353	0	0	10	0
356	0	19	38	0
357	48	0	0	0
358	0	0	0	18
359	0	0	69	0
368	0	51	0	0
371	79	0	0	16
379	13	0	28	27
387	0	0	75	38
393	0	0	35	0
394	0	22	0	0
396	0	0	13	0
423	0	8	0	0
452	0	11	0	26
468	0	0	0	27
493	0	59	0	0
528	0	0	42	0
532	23	0	0	0
546	14	0	0	0
599	0	0	12	0
605	24	0	0	0
1036	0	0	10	0
1197	19	0	0	0
1252	16	0	0	0
2063	0	0	22	0
2072	48	0	0	0
2082	0	9	0	0
2083	0	0	0	26
2095	0	0	35	0

2114	45	0	0	0
3329	0	34	0	0
3419	15	0	0	0
3421	15	0	0	0
3435	0	0	0	19
3495	6	0	0	0
3506	0	0	35	0
3601	0	0	31	0
3605	8	0	0	38
3606	0	0	41	0
3609	0	12	12	0
3612	0	11	110	0
3613	0	11	69	0
3618	32	0	26	0
3621	0	0	9	0
3627	0	0	15	0
3629	0	29	0	0
3631	0	18	0	0
3632	9	11	12	0
3633	36	17	0	0
3634	23	0	0	8
3639	37	0	0	18
3641	40	13	0	0
3642	29	26	0	8
3643	19	8	0	17
3647	17	27	0	0
3648	78	18	19	0
3649	0	136	35	27
3651	0	0	20	0
3653	6	32	60	8
3654	49	109	15	64
3655	0	0	15	0
3657	0	0	13	0
3659	38	29	45	0
3660	63	28	40	51
3661	0	0	11	0
3662	0	0	60	0
3665	21	0	0	26
3668	15	0	0	0
3669	0	13	57	0
3670	16	0	0	0
3671	0	0	42	36
3674	33	0	0	0
3675	0	8	0	0
3680	0	15	0	33
3682	0	0	17	0
3690	0	0	41	0
3692	0	0	0	29
3693	0	22	0	0
3695	0	0	10	0
3697	0	0	62	36
3699	31	40	9	0
3700	0	21	0	37
3701	32	0	47	0
3702	0	51	0	0

3703	0	0	42	0
3704	0	17	0	0
3705	11	0	31	0
3710	15	0	0	0
3711	0	0	23	0
3713	0	0	22	0
3717	23	0	0	0
3720	0	0	23	0
3721	0	0	0	17
3816	23	0	13	0
3818	11	0	0	0
3824	0	0	13	0
3825	48	0	0	25
3828	0	25	0	0
3834	17	0	0	0
3847	0	0	0	8
3851	26	27	31	0
3854	0	0	0	17
3863	0	0	41	0
3864	0	0	20	0
3868	0	23	28	0
3870	0	52	0	0
3874	40	36	0	47
3876	21	37	0	0
3877	46	0	9	0
3878	13	0	0	0
4002	0	0	0	64
4008	31	0	0	0
4014	17	0	0	0
4019	22	0	0	0
4021	0	30	36	0
4022	0	7	0	0
4024	23	19	0	0
4025	0	26	0	0
4027	0	17	8	0
4053	0	0	35	0
4077	0	0	0	8
4078	0	0	40	0
4144	0	0	25	0
4164	0	0	35	0
4183	0	0	75	0
4194	0	34	0	0
5127	0	27	0	0
5153	0	0	23	0
5159	0	0	0	18
5198	0	0	0	11
6092	24	0	0	0
6213	0	21	0	0
6223	0	0	0	16
7197	0	0	0	24
8080	11	0	0	0
8194	18	0	0	0
8402	0	0	33	0
8403	15	0	0	0
9068	0	0	18	0

TTS 2016 Data: Residential Trips, PM Peak Period, Outbound

Mon Apr 26 2021 14:29:12 GMT-0400 (Eastern Daylight Time) - Run Time: 2610ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of destination - gta06_dest
Column: 2006 GTA zone of origin - gta06_orig

Filters:
(Start time of trip - start_time In 1600-1800
and
2006 GTA zone of origin - gta06_orig In 3653 3648 3654 3649
and
Primary travel mode of trip - mode_prime In D
and
Trip purpose of origin - purp_orig In H)

Trip 2016
Table:

	3648	3649	3653	3654
40	0	9	0	0
52	0	27	0	0
64	11	53	0	0
86	16	0	0	0
151	0	27	0	0
296	0	13	0	0
300	0	0	0	26
301	0	0	0	16
306	0	0	0	12
307	0	0	16	0
308	0	0	32	8
309	0	0	41	29
312	0	0	17	50
323	0	12	0	0
2111	0	24	0	0
3601	0	0	36	0
3606	0	0	41	0
3607	0	0	17	0
3614	30	0	0	0
3639	0	0	0	11
3640	0	11	0	0
3641	10	13	0	0
3642	33	0	0	0
3643	19	14	0	0
3645	11	0	0	0
3647	0	0	17	0
3648	15	23	0	0
3649	0	88	0	11
3653	6	15	0	0
3654	38	0	0	17
3655	11	0	15	0
3659	38	0	0	32
3660	0	0	0	37
3662	0	15	22	0

3663	0	0	37	0
3665	0	0	0	26
3667	0	0	36	0
3670	0	0	42	0
3671	0	0	58	0
3690	0	0	0	18
3693	0	34	0	44
3843	0	0	22	0
3851	18	0	0	0
3863	0	8	10	0
3871	0	0	12	0
3874	0	14	9	32
3876	0	56	0	0
3877	59	0	38	0
4016	11	0	0	0
4030	0	0	0	17
4034	0	19	0	0
4060	0	0	9	0
4110	0	0	0	16
4164	0	0	35	0
6024	0	0	0	19

PM (OUT)	Internal									External								
	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	External	External	External	External	External	External	External	External	
Direction	I	NW	N	NE	E	SE	S	SW	W	NW	N	NE	E	SE	S	SW	W	Totals
Trips	213	354	133	97	97	0	89	67	169	51	0	283	156	0	0	0	75	1784
%	11.94%	19.84%	7.46%	5.44%	5.44%	0.00%	4.99%	3.76%	9.47%	2.86%	0.00%	15.86%	8.74%	0.00%	0.00%	0.00%	4.20%	100.00%
% w/o trips in subject TAZ	0.00%	22.53%	8.47%	6.17%	6.17%	0.00%	5.67%	4.26%	10.76%	3.25%	0.00%	18.01%	9.93%	0.00%	0.00%	0.00%	4.77%	100.00%

TTS 2016 Data: Residential Trips, SAT Peak Period, Inbound

Tue Apr 27 2021 11:23:17 GMT-0400 (Eastern Daylight Time) - Run Time: 3405ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig
Column: 2006 GTA zone of destination - gta06_dest

Filters:
(Start time of trip - start_time In 400 - 2800
and
2006 GTA zone of destination - gta06_dest In 3653 3648 3654 3649
and
Primary travel mode of trip - mode_prime In D
and
Trip purpose of destination - purp_dest In H)

Trip 2016
Table:

	3648	3649	3653	3654
21	0	29	0	0
25	0	26	0	0
29	18	0	0	0
36	0	48	0	0
38	15	0	0	0
40	0	0	33	0
41	11	0	0	0
46	0	38	0	0
49	0	14	0	0
50	0	62	0	0
51	0	13	0	0
52	0	27	0	0
55	13	0	0	0
57	0	28	0	10
58	0	9	0	0
60	0	0	30	0
63	11	0	0	0
64	11	0	0	0
65	0	9	35	0
69	0	0	0	18
72	0	0	15	0
75	0	24	0	0
76	15	0	0	0
82	8	0	0	0
86	16	0	0	7
90	18	0	32	0
91	10	17	0	0
105	0	0	0	8
106	0	11	0	0
107	0	37	6	0
110	5	0	0	0
113	0	0	0	26
116	0	12	0	0
118	14	0	0	0

120	45	0	0	0
125	11	0	0	0
126	5	0	0	0
127	0	22	0	0
138	19	0	0	0
146	0	0	0	18
147	0	0	0	17
150	23	0	0	0
151	0	27	0	0
156	0	0	0	52
157	21	0	69	0
160	0	11	16	0
167	0	0	0	38
177	0	29	0	0
179	0	59	0	0
182	0	37	0	0
184	0	30	0	0
187	0	22	0	0
190	0	18	0	0
197	0	11	0	0
204	63	24	0	0
206	0	14	0	0
210	0	8	0	0
218	15	0	0	0
220	21	0	0	0
227	18	0	0	0
228	0	15	0	0
231	14	11	19	0
236	0	34	0	0
246	0	14	0	0
249	0	26	0	0
259	0	0	35	18
269	0	0	0	26
270	0	0	23	0
285	0	0	43	0
286	15	0	0	0
288	0	17	0	0
289	0	19	15	0
290	49	21	43	26
291	0	14	0	0
292	0	14	28	47
293	0	0	0	48
294	0	22	0	0
295	0	76	45	40
296	0	67	0	0
297	17	0	0	9
298	0	0	0	38
299	39	52	59	56
300	0	31	0	129
301	14	24	47	27
306	0	0	17	12
307	18	15	113	16
308	31	18	74	8
309	90	166	134	159
310	0	0	18	0

312	38	50	80	120
313	0	29	0	23
315	0	25	0	0
317	0	11	0	0
323	0	48	54	21
324	5	0	0	0
326	0	0	43	0
327	0	9	20	0
329	0	0	23	0
330	0	0	0	18
332	0	23	0	0
336	0	27	0	0
342	0	0	11	0
347	26	0	0	0
350	0	0	0	17
353	0	0	10	0
354	0	26	0	0
356	0	19	38	0
357	48	0	0	0
358	0	0	0	18
359	0	0	69	0
360	18	0	0	0
368	0	51	0	0
371	105	44	0	16
372	0	17	0	0
379	13	0	28	27
387	0	0	75	38
393	0	0	35	0
394	0	22	0	0
396	0	0	13	0
403	0	0	0	10
406	0	0	25	0
409	0	0	15	0
423	0	8	0	0
442	0	0	0	21
452	0	11	0	26
453	0	27	0	0
468	0	0	0	27
481	0	0	17	0
484	13	0	0	0
493	0	59	0	0
507	0	0	0	18
516	15	0	0	0
528	0	0	42	0
530	0	0	16	0
532	23	0	0	0
540	0	9	0	0
546	14	0	0	0
599	0	0	12	0
605	24	0	0	0
1036	0	0	10	0
1152	0	27	0	0
1197	19	0	0	0
1252	16	0	0	0
2003	0	0	0	8

2005	0	0	29	0
2006	0	0	40	0
2063	0	0	22	0
2072	48	0	0	0
2082	0	9	0	0
2083	0	0	0	26
2095	0	0	35	0
2096	0	0	21	0
2098	0	0	0	26
2111	0	24	0	0
2114	45	0	0	0
2137	0	0	0	17
2270	22	0	0	0
2370	0	0	0	17
2420	48	0	0	0
2618	31	0	0	0
3325	0	0	0	26
3329	0	34	0	0
3373	0	0	16	0
3419	15	0	0	0
3421	15	0	0	0
3435	0	0	0	19
3450	0	0	12	0
3462	10	0	0	0
3495	6	49	0	0
3500	0	27	0	0
3505	0	0	0	24
3506	0	0	35	0
3601	0	0	67	0
3604	0	15	0	0
3605	8	0	0	38
3606	0	0	41	0
3607	0	0	17	0
3608	0	0	44	0
3609	0	12	12	0
3612	12	22	110	0
3613	0	39	105	0
3614	54	0	15	0
3618	47	0	26	0
3620	0	0	11	0
3621	0	0	39	0
3623	19	0	0	0
3627	0	0	15	0
3629	0	29	0	0
3631	0	18	26	11
3632	88	40	19	8
3633	36	17	15	0
3634	23	0	37	15
3635	0	0	75	0
3639	51	27	80	29
3640	32	27	0	0
3641	82	60	0	0
3642	117	139	15	8
3643	96	26	22	17
3645	0	0	15	0

3647	17	32	33	27
3648	276	105	103	0
3.64918E+15				
3650	0	18	6	0
3651	0	0	20	0
3652	9	0	33	0
3653	11	50	389	56
3.65412E+15				
3655	31	0	72	13
3657	0	0	13	0
3658	22	0	0	0
3659	38	110	70	108
3660	63	55	170	108
3661	0	14	46	38
3662	0	15	60	18
3663	0	0	76	0
3664	0	44	42	0
3665	21	14	64	151
3666	0	18	22	0
3667	0	0	36	0
3668	28	12	32	57
3669	0	54	57	13
3670	16	27	42	35
3671	0	0	158	36
3674	33	9	66	13
3675	0	38	0	0
3676	0	21	0	0
3677	4	0	0	0
3678	0	0	0	24
3679	0	0	15	0
3680	0	15	0	33
3682	0	0	17	4
3689	0	0	0	48
3690	0	0	41	34
3692	0	0	0	29
3693	43	56	42	53
3695	0	0	10	0
3697	0	0	62	36
3699	31	40	9	0
3700	0	33	0	37
3701	32	0	47	0
3702	14	51	0	0
3703	23	18	54	0
3704	0	17	0	0
3705	11	0	31	0
3706	24	0	0	0
3709	20	27	0	0
3710	15	11	0	0
3711	0	0	23	0
3713	21	0	22	0
3717	23	0	23	23
3719	0	0	15	0
3720	0	0	23	0
3721	0	0	0	17
3809	0	0	0	23

3816	23	0	56	0
3818	11	0	33	0
3820	0	0	54	0
3824	0	0	33	0
3825	57	0	0	32
3828	0	25	0	0
3834	17	60	0	0
3835	0	27	0	0
3838	0	0	26	0
3841	0	0	22	0
3843	0	39	22	0
3847	8	7	0	8
3849	12	0	0	0
3851	52	27	105	0
3854	0	0	0	17
3857	0	0	0	29
3860	0	9	0	11
3861	0	25	18	0
3862	0	0	18	0
3863	0	8	64	0
3864	0	0	29	0
3867	0	0	21	0
3868	0	23	28	0
3870	0	52	0	0
3871	15	0	135	0
3872	0	15	15	0
3.8741E+15				
3876	55	158	35	0
3877	182	81	28	17
3878	86	13	0	0
3879	24	15	0	0
4002	15	0	0	64
4003	0	11	0	0
4008	31	51	0	0
4011	10	0	0	0
4012	0	0	25	0
4014	35	0	0	0
4016	27	43	0	0
4019	22	0	0	0
4021	63	30	36	7
4022	18	7	0	0
4024	23	19	22	0
4025	0	26	0	0
4027	0	17	8	0
4029	0	0	0	24
4030	0	0	0	17
4034	0	19	0	0
4053	0	0	35	0
4060	0	0	9	0
4061	14	0	0	0
4077	0	0	0	8
4078	10	0	84	0
4081	0	17	0	0
4087	0	9	0	0
4110	0	0	0	16

4123	0	0	0	24
4144	0	0	25	0
4148	0	0	0	18
4164	0	0	35	0
4183	0	0	75	0
4192	11	0	0	0
4193	0	0	0	17
4194	0	34	0	0
5127	0	27	0	0
5153	0	0	23	0
5159	0	0	0	18
5198	0	0	0	11
5252	9	0	0	0
6092	24	0	0	0
6213	0	21	0	0
6223	0	0	0	16
6236	0	0	0	32
7197	0	0	0	24
7212	16	0	0	0
7326	0	0	0	18
8080	11	0	0	0
8194	18	0	0	0
8402	0	0	33	0
8403	15	0	0	0
9032	0	0	0	8
9068	26	0	18	0
9998	16	27	68	0

TTS 2016 Data: Residential Trips, SAT Peak Period, Outbound

Tue Apr 27 2021 11:26:14 GMT-0400 (Eastern Daylight Time) - Run Time: 2744ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of destination - gta06_dest
Column: 2006 GTA zone of origin - gta06_orig

Filters:
(Start time of trip - start_time In 400 - 2800
and
2006 GTA zone of origin - gta06_orig In 3653 3648 3654 3649
and
Primary travel mode of trip - mode_prime In D
and
Trip purpose of origin - purp_orig In H)

Trip 2016
Table:

	3648	3649	3653	3654
6	0	0	10	0
21	0	29	0	0
25	0	14	0	0
29	18	0	0	0
32	0	0	35	0
35	0	0	0	18
36	0	62	0	0
37	24	0	0	0
38	0	26	0	0
40	0	9	33	0
41	11	0	0	0
46	0	38	0	0
48	0	24	0	0
49	0	14	0	0
50	0	62	0	0
51	0	13	0	0
52	0	27	0	0
53	17	0	0	0
54	0	0	35	0
55	28	0	0	0
57	0	28	0	10
59	0	0	0	7
63	11	12	0	0
64	11	53	0	0
65	0	9	35	0
67	0	37	0	0
69	0	0	0	43
72	0	0	15	0
76	31	0	0	0
82	8	0	0	0
86	16	0	0	0
90	0	0	32	17
91	0	17	0	0
105	0	0	0	8

106	0	11	0	0
107	0	0	6	0
110	5	0	0	0
113	0	18	0	0
114	14	0	0	0
116	0	12	0	0
120	56	0	0	0
125	11	0	0	0
126	5	0	0	0
131	0	10	0	0
138	19	0	0	0
146	0	0	0	18
150	23	0	0	0
151	0	27	0	0
156	0	0	0	26
157	21	0	69	0
160	0	11	16	0
167	0	0	0	38
177	0	29	0	0
179	0	59	0	0
182	0	37	0	0
184	0	30	0	0
187	0	22	0	0
190	0	18	0	0
196	0	22	0	0
197	0	11	0	0
204	63	24	0	0
206	0	14	0	0
210	0	8	0	0
218	15	0	0	0
220	21	0	0	0
231	0	11	19	0
236	0	34	0	0
243	0	0	0	22
246	0	14	0	0
259	0	0	0	18
269	0	0	0	26
270	0	0	23	0
285	0	0	43	0
286	15	9	0	0
288	0	17	0	0
289	0	26	15	0
290	63	21	43	26
291	0	14	0	0
292	0	39	28	47
293	0	0	0	96
294	0	22	0	0
295	0	60	45	25
296	0	67	11	0
297	17	0	0	0
298	0	0	0	38
299	0	114	48	68
300	0	41	0	49
301	14	0	47	44
306	0	0	17	12

307	28	0	113	16
308	31	0	106	15
309	21	113	120	103
310	0	11	44	0
312	38	50	80	147
313	0	29	0	23
315	0	25	0	0
316	8	0	0	0
317	0	11	0	0
323	0	48	65	0
324	5	0	0	0
326	0	0	43	0
327	0	9	20	0
329	0	0	23	0
330	0	0	0	18
332	0	23	0	0
335	0	27	10	0
342	0	0	11	0
344	0	9	0	0
347	26	0	0	0
350	0	0	0	17
354	0	26	0	0
356	0	19	38	0
357	48	0	0	0
359	0	0	69	0
360	18	0	0	0
368	0	51	0	0
371	105	44	0	41
372	0	17	0	0
379	13	0	28	27
386	18	0	0	0
387	0	0	75	38
393	0	0	35	0
396	0	0	13	0
403	0	0	0	10
406	0	0	25	0
409	0	0	15	0
423	0	8	0	0
442	0	0	0	21
444	21	0	0	0
452	0	11	0	26
453	0	27	0	0
458	0	27	0	0
481	0	0	17	0
484	13	0	0	0
490	0	12	0	0
493	0	59	0	0
507	0	0	0	18
528	0	0	42	0
530	0	0	16	0
532	23	0	0	0
540	0	9	0	0
546	14	0	0	0
599	0	0	12	0
605	24	0	0	0

1088	0	0	0	24
1152	0	27	0	0
1197	19	0	0	0
2003	0	0	0	8
2005	0	0	29	0
2006	0	0	40	0
2063	0	0	22	0
2072	48	0	0	0
2075	15	0	0	0
2082	0	9	0	0
2083	0	0	0	26
2095	0	18	35	0
2096	0	0	21	0
2098	0	0	0	26
2111	0	24	0	0
2114	45	0	0	0
2137	0	0	0	17
2257	0	0	0	26
2270	22	0	0	0
2370	0	0	0	17
2420	48	0	0	0
2618	31	0	0	0
3010	0	0	0	49
3325	0	0	0	26
3329	0	34	0	0
3338	0	0	31	0
3340	0	0	0	36
3344	17	0	0	0
3373	0	0	16	0
3419	15	0	0	0
3421	15	0	0	0
3423	0	0	16	0
3435	0	0	0	19
3450	0	0	12	0
3462	10	0	0	0
3495	6	49	0	0
3505	0	0	0	24
3506	0	0	35	0
3601	0	0	69	0
3604	0	15	0	0
3605	0	42	0	38
3606	0	0	83	0
3607	0	0	17	0
3608	0	0	44	0
3609	0	24	12	0
3612	12	22	110	0
3613	0	39	105	0
3614	40	0	15	0
3618	47	0	26	0
3620	0	0	11	0
3621	0	0	39	0
3622	0	0	0	16
3623	19	0	0	0
3626	38	0	0	0
3627	0	0	15	0

3629	0	29	0	0
3630	18	0	0	0
3631	24	0	26	11
3632	88	69	30	26
3633	36	17	30	27
3634	21	0	37	15
3635	0	37	75	0
3639	51	32	43	29
3640	32	27	0	0
3641	75	74	0	0
3642	141	88	24	8
3643	109	39	22	17
3645	25	8	15	0
3647	21	32	33	27
3648	306	121	161	0
3.64914E+15				
3650	0	18	6	0
3651	0	0	20	0
3652	9	0	15	0
3653	11	79	492	56
3.65411E+15				
3655	21	0	72	13
3658	22	0	0	0
3659	38	81	82	106
3660	105	39	80	104
3661	0	14	0	60
3662	0	15	60	18
3663	0	0	37	0
3664	18	57	42	0
3665	21	0	56	103
3666	0	0	22	0
3667	0	0	74	0
3668	28	0	17	16
3669	0	42	92	13
3670	16	0	42	35
3671	0	0	171	0
3673	9	0	0	0
3674	33	9	24	13
3675	0	38	0	0
3676	0	21	0	0
3677	4	0	0	0
3678	0	0	0	24
3679	0	0	15	0
3680	0	15	0	33
3682	0	0	17	4
3684	0	0	15	0
3688	0	23	0	0
3689	0	0	54	48
3690	0	0	54	34
3692	0	0	0	29
3693	23	56	42	44
3695	0	0	10	0
3697	0	0	62	36
3698	14	22	0	9
3699	31	40	22	0

3700	0	33	11	37
3701	32	0	12	0
3702	14	0	0	26
3703	23	18	42	0
3704	0	17	0	0
3705	11	0	0	0
3706	24	0	0	0
3709	20	41	0	0
3710	15	11	0	0
3711	0	0	23	0
3713	21	0	22	0
3715	0	7	0	0
3717	23	0	23	23
3719	0	0	15	0
3720	0	0	23	0
3721	0	0	0	17
3723	0	0	36	0
3809	0	0	0	23
3815	0	0	0	18
3816	23	0	56	0
3818	0	0	33	0
3824	0	0	33	0
3825	57	0	15	32
3828	0	25	0	0
3834	0	60	0	26
3835	14	27	0	0
3838	0	0	26	0
3843	0	26	22	0
3847	8	7	0	8
3849	12	0	0	0
3851	70	27	96	0
3854	0	0	0	17
3857	0	0	0	29
3860	0	15	0	11
3861	0	25	18	0
3862	0	0	18	0
3863	0	8	53	0
3864	0	0	20	0
3867	0	0	21	0
3868	21	0	20	0
3870	0	52	0	0
3871	15	0	152	0
3872	0	15	31	0
3874	61	124	145	157
3876	9	130	35	0
3877	170	78	47	17
3878	72	0	0	0
3879	24	15	0	0
4002	0	0	0	64
4003	0	11	0	0
4008	31	51	0	0
4012	0	0	25	0
4014	35	0	0	0
4016	27	43	0	49
4019	22	0	0	0

4021	63	30	36	0
4022	18	0	0	0
4023	15	0	0	0
4024	23	0	0	0
4025	0	26	0	0
4027	0	26	8	0
4029	0	0	0	24
4030	0	0	0	17
4034	0	37	0	0
4035	0	0	19	0
4040	0	0	0	26
4053	0	0	35	0
4060	0	0	9	0
4061	14	0	0	0
4077	0	0	0	7
4078	10	0	40	0
4081	0	17	0	0
4110	0	0	0	16
4144	0	0	25	0
4148	0	0	0	18
4164	0	0	35	0
4183	0	0	75	0
4192	11	0	0	0
4193	0	0	0	17
5127	0	27	0	0
5148	15	0	0	0
5153	0	0	23	0
5159	0	0	0	18
5198	0	0	0	11
5252	9	0	0	0
6024	0	0	0	19
6044	0	13	0	0
6092	24	0	0	0
6110	0	21	0	0
6223	0	0	0	16
7197	0	0	0	24
7212	16	0	0	0
7326	0	0	0	18
8080	11	0	0	0
8194	18	0	0	0
8402	0	0	33	0
8403	15	0	0	0
8684	0	15	0	0
9032	0	0	0	8
9068	26	0	18	0
9998	0	0	40	0

Gateway No.	Locations	AM		PM	
		IN	OUT	IN	OUT
1	Dixie Rd (N of Sherway Dr)	41%	28%	33%	30%
2	QEW (W of Dixie Rd)	24%	24%	8%	30%
3	QEW (E of Dixie Rd)	28%	46%	54%	31%
4	Dixie Rd (S of Church Driveway/Street A)	5%	2%	4%	7%
5	S Service Rd (W of Haig Blvd)	2%	1%	0%	2%
6					
7					
8					
9					
10					
	Total	100%	100%	100%	100%

Divert Traffic Volumes

From	To	%
QEW (W of Dixie Rd)	S Service Rd (W of Haig Blvd)	15%

FINAL GATEWAT TRIP DISTRIBUTION:

Gateway No.	Locations	AM		PM	
		IN	OUT	IN	OUT
1	Dixie Rd (N of Sherway Dr)	41%	28%	33%	30%
2	QEW (W of Dixie Rd)	21%	20%	7%	26%
3	QEW (E of Dixie Rd)	28%	46%	54%	31%
4	Dixie Rd (S of Church Driveway/Street A)	5%	2%	4%	7%
5	S Service Rd (W of Haig Blvd)	6%	4%	2%	7%
6					
7					
8					
9					
10					
	Total	100%	100%	100%	100%

Gateway No.	Locations	RES SAT	
		IN	OUT
1	Dixie Rd (N of Sherway Dr)	18%	26%
2	QEW (W of Dixie Rd)	24%	29%
3	QEW (E of Dixie Rd)	54%	32%
4	Dixie Rd (S of Church Driveway/Street A)	4%	8%
5	S Service Rd (W of Haig Blvd)	1%	4%
6			
7			
8			
9			
10			
	Total	100%	100%

Divert Traffic Volumes:

From	To	%
QEW (W of Dixie Rd)	S Service Rd (W of Haig Blvd)	15%

FINAL GATEWAT TRIP DISTRIBUTION:

Gateway No.	Locations	RES SAT	
		IN	OUT
1	Dixie Rd (N of Sherway Dr)	18%	26%
2	QEW (W of Dixie Rd)	20%	24%
3	QEW (E of Dixie Rd)	54%	32%
4	Dixie Rd (S of Church Driveway/Street A)	4%	8%
5	S Service Rd (W of Haig Blvd)	5%	9%
6			
7			
8			
9			
10			
	Total	100%	100%

APPENDIX G

ITE Trip Generation Data Sheets

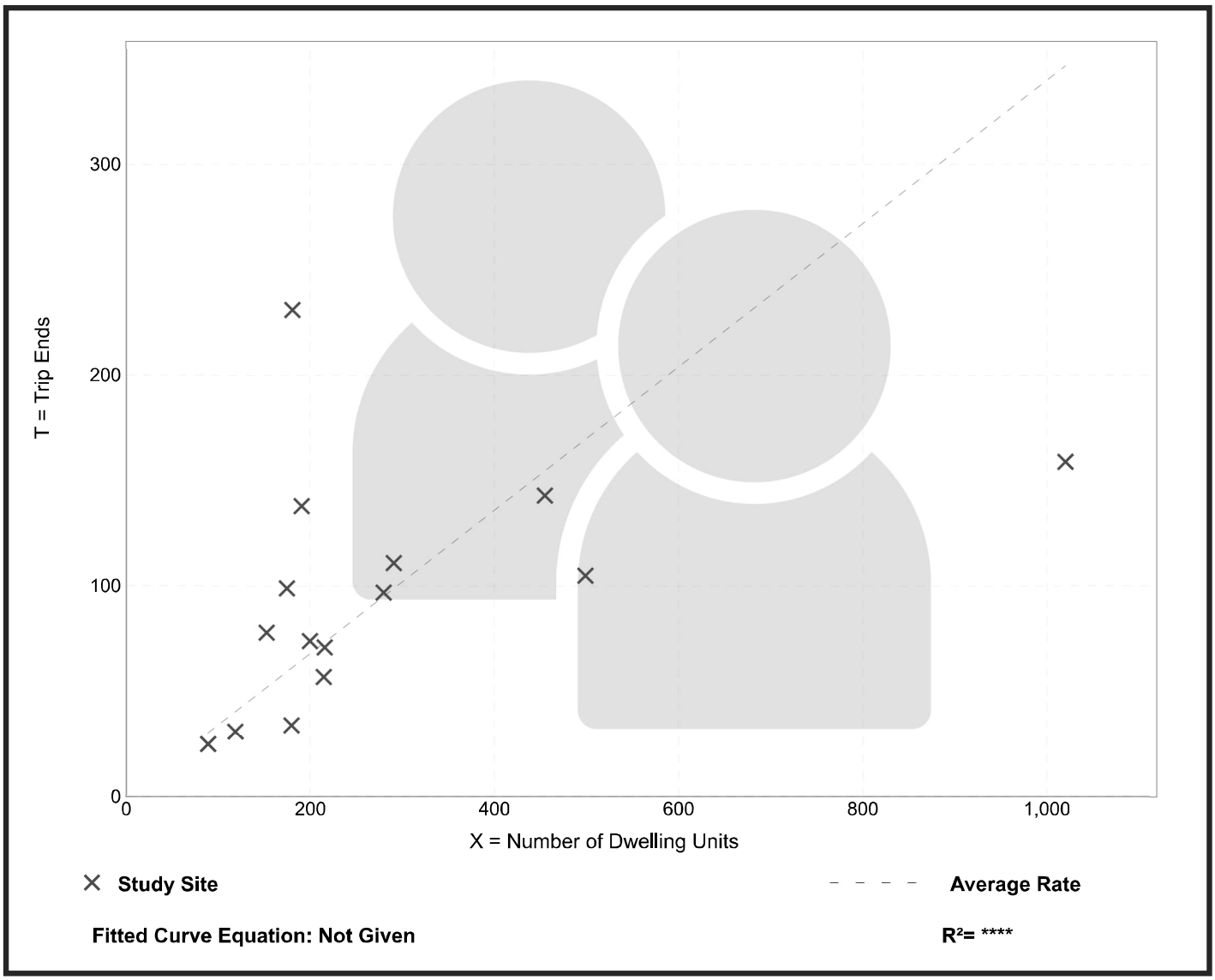
Multifamily Housing (High-Rise)
Not Close to Rail Transit (222)

Person Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	15
Avg. Num. of Dwelling Units:	284
Directional Distribution:	25% entering, 75% exiting

Person Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.34	0.16 - 1.28	0.25

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

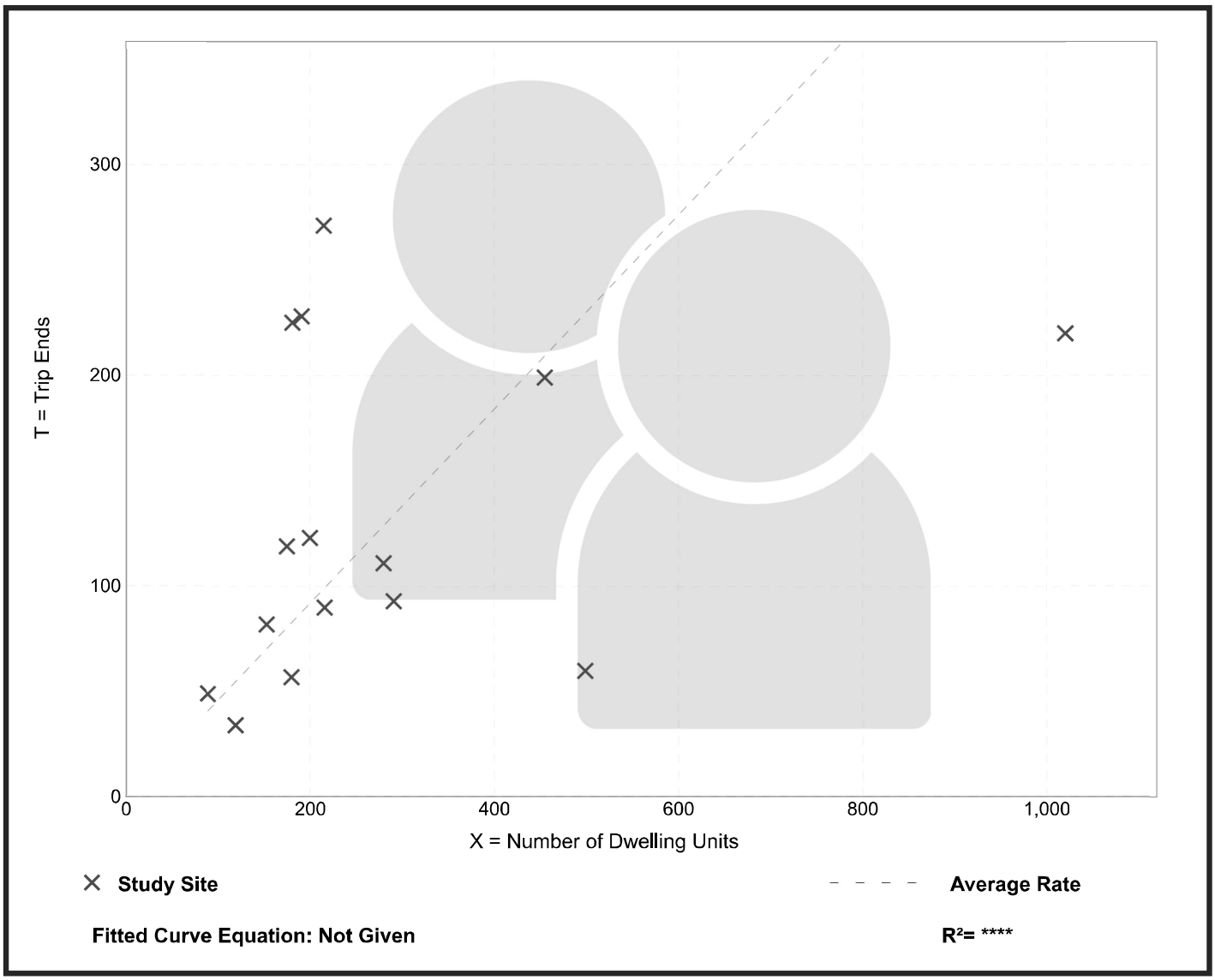
Multifamily Housing (High-Rise)
Not Close to Rail Transit (222)

Person Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	15
Avg. Num. of Dwelling Units:	284
Directional Distribution:	66% entering, 34% exiting

Person Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.12 - 1.26	0.35

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Multifamily Housing (High-Rise)
Not Close to Rail Transit (222)

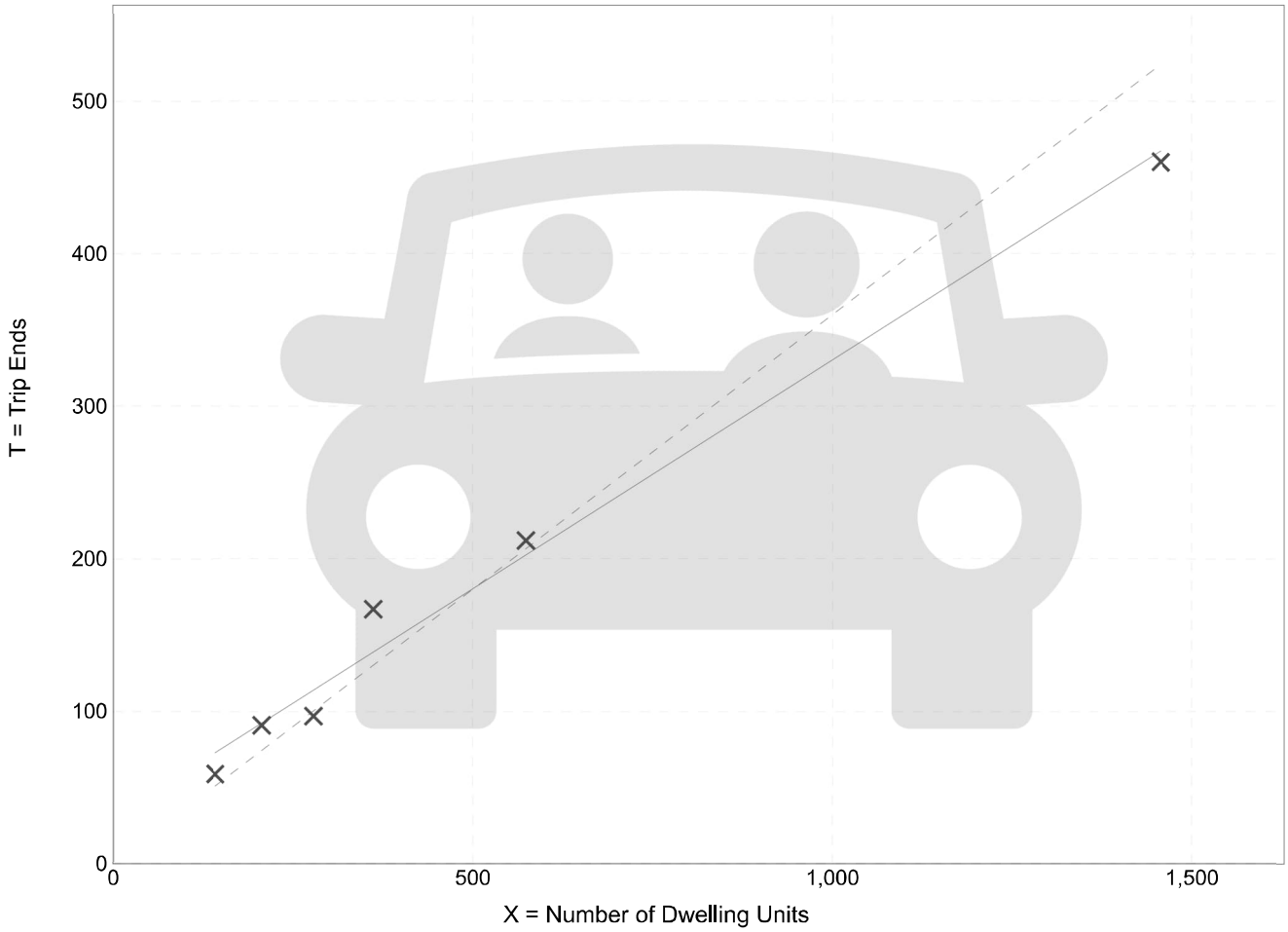
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 6
Avg. Num. of Dwelling Units: 503
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.36	0.32 - 0.46	0.06

Data Plot and Equation



Fitted Curve Equation: T = 0.30(X) + 30.34

R^2= 0.99

APPENDIX H

Intersection Capacity Analysis & Signal Warrant Analysis

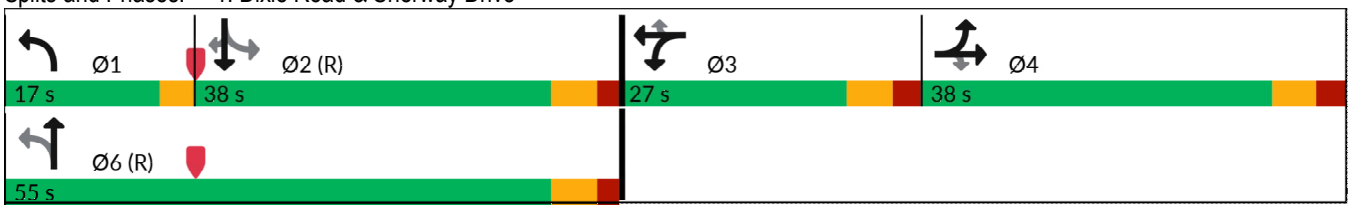
Intersection Capacity Analysis (Existing)

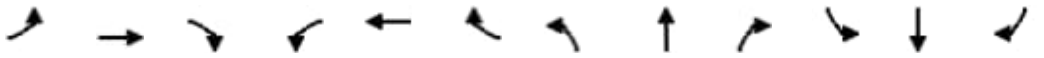
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	434	49	68	83	207	217	395	156	15	586
Future Volume (vph)	434	49	68	83	207	217	395	156	15	586
Lane Group Flow (vph)	271	278	77	153	235	247	507	177	17	666
Turn Type	Split	NA	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4	4		3		1	6		2	
Permitted Phases			4		3	6		2		2
Detector Phase	4	4	4	3	3	1	6	2	2	2
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.6	31.6	31.6	31.6	31.6	14.5	26.0	26.0	26.0	26.0
Total Split (s)	38.0	38.0	38.0	27.0	27.0	17.0	55.0	38.0	38.0	38.0
Total Split (%)	31.7%	31.7%	31.7%	22.5%	22.5%	14.2%	45.8%	31.7%	31.7%	31.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	2.6	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	6.6	3.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.74	0.74	0.17	0.60	0.61	0.35	0.31	0.63	0.01	0.70
Control Delay (s/veh)	55.4	55.9	2.9	57.8	18.4	21.1	21.0	49.3	31.8	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.4	55.9	2.9	57.8	18.4	21.1	21.0	49.3	31.8	7.3
Queue Length 50th (m)	64.9	66.8	0.0	36.0	10.0	35.8	39.9	39.6	1.5	0.0
Queue Length 95th (m)	92.2	94.4	4.1	55.3	33.2	58.6	57.0	#76.4	4.6	29.1
Internal Link Dist (m)		122.4		89.4			57.3		204.3	
Turn Bay Length (m)						110.0		50.0		
Base Capacity (vph)	426	432	490	309	421	696	1598	279	1179	948
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	0.64	0.16	0.50	0.56	0.35	0.32	0.63	0.01	0.70

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 80 (67%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Road & Sherway Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	434	49	68	52	83	207	217	395	51	156	15	586
Future Volume (vph)	434	49	68	52	83	207	217	395	51	156	15	586
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.6		6.6	6.6	3.0	6.0		6.0	6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00		0.99	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1630	1650	1551		1818	1551	1750	3351		1730	3570	1521
Flt Permitted	0.95	0.96	1.00		0.98	1.00	0.69	1.00		0.46	1.00	1.00
Satd. Flow (perm)	1630	1650	1551		1818	1551	1277	3351		848	3570	1521
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	493	56	77	59	94	235	247	449	58	177	17	666
RTOR Reduction (vph)	0	0	60	0	0	163	0	7	0	0	0	446
Lane Group Flow (vph)	271	278	17	0	153	72	247	500	0	177	17	220
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	4%	4%	3%	2%	1%	3%	2%	5%	0%	3%	0%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	4	4		3	3		1	6			2	
Permitted Phases			4			3	6			2		2
Actuated Green, G (s)	27.0	27.0	27.0		16.9	16.9	56.9	56.9		39.6	39.6	39.6
Effective Green, g (s)	27.0	27.0	27.0		16.9	16.9	56.9	56.9		39.6	39.6	39.6
Actuated g/C Ratio	0.23	0.23	0.23		0.14	0.14	0.47	0.47		0.33	0.33	0.33
Clearance Time (s)	6.6	6.6	6.6		6.6	6.6	3.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	366	371	348		256	218	661	1588		279	1178	501
v/s Ratio Prot	0.17	c0.17			c0.08		c0.04	0.15			0.00	
v/s Ratio Perm			0.01			0.05	0.13			c0.21		0.14
v/c Ratio	0.74	0.74	0.04		0.59	0.32	0.37	0.31		0.63	0.01	0.43
Uniform Delay, d1	43.2	43.3	36.4		48.3	46.4	19.3	19.4		34.0	27.0	31.4
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	9.3	9.6	0.1		5.5	1.8	0.7	0.5		10.5	0.0	2.7
Delay (s)	52.5	52.9	36.5		53.9	48.2	20.1	20.0		44.5	27.0	34.2
Level of Service	D	D	D		D	D	C	C		D	C	C
Approach Delay (s/veh)		50.7			50.5			20.0			36.2	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	22.2
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

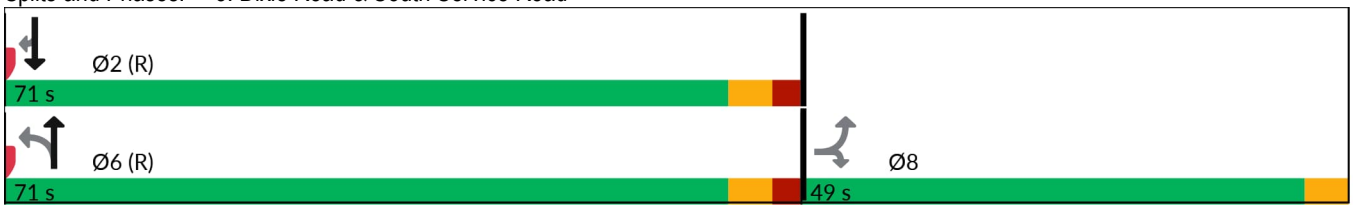
c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	157	22	73	436	458	401
Future Volume (vph)	157	22	73	436	458	401
Lane Group Flow (vph)	167	23	78	464	487	427
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				6	2	
Permitted Phases	8	8	6			2
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	33.3	33.3	29.4	29.4	29.4	29.4
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	0.0	2.4	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.61	0.10	0.12	0.18	0.19	0.33
Control Delay (s/veh)	56.3	15.9	6.1	5.4	4.7	1.2
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	56.3	15.9	6.1	5.6	4.7	1.2
Queue Length 50th (m)	39.1	0.0	5.3	16.7	15.4	0.0
Queue Length 95th (m)	59.0	7.3	12.0	26.2	26.1	9.0
Internal Link Dist (m)	127.8			95.9	286.1	
Turn Bay Length (m)		30.0	50.0			50.0
Base Capacity (vph)	649	486	624	2571	2546	1276
Starvation Cap Reductn	0	0	0	1310	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.05	0.13	0.37	0.19	0.33

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 42 (35%), Referenced to phase 2:SBT and 6:NBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Dixie Road & South Service Road



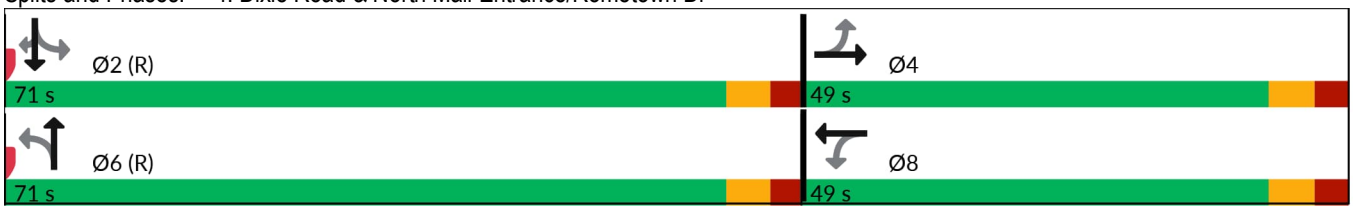
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	157	22	73	436	458	401
Future Volume (vph)	157	22	73	436	458	401
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1733	1258	1653	3400	3368	1551
Flt Permitted	0.95	1.00	0.47	1.00	1.00	1.00
Satd. Flow (perm)	1733	1258	826	3400	3368	1551
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	167	23	78	464	487	427
RTOR Reduction (vph)	0	19	0	0	0	104
Lane Group Flow (vph)	167	4	78	464	487	323
Heavy Vehicles (%)	3%	27%	8%	5%	6%	3%
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				6	2	
Permitted Phases	8	8	6			2
Actuated Green, G (s)	18.9	18.9	90.7	90.7	90.7	90.7
Effective Green, g (s)	18.9	18.9	90.7	90.7	90.7	90.7
Actuated g/C Ratio	0.16	0.16	0.76	0.76	0.76	0.76
Clearance Time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Vehicle Extension (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	272	198	624	2569	2545	1172
v/s Ratio Prot				0.14	0.14	
v/s Ratio Perm	c0.10	0.00	0.09			c0.21
v/c Ratio	0.61	0.01	0.12	0.18	0.19	0.27
Uniform Delay, d1	47.1	42.7	3.9	4.1	4.1	4.5
Progression Factor	1.00	1.00	1.17	1.14	1.00	1.00
Incremental Delay, d2	5.8	0.0	0.4	0.1	0.1	0.5
Delay (s)	52.9	42.7	5.0	4.9	4.3	5.0
Level of Service	D	D	A	A	A	A
Approach Delay (s/veh)	51.7			4.9	4.6	
Approach LOS	D			A	A	

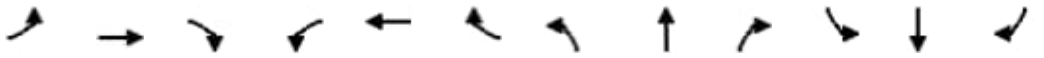
Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	43	3	11	0	1	407	49	441	54
Future Volume (vph)	43	3	11	0	1	407	49	441	54
Lane Group Flow (vph)	47	3	0	83	1	553	53	479	59
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.7	41.7	41.7	41.7	35.6	35.6	35.6	35.6	35.6
Total Split (s)	49.0	49.0	49.0	49.0	71.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.41	0.01		0.36	0.00	0.20	0.08	0.17	0.04
Control Delay (s/veh)	59.3	45.0		18.5	5.0	3.4	1.8	1.5	0.1
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.1	0.0
Total Delay (s/veh)	59.3	45.0		18.5	5.0	3.5	1.8	1.6	0.1
Queue Length 50th (m)	11.1	0.7		2.7	0.0	8.0	0.9	4.1	0.0
Queue Length 95th (m)	23.0	3.7		17.5	m0.1	11.3	2.5	7.4	0.3
Internal Link Dist (m)		53.7		34.6		43.0		95.9	
Turn Bay Length (m)					45.0		25.0		
Base Capacity (vph)	371	656		573	731	2760	654	2742	1237
Starvation Cap Reductn	0	0		0	0	1152	0	1262	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	0.13	0.00		0.14	0.00	0.34	0.08	0.32	0.05

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Dixie Road & North Mall Entrance/Rometown Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	3	0	11	0	65	1	407	102	49	441	54
Future Volume (vph)	43	3	0	11	0	65	1	407	102	49	441	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00			0.88		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1394	1879			1582		1785	3381		1716	3368	1507
Flt Permitted	0.72	1.00			0.94		0.47	1.00		0.44	1.00	1.00
Satd. Flow (perm)	1063	1879			1510		899	3381		804	3368	1507
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	3	0	12	0	71	1	442	111	53	479	59
RTOR Reduction (vph)	0	0	0	0	64	0	0	8	0	0	0	12
Lane Group Flow (vph)	47	3	0	0	19	0	1	545	0	53	479	47
Heavy Vehicles (%)	28%	0%	0%	18%	0%	2%	0%	3%	0%	4%	6%	6%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	11.3	11.3			11.3		95.0	95.0		95.0	95.0	95.0
Effective Green, g (s)	11.3	11.3			11.3		95.0	95.0		95.0	95.0	95.0
Actuated g/C Ratio	0.09	0.09			0.09		0.79	0.79		0.79	0.79	0.79
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	100	176			142		711	2676		636	2666	1193
v/s Ratio Prot		0.00						c0.16			0.14	
v/s Ratio Perm	c0.04				0.01		0.00			0.07		0.03
v/c Ratio	0.47	0.01			0.13		0.00	0.20		0.08	0.17	0.03
Uniform Delay, d1	51.5	49.3			49.8		2.6	3.1		2.7	3.0	2.6
Progression Factor	1.00	1.00			1.00		1.27	0.99		0.41	0.39	0.05
Incremental Delay, d2	7.1	0.0			0.8		0.0	0.1		0.2	0.1	0.0
Delay (s)	58.6	49.3			50.7		3.3	3.2		1.4	1.3	0.1
Level of Service	E	D			D		A	A		A	A	A
Approach Delay (s/veh)		58.0			50.7			3.2			1.2	
Approach LOS		E			D			A			A	

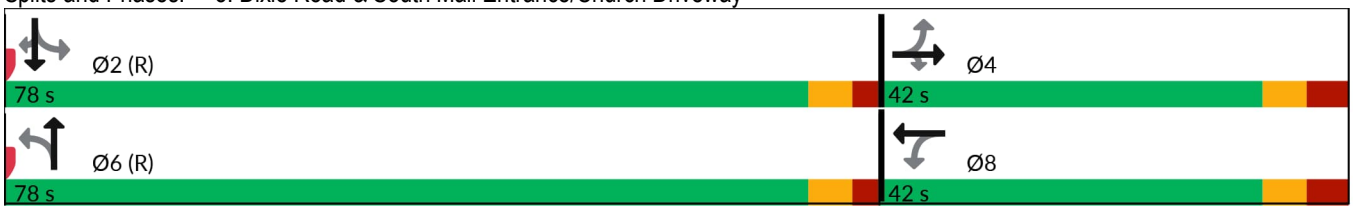
Intersection Summary			
HCM 2000 Control Delay (s/veh)	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

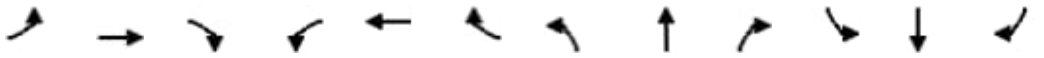
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations								
Traffic Volume (vph)	10	0	20	17	515	390	70	
Future Volume (vph)	10	0	20	17	515	390	70	
Lane Group Flow (vph)	0	11	22	18	560	424	76	
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	
Protected Phases		4			6	2		8
Permitted Phases	4		4	6			2	
Detector Phase	4	4	4	6	6	2	2	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	41.7	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	42.0	78.0	78.0	78.0	78.0	42.0
Total Split (%)	35.0%	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%	35%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	3.7	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		7.7	7.7	6.2	6.2	6.2	6.2	
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio		0.11	0.14	0.02	0.34	0.26	0.07	
Control Delay (s/veh)		53.7	15.2	3.0	3.2	0.9	0.1	
Queue Delay		0.0	0.0	0.0	0.0	0.1	0.0	
Total Delay (s/veh)		53.7	15.2	3.0	3.2	1.1	0.1	
Queue Length 50th (m)		2.6	0.0	0.6	23.2	1.5	0.0	
Queue Length 95th (m)		8.8	6.8	m2.5	56.1	4.7	0.1	
Internal Link Dist (m)		55.2			406.0	27.9		
Turn Bay Length (m)			30.0	15.0				
Base Capacity (vph)		312	455	847	1603	1572	1082	
Starvation Cap Reductn		0	0	0	0	433	0	
Spillback Cap Reductn		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	
Reduced v/c Ratio		0.04	0.05	0.02	0.35	0.37	0.07	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & South Mall Entrance/Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	0	20	0	0	0	17	515	0	0	390	70
Future Volume (vph)	10	0	20	0	0	0	17	515	0	0	390	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.7	7.7				6.2	6.2			6.2	6.2
Lane Util. Factor		1.00	1.00				1.00	1.00			1.00	1.00
Frpb, ped/bikes		1.00	1.00				1.00	1.00			1.00	0.97
Flpb, ped/bikes		1.00	1.00				0.99	1.00			1.00	1.00
Frt		1.00	0.85				1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)		1373	1521				1776	1824			1789	1221
Flt Permitted		0.75	1.00				0.51	1.00			1.00	1.00
Satd. Flow (perm)		1094	1521				963	1824			1789	1221
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	0	22	0	0	0	18	560	0	0	424	76
RTOR Reduction (vph)	0	0	21	0	0	0	0	0	0	0	0	13
Lane Group Flow (vph)	0	11	1	0	0	0	18	560	0	0	424	63
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	30%	0%	5%	0%	0%	0%	0%	3%	0%	0%	5%	27%
Turn Type	Perm	NA	Perm				Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4		4	8			6			2		2
Actuated Green, G (s)		6.2	6.2				99.9	99.9			99.9	99.9
Effective Green, g (s)		6.2	6.2				99.9	99.9			99.9	99.9
Actuated g/C Ratio		0.05	0.05				0.83	0.83			0.83	0.83
Clearance Time (s)		7.7	7.7				6.2	6.2			6.2	6.2
Vehicle Extension (s)		5.0	5.0				5.0	5.0			5.0	5.0
Lane Grp Cap (vph)		56	78				801	1518			1489	1016
v/s Ratio Prot								c0.31			0.24	
v/s Ratio Perm		c0.01	0.00				0.02					0.05
v/c Ratio		0.19	0.01				0.02	0.36			0.28	0.06
Uniform Delay, d1		54.5	54.0				1.7	2.4			2.2	1.7
Progression Factor		1.00	1.00				1.23	1.03			0.22	0.00
Incremental Delay, d2		3.5	0.1				0.0	0.6			0.4	0.1
Delay (s)		58.0	54.1				2.1	3.1			0.9	0.1
Level of Service		E	D				A	A			A	A
Approach Delay (s/veh)		55.4			0.0			3.1			0.8	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	14	458	196	0
Future Vol, veh/h	0	2	14	458	196	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	3	5	0
Mvmt Flow	0	2	15	503	215	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	215	215	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	830	1367	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	830	1367	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.3	0.2	0
HCM LOS	A		

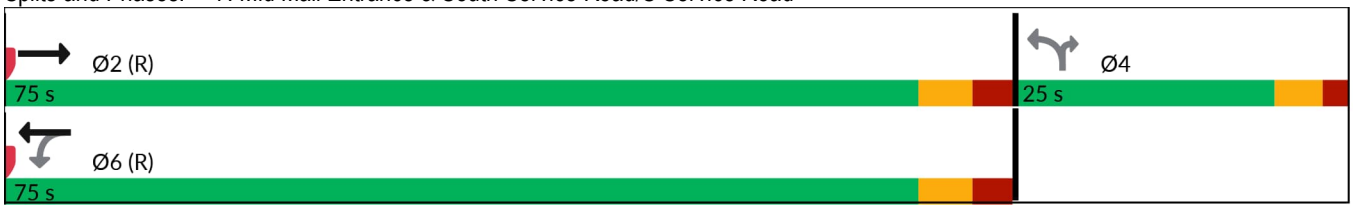
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1367	-	830	-	-
HCM Lane V/C Ratio	0.011	-	0.003	-	-
HCM Control Delay (s/veh)	7.7	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

Lane Group	EBT	WBT	NBL	NBR
Lane Configurations				
Traffic Volume (vph)	520	220	5	3
Future Volume (vph)	520	220	5	3
Lane Group Flow (vph)	664	275	6	4
Turn Type	NA	NA	Perm	Perm
Protected Phases	2	6		
Permitted Phases			4	4
Detector Phase	2	6	4	4
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	42.0	42.0	26.0	26.0
Total Split (s)	75.0	75.0	25.0	25.0
Total Split (%)	75.0%	75.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	5.5	5.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None
v/c Ratio	0.20	0.16	0.04	0.02
Control Delay (s/veh)	0.2	1.0	42.8	27.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	0.2	1.0	42.8	27.3
Queue Length 50th (m)	0.0	0.0	1.2	0.0
Queue Length 95th (m)	3.2	14.9	4.6	2.9
Internal Link Dist (m)	194.3	186.2	63.4	
Turn Bay Length (m)				15.0
Base Capacity (vph)	3295	1683	348	314
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.16	0.02	0.01

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 47 (47%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 7: Mid Mall Entrance & South Service Road/S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	11	0	220	5	3
Future Volume (vph)	520	11	0	220	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0			7.0	5.5	5.5
Lane Util. Factor	0.95			1.00	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	1.00
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3442			1758	1785	1597
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	3442			1758	1785	1597
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	650	14	0	275	6	4
RTOR Reduction (vph)	1	0	0	0	0	4
Lane Group Flow (vph)	663	0	0	275	6	0
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	3%	0%	0%	6%	0%	0%
Bus Blockages (#/hr)	2	0	0	2	0	0
Turn Type	NA			NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases			6		4	4
Actuated Green, G (s)	85.7			85.7	1.8	1.8
Effective Green, g (s)	85.7			85.7	1.8	1.8
Actuated g/C Ratio	0.86			0.86	0.02	0.02
Clearance Time (s)	7.0			7.0	5.5	5.5
Vehicle Extension (s)	5.0			5.0	5.0	5.0
Lane Grp Cap (vph)	2949			1506	32	28
v/s Ratio Prot	c0.19			0.16		
v/s Ratio Perm					c0.00	0.00
v/c Ratio	0.22			0.18	0.18	0.00
Uniform Delay, d1	1.2			1.2	48.3	48.2
Progression Factor	0.22			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.2	5.8	0.0
Delay (s)	0.4			1.4	54.2	48.2
Level of Service	A			A	D	D
Approach Delay (s/veh)	0.4			1.4	51.8	
Approach LOS	A			A	D	

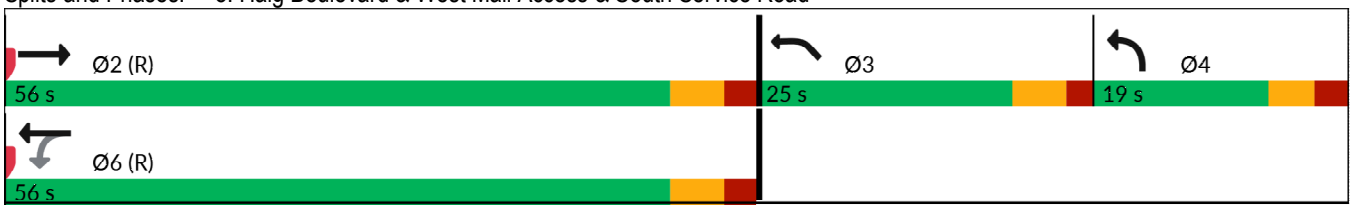
Intersection Summary			
HCM 2000 Control Delay (s/veh)	1.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL	NWL
Lane Configurations				
Traffic Volume (vph)	506	225	200	2
Future Volume (vph)	506	225	200	2
Lane Group Flow (vph)	820	250	250	2
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	4	3
Permitted Phases				
Detector Phase	2	6	4	3
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	14.0	28.0
Total Split (s)	56.0	56.0	19.0	25.0
Total Split (%)	56.0%	56.0%	19.0%	25.0%
Yellow Time (s)	4.0	4.0	3.5	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.0	6.0
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	C-Max	C-Max	None	None
v/c Ratio	0.79	0.23	0.57	0.01
Control Delay (s/veh)	20.6	10.1	39.1	42.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.6	10.1	39.1	42.5
Queue Length 50th (m)	107.9	21.1	44.9	0.4
Queue Length 95th (m)	#244.0	46.2	71.8	2.7
Internal Link Dist (m)	231.6	194.3	543.2	41.8
Turn Bay Length (m)				
Base Capacity (vph)	1031	1081	438	332
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.80	0.23	0.57	0.01

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 51 (51%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Haig Boulevard & West Mall Access & South Service Road



Movement	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR
Lane Configurations									
Traffic Volume (vph)	506	14	225	0	225	200	25	2	0
Future Volume (vph)	506	14	225	0	225	200	25	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5				6.5	6.0		6.0	
Lane Util. Factor	1.00				1.00	1.00		1.00	
Frpb, ped/bikes	0.99				1.00	0.99		1.00	
Flpb, ped/bikes	1.00				1.00	1.00		1.00	
Frt	0.95				1.00	0.98		1.00	
Flt Protected	1.00				1.00	0.95		0.95	
Satd. Flow (prot)	1723				1807	1769		1750	
Flt Permitted	1.00				1.00	0.95		0.95	
Satd. Flow (perm)	1723				1807	1769		1750	
Peak-hour factor, PHF	0.90	0.90	0.93	0.90	0.90	0.90	0.90	0.93	0.93
Adj. Flow (vph)	562	16	242	0	250	222	28	2	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	820	0	0	0	250	250	0	2	0
Confl. Peds. (#/hr)		3		3			2		
Heavy Vehicles (%)	3%	7%	2%	0%	4%	0%	0%	2%	2%
Bus Blockages (#/hr)	2	0	0	0	0	0	0	0	0
Turn Type	NA			Perm	NA	Prot		Prot	
Protected Phases	2				6	4		3	
Permitted Phases				6					
Actuated Green, G (s)	55.1				55.1	24.8		1.6	
Effective Green, g (s)	55.1				55.1	24.8		1.6	
Actuated g/C Ratio	0.55				0.55	0.25		0.02	
Clearance Time (s)	6.5				6.5	6.0		6.0	
Vehicle Extension (s)	5.0				5.0	5.0		5.0	
Lane Grp Cap (vph)	949				995	438		28	
v/s Ratio Prot	c0.48				0.14	c0.14		c0.00	
v/s Ratio Perm									
v/c Ratio	0.86				0.25	0.57		0.07	
Uniform Delay, d1	19.2				11.6	32.9		48.4	
Progression Factor	0.78				0.92	1.00		1.00	
Incremental Delay, d2	9.9				0.6	2.8		2.2	
Delay (s)	25.1				11.4	35.7		50.7	
Level of Service	C				B	D		D	
Approach Delay (s/veh)	25.1				11.4	35.7		50.7	
Approach LOS	C				B	D		D	

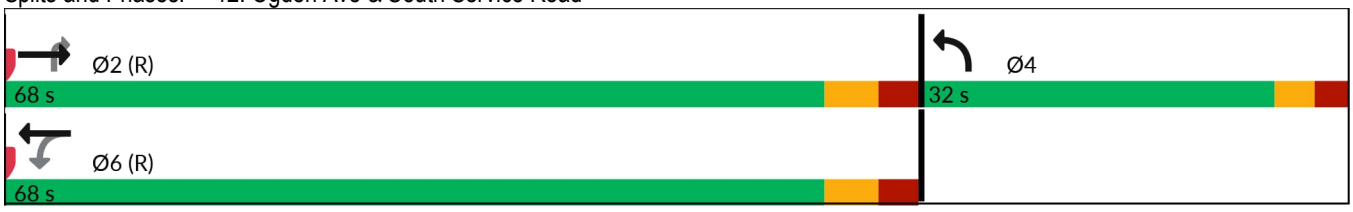
Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	441	47	317	50	81
Future Volume (vph)	441	47	317	50	81
Lane Group Flow (vph)	656	57	387	61	99
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	27.5	30.0
Total Split (s)	68.0	68.0	68.0	32.0	68.0
Total Split (%)	68.0%	68.0%	68.0%	32.0%	68.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	5.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.49	0.12	0.28	0.29	0.08
Control Delay (s/veh)	6.4	2.2	3.1	43.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.4	2.2	3.1	43.4	0.9
Queue Length 50th (m)	41.1	0.9	6.2	11.6	0.0
Queue Length 95th (m)	58.0	m1.7	7.6	21.4	3.1
Internal Link Dist (m)	30.8		231.6	84.3	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1331	466	1366	438	1102
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.49	0.12	0.28	0.14	0.09

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 41 (41%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & South Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	441	97	47	317	50	81
Future Volume (vph)	441	97	47	317	50	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	5.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770		1578	1824	1653	1439
Flt Permitted	1.00		0.37	1.00	0.95	1.00
Satd. Flow (perm)	1770		622	1824	1653	1439
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	538	118	57	387	61	99
RTOR Reduction (vph)	5	0	0	0	0	25
Lane Group Flow (vph)	651	0	57	387	61	74
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	3%	4%	13%	3%	8%	11%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	74.9		74.9	74.9	12.6	74.9
Effective Green, g (s)	74.9		74.9	74.9	12.6	74.9
Actuated g/C Ratio	0.75		0.75	0.75	0.13	0.75
Clearance Time (s)	7.0		7.0	7.0	5.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1325		465	1366	208	1077
v/s Ratio Prot	c0.37			0.21	c0.04	
v/s Ratio Perm			0.09			0.05
v/c Ratio	0.49		0.12	0.28	0.29	0.06
Uniform Delay, d1	4.9		3.4	3.9	39.6	3.3
Progression Factor	1.00		0.45	0.62	1.00	1.00
Incremental Delay, d2	1.3		0.5	0.4	1.6	0.1
Delay (s)	6.2		2.0	2.9	41.3	3.4
Level of Service	A		A	A	D	A
Approach Delay (s/veh)	6.2			2.8	17.8	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

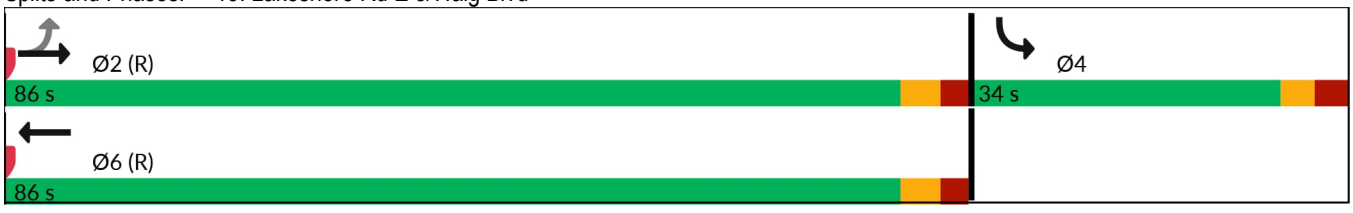
c Critical Lane Group

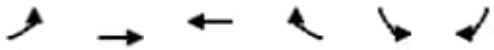
Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	24	965	892	40
Future Volume (vph)	24	965	892	40
Lane Group Flow (vph)	25	1016	975	84
Turn Type	Perm	NA	NA	Prot
Protected Phases		2	6	4
Permitted Phases	2			
Detector Phase	2	2	6	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	34.0
Total Split (s)	86.0	86.0	86.0	34.0
Total Split (%)	71.7%	71.7%	71.7%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.0
All-Red Time (s)	2.5	2.5	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	0.05	0.34	0.34	0.42
Control Delay (s/veh)	3.1	3.4	0.9	35.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.1	3.4	0.9	35.7
Queue Length 50th (m)	1.0	28.2	1.7	10.6
Queue Length 95th (m)	3.4	44.2	12.7	26.2
Internal Link Dist (m)		227.1	589.2	365.6
Turn Bay Length (m)	20.0			
Base Capacity (vph)	449	2908	2852	416
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.06	0.35	0.34	0.20

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 106 (88%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 13: Lakeshore Rd E & Haig Blvd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	24	965	892	34	40	40
Future Volume (vph)	24	965	892	34	40	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frpb, ped/bikes	1.00	1.00	0.99		0.99	
Flpb, ped/bikes	0.99	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.93	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1779	3466	3400		1653	
Flt Permitted	0.28	1.00	1.00		0.97	
Satd. Flow (perm)	535	3466	3400		1653	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	25	1016	939	36	42	42
RTOR Reduction (vph)	0	0	1	0	36	0
Lane Group Flow (vph)	25	1016	974	0	48	0
Confl. Peds. (#/hr)	5			5	3	2
Confl. Bikes (#/hr)				2		1
Heavy Vehicles (%)	0%	3%	4%	12%	5%	0%
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	98.3	98.3	98.3		9.7	
Effective Green, g (s)	98.3	98.3	98.3		9.7	
Actuated g/C Ratio	0.82	0.82	0.82		0.08	
Clearance Time (s)	6.0	6.0	6.0		6.0	
Vehicle Extension (s)	5.0	5.0	5.0		5.0	
Lane Grp Cap (vph)	438	2839	2785		133	
v/s Ratio Prot		c0.29	0.29		c0.03	
v/s Ratio Perm	0.05					
v/c Ratio	0.05	0.35	0.34		0.36	
Uniform Delay, d1	2.0	2.7	2.7		52.2	
Progression Factor	1.00	1.00	0.21		1.00	
Incremental Delay, d2	0.2	0.3	0.3		3.4	
Delay (s)	2.3	3.1	0.9		55.7	
Level of Service	A	A	A		E	
Approach Delay (s/veh)		3.1	0.9		55.7	
Approach LOS		A	A		E	

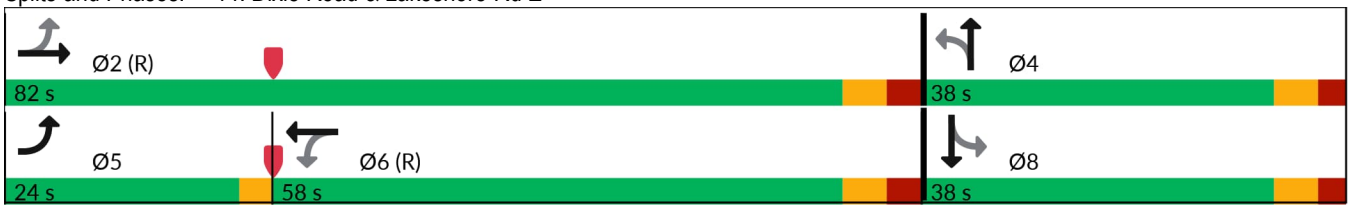
Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

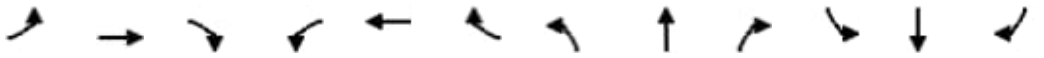
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	302	666	640	2	2	133	12
Future Volume (vph)	302	666	640	2	2	133	12
Lane Group Flow (vph)	315	717	850	0	4	139	268
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	5	2	6		4		8
Permitted Phases	2			4		8	
Detector Phase	5	2	6	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	14.5	40.0	40.0	24.5	24.5	37.5	37.5
Total Split (s)	24.0	82.0	58.0	38.0	38.0	38.0	38.0
Total Split (%)	20.0%	68.3%	48.3%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	3.0	3.0	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0		6.5	6.5	6.5
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None	C-Max	C-Max	None	None	None	None
v/c Ratio	0.59	0.28	0.44		0.01	0.61	0.58
Control Delay (s/veh)	16.0	9.5	16.4		38.0	69.2	25.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	16.0	9.5	16.4		38.0	69.2	25.4
Queue Length 50th (m)	28.4	29.3	55.4		0.9	37.0	16.9
Queue Length 95th (m)	68.7	71.1	98.0		3.9	57.6	46.1
Internal Link Dist (m)		589.2	176.1		31.2		406.0
Turn Bay Length (m)	20.0					30.0	
Base Capacity (vph)	595	2479	1895		407	368	587
Starvation Cap Reductn	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0
Reduced v/c Ratio	0.53	0.29	0.45		0.01	0.38	0.46

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 83 (69%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	666	22	0	640	176	2	2	0	133	12	245
Future Volume (vph)	302	666	22	0	640	176	2	2	0	133	12	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	7.0			7.0			6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95			0.95			1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99			0.99			1.00		1.00	0.98	
Flpb, ped/bikes	0.99	1.00			1.00			0.99		1.00	1.00	
Frt	1.00	0.99			0.96			1.00		1.00	0.85	
Flt Protected	0.95	1.00			1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1732	3418			3262			1831		1767	1521	
Flt Permitted	0.27	1.00			1.00			0.82		0.75	1.00	
Satd. Flow (perm)	498	3418			3262			1553		1405	1521	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	315	694	23	0	667	183	2	2	0	139	12	255
RTOR Reduction (vph)	0	1	0	0	15	0	0	0	0	0	214	0
Lane Group Flow (vph)	315	716	0	0	835	0	0	4	0	139	54	0
Confl. Peds. (#/hr)	7		1	1		7	4					4
Confl. Bikes (#/hr)						2			1			3
Heavy Vehicles (%)	3%	4%	0%	0%	6%	2%	0%	0%	0%	1%	0%	4%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	87.0	87.0			69.1			19.5		19.5	19.5	
Effective Green, g (s)	87.0	87.0			69.1			19.5		19.5	19.5	
Actuated g/C Ratio	0.73	0.73			0.58			0.16		0.16	0.16	
Clearance Time (s)	3.0	7.0			7.0			6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0			5.0			5.0		5.0	5.0	
Lane Grp Cap (vph)	514	2478			1878			252		228	247	
v/s Ratio Prot	c0.08	0.21			0.26						0.04	
v/s Ratio Perm	c0.37							0.00		c0.10		
v/c Ratio	0.61	0.28			0.44			0.01		0.60	0.22	
Uniform Delay, d1	6.9	5.7			14.5			42.1		46.7	43.6	
Progression Factor	2.27	1.46			1.00			1.00		1.26	3.34	
Incremental Delay, d2	2.9	0.2			0.7			0.0		6.5	0.9	
Delay (s)	18.8	8.7			15.2			42.2		65.8	147.1	
Level of Service	B	A			B			D		E	F	
Approach Delay (s/veh)		11.7			15.2			42.2			119.3	
Approach LOS		B			B			D			F	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	1	29	4	2	3	49	39	3	1	38	27
Future Vol, veh/h	30	1	29	4	2	3	49	39	3	1	38	27
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	3	0	0	0	0	0	2	8	0	0	3	11
Mvmt Flow	36	1	35	5	2	4	59	47	4	1	46	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.6	7.3	7.9	7.3
HCM LOS	A	A	A	A

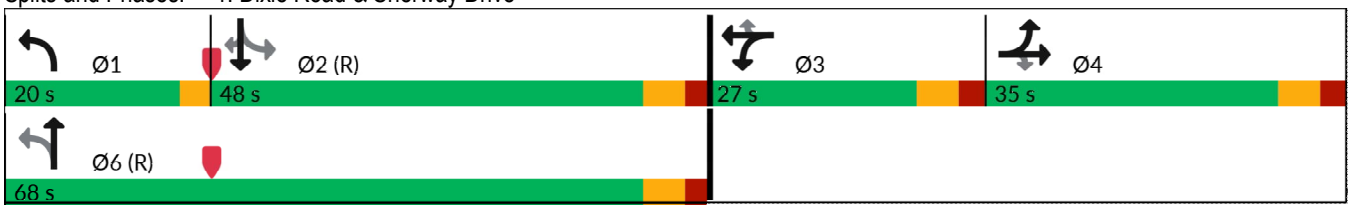
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	54%	50%	44%	2%
Vol Thru, %	43%	2%	22%	58%
Vol Right, %	3%	48%	33%	41%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	60	9	66
LT Vol	49	30	4	1
Through Vol	39	1	2	38
RT Vol	3	29	3	27
Lane Flow Rate	110	72	11	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.129	0.082	0.013	0.086
Departure Headway (Hd)	4.228	4.094	4.279	3.886
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	861	841	911
Service Time	2.283	2.186	2.279	1.955
HCM Lane V/C Ratio	0.131	0.084	0.013	0.088
HCM Control Delay, s/veh	7.9	7.6	7.3	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0	0.3

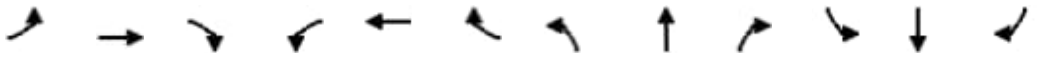
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	387	22	83	45	59	227	246	83	62	978
Future Volume (vph)	387	22	83	45	59	227	246	83	62	978
Lane Group Flow (vph)	216	214	87	74	62	239	300	87	65	1029
Turn Type	Split	NA	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4	4		3		1	6		2	
Permitted Phases			4		3	6		2		2
Detector Phase	4	4	4	3	3	1	6	2	2	2
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.6	31.6	31.6	31.6	31.6	14.5	26.0	26.0	26.0	26.0
Total Split (s)	35.0	35.0	35.0	27.0	27.0	20.0	68.0	48.0	48.0	48.0
Total Split (%)	26.9%	26.9%	26.9%	20.8%	20.8%	15.4%	52.3%	36.9%	36.9%	36.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	2.6	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	6.6	3.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.69	0.67	0.22	0.42	0.25	0.30	0.15	0.19	0.04	0.91
Control Delay (s/veh)	60.2	59.3	5.8	61.8	3.8	15.5	14.1	28.8	25.9	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.2	59.3	5.8	61.8	3.8	15.5	14.1	28.8	25.9	20.5
Queue Length 50th (m)	57.6	57.0	0.0	19.1	0.0	29.3	18.1	14.6	5.3	60.0
Queue Length 95th (m)	81.4	80.7	9.4	34.3	2.6	54.6	31.5	32.1	12.1	#201.3
Internal Link Dist (m)		122.4		89.4			57.3		204.3	
Turn Bay Length (m)						110.0		50.0		
Base Capacity (vph)	370	374	432	289	339	797	1956	451	1493	1130
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	0.58	0.57	0.20	0.26	0.18	0.30	0.15	0.19	0.04	0.91

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 27 (21%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Road & Sherway Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	387	22	83	26	45	59	227	246	39	83	62	978
Future Volume (vph)	387	22	83	26	45	59	227	246	39	83	62	978
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.6		6.6	6.6	3.0	6.0		6.0	6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	0.99	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1646	1664	1555		1845	1597	1740	3437		1767	3500	1535
Flt Permitted	0.95	0.95	1.00		0.98	1.00	0.67	1.00		0.56	1.00	1.00
Satd. Flow (perm)	1646	1664	1555		1845	1597	1238	3437		1058	3500	1535
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	407	23	87	27	47	62	239	259	41	87	65	1029
RTOR Reduction (vph)	0	0	71	0	0	56	0	8	0	0	0	476
Lane Group Flow (vph)	216	214	16	0	74	6	239	292	0	87	65	553
Confl. Peds. (#/hr)			3	3			3					3
Heavy Vehicles (%)	3%	0%	1%	0%	0%	0%	2%	2%	0%	1%	2%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	4	4		3	3		1	6			2	
Permitted Phases			4			3	6			2		2
Actuated Green, G (s)	24.6	24.6	24.6		12.5	12.5	73.7	73.7		55.5	55.5	55.5
Effective Green, g (s)	24.6	24.6	24.6		12.5	12.5	73.7	73.7		55.5	55.5	55.5
Actuated g/C Ratio	0.19	0.19	0.19		0.10	0.10	0.57	0.57		0.43	0.43	0.43
Clearance Time (s)	6.6	6.6	6.6		6.6	6.6	3.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	311	314	294		177	153	760	1948		451	1494	655
v/s Ratio Prot	c0.13	0.13			c0.04		c0.04	0.08			0.02	
v/s Ratio Perm			0.01			0.00	0.14			0.08		c0.36
v/c Ratio	0.69	0.68	0.05		0.41	0.03	0.31	0.14		0.19	0.04	0.84
Uniform Delay, d1	49.1	49.0	43.1		55.3	53.3	14.1	13.3		23.2	21.7	33.3
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.2	7.6	0.1		3.3	0.2	0.4	0.1		0.9	0.0	12.6
Delay (s)	57.4	56.6	43.3		58.6	53.5	14.6	13.4		24.2	21.8	46.0
Level of Service	E	E	D		E	D	B	B		C	C	D
Approach Delay (s/veh)		54.7			56.3			14.0			43.1	
Approach LOS		D			E			B			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	39.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	22.2
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

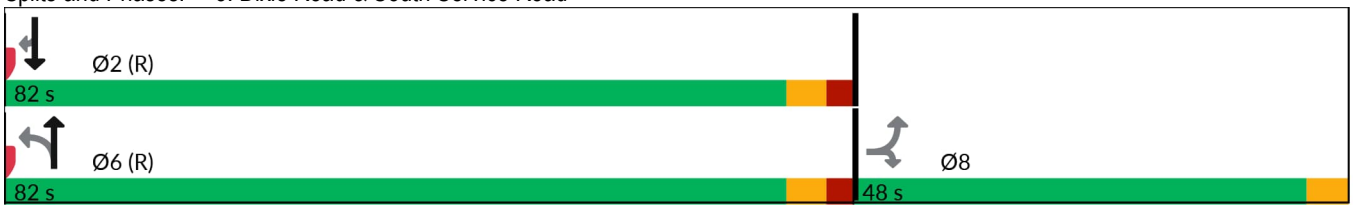
c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	77	28	66	462	725	540
Future Volume (vph)	77	28	66	462	725	540
Lane Group Flow (vph)	82	30	70	491	771	574
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				6	2	
Permitted Phases	8	8	6			2
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	33.3	33.3	29.4	29.4	29.4	29.4
Total Split (s)	48.0	48.0	82.0	82.0	82.0	82.0
Total Split (%)	36.9%	36.9%	63.1%	63.1%	63.1%	63.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	0.0	2.4	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.45	0.18	0.13	0.17	0.26	0.41
Control Delay (s/veh)	62.1	19.0	3.7	3.1	3.2	1.1
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	62.1	19.0	3.7	3.3	3.2	1.1
Queue Length 50th (m)	21.2	0.0	3.6	13.4	20.4	0.0
Queue Length 95th (m)	37.0	9.5	7.3	18.2	31.8	7.0
Internal Link Dist (m)	127.8			95.9	286.1	
Turn Bay Length (m)		30.0	50.0			50.0
Base Capacity (vph)	598	477	519	2833	2890	1397
Starvation Cap Reductn	0	0	0	1534	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.06	0.13	0.38	0.27	0.41

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 117 (90%), Referenced to phase 2:SBT and 6:NBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Dixie Road & South Service Road



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	77	28	66	462	725	540
Future Volume (vph)	77	28	66	462	725	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1767	1353	1684	3466	3535	1581
Flt Permitted	0.95	1.00	0.35	1.00	1.00	1.00
Satd. Flow (perm)	1767	1353	634	3466	3535	1581
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	82	30	70	491	771	574
RTOR Reduction (vph)	0	27	0	0	0	105
Lane Group Flow (vph)	82	3	70	491	771	469
Heavy Vehicles (%)	1%	18%	6%	3%	1%	1%
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				6	2	
Permitted Phases	8	8	6			2
Actuated Green, G (s)	13.3	13.3	106.3	106.3	106.3	106.3
Effective Green, g (s)	13.3	13.3	106.3	106.3	106.3	106.3
Actuated g/C Ratio	0.10	0.10	0.82	0.82	0.82	0.82
Clearance Time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Vehicle Extension (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	180	138	518	2834	2890	1292
v/s Ratio Prot				0.14	0.22	
v/s Ratio Perm	c0.05	0.00	0.11			c0.30
v/c Ratio	0.45	0.02	0.13	0.17	0.26	0.36
Uniform Delay, d1	54.9	52.4	2.4	2.5	2.7	3.0
Progression Factor	1.00	1.00	1.08	1.10	1.00	1.00
Incremental Delay, d2	3.7	0.1	0.5	0.1	0.2	0.7
Delay (s)	58.7	52.6	3.1	2.9	2.9	3.8
Level of Service	E	D	A	A	A	A
Approach Delay (s/veh)	57.0			2.9	3.3	
Approach LOS	E			A	A	

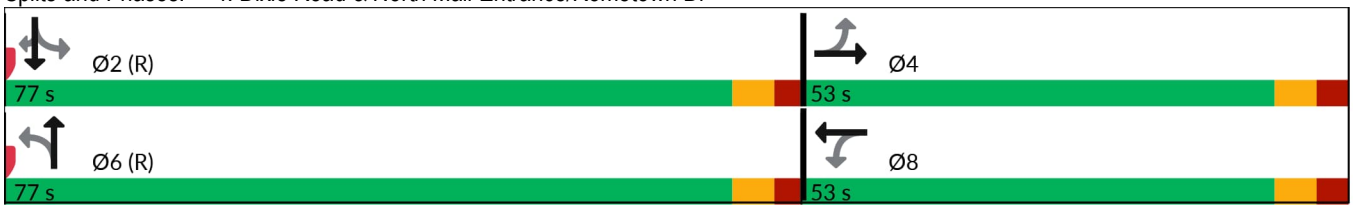
Intersection Summary			
HCM 2000 Control Delay (s/veh)	6.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

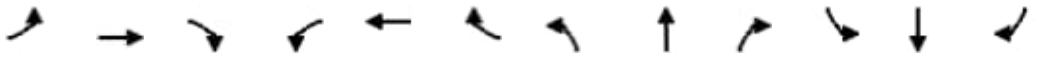
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	80	11	17	0	25	427	82	607	197
Future Volume (vph)	80	11	17	0	25	427	82	607	197
Lane Group Flow (vph)	90	13	0	58	28	549	92	682	221
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.7	41.7	41.7	41.7	35.6	35.6	35.6	35.6	35.6
Total Split (s)	53.0	53.0	53.0	53.0	77.0	77.0	77.0	77.0	77.0
Total Split (%)	40.8%	40.8%	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.52	0.05		0.24	0.05	0.20	0.14	0.25	0.17
Control Delay (s/veh)	62.0	43.5		22.9	4.3	4.0	4.2	3.8	0.5
Queue Delay	0.0	0.0		0.0	0.0	0.2	0.0	0.2	0.3
Total Delay (s/veh)	62.0	43.5		22.9	4.3	4.2	4.2	4.1	0.8
Queue Length 50th (m)	22.9	2.9		4.6	1.2	7.3	3.9	15.3	0.0
Queue Length 95th (m)	38.3	8.6		16.4	4.6	27.8	7.8	21.5	2.1
Internal Link Dist (m)		53.7		34.6		43.0		95.9	
Turn Bay Length (m)					45.0		25.0		
Base Capacity (vph)	451	655		566	554	2636	638	2659	1254
Starvation Cap Reductn	0	0		0	0	1291	0	1154	609
Spillback Cap Reductn	0	0		0	0	0	0	14	0
Storage Cap Reductn	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.02		0.10	0.05	0.41	0.14	0.45	0.34

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 113 (87%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Dixie Road & North Mall Entrance/Rometown Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	11	1	17	0	35	25	427	61	82	607	197
Future Volume (vph)	80	11	1	17	0	35	25	427	61	82	607	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.98			0.90		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1513	1857			1681		1785	3464		1785	3500	1581
Flt Permitted	0.80	1.00			0.89		0.38	1.00		0.44	1.00	1.00
Satd. Flow (perm)	1278	1857			1533		728	3464		840	3500	1581
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	90	12	1	19	0	39	28	480	69	92	682	221
RTOR Reduction (vph)	0	1	0	0	34	0	0	5	0	0	0	53
Lane Group Flow (vph)	90	12	0	0	24	0	28	544	0	92	682	168
Heavy Vehicles (%)	18%	0%	0%	0%	0%	0%	0%	1%	2%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	17.5	17.5			17.5		98.8	98.8		98.8	98.8	98.8
Effective Green, g (s)	17.5	17.5			17.5		98.8	98.8		98.8	98.8	98.8
Actuated g/C Ratio	0.13	0.13			0.13		0.76	0.76		0.76	0.76	0.76
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	172	249			206		553	2632		638	2660	1201
v/s Ratio Prot		0.01						0.16			c0.19	
v/s Ratio Perm	c0.07				0.02		0.04			0.11		0.11
v/c Ratio	0.52	0.04			0.11		0.05	0.20		0.14	0.25	0.13
Uniform Delay, d1	52.3	48.9			49.4		3.8	4.4		4.2	4.6	4.1
Progression Factor	1.00	1.00			1.00		0.82	0.81		0.73	0.71	0.28
Incremental Delay, d2	5.3	0.1			0.5		0.1	0.1		0.4	0.2	0.2
Delay (s)	57.7	49.1			49.9		3.3	3.7		3.5	3.5	1.4
Level of Service	E	D			D		A	A		A	A	A
Approach Delay (s/veh)		56.6			49.9			3.7			3.0	
Approach LOS		E			D			A			A	

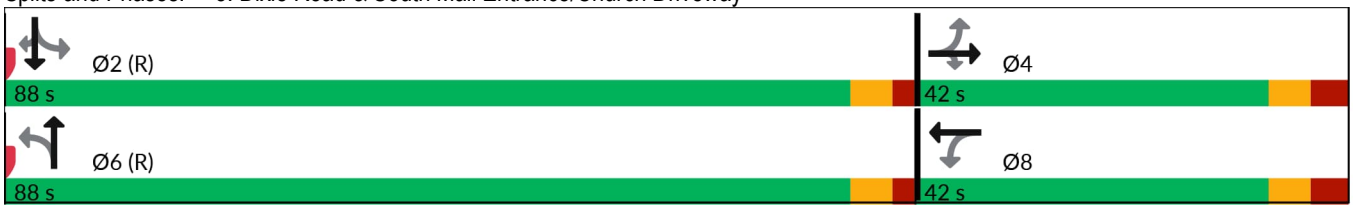
Intersection Summary			
HCM 2000 Control Delay (s/veh)	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

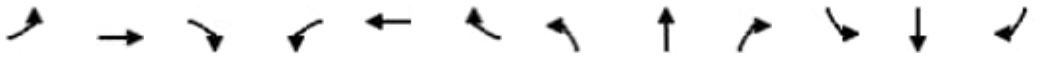
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations								
Traffic Volume (vph)	87	0	86	60	417	458	182	
Future Volume (vph)	87	0	86	60	417	458	182	
Lane Group Flow (vph)	0	97	96	67	463	509	202	
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	
Protected Phases		4			6	2		8
Permitted Phases	4		4	6			2	
Detector Phase	4	4	4	6	6	2	2	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	41.7	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	42.0	88.0	88.0	88.0	88.0	42.0
Total Split (%)	32.3%	32.3%	32.3%	67.7%	67.7%	67.7%	67.7%	32%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	3.7	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		7.7	7.7	6.2	6.2	6.2	6.2	
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio		0.55	0.34	0.10	0.32	0.35	0.17	
Control Delay (s/veh)		64.6	12.5	4.9	5.7	2.0	0.5	
Queue Delay		0.0	0.0	0.0	0.0	0.2	0.3	
Total Delay (s/veh)		64.6	12.5	4.9	5.7	2.2	0.8	
Queue Length 50th (m)		25.0	0.0	3.9	33.0	2.2	0.0	
Queue Length 95th (m)		42.0	15.9	9.7	57.0	4.2	0.0	
Internal Link Dist (m)		55.2			406.0	27.9		
Turn Bay Length (m)			30.0	15.0				
Base Capacity (vph)		370	482	642	1429	1429	1143	
Starvation Cap Reductn		0	0	0	0	341	521	
Spillback Cap Reductn		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	
Reduced v/c Ratio		0.26	0.20	0.10	0.32	0.47	0.32	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 113 (87%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: Dixie Road & South Mall Entrance/Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	0	86	0	0	0	60	417	0	0	458	182
Future Volume (vph)	87	0	86	0	0	0	60	417	0	0	458	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.7	7.7				6.2	6.2			6.2	6.2
Lane Util. Factor		1.00	1.00				1.00	1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.97				1.00	1.00			1.00	0.95
Flpb, ped/bikes		0.99	1.00				0.98	1.00			1.00	1.00
Frt		1.00	0.85				1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)		1764	1559				1766	1860			1860	1427
Flt Permitted		0.75	1.00				0.44	1.00			1.00	1.00
Satd. Flow (perm)		1406	1559				835	1860			1860	1427
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	97	0	96	0	0	0	67	463	0	0	509	202
RTOR Reduction (vph)	0	0	84	0	0	0	0	0	0	0	0	47
Lane Group Flow (vph)	0	97	12	0	0	0	67	463	0	0	509	155
Confl. Peds. (#/hr)	1		2	2		1	10		4	4		10
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	7%
Turn Type	Perm	NA	Perm				Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4		4	8			6			2		2
Actuated Green, G (s)		16.2	16.2				99.9	99.9			99.9	99.9
Effective Green, g (s)		16.2	16.2				99.9	99.9			99.9	99.9
Actuated g/C Ratio		0.12	0.12				0.77	0.77			0.77	0.77
Clearance Time (s)		7.7	7.7				6.2	6.2			6.2	6.2
Vehicle Extension (s)		5.0	5.0				5.0	5.0			5.0	5.0
Lane Grp Cap (vph)		175	194				641	1429			1429	1096
v/s Ratio Prot								0.25			c0.27	
v/s Ratio Perm		c0.07	0.01				0.08					0.11
v/c Ratio		0.55	0.06				0.10	0.32			0.35	0.14
Uniform Delay, d1		53.5	50.1				3.7	4.6			4.7	3.9
Progression Factor		1.00	1.00				1.00	1.00			0.25	0.24
Incremental Delay, d2		6.3	0.2				0.3	0.6			0.6	0.2
Delay (s)		59.8	50.4				4.1	5.2			1.9	1.2
Level of Service		E	D				A	A			A	A
Approach Delay (s/veh)		55.1			0.0			5.1			1.7	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	38	49	556	102	2
Future Vol, veh/h	0	38	49	556	102	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	10	0	0	1	8	0
Mvmt Flow	0	38	49	562	103	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	104	105	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	956	1499	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	956	1499	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.9	0.6	0
HCM LOS	A		

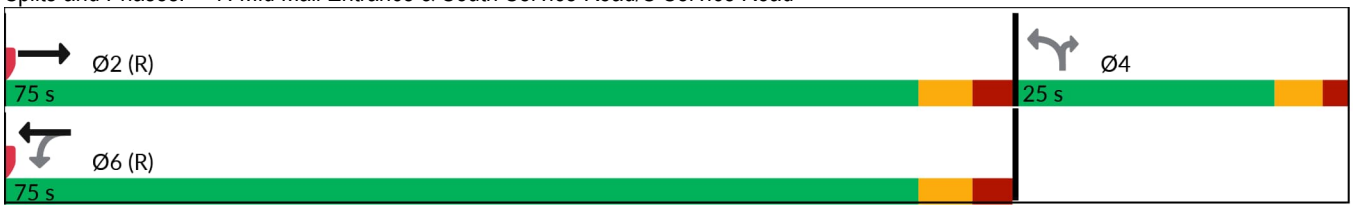
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1499	-	956	-	-
HCM Lane V/C Ratio	0.033	-	0.04	-	-
HCM Control Delay (s/veh)	7.5	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.1	-	-

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	252	6	295	56	45
Future Volume (vph)	252	6	295	56	45
Lane Group Flow (vph)	306	0	317	59	47
Turn Type	NA	Perm	NA	Perm	Perm
Protected Phases	2		6		
Permitted Phases		6		4	4
Detector Phase	2	6	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	42.0	42.0	42.0	25.5	25.5
Total Split (s)	75.0	75.0	75.0	25.0	25.0
Total Split (%)	75.0%	75.0%	75.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio	0.11		0.21	0.30	0.22
Control Delay (s/veh)	0.3		3.6	44.7	14.5
Queue Delay	0.0		0.0	0.0	0.0
Total Delay (s/veh)	0.3		3.6	44.7	14.5
Queue Length 50th (m)	0.0		14.6	11.3	0.0
Queue Length 95th (m)	0.2		26.6	23.4	10.5
Internal Link Dist (m)	194.3		186.2	63.4	
Turn Bay Length (m)					15.0
Base Capacity (vph)	2746		1469	348	340
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.11		0.22	0.17	0.14

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 99 (99%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 7: Mid Mall Entrance & South Service Road/S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	252	39	6	295	56	45
Future Volume (vph)	252	39	6	295	56	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0			7.0	5.5	5.5
Lane Util. Factor	0.95			1.00	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	0.97
Flpb, ped/bikes	1.00			0.99	1.00	1.00
Frt	0.97			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3386			1826	1785	1553
Flt Permitted	1.00			0.99	0.95	1.00
Satd. Flow (perm)	3386			1818	1785	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	265	41	6	311	59	47
RTOR Reduction (vph)	8	0	0	0	0	43
Lane Group Flow (vph)	298	0	0	317	59	4
Confl. Peds. (#/hr)		1	1			3
Heavy Vehicles (%)	3%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	2	0	0	2	0	0
Turn Type	NA		Perm	NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases			6		4	4
Actuated Green, G (s)	78.4			78.4	9.1	9.1
Effective Green, g (s)	78.4			78.4	9.1	9.1
Actuated g/C Ratio	0.78			0.78	0.09	0.09
Clearance Time (s)	7.0			7.0	5.5	5.5
Vehicle Extension (s)	5.0			5.0	5.0	5.0
Lane Grp Cap (vph)	2654			1425	162	141
v/s Ratio Prot	0.09					
v/s Ratio Perm				c0.17	c0.03	0.00
v/c Ratio	0.11			0.22	0.36	0.03
Uniform Delay, d1	2.5			2.8	42.7	41.4
Progression Factor	0.12			1.00	1.00	1.00
Incremental Delay, d2	0.0			0.3	2.8	0.1
Delay (s)	0.3			3.1	45.6	41.6
Level of Service	A			A	D	D
Approach Delay (s/veh)	0.3			3.1	43.8	
Approach LOS	A			A	D	

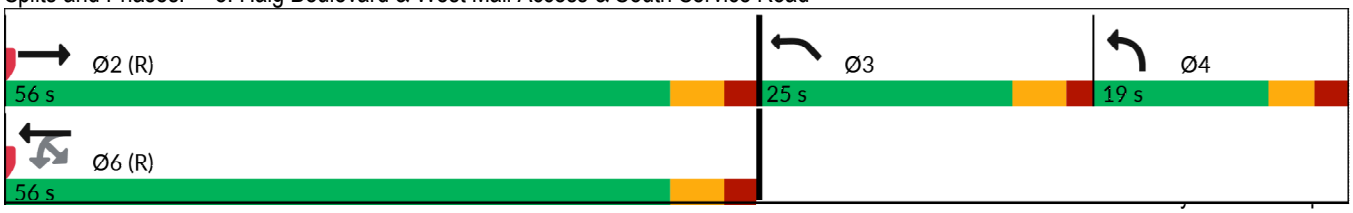
Intersection Summary			
HCM 2000 Control Delay (s/veh)	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL2	WBL	WBT	NBL	NWL
Lane Configurations						
Traffic Volume (vph)	262	1	0	350	200	63
Future Volume (vph)	262	1	0	350	200	63
Lane Group Flow (vph)	564	0	1	361	232	72
Turn Type	NA	Perm	Perm	NA	Prot	Prot
Protected Phases	2			6	4	3
Permitted Phases		6	6			
Detector Phase	2	6	6	6	4	3
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	35.5	35.5	14.0	28.0
Total Split (s)	56.0	56.0	56.0	56.0	19.0	25.0
Total Split (%)	56.0%	56.0%	56.0%	56.0%	19.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5		6.5	6.5	6.0	6.0
Lead/Lag					Lag	Lead
Lead-Lag Optimize?					Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio	0.62		0.00	0.37	0.65	0.36
Control Delay (s/veh)	18.5		12.0	14.7	47.8	45.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.5		12.0	14.7	47.8	45.2
Queue Length 50th (m)	83.7		0.1	51.2	43.6	13.8
Queue Length 95th (m)	123.3		m0.4	75.8	#82.2	26.8
Internal Link Dist (m)	231.6			194.3	543.2	41.8
Turn Bay Length (m)			42.0			
Base Capacity (vph)	898		309	975	352	331
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.63		0.00	0.37	0.66	0.22

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Haig Boulevard & West Mall Access & South Service Road



Movement	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR
Lane Configurations										
Traffic Volume (vph)	262	50	225	1	0	350	200	25	63	4
Future Volume (vph)	262	50	225	1	0	350	200	25	63	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5				6.5	6.5	6.0		6.0	
Lane Util. Factor	1.00				1.00	1.00	1.00		1.00	
Frt	0.92				1.00	1.00	0.98		0.99	
Flt Protected	1.00				0.95	1.00	0.95		0.95	
Satd. Flow (prot)	1694				1750	1842	1772		1746	
Flt Permitted	1.00				0.31	1.00	0.95		0.95	
Satd. Flow (perm)	1694				584	1842	1772		1746	
Peak-hour factor, PHF	0.97	0.97	0.93	0.93	0.97	0.97	0.97	0.97	0.93	0.93
Adj. Flow (vph)	270	52	242	1	0	361	206	26	68	4
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	564	0	0	0	1	361	232	0	72	0
Heavy Vehicles (%)	3%	0%	2%	2%	0%	2%	0%	0%	2%	2%
Bus Blockages (#/hr)	2	0	0	0	0	0	0	0	0	0
Turn Type	NA			Perm	Perm	NA	Prot		Prot	
Protected Phases	2					6	4		3	
Permitted Phases				6	6					
Actuated Green, G (s)	51.8				51.8	51.8	19.9		9.8	
Effective Green, g (s)	51.8				51.8	51.8	19.9		9.8	
Actuated g/C Ratio	0.52				0.52	0.52	0.20		0.10	
Clearance Time (s)	6.5				6.5	6.5	6.0		6.0	
Vehicle Extension (s)	5.0				5.0	5.0	5.0		5.0	
Lane Grp Cap (vph)	877				302	954	352		171	
v/s Ratio Prot	c0.33					0.20	c0.13		c0.04	
v/s Ratio Perm					0.00					
v/c Ratio	0.64				0.00	0.37	0.65		0.42	
Uniform Delay, d1	17.4				11.6	14.4	36.9		42.4	
Progression Factor	0.82				0.89	0.89	1.00		1.00	
Incremental Delay, d2	3.4				0.0	1.1	5.9		3.4	
Delay (s)	17.9				10.4	14.0	42.8		45.9	
Level of Service	B				B	B	D		D	
Approach Delay (s/veh)	17.9					14.0	42.8		45.9	
Approach LOS	B					B	D		D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

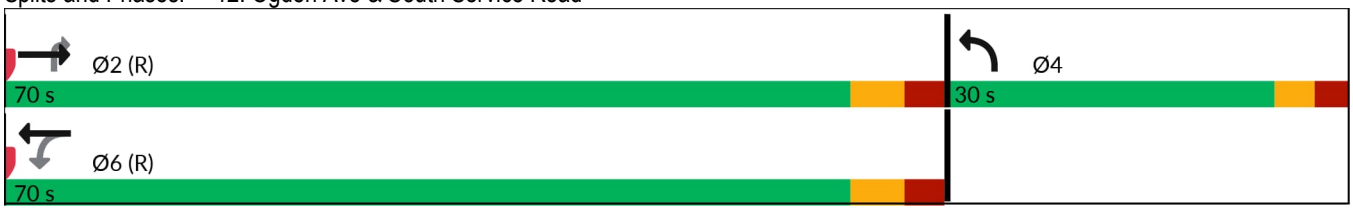
c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	412	58	429	29	51
Future Volume (vph)	412	58	429	29	51
Lane Group Flow (vph)	517	65	482	33	57
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	27.5	30.0
Total Split (s)	70.0	70.0	70.0	30.0	70.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	5.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.37	0.10	0.33	0.15	0.05
Control Delay (s/veh)	4.9	2.0	3.1	41.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	4.9	2.0	3.1	41.4	0.9
Queue Length 50th (m)	28.9	1.8	13.6	6.1	0.0
Queue Length 95th (m)	41.5	m3.2	17.0	15.3	2.6
Internal Link Dist (m)	30.8		231.6	84.3	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1382	591	1418	437	1090
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.37	0.11	0.34	0.08	0.05

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & South Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	412	48	58	429	29	51
Future Volume (vph)	412	48	58	429	29	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	5.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1828		1634	1879	1785	1426
Flt Permitted	1.00		0.45	1.00	0.95	1.00
Satd. Flow (perm)	1828		782	1879	1785	1426
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	463	54	65	482	33	57
RTOR Reduction (vph)	3	0	0	0	0	14
Lane Group Flow (vph)	514	0	65	482	33	43
Confl. Peds. (#/hr)		2	2			
Heavy Vehicles (%)	1%	2%	9%	0%	0%	12%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	75.5		75.5	75.5	12.0	75.5
Effective Green, g (s)	75.5		75.5	75.5	12.0	75.5
Actuated g/C Ratio	0.76		0.76	0.76	0.12	0.76
Clearance Time (s)	7.0		7.0	7.0	5.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1380		590	1418	214	1076
v/s Ratio Prot	c0.28			0.26	c0.02	
v/s Ratio Perm			0.08			0.03
v/c Ratio	0.37		0.11	0.33	0.15	0.03
Uniform Delay, d1	4.1		3.2	4.0	39.4	3.0
Progression Factor	1.00		0.50	0.61	1.00	1.00
Incremental Delay, d2	0.7		0.3	0.5	0.7	0.0
Delay (s)	4.9		2.0	3.0	40.1	3.1
Level of Service	A		A	A	D	A
Approach Delay (s/veh)	4.9			2.9	16.7	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

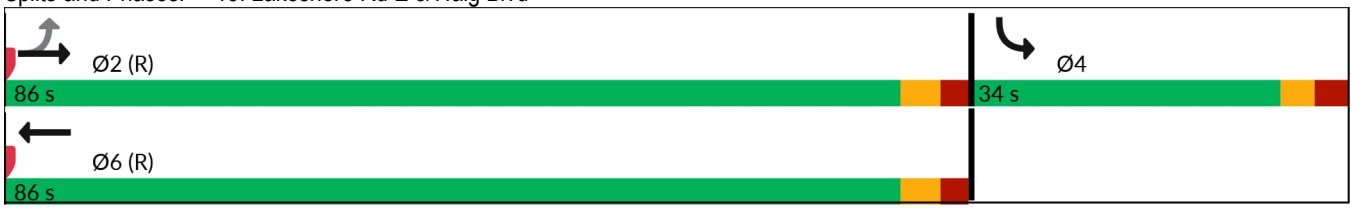
c Critical Lane Group

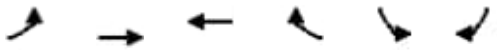
Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	25	821	901	31
Future Volume (vph)	25	821	901	31
Lane Group Flow (vph)	26	855	1005	47
Turn Type	Perm	NA	NA	Prot
Protected Phases		2	6	4
Permitted Phases	2			
Detector Phase	2	2	6	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	34.0
Total Split (s)	86.0	86.0	86.0	34.0
Total Split (%)	71.7%	71.7%	71.7%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.0
All-Red Time (s)	2.5	2.5	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	0.05	0.28	0.34	0.27
Control Delay (s/veh)	2.8	2.8	0.8	41.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	2.8	2.8	0.8	41.8
Queue Length 50th (m)	1.0	21.2	6.1	7.5
Queue Length 95th (m)	3.1	31.2	8.5	19.6
Internal Link Dist (m)		227.1	589.2	365.6
Turn Bay Length (m)	20.0			
Base Capacity (vph)	438	2964	2954	415
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.06	0.29	0.34	0.11

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 112 (93%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 13: Lakeshore Rd E & Haig Blvd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	25	821	901	63	31	14
Future Volume (vph)	25	821	901	63	31	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frpb, ped/bikes	1.00	1.00	0.99		0.99	
Flpb, ped/bikes	0.98	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.95	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1766	3500	3487		1728	
Flt Permitted	0.27	1.00	1.00		0.96	
Satd. Flow (perm)	516	3500	3487		1728	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	26	855	939	66	32	15
RTOR Reduction (vph)	0	0	2	0	14	0
Lane Group Flow (vph)	26	855	1003	0	33	0
Confl. Peds. (#/hr)	16			16	10	1
Confl. Bikes (#/hr)				2		2
Heavy Vehicles (%)	0%	2%	1%	0%	0%	0%
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	99.2	99.2	99.2		8.8	
Effective Green, g (s)	99.2	99.2	99.2		8.8	
Actuated g/C Ratio	0.83	0.83	0.83		0.07	
Clearance Time (s)	6.0	6.0	6.0		6.0	
Vehicle Extension (s)	5.0	5.0	5.0		5.0	
Lane Grp Cap (vph)	426	2893	2882		126	
v/s Ratio Prot		0.24	c0.29		c0.02	
v/s Ratio Perm	0.05					
v/c Ratio	0.06	0.29	0.34		0.26	
Uniform Delay, d1	1.8	2.3	2.5		52.5	
Progression Factor	1.00	1.00	0.22		1.00	
Incremental Delay, d2	0.2	0.2	0.2		2.3	
Delay (s)	2.1	2.6	0.8		54.8	
Level of Service	A	A	A		D	
Approach Delay (s/veh)		2.6	0.8		54.8	
Approach LOS		A	A		D	

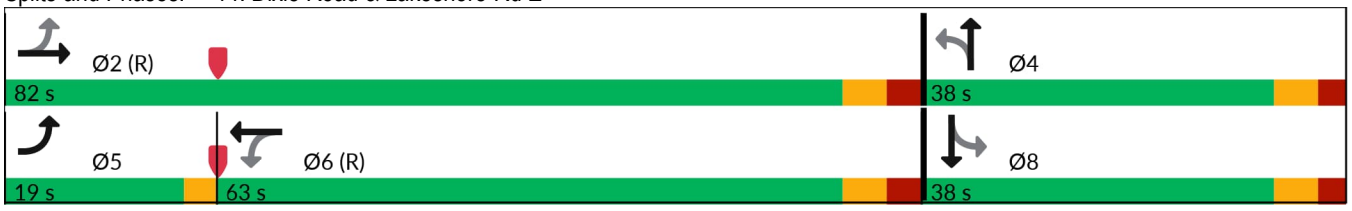
Intersection Summary			
HCM 2000 Control Delay (s/veh)	3.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

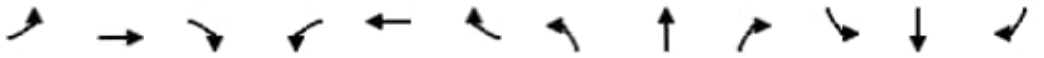
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	238	604	2	696	3	1	207	5
Future Volume (vph)	238	604	2	696	3	1	207	5
Lane Group Flow (vph)	253	648	2	936	0	7	220	289
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	5	2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	5	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	14.5	40.0	40.0	40.0	24.5	24.5	37.5	37.5
Total Split (s)	19.0	82.0	63.0	63.0	38.0	38.0	38.0	38.0
Total Split (%)	15.8%	68.3%	52.5%	52.5%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	3.0	3.0	3.0	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	7.0		6.5	6.5	6.5
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio	0.57	0.27	0.00	0.50		0.02	0.73	0.51
Control Delay (s/veh)	18.4	10.3	17.0	19.3		27.4	58.3	7.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	18.4	10.3	17.0	19.3		27.4	58.3	7.9
Queue Length 50th (m)	26.1	30.7	0.2	73.0		0.8	50.8	1.0
Queue Length 95th (m)	55.2	58.7	1.8	105.1		4.7	75.7	23.0
Internal Link Dist (m)		589.2		176.1		31.2		406.0
Turn Bay Length (m)	20.0		20.0				30.0	
Base Capacity (vph)	473	2357	407	1839		408	367	621
Starvation Cap Reductn	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0
Reduced v/c Ratio	0.53	0.27	0.00	0.51		0.02	0.60	0.47

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 83 (69%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	604	5	2	696	184	3	1	3	207	5	267
Future Volume (vph)	238	604	5	2	696	184	3	1	3	207	5	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	7.0		7.0	7.0			6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.98			0.99		1.00	0.97	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			0.99		1.00	1.00	
Frt	1.00	0.99		1.00	0.96			0.94		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1747	3495		1774	3387			1720		1767	1569	
Flt Permitted	0.22	1.00		0.40	1.00			0.88		0.75	1.00	
Satd. Flow (perm)	421	3495		758	3387			1550		1401	1569	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	253	643	5	2	740	196	3	1	3	220	5	284
RTOR Reduction (vph)	0	0	0	0	17	0	0	2	0	0	223	0
Lane Group Flow (vph)	253	648	0	2	919	0	0	5	0	220	66	0
Confl. Peds. (#/hr)	23		8	8		23	7					7
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	2%	2%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	80.9	80.9		64.6	64.6			25.6		25.6	25.6	
Effective Green, g (s)	80.9	80.9		64.6	64.6			25.6		25.6	25.6	
Actuated g/C Ratio	0.67	0.67		0.54	0.54			0.21		0.21	0.21	
Clearance Time (s)	3.0	7.0		7.0	7.0			6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lane Grp Cap (vph)	430	2356		408	1823			330		298	334	
v/s Ratio Prot	c0.07	0.19			0.27						0.04	
v/s Ratio Perm	c0.33			0.00				0.00		c0.16		
v/c Ratio	0.58	0.27		0.00	0.50			0.01		0.73	0.19	
Uniform Delay, d1	9.6	7.8		12.8	17.5			37.2		44.0	38.7	
Progression Factor	1.94	1.18		1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2	3.0	0.2		0.0	0.9			0.0		11.0	0.6	
Delay (s)	21.7	9.5		12.8	18.5			37.2		55.1	39.3	
Level of Service	C	A		B	B			D		E	D	
Approach Delay (s/veh)		12.9			18.5			37.2			46.1	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	27	2	0	1	34	43	3	1	29	15
Future Vol, veh/h	13	0	27	2	0	1	34	43	3	1	29	15
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	16	0	33	2	0	1	41	52	4	1	35	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.1	7.2	7.6	7.2
HCM LOS	A	A	A	A

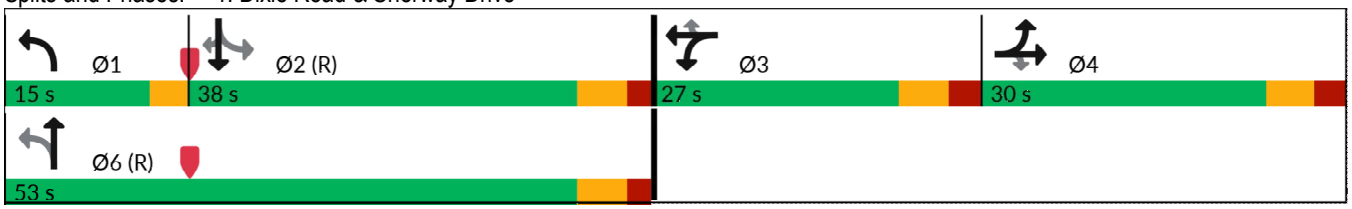
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	43%	33%	67%	2%
Vol Thru, %	54%	0%	0%	64%
Vol Right, %	4%	68%	33%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	40	3	45
LT Vol	34	13	2	1
Through Vol	43	0	0	29
RT Vol	3	27	1	15
Lane Flow Rate	98	49	4	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.111	0.052	0.004	0.059
Departure Headway (Hd)	4.094	3.825	4.135	3.868
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	926	855	922
Service Time	2.123	1.891	2.209	1.909
HCM Lane V/C Ratio	0.112	0.053	0.005	0.06
HCM Control Delay, s/veh	7.6	7.1	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0	0.2

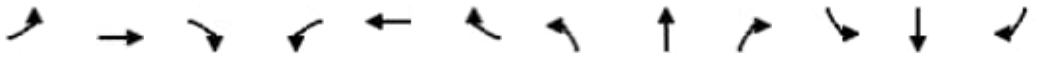
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	498	21	81	34	51	354	299	68	67	860
Future Volume (vph)	498	21	81	34	51	354	299	68	67	860
Lane Group Flow (vph)	272	274	85	57	54	373	342	72	71	905
Turn Type	Split	NA	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4	4		3		1	6		2	
Permitted Phases			4		3	6		2		2
Detector Phase	4	4	4	3	3	1	6	2	2	2
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.6	31.6	31.6	31.6	31.6	14.5	26.0	26.0	26.0	26.0
Total Split (s)	30.0	30.0	30.0	27.0	27.0	15.0	53.0	38.0	38.0	38.0
Total Split (%)	27.3%	27.3%	27.3%	24.5%	24.5%	13.6%	48.2%	34.5%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	2.6	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	6.6	3.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.70	0.70	0.18	0.31	0.20	0.49	0.18	0.19	0.05	0.83
Control Delay (s/veh)	48.4	48.3	2.8	50.0	1.6	19.9	16.1	30.7	27.5	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.4	48.3	2.8	50.0	1.6	19.9	16.1	30.7	27.5	12.3
Queue Length 50th (m)	58.7	59.1	0.0	12.2	0.0	50.0	21.7	12.4	6.1	13.2
Queue Length 95th (m)	86.5	87.2	5.0	24.5	0.0	83.4	34.8	25.4	11.8	#116.5
Internal Link Dist (m)		122.4		89.4			57.3		204.3	
Turn Bay Length (m)						110.0		50.0		
Base Capacity (vph)	405	408	484	342	397	750	1809	367	1289	1087
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	0.67	0.67	0.18	0.17	0.14	0.50	0.19	0.20	0.06	0.83

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 102 (93%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Road & Sherway Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	498	21	81	20	34	51	354	299	26	68	67	860
Future Volume (vph)	498	21	81	20	34	51	354	299	26	68	67	860
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.6		6.6	6.6	3.0	6.0		6.0	6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1662	1676	1597		1845	1597	1785	3464		1767	3570	1548
Flt Permitted	0.95	0.95	1.00		0.98	1.00	0.65	1.00		0.54	1.00	1.00
Satd. Flow (perm)	1662	1676	1597		1845	1597	1234	3464		1016	3570	1548
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	524	22	85	21	36	54	373	315	27	72	71	905
RTOR Reduction (vph)	0	0	65	0	0	49	0	5	0	0	0	538
Lane Group Flow (vph)	272	274	20	0	57	5	373	337	0	72	71	367
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	0%	2%	0%	1%	0%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	4	4		3	3		1	6			2	
Permitted Phases			4			3	6			2		2
Actuated Green, G (s)	25.6	25.6	25.6		9.2	9.2	56.0	56.0		38.4	38.4	38.4
Effective Green, g (s)	25.6	25.6	25.6		9.2	9.2	56.0	56.0		38.4	38.4	38.4
Actuated g/C Ratio	0.23	0.23	0.23		0.08	0.08	0.51	0.51		0.35	0.35	0.35
Clearance Time (s)	6.6	6.6	6.6		6.6	6.6	3.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	386	390	371		154	133	701	1763		354	1246	540
v/s Ratio Prot	c0.16	0.16			c0.03		c0.07	0.10			0.02	
v/s Ratio Perm			0.01			0.00	0.20			0.07		c0.24
v/c Ratio	0.70	0.70	0.05		0.37	0.03	0.53	0.19		0.20	0.05	0.67
Uniform Delay, d1	38.7	38.7	32.7		47.6	46.3	16.8	14.6		25.0	23.7	30.5
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.1	7.0	0.1		3.1	0.2	1.4	0.2		1.2	0.0	6.7
Delay (s)	45.9	45.7	32.9		50.7	46.5	18.2	14.9		26.3	23.8	37.2
Level of Service	D	D	C		D	D	B	B		C	C	D
Approach Delay (s/veh)		44.0			48.7			16.6			35.6	
Approach LOS		D			D			B			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	22.2
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		

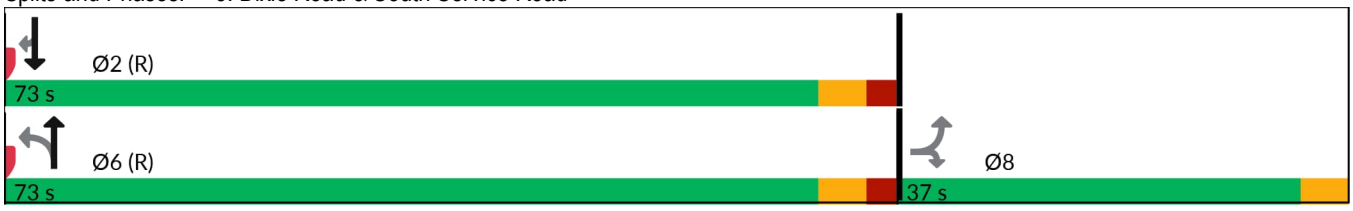
c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	147	37	99	540	806	477
Future Volume (vph)	147	37	99	540	806	477
Lane Group Flow (vph)	155	39	104	568	848	502
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				6	2	
Permitted Phases	8	8	6			2
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	33.3	33.3	29.4	29.4	29.4	29.4
Total Split (s)	37.0	37.0	73.0	73.0	73.0	73.0
Total Split (%)	33.6%	33.6%	66.4%	66.4%	66.4%	66.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	0.0	2.4	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.57	0.14	0.23	0.21	0.31	0.38
Control Delay (s/veh)	51.0	12.9	4.8	3.5	5.1	1.3
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	51.0	12.9	4.8	3.7	5.1	1.3
Queue Length 50th (m)	32.9	0.0	5.5	15.6	27.6	0.0
Queue Length 95th (m)	51.6	9.2	10.3	21.0	44.3	9.2
Internal Link Dist (m)	127.8			95.9	286.1	
Turn Bay Length (m)		30.0	50.0			50.0
Base Capacity (vph)	530	483	442	2633	2659	1296
Starvation Cap Reductn	0	0	0	1165	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.08	0.24	0.39	0.32	0.39

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 39 (35%), Referenced to phase 2:SBT and 6:NBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Dixie Road & South Service Road



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	147	37	99	540	806	477
Future Volume (vph)	147	37	99	540	806	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1767	1521	1731	3500	3535	1558
Flt Permitted	0.95	1.00	0.32	1.00	1.00	1.00
Satd. Flow (perm)	1767	1521	588	3500	3535	1558
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	155	39	104	568	848	502
RTOR Reduction (vph)	0	33	0	0	0	124
Lane Group Flow (vph)	155	6	104	568	848	378
Confl. Peds. (#/hr)			2			2
Heavy Vehicles (%)	1%	5%	3%	2%	1%	0%
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				6	2	
Permitted Phases	8	8	6			2
Actuated Green, G (s)	16.8	16.8	82.8	82.8	82.8	82.8
Effective Green, g (s)	16.8	16.8	82.8	82.8	82.8	82.8
Actuated g/C Ratio	0.15	0.15	0.75	0.75	0.75	0.75
Clearance Time (s)	4.0	4.0	6.4	6.4	6.4	6.4
Vehicle Extension (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	269	232	442	2634	2660	1172
v/s Ratio Prot				0.16	0.24	
v/s Ratio Perm	c0.09	0.00	0.18			c0.24
v/c Ratio	0.57	0.02	0.23	0.21	0.31	0.32
Uniform Delay, d1	43.2	39.6	4.0	4.0	4.4	4.4
Progression Factor	1.00	1.00	0.71	0.75	1.00	1.00
Incremental Delay, d2	4.7	0.0	1.2	0.1	0.3	0.7
Delay (s)	47.9	39.7	4.1	3.2	4.7	5.1
Level of Service	D	D	A	A	A	A
Approach Delay (s/veh)	46.3			3.3	4.9	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

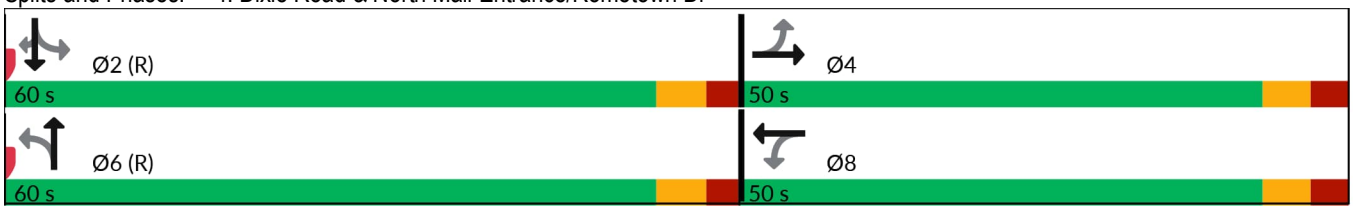
c Critical Lane Group

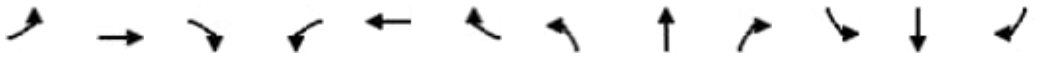
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	119	14	16	0	25	533	72	761	197
Future Volume (vph)	119	14	16	0	25	533	72	761	197
Lane Group Flow (vph)	132	16	0	59	28	685	80	846	219
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.7	41.7	41.7	41.7	35.6	35.6	35.6	35.6	35.6
Total Split (s)	50.0	50.0	50.0	50.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	45.5%	45.5%	45.5%	45.5%	54.5%	54.5%	54.5%	54.5%	54.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.61	0.04		0.19	0.06	0.27	0.15	0.34	0.18
Control Delay (s/veh)	53.5	35.0		17.2	5.4	5.4	4.6	4.2	0.4
Queue Delay	0.0	0.0		0.0	0.0	0.2	0.0	0.1	0.2
Total Delay (s/veh)	53.5	35.0		17.2	5.4	5.6	4.6	4.4	0.7
Queue Length 50th (m)	27.9	3.1		3.5	1.5	27.0	2.7	15.4	0.0
Queue Length 95th (m)	45.1	8.7		14.0	m4.9	39.8	6.2	22.7	1.1
Internal Link Dist (m)		53.7		34.6		43.0		95.9	
Turn Bay Length (m)					45.0		25.0		
Base Capacity (vph)	487	732		629	417	2467	506	2487	1177
Starvation Cap Reductn	0	0		0	0	996	0	774	504
Spillback Cap Reductn	0	0		0	0	0	0	4	0
Storage Cap Reductn	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.02		0.09	0.07	0.47	0.16	0.49	0.33

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 49 (45%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Dixie Road & North Mall Entrance/Rometown Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	14	0	16	0	37	25	533	84	72	761	197
Future Volume (vph)	119	14	0	16	0	37	25	533	84	72	761	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00			0.90		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1653	1879			1677		1785	3497		1785	3535	1581
Flt Permitted	0.71	1.00			0.91		0.31	1.00		0.38	1.00	1.00
Satd. Flow (perm)	1250	1879			1551		594	3497		720	3535	1581
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	132	16	0	18	0	41	28	592	93	80	846	219
RTOR Reduction (vph)	0	0	0	0	34	0	0	7	0	0	0	65
Lane Group Flow (vph)	132	16	0	0	25	0	28	678	0	80	846	154
Heavy Vehicles (%)	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	18.9	18.9			18.9		77.4	77.4		77.4	77.4	77.4
Effective Green, g (s)	18.9	18.9			18.9		77.4	77.4		77.4	77.4	77.4
Actuated g/C Ratio	0.17	0.17			0.17		0.70	0.70		0.70	0.70	0.70
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	214	322			266		417	2460		506	2487	1112
v/s Ratio Prot		0.01						0.19			c0.24	
v/s Ratio Perm	c0.11				0.02		0.05			0.11		0.10
v/c Ratio	0.61	0.04			0.09		0.06	0.27		0.15	0.34	0.13
Uniform Delay, d1	42.1	38.0			38.3		5.0	5.9		5.4	6.3	5.3
Progression Factor	1.00	1.00			1.00		0.77	0.80		0.57	0.55	0.10
Incremental Delay, d2	7.4	0.1			0.3		0.2	0.2		0.6	0.3	0.2
Delay (s)	49.6	38.1			38.6		4.2	5.0		3.8	3.9	0.8
Level of Service	D	D			D		A	A		A	A	A
Approach Delay (s/veh)		48.3			38.6			5.0			3.3	
Approach LOS		D			D			A			A	

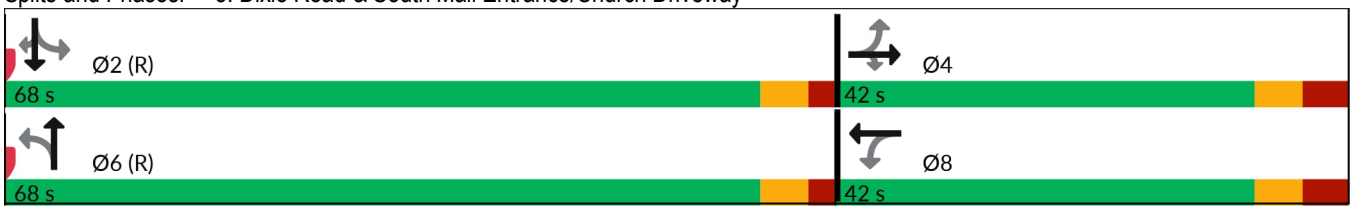
Intersection Summary			
HCM 2000 Control Delay (s/veh)	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

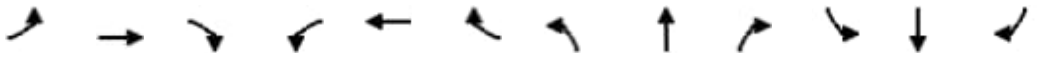
Lane Group	EBL	EBT	EBR	NBL	NBT	SBL	SBT	SBR	Ø8
Lane Configurations									
Traffic Volume (vph)	194	0	127	143	421	3	398	368	
Future Volume (vph)	194	0	127	143	421	3	398	368	
Lane Group Flow (vph)	0	209	137	154	453	3	428	396	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	
Protected Phases		4			6		2		8
Permitted Phases	4		4	6		2		2	
Detector Phase	4	4	4	6	6	2	2	2	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	41.7	33.2	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	42.0	68.0	68.0	68.0	68.0	68.0	42.0
Total Split (%)	38.2%	38.2%	38.2%	61.8%	61.8%	61.8%	61.8%	61.8%	38%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	3.7	2.2	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		7.7	7.7	6.2	6.2	6.2	6.2	6.2	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio		0.69	0.31	0.26	0.36	0.00	0.34	0.34	
Control Delay (s/veh)		51.7	7.1	10.5	10.5	1.0	3.4	2.6	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.2	0.2	
Total Delay (s/veh)		51.7	7.1	10.5	10.5	1.0	3.6	2.9	
Queue Length 50th (m)		44.0	0.0	13.0	41.8	0.1	1.1	0.0	
Queue Length 95th (m)		64.0	14.4	30.1	76.5	m0.1	75.1	63.3	
Internal Link Dist (m)		55.2			406.0		27.9		
Turn Bay Length (m)			30.0	15.0		15.0			
Base Capacity (vph)		435	578	578	1226	566	1226	1133	
Starvation Cap Reductn		0	0	0	0	0	269	253	
Spillback Cap Reductn		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.48	0.24	0.27	0.37	0.01	0.45	0.45	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 49 (45%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & South Mall Entrance/Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	0	127	0	0	0	143	421	0	3	398	368
Future Volume (vph)	194	0	127	0	0	0	143	421	0	3	398	368
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.7	7.7				6.2	6.2		6.2	6.2	6.2
Lane Util. Factor		1.00	1.00				1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	0.97				1.00	1.00		1.00	1.00	0.96
Flpb, ped/bikes		0.98	1.00				0.99	1.00		1.00	1.00	1.00
Frt		1.00	0.85				1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00				0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1753	1552				1757	1860		1785	1860	1515
Flt Permitted		0.75	1.00				0.47	1.00		0.45	1.00	1.00
Satd. Flow (perm)		1397	1552				877	1860		859	1860	1515
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	209	0	137	0	0	0	154	453	0	3	428	396
RTOR Reduction (vph)	0	0	108	0	0	0	0	0	0	0	0	135
Lane Group Flow (vph)	0	209	29	0	0	0	154	453	0	3	428	261
Confl. Peds. (#/hr)	11		5	5		11	6					6
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	1%	2%
Turn Type	Perm	NA	Perm				Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4		4	8			6			2		2
Actuated Green, G (s)		23.6	23.6				72.5	72.5		72.5	72.5	72.5
Effective Green, g (s)		23.6	23.6				72.5	72.5		72.5	72.5	72.5
Actuated g/C Ratio		0.21	0.21				0.66	0.66		0.66	0.66	0.66
Clearance Time (s)		7.7	7.7				6.2	6.2		6.2	6.2	6.2
Vehicle Extension (s)		5.0	5.0				5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		299	332				578	1225		566	1225	998
v/s Ratio Prot								c0.24			0.23	
v/s Ratio Perm		c0.15	0.02				0.18			0.00		0.17
v/c Ratio		0.69	0.08				0.26	0.36		0.00	0.34	0.26
Uniform Delay, d1		39.9	34.5				7.7	8.4		6.4	8.3	7.7
Progression Factor		1.00	1.00				1.00	1.00		0.11	0.27	1.78
Incremental Delay, d2		8.7	0.2				1.1	0.8		0.0	0.7	0.6
Delay (s)		48.6	34.8				8.8	9.3		0.7	3.0	14.3
Level of Service		D	C				A	A		A	A	B
Approach Delay (s/veh)		43.2			0.0			9.2			8.4	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	67	127	449	152	3
Future Vol, veh/h	0	67	127	449	152	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	1	3	0
Mvmt Flow	0	72	137	483	163	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	165	166	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	885	1424	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	885	1424	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.4	1.7	0
HCM LOS	A		

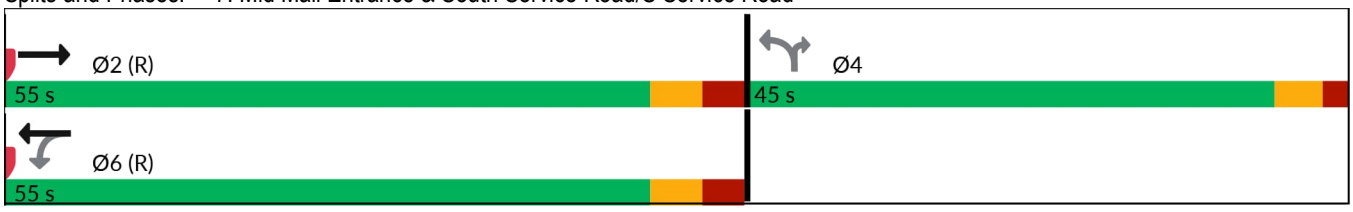
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1424	-	885	-	-
HCM Lane V/C Ratio	0.096	-	0.081	-	-
HCM Control Delay (s/veh)	7.8	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.3	-	0.3	-	-

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	314	31	174	84	104
Future Volume (vph)	314	31	174	84	104
Lane Group Flow (vph)	421	0	227	93	116
Turn Type	NA	Perm	NA	Perm	Perm
Protected Phases	2		6		
Permitted Phases		6		4	4
Detector Phase	2	6	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	42.0	42.0	42.0	26.5	26.5
Total Split (s)	55.0	55.0	55.0	45.0	45.0
Total Split (%)	55.0%	55.0%	55.0%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio	0.16		0.18	0.41	0.38
Control Delay (s/veh)	6.4		4.3	45.3	11.2
Queue Delay	0.0		0.0	0.0	0.0
Total Delay (s/veh)	6.4		4.3	45.3	11.2
Queue Length 50th (m)	16.9		11.1	17.8	0.0
Queue Length 95th (m)	m28.6		21.8	32.1	15.3
Internal Link Dist (m)	194.3		186.2	63.4	
Turn Bay Length (m)					15.0
Base Capacity (vph)	2572		1239	705	700
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.16		0.18	0.13	0.17

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 85 (85%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Mid Mall Entrance & South Service Road/S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	314	65	31	174	84	104
Future Volume (vph)	314	65	31	174	84	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0			7.0	5.5	5.5
Lane Util. Factor	0.95			1.00	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	1.00
Flpb, ped/bikes	1.00			0.99	1.00	1.00
Frt	0.97			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3420			1818	1785	1597
Flt Permitted	1.00			0.90	0.95	1.00
Satd. Flow (perm)	3420			1652	1785	1597
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	349	72	34	193	93	116
RTOR Reduction (vph)	8	0	0	0	0	102
Lane Group Flow (vph)	413	0	0	227	93	15
Confl. Peds. (#/hr)		5	5			
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	2	0	0	2	0	0
Turn Type	NA		Perm	NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases			6		4	4
Actuated Green, G (s)	75.0			75.0	12.5	12.5
Effective Green, g (s)	75.0			75.0	12.5	12.5
Actuated g/C Ratio	0.75			0.75	0.13	0.13
Clearance Time (s)	7.0			7.0	5.5	5.5
Vehicle Extension (s)	5.0			5.0	5.0	5.0
Lane Grp Cap (vph)	2565			1239	223	199
v/s Ratio Prot	0.12					
v/s Ratio Perm				c0.14	c0.05	0.01
v/c Ratio	0.16			0.18	0.41	0.07
Uniform Delay, d1	3.5			3.6	40.3	38.6
Progression Factor	1.79			1.00	1.00	1.00
Incremental Delay, d2	0.0			0.3	2.6	0.3
Delay (s)	6.4			3.9	43.0	38.9
Level of Service	A			A	D	D
Approach Delay (s/veh)	6.4			3.9	40.7	
Approach LOS	A			A	D	

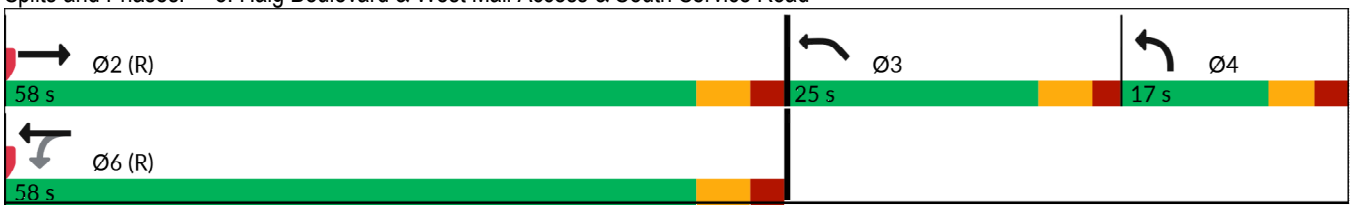
Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL	NWL
Lane Configurations				
Traffic Volume (vph)	341	258	200	87
Future Volume (vph)	341	258	200	87
Lane Group Flow (vph)	721	261	227	108
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	4	3
Permitted Phases				
Detector Phase	2	6	4	3
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	14.0	28.0
Total Split (s)	58.0	58.0	17.0	25.0
Total Split (%)	58.0%	58.0%	17.0%	25.0%
Yellow Time (s)	4.0	4.0	3.5	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.0	6.0
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	C-Max	C-Max	None	None
v/c Ratio	0.82	0.27	0.78	0.46
Control Delay (s/veh)	26.3	22.4	62.0	45.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.3	22.4	62.0	45.8
Queue Length 50th (m)	119.1	39.6	44.9	20.6
Queue Length 95th (m)	#183.7	60.2	#99.0	36.2
Internal Link Dist (m)	231.6	194.3	543.2	41.8
Turn Bay Length (m)				
Base Capacity (vph)	870	948	288	329
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.83	0.28	0.79	0.33

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 95 (95%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Haig Boulevard & West Mall Access & South Service Road



Movement	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR
Lane Configurations									
Traffic Volume (vph)	341	134	225	0	258	200	25	87	13
Future Volume (vph)	341	134	225	0	258	200	25	87	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5				6.5	6.0		6.0	
Lane Util. Factor	1.00				1.00	1.00		1.00	
Frpb, ped/bikes	0.98				1.00	1.00		1.00	
Flpb, ped/bikes	1.00				1.00	1.00		1.00	
Frt	0.92				1.00	0.98		0.98	
Flt Protected	1.00				1.00	0.95		0.95	
Satd. Flow (prot)	1692				1842	1741		1734	
Flt Permitted	1.00				1.00	0.95		0.95	
Satd. Flow (perm)	1692				1842	1741		1734	
Peak-hour factor, PHF	0.99	0.99	0.93	0.99	0.99	0.99	0.99	0.93	0.93
Adj. Flow (vph)	344	135	242	0	261	202	25	94	14
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	721	0	0	0	261	227	0	108	0
Confl. Peds. (#/hr)		1		1					
Confl. Bikes (#/hr)		2							
Heavy Vehicles (%)	1%	0%	2%	0%	2%	2%	0%	2%	2%
Bus Blockages (#/hr)	2	0	0	0	0	0	0	0	0
Turn Type	NA			Perm	NA	Prot		Prot	
Protected Phases	2				6	4		3	
Permitted Phases				6					
Actuated Green, G (s)	51.5				51.5	16.6		13.4	
Effective Green, g (s)	51.5				51.5	16.6		13.4	
Actuated g/C Ratio	0.52				0.52	0.17		0.13	
Clearance Time (s)	6.5				6.5	6.0		6.0	
Vehicle Extension (s)	5.0				5.0	5.0		5.0	
Lane Grp Cap (vph)	871				948	289		232	
v/s Ratio Prot	c0.43				0.14	c0.13		c0.06	
v/s Ratio Perm									
v/c Ratio	0.82				0.27	0.78		0.46	
Uniform Delay, d1	20.5				13.7	39.9		39.9	
Progression Factor	0.81				1.55	1.00		1.00	
Incremental Delay, d2	8.4				0.7	15.0		3.0	
Delay (s)	25.1				22.0	54.9		43.0	
Level of Service	C				C	D		D	
Approach Delay (s/veh)	25.1				22.0	54.9		43.0	
Approach LOS	C				C	D		D	

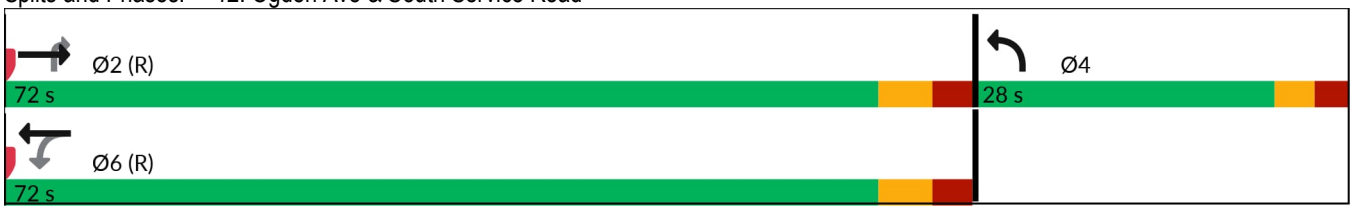
Intersection Summary			
HCM 2000 Control Delay (s/veh)	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	523	18	442	19	65
Future Volume (vph)	523	18	442	19	65
Lane Group Flow (vph)	627	21	508	22	75
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	27.5	30.0
Total Split (s)	72.0	72.0	72.0	28.0	72.0
Total Split (%)	72.0%	72.0%	72.0%	28.0%	72.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	5.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.44	0.04	0.35	0.10	0.06
Control Delay (s/veh)	5.6	1.1	1.7	40.6	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	5.6	1.1	1.7	40.6	0.8
Queue Length 50th (m)	38.6	0.3	7.3	4.1	0.0
Queue Length 95th (m)	52.4	m0.6	9.3	11.1	2.8
Internal Link Dist (m)	30.8		231.6	84.3	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1409	500	1418	401	1189
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.44	0.04	0.36	0.05	0.06

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 70 (70%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & South Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	523	23	18	442	19	65
Future Volume (vph)	523	23	18	442	19	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	5.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1867		1607	1879	1785	1551
Flt Permitted	1.00		0.39	1.00	0.95	1.00
Satd. Flow (perm)	1867		664	1879	1785	1551
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	601	26	21	508	22	75
RTOR Reduction (vph)	1	0	0	0	0	18
Lane Group Flow (vph)	626	0	21	508	22	57
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	0%	0%	11%	0%	0%	3%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	75.5		75.5	75.5	12.0	75.5
Effective Green, g (s)	75.5		75.5	75.5	12.0	75.5
Actuated g/C Ratio	0.76		0.76	0.76	0.12	0.76
Clearance Time (s)	7.0		7.0	7.0	5.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1409		501	1418	214	1171
v/s Ratio Prot	c0.34			0.27	c0.01	
v/s Ratio Perm			0.03			0.04
v/c Ratio	0.44		0.04	0.35	0.10	0.04
Uniform Delay, d1	4.5		3.0	4.1	39.2	3.1
Progression Factor	1.00		0.30	0.26	1.00	1.00
Incremental Delay, d2	1.0		0.1	0.6	0.4	0.0
Delay (s)	5.5		1.0	1.7	39.6	3.1
Level of Service	A		A	A	D	A
Approach Delay (s/veh)	5.5			1.7	11.4	
Approach LOS	A			A	B	

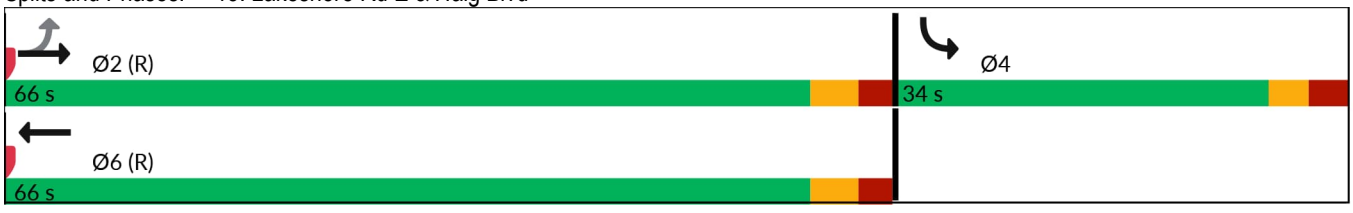
Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

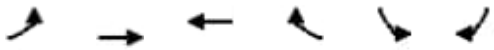
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	21	796	734	34
Future Volume (vph)	21	796	734	34
Lane Group Flow (vph)	23	865	836	63
Turn Type	Perm	NA	NA	Prot
Protected Phases		2	6	4
Permitted Phases	2			
Detector Phase	2	2	6	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	34.0
Total Split (s)	66.0	66.0	66.0	34.0
Total Split (%)	66.0%	66.0%	66.0%	34.0%
Yellow Time (s)	3.5	3.5	3.5	3.0
All-Red Time (s)	2.5	2.5	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	0.04	0.29	0.29	0.30
Control Delay (s/veh)	3.1	3.3	2.3	30.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.1	3.3	2.3	30.7
Queue Length 50th (m)	0.9	21.4	12.7	7.1
Queue Length 95th (m)	3.0	32.7	25.0	19.3
Internal Link Dist (m)		227.1	589.2	365.6
Turn Bay Length (m)	20.0			
Base Capacity (vph)	509	2884	2861	497
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.05	0.30	0.29	0.13

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 68 (68%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 13: Lakeshore Rd E & Haig Blvd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	796	734	35	34	24
Future Volume (vph)	21	796	734	35	34	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frpb, ped/bikes	1.00	1.00	0.99		0.99	
Flpb, ped/bikes	0.99	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1772	3535	3505		1710	
Flt Permitted	0.33	1.00	1.00		0.97	
Satd. Flow (perm)	623	3535	3505		1710	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	865	798	38	37	26
RTOR Reduction (vph)	0	0	2	0	24	0
Lane Group Flow (vph)	23	865	834	0	39	0
Confl. Peds. (#/hr)	10			10	1	4
Confl. Bikes (#/hr)				1		1
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	79.2	79.2	79.2		8.8	
Effective Green, g (s)	79.2	79.2	79.2		8.8	
Actuated g/C Ratio	0.79	0.79	0.79		0.09	
Clearance Time (s)	6.0	6.0	6.0		6.0	
Vehicle Extension (s)	5.0	5.0	5.0		5.0	
Lane Grp Cap (vph)	493	2799	2775		150	
v/s Ratio Prot		c0.24	0.24		c0.02	
v/s Ratio Perm	0.04					
v/c Ratio	0.04	0.30	0.30		0.26	
Uniform Delay, d1	2.2	2.8	2.8		42.5	
Progression Factor	1.00	1.00	0.67		1.00	
Incremental Delay, d2	0.1	0.2	0.2		1.9	
Delay (s)	2.4	3.1	2.1		44.5	
Level of Service	A	A	A		D	
Approach Delay (s/veh)		3.1	2.1		44.5	
Approach LOS		A	A		D	

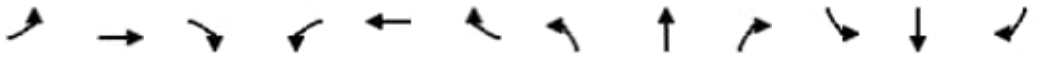
Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	304	528	24	482	35	25	201	15
Future Volume (vph)	304	528	24	482	35	25	201	15
Lane Group Flow (vph)	327	593	26	715	0	80	216	317
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	5	2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	5	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	14.5	40.0	40.0	40.0	24.5	24.5	37.5	37.5
Total Split (s)	20.0	62.0	42.0	42.0	38.0	38.0	38.0	38.0
Total Split (%)	20.0%	62.0%	42.0%	42.0%	38.0%	38.0%	38.0%	38.0%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	3.0	3.0	3.0	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	7.0		6.5	6.5	6.5
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None
v/c Ratio	0.59	0.26	0.07	0.46		0.32	0.63	0.52
Control Delay (s/veh)	20.7	12.8	20.6	20.1		28.3	42.0	7.4
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	20.7	12.8	20.6	20.1		28.3	42.0	7.4
Queue Length 50th (m)	33.7	27.4	3.0	47.7		11.4	39.5	2.5
Queue Length 95th (m)	74.9	59.7	9.8	76.3		22.6	58.5	22.1
Internal Link Dist (m)		589.2		176.1		31.2		406.0
Turn Bay Length (m)	20.0		20.0				30.0	
Base Capacity (vph)	580	2205	361	1543		321	450	698
Starvation Cap Reductn	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0
Reduced v/c Ratio	0.56	0.27	0.07	0.46		0.25	0.48	0.45

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 58 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 14: Dixie Road & Lakeshore Rd E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	304	528	23	24	482	183	35	25	14	201	15	280
Future Volume (vph)	304	528	23	24	482	183	35	25	14	201	15	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	7.0		7.0	7.0			6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.98			1.00		1.00	0.97	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			0.99		1.00	1.00	
Frt	1.00	0.99		1.00	0.95			0.97		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1780	3508		1772	3338			1785		1785	1562	
Flt Permitted	0.29	1.00		0.42	1.00			0.54		0.76	1.00	
Satd. Flow (perm)	557	3508		798	3338			996		1430	1562	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	327	568	25	26	518	197	38	27	15	216	16	301
RTOR Reduction (vph)	0	3	0	0	33	0	0	9	0	0	230	0
Lane Group Flow (vph)	327	590	0	26	682	0	0	71	0	216	87	0
Confl. Peds. (#/hr)	21		11	11		21	9					9
Confl. Bikes (#/hr)			2			3						2
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	1%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	62.8	62.8		45.2	45.2			23.7		23.7	23.7	
Effective Green, g (s)	62.8	62.8		45.2	45.2			23.7		23.7	23.7	
Actuated g/C Ratio	0.63	0.63		0.45	0.45			0.24		0.24	0.24	
Clearance Time (s)	3.0	7.0		7.0	7.0			6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lane Grp Cap (vph)	528	2203		360	1508			236		338	370	
v/s Ratio Prot	c0.09	0.17			0.20						0.06	
v/s Ratio Perm	c0.30			0.03				0.07		c0.15		
v/c Ratio	0.61	0.26		0.07	0.45			0.30		0.63	0.23	
Uniform Delay, d1	9.4	8.3		15.5	18.8			31.3		34.3	30.8	
Progression Factor	2.03	1.36		1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2	3.0	0.2		0.3	0.9			1.4		5.4	0.6	
Delay (s)	22.3	11.6		15.9	19.8			32.8		39.7	31.5	
Level of Service	C	B		B	B			C		D	C	
Approach Delay (s/veh)		15.4			19.7			32.8			34.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	5	22	1	3	2	15	35	0	0	27	8
Future Vol, veh/h	13	5	22	1	3	2	15	35	0	0	27	8
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	6	26	1	4	2	18	42	0	0	32	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.1	7	7.4	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	33%	17%	0%
Vol Thru, %	70%	13%	50%	77%
Vol Right, %	0%	55%	33%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	40	6	35
LT Vol	15	13	1	0
Through Vol	35	5	3	27
RT Vol	0	22	2	8
Lane Flow Rate	60	48	7	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.068	0.05	0.008	0.045
Departure Headway (Hd)	4.086	3.815	3.945	3.902
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	876	933	901	916
Service Time	2.112	1.861	1.997	1.934
HCM Lane V/C Ratio	0.068	0.051	0.008	0.046
HCM Control Delay, s/veh	7.4	7.1	7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0	0.1

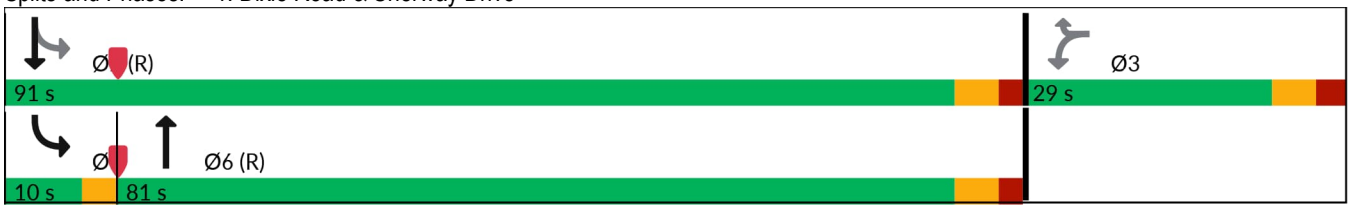
Intersection Capacity Analysis (Future Background)

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	135	207	1085	156	797
Future Volume (vph)	135	207	1085	156	797
Lane Group Flow (vph)	153	235	1347	177	906
Turn Type	Perm	Perm	NA	pm+pt	NA
Protected Phases			6	5	2
Permitted Phases	3	3		2	
Detector Phase	3	3	6	5	2
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	5.0	8.0
Minimum Split (s)	28.6	28.6	25.0	8.0	25.0
Total Split (s)	29.0	29.0	81.0	10.0	91.0
Total Split (%)	24.2%	24.2%	67.5%	8.3%	75.8%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.6	2.6	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.0	3.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
v/c Ratio	0.59	0.63	0.59	0.55	0.33
Control Delay (s/veh)	57.3	23.1	8.1	11.0	5.7
Queue Delay	0.0	0.0	0.6	0.0	0.0
Total Delay (s/veh)	57.3	23.1	8.7	11.0	5.7
Queue Length 50th (m)	35.9	15.7	63.8	9.2	34.1
Queue Length 95th (m)	54.3	39.0	70.1	17.7	49.6
Internal Link Dist (m)	91.7		117.1		171.7
Turn Bay Length (m)		30.0		50.0	
Base Capacity (vph)	333	432	2252	318	2682
Starvation Cap Reductn	0	0	485	0	0
Spillback Cap Reductn	0	0	0	0	185
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.54	0.76	0.56	0.36

Intersection Summary

Cycle Length: 120
Actual Cycle Length: 120
Offset: 68 (57%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 1: Dixie Road & Sherway Drive



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	135	207	1085	100	156	797
Future Volume (vph)	135	207	1085	100	156	797
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.0		3.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1785	1597	3454		1767	3570
Flt Permitted	0.95	1.00	1.00		0.14	1.00
Satd. Flow (perm)	1785	1597	3454		264	3570
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	153	235	1233	114	177	906
RTOR Reduction (vph)	0	141	5	0	0	0
Lane Group Flow (vph)	153	94	1342	0	177	906
Confl. Peds. (#/hr)				1	1	
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	3	3			2	
Actuated Green, G (s)	17.2	17.2	78.1		90.2	90.2
Effective Green, g (s)	17.2	17.2	78.1		90.2	90.2
Actuated g/C Ratio	0.14	0.14	0.65		0.75	0.75
Clearance Time (s)	6.6	6.6	6.0		3.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	255	228	2247		312	2683
v/s Ratio Prot			c0.39		c0.04	0.25
v/s Ratio Perm	c0.09	0.06			0.38	
v/c Ratio	0.60	0.41	0.59		0.56	0.33
Uniform Delay, d1	48.1	46.7	11.9		8.7	4.9
Progression Factor	1.00	1.00	0.57		1.00	1.00
Incremental Delay, d2	5.7	2.5	0.9		3.8	0.3
Delay (s)	53.9	49.2	7.8		12.5	5.3
Level of Service	D	D	A		B	A
Approach Delay (s/veh)	51.1		7.8			6.4
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

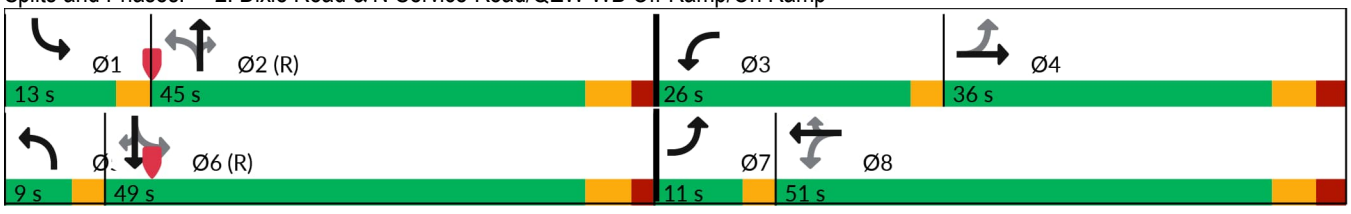
c Critical Lane Group

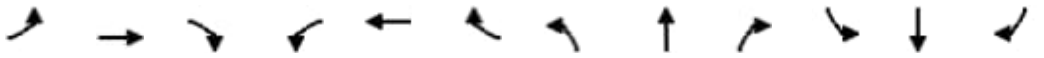
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	85	15	130	45	520	10	580	100	130	787	15
Future Volume (vph)	85	15	130	45	520	10	580	100	130	787	15
Lane Group Flow (vph)	97	153	148	51	591	11	659	114	148	894	17
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	9.0	33.6	9.0	33.6	33.6	9.0	27.0	27.0	9.0	26.0	26.0
Total Split (s)	11.0	36.0	26.0	51.0	51.0	9.0	45.0	45.0	13.0	49.0	49.0
Total Split (%)	9.2%	30.0%	21.7%	42.5%	42.5%	7.5%	37.5%	37.5%	10.8%	40.8%	40.8%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	0.0	2.6	0.0	2.6	2.6	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.6	3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.19	0.30	0.28	0.10	0.90	0.03	0.46	0.15	0.37	0.50	0.02
Control Delay (s/veh)	20.8	8.6	21.9	27.4	36.8	19.9	35.6	11.8	19.3	25.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)	20.8	8.6	21.9	27.4	36.8	19.9	35.6	11.8	19.3	25.3	0.2
Queue Length 50th (m)	14.1	3.2	22.2	8.9	75.1	1.8	77.5	5.1	22.0	86.2	0.0
Queue Length 95th (m)	22.1	17.7	31.8	16.6	113.7	m4.8	96.2	20.1	38.4	123.8	m0.3
Internal Link Dist (m)		121.9		96.5			233.5			117.1	
Turn Bay Length (m)	100.0		75.0			100.0		50.0	75.0		50.0
Base Capacity (vph)	494	543	578	637	749	319	1416	718	401	1765	796
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	317	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.28	0.26	0.08	0.79	0.03	0.47	0.16	0.37	0.62	0.02

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Dixie Road & N Service Road/QEW WB Off-Ramp/On Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	15	120	130	45	520	10	580	100	130	787	15
Future Volume (vph)	85	15	120	130	45	520	10	580	100	130	787	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1785	1628		1785	1724	1521	1785	3570	1597	1785	3570	1493
Flt Permitted	0.72	1.00		0.56	1.00	1.00	0.27	1.00	1.00	0.28	1.00	1.00
Satd. Flow (perm)	1360	1628		1056	1724	1521	512	3570	1597	541	3570	1493
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	97	17	136	148	51	591	11	659	114	148	894	17
RTOR Reduction (vph)	0	103	0	0	0	210	0	0	69	0	0	9
Lane Group Flow (vph)	97	50	0	148	51	381	11	659	45	148	894	8
Heavy Vehicles (%)	0%	0%	0%	0%	9%	5%	0%	0%	0%	0%	0%	7%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	37.5	29.5		46.2	35.2	35.2	48.8	47.6	47.6	61.2	57.0	57.0
Effective Green, g (s)	37.5	29.5		46.2	35.2	35.2	48.8	47.6	47.6	61.2	57.0	57.0
Actuated g/C Ratio	0.31	0.25		0.39	0.29	0.29	0.41	0.40	0.40	0.51	0.48	0.48
Clearance Time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	453	400		489	505	446	220	1416	633	385	1695	709
v/s Ratio Prot	0.01	0.03		c0.03	0.03		0.00	0.18		c0.03	c0.25	
v/s Ratio Perm	0.05			0.08		c0.25	0.02		0.03	0.16		0.01
v/c Ratio	0.21	0.12		0.30	0.10	0.85	0.05	0.46	0.07	0.38	0.52	0.01
Uniform Delay, d1	29.9	35.2		24.8	30.8	39.9	21.4	26.7	22.4	16.7	22.0	16.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.13	1.19	4.61	1.01	1.04	1.00
Incremental Delay, d2	0.4	0.2		0.7	0.1	16.0	0.1	1.0	0.2	1.2	1.1	0.0
Delay (s)	30.4	35.5		25.5	31.0	55.9	24.5	33.0	103.9	18.2	24.1	16.6
Level of Service	C	D		C	C	E	C	C	F	B	C	B
Approach Delay (s/veh)		33.5			48.6			43.2			23.1	
Approach LOS		C			D			D			C	

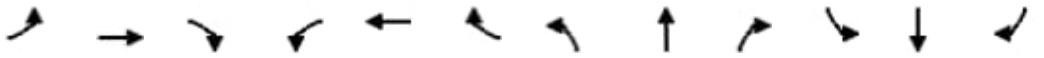
Intersection Summary			
HCM 2000 Control Delay (s/veh)	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBR	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	200	10	150	130	1340	10	633
Future Volume (vph)	200	10	150	130	1340	10	633
Lane Group Flow (vph)	111	113	160	138	1426	11	673
Turn Type	Split	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4	4			2		6
Permitted Phases			4	8		6	
Detector Phase	4	4	4	8	2	6	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	31.0	31.0	31.0	31.0	58.0	58.0	58.0
Total Split (%)	25.8%	25.8%	25.8%	25.8%	48.3%	48.3%	48.3%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	1.3	1.3	1.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.50	0.51	0.46	0.57	0.44	0.06	0.30
Control Delay (s/veh)	55.6	55.8	11.1	26.3	12.8	8.3	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	55.6	55.8	11.1	26.3	13.3	8.3	12.1
Queue Length 50th (m)	27.4	28.0	0.0	8.7	59.4	1.3	62.7
Queue Length 95th (m)	44.7	45.4	18.8	28.3	94.8	m2.6	81.5
Internal Link Dist (m)		138.8			128.3		133.8
Turn Bay Length (m)			75.0	7.5		100.0	
Base Capacity (vph)	346	348	452	406	3181	168	2214
Starvation Cap Reductn	0	0	0	0	1132	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.32	0.35	0.34	0.70	0.07	0.30

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 41 (34%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Dixie Road & QEW EB Off-Ramp/S Service Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	10	150	0	0	130	0	1340	0	10	633	0
Future Volume (vph)	200	10	150	0	0	130	0	1340	0	10	633	0
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		5.0		5.0	5.0	
Lane Util. Factor	0.95	0.95	1.00			1.00		0.91		1.00	0.95	
Frt	1.00	1.00	0.85			0.85		1.00		1.00	1.00	
Flt Protected	0.95	0.95	1.00			1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1662	1674	1566			1566		5029		1750	3500	
Flt Permitted	0.95	0.95	1.00			1.00		1.00		0.14	1.00	
Satd. Flow (perm)	1662	1674	1566			1566		5029		268	3500	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	213	11	160	0	0	138	0	1426	0	11	673	0
RTOR Reduction (vph)	0	0	139	0	0	91	0	0	0	0	0	0
Lane Group Flow (vph)	111	113	21	0	0	47	0	1426	0	11	673	0
Turn Type	Split	NA	Perm	Perm		Perm		NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4	8		8				6		
Actuated Green, G (s)	15.8	15.8	15.8			11.3		75.9		75.9	75.9	
Effective Green, g (s)	15.8	15.8	15.8			11.3		75.9		75.9	75.9	
Actuated g/C Ratio	0.13	0.13	0.13			0.09		0.63		0.63	0.63	
Clearance Time (s)	6.0	6.0	6.0			6.0		5.0		5.0	5.0	
Vehicle Extension (s)	5.0	5.0	5.0			5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	218	220	206			147		3180		169	2213	
v/s Ratio Prot	0.07	c0.07						c0.28			0.19	
v/s Ratio Perm			0.01			c0.03				0.04		
v/c Ratio	0.50	0.51	0.10			0.31		0.44		0.06	0.30	
Uniform Delay, d1	48.4	48.5	45.8			50.7		11.3		8.4	10.0	
Progression Factor	1.00	1.00	1.00			1.00		1.00		0.62	1.05	
Incremental Delay, d2	3.8	3.9	0.4			2.5		0.4		0.6	0.3	
Delay (s)	52.3	52.5	46.3			53.3		11.7		5.9	10.9	
Level of Service	D	D	D			D		B		A	B	
Approach Delay (s/veh)		49.8			53.3			11.7			10.8	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

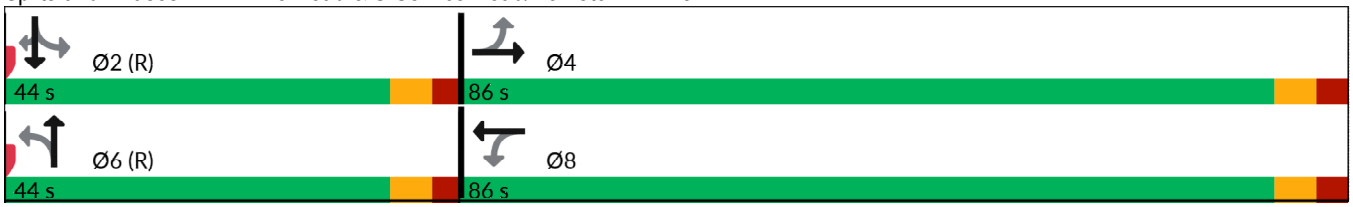
c Critical Lane Group

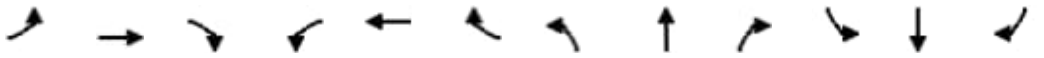
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	493	4	17	2	73	798	52	375	289
Future Volume (vph)	493	4	17	2	73	798	52	375	289
Lane Group Flow (vph)	536	47	0	98	79	980	57	408	314
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.1	41.1	41.1	41.1	35.6	35.6	35.6	35.6	35.6
Total Split (s)	86.0	86.0	86.0	86.0	44.0	44.0	44.0	44.0	44.0
Total Split (%)	66.2%	66.2%	66.2%	66.2%	33.8%	33.8%	33.8%	33.8%	33.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.79	0.05		0.11	0.23	0.73	0.57	0.30	0.39
Control Delay (s/veh)	34.7	3.7		11.4	34.2	40.3	63.1	31.3	5.2
Queue Delay	0.0	0.0		0.0	0.0	33.1	0.0	0.0	0.1
Total Delay (s/veh)	34.7	3.7		11.4	34.2	73.5	63.1	31.3	5.3
Queue Length 50th (m)	111.6	0.5		10.3	14.8	120.8	12.4	41.3	0.0
Queue Length 95th (m)	134.8	5.4		16.3	32.1	#182.6	#40.4	62.6	22.1
Internal Link Dist (m)		127.8		67.7		95.9		128.3	
Turn Bay Length (m)					50.0		100.0		
Base Capacity (vph)	791	1000		980	333	1327	99	1329	795
Starvation Cap Reductn	0	0		0	0	401	0	0	74
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	0.68	0.05		0.10	0.24	1.06	0.58	0.31	0.44

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 48 (37%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Dixie Road & S Service Road/Rometown Drive





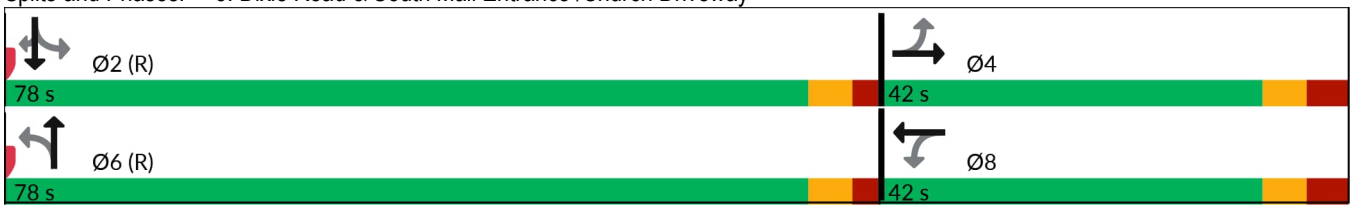
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	493	4	40	17	2	72	73	798	104	52	375	289
Future Volume (vph)	493	4	40	17	2	72	73	798	104	52	375	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.86			0.89		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1785	1621			1662		1785	3477		1785	3500	1581
Flt Permitted	0.69	1.00			0.95		0.46	1.00		0.13	1.00	1.00
Satd. Flow (perm)	1303	1621			1602		879	3477		263	3500	1581
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	536	4	43	18	2	78	79	867	113	57	408	314
RTOR Reduction (vph)	0	21	0	0	9	0	0	7	0	0	0	195
Lane Group Flow (vph)	536	26	0	0	89	0	79	973	0	57	408	119
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	66.9	66.9			66.9		49.4	49.4		49.4	49.4	49.4
Effective Green, g (s)	66.9	66.9			66.9		49.4	49.4		49.4	49.4	49.4
Actuated g/C Ratio	0.51	0.51			0.51		0.38	0.38		0.38	0.38	0.38
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	670	834			824		334	1321		99	1330	600
v/s Ratio Prot		0.02						c0.28			0.12	
v/s Ratio Perm	c0.41				0.06		0.09			0.22		0.08
v/c Ratio	0.80	0.03			0.10		0.23	0.73		0.57	0.30	0.19
Uniform Delay, d1	26.0	15.5			16.2		27.4	34.7		31.9	28.2	27.0
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.7	0.0			0.1		1.6	3.6		22.1	0.5	0.7
Delay (s)	33.7	15.5			16.3		29.1	38.3		54.0	28.8	27.7
Level of Service	C	B			B		C	D		D	C	C
Approach Delay (s/veh)		32.2			16.3			37.7			30.2	
Approach LOS		C			B			D			C	

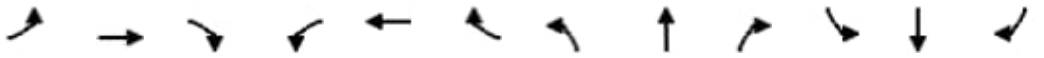
Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	10	0	17	975	350	70	
Future Volume (vph)	10	0	17	975	350	70	
Lane Group Flow (vph)	10	23	0	1078	380	76	
Turn Type	Perm	NA	Perm	NA	NA	Perm	
Protected Phases		4		6	2		8
Permitted Phases	4		6			2	
Detector Phase	4	4	6	6	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	78.0	78.0	78.0	78.0	42.0
Total Split (%)	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%	35%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	7.7	7.7		6.2	6.2	6.2	
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio	0.11	0.15		0.36	0.12	0.05	
Control Delay (s/veh)	53.6	16.7		2.8	2.0	0.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	53.6	16.7		2.8	2.0	0.6	
Queue Length 50th (m)	2.4	0.0		33.3	8.9	0.0	
Queue Length 95th (m)	8.5	7.3		43.4	12.8	2.8	
Internal Link Dist (m)		53.7		197.5	95.9		
Turn Bay Length (m)							
Base Capacity (vph)	296	426		2936	3046	1298	
Starvation Cap Reductn	0	0		0	0	0	
Spillback Cap Reductn	0	0		0	0	0	
Storage Cap Reductn	0	0		0	0	0	
Reduced v/c Ratio	0.03	0.05		0.37	0.12	0.06	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 66 (55%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: Dixie Road & South Mall Entrance /Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	0	20	0	0	0	17	975	0	0	350	70
Future Volume (vph)	10	0	20	0	0	0	17	975	0	0	350	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7	7.7						6.2			6.2	6.2
Lane Util. Factor	0.95	0.95						0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00						1.00			1.00	0.98
Flpb, ped/bikes	1.00	1.00						0.99			1.00	1.00
Frt	1.00	0.85						1.00			1.00	0.85
Flt Protected	0.95	0.99						0.99			1.00	1.00
Satd. Flow (prot)	1304	1438						3532			3466	1467
Flt Permitted	0.75	0.98						0.94			1.00	1.00
Satd. Flow (perm)	1040	1418						3339			3466	1467
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	0	22	0	0	0	18	1060	0	0	380	76
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	0	13
Lane Group Flow (vph)	10	1	0	0	0	0	0	1078	0	0	380	63
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	30%	0%	5%	0%	0%	0%	0%	1%	0%	0%	3%	7%
Turn Type	Perm	NA					Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	6.2	6.2						99.9			99.9	99.9
Effective Green, g (s)	6.2	6.2						99.9			99.9	99.9
Actuated g/C Ratio	0.05	0.05						0.83			0.83	0.83
Clearance Time (s)	7.7	7.7						6.2			6.2	6.2
Vehicle Extension (s)	5.0	5.0						5.0			5.0	5.0
Lane Grp Cap (vph)	53	73						2779			2885	1221
v/s Ratio Prot											0.11	
v/s Ratio Perm	c0.01	0.00						c0.32				0.04
v/c Ratio	0.18	0.01						0.38			0.13	0.05
Uniform Delay, d1	54.4	54.0						2.4			1.8	1.7
Progression Factor	1.00	1.00						1.00			1.00	1.00
Incremental Delay, d2	3.5	0.1						0.4			0.0	0.0
Delay (s)	58.0	54.1						2.8			1.9	1.8
Level of Service	E	D						A			A	A
Approach Delay (s/veh)		55.3			0.0			2.8			1.9	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	3.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	14	348	514	0
Future Vol, veh/h	0	2	14	348	514	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	2	0	0
Mvmt Flow	0	2	15	382	565	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	565	565	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	528	1017	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	528	1017	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

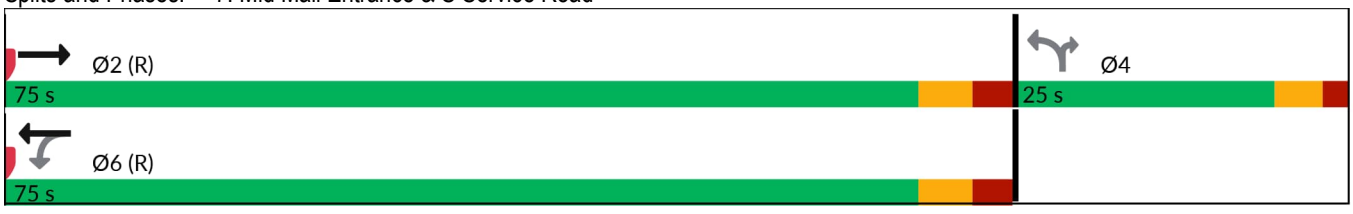
Approach	EB	NB	SB
HCM Control Delay, s/v	11.8	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1017	-	528	-	-
HCM Lane V/C Ratio	0.015	-	0.004	-	-
HCM Control Delay (s/veh)	8.6	-	11.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

Lane Group	EBT	WBT	NBL	NBR
Lane Configurations				
Traffic Volume (vph)	838	348	5	3
Future Volume (vph)	838	348	5	3
Lane Group Flow (vph)	1062	435	6	4
Turn Type	NA	NA	Perm	Perm
Protected Phases	2	6		
Permitted Phases			4	4
Detector Phase	2	6	4	4
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	42.0	42.0	26.5	26.5
Total Split (s)	75.0	75.0	25.0	25.0
Total Split (%)	75.0%	75.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	5.5	5.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None
v/c Ratio	0.59	0.24	0.04	0.02
Control Delay (s/veh)	2.0	1.2	42.8	27.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	2.1	1.2	42.8	27.3
Queue Length 50th (m)	0.0	0.0	1.2	0.0
Queue Length 95th (m)	m16.7	24.1	4.6	2.9
Internal Link Dist (m)	194.3	186.2	63.4	
Turn Bay Length (m)				15.0
Base Capacity (vph)	1781	1784	348	314
Starvation Cap Reductn	51	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.61	0.24	0.02	0.01

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 47 (47%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Mid Mall Entrance & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	838	11	0	348	5	3
Future Volume (vph)	838	11	0	348	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0			7.0	5.5	5.5
Lane Util. Factor	1.00			1.00	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	1.00
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1860			1864	1785	1597
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	1860			1864	1785	1597
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	1048	14	0	435	6	4
RTOR Reduction (vph)	0	0	0	0	0	4
Lane Group Flow (vph)	1062	0	0	435	6	0
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	2	0	0	2	0	0
Turn Type	NA		Perm	NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases			6		4	4
Actuated Green, G (s)	85.7			85.7	1.8	1.8
Effective Green, g (s)	85.7			85.7	1.8	1.8
Actuated g/C Ratio	0.86			0.86	0.02	0.02
Clearance Time (s)	7.0			7.0	5.5	5.5
Vehicle Extension (s)	5.0			5.0	5.0	5.0
Lane Grp Cap (vph)	1594			1597	32	28
v/s Ratio Prot	c0.57			0.23		
v/s Ratio Perm					c0.00	0.00
v/c Ratio	0.66			0.27	0.18	0.00
Uniform Delay, d1	2.3			1.3	48.3	48.2
Progression Factor	1.02			1.00	1.00	1.00
Incremental Delay, d2	0.2			0.4	5.8	0.0
Delay (s)	2.6			1.7	54.2	48.2
Level of Service	A			A	D	D
Approach Delay (s/veh)	2.6			1.7	51.8	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	2.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

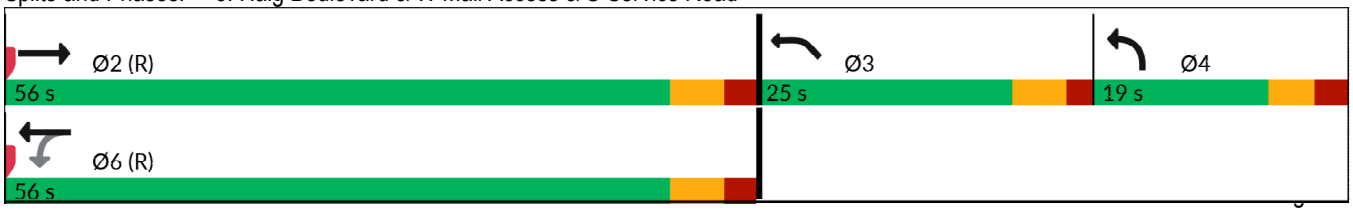
8: Haig Boulevard & W Mall Access & S Service Road

Lane Group	EBT	WBL	WBT	NBL	NWL
Lane Configurations					
Traffic Volume (vph)	717	43	310	259	2
Future Volume (vph)	717	43	310	259	2
Lane Group Flow (vph)	1143	48	344	435	2
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	4	3
Permitted Phases		6			
Detector Phase	2	6	6	4	3
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	35.5	14.0	28.0
Total Split (s)	56.0	56.0	56.0	19.0	25.0
Total Split (%)	56.0%	56.0%	56.0%	19.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.0	6.0
Lead/Lag				Lag	Lead
Lead-Lag Optimize?				Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio	1.30	0.58	0.37	0.72	0.01
Control Delay (s/veh)	168.4	50.3	16.3	37.9	42.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	168.4	50.3	16.3	37.9	42.5
Queue Length 50th (m)	~304.1	6.7	42.5	72.6	0.4
Queue Length 95th (m)	#380.8	#25.1	63.8	#159.0	2.7
Internal Link Dist (m)	420.5		194.3	360.2	41.8
Turn Bay Length (m)		42.0			
Base Capacity (vph)	873	82	920	604	332
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.31	0.59	0.37	0.72	0.01

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 54 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Haig Boulevard & W Mall Access & S Service Road



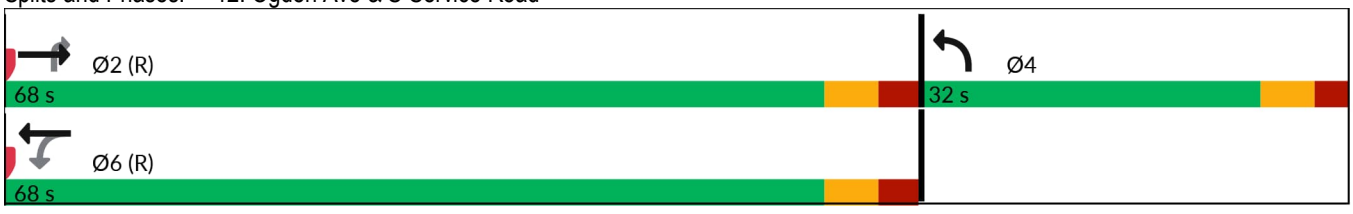
Movement	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR
Lane Configurations									
Traffic Volume (vph)	717	14	307	43	310	259	132	2	0
Future Volume (vph)	717	14	307	43	310	259	132	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5			6.5	6.5	6.0		6.0	
Lane Util. Factor	1.00			1.00	1.00	1.00		1.00	
Frpb, ped/bikes	0.99			1.00	1.00	0.99		1.00	
Flpb, ped/bikes	1.00			1.00	1.00	1.00		1.00	
Frt	0.95			1.00	1.00	0.95		1.00	
Flt Protected	1.00			0.95	1.00	0.96		0.95	
Satd. Flow (prot)	1764			1785	1860	1722		1750	
Flt Permitted	1.00			0.08	1.00	0.96		0.95	
Satd. Flow (perm)	1764			168	1860	1722		1750	
Peak-hour factor, PHF	0.90	0.90	0.93	0.90	0.90	0.90	0.90	0.93	0.93
Adj. Flow (vph)	797	16	330	48	344	288	147	2	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1143	0	0	48	344	435	0	2	0
Confl. Peds. (#/hr)		3		3			2		
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%	0%	2%	2%
Bus Blockages (#/hr)	2	0	0	0	0	0	0	0	0
Turn Type	NA			Perm	NA	Prot		Prot	
Protected Phases	2				6	4		3	
Permitted Phases				6					
Actuated Green, G (s)	44.7			44.7	44.7	35.2		1.6	
Effective Green, g (s)	44.7			44.7	44.7	35.2		1.6	
Actuated g/C Ratio	0.45			0.45	0.45	0.35		0.02	
Clearance Time (s)	6.5			6.5	6.5	6.0		6.0	
Vehicle Extension (s)	5.0			5.0	5.0	5.0		5.0	
Lane Grp Cap (vph)	788			75	831	606		28	
v/s Ratio Prot	c0.65				0.18	c0.25		c0.00	
v/s Ratio Perm				0.29					
v/c Ratio	1.45			0.64	0.41	0.71		0.07	
Uniform Delay, d1	27.6			21.4	18.7	28.0		48.4	
Progression Factor	0.79			0.96	0.95	1.00		1.00	
Incremental Delay, d2	208.5			34.5	1.4	5.0		2.2	
Delay (s)	230.4			55.1	19.3	33.1		50.7	
Level of Service	F			E	B	C		D	
Approach Delay (s/veh)	230.4				23.7	33.1		50.7	
Approach LOS	F				C	C		D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	145.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	102.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	734	47	459	50	81
Future Volume (vph)	734	47	459	50	81
Lane Group Flow (vph)	1013	57	560	61	99
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	24.5	30.0
Total Split (s)	68.0	68.0	68.0	32.0	68.0
Total Split (%)	68.0%	68.0%	68.0%	32.0%	68.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	6.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.74	0.21	0.40	0.27	0.08
Control Delay (s/veh)	11.7	3.7	2.9	43.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.7	3.7	2.9	43.0	0.9
Queue Length 50th (m)	96.0	1.4	15.6	11.5	0.0
Queue Length 95th (m)	125.4	m2.8	20.7	21.5	3.1
Internal Link Dist (m)	34.3		420.5	99.2	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1368	267	1392	455	1209
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.21	0.40	0.13	0.08

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 41 (41%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	734	97	47	459	50	81
Future Volume (vph)	734	97	47	459	50	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1842		1785	1879	1785	1597
Flt Permitted	1.00		0.19	1.00	0.95	1.00
Satd. Flow (perm)	1842		360	1879	1785	1597
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	895	118	57	560	61	99
RTOR Reduction (vph)	3	0	0	0	0	26
Lane Group Flow (vph)	1010	0	57	560	61	73
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	74.1		74.1	74.1	12.4	74.1
Effective Green, g (s)	74.1		74.1	74.1	12.4	74.1
Actuated g/C Ratio	0.74		0.74	0.74	0.12	0.74
Clearance Time (s)	7.0		7.0	7.0	6.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1364		266	1392	221	1183
v/s Ratio Prot	c0.55			0.30	c0.03	
v/s Ratio Perm			0.16			0.05
v/c Ratio	0.74		0.21	0.40	0.27	0.06
Uniform Delay, d1	7.4		3.9	4.7	39.7	3.5
Progression Factor	1.00		0.46	0.43	1.00	1.00
Incremental Delay, d2	3.6		1.5	0.7	1.4	0.1
Delay (s)	11.0		3.4	2.8	41.1	3.6
Level of Service	B		A	A	D	A
Approach Delay (s/veh)	11.0			2.8	17.9	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

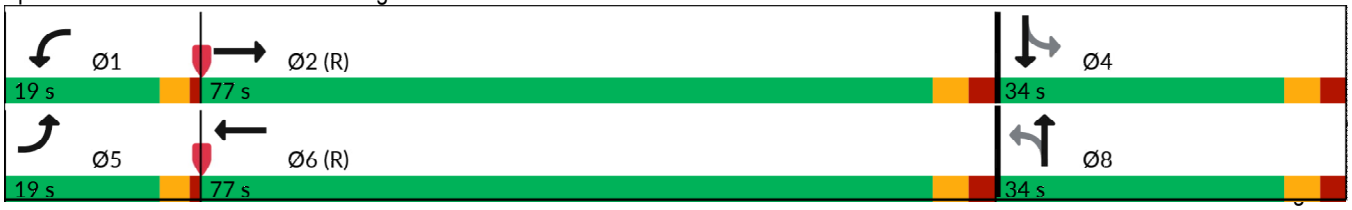
c Critical Lane Group

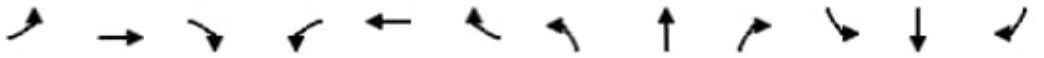
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	99	1674	190	1172	122	89	40	86
Future Volume (vph)	99	1674	190	1172	122	89	40	86
Lane Group Flow (vph)	104	1974	200	1270	0	494	0	216
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	9.0	27.0	9.0	27.0	34.0	34.0	34.0	34.0
Total Split (s)	19.0	77.0	19.0	77.0	34.0	34.0	34.0	34.0
Total Split (%)	14.6%	59.2%	14.6%	59.2%	26.2%	26.2%	26.2%	26.2%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	1.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.56	0.98	0.97	0.62		1.64		0.77
Control Delay (s/veh)	67.3	46.1	113.9	21.3		333.6		63.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	67.3	46.1	113.9	21.3		333.6		63.1
Queue Length 50th (m)	26.8	250.8	54.6	113.5		~184.2		50.1
Queue Length 95th (m)	46.4	#313.7	#104.8	136.3		#254.2		#90.6
Internal Link Dist (m)		221.2		587.4		160.2		410.7
Turn Bay Length (m)	50.0		75.0					
Base Capacity (vph)	205	2001	205	2042		301		277
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.51	0.99	0.98	0.62		1.64		0.78

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Street "I"/Haig Boulevard & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	1674	201	190	1172	34	122	89	258	40	86	79
Future Volume (vph)	99	1674	201	190	1172	34	122	89	258	40	86	79
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	
Lane Util. Factor	1.00	*1.00		1.00	*1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.98		1.00	0.99			0.92			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1785	3651		1785	3658			1689			1736	
Flt Permitted	0.95	1.00		0.95	1.00			0.72			0.68	
Satd. Flow (perm)	1785	3651		1785	3658			1244			1209	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	104	1762	212	200	1234	36	128	94	272	42	91	83
RTOR Reduction (vph)	0	8	0	0	2	0	0	34	0	0	17	0
Lane Group Flow (vph)	104	1966	0	200	1268	0	0	460	0	0	199	0
Confl. Peds. (#/hr)	5		5	5		5	2		3	3		2
Confl. Bikes (#/hr)						2			3			1
Heavy Vehicles (%)	0%	1%	0%	0%	2%	9%	0%	0%	1%	3%	0%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	13.5	71.0		15.0	72.5			28.0			28.0	
Effective Green, g (s)	13.5	71.0		15.0	72.5			28.0			28.0	
Actuated g/C Ratio	0.10	0.55		0.12	0.56			0.22			0.22	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	185	1994		205	2040			267			260	
v/s Ratio Prot	0.06	c0.54		c0.11	0.35							
v/s Ratio Perm								c0.37			0.16	
v/c Ratio	0.56	0.98		0.97	0.62			1.72			0.76	
Uniform Delay, d1	55.4	29.0		57.3	19.4			50.9			47.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	6.2	17.1		55.9	1.4			341.0			14.6	
Delay (s)	61.7	46.1		113.2	20.9			392.0			62.5	
Level of Service	E	D		F	C			F			E	
Approach Delay (s/veh)		46.9			33.4			392.0			62.5	
Approach LOS		D			C			F			E	

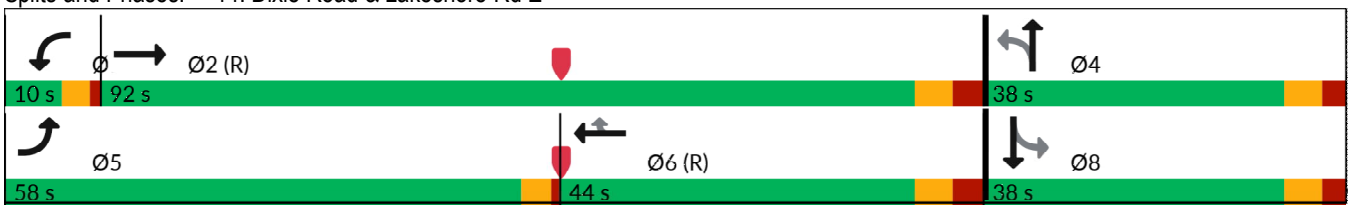
Intersection Summary			
HCM 2000 Control Delay (s/veh)	83.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	117.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

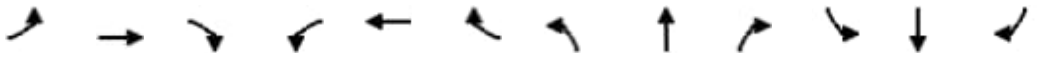
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT	Ø1
Lane Configurations									
Traffic Volume (vph)	718	1217	889	182	2	2	146	12	
Future Volume (vph)	718	1217	889	182	2	2	146	12	
Lane Group Flow (vph)	748	1291	926	190	0	4	152	516	
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm	NA	
Protected Phases	5	2	6			4		8	1
Permitted Phases				6	4		8		
Detector Phase	5	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.0
Minimum Split (s)	14.5	40.0	40.0	40.0	24.5	24.5	37.5	37.5	9.0
Total Split (s)	58.0	92.0	44.0	44.0	38.0	38.0	38.0	38.0	10.0
Total Split (%)	41.4%	65.7%	31.4%	31.4%	27.1%	27.1%	27.1%	27.1%	7%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	3.0	3.0	3.0	2.5	2.5	2.5	2.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0	7.0	7.0	7.0		6.5	6.5	6.5	
Lead/Lag	Lead	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
v/c Ratio	0.95	0.47	0.96	0.38		0.02	0.64	0.76	
Control Delay (s/veh)	61.7	8.8	71.5	18.0		44.5	66.0	12.6	
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	61.7	8.8	71.5	18.0		44.5	66.0	12.6	
Queue Length 50th (m)	209.0	69.1	133.8	15.4		1.0	41.7	3.2	
Queue Length 95th (m)	#324.8	101.0	#175.3	38.4		4.4	62.6	39.8	
Internal Link Dist (m)		587.4	514.0			58.7		175.6	
Turn Bay Length (m)	300.0			60.0			30.0		
Base Capacity (vph)	781	2728	964	488		238	316	737	
Starvation Cap Reductn	0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0	0		0	0	0	
Reduced v/c Ratio	0.96	0.47	0.96	0.39		0.02	0.48	0.70	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	718	1217	22	0	889	182	2	2	0	146	12	483
Future Volume (vph)	718	1217	22	0	889	182	2	2	0	146	12	483
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0			7.0	7.0		6.5		6.5	6.5	
Lane Util. Factor	1.00	*1.00			*1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.96		1.00		1.00	0.97	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.99		1.00	1.00	
Frt	1.00	0.99			1.00	0.85		1.00		1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00		0.97		0.95	1.00	
Satd. Flow (prot)	1767	3710			3648	1507		1832		1767	1541	
Flt Permitted	0.95	1.00			1.00	1.00		0.56		0.75	1.00	
Satd. Flow (perm)	1767	3710			3648	1507		1061		1405	1541	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	748	1268	23	0	926	190	2	2	0	152	12	503
RTOR Reduction (vph)	0	1	0	0	0	90	0	0	0	0	419	0
Lane Group Flow (vph)	748	1290	0	0	926	100	0	4	0	152	97	0
Confl. Peds. (#/hr)	7		1	1		7	4					4
Confl. Bikes (#/hr)						2			1			3
Heavy Vehicles (%)	1%	1%	0%	0%	3%	2%	0%	0%	0%	1%	0%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases						6	4			8		
Actuated Green, G (s)	62.0	103.0			37.0	37.0		23.5		23.5	23.5	
Effective Green, g (s)	62.0	103.0			37.0	37.0		23.5		23.5	23.5	
Actuated g/C Ratio	0.44	0.74			0.26	0.26		0.17		0.17	0.17	
Clearance Time (s)	4.0	7.0			7.0	7.0		6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0			5.0	5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	782	2729			964	398		178		235	258	
v/s Ratio Prot	c0.42	0.35			c0.25						0.06	
v/s Ratio Perm						0.07		0.00		c0.11		
v/c Ratio	0.95	0.47			0.96	0.25		0.02		0.64	0.37	
Uniform Delay, d1	37.6	7.4			50.7	40.5		48.6		54.3	51.7	
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	22.4	0.5			20.8	1.5		0.1		8.1	1.9	
Delay (s)	60.1	8.0			71.6	42.1		48.7		62.4	53.6	
Level of Service	E	A			E	D		D		E	D	
Approach Delay (s/veh)		27.1			66.6			48.7			55.6	
Approach LOS		C			E			D			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	43.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	1	29	4	2	3	49	203	3	1	163	27
Future Vol, veh/h	30	1	29	4	2	3	49	203	3	1	163	27
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	14	0	0	33	0	0	0	0	0	0
Mvmt Flow	36	1	35	5	2	4	59	245	4	1	196	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.5	8.2	10	9
HCM LOS	A	A	A	A

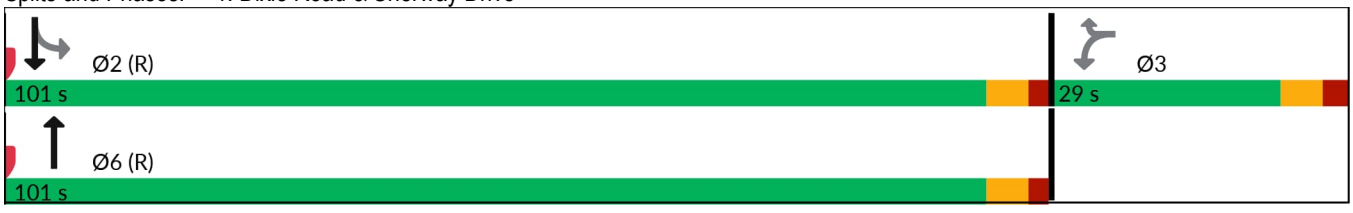
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	50%	44%	1%
Vol Thru, %	80%	2%	22%	85%
Vol Right, %	1%	48%	33%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	255	60	9	191
LT Vol	49	30	4	1
Through Vol	203	1	2	163
RT Vol	3	29	3	27
Lane Flow Rate	307	72	11	230
Geometry Grp	1	1	1	1
Degree of Util (X)	0.373	0.098	0.015	0.278
Departure Headway (Hd)	4.376	4.894	5.069	4.344
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	823	732	704	828
Service Time	2.397	2.93	3.111	2.366
HCM Lane V/C Ratio	0.373	0.098	0.016	0.278
HCM Control Delay, s/veh	10	8.5	8.2	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.7	0.3	0	1.1

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	71	59	877	83	1395
Future Volume (vph)	71	59	877	83	1395
Lane Group Flow (vph)	75	62	987	87	1468
Turn Type	Perm	Perm	NA	Perm	NA
Protected Phases			6		2
Permitted Phases	3	3		2	
Detector Phase	3	3	6	2	2
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	28.6	28.6	25.0	25.0	25.0
Total Split (s)	29.0	29.0	101.0	101.0	101.0
Total Split (%)	22.3%	22.3%	77.7%	77.7%	77.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.0	6.0	6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.43	0.29	0.34	0.20	0.51
Control Delay (s/veh)	62.1	15.8	2.2	4.7	5.1
Queue Delay	0.0	0.0	0.1	0.0	0.3
Total Delay (s/veh)	62.1	15.8	2.3	4.7	5.4
Queue Length 50th (m)	19.4	0.0	14.7	4.5	56.7
Queue Length 95th (m)	34.8	13.6	21.9	11.2	81.7
Internal Link Dist (m)	91.7		117.1		171.7
Turn Bay Length (m)		30.0		50.0	
Base Capacity (vph)	305	326	2847	415	2873
Starvation Cap Reductn	0	0	705	0	0
Spillback Cap Reductn	0	0	0	0	698
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.19	0.46	0.21	0.67

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 27 (21%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: Dixie Road & Sherway Drive



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	71	59	877	61	83	1395
Future Volume (vph)	71	59	877	61	83	1395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	0.99	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1775	1597	3535		1767	3570
Flt Permitted	0.95	1.00	1.00		0.27	1.00
Satd. Flow (perm)	1775	1597	3535		518	3570
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	75	62	923	64	87	1468
RTOR Reduction (vph)	0	56	3	0	0	0
Lane Group Flow (vph)	75	6	984	0	87	1468
Confl. Peds. (#/hr)	3					
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			6			2
Permitted Phases	3	3			2	
Actuated Green, G (s)	12.8	12.8	104.6		104.6	104.6
Effective Green, g (s)	12.8	12.8	104.6		104.6	104.6
Actuated g/C Ratio	0.10	0.10	0.80		0.80	0.80
Clearance Time (s)	6.6	6.6	6.0		6.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	174	157	2844		416	2872
v/s Ratio Prot			0.28			c0.41
v/s Ratio Perm	c0.04	0.00			0.17	
v/c Ratio	0.43	0.03	0.34		0.20	0.51
Uniform Delay, d1	55.1	53.0	3.4		2.9	4.2
Progression Factor	1.00	1.00	0.53		1.00	1.00
Incremental Delay, d2	3.5	0.2	0.3		1.1	0.6
Delay (s)	58.7	53.2	2.1		4.1	4.8
Level of Service	E	D	A		A	A
Approach Delay (s/veh)	56.2		2.1			4.8
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	6.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

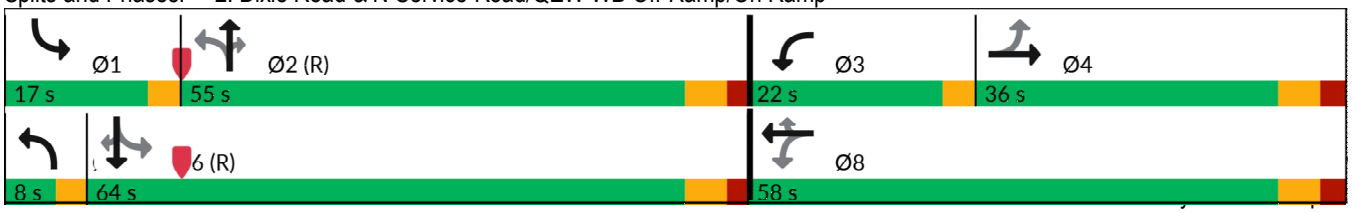
c Critical Lane Group

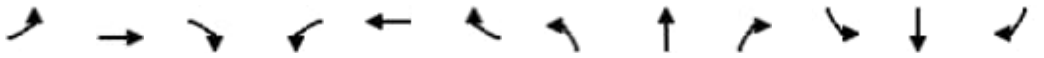
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	15	40	610	380	110	428	85	420	1378	5
Future Volume (vph)	25	15	40	610	380	110	428	85	420	1378	5
Lane Group Flow (vph)	28	208	45	685	427	124	481	96	472	1548	6
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	33.6	33.6	9.0	33.6	33.6	8.0	27.0	27.0	9.0	26.0	26.0
Total Split (s)	36.0	36.0	22.0	58.0	58.0	8.0	55.0	55.0	17.0	64.0	64.0
Total Split (%)	27.7%	27.7%	16.9%	44.6%	44.6%	6.2%	42.3%	42.3%	13.1%	49.2%	49.2%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	0.0	2.6	2.6	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.48	0.32	0.09	0.93	0.53	0.87	0.35	0.14	0.93	0.97	0.00
Control Delay (s/veh)	69.5	7.7	22.8	59.7	10.2	77.8	30.0	7.5	46.4	49.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.7	0.0
Total Delay (s/veh)	69.5	7.7	22.8	59.7	10.2	77.8	30.0	7.5	46.4	66.7	0.0
Queue Length 50th (m)	6.2	3.3	7.1	173.9	19.7	19.5	43.8	3.0	63.0	212.6	0.0
Queue Length 95th (m)	#22.0	21.7	14.9	#246.8	49.1	#56.1	54.2	9.5	#137.4	#261.8	m0.0
Internal Link Dist (m)		121.9		96.5			233.5			117.1	
Turn Bay Length (m)	100.0		75.0			100.0		50.0	75.0		50.0
Base Capacity (vph)	58	633	519	742	809	141	1345	667	507	1592	757
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	105	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.33	0.09	0.92	0.53	0.88	0.36	0.14	0.93	1.04	0.01

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 38 (29%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
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.

Splits and Phases: 2: Dixie Road & N Service Road/QEW WB Off-Ramp/On Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	15	170	40	610	380	110	428	85	420	1378	5
Future Volume (vph)	25	15	170	40	610	380	110	428	85	420	1378	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1785	1620		1785	1879	1566	1785	3570	1597	1785	3570	1597
Flt Permitted	0.09	1.00		0.50	1.00	1.00	0.08	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	187	1620		957	1879	1566	155	3570	1597	717	3570	1597
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	28	17	191	45	685	427	124	481	96	472	1548	6
RTOR Reduction (vph)	0	132	0	0	0	191	0	0	60	0	0	3
Lane Group Flow (vph)	28	76	0	45	685	236	124	481	36	472	1548	3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	40.2	40.2		51.1	51.1	51.1	54.3	48.5	48.5	66.3	57.5	57.5
Effective Green, g (s)	40.2	40.2		51.1	51.1	51.1	54.3	48.5	48.5	66.3	57.5	57.5
Actuated g/C Ratio	0.31	0.31		0.39	0.39	0.39	0.42	0.37	0.37	0.51	0.44	0.44
Clearance Time (s)	6.6	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	57	500		426	738	615	137	1331	595	487	1579	706
v/s Ratio Prot		0.05		0.01	c0.36		0.04	0.13		c0.11	c0.43	
v/s Ratio Perm	0.15			0.04		0.15	0.34		0.02	0.38		0.00
v/c Ratio	0.49	0.15		0.10	0.92	0.38	0.90	0.36	0.06	0.96	0.98	0.00
Uniform Delay, d1	36.5	32.5		24.8	37.6	28.2	31.8	29.5	26.1	27.3	35.6	20.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.38	0.99	1.78	0.87	0.92	1.00
Incremental Delay, d2	13.2	0.2		0.2	18.4	0.8	49.9	0.7	0.1	31.8	17.7	0.0
Delay (s)	49.8	32.8		25.0	56.1	29.0	94.1	30.2	46.9	55.6	50.6	20.2
Level of Service	D	C		C	E	C	F	C	D	E	D	C
Approach Delay (s/veh)		34.8			44.9			43.8			51.7	
Approach LOS		C			D			D			D	

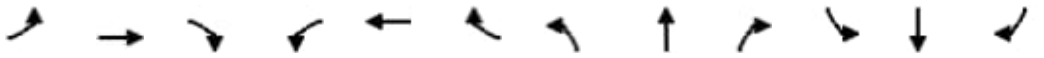
Intersection Summary			
HCM 2000 Control Delay (s/veh)	47.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBR	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	140	20	140	60	1166	15	1211
Future Volume (vph)	140	20	140	60	1166	15	1211
Lane Group Flow (vph)	85	85	149	64	1245	16	1288
Turn Type	Split	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4	4			2		6
Permitted Phases			4	8		6	
Detector Phase	4	4	4	8	2	6	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	31.0	31.0	31.0	31.0	68.0	68.0	68.0
Total Split (%)	23.8%	23.8%	23.8%	23.8%	52.3%	52.3%	52.3%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	1.3	1.3	1.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.47	0.46	0.49	0.28	0.34	0.06	0.51
Control Delay (s/veh)	62.2	61.8	13.4	3.1	4.7	2.0	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	62.2	61.8	13.4	3.1	4.8	2.0	1.7
Queue Length 50th (m)	23.0	23.0	0.0	0.0	27.9	0.2	10.7
Queue Length 95th (m)	40.0	40.0	19.8	0.0	44.3	m0.5	m16.3
Internal Link Dist (m)		138.8			128.3		133.8
Turn Bay Length (m)			75.0	7.5		100.0	
Base Capacity (vph)	319	324	421	413	3622	258	2523
Starvation Cap Reductn	0	0	0	0	1141	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.26	0.35	0.15	0.50	0.06	0.51

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 54 (42%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Dixie Road & QEW EB Off-Ramp/S Service Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	20	140	0	0	60	0	1166	5	15	1211	0
Future Volume (vph)	140	20	140	0	0	60	0	1166	5	15	1211	0
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		5.0		5.0	5.0	
Lane Util. Factor	0.95	0.95	1.00			1.00		0.91		1.00	0.95	
Frt	1.00	1.00	0.85			0.85		0.99		1.00	1.00	
Flt Protected	0.95	0.96	1.00			1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1662	1686	1566			1566		5026		1750	3500	
Flt Permitted	0.95	0.96	1.00			1.00		1.00		0.19	1.00	
Satd. Flow (perm)	1662	1686	1566			1566		5026		358	3500	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	149	21	149	0	0	64	0	1240	5	16	1288	0
RTOR Reduction (vph)	0	0	133	0	0	61	0	0	0	0	0	0
Lane Group Flow (vph)	85	85	16	0	0	3	0	1245	0	16	1288	0
Turn Type	Split	NA	Perm	Perm		Perm		NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4	8		8				6		
Actuated Green, G (s)	14.1	14.1	14.1			6.4		92.5		92.5	92.5	
Effective Green, g (s)	14.1	14.1	14.1			6.4		92.5		92.5	92.5	
Actuated g/C Ratio	0.11	0.11	0.11			0.05		0.71		0.71	0.71	
Clearance Time (s)	6.0	6.0	6.0			6.0		5.0		5.0	5.0	
Vehicle Extension (s)	5.0	5.0	5.0			5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	180	182	169			77		3576		254	2490	
v/s Ratio Prot	c0.05	0.05						0.25			c0.37	
v/s Ratio Perm			0.01			c0.00				0.04		
v/c Ratio	0.47	0.46	0.09			0.04		0.34		0.06	0.51	
Uniform Delay, d1	54.4	54.4	52.2			58.8		7.1		5.6	8.5	
Progression Factor	1.00	1.00	1.00			1.00		0.59		0.23	0.15	
Incremental Delay, d2	4.0	3.9	0.5			0.4		0.2		0.2	0.3	
Delay (s)	58.5	58.3	52.7			59.3		4.5		1.5	1.6	
Level of Service	E	E	D			E		A		A	A	
Approach Delay (s/veh)		55.7			59.3			4.5			1.6	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

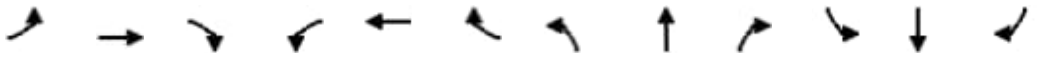
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	465	12	20	1	66	692	89	870	306
Future Volume (vph)	465	12	20	1	66	692	89	870	306
Lane Group Flow (vph)	522	46	0	67	74	853	100	978	344
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.1	41.1	41.1	41.1	35.6	35.6	35.6	35.6	35.6
Total Split (s)	70.0	70.0	70.0	70.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	53.8%	53.8%	53.8%	53.8%	46.2%	46.2%	46.2%	46.2%	46.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.88	0.06		0.09	0.46	0.53	0.49	0.60	0.37
Control Delay (s/veh)	51.0	8.2		8.3	19.1	9.1	14.9	7.8	1.3
Queue Delay	0.0	0.0		0.0	0.0	0.6	0.0	0.3	0.2
Total Delay (s/veh)	51.0	8.2		8.3	19.1	9.8	14.9	8.1	1.6
Queue Length 50th (m)	122.2	1.9		3.3	4.4	25.6	3.9	23.0	0.0
Queue Length 95th (m)	167.0	8.5		11.3	11.1	32.3	23.7	60.6	0.0
Internal Link Dist (m)		127.8		67.7		95.9		128.3	
Turn Bay Length (m)					50.0		100.0		
Base Capacity (vph)	648	827		771	158	1607	202	1625	914
Starvation Cap Reductn	0	0		0	0	383	0	193	167
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	0.81	0.06		0.09	0.47	0.70	0.50	0.68	0.46

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 71 (55%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Dixie Road & S Service Road/Rometown Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	465	12	29	20	1	39	66	692	67	89	870	306
Future Volume (vph)	465	12	29	20	1	39	66	692	67	89	870	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.89			0.91		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1785	1677			1660		1785	3520		1785	3570	1597
Flt Permitted	0.71	1.00			0.91		0.18	1.00		0.23	1.00	1.00
Satd. Flow (perm)	1340	1677			1548		348	3520		445	3570	1597
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	522	13	33	22	1	44	74	778	75	100	978	344
RTOR Reduction (vph)	0	19	0	0	25	0	0	5	0	0	0	187
Lane Group Flow (vph)	522	27	0	0	42	0	74	848	0	100	978	157
Heavy Vehicles (%)	0%	0%	0%	0%	100%	0%	0%	0%	1%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	57.1	57.1			57.1		59.2	59.2		59.2	59.2	59.2
Effective Green, g (s)	57.1	57.1			57.1		59.2	59.2		59.2	59.2	59.2
Actuated g/C Ratio	0.44	0.44			0.44		0.46	0.46		0.46	0.46	0.46
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	588	736			679		158	1602		202	1625	727
v/s Ratio Prot		0.02						0.24			c0.27	
v/s Ratio Perm	c0.39				0.03		0.21			0.22		0.10
v/c Ratio	0.88	0.03			0.06		0.46	0.52		0.49	0.60	0.21
Uniform Delay, d1	33.5	20.7			21.0		24.5	25.4		24.8	26.5	21.3
Progression Factor	1.00	1.00			1.00		0.33	0.30		0.25	0.22	0.12
Incremental Delay, d2	16.0	0.0			0.0		9.0	1.1		7.4	1.4	0.5
Delay (s)	49.5	20.8			21.0		17.2	8.8		13.7	7.5	3.2
Level of Service	D	C			C		B	A		B	A	A
Approach Delay (s/veh)		47.2			21.0			9.5			6.9	
Approach LOS		D			C			A			A	

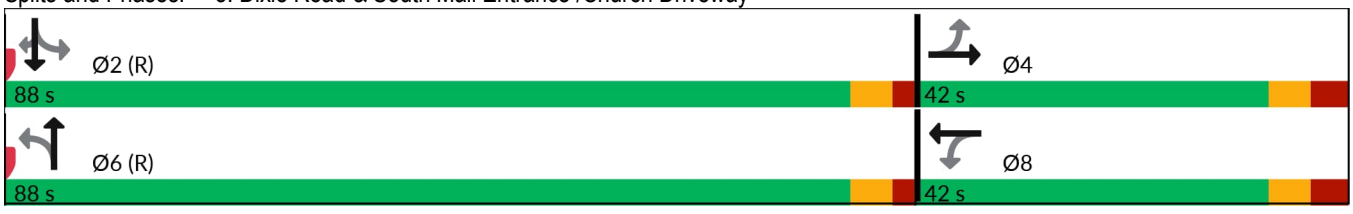
Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

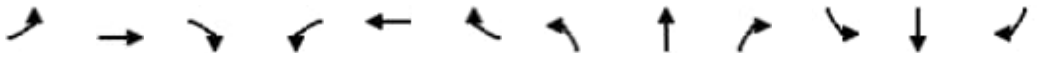
Lane Group	EBL	EBT	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	87	0	60	737	725	182	
Future Volume (vph)	87	0	60	737	725	182	
Lane Group Flow (vph)	87	106	0	886	806	202	
Turn Type	Perm	NA	Perm	NA	NA	Perm	
Protected Phases		4		6	2		8
Permitted Phases	4		6			2	
Detector Phase	4	4	6	6	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	88.0	88.0	88.0	88.0	42.0
Total Split (%)	32.3%	32.3%	67.7%	67.7%	67.7%	67.7%	32%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	7.7	7.7		6.2	6.2	6.2	
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio	0.53	0.40		0.40	0.29	0.16	
Control Delay (s/veh)	64.9	16.1		2.0	0.4	0.2	
Queue Delay	0.0	0.0		0.0	0.2	0.4	
Total Delay (s/veh)	64.9	16.1		2.0	0.6	0.6	
Queue Length 50th (m)	23.5	2.5		5.7	1.2	0.0	
Queue Length 95th (m)	40.7	20.2		m5.6	1.7	0.0	
Internal Link Dist (m)		53.7		197.5	95.9		
Turn Bay Length (m)							
Base Capacity (vph)	352	460		2183	2728	1233	
Starvation Cap Reductn	0	0		0	1069	654	
Spillback Cap Reductn	0	0		0	0	0	
Storage Cap Reductn	0	0		0	0	0	
Reduced v/c Ratio	0.25	0.23		0.41	0.49	0.35	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 81 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & South Mall Entrance /Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	0	86	0	0	0	60	737	0	0	725	182
Future Volume (vph)	87	0	86	0	0	0	60	737	0	0	725	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7	7.7						6.2			6.2	6.2
Lane Util. Factor	0.95	0.95						0.95			0.95	1.00
Frpb, ped/bikes	1.00	0.98						1.00			1.00	0.97
Flpb, ped/bikes	0.99	0.99						0.99			1.00	1.00
Frt	1.00	0.86						1.00			1.00	0.85
Flt Protected	0.95	0.99						0.99			1.00	1.00
Satd. Flow (prot)	1677	1514						3523			3535	1539
Flt Permitted	0.75	0.97						0.80			1.00	1.00
Satd. Flow (perm)	1337	1477						2829			3535	1539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	97	0	96	0	0	0	67	819	0	0	806	202
RTOR Reduction (vph)	0	84	0	0	0	0	0	0	0	0	0	46
Lane Group Flow (vph)	87	22	0	0	0	0	0	886	0	0	806	156
Confl. Peds. (#/hr)	1		2	2		1	10		4	4		10
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	1%
Turn Type	Perm	NA					Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	15.8	15.8						100.3			100.3	100.3
Effective Green, g (s)	15.8	15.8						100.3			100.3	100.3
Actuated g/C Ratio	0.12	0.12						0.77			0.77	0.77
Clearance Time (s)	7.7	7.7						6.2			6.2	6.2
Vehicle Extension (s)	5.0	5.0						5.0			5.0	5.0
Lane Grp Cap (vph)	162	179						2182			2727	1187
v/s Ratio Prot											0.23	
v/s Ratio Perm	c0.07	0.01						c0.31				0.10
v/c Ratio	0.53	0.12						0.40			0.29	0.13
Uniform Delay, d1	53.6	50.9						4.9			4.3	3.7
Progression Factor	1.00	1.00						0.32			0.04	0.00
Incremental Delay, d2	6.1	0.6						0.2			0.2	0.1
Delay (s)	59.7	51.5						1.8			0.4	0.1
Level of Service	E	D						A			A	A
Approach Delay (s/veh)		55.2			0.0			1.8			0.3	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	38	49	330	401	2
Future Vol, veh/h	0	38	49	330	401	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	0	38	49	333	405	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	406	407	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	649	1163	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	649	1163	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.9	1.1	0
HCM LOS	B		

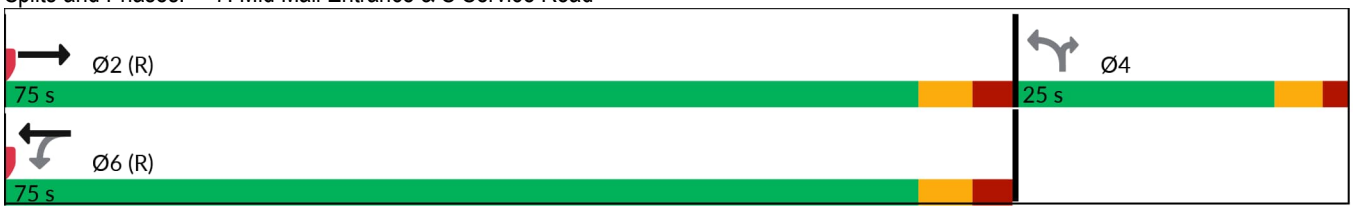
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1163	-	649	-	-
HCM Lane V/C Ratio	0.043	-	0.059	-	-
HCM Control Delay (s/veh)	8.2	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	551	6	324	56	45
Future Volume (vph)	551	6	324	56	45
Lane Group Flow (vph)	621	6	341	59	47
Turn Type	NA	Perm	NA	Perm	Perm
Protected Phases	2		6		
Permitted Phases		6		4	4
Detector Phase	2	6	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	42.0	42.0	42.0	25.5	25.5
Total Split (s)	75.0	75.0	75.0	25.0	25.0
Total Split (%)	75.0%	75.0%	75.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio	0.41	0.00	0.22	0.30	0.22
Control Delay (s/veh)	0.8	3.3	3.6	44.7	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	0.8	3.3	3.6	44.7	14.5
Queue Length 50th (m)	5.1	0.2	15.9	11.3	0.0
Queue Length 95th (m)	m4.5	1.3	28.4	23.4	10.5
Internal Link Dist (m)	194.3		186.2	63.4	
Turn Bay Length (m)		30.0			15.0
Base Capacity (vph)	1493	615	1507	348	340
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.42	0.01	0.23	0.17	0.14

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 99 (99%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Mid Mall Entrance & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	551	39	6	324	56	45
Future Volume (vph)	551	39	6	324	56	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	5.5	5.5
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1845		1784	1864	1785	1553
Flt Permitted	1.00		0.40	1.00	0.95	1.00
Satd. Flow (perm)	1845		761	1864	1785	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	580	41	6	341	59	47
RTOR Reduction (vph)	2	0	0	0	0	43
Lane Group Flow (vph)	619	0	6	341	59	4
Confl. Peds. (#/hr)		1	1			3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	2	0	0	2	0	0
Turn Type	NA		Perm	NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases			6		4	4
Actuated Green, G (s)	78.4		78.4	78.4	9.1	9.1
Effective Green, g (s)	78.4		78.4	78.4	9.1	9.1
Actuated g/C Ratio	0.78		0.78	0.78	0.09	0.09
Clearance Time (s)	7.0		7.0	7.0	5.5	5.5
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1446		596	1461	162	141
v/s Ratio Prot	c0.34			0.18		
v/s Ratio Perm			0.01		c0.03	0.00
v/c Ratio	0.42		0.01	0.23	0.36	0.03
Uniform Delay, d1	3.5		2.3	2.8	42.7	41.4
Progression Factor	0.18		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0		0.0	0.3	2.8	0.1
Delay (s)	0.7		2.3	3.2	45.6	41.6
Level of Service	A		A	A	D	D
Approach Delay (s/veh)	0.7			3.2	43.8	
Approach LOS	A			A	D	

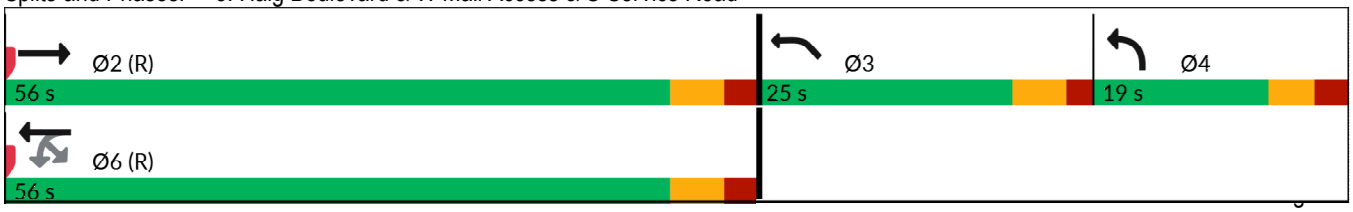
Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL2	WBL	WBT	NBL	NWL
Lane Configurations						
Traffic Volume (vph)	460	1	10	369	278	63
Future Volume (vph)	460	1	10	369	278	63
Lane Group Flow (vph)	996	0	11	380	417	72
Turn Type	NA	Perm	Perm	NA	Prot	Prot
Protected Phases	2			6	4	3
Permitted Phases		6	6			
Detector Phase	2	6	6	6	4	3
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	35.5	35.5	14.0	28.0
Total Split (s)	56.0	56.0	56.0	56.0	19.0	25.0
Total Split (%)	56.0%	56.0%	56.0%	56.0%	19.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5		6.5	6.5	6.0	6.0
Lead/Lag					Lag	Lead
Lead-Lag Optimize?					Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
v/c Ratio	1.17		0.14	0.40	1.02	0.36
Control Delay (s/veh)	110.3		17.0	15.9	92.7	45.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	110.3		17.0	15.9	92.7	45.2
Queue Length 50th (m)	~245.7		0.9	53.8	~101.5	13.8
Queue Length 95th (m)	#319.4		5.7	78.9	#174.2	26.8
Internal Link Dist (m)	420.5			194.3	360.2	41.8
Turn Bay Length (m)			42.0			
Base Capacity (vph)	848		77	930	406	331
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	1.17		0.14	0.41	1.03	0.22

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Haig Boulevard & W Mall Access & S Service Road



Movement	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR
Lane Configurations										
Traffic Volume (vph)	460	50	437	1	10	369	278	126	63	4
Future Volume (vph)	460	50	437	1	10	369	278	126	63	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5				6.5	6.5	6.0		6.0	
Lane Util. Factor	1.00				1.00	1.00	1.00		1.00	
Frt	0.92				1.00	1.00	0.95		0.99	
Flt Protected	1.00				0.95	1.00	0.96		0.95	
Satd. Flow (prot)	1716				1782	1879	1740		1746	
Flt Permitted	1.00				0.08	1.00	0.96		0.95	
Satd. Flow (perm)	1716				155	1879	1740		1746	
Peak-hour factor, PHF	0.97	0.97	0.93	0.93	0.97	0.97	0.97	0.97	0.93	0.93
Adj. Flow (vph)	474	52	470	1	10	380	287	130	68	4
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	996	0	0	0	11	380	417	0	72	0
Heavy Vehicles (%)	0%	0%	2%	2%	0%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	2	0	0	0	0	0	0	0	0	0
Turn Type	NA			Perm	Perm	NA	Prot		Prot	
Protected Phases	2					6	4		3	
Permitted Phases				6	6					
Actuated Green, G (s)	48.3				48.3	48.3	23.4		9.8	
Effective Green, g (s)	48.3				48.3	48.3	23.4		9.8	
Actuated g/C Ratio	0.48				0.48	0.48	0.23		0.10	
Clearance Time (s)	6.5				6.5	6.5	6.0		6.0	
Vehicle Extension (s)	5.0				5.0	5.0	5.0		5.0	
Lane Grp Cap (vph)	828				74	907	407		171	
v/s Ratio Prot	c0.58					0.20	c0.24		c0.04	
v/s Ratio Perm					0.07					
v/c Ratio	1.20				0.14	0.41	1.02		0.42	
Uniform Delay, d1	25.8				14.3	16.7	38.3		42.4	
Progression Factor	0.78				0.84	0.89	1.00		1.00	
Incremental Delay, d2	100.1				4.1	1.4	51.0		3.4	
Delay (s)	120.3				16.3	16.4	89.3		45.9	
Level of Service	F				B	B	F		D	
Approach Delay (s/veh)	120.3					16.4	89.3		45.9	
Approach LOS	F					B	F		D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	88.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

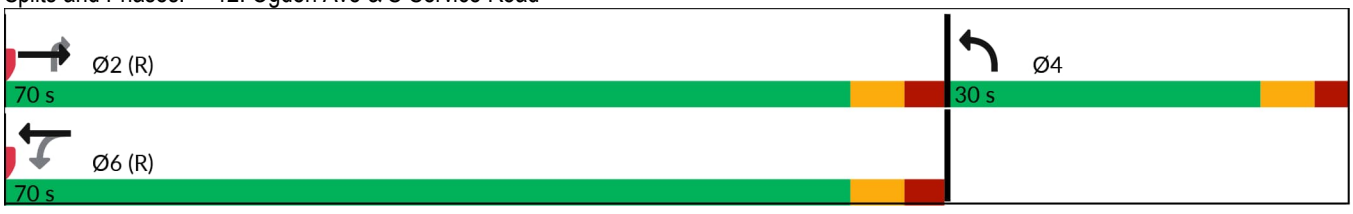
c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	822	58	526	29	51
Future Volume (vph)	822	58	526	29	51
Lane Group Flow (vph)	978	65	591	33	57
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	24.5	30.0
Total Split (s)	70.0	70.0	70.0	30.0	70.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	6.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.70	0.22	0.42	0.15	0.04
Control Delay (s/veh)	10.2	2.9	2.7	41.4	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	10.2	2.9	2.7	41.4	1.0
Queue Length 50th (m)	88.9	1.0	8.9	6.1	0.0
Queue Length 95th (m)	128.3	m1.6	m10.9	15.3	2.7
Internal Link Dist (m)	34.3		420.5	99.2	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1389	295	1399	419	1181
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.70	0.22	0.42	0.08	0.05

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	822	48	58	526	29	51
Future Volume (vph)	822	48	58	526	29	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1862		1785	1879	1785	1566
Flt Permitted	1.00		0.21	1.00	0.95	1.00
Satd. Flow (perm)	1862		397	1879	1785	1566
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	924	54	65	591	33	57
RTOR Reduction (vph)	2	0	0	0	0	15
Lane Group Flow (vph)	976	0	65	591	33	42
Confl. Peds. (#/hr)		2	2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	74.5		74.5	74.5	12.0	74.5
Effective Green, g (s)	74.5		74.5	74.5	12.0	74.5
Actuated g/C Ratio	0.75		0.75	0.75	0.12	0.75
Clearance Time (s)	7.0		7.0	7.0	6.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1387		295	1399	214	1166
v/s Ratio Prot	c0.52			0.31	c0.02	
v/s Ratio Perm			0.16			0.03
v/c Ratio	0.70		0.22	0.42	0.15	0.03
Uniform Delay, d1	6.8		3.8	4.7	39.4	3.3
Progression Factor	1.00		0.37	0.40	1.00	1.00
Incremental Delay, d2	3.0		1.3	0.7	0.7	0.0
Delay (s)	9.8		2.7	2.6	40.1	3.4
Level of Service	A		A	A	D	A
Approach Delay (s/veh)	9.8			2.6	16.8	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

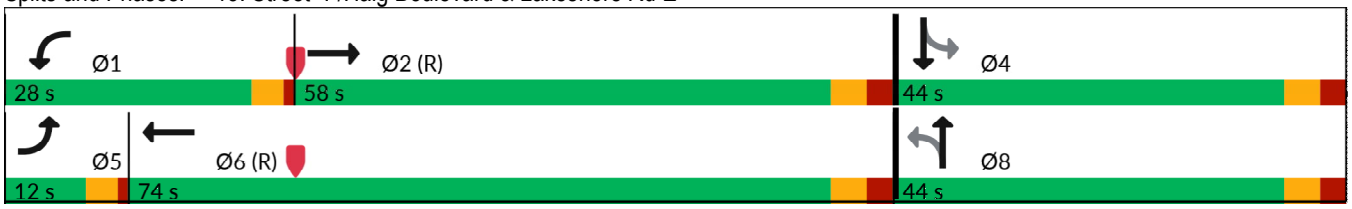
c Critical Lane Group

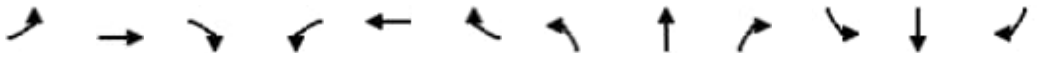
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	96	1208	301	1731	328	108	31	134
Future Volume (vph)	96	1208	301	1731	328	108	31	134
Lane Group Flow (vph)	100	1436	314	1869	0	711	0	278
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	9.0	27.0	9.0	27.0	34.0	34.0	34.0	34.0
Total Split (s)	12.0	58.0	28.0	74.0	44.0	44.0	44.0	44.0
Total Split (%)	9.2%	44.6%	21.5%	56.9%	33.8%	33.8%	33.8%	33.8%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	1.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.91	0.98	0.95	0.95		2.30		0.57
Control Delay (s/veh)	126.4	57.4	76.5	17.7		618.3		41.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	126.4	57.4	76.5	17.7		618.3		41.0
Queue Length 50th (m)	27.3	187.5	76.2	250.5		~310.6		58.4
Queue Length 95th (m)	#63.4	#238.9	m69.7	m228.3		#388.6		88.9
Internal Link Dist (m)		221.2		587.4		160.2		410.7
Turn Bay Length (m)	50.0		75.0					
Base Capacity (vph)	109	1465	329	1950		309		484
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.92	0.98	0.95	0.96		2.30		0.57

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
~ 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.

Splits and Phases: 13: Street "I"/Haig Boulevard & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	1208	171	301	1731	63	328	108	246	31	134	102
Future Volume (vph)	96	1208	171	301	1731	63	328	108	246	31	134	102
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	
Lane Util. Factor	1.00	*1.00		1.00	*1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Frt	1.00	0.98		1.00	0.99			0.95			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.99	
Satd. Flow (prot)	1785	3641		1785	3725			1700			1749	
Flt Permitted	0.95	1.00		0.95	1.00			0.57			0.90	
Satd. Flow (perm)	1785	3641		1785	3725			1006			1600	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	100	1258	178	314	1803	66	342	112	256	32	140	106
RTOR Reduction (vph)	0	9	0	0	2	0	0	16	0	0	17	0
Lane Group Flow (vph)	100	1427	0	314	1867	0	0	695	0	0	261	0
Confl. Peds. (#/hr)	16		4	4		16	1		10	10		1
Confl. Bikes (#/hr)						2			9			2
Heavy Vehicles (%)	0%	1%	0%	0%	0%	3%	0%	0%	4%	0%	0%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	8.0	52.0		24.0	68.0			38.0			38.0	
Effective Green, g (s)	8.0	52.0		24.0	68.0			38.0			38.0	
Actuated g/C Ratio	0.06	0.40		0.18	0.52			0.29			0.29	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	109	1456		329	1948			294			467	
v/s Ratio Prot	0.06	0.39		c0.18	c0.50							
v/s Ratio Perm								c0.69			0.16	
v/c Ratio	0.91	0.98		0.95	0.95			2.36			0.55	
Uniform Delay, d1	60.6	38.4		52.4	29.6			45.9			38.9	
Progression Factor	1.00	1.00		1.34	0.50			1.00			1.00	
Incremental Delay, d2	62.3	19.2		7.2	1.7			624.8			2.4	
Delay (s)	123.0	57.7		78.0	16.8			670.8			41.3	
Level of Service	F	E		E	B			F			D	
Approach Delay (s/veh)		62.0			25.6			670.8			41.3	
Approach LOS		E			C			F			D	

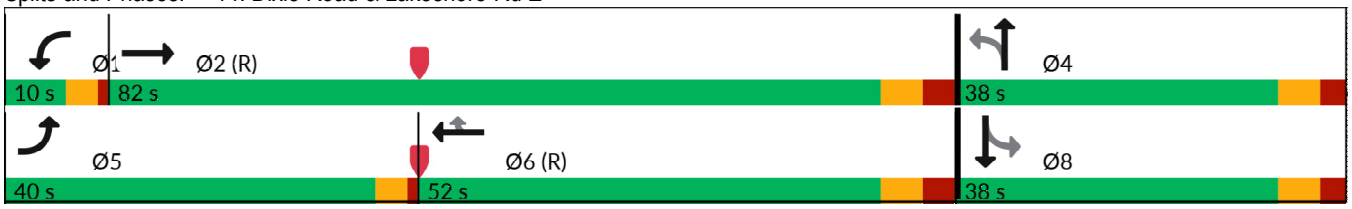
Intersection Summary			
HCM 2000 Control Delay (s/veh)	135.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	128.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

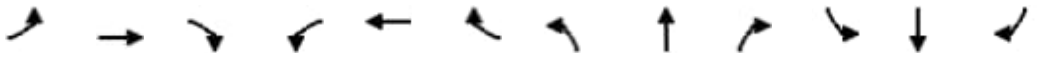
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	546	931	2	1446	196	3	1	217	5
Future Volume (vph)	546	931	2	1446	196	3	1	217	5
Lane Group Flow (vph)	581	995	2	1538	209	0	7	231	698
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2	1	6			4		8
Permitted Phases					6	4		8	
Detector Phase	5	2	1	6	6	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	9.0	40.0	9.0	40.0	40.0	24.5	24.5	37.5	37.5
Total Split (s)	40.0	82.0	10.0	52.0	52.0	38.0	38.0	38.0	38.0
Total Split (%)	30.8%	63.1%	7.7%	40.0%	40.0%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	4.0	7.0	7.0		6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
v/c Ratio	1.18	0.41	0.02	1.15	0.35		0.03	0.70	0.97
Control Delay (s/veh)	118.3	3.2	60.0	119.1	18.2		30.8	34.7	50.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	118.3	3.2	60.0	119.1	18.2		30.8	34.7	50.8
Queue Length 50th (m)	~184.1	6.3	0.5	~248.6	21.1		0.8	52.9	154.5
Queue Length 95th (m)	m#162.1	m42.3	3.5	#290.9	43.0		5.1	89.1	#205.5
Internal Link Dist (m)		587.4		514.0			58.7		175.6
Turn Bay Length (m)	300.0		10.0		60.0			30.0	
Base Capacity (vph)	489	2398	82	1326	590		224	339	723
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	1.19	0.41	0.02	1.16	0.35		0.03	0.68	0.97

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 80 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ 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.

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	546	931	5	2	1446	196	3	1	3	217	5	651
Future Volume (vph)	546	931	5	2	1446	196	3	1	3	217	5	651
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Lane Util. Factor	1.00	*1.00		1.00	*1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.93		0.99		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		0.99		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.94		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97		0.95	1.00	
Satd. Flow (prot)	1767	3717		1785	3758	1494		1509		1767	1565	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.59		0.75	1.00	
Satd. Flow (perm)	1767	3717		1785	3758	1494		919		1401	1565	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	581	990	5	2	1538	209	3	1	3	231	5	693
RTOR Reduction (vph)	0	0	0	0	0	63	0	2	0	0	347	0
Lane Group Flow (vph)	581	995	0	2	1538	146	0	5	0	231	351	0
Confl. Peds. (#/hr)	23		8	8		23	7					7
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%	0%	0%	33%	1%	0%	0%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases						6	4			8		
Actuated Green, G (s)	36.0	80.7		1.2	45.9	45.9		30.6		30.6	30.6	
Effective Green, g (s)	36.0	80.7		1.2	45.9	45.9		30.6		30.6	30.6	
Actuated g/C Ratio	0.28	0.62		0.01	0.35	0.35		0.24		0.24	0.24	
Clearance Time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	489	2307		16	1326	527		216		329	368	
v/s Ratio Prot	c0.33	0.27		0.00	c0.41						c0.22	
v/s Ratio Perm						0.10		0.01		0.16		
v/c Ratio	1.18	0.43		0.12	1.15	0.27		0.02		0.70	0.95	
Uniform Delay, d1	46.9	12.7		63.8	42.0	30.1		38.1		45.5	48.9	
Progression Factor	0.70	0.27		1.00	1.00	1.00		1.00		0.50	1.41	
Incremental Delay, d2	86.7	0.0		7.2	80.7	1.2		0.0		8.0	34.8	
Delay (s)	119.6	3.5		71.1	122.7	31.4		38.2		31.0	103.9	
Level of Service	F	A		E	F	C		D		C	F	
Approach Delay (s/veh)		46.3			111.8			38.2			85.8	
Approach LOS		D			F			D			F	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	81.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	27	2	0	1	34	222	3	1	251	15
Future Vol, veh/h	13	0	27	2	0	1	34	222	3	1	251	15
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	7	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	0	33	2	0	1	41	271	4	1	306	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	8.4	10.1	10.1
HCM LOS	A	A	B	B

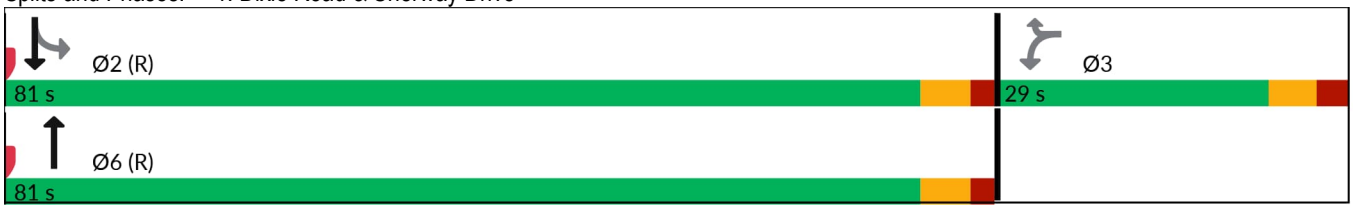
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	33%	67%	0%
Vol Thru, %	86%	0%	0%	94%
Vol Right, %	1%	68%	33%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	259	40	3	267
LT Vol	34	13	2	1
Through Vol	222	0	0	251
RT Vol	3	27	1	15
Lane Flow Rate	316	49	4	326
Geometry Grp	1	1	1	1
Degree of Util (X)	0.384	0.067	0.005	0.391
Departure Headway (Hd)	4.38	4.94	5.292	4.322
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	724	675	834
Service Time	2.398	2.977	3.336	2.34
HCM Lane V/C Ratio	0.383	0.068	0.006	0.391
HCM Control Delay, s/veh	10.1	8.3	8.4	10.1
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.8	0.2	0	1.9

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	54	51	904	68	1016
Future Volume (vph)	54	51	904	68	1016
Lane Group Flow (vph)	57	54	1001	72	1069
Turn Type	Perm	Perm	NA	Perm	NA
Protected Phases			6		2
Permitted Phases	3	3		2	
Detector Phase	3	3	6	2	2
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	28.6	28.6	25.0	25.0	25.0
Total Split (s)	29.0	29.0	81.0	81.0	81.0
Total Split (%)	26.4%	26.4%	73.6%	73.6%	73.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.0	6.0	6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.32	0.26	0.34	0.17	0.36
Control Delay (s/veh)	50.2	15.2	3.0	4.3	3.7
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	50.2	15.2	3.1	4.3	3.8
Queue Length 50th (m)	12.2	0.0	19.0	3.2	31.2
Queue Length 95th (m)	24.6	11.8	36.0	8.6	46.0
Internal Link Dist (m)	91.7		117.1		171.7
Turn Bay Length (m)		30.0		50.0	
Base Capacity (vph)	363	368	2894	422	2940
Starvation Cap Reductn	0	0	764	0	0
Spillback Cap Reductn	0	0	0	0	442
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.15	0.47	0.17	0.43

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 102 (93%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: Dixie Road & Sherway Drive



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	54	51	904	47	68	1016
Future Volume (vph)	54	51	904	47	68	1016
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1785	1597	3510		1767	3570
Flt Permitted	0.95	1.00	1.00		0.27	1.00
Satd. Flow (perm)	1785	1597	3510		514	3570
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	54	952	49	72	1069
RTOR Reduction (vph)	0	49	2	0	0	0
Lane Group Flow (vph)	57	5	999	0	72	1069
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			6			2
Permitted Phases	3	3			2	
Actuated Green, G (s)	9.3	9.3	88.1		88.1	88.1
Effective Green, g (s)	9.3	9.3	88.1		88.1	88.1
Actuated g/C Ratio	0.08	0.08	0.80		0.80	0.80
Clearance Time (s)	6.6	6.6	6.0		6.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	150	135	2811		411	2859
v/s Ratio Prot			0.28			c0.30
v/s Ratio Perm	c0.03	0.00			0.14	
v/c Ratio	0.38	0.03	0.35		0.17	0.37
Uniform Delay, d1	47.6	46.2	3.0		2.5	3.1
Progression Factor	1.00	1.00	0.81		1.00	1.00
Incremental Delay, d2	3.3	0.2	0.3		0.9	0.3
Delay (s)	50.9	46.4	2.8		3.4	3.4
Level of Service	D	D	A		A	A
Approach Delay (s/veh)	48.7		2.8			3.4
Approach LOS	D		A			A

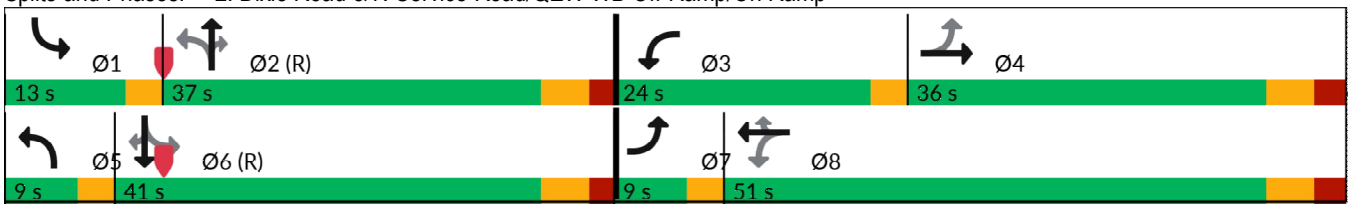
Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

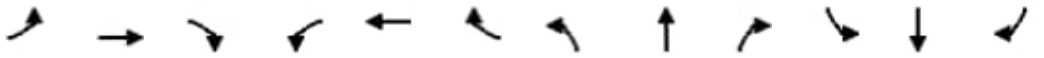
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	15	40	610	380	110	359	85	420	983	5
Future Volume (vph)	25	15	40	610	380	110	359	85	420	983	5
Lane Group Flow (vph)	27	197	43	649	404	117	382	90	447	1046	5
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	9.0	33.6	9.0	33.6	33.6	9.0	27.0	27.0	9.0	26.0	26.0
Total Split (s)	9.0	36.0	24.0	51.0	51.0	9.0	37.0	37.0	13.0	41.0	41.0
Total Split (%)	8.2%	32.7%	21.8%	46.4%	46.4%	8.2%	33.6%	33.6%	11.8%	37.3%	37.3%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	0.0	2.6	0.0	2.6	2.6	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.6	3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.15	0.27	0.07	0.89	0.47	0.58	0.37	0.16	0.87	0.83	0.00
Control Delay (s/veh)	15.5	5.5	14.0	47.1	5.1	36.3	30.8	2.7	45.4	39.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0
Total Delay (s/veh)	15.5	5.5	14.0	47.1	5.1	36.3	30.8	2.7	45.4	40.6	0.0
Queue Length 50th (m)	2.9	2.2	4.6	131.5	3.8	16.0	28.6	0.5	~85.4	120.4	0.0
Queue Length 95th (m)	7.4	17.6	10.5	#198.3	24.1	#34.5	38.4	2.3	#167.2	#161.3	m0.0
Internal Link Dist (m)		121.9		96.5			233.5			117.1	
Turn Bay Length (m)	100.0		75.0			100.0		50.0	75.0		50.0
Base Capacity (vph)	180	712	641	758	862	199	1006	561	508	1259	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	84	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.28	0.07	0.86	0.47	0.59	0.38	0.16	0.88	0.89	0.01

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 24 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ 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.

Splits and Phases: 2: Dixie Road & N Service Road/QEW WB Off-Ramp/On Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	15	170	40	610	380	110	359	85	420	983	5
Future Volume (vph)	25	15	170	40	610	380	110	359	85	420	983	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1785	1620		1785	1879	1581	1785	3570	1597	1785	3570	1597
Flt Permitted	0.11	1.00		0.57	1.00	1.00	0.13	1.00	1.00	0.41	1.00	1.00
Satd. Flow (perm)	220	1620		1079	1879	1581	252	3570	1597	774	3570	1597
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	27	16	181	43	649	404	117	382	90	447	1046	5
RTOR Reduction (vph)	0	114	0	0	0	230	0	0	66	0	0	3
Lane Group Flow (vph)	27	83	0	43	649	174	117	382	24	447	1046	2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	44.2	40.6		48.4	42.7	42.7	37.3	29.8	29.8	48.1	37.6	37.6
Effective Green, g (s)	44.2	40.6		48.4	42.7	42.7	37.3	29.8	29.8	48.1	37.6	37.6
Actuated g/C Ratio	0.40	0.37		0.44	0.39	0.39	0.34	0.27	0.27	0.44	0.34	0.34
Clearance Time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	139	597		511	729	613	189	967	432	479	1220	545
v/s Ratio Prot	c0.01	0.05		c0.00	c0.35		0.04	0.11		c0.13	0.29	
v/s Ratio Perm	0.07			0.03		0.11	0.17		0.02	c0.28		0.00
v/c Ratio	0.19	0.13		0.08	0.89	0.28	0.61	0.39	0.05	0.93	0.85	0.00
Uniform Delay, d1	24.0	23.0		17.7	31.4	23.1	27.5	32.7	29.6	26.1	33.7	23.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.17	0.92	6.83	0.94	0.96	1.00
Incremental Delay, d2	1.4	0.2		0.1	13.8	0.5	8.2	1.1	0.2	25.7	7.7	0.0
Delay (s)	25.4	23.2		17.8	45.3	23.6	40.7	31.5	203.1	50.3	40.1	23.8
Level of Service	C	C		B	D	C	D	C	F	D	D	C
Approach Delay (s/veh)		23.5			36.2			59.6			43.1	
Approach LOS		C			D			E			D	

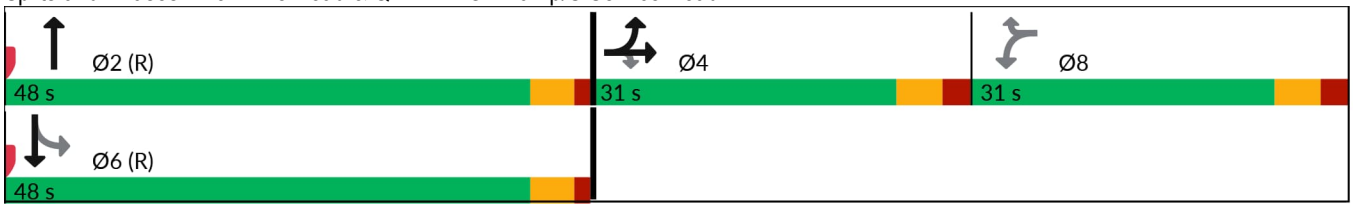
Intersection Summary			
HCM 2000 Control Delay (s/veh)	42.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

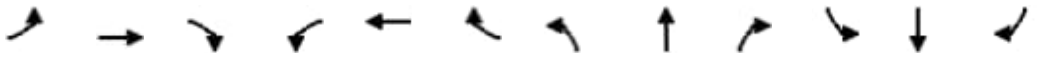
Lane Group	EBL	EBT	EBR	WBR	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	140	20	140	60	815	15	1005
Future Volume (vph)	140	20	140	60	815	15	1005
Lane Group Flow (vph)	84	84	147	63	863	16	1058
Turn Type	Split	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4	4			2		6
Permitted Phases			4	8		6	
Detector Phase	4	4	4	8	2	6	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	31.0	31.0	31.0	31.0	48.0	48.0	48.0
Total Split (%)	28.2%	28.2%	28.2%	28.2%	43.6%	43.6%	43.6%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	1.3	1.3	1.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.42	0.42	0.46	0.20	0.25	0.04	0.44
Control Delay (s/veh)	50.8	50.5	11.9	1.4	4.3	9.3	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.8	50.5	11.9	1.4	4.3	9.3	8.1
Queue Length 50th (m)	18.8	18.8	0.0	0.0	9.5	0.9	32.6
Queue Length 95th (m)	33.8	33.8	17.8	0.0	27.5	m1.9	51.1
Internal Link Dist (m)		138.8			128.3		133.8
Turn Bay Length (m)			75.0	7.5		100.0	
Base Capacity (vph)	377	383	469	518	3417	380	2380
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.22	0.31	0.12	0.25	0.04	0.44

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 31 (28%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Dixie Road & QEW EB Off-Ramp/S Service Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	20	140	0	0	60	0	815	5	15	1005	0
Future Volume (vph)	140	20	140	0	0	60	0	815	5	15	1005	0
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		5.0		5.0	5.0	
Lane Util. Factor	0.95	0.95	1.00			1.00		0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00			1.00		1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00			1.00		1.00		1.00	1.00	
Frt	1.00	1.00	0.85			0.85		0.99		1.00	1.00	
Flt Protected	0.95	0.96	1.00			1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1662	1687	1566			1566		5024		1750	3500	
Flt Permitted	0.95	0.96	1.00			1.00		1.00		0.30	1.00	
Satd. Flow (perm)	1662	1687	1566			1566		5024		561	3500	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	21	147	0	0	63	0	858	5	16	1058	0
RTOR Reduction (vph)	0	0	130	0	0	59	0	0	0	0	0	0
Lane Group Flow (vph)	84	84	17	0	0	4	0	863	0	16	1058	0
Confl. Peds. (#/hr)							2					2
Turn Type	Split	NA	Perm	Perm		Perm		NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4	8		8				6		
Actuated Green, G (s)	13.0	13.0	13.0			6.4		73.6		73.6	73.6	
Effective Green, g (s)	13.0	13.0	13.0			6.4		73.6		73.6	73.6	
Actuated g/C Ratio	0.12	0.12	0.12			0.06		0.67		0.67	0.67	
Clearance Time (s)	6.0	6.0	6.0			6.0		5.0		5.0	5.0	
Vehicle Extension (s)	5.0	5.0	5.0			5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	196	199	185			91		3361		375	2341	
v/s Ratio Prot	c0.05	0.05						0.17			c0.30	
v/s Ratio Perm			0.01			c0.00				0.03		
v/c Ratio	0.42	0.42	0.09			0.04		0.25		0.04	0.45	
Uniform Delay, d1	45.0	45.0	43.2			48.9		7.2		6.1	8.6	
Progression Factor	1.00	1.00	1.00			1.00		0.53		1.13	0.83	
Incremental Delay, d2	3.1	3.0	0.4			0.3		0.1		0.1	0.4	
Delay (s)	48.1	48.0	43.7			49.2		4.0		7.1	7.6	
Level of Service	D	D	D			D		A		A	A	
Approach Delay (s/veh)		46.0			49.2			4.0			7.6	
Approach LOS		D			D			A			A	

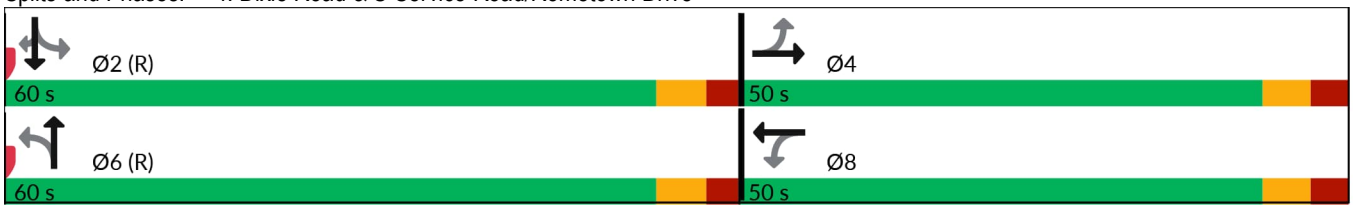
Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

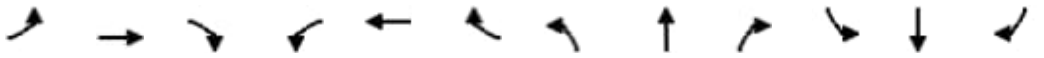
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	329	15	19	1	99	496	79	657	276
Future Volume (vph)	329	15	19	1	99	496	79	657	276
Lane Group Flow (vph)	366	58	0	68	110	651	88	730	307
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.1	41.1	41.1	41.1	35.6	35.6	35.6	35.6	35.6
Total Split (s)	50.0	50.0	50.0	50.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	45.5%	45.5%	45.5%	45.5%	54.5%	54.5%	54.5%	54.5%	54.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.83	0.10		0.12	0.32	0.33	0.23	0.37	0.30
Control Delay (s/veh)	50.5	10.1		10.3	14.9	11.5	8.5	7.3	3.2
Queue Delay	0.0	0.0		0.0	0.0	0.2	0.0	0.0	0.0
Total Delay (s/veh)	50.5	10.1		10.3	14.9	11.7	8.5	7.3	3.2
Queue Length 50th (m)	74.9	2.6		3.3	11.8	35.5	6.3	28.0	5.3
Queue Length 95th (m)	105.3	10.8		12.2	21.0	44.8	14.0	41.5	22.2
Internal Link Dist (m)		127.8		67.7		95.9		128.3	
Turn Bay Length (m)					50.0		100.0		
Base Capacity (vph)	522	680		628	341	1922	380	1955	1013
Starvation Cap Reductn	0	0		0	0	649	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	0.70	0.09		0.11	0.32	0.51	0.23	0.37	0.30

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 40 (36%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Dixie Road & S Service Road/Rometown Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	15	37	19	1	41	99	496	90	79	657	276
Future Volume (vph)	329	15	37	19	1	41	99	496	90	79	657	276
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.89			0.90		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1785	1680			1657		1785	3488		1785	3570	1597
Flt Permitted	0.71	1.00			0.91		0.33	1.00		0.37	1.00	1.00
Satd. Flow (perm)	1339	1680			1540		623	3488		696	3570	1597
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	366	17	41	21	1	46	110	551	100	88	730	307
RTOR Reduction (vph)	0	28	0	0	31	0	0	12	0	0	0	139
Lane Group Flow (vph)	366	30	0	0	37	0	110	639	0	88	730	168
Heavy Vehicles (%)	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	36.0	36.0			36.0		60.3	60.3		60.3	60.3	60.3
Effective Green, g (s)	36.0	36.0			36.0		60.3	60.3		60.3	60.3	60.3
Actuated g/C Ratio	0.33	0.33			0.33		0.55	0.55		0.55	0.55	0.55
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	438	549			504		341	1912		381	1957	875
v/s Ratio Prot		0.02						0.18			c0.20	
v/s Ratio Perm	c0.27				0.02		0.18			0.13		0.11
v/c Ratio	0.83	0.05			0.07		0.32	0.33		0.23	0.37	0.19
Uniform Delay, d1	34.2	25.3			25.5		13.6	13.7		12.8	14.1	12.5
Progression Factor	1.00	1.00			1.00		0.75	0.77		0.46	0.45	1.36
Incremental Delay, d2	14.2	0.0			0.1		2.3	0.4		1.3	0.5	0.4
Delay (s)	48.5	25.4			25.6		12.6	11.0		7.2	6.8	17.5
Level of Service	D	C			C		B	B		A	A	B
Approach Delay (s/veh)		45.3			25.6			11.3			9.8	
Approach LOS		D			C			B			A	

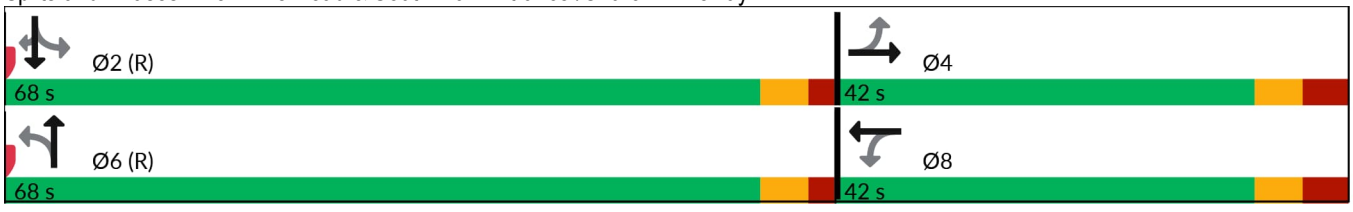
Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

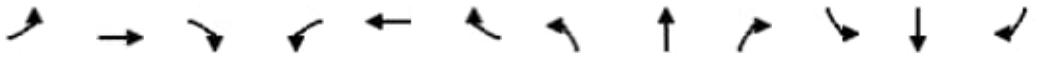
Lane Group	EBL	EBT	NBL	NBT	SBL	SBT	SBR	Ø8
Lane Configurations								
Traffic Volume (vph)	194	0	143	485	3	321	368	
Future Volume (vph)	194	0	143	485	3	321	368	
Lane Group Flow (vph)	182	164	0	676	3	345	396	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	
Protected Phases		4		6		2		8
Permitted Phases	4		6		2		2	
Detector Phase	4	4	6	6	2	2	2	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	33.2	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	68.0	68.0	68.0	68.0	68.0	42.0
Total Split (%)	38.2%	38.2%	61.8%	61.8%	61.8%	61.8%	61.8%	38%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	2.2	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.7	7.7		6.2	6.2	6.2	6.2	
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio	0.67	0.40		0.37	0.00	0.14	0.33	
Control Delay (s/veh)	52.4	11.5		9.4	0.3	0.6	1.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.2	
Total Delay (s/veh)	52.4	11.5		9.4	0.3	0.6	1.2	
Queue Length 50th (m)	40.4	5.2		31.6	0.0	0.9	0.7	
Queue Length 95th (m)	60.3	22.7		53.8	m0.0	1.6	0.0	
Internal Link Dist (m)		53.7		197.5		95.9		
Turn Bay Length (m)					25.0			
Base Capacity (vph)	416	549		1817	480	2376	1171	
Starvation Cap Reductn	0	0		0	0	0	299	
Spillback Cap Reductn	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	
Reduced v/c Ratio	0.44	0.30		0.37	0.01	0.15	0.45	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 51 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & South Mall Entrance /Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	0	127	0	0	0	143	485	0	3	321	368
Future Volume (vph)	194	0	127	0	0	0	143	485	0	3	321	368
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7	7.7						6.2		6.2	6.2	6.2
Lane Util. Factor	0.95	0.95						0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98						1.00		1.00	1.00	0.98
Flpb, ped/bikes	0.98	0.99						0.99		1.00	1.00	1.00
Frt	1.00	0.87						1.00		1.00	1.00	0.85
Flt Protected	0.95	0.99						0.98		0.95	1.00	1.00
Satd. Flow (prot)	1678	1524						3518		1785	3535	1550
Flt Permitted	0.75	0.94						0.75		0.38	1.00	1.00
Satd. Flow (perm)	1337	1458						2703		714	3535	1550
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	209	0	137	0	0	0	154	522	0	3	345	396
RTOR Reduction (vph)	0	109	0	0	0	0	0	0	0	0	0	130
Lane Group Flow (vph)	182	55	0	0	0	0	0	676	0	3	345	266
Confl. Peds. (#/hr)	11		5	5		11	6					6
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	1%
Turn Type	Perm	NA					Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	22.2	22.2						73.9		73.9	73.9	73.9
Effective Green, g (s)	22.2	22.2						73.9		73.9	73.9	73.9
Actuated g/C Ratio	0.20	0.20						0.67		0.67	0.67	0.67
Clearance Time (s)	7.7	7.7						6.2		6.2	6.2	6.2
Vehicle Extension (s)	5.0	5.0						5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	269	294						1815		479	2374	1041
v/s Ratio Prot											0.10	
v/s Ratio Perm	c0.14	0.04						c0.25		0.00		0.17
v/c Ratio	0.67	0.18						0.37		0.00	0.14	0.25
Uniform Delay, d1	40.5	36.4						7.9		5.9	6.5	7.1
Progression Factor	1.00	1.00						1.00		0.04	0.07	0.26
Incremental Delay, d2	8.5	0.6						0.5		0.0	0.1	0.5
Delay (s)	49.0	37.0						8.4		0.2	0.5	2.4
Level of Service	D	D						A		A	A	A
Approach Delay (s/veh)		43.3			0.0			8.4			1.5	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	67	127	280	206	3
Future Vol, veh/h	0	67	127	280	206	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	0	72	137	301	222	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	224	225	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	820	1356	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	820	1356	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

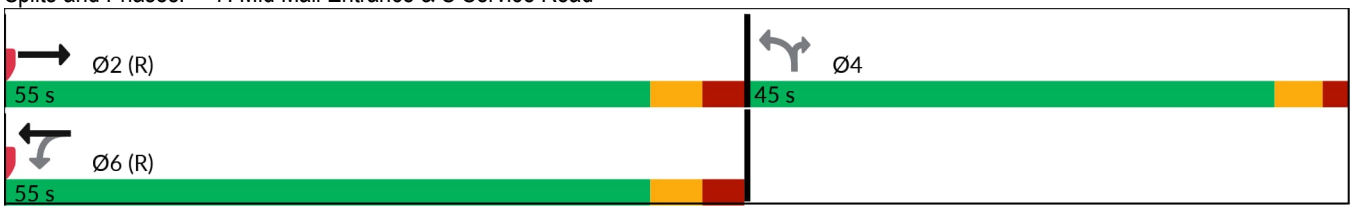
Approach	EB	NB	SB
HCM Control Delay, s/v	9.8	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1356	-	820	-	-
HCM Lane V/C Ratio	0.101	-	0.088	-	-
HCM Control Delay (s/veh)	8	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q (veh)	0.3	-	0.3	-	-

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	368	31	249	84	104
Future Volume (vph)	368	31	249	84	104
Lane Group Flow (vph)	481	34	277	93	116
Turn Type	NA	Perm	NA	Perm	Perm
Protected Phases	2		6		
Permitted Phases		6		4	4
Detector Phase	2	6	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	42.0	42.0	42.0	25.5	25.5
Total Split (s)	55.0	55.0	55.0	45.0	45.0
Total Split (%)	55.0%	55.0%	55.0%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio	0.35	0.05	0.19	0.41	0.38
Control Delay (s/veh)	8.3	4.0	4.4	45.3	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.3	4.0	4.4	45.3	11.2
Queue Length 50th (m)	44.5	1.5	13.8	17.8	0.0
Queue Length 95th (m)	m60.9	4.7	25.9	32.1	15.3
Internal Link Dist (m)	194.3		186.2	63.4	
Turn Bay Length (m)		30.0			15.0
Base Capacity (vph)	1367	667	1398	705	700
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.35	0.05	0.20	0.13	0.17

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 85 (85%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Mid Mall Entrance & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	368	65	31	249	84	104
Future Volume (vph)	368	65	31	249	84	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	5.5	5.5
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1819		1779	1864	1785	1597
Flt Permitted	1.00		0.47	1.00	0.95	1.00
Satd. Flow (perm)	1819		889	1864	1785	1597
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	409	72	34	277	93	116
RTOR Reduction (vph)	3	0	0	0	0	102
Lane Group Flow (vph)	478	0	34	277	93	15
Confl. Peds. (#/hr)		5	5			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	2	0	0	2	0	0
Turn Type	NA		Perm	NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases			6		4	4
Actuated Green, G (s)	75.0		75.0	75.0	12.5	12.5
Effective Green, g (s)	75.0		75.0	75.0	12.5	12.5
Actuated g/C Ratio	0.75		0.75	0.75	0.13	0.13
Clearance Time (s)	7.0		7.0	7.0	5.5	5.5
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1364		666	1398	223	199
v/s Ratio Prot	c0.26			0.15		
v/s Ratio Perm			0.04		c0.05	0.01
v/c Ratio	0.35		0.05	0.19	0.41	0.07
Uniform Delay, d1	4.2		3.2	3.6	40.3	38.6
Progression Factor	1.72		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4		0.1	0.3	2.6	0.3
Delay (s)	7.7		3.3	3.9	43.0	38.9
Level of Service	A		A	A	D	D
Approach Delay (s/veh)	7.7			3.9	40.7	
Approach LOS	A			A	D	

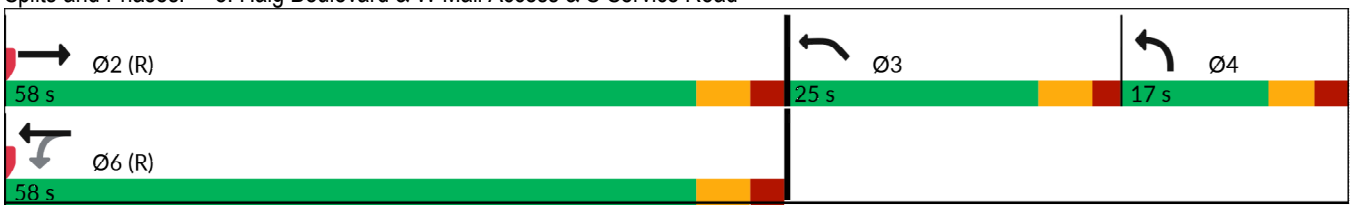
Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL	NWL
Lane Configurations					
Traffic Volume (vph)	377	25	308	200	87
Future Volume (vph)	377	25	308	200	87
Lane Group Flow (vph)	758	25	311	245	108
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	4	3
Permitted Phases		6			
Detector Phase	2	6	6	4	3
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	35.5	14.0	28.0
Total Split (s)	58.0	58.0	58.0	17.0	25.0
Total Split (%)	58.0%	58.0%	58.0%	17.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.0	6.0
Lead/Lag				Lag	Lead
Lead-Lag Optimize?				Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	None
v/c Ratio	0.86	0.15	0.32	0.84	0.46
Control Delay (s/veh)	28.3	20.4	20.5	68.4	45.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.3	20.4	20.5	68.4	45.8
Queue Length 50th (m)	129.2	3.4	45.4	49.0	20.6
Queue Length 95th (m)	#209.2	10.2	67.5	#107.8	36.2
Internal Link Dist (m)	420.5		194.3	360.2	41.8
Turn Bay Length (m)		42.0			
Base Capacity (vph)	878	161	967	289	329
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.16	0.32	0.85	0.33

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 95 (95%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Haig Boulevard & W Mall Access & S Service Road



Movement	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR
Lane Configurations									
Traffic Volume (vph)	377	134	225	25	308	200	43	87	13
Future Volume (vph)	377	134	225	25	308	200	43	87	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5			6.5	6.5	6.0		6.0	
Lane Util. Factor	1.00			1.00	1.00	1.00		1.00	
Frpb, ped/bikes	0.98			1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00			0.99	1.00	1.00		1.00	
Frt	0.93			1.00	1.00	0.97		0.98	
Flt Protected	1.00			0.95	1.00	0.96		0.95	
Satd. Flow (prot)	1705			1784	1879	1747		1734	
Flt Permitted	1.00			0.16	1.00	0.96		0.95	
Satd. Flow (perm)	1705			313	1879	1747		1734	
Peak-hour factor, PHF	0.99	0.99	0.93	0.99	0.99	0.99	0.99	0.93	0.93
Adj. Flow (vph)	381	135	242	25	311	202	43	94	14
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	758	0	0	25	311	245	0	108	0
Confl. Peds. (#/hr)		1		1					
Confl. Bikes (#/hr)		2							
Heavy Vehicles (%)	0%	1%	2%	0%	0%	1%	0%	2%	2%
Bus Blockages (#/hr)	2	0	0	0	0	0	0	0	0
Turn Type	NA			Perm	NA	Prot		Prot	
Protected Phases	2				6	4		3	
Permitted Phases				6					
Actuated Green, G (s)	51.5			51.5	51.5	16.6		13.4	
Effective Green, g (s)	51.5			51.5	51.5	16.6		13.4	
Actuated g/C Ratio	0.52			0.52	0.52	0.17		0.13	
Clearance Time (s)	6.5			6.5	6.5	6.0		6.0	
Vehicle Extension (s)	5.0			5.0	5.0	5.0		5.0	
Lane Grp Cap (vph)	878			161	967	290		232	
v/s Ratio Prot	c0.44				0.17	c0.14		c0.06	
v/s Ratio Perm				0.08					
v/c Ratio	0.86			0.15	0.32	0.84		0.46	
Uniform Delay, d1	21.1			12.7	14.0	40.4		39.9	
Progression Factor	0.79			1.32	1.36	1.00		1.00	
Incremental Delay, d2	10.2			2.0	0.8	21.4		3.0	
Delay (s)	27.1			19.0	20.1	61.8		43.0	
Level of Service	C			B	C	E		D	
Approach Delay (s/veh)	27.1				20.0	61.8		43.0	
Approach LOS	C				C	E		D	

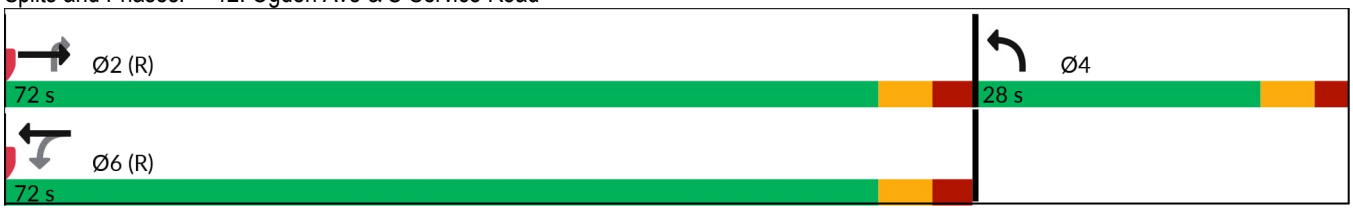
Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	559	18	492	19	65
Future Volume (vph)	559	18	492	19	65
Lane Group Flow (vph)	669	21	566	22	75
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	24.5	30.0
Total Split (s)	72.0	72.0	72.0	28.0	72.0
Total Split (%)	72.0%	72.0%	72.0%	28.0%	72.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	6.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.48	0.04	0.40	0.10	0.06
Control Delay (s/veh)	6.3	2.5	3.0	40.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.3	2.5	3.0	40.6	0.9
Queue Length 50th (m)	44.9	0.4	10.7	4.1	0.0
Queue Length 95th (m)	60.8	m1.6	m27.8	11.1	2.9
Internal Link Dist (m)	34.3		420.5	99.2	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1392	511	1399	383	1208
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.04	0.40	0.06	0.06

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 70 (70%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	559	23	18	492	19	65
Future Volume (vph)	559	23	18	492	19	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1867		1784	1879	1785	1597
Flt Permitted	1.00		0.36	1.00	0.95	1.00
Satd. Flow (perm)	1867		687	1879	1785	1597
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	643	26	21	566	22	75
RTOR Reduction (vph)	1	0	0	0	0	19
Lane Group Flow (vph)	668	0	21	566	22	56
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	74.5		74.5	74.5	12.0	74.5
Effective Green, g (s)	74.5		74.5	74.5	12.0	74.5
Actuated g/C Ratio	0.75		0.75	0.75	0.12	0.75
Clearance Time (s)	7.0		7.0	7.0	6.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1390		511	1399	214	1189
v/s Ratio Prot	c0.36			0.30	c0.01	
v/s Ratio Perm			0.03			0.03
v/c Ratio	0.48		0.04	0.40	0.10	0.04
Uniform Delay, d1	5.0		3.3	4.6	39.2	3.3
Progression Factor	1.00		0.68	0.47	1.00	1.00
Incremental Delay, d2	1.1		0.1	0.7	0.4	0.0
Delay (s)	6.2		2.4	2.9	39.6	3.4
Level of Service	A		A	A	D	A
Approach Delay (s/veh)	6.2			2.9	11.6	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		

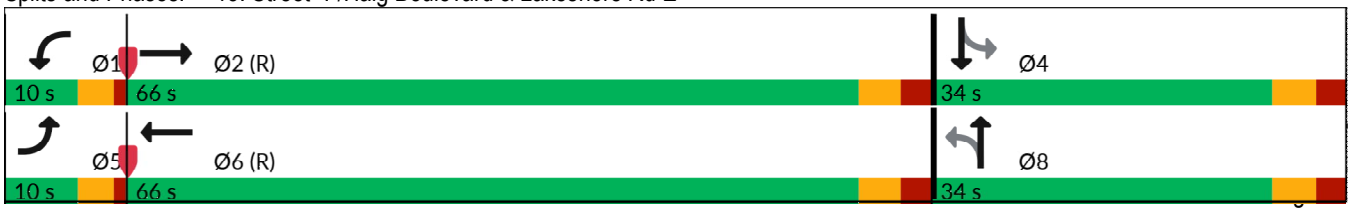
c Critical Lane Group

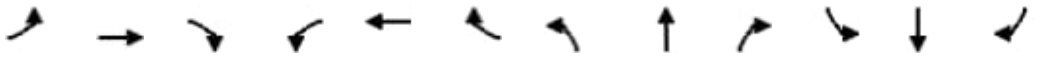
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	1587	129	1928	106	9	34	12
Future Volume (vph)	30	1587	129	1928	106	9	34	12
Lane Group Flow (vph)	33	1789	140	2134	0	205	0	90
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	9.0	27.0	9.0	27.0	34.0	34.0	34.0	34.0
Total Split (s)	10.0	66.0	10.0	66.0	34.0	34.0	34.0	34.0
Total Split (%)	9.1%	60.0%	9.1%	60.0%	30.9%	30.9%	30.9%	30.9%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	1.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.26	0.92	0.72	0.95		0.75		0.29
Control Delay (s/veh)	54.6	32.5	72.6	33.6		52.8		24.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	54.6	32.5	72.6	33.6		52.8		24.6
Queue Length 50th (m)	7.1	185.6	31.4	~282.8		37.8		10.3
Queue Length 95th (m)	17.8	#236.7	#83.6	#334.4		62.0		23.5
Internal Link Dist (m)		221.2		587.4		160.2		410.7
Turn Bay Length (m)	50.0		75.0					
Base Capacity (vph)	125	1934	192	2227		334		380
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.26	0.93	0.73	0.96		0.61		0.24

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Street "I"/Haig Boulevard & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	1587	59	129	1928	35	106	9	74	34	12	37
Future Volume (vph)	30	1587	59	129	1928	35	106	9	74	34	12	37
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	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.94			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.97	
Satd. Flow (prot)	1785	3541		1785	3556			1512			1694	
Flt Permitted	0.95	1.00		0.95	1.00			0.79			0.80	
Satd. Flow (perm)	1785	3541		1785	3556			1231			1391	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	1725	64	140	2096	38	115	10	80	37	13	40
RTOR Reduction (vph)	0	2	0	0	1	0	0	22	0	0	28	0
Lane Group Flow (vph)	33	1787	0	140	2133	0	0	183	0	0	62	0
Confl. Peds. (#/hr)	10		13	13		10	4		1	1		4
Confl. Bikes (#/hr)			1			1			24			1
Heavy Vehicles (%)	0%	0%	2%	0%	0%	3%	0%	0%	32%	0%	0%	3%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	4.5	60.0		11.8	67.3			22.2			22.2	
Effective Green, g (s)	4.5	60.0		11.8	67.3			22.2			22.2	
Actuated g/C Ratio	0.04	0.55		0.11	0.61			0.20			0.20	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	73	1931		191	2175			248			280	
v/s Ratio Prot	0.02	0.50		c0.08	c0.60							
v/s Ratio Perm								c0.15			0.04	
v/c Ratio	0.45	0.92		0.73	0.98			0.73			0.22	
Uniform Delay, d1	51.5	22.9		47.5	20.7			41.1			36.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	9.0	9.0		16.1	15.2			12.9			0.8	
Delay (s)	60.5	32.0		63.7	35.9			54.1			37.5	
Level of Service	E	C		E	D			D			D	
Approach Delay (s/veh)		32.5			37.6			54.1			37.5	
Approach LOS		C			D			D			D	

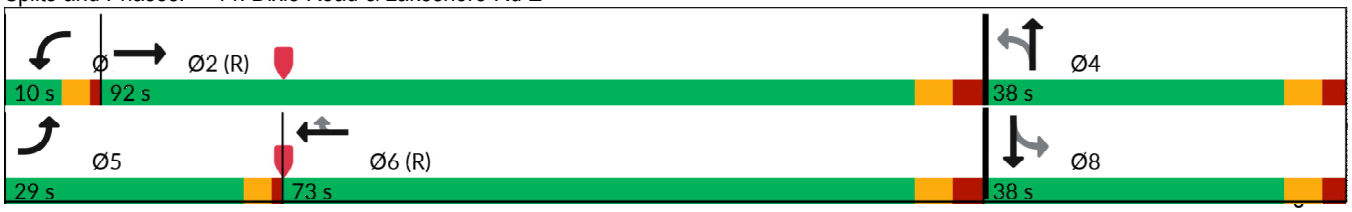
Intersection Summary			
HCM 2000 Control Delay (s/veh)	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

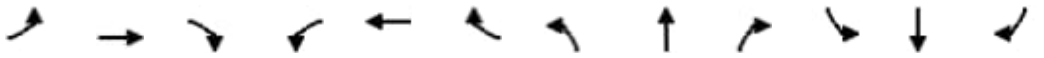
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	357	1341	24	1743	195	35	25	211	15
Future Volume (vph)	357	1341	24	1743	195	35	25	211	15
Lane Group Flow (vph)	384	1467	26	1874	210	0	80	227	385
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2	1	6			4		8
Permitted Phases					6	4		8	
Detector Phase	5	2	1	6	6	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	9.0	40.0	9.0	40.0	40.0	24.5	24.5	37.5	37.5
Total Split (s)	29.0	92.0	10.0	73.0	73.0	38.0	38.0	38.0	38.0
Total Split (%)	20.7%	65.7%	7.1%	52.1%	52.1%	27.1%	27.1%	27.1%	27.1%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	4.0	7.0	7.0		6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
v/c Ratio	1.20	0.59	0.34	1.01	0.27		0.89	0.82	0.72
Control Delay (s/veh)	166.9	16.0	77.5	60.0	12.8		119.6	76.8	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	166.9	16.0	77.5	60.0	12.8		119.6	76.8	24.0
Queue Length 50th (m)	~135.8	131.3	7.5	~298.7	19.2		20.3	62.2	31.3
Queue Length 95th (m)	#201.1	153.3	18.3	#340.5	37.4		#53.8	#100.8	71.0
Internal Link Dist (m)		587.4		514.0			58.7		175.6
Turn Bay Length (m)	300.0		10.0		60.0			30.0	
Base Capacity (vph)	318	2452	76	1847	766		97	302	555
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	1.21	0.60	0.34	1.01	0.27		0.82	0.75	0.69

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	357	1341	23	24	1743	195	35	25	14	211	15	343
Future Volume (vph)	357	1341	23	24	1743	195	35	25	14	211	15	343
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Lane Util. Factor	1.00	*1.00		1.00	*1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.93		1.00		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		0.99		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.97		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97		0.95	1.00	
Satd. Flow (prot)	1785	3740		1785	3758	1463		1785		1785	1554	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.22		0.71	1.00	
Satd. Flow (perm)	1785	3740		1785	3758	1463		404		1344	1554	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	384	1442	25	26	1874	210	38	27	15	227	16	369
RTOR Reduction (vph)	0	1	0	0	0	47	0	6	0	0	211	0
Lane Group Flow (vph)	384	1466	0	26	1874	163	0	74	0	227	174	0
Confl. Peds. (#/hr)	21		11	11		21	9					9
Confl. Bikes (#/hr)			2			3						2
Heavy Vehicles (%)	0%	0%	9%	0%	0%	2%	0%	0%	0%	0%	0%	1%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases						6	4			8		
Actuated Green, G (s)	25.0	90.2		3.6	68.8	68.8		28.7		28.7	28.7	
Effective Green, g (s)	25.0	90.2		3.6	68.8	68.8		28.7		28.7	28.7	
Actuated g/C Ratio	0.18	0.64		0.03	0.49	0.49		0.21		0.21	0.21	
Clearance Time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	318	2409		45	1846	718		82		275	318	
v/s Ratio Prot	c0.22	0.39		0.01	c0.50						0.11	
v/s Ratio Perm						0.11		c0.18		0.17		
v/c Ratio	1.20	0.60		0.57	1.01	0.22		0.89		0.82	0.54	
Uniform Delay, d1	57.5	14.5		67.4	35.6	20.3		54.2		53.2	49.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	119.2	1.1		25.5	24.7	0.7		68.7		19.8	3.3	
Delay (s)	176.7	15.7		93.0	60.3	21.1		122.9		73.1	53.1	
Level of Service	F	B		F	E	C		F		E	D	
Approach Delay (s/veh)		49.1			56.8			122.9			60.5	
Approach LOS		D			E			F			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	55.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	116.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	5	22	1	3	2	15	53	0	0	52	8
Future Vol, veh/h	13	5	22	1	3	2	15	53	0	0	52	8
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	0	5	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	6	26	1	4	2	18	63	0	0	62	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.2	7.1	7.5	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	33%	17%	0%
Vol Thru, %	78%	13%	50%	87%
Vol Right, %	0%	55%	33%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	40	6	60
LT Vol	15	13	1	0
Through Vol	53	5	3	52
RT Vol	0	22	2	8
Lane Flow Rate	81	48	7	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.092	0.052	0.008	0.079
Departure Headway (Hd)	4.092	3.901	4.032	3.975
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	873	907	876	897
Service Time	2.129	1.972	2.11	2.016
HCM Lane V/C Ratio	0.093	0.053	0.008	0.079
HCM Control Delay, s/veh	7.5	7.2	7.1	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0	0.3

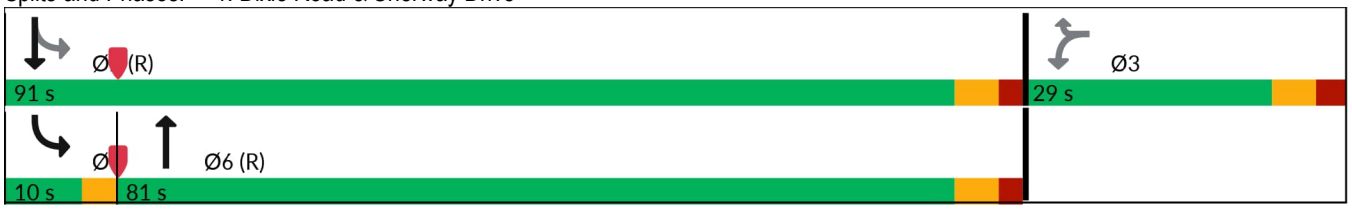
Intersection Capacity Analysis (Future Total)

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	133	207	1125	156	818
Future Volume (vph)	133	207	1125	156	818
Lane Group Flow (vph)	151	235	1392	177	930
Turn Type	Perm	Perm	NA	pm+pt	NA
Protected Phases			6	5	2
Permitted Phases	3	3		2	
Detector Phase	3	3	6	5	2
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	5.0	8.0
Minimum Split (s)	28.6	28.6	25.0	8.0	25.0
Total Split (s)	29.0	29.0	81.0	10.0	91.0
Total Split (%)	24.2%	24.2%	67.5%	8.3%	75.8%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.6	2.6	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.0	3.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
v/c Ratio	0.59	0.64	0.61	0.57	0.34
Control Delay (s/veh)	57.1	24.8	8.9	12.8	5.7
Queue Delay	0.0	0.0	0.7	0.0	0.0
Total Delay (s/veh)	57.1	24.8	9.7	12.8	5.7
Queue Length 50th (m)	35.5	17.4	63.1	9.1	35.0
Queue Length 95th (m)	54.0	40.9	80.1	20.9	51.1
Internal Link Dist (m)	91.7		117.1		171.7
Turn Bay Length (m)		30.0		50.0	
Base Capacity (vph)	333	426	2253	307	2684
Starvation Cap Reductn	0	0	500	0	0
Spillback Cap Reductn	0	0	0	0	209
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.45	0.55	0.79	0.58	0.38

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 68 (57%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Dixie Road & Sherway Drive



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	133	207	1125	100	156	818
Future Volume (vph)	133	207	1125	100	156	818
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.0		3.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1785	1597	3456		1767	3570
Flt Permitted	0.95	1.00	1.00		0.13	1.00
Satd. Flow (perm)	1785	1597	3456		245	3570
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	151	235	1278	114	177	930
RTOR Reduction (vph)	0	135	5	0	0	0
Lane Group Flow (vph)	151	100	1387	0	177	930
Confl. Peds. (#/hr)				1	1	
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	3	3			2	
Actuated Green, G (s)	17.2	17.2	78.0		90.2	90.2
Effective Green, g (s)	17.2	17.2	78.0		90.2	90.2
Actuated g/C Ratio	0.14	0.14	0.65		0.75	0.75
Clearance Time (s)	6.6	6.6	6.0		3.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	255	228	2246		300	2683
v/s Ratio Prot			c0.40		c0.05	0.26
v/s Ratio Perm	c0.08	0.06			0.40	
v/c Ratio	0.59	0.43	0.61		0.59	0.34
Uniform Delay, d1	48.1	46.9	12.2		9.5	5.0
Progression Factor	1.00	1.00	0.62		1.00	1.00
Incremental Delay, d2	5.4	2.7	1.0		4.6	0.3
Delay (s)	53.5	49.7	8.6		14.2	5.3
Level of Service	D	D	A		B	A
Approach Delay (s/veh)	51.2		8.6			6.7
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

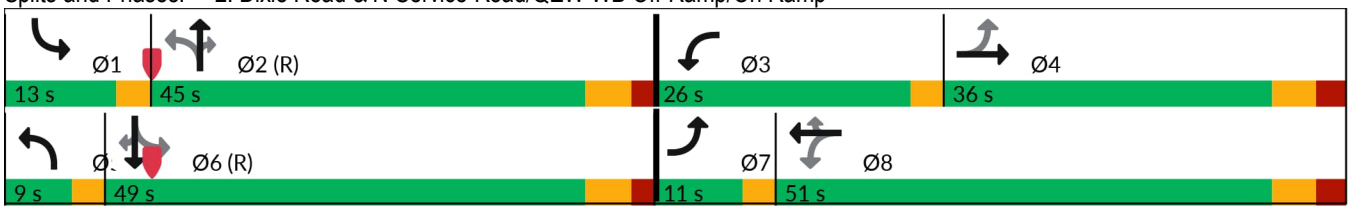
2: Dixie Road & N Service Road/QEW WB Off-Ramp/On Ramp

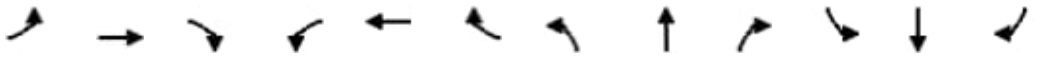
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	85	15	148	45	520	10	618	133	130	807	15
Future Volume (vph)	85	15	148	45	520	10	618	133	130	807	15
Lane Group Flow (vph)	97	153	168	51	591	11	702	151	148	917	17
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	9.0	33.6	9.0	33.6	33.6	9.0	27.0	27.0	9.0	26.0	26.0
Total Split (s)	11.0	36.0	26.0	51.0	51.0	9.0	45.0	45.0	13.0	49.0	49.0
Total Split (%)	9.2%	30.0%	21.7%	42.5%	42.5%	7.5%	37.5%	37.5%	10.8%	40.8%	40.8%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	0.0	2.6	0.0	2.6	2.6	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.6	3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.19	0.30	0.31	0.09	0.90	0.03	0.50	0.21	0.39	0.52	0.02
Control Delay (s/veh)	20.7	8.8	22.3	27.2	37.3	17.0	32.1	11.3	19.8	25.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)	20.7	8.8	22.3	27.2	37.5	17.0	32.1	11.3	19.8	25.7	0.1
Queue Length 50th (m)	13.9	3.2	25.2	8.8	76.8	1.3	85.8	6.9	22.1	89.4	0.0
Queue Length 95th (m)	22.1	18.0	35.7	16.6	116.2	m3.4	105.2	27.5	38.3	127.7	m0.3
Internal Link Dist (m)		121.9		96.5			233.5			117.1	
Turn Bay Length (m)	100.0		75.0			100.0		50.0	75.0		50.0
Base Capacity (vph)	489	539	581	637	744	306	1402	713	378	1751	790
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	299	0
Spillback Cap Reductn	4	0	0	0	5	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.28	0.29	0.08	0.80	0.04	0.50	0.21	0.39	0.63	0.02

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Dixie Road & N Service Road/QEW WB Off-Ramp/On Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	15	120	148	45	520	10	618	133	130	807	15
Future Volume (vph)	85	15	120	148	45	520	10	618	133	130	807	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1785	1628		1785	1724	1521	1785	3570	1597	1785	3570	1493
Flt Permitted	0.72	1.00		0.56	1.00	1.00	0.25	1.00	1.00	0.26	1.00	1.00
Satd. Flow (perm)	1360	1628		1053	1724	1521	486	3570	1597	495	3570	1493
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	97	17	136	168	51	591	11	702	151	148	917	17
RTOR Reduction (vph)	0	103	0	0	0	203	0	0	86	0	0	9
Lane Group Flow (vph)	97	50	0	168	51	388	11	702	65	148	917	8
Heavy Vehicles (%)	0%	0%	0%	0%	9%	5%	0%	0%	0%	0%	0%	7%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	37.1	29.1		46.7	35.7	35.7	48.4	47.2	47.2	60.7	56.5	56.5
Effective Green, g (s)	37.1	29.1		46.7	35.7	35.7	48.4	47.2	47.2	60.7	56.5	56.5
Actuated g/C Ratio	0.31	0.24		0.39	0.30	0.30	0.40	0.39	0.39	0.51	0.47	0.47
Clearance Time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	448	394		498	512	452	209	1404	628	363	1680	702
v/s Ratio Prot	0.01	0.03		c0.04	0.03		0.00	0.20		c0.04	c0.26	
v/s Ratio Perm	0.05			0.09		c0.26	0.02		0.04	0.17		0.01
v/c Ratio	0.21	0.12		0.33	0.09	0.85	0.05	0.50	0.10	0.40	0.54	0.01
Uniform Delay, d1	30.2	35.5		24.8	30.5	39.7	21.7	27.4	23.0	17.2	22.6	16.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.96	1.04	1.90	1.00	1.03	1.00
Incremental Delay, d2	0.5	0.3		0.8	0.1	16.1	0.1	1.1	0.2	1.4	1.2	0.0
Delay (s)	30.7	35.8		25.6	30.6	55.9	21.1	29.8	44.0	18.8	24.6	16.9
Level of Service	C	D		C	C	E	C	C	D	B	C	B
Approach Delay (s/veh)		33.8			48.0			32.2			23.7	
Approach LOS		C			D			C			C	

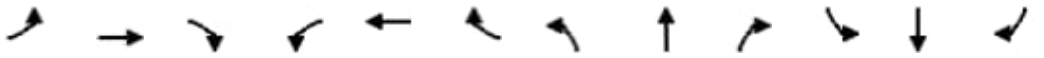
Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBR	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	200	10	167	130	1488	10	672
Future Volume (vph)	200	10	167	130	1488	10	672
Lane Group Flow (vph)	111	113	178	138	1583	11	715
Turn Type	Split	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4	4			2		6
Permitted Phases			4	8		6	
Detector Phase	4	4	4	8	2	6	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	31.0	31.0	31.0	31.0	58.0	58.0	58.0
Total Split (%)	25.8%	25.8%	25.8%	25.8%	48.3%	48.3%	48.3%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	1.3	1.3	1.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.50	0.51	0.49	0.58	0.49	0.08	0.32
Control Delay (s/veh)	55.6	55.8	11.1	27.3	8.7	9.2	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	55.6	55.8	11.1	27.3	8.9	9.2	12.2
Queue Length 50th (m)	27.4	28.0	0.0	9.4	48.3	1.3	66.7
Queue Length 95th (m)	44.7	45.4	19.5	29.1	m72.1	m2.7	87.7
Internal Link Dist (m)		138.8			128.3		133.8
Turn Bay Length (m)			75.0	7.5		100.0	
Base Capacity (vph)	346	348	467	403	3176	136	2210
Starvation Cap Reductn	0	0	0	0	761	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.32	0.38	0.34	0.66	0.08	0.32

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 41 (34%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Dixie Road & QEW EB Off-Ramp/S Service Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	10	167	0	0	130	0	1488	0	10	672	0
Future Volume (vph)	200	10	167	0	0	130	0	1488	0	10	672	0
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		5.0		5.0	5.0	
Lane Util. Factor	0.95	0.95	1.00			1.00		0.91		1.00	0.95	
Frt	1.00	1.00	0.85			0.85		1.00		1.00	1.00	
Flt Protected	0.95	0.95	1.00			1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1662	1674	1566			1566		5029		1750	3500	
Flt Permitted	0.95	0.95	1.00			1.00		1.00		0.11	1.00	
Satd. Flow (perm)	1662	1674	1566			1566		5029		216	3500	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	213	11	178	0	0	138	0	1583	0	11	715	0
RTOR Reduction (vph)	0	0	155	0	0	89	0	0	0	0	0	0
Lane Group Flow (vph)	111	113	23	0	0	49	0	1583	0	11	715	0
Turn Type	Split	NA	Perm	Perm		Perm		NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4	8		8				6		
Actuated Green, G (s)	15.8	15.8	15.8			11.4		75.8		75.8	75.8	
Effective Green, g (s)	15.8	15.8	15.8			11.4		75.8		75.8	75.8	
Actuated g/C Ratio	0.13	0.13	0.13			0.10		0.63		0.63	0.63	
Clearance Time (s)	6.0	6.0	6.0			6.0		5.0		5.0	5.0	
Vehicle Extension (s)	5.0	5.0	5.0			5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	218	220	206			148		3176		136	2210	
v/s Ratio Prot	0.07	c0.07						c0.31			0.20	
v/s Ratio Perm			0.01			c0.03				0.05		
v/c Ratio	0.50	0.51	0.11			0.33		0.49		0.08	0.32	
Uniform Delay, d1	48.4	48.5	45.9			50.7		11.8		8.5	10.2	
Progression Factor	1.00	1.00	1.00			1.00		0.64		0.63	1.03	
Incremental Delay, d2	3.8	3.9	0.5			2.7		0.2		1.0	0.3	
Delay (s)	52.3	52.5	46.4			53.5		7.9		6.5	10.9	
Level of Service	D	D	D			D		A		A	B	
Approach Delay (s/veh)		49.7			53.5			7.9			10.8	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

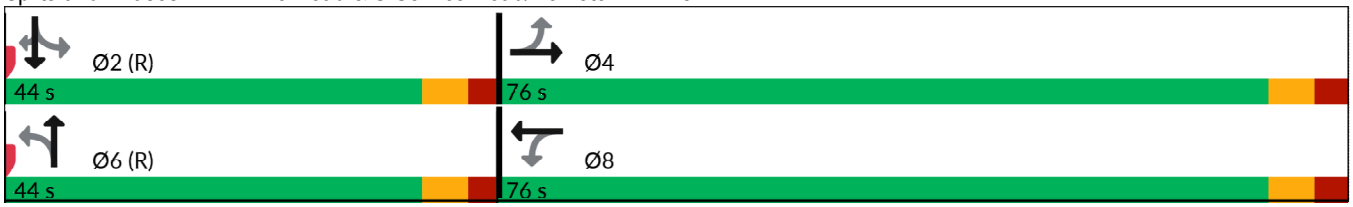
c Critical Lane Group

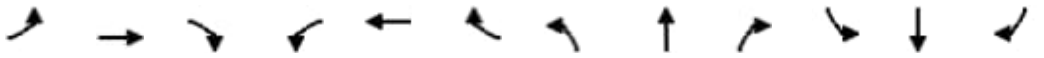
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	643	3	17	2	76	796	52	359	361
Future Volume (vph)	643	3	17	2	76	796	52	359	361
Lane Group Flow (vph)	699	50	0	98	83	978	57	390	392
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.1	41.1	41.1	41.1	35.6	35.6	35.6	35.6	35.6
Total Split (s)	76.0	76.0	76.0	76.0	44.0	44.0	44.0	44.0	44.0
Total Split (%)	63.3%	63.3%	63.3%	63.3%	36.7%	36.7%	36.7%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.95	0.05		0.10	0.29	0.86	0.91	0.34	0.50
Control Delay (s/veh)	48.5	3.6		8.9	31.6	44.9	125.7	19.6	10.1
Queue Delay	0.0	0.0		0.0	0.0	8.2	0.0	0.0	0.3
Total Delay (s/veh)	48.5	3.6		8.9	31.6	53.1	125.7	19.6	10.4
Queue Length 50th (m)	151.1	0.3		7.7	11.1	67.5	14.1	43.5	53.7
Queue Length 95th (m)	#241.7	5.8		15.7	23.4	#84.4	#36.5	37.6	88.3
Internal Link Dist (m)		127.8		67.7		95.9		128.3	
Turn Bay Length (m)					50.0		100.0		
Base Capacity (vph)	748	946		931	283	1126	62	1124	774
Starvation Cap Reductn	0	0		0	0	126	0	0	84
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	0.93	0.05		0.11	0.29	0.98	0.92	0.35	0.57

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 48 (40%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Dixie Road & S Service Road/Rometown Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	643	3	43	17	2	72	76	796	104	52	359	361
Future Volume (vph)	643	3	43	17	2	72	76	796	104	52	359	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.85			0.89		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1785	1614			1662		1785	3477		1785	3500	1581
Flt Permitted	0.69	1.00			0.95		0.46	1.00		0.10	1.00	1.00
Satd. Flow (perm)	1303	1614			1604		881	3477		195	3500	1581
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	699	3	47	18	2	78	83	865	113	57	390	392
RTOR Reduction (vph)	0	20	0	0	11	0	0	8	0	0	0	266
Lane Group Flow (vph)	699	30	0	0	87	0	83	970	0	57	390	126
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	67.7	67.7			67.7		38.6	38.6		38.6	38.6	38.6
Effective Green, g (s)	67.7	67.7			67.7		38.6	38.6		38.6	38.6	38.6
Actuated g/C Ratio	0.56	0.56			0.56		0.32	0.32		0.32	0.32	0.32
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	735	910			904		283	1118		62	1125	508
v/s Ratio Prot		0.02						0.28			0.11	
v/s Ratio Perm	c0.54				0.05		0.09			c0.29		0.08
v/c Ratio	0.95	0.03			0.09		0.29	0.86		0.91	0.34	0.24
Uniform Delay, d1	24.5	11.6			12.0		30.4	38.2		39.2	31.0	30.0
Progression Factor	1.00	1.00			1.00		0.90	0.93		0.68	0.59	2.49
Incremental Delay, d2	22.4	0.0			0.0		2.4	8.7		90.6	0.8	1.1
Delay (s)	46.9	11.6			12.1		30.1	44.5		117.6	19.3	76.1
Level of Service	D	B			B		C	D		F	B	E
Approach Delay (s/veh)		44.6			12.1			43.4			52.5	
Approach LOS		D			B			D			D	

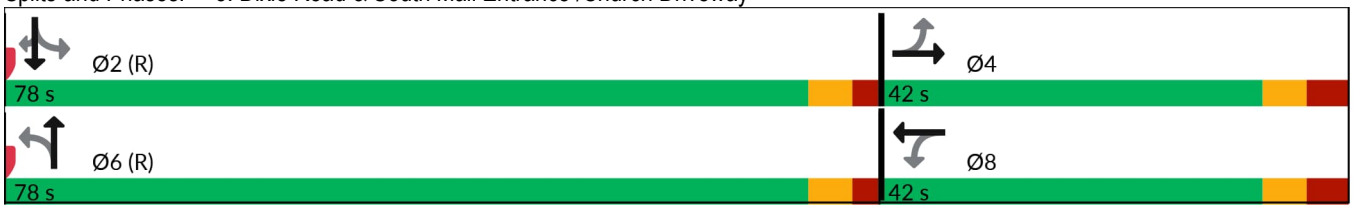
Intersection Summary			
HCM 2000 Control Delay (s/veh)	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

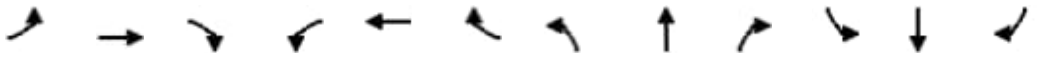
Lane Group	EBL	EBT	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	8	0	13	978	353	54	
Future Volume (vph)	8	0	13	978	353	54	
Lane Group Flow (vph)	8	18	0	1077	384	59	
Turn Type	Perm	NA	Perm	NA	NA	Perm	
Protected Phases		4		6	2		8
Permitted Phases	4		6			2	
Detector Phase	4	4	6	6	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	78.0	78.0	78.0	78.0	42.0
Total Split (%)	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%	35%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	7.7	7.7		6.2	6.2	6.2	
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio	0.09	0.12		0.36	0.12	0.04	
Control Delay (s/veh)	53.4	11.6		2.8	0.3	0.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	53.4	11.6		2.8	0.3	0.0	
Queue Length 50th (m)	2.0	0.0		33.3	1.2	0.0	
Queue Length 95th (m)	7.4	5.1		42.8	1.6	0.0	
Internal Link Dist (m)		53.7		197.5	95.9		
Turn Bay Length (m)							
Base Capacity (vph)	279	418		2946	3047	1273	
Starvation Cap Reductn	0	0		0	0	0	
Spillback Cap Reductn	0	0		0	0	0	
Storage Cap Reductn	0	0		0	0	0	
Reduced v/c Ratio	0.03	0.04		0.37	0.13	0.05	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 66 (55%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: Dixie Road & South Mall Entrance /Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	0	16	0	0	0	13	978	0	0	353	54
Future Volume (vph)	8	0	16	0	0	0	13	978	0	0	353	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7	7.7						6.2			6.2	6.2
Lane Util. Factor	0.95	0.95						0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00						1.00			1.00	0.98
Flpb, ped/bikes	1.00	1.00						0.99			1.00	1.00
Frt	1.00	0.85						1.00			1.00	0.85
Flt Protected	0.95	0.99						0.99			1.00	1.00
Satd. Flow (prot)	1229	1418						3533			3466	1440
Flt Permitted	0.75	0.97						0.94			1.00	1.00
Satd. Flow (perm)	979	1392						3351			3466	1440
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	0	17	0	0	0	14	1063	0	0	384	59
RTOR Reduction (vph)	0	17	0	0	0	0	0	0	0	0	0	10
Lane Group Flow (vph)	8	1	0	0	0	0	0	1077	0	0	384	49
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	38%	0%	6%	0%	0%	0%	0%	1%	0%	0%	3%	9%
Turn Type	Perm	NA					Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	6.2	6.2						99.9			99.9	99.9
Effective Green, g (s)	6.2	6.2						99.9			99.9	99.9
Actuated g/C Ratio	0.05	0.05						0.83			0.83	0.83
Clearance Time (s)	7.7	7.7						6.2			6.2	6.2
Vehicle Extension (s)	5.0	5.0						5.0			5.0	5.0
Lane Grp Cap (vph)	50	71						2789			2885	1198
v/s Ratio Prot											0.11	
v/s Ratio Perm	c0.01	0.00						c0.32				0.03
v/c Ratio	0.16	0.01						0.38			0.13	0.04
Uniform Delay, d1	54.4	53.9						2.4			1.8	1.7
Progression Factor	1.00	1.00						1.00			0.12	0.00
Incremental Delay, d2	3.1	0.1						0.4			0.0	0.0
Delay (s)	57.5	54.1						2.8			0.3	0.0
Level of Service	E	D						A			A	A
Approach Delay (s/veh)		55.1			0.0			2.8			0.3	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	3.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	11	426	669	0
Future Vol, veh/h	0	4	11	426	669	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	0	4	12	468	735	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	735	735	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	423	879	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	423	879	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	13.6	0.2	0
HCM LOS	B		

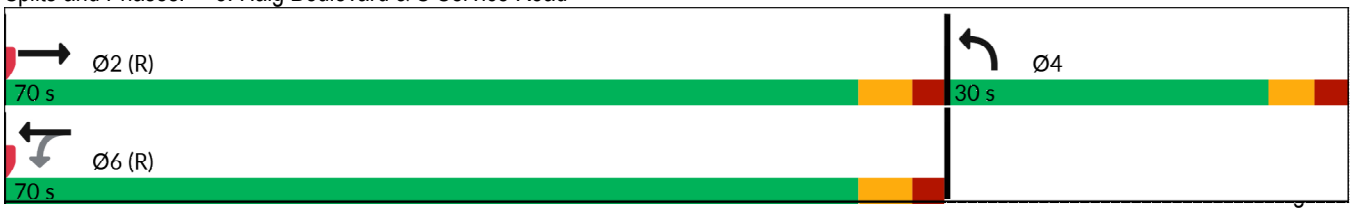
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	879	-	423	-	-
HCM Lane V/C Ratio	0.014	-	0.01	-	-
HCM Control Delay (s/veh)	9.2	-	13.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	728	58	314	261
Future Volume (vph)	728	58	314	261
Lane Group Flow (vph)	1152	64	349	434
Turn Type	NA	Perm	NA	Prot
Protected Phases	2		6	4
Permitted Phases		6		
Detector Phase	2	6	6	4
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	35.5	14.0
Total Split (s)	70.0	70.0	70.0	30.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	1.02	0.86	0.29	1.00
Control Delay (s/veh)	44.3	96.5	9.0	82.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.3	96.5	9.0	82.3
Queue Length 50th (m)	~251.7	9.5	29.1	~85.5
Queue Length 95th (m)	#332.9	#23.9	43.8	#151.0
Internal Link Dist (m)	420.5		138.5	31.9
Turn Bay Length (m)		42.0		50.0
Base Capacity (vph)	1127	74	1181	431
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.02	0.86	0.30	1.01

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 63 (63%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Haig Boulevard & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	728	309	58	314	261	130
Future Volume (vph)	728	309	58	314	261	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		6.5	6.5	6.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frpb, ped/bikes	0.99		1.00	1.00	0.99	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.95		1.00	1.00	0.95	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	1776		1785	1860	1723	
Flt Permitted	1.00		0.06	1.00	0.96	
Satd. Flow (perm)	1776		118	1860	1723	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	809	343	64	349	290	144
RTOR Reduction (vph)	0	0	0	0	18	0
Lane Group Flow (vph)	1152	0	64	349	416	0
Confl. Peds. (#/hr)		3	3			2
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	2	0	0	0	0	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	63.5		63.5	63.5	24.0	
Effective Green, g (s)	63.5		63.5	63.5	24.0	
Actuated g/C Ratio	0.64		0.64	0.64	0.24	
Clearance Time (s)	6.5		6.5	6.5	6.0	
Vehicle Extension (s)	5.0		5.0	5.0	5.0	
Lane Grp Cap (vph)	1127		74	1181	413	
v/s Ratio Prot	c0.65			0.19	c0.24	
v/s Ratio Perm			0.54			
v/c Ratio	1.02		0.86	0.29	1.00	
Uniform Delay, d1	18.2		14.7	8.1	38.0	
Progression Factor	0.64		1.00	1.00	1.00	
Incremental Delay, d2	30.0		71.5	0.6	45.9	
Delay (s)	41.7		86.3	8.8	83.9	
Level of Service	D		F	A	F	
Approach Delay (s/veh)	41.7			20.8	83.9	
Approach LOS	D			C	F	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	46.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	869	22	63	361	9	126
Future Vol, veh/h	869	22	63	361	9	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	30	-	30	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	945	24	68	392	10	137

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	969	0	1485	957
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	528	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	719	-	139	315
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	719	-	126	315
Mov Cap-2 Maneuver	-	-	-	-	126	-
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	539	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.6	25.6
HCM LOS			D

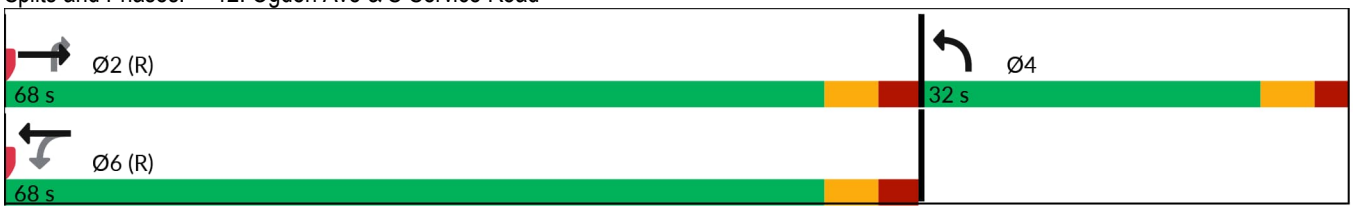
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	126	315	-	-	719	-
HCM Lane V/C Ratio	0.078	0.435	-	-	0.095	-
HCM Control Delay (s/veh)	36	24.9	-	-	10.5	-
HCM Lane LOS	E	C	-	-	B	-
HCM 95th %tile Q (veh)	0.2	2.1	-	-	0.3	-

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	733	47	465	50	81
Future Volume (vph)	733	47	465	50	81
Lane Group Flow (vph)	1012	57	567	61	99
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	24.5	30.0
Total Split (s)	68.0	68.0	68.0	32.0	68.0
Total Split (%)	68.0%	68.0%	68.0%	32.0%	68.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	6.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.73	0.21	0.40	0.27	0.08
Control Delay (s/veh)	11.6	3.7	3.0	43.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.6	3.7	3.0	43.0	0.9
Queue Length 50th (m)	95.9	1.5	17.1	11.5	0.0
Queue Length 95th (m)	125.0	m2.7	m20.8	21.5	3.1
Internal Link Dist (m)	34.3		420.5	99.2	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1368	267	1392	455	1209
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.21	0.41	0.13	0.08

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 44 (44%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	733	97	47	465	50	81
Future Volume (vph)	733	97	47	465	50	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1842		1785	1879	1785	1597
Flt Permitted	1.00		0.19	1.00	0.95	1.00
Satd. Flow (perm)	1842		361	1879	1785	1597
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	894	118	57	567	61	99
RTOR Reduction (vph)	3	0	0	0	0	26
Lane Group Flow (vph)	1009	0	57	567	61	73
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	74.1		74.1	74.1	12.4	74.1
Effective Green, g (s)	74.1		74.1	74.1	12.4	74.1
Actuated g/C Ratio	0.74		0.74	0.74	0.12	0.74
Clearance Time (s)	7.0		7.0	7.0	6.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1364		267	1392	221	1183
v/s Ratio Prot	c0.55			0.30	c0.03	
v/s Ratio Perm			0.16			0.05
v/c Ratio	0.73		0.21	0.40	0.27	0.06
Uniform Delay, d1	7.4		3.9	4.8	39.7	3.5
Progression Factor	1.00		0.50	0.47	1.00	1.00
Incremental Delay, d2	3.6		1.4	0.6	1.4	0.1
Delay (s)	11.0		3.4	2.9	41.1	3.6
Level of Service	B		A	A	D	A
Approach Delay (s/veh)	11.0			3.0	17.9	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

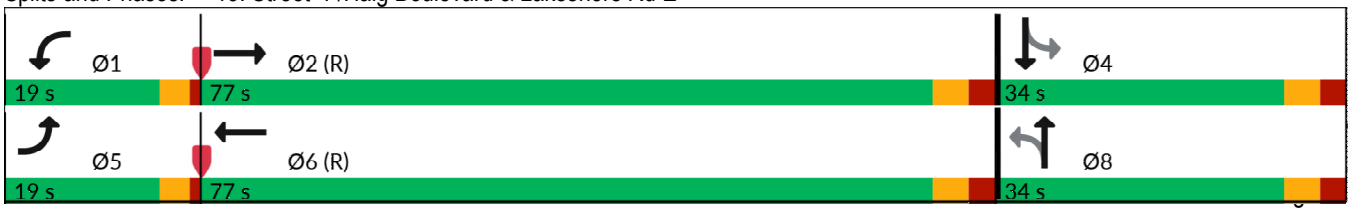
c Critical Lane Group

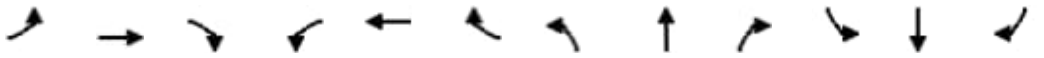
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	100	1674	190	1171	122	89	40	86
Future Volume (vph)	100	1674	190	1171	122	89	40	86
Lane Group Flow (vph)	105	1974	200	1269	0	494	0	216
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	9.0	27.0	9.0	27.0	34.0	34.0	34.0	34.0
Total Split (s)	19.0	77.0	19.0	77.0	34.0	34.0	34.0	34.0
Total Split (%)	14.6%	59.2%	14.6%	59.2%	26.2%	26.2%	26.2%	26.2%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	1.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.56	0.98	0.97	0.62		1.64		0.77
Control Delay (s/veh)	67.3	46.1	113.9	21.3		333.6		63.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	67.3	46.1	113.9	21.3		333.6		63.1
Queue Length 50th (m)	27.1	250.8	54.6	113.6		~184.2		50.1
Queue Length 95th (m)	47.0	#313.7	#104.8	136.0		#254.2		#90.6
Internal Link Dist (m)		221.2		587.4		160.2		410.7
Turn Bay Length (m)	50.0		75.0					
Base Capacity (vph)	205	2001	205	2040		301		277
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.51	0.99	0.98	0.62		1.64		0.78

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Street "I"/Haig Boulevard & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	1674	201	190	1171	34	122	89	258	40	86	79
Future Volume (vph)	100	1674	201	190	1171	34	122	89	258	40	86	79
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	
Lane Util. Factor	1.00	*1.00		1.00	*1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.98		1.00	0.99			0.92			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1785	3651		1785	3658			1689			1736	
Flt Permitted	0.95	1.00		0.95	1.00			0.72			0.68	
Satd. Flow (perm)	1785	3651		1785	3658			1244			1209	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	1762	212	200	1233	36	128	94	272	42	91	83
RTOR Reduction (vph)	0	8	0	0	2	0	0	34	0	0	17	0
Lane Group Flow (vph)	105	1966	0	200	1267	0	0	460	0	0	199	0
Confl. Peds. (#/hr)	5		5	5		5	2		3	3		2
Confl. Bikes (#/hr)						2			3			1
Heavy Vehicles (%)	0%	1%	0%	0%	2%	9%	0%	0%	1%	3%	0%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	13.5	71.0		15.0	72.5			28.0			28.0	
Effective Green, g (s)	13.5	71.0		15.0	72.5			28.0			28.0	
Actuated g/C Ratio	0.10	0.55		0.12	0.56			0.22			0.22	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	185	1994		205	2040			267			260	
v/s Ratio Prot	0.06	c0.54		c0.11	0.35							
v/s Ratio Perm								c0.37			0.16	
v/c Ratio	0.56	0.98		0.97	0.62			1.72			0.76	
Uniform Delay, d1	55.4	29.0		57.3	19.4			50.9			47.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	6.4	17.1		55.9	1.4			341.0			14.6	
Delay (s)	61.8	46.1		113.2	20.8			392.0			62.5	
Level of Service	E	D		F	C			F			E	
Approach Delay (s/veh)		46.9			33.4			392.0			62.5	
Approach LOS		D			C			F			E	

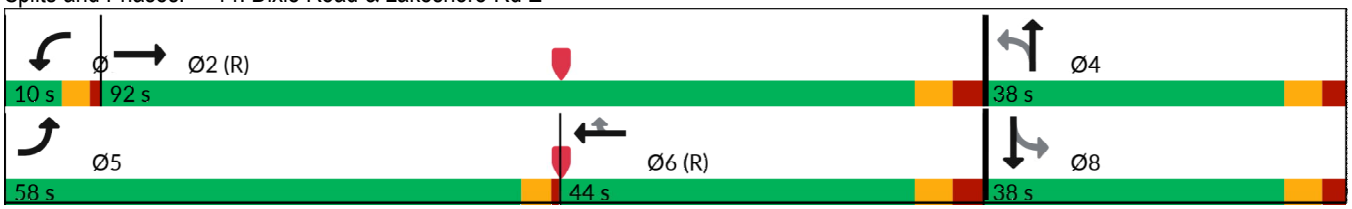
Intersection Summary			
HCM 2000 Control Delay (s/veh)	83.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	117.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

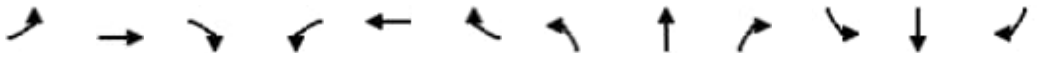
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT	Ø1
Lane Configurations									
Traffic Volume (vph)	718	1217	889	182	2	2	147	12	
Future Volume (vph)	718	1217	889	182	2	2	147	12	
Lane Group Flow (vph)	748	1291	926	190	0	4	153	515	
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm	NA	
Protected Phases	5	2	6			4		8	1
Permitted Phases				6	4		8		
Detector Phase	5	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.0
Minimum Split (s)	9.0	40.0	40.0	40.0	24.5	24.5	37.5	37.5	9.0
Total Split (s)	58.0	92.0	44.0	44.0	38.0	38.0	38.0	38.0	10.0
Total Split (%)	41.4%	65.7%	31.4%	31.4%	27.1%	27.1%	27.1%	27.1%	7%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	3.0	3.0	3.0	2.5	2.5	2.5	2.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0	7.0	7.0	7.0		6.5	6.5	6.5	
Lead/Lag	Lead	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
v/c Ratio	0.95	0.47	0.96	0.38		0.02	0.64	0.76	
Control Delay (s/veh)	62.0	8.8	71.5	18.0		44.5	66.0	12.5	
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	62.0	8.8	71.5	18.0		44.5	66.0	12.5	
Queue Length 50th (m)	209.2	69.4	133.8	15.4		1.0	42.0	3.2	
Queue Length 95th (m)	#324.8	101.0	#175.3	38.4		4.4	62.6	39.8	
Internal Link Dist (m)		587.4	514.0			58.7		175.6	
Turn Bay Length (m)	300.0			60.0			30.0		
Base Capacity (vph)	780	2726	964	488		239	316	736	
Starvation Cap Reductn	0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0	0		0	0	0	
Reduced v/c Ratio	0.96	0.47	0.96	0.39		0.02	0.48	0.70	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	718	1217	22	0	889	182	2	2	0	147	12	482
Future Volume (vph)	718	1217	22	0	889	182	2	2	0	147	12	482
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0			7.0	7.0		6.5		6.5	6.5	
Lane Util. Factor	1.00	*1.00			*1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.96		1.00		1.00	0.97	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.99		1.00	1.00	
Frt	1.00	0.99			1.00	0.85		1.00		1.00	0.85	
Flt Protected	0.95	1.00			1.00	1.00		0.97		0.95	1.00	
Satd. Flow (prot)	1767	3710			3648	1507		1832		1767	1541	
Flt Permitted	0.95	1.00			1.00	1.00		0.56		0.75	1.00	
Satd. Flow (perm)	1767	3710			3648	1507		1063		1405	1541	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	748	1268	23	0	926	190	2	2	0	153	12	502
RTOR Reduction (vph)	0	1	0	0	0	90	0	0	0	0	417	0
Lane Group Flow (vph)	748	1290	0	0	926	100	0	4	0	153	98	0
Confl. Peds. (#/hr)	7		1	1		7	4					4
Confl. Bikes (#/hr)						2			1			3
Heavy Vehicles (%)	1%	1%	0%	0%	3%	2%	0%	0%	0%	1%	0%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases						6	4			8		
Actuated Green, G (s)	61.9	102.9			37.0	37.0		23.6		23.6	23.6	
Effective Green, g (s)	61.9	102.9			37.0	37.0		23.6		23.6	23.6	
Actuated g/C Ratio	0.44	0.74			0.26	0.26		0.17		0.17	0.17	
Clearance Time (s)	4.0	7.0			7.0	7.0		6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0			5.0	5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	781	2726			964	398		179		236	259	
v/s Ratio Prot	c0.42	0.35			c0.25						0.06	
v/s Ratio Perm						0.07		0.00		c0.11		
v/c Ratio	0.95	0.47			0.96	0.25		0.02		0.64	0.37	
Uniform Delay, d1	37.7	7.5			50.7	40.5		48.5		54.3	51.6	
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	22.6	0.5			20.8	1.5		0.1		8.1	1.9	
Delay (s)	60.4	8.1			71.6	42.1		48.6		62.4	53.5	
Level of Service	E	A			E	D		D		E	D	
Approach Delay (s/veh)		27.3			66.6			48.6			55.6	
Approach LOS		C			E			D			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	43.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	112.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	1	29	4	2	3	49	204	3	1	163	27
Future Vol, veh/h	30	1	29	4	2	3	49	204	3	1	163	27
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	14	0	0	33	0	0	0	0	0	0
Mvmt Flow	36	1	35	5	2	4	59	246	4	1	196	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.5	8.2	10	9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	50%	44%	1%
Vol Thru, %	80%	2%	22%	85%
Vol Right, %	1%	48%	33%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	256	60	9	191
LT Vol	49	30	4	1
Through Vol	204	1	2	163
RT Vol	3	29	3	27
Lane Flow Rate	308	72	11	230
Geometry Grp	1	1	1	1
Degree of Util (X)	0.375	0.098	0.015	0.278
Departure Headway (Hd)	4.376	4.896	5.071	4.345
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	731	704	828
Service Time	2.397	2.934	3.115	2.367
HCM Lane V/C Ratio	0.374	0.098	0.016	0.278
HCM Control Delay, s/veh	10	8.5	8.2	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.8	0.3	0	1.1

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	389	1	17	350
Future Vol, veh/h	0	35	389	1	17	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	30	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	38	423	1	18	380

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	840	424	0	0	424	0
Stage 1	424	-	-	-	-	-
Stage 2	416	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	335	630	-	-	1135	-
Stage 1	660	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	328	630	-	-	1135	-
Mov Cap-2 Maneuver	328	-	-	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.1	0	0.4
HCM LOS	B		

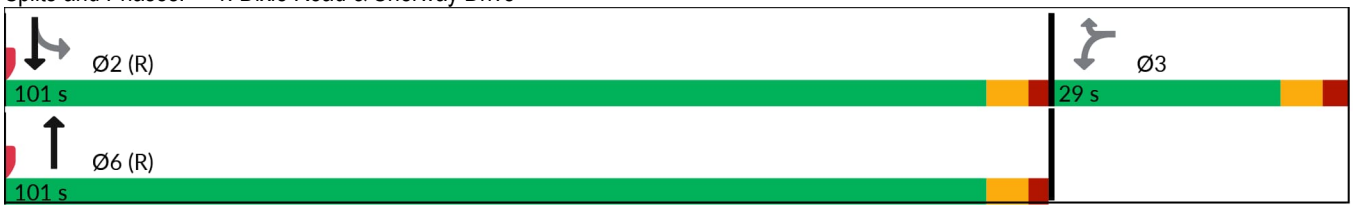
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	630	1135	-
HCM Lane V/C Ratio	-	-	-	0.06	0.016	-
HCM Control Delay (s/veh)	-	-	0	11.1	8.2	0
HCM Lane LOS	-	-	A	B	A	A
HCM 95th %tile Q (veh)	-	-	-	0.2	0.1	-

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	69	59	866	83	1387
Future Volume (vph)	69	59	866	83	1387
Lane Group Flow (vph)	73	62	975	87	1460
Turn Type	Perm	Perm	NA	Perm	NA
Protected Phases			6		2
Permitted Phases	3	3		2	
Detector Phase	3	3	6	2	2
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	28.6	28.6	25.0	25.0	25.0
Total Split (s)	29.0	29.0	101.0	101.0	101.0
Total Split (%)	22.3%	22.3%	77.7%	77.7%	77.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.0	6.0	6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.42	0.29	0.34	0.20	0.50
Control Delay (s/veh)	62.0	15.9	2.2	4.6	5.0
Queue Delay	0.0	0.0	0.1	0.0	0.3
Total Delay (s/veh)	62.0	15.9	2.3	4.6	5.3
Queue Length 50th (m)	18.9	0.0	15.2	4.5	55.5
Queue Length 95th (m)	34.0	13.6	22.3	11.0	80.2
Internal Link Dist (m)	91.7		117.1		171.7
Turn Bay Length (m)		30.0		50.0	
Base Capacity (vph)	305	326	2851	423	2877
Starvation Cap Reductn	0	0	740	0	0
Spillback Cap Reductn	0	0	0	0	698
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.19	0.46	0.21	0.67

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 27 (21%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: Dixie Road & Sherway Drive



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	69	59	866	60	83	1387
Future Volume (vph)	69	59	866	60	83	1387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	0.99	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1775	1597	3535		1767	3570
Flt Permitted	0.95	1.00	1.00		0.28	1.00
Satd. Flow (perm)	1775	1597	3535		525	3570
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	73	62	912	63	87	1460
RTOR Reduction (vph)	0	56	3	0	0	0
Lane Group Flow (vph)	73	6	972	0	87	1460
Confl. Peds. (#/hr)	3					
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			6			2
Permitted Phases	3	3			2	
Actuated Green, G (s)	12.6	12.6	104.8		104.8	104.8
Effective Green, g (s)	12.6	12.6	104.8		104.8	104.8
Actuated g/C Ratio	0.10	0.10	0.81		0.81	0.81
Clearance Time (s)	6.6	6.6	6.0		6.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	172	154	2849		423	2877
v/s Ratio Prot			0.28			c0.41
v/s Ratio Perm	c0.04	0.00			0.17	
v/c Ratio	0.42	0.03	0.34		0.20	0.50
Uniform Delay, d1	55.2	53.2	3.3		2.9	4.1
Progression Factor	1.00	1.00	0.55		1.00	1.00
Incremental Delay, d2	3.5	0.2	0.3		1.0	0.6
Delay (s)	58.7	53.4	2.1		4.0	4.7
Level of Service	E	D	A		A	A
Approach Delay (s/veh)	56.3		2.1			4.7
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

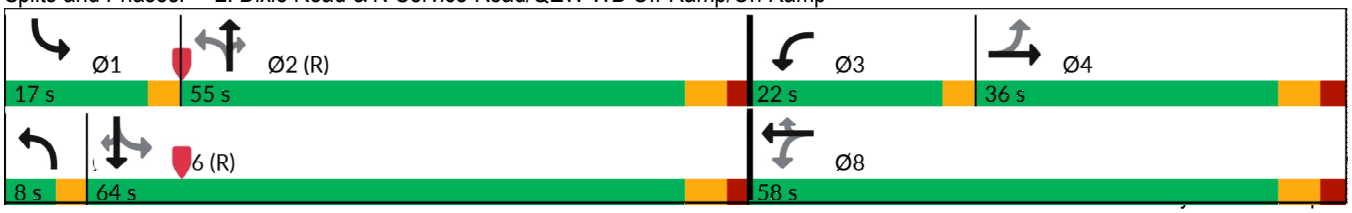
2: Dixie Road & N Service Road/QEW WB Off-Ramp/On Ramp

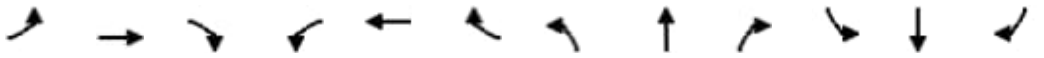
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	15	86	610	380	102	414	107	420	1368	5
Future Volume (vph)	25	15	86	610	380	102	414	107	420	1368	5
Lane Group Flow (vph)	28	208	97	685	427	115	465	120	472	1537	6
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	33.6	33.6	9.0	33.6	33.6	8.0	27.0	27.0	9.0	26.0	26.0
Total Split (s)	36.0	36.0	22.0	58.0	58.0	8.0	55.0	55.0	17.0	64.0	64.0
Total Split (%)	27.7%	27.7%	16.9%	44.6%	44.6%	6.2%	42.3%	42.3%	13.1%	49.2%	49.2%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	0.0	2.6	2.6	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.49	0.35	0.21	0.93	0.53	0.81	0.34	0.17	0.91	0.96	0.00
Control Delay (s/veh)	71.3	8.4	24.3	59.7	10.2	65.9	30.1	8.3	43.5	47.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2	0.0
Total Delay (s/veh)	71.3	8.4	24.3	59.7	10.2	65.9	30.1	8.3	43.5	63.9	0.0
Queue Length 50th (m)	6.3	3.3	15.8	173.9	19.7	17.0	41.6	4.8	63.6	210.1	0.0
Queue Length 95th (m)	#21.9	22.8	27.3	#246.8	49.1	#49.5	54.7	13.0	#130.7	#258.1	m0.0
Internal Link Dist (m)		121.9		96.5			233.5			117.1	
Turn Bay Length (m)	100.0		75.0			100.0		50.0	75.0		50.0
Base Capacity (vph)	57	583	508	742	809	141	1345	676	516	1592	757
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	106	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.36	0.19	0.92	0.53	0.82	0.35	0.18	0.91	1.03	0.01

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 38 (29%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
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.

Splits and Phases: 2: Dixie Road & N Service Road/QEW WB Off-Ramp/On Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	15	170	86	610	380	102	414	107	420	1368	5
Future Volume (vph)	25	15	170	86	610	380	102	414	107	420	1368	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1785	1620		1785	1879	1566	1785	3570	1597	1785	3570	1597
Flt Permitted	0.11	1.00		0.48	1.00	1.00	0.08	1.00	1.00	0.39	1.00	1.00
Satd. Flow (perm)	210	1620		915	1879	1566	153	3570	1597	740	3570	1597
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	28	17	191	97	685	427	115	465	120	472	1537	6
RTOR Reduction (vph)	0	138	0	0	0	192	0	0	75	0	0	3
Lane Group Flow (vph)	28	70	0	97	685	235	115	465	45	472	1537	3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	35.8	35.8		50.6	50.6	50.6	54.8	49.0	49.0	66.8	58.0	58.0
Effective Green, g (s)	35.8	35.8		50.6	50.6	50.6	54.8	49.0	49.0	66.8	58.0	58.0
Actuated g/C Ratio	0.28	0.28		0.39	0.39	0.39	0.42	0.38	0.38	0.51	0.45	0.45
Clearance Time (s)	6.6	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	57	446		435	731	609	137	1345	601	499	1592	712
v/s Ratio Prot		0.04		0.02	c0.36		0.04	0.13		c0.11	c0.43	
v/s Ratio Perm	0.13			0.07		0.15	0.31		0.03	0.38		0.00
v/c Ratio	0.49	0.15		0.22	0.93	0.38	0.83	0.34	0.07	0.94	0.96	0.00
Uniform Delay, d1	39.4	35.6		25.9	38.1	28.5	31.2	29.0	25.9	26.4	35.0	19.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.34	1.01	1.71	0.87	0.92	1.00
Incremental Delay, d2	13.2	0.3		0.5	19.9	0.8	35.8	0.6	0.2	26.6	15.1	0.0
Delay (s)	52.7	36.0		26.5	58.1	29.3	77.9	29.9	44.8	49.7	47.3	19.9
Level of Service	D	D		C	E	C	E	C	D	D	D	B
Approach Delay (s/veh)		37.9			45.4			40.4			47.8	
Approach LOS		D			D			D			D	

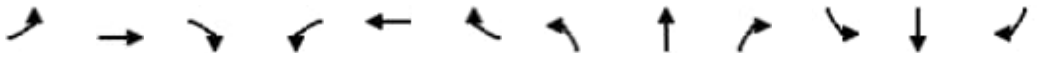
Intersection Summary			
HCM 2000 Control Delay (s/veh)	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBR	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	140	20	147	60	1194	15	1247
Future Volume (vph)	140	20	147	60	1194	15	1247
Lane Group Flow (vph)	85	85	156	64	1275	16	1327
Turn Type	Split	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4	4			2		6
Permitted Phases			4	8		6	
Detector Phase	4	4	4	8	2	6	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	31.0	31.0	31.0	31.0	68.0	68.0	68.0
Total Split (%)	23.8%	23.8%	23.8%	23.8%	52.3%	52.3%	52.3%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	1.3	1.3	1.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.47	0.46	0.50	0.28	0.35	0.06	0.52
Control Delay (s/veh)	62.2	61.8	13.5	3.1	4.0	2.6	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	62.2	61.8	13.5	3.1	4.1	2.6	2.4
Queue Length 50th (m)	23.0	23.0	0.0	0.0	27.3	0.4	15.9
Queue Length 95th (m)	40.0	40.0	20.1	0.0	38.3	m0.6	m22.2
Internal Link Dist (m)		138.8			128.3		133.8
Turn Bay Length (m)			75.0	7.5		100.0	
Base Capacity (vph)	319	324	427	411	3622	249	2523
Starvation Cap Reductn	0	0	0	0	1170	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.26	0.37	0.16	0.52	0.06	0.53

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 54 (42%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Dixie Road & QEW EB Off-Ramp/S Service Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	20	147	0	0	60	0	1194	5	15	1247	0
Future Volume (vph)	140	20	147	0	0	60	0	1194	5	15	1247	0
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		5.0		5.0	5.0	
Lane Util. Factor	0.95	0.95	1.00			1.00		0.91		1.00	0.95	
Frt	1.00	1.00	0.85			0.85		0.99		1.00	1.00	
Flt Protected	0.95	0.96	1.00			1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1662	1686	1566			1566		5026		1750	3500	
Flt Permitted	0.95	0.96	1.00			1.00		1.00		0.18	1.00	
Satd. Flow (perm)	1662	1686	1566			1566		5026		346	3500	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	149	21	156	0	0	64	0	1270	5	16	1327	0
RTOR Reduction (vph)	0	0	139	0	0	61	0	0	0	0	0	0
Lane Group Flow (vph)	85	85	17	0	0	3	0	1275	0	16	1327	0
Turn Type	Split	NA	Perm	Perm		Perm		NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4	8		8				6		
Actuated Green, G (s)	14.1	14.1	14.1			6.4		92.5		92.5	92.5	
Effective Green, g (s)	14.1	14.1	14.1			6.4		92.5		92.5	92.5	
Actuated g/C Ratio	0.11	0.11	0.11			0.05		0.71		0.71	0.71	
Clearance Time (s)	6.0	6.0	6.0			6.0		5.0		5.0	5.0	
Vehicle Extension (s)	5.0	5.0	5.0			5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	180	182	169			77		3576		246	2490	
v/s Ratio Prot	c0.05	0.05						0.25			c0.38	
v/s Ratio Perm			0.01			c0.00				0.05		
v/c Ratio	0.47	0.46	0.10			0.04		0.35		0.06	0.53	
Uniform Delay, d1	54.4	54.4	52.2			58.8		7.2		5.6	8.7	
Progression Factor	1.00	1.00	1.00			1.00		0.50		0.32	0.22	
Incremental Delay, d2	4.0	3.9	0.5			0.4		0.2		0.2	0.3	
Delay (s)	58.5	58.3	52.7			59.3		3.8		2.0	2.3	
Level of Service	E	E	D			E		A		A	A	
Approach Delay (s/veh)		55.7			59.3			3.8			2.3	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

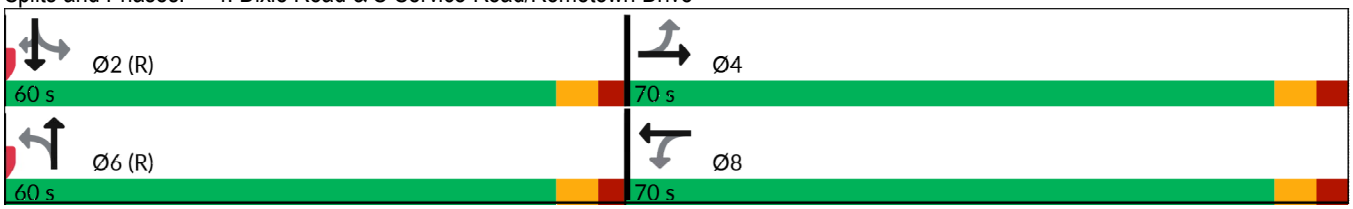
c Critical Lane Group

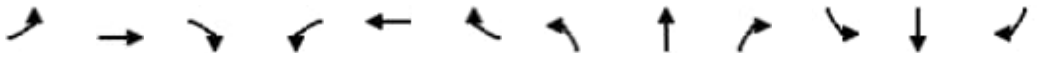
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	513	10	20	1	68	672	89	828	391
Future Volume (vph)	513	10	20	1	68	672	89	828	391
Lane Group Flow (vph)	576	44	0	67	76	830	100	930	439
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.1	41.1	41.1	41.1	35.6	35.6	35.6	35.6	35.6
Total Split (s)	70.0	70.0	70.0	70.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	53.8%	53.8%	53.8%	53.8%	46.2%	46.2%	46.2%	46.2%	46.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.93	0.05		0.09	0.48	0.54	0.52	0.60	0.46
Control Delay (s/veh)	55.8	7.8		8.1	20.5	9.7	17.7	9.4	1.9
Queue Delay	0.0	0.0		0.0	0.0	0.7	0.0	0.3	0.3
Total Delay (s/veh)	55.8	7.8		8.1	20.5	10.5	17.7	9.8	2.3
Queue Length 50th (m)	137.2	1.5		3.2	5.2	28.5	7.6	41.3	0.0
Queue Length 95th (m)	#209.4	8.0		11.3	26.1	27.8	26.0	61.2	1.8
Internal Link Dist (m)		127.8		67.7		95.9		128.3	
Turn Bay Length (m)					50.0		100.0		
Base Capacity (vph)	648	823		772	157	1526	191	1543	939
Starvation Cap Reductn	0	0		0	0	368	0	205	145
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	0.89	0.05		0.09	0.48	0.72	0.52	0.70	0.55

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 71 (55%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Dixie Road & S Service Road/Rometown Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	513	10	29	20	1	39	68	672	67	89	828	391
Future Volume (vph)	513	10	29	20	1	39	68	672	67	89	828	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.88			0.91		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1785	1668			1660		1785	3518		1785	3570	1597
Flt Permitted	0.71	1.00			0.91		0.19	1.00		0.23	1.00	1.00
Satd. Flow (perm)	1340	1668			1550		362	3518		444	3570	1597
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	576	11	33	22	1	44	76	755	75	100	930	439
RTOR Reduction (vph)	0	18	0	0	24	0	0	6	0	0	0	249
Lane Group Flow (vph)	576	26	0	0	43	0	76	824	0	100	930	190
Heavy Vehicles (%)	0%	0%	0%	0%	100%	0%	0%	0%	1%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	60.1	60.1			60.1		56.2	56.2		56.2	56.2	56.2
Effective Green, g (s)	60.1	60.1			60.1		56.2	56.2		56.2	56.2	56.2
Actuated g/C Ratio	0.46	0.46			0.46		0.43	0.43		0.43	0.43	0.43
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	619	771			716		156	1520		191	1543	690
v/s Ratio Prot		0.02						0.23			c0.26	
v/s Ratio Perm	c0.43				0.03		0.21			0.23		0.12
v/c Ratio	0.93	0.03			0.06		0.48	0.54		0.52	0.60	0.27
Uniform Delay, d1	32.9	19.0			19.3		26.5	27.3		27.0	28.3	23.7
Progression Factor	1.00	1.00			1.00		0.34	0.30		0.29	0.27	0.22
Incremental Delay, d2	21.4	0.0			0.0		10.0	1.3		8.6	1.5	0.8
Delay (s)	54.4	19.1			19.4		19.1	9.6		16.6	9.2	6.2
Level of Service	D	B			B		B	A		B	A	A
Approach Delay (s/veh)		51.9			19.4			10.4			8.8	
Approach LOS		D			B			B			A	

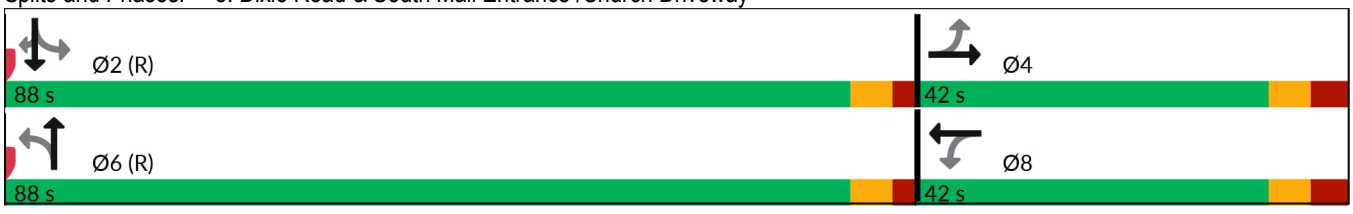
Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

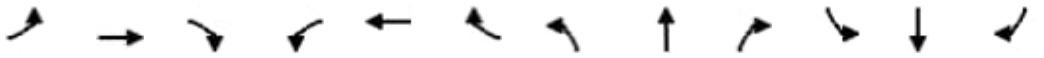
Lane Group	EBL	EBT	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	67	0	46	739	725	140	
Future Volume (vph)	67	0	46	739	725	140	
Lane Group Flow (vph)	67	80	0	872	806	156	
Turn Type	Perm	NA	Perm	NA	NA	Perm	
Protected Phases		4		6	2		8
Permitted Phases	4		6			2	
Detector Phase	4	4	6	6	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	88.0	88.0	88.0	88.0	42.0
Total Split (%)	32.3%	32.3%	67.7%	67.7%	67.7%	67.7%	32%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	7.7	7.7		6.2	6.2	6.2	
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio	0.46	0.35		0.37	0.29	0.12	
Control Delay (s/veh)	64.0	17.6		1.1	0.4	0.1	
Queue Delay	0.0	0.0		0.0	0.1	0.0	
Total Delay (s/veh)	64.0	17.6		1.1	0.5	0.1	
Queue Length 50th (m)	18.2	1.7		5.2	1.2	0.0	
Queue Length 95th (m)	33.5	17.4		m5.1	1.6	0.0	
Internal Link Dist (m)		53.7		197.5	95.9		
Turn Bay Length (m)							
Base Capacity (vph)	352	443		2330	2774	1241	
Starvation Cap Reductn	0	0		0	1034	0	
Spillback Cap Reductn	0	0		0	0	0	
Storage Cap Reductn	0	0		0	0	0	
Reduced v/c Ratio	0.19	0.18		0.37	0.46	0.13	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 81 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & South Mall Entrance /Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	0	66	0	0	0	46	739	0	0	725	140
Future Volume (vph)	67	0	66	0	0	0	46	739	0	0	725	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7	7.7						6.2			6.2	6.2
Lane Util. Factor	0.95	0.95						0.95			0.95	1.00
Frpb, ped/bikes	1.00	0.98						1.00			1.00	0.97
Flpb, ped/bikes	0.99	0.99						0.99			1.00	1.00
Frt	1.00	0.86						1.00			1.00	0.85
Flt Protected	0.95	0.99						0.99			1.00	1.00
Satd. Flow (prot)	1677	1513						3525			3535	1539
Flt Permitted	0.75	0.97						0.84			1.00	1.00
Satd. Flow (perm)	1337	1478						2970			3535	1539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	74	0	73	0	0	0	51	821	0	0	806	156
RTOR Reduction (vph)	0	65	0	0	0	0	0	0	0	0	0	34
Lane Group Flow (vph)	67	15	0	0	0	0	0	872	0	0	806	122
Confl. Peds. (#/hr)	1		2	2		1	10		4	4		10
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	1%
Turn Type	Perm	NA					Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	14.1	14.1						102.0			102.0	102.0
Effective Green, g (s)	14.1	14.1						102.0			102.0	102.0
Actuated g/C Ratio	0.11	0.11						0.78			0.78	0.78
Clearance Time (s)	7.7	7.7						6.2			6.2	6.2
Vehicle Extension (s)	5.0	5.0						5.0			5.0	5.0
Lane Grp Cap (vph)	145	160						2330			2773	1207
v/s Ratio Prot											0.23	
v/s Ratio Perm	c0.05	0.01						c0.29				0.08
v/c Ratio	0.46	0.09						0.37			0.29	0.10
Uniform Delay, d1	54.3	52.1						4.2			3.9	3.2
Progression Factor	1.00	1.00						0.20			0.04	0.00
Incremental Delay, d2	4.8	0.5						0.2			0.2	0.1
Delay (s)	59.2	52.7						1.1			0.3	0.1
Level of Service	E	D						A			A	A
Approach Delay (s/veh)		55.6			0.0			1.1			0.3	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	64	42	424	435	2
Future Vol, veh/h	0	64	42	424	435	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	0	65	42	428	439	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	440	441	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	621	1130	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	621	1130	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.5	0.7	0
HCM LOS	B		

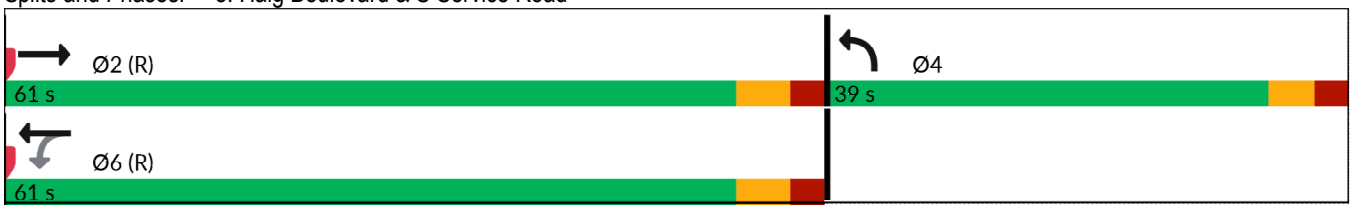
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1130	-	621	-	-
HCM Lane V/C Ratio	0.038	-	0.104	-	-
HCM Control Delay (s/veh)	8.3	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q (veh)	0.1	-	0.3	-	-

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	490	30	408	280
Future Volume (vph)	490	30	408	280
Lane Group Flow (vph)	957	31	421	435
Turn Type	NA	Perm	NA	Prot
Protected Phases	2		6	4
Permitted Phases		6		
Detector Phase	2	6	6	4
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	35.5	14.0
Total Split (s)	61.0	61.0	61.0	39.0
Total Split (%)	61.0%	61.0%	61.0%	39.0%
Yellow Time (s)	4.0	4.0	4.0	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	0.93	0.29	0.38	0.83
Control Delay (s/veh)	29.6	21.7	13.1	45.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.6	21.7	13.1	45.2
Queue Length 50th (m)	174.6	3.1	44.7	76.3
Queue Length 95th (m)	#278.8	11.8	70.4	111.1
Internal Link Dist (m)	420.5		194.3	28.1
Turn Bay Length (m)		42.0		
Base Capacity (vph)	1020	105	1099	591
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.94	0.30	0.38	0.74

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 6 (6%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Haig Boulevard & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	490	438	30	408	280	142
Future Volume (vph)	490	438	30	408	280	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		6.5	6.5	6.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.93		1.00	1.00	0.95	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	1745		1785	1879	1736	
Flt Permitted	1.00		0.09	1.00	0.96	
Satd. Flow (perm)	1745		180	1879	1736	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	505	452	31	421	289	146
RTOR Reduction (vph)	0	0	0	0	19	0
Lane Group Flow (vph)	957	0	31	421	416	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	2	0	0	0	0	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	58.5		58.5	58.5	29.0	
Effective Green, g (s)	58.5		58.5	58.5	29.0	
Actuated g/C Ratio	0.59		0.59	0.59	0.29	
Clearance Time (s)	6.5		6.5	6.5	6.0	
Vehicle Extension (s)	5.0		5.0	5.0	5.0	
Lane Grp Cap (vph)	1020		105	1099	503	
v/s Ratio Prot	c0.55			0.22	c0.24	
v/s Ratio Perm			0.17			
v/c Ratio	0.93		0.29	0.38	0.82	
Uniform Delay, d1	19.0		10.4	11.0	33.1	
Progression Factor	0.67		1.00	1.00	1.00	
Incremental Delay, d2	13.5		7.0	1.0	11.9	
Delay (s)	26.4		17.4	12.1	45.0	
Level of Service	C		B	B	D	
Approach Delay (s/veh)	26.4			12.4	45.0	
Approach LOS	C			B	D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	562	69	81	342	95	67
Future Vol, veh/h	562	69	81	342	95	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	30	-	30	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	611	75	88	372	103	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	686	0	1197	649
Stage 1	-	-	-	-	649	-
Stage 2	-	-	-	-	548	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	917	-	207	473
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	917	-	187	473
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	527	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.8	32.6
HCM LOS			D

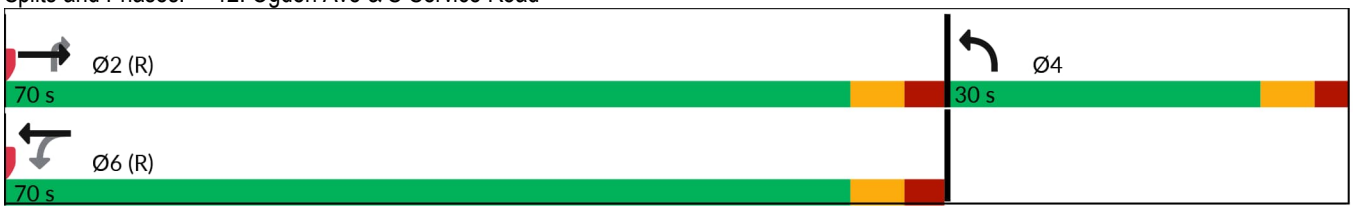
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	187	473	-	-	917	-
HCM Lane V/C Ratio	0.552	0.154	-	-	0.096	-
HCM Control Delay (s/veh)	45.7	14	-	-	9.3	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q (veh)	2.9	0.5	-	-	0.3	-

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	803	58	505	29	51
Future Volume (vph)	803	58	505	29	51
Lane Group Flow (vph)	956	65	567	33	57
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	24.5	30.0
Total Split (s)	70.0	70.0	70.0	30.0	70.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	6.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.68	0.20	0.40	0.15	0.04
Control Delay (s/veh)	9.8	3.5	3.1	41.4	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.8	3.5	3.1	41.4	1.0
Queue Length 50th (m)	84.5	2.0	18.7	6.1	0.0
Queue Length 95th (m)	122.0	m3.6	23.5	15.3	2.7
Internal Link Dist (m)	34.3		420.5	99.2	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1387	310	1399	419	1181
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.21	0.41	0.08	0.05

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	803	48	58	505	29	51
Future Volume (vph)	803	48	58	505	29	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1862		1784	1879	1785	1566
Flt Permitted	1.00		0.22	1.00	0.95	1.00
Satd. Flow (perm)	1862		416	1879	1785	1566
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	902	54	65	567	33	57
RTOR Reduction (vph)	2	0	0	0	0	15
Lane Group Flow (vph)	954	0	65	567	33	42
Confl. Peds. (#/hr)		2	2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	74.5		74.5	74.5	12.0	74.5
Effective Green, g (s)	74.5		74.5	74.5	12.0	74.5
Actuated g/C Ratio	0.75		0.75	0.75	0.12	0.75
Clearance Time (s)	7.0		7.0	7.0	6.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1387		309	1399	214	1166
v/s Ratio Prot	c0.51			0.30	c0.02	
v/s Ratio Perm			0.16			0.03
v/c Ratio	0.68		0.21	0.40	0.15	0.03
Uniform Delay, d1	6.6		3.8	4.6	39.4	3.3
Progression Factor	1.00		0.53	0.49	1.00	1.00
Incremental Delay, d2	2.8		1.3	0.7	0.7	0.0
Delay (s)	9.4		3.3	3.0	40.1	3.4
Level of Service	A		A	A	D	A
Approach Delay (s/veh)	9.4			3.0	16.8	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

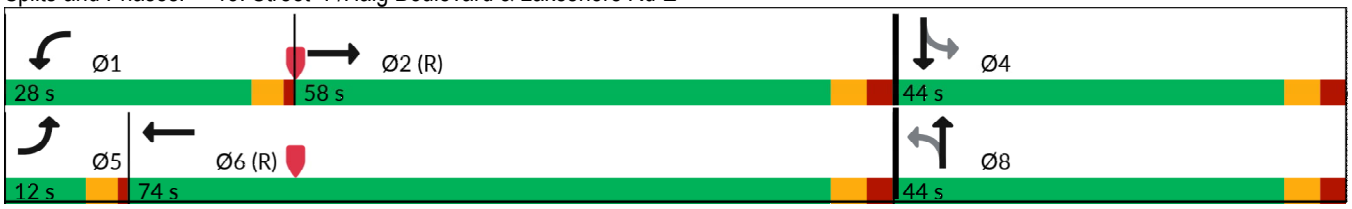
c Critical Lane Group

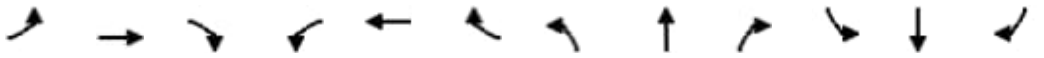
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	97	1202	301	1720	328	108	31	134
Future Volume (vph)	97	1202	301	1720	328	108	31	134
Lane Group Flow (vph)	101	1430	314	1858	0	711	0	280
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	9.0	27.0	9.0	27.0	34.0	34.0	34.0	34.0
Total Split (s)	12.0	58.0	28.0	74.0	44.0	44.0	44.0	44.0
Total Split (%)	9.2%	44.6%	21.5%	56.9%	33.8%	33.8%	33.8%	33.8%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	1.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.92	0.97	0.95	0.95		2.30		0.57
Control Delay (s/veh)	128.4	56.6	75.7	17.7		621.6		41.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	128.4	56.6	75.7	17.7		621.6		41.0
Queue Length 50th (m)	27.6	186.4	76.2	248.9		~311.0		58.6
Queue Length 95th (m)	#63.9	#236.9	m70.7	m231.1		#388.9		89.5
Internal Link Dist (m)		221.2		587.4		160.2		410.7
Turn Bay Length (m)	50.0		75.0					
Base Capacity (vph)	109	1465	329	1950		308		485
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.93	0.98	0.95	0.95		2.31		0.58

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ 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.

Splits and Phases: 13: Street "I"/Haig Boulevard & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	1202	171	301	1720	63	328	108	246	31	134	104
Future Volume (vph)	97	1202	171	301	1720	63	328	108	246	31	134	104
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	
Lane Util. Factor	1.00	*1.00		1.00	*1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Frt	1.00	0.98		1.00	0.99			0.95			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.99	
Satd. Flow (prot)	1785	3641		1785	3725			1700			1747	
Flt Permitted	0.95	1.00		0.95	1.00			0.57			0.91	
Satd. Flow (perm)	1785	3641		1785	3725			1002			1599	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	101	1252	178	314	1792	66	342	112	256	32	140	108
RTOR Reduction (vph)	0	9	0	0	2	0	0	16	0	0	18	0
Lane Group Flow (vph)	101	1421	0	314	1856	0	0	695	0	0	262	0
Confl. Peds. (#/hr)	16		4	4		16	1		10	10		1
Confl. Bikes (#/hr)						2			9			2
Heavy Vehicles (%)	0%	1%	0%	0%	0%	3%	0%	0%	4%	0%	0%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	8.0	52.0		24.0	68.0			38.0			38.0	
Effective Green, g (s)	8.0	52.0		24.0	68.0			38.0			38.0	
Actuated g/C Ratio	0.06	0.40		0.18	0.52			0.29			0.29	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	109	1456		329	1948			292			467	
v/s Ratio Prot	0.06	0.39		c0.18	c0.50							
v/s Ratio Perm								c0.69			0.16	
v/c Ratio	0.92	0.97		0.95	0.95			2.38			0.56	
Uniform Delay, d1	60.7	38.3		52.4	29.4			45.9			38.9	
Progression Factor	1.00	1.00		1.33	0.52			1.00			1.00	
Incremental Delay, d2	64.7	18.5		7.2	1.5			632.1			2.5	
Delay (s)	125.4	56.8		77.0	16.9			678.1			41.4	
Level of Service	F	E		E	B			F			D	
Approach Delay (s/veh)		61.4			25.5			678.1			41.4	
Approach LOS		E			C			F			D	

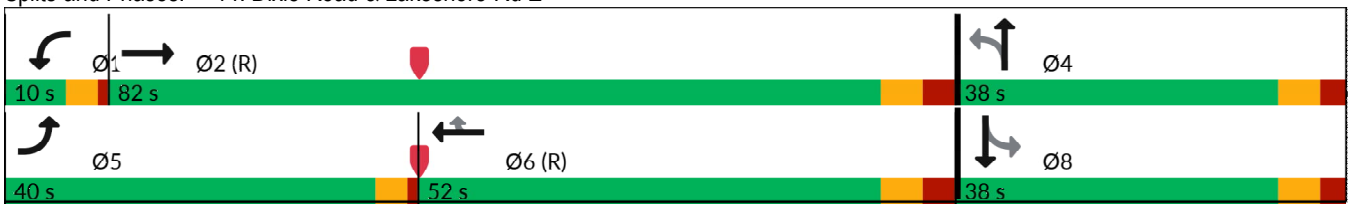
Intersection Summary			
HCM 2000 Control Delay (s/veh)	137.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	128.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

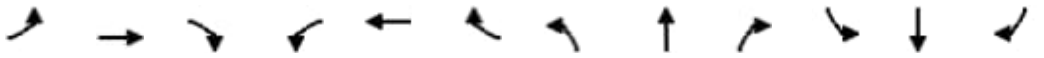
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	540	931	2	1446	191	3	1	210	5
Future Volume (vph)	540	931	2	1446	191	3	1	210	5
Lane Group Flow (vph)	574	995	2	1538	203	0	7	223	686
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2	1	6			4		8
Permitted Phases					6	4		8	
Detector Phase	5	2	1	6	6	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	9.0	40.0	9.0	40.0	40.0	24.5	24.5	37.5	37.5
Total Split (s)	40.0	82.0	10.0	52.0	52.0	38.0	38.0	38.0	38.0
Total Split (%)	30.8%	63.1%	7.7%	40.0%	40.0%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	4.0	7.0	7.0		6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
v/c Ratio	1.17	0.41	0.02	1.14	0.34		0.03	0.69	0.96
Control Delay (s/veh)	112.8	3.2	60.0	112.0	17.7		30.8	34.1	50.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	112.8	3.2	60.0	112.0	17.7		30.8	34.1	50.4
Queue Length 50th (m)	~180.6	6.3	0.5	~248.6	20.1		0.8	50.8	156.0
Queue Length 95th (m)	m#159.6	m42.5	3.5	#290.9	41.2		5.1	83.6	#197.9
Internal Link Dist (m)		587.4		514.0			58.7		175.6
Turn Bay Length (m)	300.0		10.0		60.0			30.0	
Base Capacity (vph)	489	2418	82	1346	597		223	339	723
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	1.17	0.41	0.02	1.14	0.34		0.03	0.66	0.95

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 80 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ 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.

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	931	5	2	1446	191	3	1	3	210	5	640
Future Volume (vph)	540	931	5	2	1446	191	3	1	3	210	5	640
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Lane Util. Factor	1.00	*1.00		1.00	*1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.93		0.99		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		0.99		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.94		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97		0.95	1.00	
Satd. Flow (prot)	1767	3717		1785	3758	1494		1509		1767	1565	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.59		0.75	1.00	
Satd. Flow (perm)	1767	3717		1785	3758	1494		911		1401	1565	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	574	990	5	2	1538	203	3	1	3	223	5	681
RTOR Reduction (vph)	0	0	0	0	0	62	0	2	0	0	350	0
Lane Group Flow (vph)	574	995	0	2	1538	141	0	5	0	223	336	0
Confl. Peds. (#/hr)	23		8	8		23	7					7
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%	0%	0%	33%	1%	0%	0%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases						6	4			8		
Actuated Green, G (s)	36.0	81.4		1.2	46.6	46.6		29.9		29.9	29.9	
Effective Green, g (s)	36.0	81.4		1.2	46.6	46.6		29.9		29.9	29.9	
Actuated g/C Ratio	0.28	0.63		0.01	0.36	0.36		0.23		0.23	0.23	
Clearance Time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	489	2327		16	1347	535		209		322	359	
v/s Ratio Prot	c0.32	0.27		0.00	c0.41						c0.21	
v/s Ratio Perm						0.09		0.01		0.16		
v/c Ratio	1.17	0.42		0.12	1.14	0.26		0.02		0.69	0.93	
Uniform Delay, d1	46.9	12.4		63.8	41.6	29.5		38.7		45.8	49.1	
Progression Factor	0.71	0.27		1.00	1.00	1.00		1.00		0.49	1.54	
Incremental Delay, d2	80.3	0.0		7.2	73.1	1.1		0.0		7.7	31.8	
Delay (s)	114.1	3.4		71.1	114.8	30.7		38.8		30.4	107.9	
Level of Service	F	A		E	F	C		D		C	F	
Approach Delay (s/veh)		43.9			105.0			38.8			88.9	
Approach LOS		D			F			D			F	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	78.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	125.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	27	2	0	1	34	223	3	1	253	15
Future Vol, veh/h	13	0	27	2	0	1	34	223	3	1	253	15
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	7	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	0	33	2	0	1	41	272	4	1	309	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	8.4	10.1	10.1
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	33%	67%	0%
Vol Thru, %	86%	0%	0%	94%
Vol Right, %	1%	68%	33%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	40	3	269
LT Vol	34	13	2	1
Through Vol	223	0	0	253
RT Vol	3	27	1	15
Lane Flow Rate	317	49	4	328
Geometry Grp	1	1	1	1
Degree of Util (X)	0.386	0.067	0.005	0.394
Departure Headway (Hd)	4.383	4.949	5.301	4.324
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	723	674	833
Service Time	2.401	2.986	3.345	2.342
HCM Lane V/C Ratio	0.386	0.068	0.006	0.394
HCM Control Delay, s/veh	10.1	8.3	8.4	10.1
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.8	0.2	0	1.9

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	18	404	1	21	447
Future Vol, veh/h	2	18	404	1	21	447
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	20	439	1	23	486

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	972	440	0	0	440	0
Stage 1	440	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	280	617	-	-	1120	-
Stage 1	649	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	272	617	-	-	1120	-
Mov Cap-2 Maneuver	272	-	-	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	573	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.7	0	0.4
HCM LOS	B		

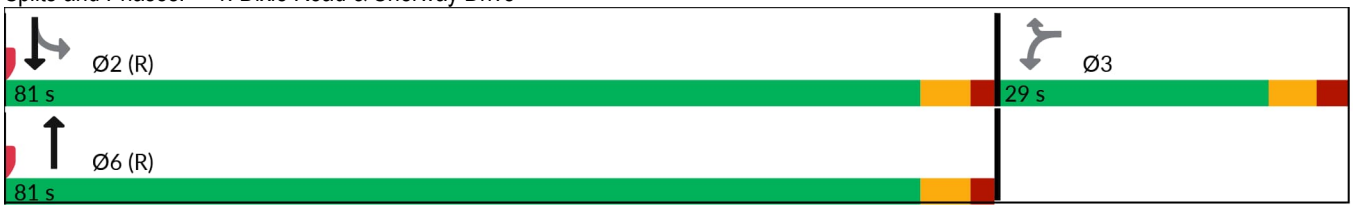
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	272	617	1120	-
HCM Lane V/C Ratio	-	-	0.008	0.032	0.02	-
HCM Control Delay (s/veh)	-	-	18.3	11	8.3	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q (veh)	-	-	0	0.1	0.1	-

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	51	51	842	68	954
Future Volume (vph)	51	51	842	68	954
Lane Group Flow (vph)	54	54	931	72	1004
Turn Type	Perm	Perm	NA	Perm	NA
Protected Phases			6		2
Permitted Phases	3	3		2	
Detector Phase	3	3	6	2	2
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	28.6	28.6	25.0	25.0	25.0
Total Split (s)	29.0	29.0	81.0	81.0	81.0
Total Split (%)	26.4%	26.4%	73.6%	73.6%	73.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.0	6.0	6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.31	0.26	0.32	0.15	0.34
Control Delay (s/veh)	50.1	15.4	3.0	4.0	3.5
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	50.1	15.4	3.1	4.0	3.5
Queue Length 50th (m)	11.6	0.0	18.8	3.2	28.1
Queue Length 95th (m)	23.7	11.8	36.0	8.2	41.7
Internal Link Dist (m)	91.7		117.1		171.7
Turn Bay Length (m)		30.0		50.0	
Base Capacity (vph)	363	368	2899	460	2947
Starvation Cap Reductn	0	0	905	0	0
Spillback Cap Reductn	0	0	0	0	228
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.15	0.47	0.16	0.37

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 102 (93%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 1: Dixie Road & Sherway Drive



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	51	842	43	68	954
Future Volume (vph)	51	51	842	43	68	954
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.6	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1785	1597	3511		1767	3570
Flt Permitted	0.95	1.00	1.00		0.29	1.00
Satd. Flow (perm)	1785	1597	3511		557	3570
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	54	54	886	45	72	1004
RTOR Reduction (vph)	0	50	2	0	0	0
Lane Group Flow (vph)	54	4	929	0	72	1004
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			6			2
Permitted Phases	3	3			2	
Actuated Green, G (s)	9.1	9.1	88.3		88.3	88.3
Effective Green, g (s)	9.1	9.1	88.3		88.3	88.3
Actuated g/C Ratio	0.08	0.08	0.80		0.80	0.80
Clearance Time (s)	6.6	6.6	6.0		6.0	6.0
Vehicle Extension (s)	5.0	5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	147	132	2818		447	2865
v/s Ratio Prot			0.26			c0.28
v/s Ratio Perm	c0.03	0.00			0.13	
v/c Ratio	0.36	0.03	0.32		0.16	0.35
Uniform Delay, d1	47.7	46.4	2.9		2.4	2.9
Progression Factor	1.00	1.00	0.86		1.00	1.00
Incremental Delay, d2	3.2	0.2	0.3		0.7	0.3
Delay (s)	50.9	46.6	2.8		3.2	3.3
Level of Service	D	D	A		A	A
Approach Delay (s/veh)	48.7		2.8			3.3
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

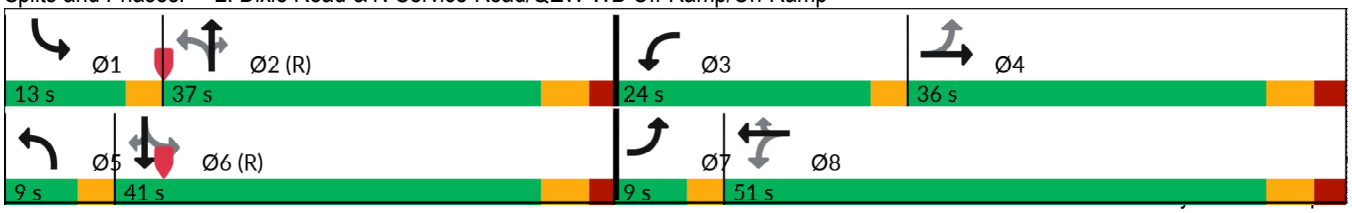
2: Dixie Road & N Service Road/QEW WB Off-Ramp/On-Ramp

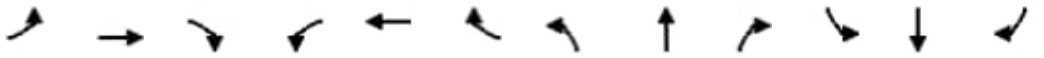
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	15	61	610	380	96	294	106	420	917	5
Future Volume (vph)	25	15	61	610	380	96	294	106	420	917	5
Lane Group Flow (vph)	27	197	65	649	404	102	313	113	447	976	5
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	9.0	33.6	9.0	33.6	33.6	9.0	27.0	27.0	9.0	26.0	26.0
Total Split (s)	9.0	36.0	24.0	51.0	51.0	9.0	37.0	37.0	13.0	41.0	41.0
Total Split (%)	8.2%	32.7%	21.8%	46.4%	46.4%	8.2%	33.6%	33.6%	11.8%	37.3%	37.3%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	0.0	2.6	0.0	2.6	2.6	0.0	2.0	2.0	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.6	3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.14	0.29	0.11	0.89	0.47	0.50	0.30	0.19	0.82	0.77	0.00
Control Delay (s/veh)	15.5	5.8	14.7	47.1	5.1	29.8	29.9	5.1	38.2	36.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Total Delay (s/veh)	15.5	5.8	14.7	47.1	5.1	29.8	29.9	5.1	38.2	36.9	0.0
Queue Length 50th (m)	2.9	2.3	7.1	131.5	3.8	13.5	22.6	2.6	77.4	109.4	0.0
Queue Length 95th (m)	7.4	17.9	14.3	#198.3	24.1	28.2	35.3	7.3	#153.5	#137.7	m0.0
Internal Link Dist (m)		121.9		96.5			233.5			117.1	
Turn Bay Length (m)	100.0		75.0			100.0		50.0	75.0		50.0
Base Capacity (vph)	182	674	631	758	862	203	1032	571	543	1267	647
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	94	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.29	0.10	0.86	0.47	0.50	0.30	0.20	0.82	0.83	0.01

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 24 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Dixie Road & N Service Road/QEW WB Off-Ramp/On-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	15	170	61	610	380	96	294	106	420	917	5
Future Volume (vph)	25	15	170	61	610	380	96	294	106	420	917	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1785	1620		1785	1879	1581	1785	3570	1597	1785	3570	1597
Flt Permitted	0.12	1.00		0.55	1.00	1.00	0.14	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	233	1620		1041	1879	1581	272	3570	1597	898	3570	1597
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	27	16	181	65	649	404	102	313	113	447	976	5
RTOR Reduction (vph)	0	118	0	0	0	230	0	0	82	0	0	3
Lane Group Flow (vph)	27	79	0	65	649	174	102	313	31	447	976	2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)	41.9	38.3		49.3	42.7	42.7	37.8	30.6	30.6	48.1	37.9	37.9
Effective Green, g (s)	41.9	38.3		49.3	42.7	42.7	37.8	30.6	30.6	48.1	37.9	37.9
Actuated g/C Ratio	0.38	0.35		0.45	0.39	0.39	0.34	0.28	0.28	0.44	0.34	0.34
Clearance Time (s)	3.0	6.6		3.0	6.6	6.6	3.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	139	564		520	729	613	192	993	444	509	1230	550
v/s Ratio Prot	c0.01	0.05		0.01	c0.35		0.03	0.09		c0.12	0.27	
v/s Ratio Perm	0.07			0.05		0.11	0.15		0.02	c0.27		0.00
v/c Ratio	0.19	0.14		0.12	0.89	0.28	0.53	0.31	0.07	0.87	0.79	0.00
Uniform Delay, d1	24.8	24.5		17.5	31.4	23.1	26.4	31.4	29.2	25.5	32.5	23.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.09	0.94	2.39	0.94	0.95	1.00
Incremental Delay, d2	1.4	0.2		0.2	13.8	0.5	5.0	0.8	0.3	16.6	5.2	0.0
Delay (s)	26.2	24.8		17.7	45.3	23.6	33.9	30.4	70.2	40.6	36.3	23.6
Level of Service	C	C		B	D	C	C	C	E	D	D	C
Approach Delay (s/veh)		24.9			35.9			39.6			37.6	
Approach LOS		C			D			D			D	

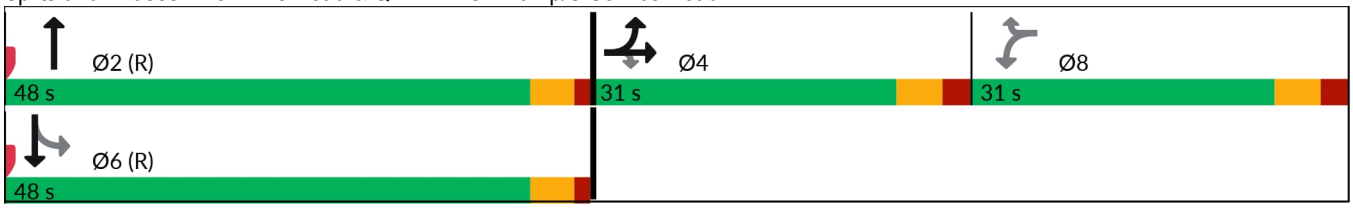
Intersection Summary			
HCM 2000 Control Delay (s/veh)	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

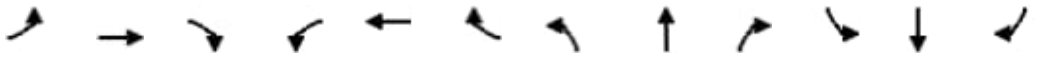
Lane Group	EBL	EBT	EBR	WBR	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	140	20	160	60	784	15	960
Future Volume (vph)	140	20	160	60	784	15	960
Lane Group Flow (vph)	84	84	168	63	830	16	1011
Turn Type	Split	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4	4			2		6
Permitted Phases			4	8		6	
Detector Phase	4	4	4	8	2	6	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.0	31.0	31.0	31.0	24.0	24.0	24.0
Total Split (s)	31.0	31.0	31.0	31.0	48.0	48.0	48.0
Total Split (%)	28.2%	28.2%	28.2%	28.2%	43.6%	43.6%	43.6%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	1.3	1.3	1.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
v/c Ratio	0.42	0.42	0.50	0.20	0.24	0.04	0.42
Control Delay (s/veh)	50.8	50.5	12.0	1.4	3.4	8.8	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.8	50.5	12.0	1.4	3.4	8.8	7.5
Queue Length 50th (m)	18.8	18.8	0.0	0.0	9.1	0.7	26.1
Queue Length 95th (m)	33.8	33.8	18.9	0.0	18.2	m2.1	51.1
Internal Link Dist (m)		138.8			128.3		133.8
Turn Bay Length (m)			75.0	7.5		100.0	
Base Capacity (vph)	377	383	485	522	3417	397	2380
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.22	0.35	0.12	0.24	0.04	0.42

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 31 (28%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Dixie Road & QEW EB Off-Ramp/S Service Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	20	160	0	0	60	0	784	5	15	960	0
Future Volume (vph)	140	20	160	0	0	60	0	784	5	15	960	0
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		5.0		5.0	5.0	
Lane Util. Factor	0.95	0.95	1.00			1.00		0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00			1.00		1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00			1.00		1.00		1.00	1.00	
Frt	1.00	1.00	0.85			0.85		0.99		1.00	1.00	
Flt Protected	0.95	0.96	1.00			1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1662	1687	1566			1566		5024		1750	3500	
Flt Permitted	0.95	0.96	1.00			1.00		1.00		0.31	1.00	
Satd. Flow (perm)	1662	1687	1566			1566		5024		583	3500	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	21	168	0	0	63	0	825	5	16	1011	0
RTOR Reduction (vph)	0	0	148	0	0	59	0	0	0	0	0	0
Lane Group Flow (vph)	84	84	20	0	0	4	0	830	0	16	1011	0
Confl. Peds. (#/hr)							2					2
Turn Type	Split	NA	Perm	Perm		Perm		NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4	8		8				6		
Actuated Green, G (s)	13.0	13.0	13.0			6.4		73.6		73.6	73.6	
Effective Green, g (s)	13.0	13.0	13.0			6.4		73.6		73.6	73.6	
Actuated g/C Ratio	0.12	0.12	0.12			0.06		0.67		0.67	0.67	
Clearance Time (s)	6.0	6.0	6.0			6.0		5.0		5.0	5.0	
Vehicle Extension (s)	5.0	5.0	5.0			5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	196	199	185			91		3361		390	2341	
v/s Ratio Prot	c0.05	0.05						0.17			c0.29	
v/s Ratio Perm			0.01			c0.00				0.03		
v/c Ratio	0.42	0.42	0.10			0.04		0.24		0.04	0.43	
Uniform Delay, d1	45.0	45.0	43.3			48.9		7.2		6.1	8.4	
Progression Factor	1.00	1.00	1.00			1.00		0.43		1.08	0.78	
Incremental Delay, d2	3.1	3.0	0.5			0.3		0.1		0.1	0.4	
Delay (s)	48.1	48.0	43.8			49.2		3.2		6.8	7.1	
Level of Service	D	D	D			D		A		A	A	
Approach Delay (s/veh)		45.9			49.2			3.2			7.1	
Approach LOS		D			D			A			A	

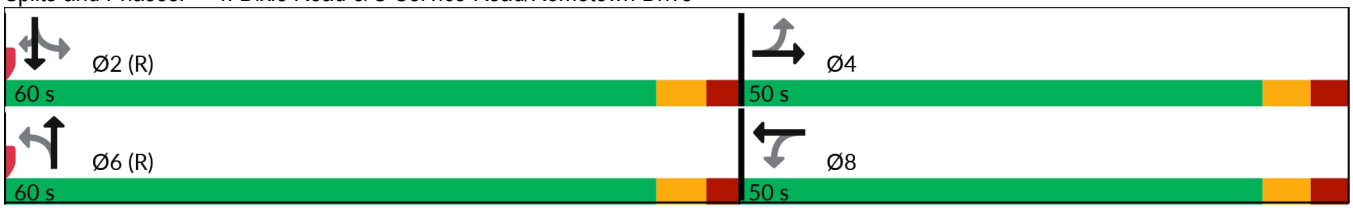
Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

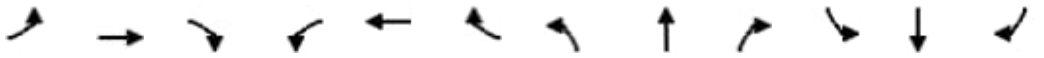
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	342	12	19	1	95	452	79	572	336
Future Volume (vph)	342	12	19	1	95	452	79	572	336
Lane Group Flow (vph)	380	52	0	68	106	602	88	636	373
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		4		8		6		2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	2	2	2
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	41.1	41.1	41.1	41.1	35.6	35.6	35.6	35.6	35.6
Total Split (s)	50.0	50.0	50.0	50.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	45.5%	45.5%	45.5%	45.5%	54.5%	54.5%	54.5%	54.5%	54.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1		7.1	6.6	6.6	6.6	6.6	6.6
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.84	0.08		0.12	0.27	0.31	0.22	0.32	0.36
Control Delay (s/veh)	51.2	9.7		10.1	14.5	11.6	8.7	7.7	3.3
Queue Delay	0.0	0.0		0.0	0.0	0.2	0.0	0.0	0.2
Total Delay (s/veh)	51.2	9.7		10.1	14.5	11.9	8.7	7.7	3.6
Queue Length 50th (m)	77.7	1.9		3.3	10.7	30.1	5.8	22.4	2.6
Queue Length 95th (m)	110.8	9.8		12.2	19.1	38.6	14.8	38.8	27.1
Internal Link Dist (m)		127.8		67.7		95.9		128.3	
Turn Bay Length (m)					50.0		100.0		
Base Capacity (vph)	522	673		629	381	1895	400	1929	1034
Starvation Cap Reductn	0	0		0	0	660	0	0	233
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	0.73	0.08		0.11	0.28	0.49	0.22	0.33	0.47

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 40 (36%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Dixie Road & S Service Road/Rometown Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	12	35	19	1	41	95	452	90	79	572	336
Future Volume (vph)	342	12	35	19	1	41	95	452	90	79	572	336
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.88			0.90		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1785	1668			1657		1785	3481		1785	3570	1597
Flt Permitted	0.71	1.00			0.91		0.37	1.00		0.39	1.00	1.00
Satd. Flow (perm)	1339	1668			1544		707	3481		741	3570	1597
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	380	13	39	21	1	46	106	502	100	88	636	373
RTOR Reduction (vph)	0	26	0	0	31	0	0	13	0	0	0	171
Lane Group Flow (vph)	380	26	0	0	37	0	106	589	0	88	636	202
Heavy Vehicles (%)	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	36.8	36.8			36.8		59.5	59.5		59.5	59.5	59.5
Effective Green, g (s)	36.8	36.8			36.8		59.5	59.5		59.5	59.5	59.5
Actuated g/C Ratio	0.33	0.33			0.33		0.54	0.54		0.54	0.54	0.54
Clearance Time (s)	7.1	7.1			7.1		6.6	6.6		6.6	6.6	6.6
Vehicle Extension (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	447	558			516		382	1882		400	1931	863
v/s Ratio Prot		0.02						0.17			c0.18	
v/s Ratio Perm	c0.28				0.02		0.15			0.12		0.13
v/c Ratio	0.85	0.04			0.07		0.27	0.31		0.22	0.32	0.23
Uniform Delay, d1	34.0	24.7			24.9		13.6	13.9		13.1	14.1	13.2
Progression Factor	1.00	1.00			1.00		0.78	0.78		0.48	0.47	1.41
Incremental Delay, d2	15.5	0.0			0.1		1.7	0.4		1.1	0.4	0.5
Delay (s)	49.6	24.8			25.0		12.4	11.3		7.5	7.1	19.3
Level of Service	D	C			C		B	B		A	A	B
Approach Delay (s/veh)		46.6			25.0			11.5			11.3	
Approach LOS		D			C			B			B	

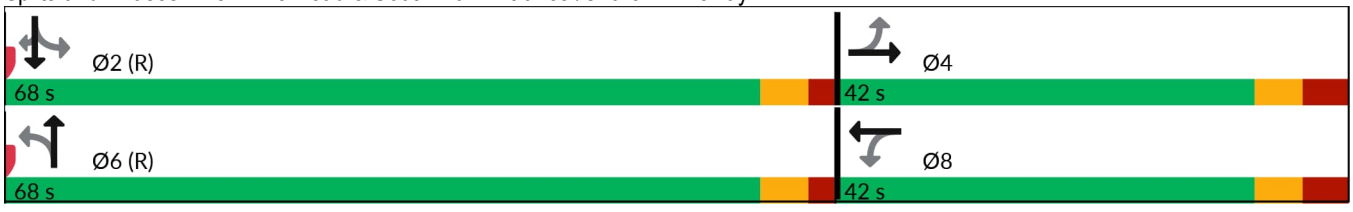
Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

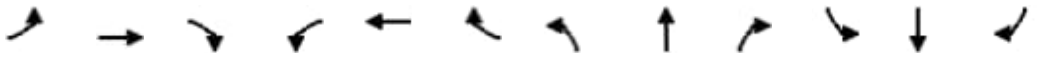
Lane Group	EBL	EBT	NBL	NBT	SBL	SBT	SBR	Ø8
Lane Configurations								
Traffic Volume (vph)	150	0	110	481	3	319	283	
Future Volume (vph)	150	0	110	481	3	319	283	
Lane Group Flow (vph)	138	127	0	635	3	343	304	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	
Protected Phases		4		6		2		8
Permitted Phases	4		6		2		2	
Detector Phase	4	4	6	6	2	2	2	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	41.7	41.7	33.2	33.2	33.2	33.2	33.2	41.7
Total Split (s)	42.0	42.0	68.0	68.0	68.0	68.0	68.0	42.0
Total Split (%)	38.2%	38.2%	61.8%	61.8%	61.8%	61.8%	61.8%	38%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.7	3.7	2.2	2.2	2.2	2.2	2.2	3.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.7	7.7		6.2	6.2	6.2	6.2	
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	None
v/c Ratio	0.61	0.38		0.32	0.00	0.13	0.25	
Control Delay (s/veh)	53.4	14.0		7.2	0.3	0.5	0.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.2	
Total Delay (s/veh)	53.4	14.0		7.2	0.3	0.5	0.8	
Queue Length 50th (m)	30.8	4.7		25.3	0.0	0.9	0.0	
Queue Length 95th (m)	49.4	21.1		42.4	m0.1	1.5	1.4	
Internal Link Dist (m)		53.7		197.5		95.9		
Turn Bay Length (m)					25.0			
Base Capacity (vph)	416	524		1984	536	2493	1182	
Starvation Cap Reductn	0	0		0	0	0	370	
Spillback Cap Reductn	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	
Reduced v/c Ratio	0.33	0.24		0.32	0.01	0.14	0.37	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 51 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & South Mall Entrance /Church Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	0	97	0	0	0	110	481	0	3	319	283
Future Volume (vph)	150	0	97	0	0	0	110	481	0	3	319	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7	7.7						6.2		6.2	6.2	6.2
Lane Util. Factor	0.95	0.95						0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98						1.00		1.00	1.00	0.98
Flpb, ped/bikes	0.98	0.99						0.99		1.00	1.00	1.00
Frt	1.00	0.87						1.00		1.00	1.00	0.85
Flt Protected	0.95	0.99						0.99		0.95	1.00	1.00
Satd. Flow (prot)	1678	1527						3527		1785	3535	1550
Flt Permitted	0.75	0.94						0.79		0.40	1.00	1.00
Satd. Flow (perm)	1337	1451						2814		760	3535	1550
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	161	0	104	0	0	0	118	517	0	3	343	304
RTOR Reduction (vph)	0	87	0	0	0	0	0	0	0	0	0	90
Lane Group Flow (vph)	138	40	0	0	0	0	0	635	0	3	343	214
Confl. Peds. (#/hr)	11		5	5		11	6					6
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	1%
Turn Type	Perm	NA					Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		2
Actuated Green, G (s)	18.5	18.5						77.6		77.6	77.6	77.6
Effective Green, g (s)	18.5	18.5						77.6		77.6	77.6	77.6
Actuated g/C Ratio	0.17	0.17						0.71		0.71	0.71	0.71
Clearance Time (s)	7.7	7.7						6.2		6.2	6.2	6.2
Vehicle Extension (s)	5.0	5.0						5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	224	244						1985		536	2493	1093
v/s Ratio Prot											0.10	
v/s Ratio Perm	c0.10	0.03						c0.23		0.00		0.14
v/c Ratio	0.61	0.16						0.31		0.00	0.13	0.19
Uniform Delay, d1	42.4	39.1						6.1		4.7	5.2	5.5
Progression Factor	1.00	1.00						1.00		0.04	0.07	0.09
Incremental Delay, d2	7.0	0.6						0.4		0.0	0.1	0.3
Delay (s)	49.5	39.8						6.5		0.2	0.5	0.9
Level of Service	D	D						A		A	A	A
Approach Delay (s/veh)		44.8			0.0			6.5			0.7	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	132	122	341	174	2
Future Vol, veh/h	0	132	122	341	174	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	0	142	131	367	187	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	188	189	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	859	1397	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	859	1397	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10	2.1	0
HCM LOS	B		

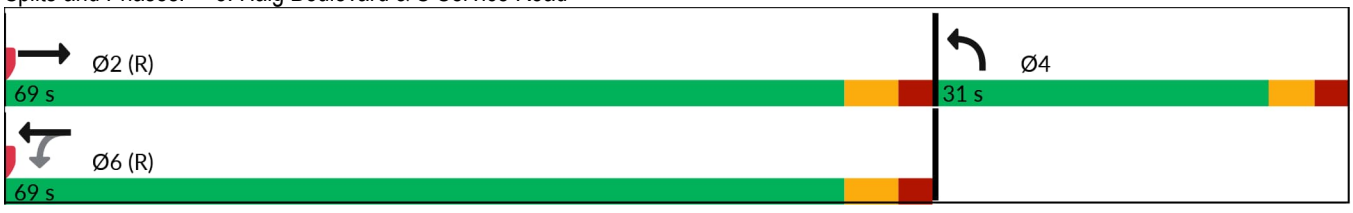
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1397	-	859	-	-
HCM Lane V/C Ratio	0.094	-	0.165	-	-
HCM Control Delay (s/veh)	7.8	-	10	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q (veh)	0.3	-	0.6	-	-

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	468	43	361	203
Future Volume (vph)	468	43	361	203
Lane Group Flow (vph)	702	43	365	264
Turn Type	NA	Perm	NA	Prot
Protected Phases	2		6	4
Permitted Phases		6		
Detector Phase	2	6	6	4
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	35.5	35.5	35.5	14.0
Total Split (s)	69.0	69.0	69.0	31.0
Total Split (%)	69.0%	69.0%	69.0%	31.0%
Yellow Time (s)	4.0	4.0	4.0	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	C-Max	None
v/c Ratio	0.59	0.11	0.29	0.71
Control Delay (s/veh)	8.2	7.9	8.1	45.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.2	7.9	8.1	45.4
Queue Length 50th (m)	72.2	2.9	28.0	47.4
Queue Length 95th (m)	120.1	8.1	47.6	72.0
Internal Link Dist (m)	420.5		194.3	35.2
Turn Bay Length (m)		42.0		
Base Capacity (vph)	1178	388	1255	446
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.60	0.11	0.29	0.59

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Haig Boulevard & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	468	227	43	361	203	58
Future Volume (vph)	468	227	43	361	203	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		6.5	6.5	6.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frpb, ped/bikes	0.99		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		0.99	1.00	1.00	
Frt	0.95		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	1763		1784	1879	1741	
Flt Permitted	1.00		0.31	1.00	0.96	
Satd. Flow (perm)	1763		583	1879	1741	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	473	229	43	365	205	59
RTOR Reduction (vph)	0	0	0	0	11	0
Lane Group Flow (vph)	702	0	43	365	253	0
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	2	0	0	0	0	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	66.8		66.8	66.8	20.7	
Effective Green, g (s)	66.8		66.8	66.8	20.7	
Actuated g/C Ratio	0.67		0.67	0.67	0.21	
Clearance Time (s)	6.5		6.5	6.5	6.0	
Vehicle Extension (s)	5.0		5.0	5.0	5.0	
Lane Grp Cap (vph)	1177		389	1255	360	
v/s Ratio Prot	c0.40			0.19	c0.15	
v/s Ratio Perm			0.07			
v/c Ratio	0.59		0.11	0.29	0.70	
Uniform Delay, d1	9.1		5.9	6.8	36.7	
Progression Factor	0.59		1.00	1.00	1.00	
Incremental Delay, d2	2.0		0.5	0.5	7.5	
Delay (s)	7.5		6.5	7.4	44.3	
Level of Service	A		A	A	D	
Approach Delay (s/veh)	7.5			7.3	44.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	5.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	369	156	74	266	137	70
Future Vol, veh/h	369	156	74	266	137	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	30	-	30	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	401	170	80	289	149	76

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	571	0	935	486
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	449	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1012	-	297	585
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	647	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1012	-	274	585
Mov Cap-2 Maneuver	-	-	-	-	274	-
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	596	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.9	25.7
HCM LOS			D

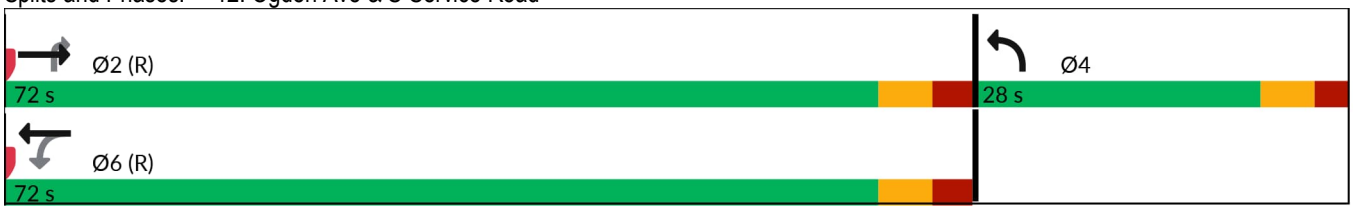
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	274	585	-	-	1012	-
HCM Lane V/C Ratio	0.543	0.13	-	-	0.079	-
HCM Control Delay (s/veh)	32.7	12.1	-	-	8.9	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q (veh)	3	0.4	-	-	0.3	-

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	518	18	460	19	65
Future Volume (vph)	518	18	460	19	65
Lane Group Flow (vph)	621	21	529	22	75
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	4	
Permitted Phases		6			2
Detector Phase	2	6	6	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	12.0	10.0
Minimum Split (s)	30.0	30.0	30.0	24.5	30.0
Total Split (s)	72.0	72.0	72.0	28.0	72.0
Total Split (%)	72.0%	72.0%	72.0%	28.0%	72.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	6.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	C-Max
v/c Ratio	0.44	0.03	0.37	0.10	0.06
Control Delay (s/veh)	6.0	2.3	3.4	40.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.0	2.3	3.4	40.6	0.9
Queue Length 50th (m)	40.1	0.6	18.6	4.1	0.0
Queue Length 95th (m)	54.5	m1.5	24.3	11.1	2.9
Internal Link Dist (m)	34.3		420.5	99.2	
Turn Bay Length (m)		20.0		25.0	
Base Capacity (vph)	1391	548	1399	383	1208
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.45	0.04	0.38	0.06	0.06

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 68 (68%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Ogden Ave & S Service Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	518	23	18	460	19	65
Future Volume (vph)	518	23	18	460	19	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	7.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		0.99	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1867		1784	1879	1785	1597
Flt Permitted	1.00		0.39	1.00	0.95	1.00
Satd. Flow (perm)	1867		736	1879	1785	1597
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	595	26	21	529	22	75
RTOR Reduction (vph)	1	0	0	0	0	19
Lane Group Flow (vph)	620	0	21	529	22	56
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	2			6	4	
Permitted Phases			6			2
Actuated Green, G (s)	74.5		74.5	74.5	12.0	74.5
Effective Green, g (s)	74.5		74.5	74.5	12.0	74.5
Actuated g/C Ratio	0.75		0.75	0.75	0.12	0.75
Clearance Time (s)	7.0		7.0	7.0	6.5	7.0
Vehicle Extension (s)	5.0		5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	1390		548	1399	214	1189
v/s Ratio Prot	c0.33			0.28	c0.01	
v/s Ratio Perm			0.03			0.03
v/c Ratio	0.44		0.03	0.37	0.10	0.04
Uniform Delay, d1	4.8		3.3	4.5	39.2	3.3
Progression Factor	1.00		0.65	0.57	1.00	1.00
Incremental Delay, d2	1.0		0.1	0.7	0.4	0.0
Delay (s)	5.9		2.3	3.3	39.6	3.4
Level of Service	A		A	A	D	A
Approach Delay (s/veh)	5.9			3.3	11.6	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

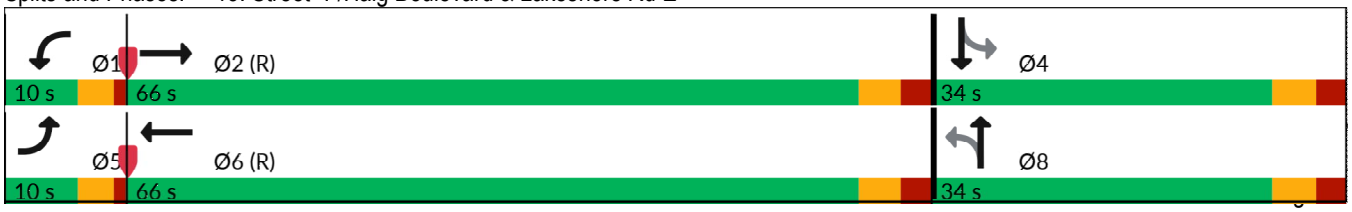
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	1572	129	1909	106	9	34	12
Future Volume (vph)	31	1572	129	1909	106	9	34	12
Lane Group Flow (vph)	34	1773	140	2113	0	205	0	92
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	9.0	27.0	9.0	27.0	34.0	34.0	34.0	34.0
Total Split (s)	10.0	66.0	10.0	66.0	34.0	34.0	34.0	34.0
Total Split (%)	9.1%	60.0%	9.1%	60.0%	30.9%	30.9%	30.9%	30.9%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	1.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
v/c Ratio	0.27	0.91	0.72	0.94		0.76		0.29
Control Delay (s/veh)	54.8	31.6	72.6	32.3		53.0		24.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	54.8	31.6	72.6	32.3		53.0		24.1
Queue Length 50th (m)	7.3	182.3	31.4	~277.9		37.8		10.3
Queue Length 95th (m)	18.2	#228.3	#83.6	#329.1		62.0		23.8
Internal Link Dist (m)		221.2		587.4		160.2		410.7
Turn Bay Length (m)	50.0		75.0					
Base Capacity (vph)	125	1934	192	2226		333		382
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.27	0.92	0.73	0.95		0.62		0.24

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Street "I"/Haig Boulevard & Lakeshore Rd E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1572	59	129	1909	35	106	9	74	34	12	39
Future Volume (vph)	31	1572	59	129	1909	35	106	9	74	34	12	39
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	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.94			0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1785	3541		1785	3555			1512			1691	
Flt Permitted	0.95	1.00		0.95	1.00			0.78			0.80	
Satd. Flow (perm)	1785	3541		1785	3555			1227			1394	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	1709	64	140	2075	38	115	10	80	37	13	42
RTOR Reduction (vph)	0	2	0	0	1	0	0	22	0	0	30	0
Lane Group Flow (vph)	34	1771	0	140	2112	0	0	183	0	0	62	0
Confl. Peds. (#/hr)	10		13	13		10	4		1	1		4
Confl. Bikes (#/hr)			1			1			24			1
Heavy Vehicles (%)	0%	0%	2%	0%	0%	3%	0%	0%	32%	0%	0%	3%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	4.6	60.0		11.8	67.2			22.2			22.2	
Effective Green, g (s)	4.6	60.0		11.8	67.2			22.2			22.2	
Actuated g/C Ratio	0.04	0.55		0.11	0.61			0.20			0.20	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	74	1931		191	2171			247			281	
v/s Ratio Prot	0.02	0.50		c0.08	c0.59							
v/s Ratio Perm								c0.15			0.04	
v/c Ratio	0.45	0.91		0.73	0.97			0.73			0.22	
Uniform Delay, d1	51.4	22.7		47.5	20.5			41.1			36.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	9.1	8.4		16.1	13.8			13.2			0.8	
Delay (s)	60.6	31.1		63.7	34.4			54.3			37.5	
Level of Service	E	C		E	C			D			D	
Approach Delay (s/veh)		31.6			36.2			54.3			37.5	
Approach LOS		C			D			D			D	

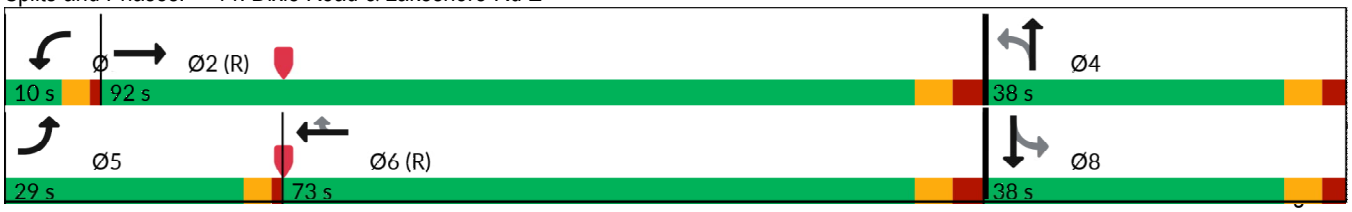
Intersection Summary			
HCM 2000 Control Delay (s/veh)	35.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

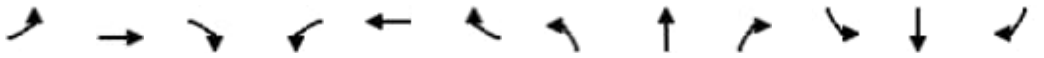
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	342	1341	24	1743	173	35	25	198	15
Future Volume (vph)	342	1341	24	1743	173	35	25	198	15
Lane Group Flow (vph)	368	1467	26	1874	186	0	80	213	364
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2	1	6			4		8
Permitted Phases					6	4		8	
Detector Phase	5	2	1	6	6	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	9.0	40.0	9.0	40.0	40.0	24.5	24.5	37.5	37.5
Total Split (s)	29.0	92.0	10.0	73.0	73.0	38.0	38.0	38.0	38.0
Total Split (%)	20.7%	65.7%	7.1%	52.1%	52.1%	27.1%	27.1%	27.1%	27.1%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	4.0	7.0	7.0		6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
v/c Ratio	1.15	0.59	0.34	1.00	0.24		0.86	0.80	0.70
Control Delay (s/veh)	149.8	15.5	77.5	55.9	11.6		111.5	75.4	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	149.8	15.5	77.5	55.9	11.6		111.5	75.4	21.6
Queue Length 50th (m)	~126.2	126.8	7.5	~291.8	15.1		20.3	58.6	25.1
Queue Length 95th (m)	#190.9	153.3	18.3	#340.5	31.9		#51.6	88.8	62.2
Internal Link Dist (m)		587.4		514.0			58.7		175.6
Turn Bay Length (m)	300.0		10.0		60.0			30.0	
Base Capacity (vph)	318	2479	76	1874	774		104	302	552
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	1.16	0.59	0.34	1.00	0.24		0.77	0.71	0.66

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Dixie Road & Lakeshore Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	1341	23	24	1743	173	35	25	14	198	15	324
Future Volume (vph)	342	1341	23	24	1743	173	35	25	14	198	15	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Lane Util. Factor	1.00	*1.00		1.00	*1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.93		1.00		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		0.99		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.97		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97		0.95	1.00	
Satd. Flow (prot)	1785	3740		1785	3758	1463		1785		1785	1540	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.23		0.71	1.00	
Satd. Flow (perm)	1785	3740		1785	3758	1463		436		1343	1540	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	368	1442	25	26	1874	186	38	27	15	213	16	348
RTOR Reduction (vph)	0	1	0	0	0	45	0	6	0	0	213	0
Lane Group Flow (vph)	368	1466	0	26	1874	141	0	74	0	213	151	0
Confl. Peds. (#/hr)	21		11	11		21	9					9
Confl. Bikes (#/hr)			2			3						2
Heavy Vehicles (%)	0%	0%	9%	0%	0%	2%	0%	0%	0%	0%	0%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases						6	4			8		
Actuated Green, G (s)	25.0	91.2		3.6	69.8	69.8		27.7		27.7	27.7	
Effective Green, g (s)	25.0	91.2		3.6	69.8	69.8		27.7		27.7	27.7	
Actuated g/C Ratio	0.18	0.65		0.03	0.50	0.50		0.20		0.20	0.20	
Clearance Time (s)	4.0	7.0		4.0	7.0	7.0		6.5		6.5	6.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lane Grp Cap (vph)	318	2436		45	1873	729		86		265	304	
v/s Ratio Prot	c0.21	0.39		0.01	c0.50						0.10	
v/s Ratio Perm						0.10		c0.17		0.16		
v/c Ratio	1.15	0.60		0.57	1.00	0.19		0.85		0.80	0.49	
Uniform Delay, d1	57.5	13.9		67.4	35.1	19.4		54.2		53.5	49.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	100.1	1.1		25.5	20.9	0.5		55.9		18.0	2.6	
Delay (s)	157.6	15.1		93.0	56.0	20.0		110.1		71.5	52.5	
Level of Service	F	B		F	E	C		F		E	D	
Approach Delay (s/veh)		43.6			53.2			110.1			59.5	
Approach LOS		D			D			F			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	51.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	116.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	5	22	1	3	2	15	54	0	0	54	8
Future Vol, veh/h	13	5	22	1	3	2	15	54	0	0	54	8
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	0	5	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	6	26	1	4	2	18	64	0	0	64	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.2	7.2	7.6	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	33%	17%	0%
Vol Thru, %	78%	13%	50%	87%
Vol Right, %	0%	55%	33%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	40	6	62
LT Vol	15	13	1	0
Through Vol	54	5	3	54
RT Vol	0	22	2	8
Lane Flow Rate	82	48	7	74
Geometry Grp	1	1	1	1
Degree of Util (X)	0.093	0.052	0.008	0.082
Departure Headway (Hd)	4.094	3.909	4.04	3.979
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	872	905	874	897
Service Time	2.131	1.979	2.118	2.02
HCM Lane V/C Ratio	0.094	0.053	0.008	0.082
HCM Control Delay, s/veh	7.6	7.2	7.2	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0	0.3

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	17	243	1	20	250
Future Vol, veh/h	2	17	243	1	20	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	18	264	1	22	272

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	581	265	0	0	265	0
Stage 1	265	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	476	774	-	-	1299	-
Stage 1	779	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	466	774	-	-	1299	-
Mov Cap-2 Maneuver	466	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.1	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	466	774	1299	-
HCM Lane V/C Ratio	-	-	0.005	0.024	0.017	-
HCM Control Delay (s/veh)	-	-	12.8	9.8	7.8	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q (veh)	-	-	0	0.1	0.1	-

Signal Warrant Analysis

South Service Road & Site Access 2

M.T.O. MINIMUM REQUIREMENTS
FOR INSTALLATION OF TRAFFIC SIGNAL

INTERSECTION: [South Service Rd & Site Access 2]

HORIZON / DESCRIPTION: Future Total (2029)

Number of lanes on main road: 1
Flow conditions: Restricted (speeds less than 70 km/h with frequent side friction)
Number of approach legs: 3 (T-intersection)
Number of existing roads: 2 (all approach legs exist)
Major direction: East-West

Result
Condition not met
Condition not met
Condition not met

Justification 1: both Justification 1A and 1B are 100% fulfilled.
Justification 2: both Justification 2A and 2B are 100% fulfilled.
Justification 3: All of Justifications 1A, 1B, 2A, and 2B are at least 80% fulfilled (only if both roads exist).

All justifications modified by Justification 7 to use peak hour projected volumes.

Justification 1: Minimum Vehicle Volume

A. Base volume requirement: 720
Requirement after 120% expansion: 864

Value	Percent Met
666.5	77%

B. Base volume requirement (minor street): 255
Requirement after 120% expansion: 306

Value	Percent Met
74.25	24%

Justification 2: Delay to Cross Traffic

A. Base volume requirement (major street): 720
Requirement after 120% expansion: 864

Value	Percent Met
592.25	69%

B. Base volume requirement (crossing major): 75
Requirement after 120% expansion: 90

Value	Percent Met
28.5	32%

	Volumes		Sum	Average Hourly
	AM	PM		
NBL	9	95	104	26
NBT			0	0
NBR	126	67	193	48.25
SBL			0	0
SBT			0	0
SBR			0	0
EBL			0	0
EBT	869	562	1431	357.75
EBR	22	69	91	22.75
WBL	63	81	144	36
WBT	361	342	703	175.75
WBR			0	0
Peds	5	5	10	2.5

Pedestrians crossing major road

Methodology from Section 4 of *Ontario Traffic Manual Book 12: Traffic Signals*

APPENDIX I

Parking Demand Survey Data

1.3.3 Private Apartment Vacancy Rates (%), by Structure Size and Zone - Toronto CMA

	100-199				
Zone	Oct-22		Oct-23		
Zone 1 - Toronto (Central)	2.2	a	3.4	d	-
Zone 2 - Toronto (East)	**		**		
Zone 3 - Toronto (North)	1.8	b	1.7	c	-
Zone 4 - Toronto (West)	1.1	a	1.1	a	-
Former City of Toronto(Zones 1-4)	**2.1**	**a**	**2.0**	**b**	**-**
Zone 5 - Etobicoke (South)	3.1	c	0.5	b	↓
Zone 6 - Etobicoke (Central)	0.9	a	0.5	a	↓
Zone 7 - Etobicoke (North)	1.5	c	0.7	a	↓
Etobicoke (Zones 5-7)	**1.3**	**a**	**0.6**	**a**	**↓**
Zone 8 - York	0.3	a	1.1	d	-
Zone 9 - East York	1.3	a	0.7	a	↓
Zone 10 - Scarborough (Central)	0.8	a	0.5	a	↓
Zone 11 - Scarborough (North)	1.3	a	0.5	a	↓
Zone 12 - Scarborough (East)	1.1	a	1.1	a	-
Scarborough (Zones 10-12)	**1.1**	**a**	**0.7**	**a**	**↓**
Zone 13 - North York (Southeast)	1.1	a	1.5	a	↑
Zone 14 - North York (Northeast)	0.6	a	0.5	a	-
Zone 15 - North York (Southwest)	1.4	a	0.5	a	↓
Zone 16 - North York (N.Central)	0.7	a	0.8	a	-
Zone 17 - North York (Northwest)	1.2	a	0.6	a	-
North York (Zones 13-17)	**1.0**	**a**	**0.8**	**a**	**-**
Rest of Toronto (Zones 5-17)	**1.0**	**a**	**0.7**	**a**	**↓**
City of Toronto (Zones 1-17)	**1.2**	**a**	**1.0**	**a**	**↓**
Zone 18 - Mississauga (South)	1.0	a	2.6	c	↑
Zone 19 - Mississauga (Northwest)	1.5	a	2.2	a	↑
Zone 20 - Mississauga (Northeast)	2.7	a	2.0	a	↓
Mississauga City (Zones 18-20)	**1.8**	**a**	**2.3**	**b**	**-**
Zone 21 - Brampton (West)	0.7	a	1.2	a	↑
Zone 22 - Brampton (East)	1.4	a	0.8	a	↓
Brampton City (Zones 21-22)	**1.1**	**a**	**1.0**	**a**	**-**
Zone 23 - Oakville	0.3	a	0.7	a	↑
Zone 24 - Caledon	**		**		
Zone 25 - Richmond Hill/Vaughan/King	**		**		
Zone 26 - Aurora, Newmkt, Whit-St.	**		**		
Zone 27 - Markham	0.6	a	0.4	a	↓
York Region (Zones 25-27)	**1.5**	**a**	**1.2**	**a**	**↓**
Zone 28 - Pickering/Ajax/Uxbridge	**		**		
Zone 29 - Milton/Halton Hills	**		**		
Zone 30 - Orangeville/Mono	**		**		
Zone 31 - Bradford/West Gwillimbury/New Tecumseth	**		**		
Remaining CMA (Zones 18-31)	**1.5**	**a**	**1.8**	**a**	**↑**
Durham Region	**1.4**	**a**	**1.0**	**a**	**-**
York Region	**1.5**	**a**	**1.2**	**a**	**↓**
Peel Region	**1.6**	**a**	**2.0**	**a**	**-**
Halton Region	**0.8**	**a**	**1.1**	**a**	**↑**
Toronto GTA	**1.3**	**a**	**1.2**	**a**	**-**
Toronto CMA	**1.3**	**a**	**1.2**	**a**	**-**

§ 2023 and 2022 data are based on the 2021 census geographic definitions; 2022 data have been revised to reflect these definitions.

Quality Indicators:
a — Excellent b — Very Good c — Good d — Poor (use with caution)
** — Data suppressed

Other Indicators:
↑ — Indicates the year-over-year change is a statistically significant increase
↓ — Indicates the year-over-year change is a statistically significant decrease
– — Indicates that the effective sample does not allow one to interpret any year-over-year change as being statistically significant

Source: Rental Market Survey (CMHC)

1750 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 153
Assumed Vacancy Rate: 2%

Date: Sunday Jan. 14, 2024

TIME	Surface		U/G	Total
	Visitor	Tenant	Tenant	Tenant
Supply	18	93	82	175
18:00	9	48	50	98
18:30	10	44	52	96
19:00	11	48	52	100
19:30	11	50	56	106
20:00	10	54	58	112
20:30	12	52	59	111
21:00	12	55	62	117
21:30	11	56	64	120
22:00	10	56	66	122
22:30	9	59	68	127
23:00	10	57	68	125
23:30	9	58	69	127
0:00	9	61	69	130
0:30	8	61	69	130
1:00	10	62	69	131
Max	12			131
Rate	0.078431			0.856209
Adjusted	0.080			0.874

Date: Monday Jan. 15, 2024

TIME	Surface		U/G	Total
	Visitor	Tenant	Tenant	Tenant
Supply	18	93	82	175
18:00	9	30	49	79
18:30	10	34	50	84
19:00	10	41	51	92
19:30	11	41	52	93
20:00	13	45	52	97
20:30	11	50	54	104
21:00	11	55	52	107
21:30	10	54	54	108
22:00	11	54	51	105
22:30	11	54	53	107
23:00	10	55	57	112
23:30	10	57	59	116
0:00	10	58	61	119
0:30	10	58	61	119
1:00	10	58	61	119
Max	13			119
Rate	0.084967			0.777778
Adjusted	0.087			0.794

1750 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 153
Assumed Vacancy Rate: 2%

Date: Tuesday Jan. 16, 2024

TIME	Surface		U/G	Total
	Visitor	Tenant	Tenant	Tenant
Supply	18	93	82	175
18:00	7	42	55	97
18:30	7	43	57	100
19:00	9	43	59	102
19:30	10	46	60	106
20:00	12	49	59	108
20:30	12	52	59	111
21:00	13	55	59	114
21:30	12	58	58	116
22:00	11	57	56	113
22:30	9	58	58	116
23:00	10	57	59	116
23:30	9	59	61	120
0:00	10	62	64	126
0:30	10	62	65	127
1:00	10	62	65	127
Max	13			127
Rate	0.084967			0.830065
Adjusted	0.087			0.847

Date: Sunday Jan. 21, 2024

TIME	Surface		U/G	Total
	Visitor	Tenant	Tenant	Tenant
Supply	18	93	82	175
18:00	11	52	54	106
18:30	12	56	56	112
19:00	11	53	54	107
19:30	12	53	54	107
20:00	12	57	54	111
20:30	12	57	53	110
21:00	11	61	54	115
21:30	9	64	55	119
22:00	8	66	58	124
22:30	8	63	59	122
23:00	6	65	64	129
23:30	8	65	64	129
0:00	7	65	64	129
0:30	7	63	66	129
1:00	8	64	66	130
Max	12			130
Rate	0.078431			0.849673
Adjusted	0.080			0.867

1750 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 153
Assumed Vacancy Rate: 2%

Date: Monday Jan. 22, 2024

TIME	Surface		U/G	Total
	Visitor	Tenant	Tenant	Tenant
Supply	18	93	82	175
18:00	7	42	48	90
18:30	6	48	45	93
19:00	6	50	46	96
19:30	7	51	52	103
20:00	11	57	54	111
20:30	11	56	53	109
21:00	10	57	55	112
21:30	9	57	57	114
22:00	11	59	56	115
22:30	11	64	60	124
23:00	9	66	63	129
23:30	8	67	63	130
0:00	8	66	64	130
0:30	8	67	64	131
1:00	8	67	64	131
Max	11			131
Rate	0.071895			0.856209
Adjusted	0.073			0.874

Date: Tuesday Jan. 23, 2024

TIME	Surface		U/G	Total
	Visitor	Tenant	Tenant	Tenant
Supply	18	93	82	175
18:00	3	46	51	97
18:30	3	48	54	102
19:00	6	46	56	102
19:30	6	48	58	106
20:00	6	54	59	113
20:30	9	53	57	110
21:00	9	54	60	114
21:30	10	57	64	121
22:00	9	59	62	121
22:30	11	59	62	121
23:00	10	59	63	122
23:30	9	61	64	125
0:00	11	60	65	125
0:30	10	61	66	127
1:00	10	62	67	129
Max	11			129
Rate	0.071895			0.843137
Adjusted	0.073			0.860

4.3.2 Condominium Universe, Rental Units, Percentage of Units in Rental and Vacancy Rate (%) - Condominium Apartments by Project* Size - Toronto CMA

	Vacancy Rate					
Size	Oct-22			Oct-23		
Toronto						
3 to 99 Units	1.3	a		0.9	a	-
100 to 199 Units	1.1	a		1.1	a	-
200 to 299 Units	0.7	a		0.5	a	-
300 to 399 Units	1.1	a		0.5	a	↓
400 to 499 Units	0.7	b		0.4	a	-
500+ Units	1.9	c		0.8	a	↓
Total	1.2	a		0.7	a	↓
Toronto GTA						
3 to 99 Units	1.3	a		1.1	a	-
100 to 199 Units	0.8	a		1.0	a	-
200 to 299 Units	0.7	a		0.6	a	-
300 to 399 Units	1.1	a		0.6	a	↓
400 to 499 Units	0.7	b		0.5	a	-
500+ Units	1.7	c		0.8	a	↓
Total	1.1	a		0.7	a	↓
Toronto CMA						
3 to 99 Units	1.2	a		1.1	a	-
100 to 199 Units	0.8	a		0.9	a	-
200 to 299 Units	0.7	a		0.5	a	↓
300 to 399 Units	1.1	a		0.5	a	↓
400 to 499 Units	0.7	b		0.5	a	-
500+ Units	1.8	c		0.8	a	↓
Total	1.1	a		0.6	a	↓

§ 2023 and 2022 data are based on the 2021 census geographic definitions; 2022 data have been revised to reflect these definitions.

* A project can include one or several structures belonging to a single syndicate of co-ownership. In that respect, the Condominium Apartment Survey differs from the Rental Market Survey.

Quality Indicators:
a — Excellent b — Very Good c — Good d — Poor (use with caution)
** — Data suppressed

Other Indicators:
↑ — Indicates the year-over-year change is a statistically significant increase
↓ — Indicates the year-over-year change is a statistically significant decrease
– — Indicates that the effective sample does not allow one to interpret any year-over-year change as being statistically significant

Source: Rental Market Survey (CMHC)

1333 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 442
Assumed Vacancy Rate: 0.50%

Date: Sunday Jan. 14, 2024

TIME	Surface					U/G	Total	
	Delivery	Visitor-W	Visitor-E	Staff	Tenant	Tenant	Visitor	Tenant
Supply	8	40	59	7	132	435	99	567
18:00	1	19	5	1	49	343	24	392
18:30	1	18	6	1	52	350	24	402
19:00	2	19	5	1	57	348	24	405
19:30	1	15	6	1	61	348	21	409
20:00	1	13	6	1	62	353	19	415
20:30	1	10	5	1	64	358	15	422
21:00	0	10	5	1	65	363	15	428
21:30	1	10	5	1	66	369	15	435
22:00	0	11	4	1	66	372	15	438
22:30	0	9	4	1	66	373	13	439
23:00	0	9	4	1	68	374	13	442
23:30	0	8	4	1	69	378	12	447
0:00	0	6	4	1	70	379	10	449
0:30	0	6	4	1	71	383	10	454
1:00	0	6	4	1	71	384	10	455
						Max	24	455
						Rate	0.054	1.029
						Adjusted	0.055	1.035

1333 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 442
Assumed Vacancy Rate: 0.50%

Date: Monday Jan. 15, 2024

TIME	Surface					U/G	Total	
	Delivery	Visitor-W	Visitor-E	Staff	Tenant	Tenant	Visitor	Tenant
Supply	8	40	59	7	132	435	99	567
18:00	3	10	5	2	54	314	15	368
18:30	2	8	4	2	60	332	12	392
19:00	1	7	4	1	63	334	11	397
19:30	2	8	4	1	65	340	12	405
20:00	1	7	4	1	67	345	11	412
20:30	0	8	4	1	66	352	12	418
21:00	0	8	4	1	67	361	12	428
21:30	0	6	5	1	67	365	11	432
22:00	0	5	4	1	68	374	9	442
22:30	0	5	4	2	69	376	9	445
23:00	0	5	5	2	70	376	10	446
23:30	0	5	5	2	71	378	10	449
0:00	0	5	5	2	71	382	10	453
0:30	0	5	5	2	71	383	10	454
1:00	0	5	5	2	71	384	10	455
						Max	15	455
						Rate	0.034	1.029
						Adjusted	0.034	1.035

1333 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 442
Assumed Vacancy Rate: 0.50%

Date: Tuesday Jan. 16, 2024

TIME	Surface					U/G	Total	
	Delivery	Visitor-W	Visitor-E	Staff	Tenant	Tenant	Visitor	Tenant
Supply	8	40	59	7	132	435	99	567
18:00	3	10	5	2	47	327	15	374
18:30	2	11	5	2	51	333	16	384
19:00	2	11	5	3	53	341	16	394
19:30	1	12	5	3	56	347	17	403
20:00	2	11	6	3	57	356	17	413
20:30	1	6	5	3	60	360	11	420
21:00	0	7	5	3	64	364	12	428
21:30	0	6	5	3	65	369	11	434
22:00	0	4	4	2	66	373	8	439
22:30	0	4	4	2	67	376	8	443
23:00	0	3	4	3	69	379	7	448
23:30	0	3	4	3	70	382	7	452
0:00	0	3	4	3	70	383	7	453
0:30	0	4	4	3	70	384	8	454
1:00	0	4	4	3	70	384	8	454
						Max	17	454
						Rate	0.038	1.027
						Adjusted	0.039	1.032

1333 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 442
Assumed Vacancy Rate: 0.50%

Date: Sunday Jan. 21, 2024

TIME	Surface					U/G	Total	
	Delivery	Visitor-W	Visitor-E	Staff	Tenant	Tenant	Visitor	Tenant
Supply	8	40	59	7	132	435	99	567
18:00	1	19	5	1	45	342	24	387
18:30	1	20	5	1	45	348	25	393
19:00	0	18	6	1	55	352	24	407
19:30	1	15	5	1	64	354	20	418
20:00	0	12	5	2	61	361	17	422
20:30	0	11	5	1	60	364	16	424
21:00	0	11	4	1	65	371	15	436
21:30	0	11	3	1	63	376	14	439
22:00	0	11	3	1	58	380	14	438
22:30	0	10	3	2	64	381	13	445
23:00	0	10	3	2	66	384	13	450
23:30	0	9	3	2	67	387	12	454
0:00	0	8	3	3	67	388	11	455
0:30	0	8	3	2	68	390	11	458
1:00	0	8	3	2	69	391	11	460
						Max	25	460
						Rate	0.057	1.041
						Adjusted	0.057	1.046

1333 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 442
Assumed Vacancy Rate: 0.50%

Date: Monday Jan. 22, 2024

TIME	Surface					U/G	Total	
	Delivery	Visitor-W	Visitor-E	Staff	Tenant	Tenant	Visitor	Tenant
Supply	8	40	59	7	132	435	99	567
18:00	0	11	5	1	59	323	16	382
18:30	3	9	4	1	62	331	13	393
19:00	3	9	5	1	59	344	14	403
19:30	1	8	4	1	63	345	12	408
20:00	0	6	4	1	64	354	10	418
20:30	0	5	4	1	64	361	9	425
21:00	1	5	4	1	62	364	9	426
21:30	0	6	4	1	63	375	10	438
22:00	0	7	4	1	66	383	11	449
22:30	0	6	4	2	66	388	10	454
23:00	0	6	4	2	67	389	10	456
23:30	0	6	4	2	66	390	10	456
0:00	0	6	4	2	66	391	10	457
0:30	0	6	3	2	66	392	9	458
1:00	0	6	3	2	66	393	9	459
						Max	16	459
						Rate	0.036	1.038
						Adjusted	0.036	1.044

1333 Bloor St, Mississauga - Parking Utilization Summary

Project No.: 19373
Unit Count 442
Assumed Vacancy Rate: 0.50%

Date: Tuesday Jan. 23, 2024

TIME	Surface					U/G	Total	
	Delivery	Visitor-W	Visitor-E	Staff	Tenant	Tenant	Visitor	Tenant
Supply	8	40	59	7	132	435	99	567
18:00	2	6	3	1	57	336	9	393
18:30	1	4	2	1	60	337	6	397
19:00	1	4	2	1	59	350	6	409
19:30	1	7	2	1	59	353	9	412
20:00	1	8	2	1	62	362	10	424
20:30	0	7	2	1	60	368	9	428
21:00	0	7	2	1	60	373	9	433
21:30	0	6	2	1	63	374	8	437
22:00	0	6	2	1	64	375	8	439
22:30	0	5	2	2	66	378	7	444
23:00	0	5	2	2	66	383	7	449
23:30	0	5	2	2	66	384	7	450
0:00	0	5	2	2	67	386	7	453
0:30	0	5	2	2	67	389	7	456
1:00	0	5	2	2	67	390	7	457
						Max	10	457
						Rate	0.023	1.034
						Adjusted	0.023	1.039

2019 PARKING DEMAND SURVEY SUMMARY

1750 Bloor Street

Time	Thurs. February 28, 2019							Fri. March 1, 2019							Sat. March 2, 2019							Sun March 3, 2019						
	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL
		Yes Permit	No Permit	Yes Permit	No Permit				Yes Permit	No Permit	Yes Permit	No Permit				Yes Permit	No Permit	Yes Permit	No Permit				Yes Permit	No Permit	Yes Permit	No Permit		
Supply	**18**	**104**		**69**		**173**	**191**	**18**	**104**		**69**		**173**	**191**	**18**	**104**		**69**		**173**	**191**	**18**	**104**		**69**		**173**	**191**
18:00	4	16	53	2	9	80	**84**	9	27	30	3	3	63	**72**	15	30	41	2	5	78	**93**	16	35	46	5	2	88	**104**
18:30	4	16	54	3	9	82	**86**	11	28	36	3	5	72	**83**	15	31	44	3	5	83	**98**	13	34	41	6	2	83	**96**
19:00	6	19	57	3	9	88	**94**	12	30	37	3	6	76	**88**	14	33	45	2	7	87	**101**	14	39	47	6	4	96	**110**
19:30	5	19	60	3	8	90	**95**	11	29	37	0	8	74	**85**	13	33	45	3	8	89	**102**	12	40	47	6	5	98	**110**
20:00	5	21	60	3	8	92	**97**	14	30	41	0	8	79	**93**	13	35	46	3	9	93	**106**	14	41	53	6	5	105	**119**
20:30	5	23	59	3	10	95	**100**	14	31	42	1	7	81	**95**	13	35	45	4	10	94	**107**	13	40	55	6	5	106	**119**
21:00	5	24	62	3	10	99	**104**	14	33	46	1	7	87	**101**	13	36	45	4	10	95	**108**	13	41	56	6	7	110	**123**
21:30	6	26	64	3	10	103	**109**	12	36	47	2	7	92	**104**	7	36	46	4	9	95	**102**	12	41	56	6	7	110	**122**
22:00	7	26	67	3	12	108	**115**	13	36	50	3	7	96	**109**	7	36	48	4	9	97	**104**	14	40	61	6	7	114	**128**
22:30	6	27	70	3	12	112	**118**	15	38	53	4	6	101	**116**	6	37	52	4	9	102	**108**	15	42	61	6	7	116	**131**
23:00	7	27	72	3	12	114	**121**	14	38	55	4	7	104	**118**	8	36	54	5	8	103	**111**	15	42	62	6	7	117	**132**
23:30	7	26	74	3	12	115	**122**	14	39	57	4	9	109	**123**	8	37	54	5	8	104	**112**	15	42	63	6	7	118	**133**
0:00	7	28	75	3	12	118	**125**	14	40	57	5	10	112	**126**	9	38	55	5	8	106	**115**	15	42	64	6	7	119	**134**
0:30	8	28	75	3	11	117	**125**	14	40	56	5	10	111	**125**	7	39	57	5	10	111	**118**	15	42	64	6	8	120	**135**
1:00	8	28	76	3	11	118	**126**	15	41	57	5	9	112	**127**	11	39	56	5	10	110	**121**	15	42	64	6	8	120	**135**

Total Units: 153
Occupied: 150

3315 Fieldgate

Time	Thurs. February 28, 2019							Fri. March 1, 2019							Sat. March 2, 2019							Sun March 3, 2019						
	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL	Visitor	Leased Resident Space		Unleased Resident Space		Total Resident	TOTAL
		Yes Permit	No Permit	Yes Permit	No Permit				Yes Permit	No Permit	Yes Permit	No Permit				Yes Permit	No Permit	Yes Permit	No Permit				Yes Permit	No Permit	Yes Permit	No Permit		
Supply	**15**	**88**		**84**		**172**	**187**	**15**	**88**		**84**		**172**	**187**	**15**	**88**		**84**		**172**	**187**	**15**	**88**		**84**		**172**	**187**
18:00	6	38	9	12	9	68	**74**	7	50	9	12	5	76	**83**	8	45	16	16	6	83	**91**	11	52	18	16	9	95	**106**
18:30	5	39	17	12	9	77	**82**	7	50	9	12	5	76	**83**	7	52	17	15	6	90	**97**	11	51	17	16	7	91	**102**
19:00	4	39	19	12	8	78	**82**	8	50	11	15	5	81	**89**	7	53	18	17	5	93	**100**	13	54	17	17	7	95	**108**
19:30	3	43	21	9	10	83	**86**	9	51	8	14	5	78	**87**	11	54	17	17	7	95	**106**	13	55	17	18	9	99	**112**
20:00	6	46	22	10	13	91	**97**	11	51	11	12	5	79	**90**	11	54	19	17	8	98	**109**	13	58	18	18	9	103	**116**
20:30	6	51	23	9	11	94	**100**	11	52	12	14	6	84	**95**	11	55	21	19	9	104	**115**	10	56	18	19	9	102	**112**
21:00	6	53	24	12	10	99	**105**	10	51	15	15	8	89	**99**	10	56	22	20	8	106	**116**	11	63	20	18	9	110	**121**
21:30	5	56	23	14	9	102	**107**	10	54	16	16	8	94	**104**	12	58	23	20	10	111	**123**	12	66	21	20	10	117	**129**
22:00	6	60	22	14	8	104	**110**	11	56	15	15	9	95	**106**	12	59	22	23	8	112	**124**	12	65	21	20	9	115	**127**
22:30	6	61	23	15	8	107	**113**	11	58	19	15	8	100	**111**	12	61	23	23	7	114	**126**	10	69	21	20	7	117	**127**
23:00	6	61	24	15	9	109	**115**	11	61	19	15	8	103	**114**	10	63	23	23	7	116	**126**	10	71	21	20	7	119	**129**
23:30	6	65	24	15	9	113	**119**	11	61	20	16	8	105	**116**	9	65	24	23	7	119	**128**	10	73	21	20	7	121	**131**
0:00	6	65	24	15	9	113	**119**	11	62	22	17	8	109	**120**	6	66	23	23	7	119	**125**	10	72	21	21	7	121	**131**
0:30	6	65	25	15	8	113	**119**	11	62	23	17	8	110	**121**	6	66	22	23	7	118	**124**	10	72	21	21	7	121	**131**
1:00	6	66	25	16	8	115	**121**	10	63	23	17	8	111	**121**	6	67	22	23	7	119	**125**	10	72	21	21	7	121	**131**

Total Units: 149
Occupied: 147

1055 Bloor St - Parking Summary

Survey Date: Thursday, October 24, 2019

Supply	191	28	3	0	18	3	216	50	409	459
Time	Surface						Garage			Total
	East Lot				West Lot					
	Resident	Visitor	Unmarked	Illegal	Visitor	Unmarked	Resident	Total Vis	Total Res	
23:00	83	9	0	1	2	0	164	11	247	259
23:30	86	8	0	0	2	0	173	10	259	269
0:00	86	8	0	0	2	0	173	10	259	269
0:30	85	8	0	0	2	0	175	10	260	270
1:00	84	8	0	0	2	0	177	10	261	271
1:30	87	8	0	0	2	0	175	10	262	272
2:00	89	8	0	0	2	0	176	10	265	275
2:30	91	8	0	0	2	0	172	10	263	273
3:00	89	8	0	0	2	0	171	10	260	270
	91	9	0	1	2	0	177	11	265	275

*3 spots were restricted by pylons inside garage, not accounted for in the supply

Survey Date: Friday, October 25, 2019

Supply	191	28	3	0	18	3	216	50	409	459
Time	Surface						Garage			Total
	East Lot				West Lot					
	Resident	Visitor	Unmarked	Illegal	Visitor	Unmarked	Resident	Total Vis	Total Res	
23:00	79	9	0	0	4	0	156	13	235	248
23:30	83	9	0	0	4	0	160	13	243	256
0:00	82	10	0	0	4	0	168	14	250	264
0:30	78	10	0	0	3	0	177	13	255	268
1:00	81	10	0	0	3	0	178	13	259	272
1:30	85	8	0	0	2	0	176	10	261	271
2:00	82	8	0	0	2	0	178	10	260	270
2:30	88	9	0	0	2	0	180	11	268	279
3:00	91	9	0	0	2	0	184	11	275	286
	91	10	0	0	4	0	184	14	275	286

Number of occupied units =	323	
Visitor Rate	0.04	(Friday)
Resident Rate	0.85	(Friday)
Blended Rate	0.89	(Friday)

3480 Havenwood Drive - Parking Demand Summary

Project # 22251
Location: 3480 Havenwood Drive, Mississauga, ON
Surveyor: Jerry Cheng

Date: Thursday, August 11, 2022

Supply	8	2	77	79	166	156			10		
TIME	Surface			U/G	Total	Tenants	Tenant	Tenant Demand	Visitors	Visitor	Visitor Demand
	Visitors	Staff / Trades	Tenants	Tenants		Total	Utilization	(per unit)	Total	Utilization	(per unit)
12:00											
12:30											
13:00											
13:30											
14:00											
14:30											
15:00											
15:30											
16:00											
16:30											
17:00											
17:30											
18:00	2	0	22	43	67	65	42%	0.49	2	20%	0.02
18:30	2	0	23	44	69	67	43%	0.51	2	20%	0.02
19:00	1	0	26	46	73	72	46%	0.55	1	10%	0.01
19:30	1	0	27	49	77	76	49%	0.58	1	10%	0.01
20:00	1	0	29	49	79	78	50%	0.59	1	10%	0.01
20:30	0	0	30	50	80	80	51%	0.61	0	0%	0.00
21:00	0	0	33	52	85	85	54%	0.64	0	0%	0.00
21:30	0	0	34	56	90	90	58%	0.68	0	0%	0.00
22:00	0	0	35	55	90	90	58%	0.68	0	0%	0.00
22:30	0	0	35	57	92	92	59%	0.70	0	0%	0.00
23:00	0	0	34	56	90	90	58%	0.68	0	0%	0.00
23:30	0	0	34	57	91	91	58%	0.69	0	0%	0.00
0:00	0	0	35	58	93	93	60%	0.70	0	0%	0.00
0:30	0	0	37	59	96	96	62%	0.73	0	0%	0.00
1:00	0	0	38	60	98	98	63%	0.74	0	0%	0.00
1:30											
2:00											
2:30											
3:00											
				Max	98	98	63%	0.74	2	20%	0.02

Date: Friday, August 12, 2022

Supply	8	2	77	79	166	156			10		
TIME	Surface			U/G	Total	Tenants	Tenant	Tenant Demand	Visitors	Visitor	Visitor Demand
	Visitors	Staff / Trades	Tenants	Tenants		Total	Utilization	(per unit)	Total	Utilization	(per unit)
12:00											
12:30											
13:00											
13:30											
14:00											
14:30											
15:00											
15:30											
16:00											
16:30											
17:00											
17:30											
18:00	0	0	25	30	55	55	35%	0.42	0	0%	0.00
18:30	0	1	27	36	64	63	40%	0.48	1	10%	0.01
19:00	0	0	26	40	66	66	42%	0.50	0	0%	0.00
19:30	1	0	27	42	70	69	44%	0.52	1	10%	0.01
20:00	0	0	29	44	73	73	47%	0.55	0	0%	0.00
20:30	1	0	30	45	76	75	48%	0.57	1	10%	0.01
21:00	1	0	31	46	78	77	49%	0.58	1	10%	0.01
21:30	3	0	33	48	84	81	52%	0.61	3	30%	0.02
22:00	3	0	34	49	86	83	53%	0.63	3	30%	0.02
22:30	1	0	35	50	86	85	54%	0.64	1	10%	0.01
23:00	0	0	34	49	83	83	53%	0.63	0	0%	0.00
23:30	1	0	35	50	86	85	54%	0.64	1	10%	0.01

0:00	1	0	36	50	87	86	55%	0.65	1	10%	0.01
0:30	1	0	36	51	88	87	56%	0.66	1	10%	0.01
1:00	1	0	37	53	91	90	58%	0.68	1	10%	0.01
1:30	1	0	37	54	92	91	58%	0.69	1	10%	0.01
2:00	1	0	37	55	93	92	59%	0.70	1	10%	0.01
2:30	1	0	38	56	95	94	60%	0.71	1	10%	0.01
3:00	1	0	38	56	95	94	60%	0.71	1	10%	0.01
				Max	95	94	60%	0.71	3	30%	0.02

Date: Saturday, August 13, 2022

Supply	8	2	77	79	166	156			10		
TIME	Surface			U/G	Total	Tenants	Tenant	Tenant Demand	Visitors	Visitor	Visitor Demand
	Visitors	Staff / Trades	Tenants	Tenants		Total	Utilization	(per unit)	Total	Utilization	(per unit)
12:00	1	1	24	41	67	65	42%	0.49	2	20%	0.02
12:30	0	1	26	40	67	66	42%	0.50	1	10%	0.01
13:00	1	1	29	41	72	70	45%	0.53	2	20%	0.02
13:30	1	1	30	40	72	70	45%	0.53	2	20%	0.02
14:00	1	1	26	39	67	65	42%	0.49	2	20%	0.02
14:30	2	1	26	40	69	66	42%	0.50	3	30%	0.02
15:00	2	1	27	41	71	68	44%	0.52	3	30%	0.02
15:30	2	1	26	40	69	66	42%	0.50	3	30%	0.02
16:00	1	1	29	38	69	67	43%	0.51	2	20%	0.02
16:30	1	1	30	36	68	66	42%	0.50	2	20%	0.02
17:00	1	1	31	34	67	65	42%	0.49	2	20%	0.02
17:30	1	1	33	36	71	69	44%	0.52	2	20%	0.02
18:00	1	1	32	38	72	70	45%	0.53	2	20%	0.02
18:30	2	1	32	43	78	75	48%	0.57	3	30%	0.02
19:00	3	1	31	46	81	77	49%	0.58	4	40%	0.03
19:30	1	1	29	48	79	77	49%	0.58	2	20%	0.02
20:00	2	1	33	45	81	78	50%	0.59	3	30%	0.02
20:30	1	1	34	44	80	78	50%	0.59	2	20%	0.02
21:00	1	1	35	46	83	81	52%	0.61	2	20%	0.02
21:30	1	1	35	47	84	82	53%	0.62	2	20%	0.02
22:00	2	1	36	49	88	85	54%	0.64	3	30%	0.02
22:30	4	0	38	50	92	88	56%	0.67	4	40%	0.03
23:00	3	0	39	50	92	89	57%	0.67	3	30%	0.02
23:30	3	0	40	50	93	90	58%	0.68	3	30%	0.02
0:00	1	0	41	53	95	94	60%	0.71	1	10%	0.01
0:30	0	0	42	55	97	97	62%	0.73	0	0%	0.00
1:00	0	0	42	57	99	99	63%	0.75	0	0%	0.00
1:30	0	0	42	59	101	101	65%	0.77	0	0%	0.00
2:00	0	0	42	59	101	101	65%	0.77	0	0%	0.00
2:30	0	0	42	59	101	101	65%	0.77	0	0%	0.00
3:00	0	0	42	59	101	101	65%	0.77	0	0%	0.00
				Max	101	101	65%	0.77	4	40%	0.03

Date: Friday, August 19, 2022

Supply	8	2	77	79	166	156			10		
TIME	Surface			U/G	Total	Tenants	Tenant	Tenant Demand	Visitors	Visitor	Visitor Demand
	Visitors	Staff / Trades	Tenants	Tenants		Total	Utilization	(per unit)	Total	Utilization	(per unit)
12:00											
12:30											
13:00											
13:30											
14:00											
14:30											
15:00											
15:30											
16:00											
16:30											
17:00											
17:30											
18:00	0	0	17	42	59	59	38%	0.45	0	0%	0.00
18:30	1	0	21	42	64	63	40%	0.48	1	10%	0.01
19:00	1	0	23	43	67	66	42%	0.50	1	10%	0.01
19:30	2	0	24	44	70	68	44%	0.52	2	20%	0.02
20:00	2	0	25	45	72	70	45%	0.53	2	20%	0.02
20:30	1	0	27	44	72	71	46%	0.54	1	10%	0.01
21:00	2	0	28	46	76	74	47%	0.56	2	20%	0.02
21:30	2	0	30	48	80	78	50%	0.59	2	20%	0.02

22:00	3	0	31	52	86	83	53%	0.63	3	30%	0.02
22:30	4	0	34	53	91	87	56%	0.66	4	40%	0.03
23:00	3	0	35	55	93	90	58%	0.68	3	30%	0.02
23:30	2	0	36	56	94	92	59%	0.70	2	20%	0.02
0:00	3	0	36	57	96	93	60%	0.70	3	30%	0.02
0:30	3	0	36	59	98	95	61%	0.72	3	30%	0.02
1:00	3	0	37	61	101	98	63%	0.74	3	30%	0.02
1:30	2	0	39	62	103	101	65%	0.77	2	20%	0.02
2:00	2	0	38	62	102	100	64%	0.76	2	20%	0.02
2:30	2	0	39	62	103	101	65%	0.77	2	20%	0.02
3:00	2	0	39	62	103	101	65%	0.77	2	20%	0.02
				Max	103	101	65%	0.77	4	40%	0.03

Date: Saturday, August 20, 2022

Supply	8	2	77	79	166	156			10		
TIME	Surface			U/G	Total	Tenants Total	Tenant Utilization	Tenant Demand (per unit)	Visitors Total	Visitor Utilization	Visitor Demand (per unit)
	Visitors	Staff / Trades	Tenants	Tenants							
12:00	1	0	24	42	67	66	42%	0.50	1	10%	0.01
12:30	3	0	25	43	71	68	44%	0.52	3	30%	0.02
13:00	2	0	27	44	73	71	46%	0.54	2	20%	0.02
13:30	3	0	29	43	75	72	46%	0.55	3	30%	0.02
14:00	3	0	28	43	74	71	46%	0.54	3	30%	0.02
14:30	2	0	27	41	70	68	44%	0.52	2	20%	0.02
15:00	2	0	26	43	71	69	44%	0.52	2	20%	0.02
15:30	2	0	27	44	73	71	46%	0.54	2	20%	0.02
16:00	2	0	28	44	74	72	46%	0.55	2	20%	0.02
16:30	3	0	30	46	79	76	49%	0.58	3	30%	0.02
17:00	3	0	31	45	79	76	49%	0.58	3	30%	0.02
17:30	3	0	29	45	77	74	47%	0.56	3	30%	0.02
18:00	4	0	27	43	74	70	45%	0.53	4	40%	0.03
18:30	2	0	30	45	77	75	48%	0.57	2	20%	0.02
19:00	3	0	30	44	77	74	47%	0.56	3	30%	0.02
19:30	3	0	29	45	77	74	47%	0.56	3	30%	0.02
20:00	4	0	30	43	77	73	47%	0.55	4	40%	0.03
20:30	5	0	31	45	81	76	49%	0.58	5	50%	0.04
21:00	3	0	32	45	80	77	49%	0.58	3	30%	0.02
21:30	3	0	32	46	81	78	50%	0.59	3	30%	0.02
22:00	3	0	34	47	84	81	52%	0.61	3	30%	0.02
22:30	3	0	34	50	87	84	54%	0.64	3	30%	0.02
23:00	4	0	35	51	90	86	55%	0.65	4	40%	0.03
23:30	3	0	36	52	91	88	56%	0.67	3	30%	0.02
0:00	3	0	37	52	92	89	57%	0.67	3	30%	0.02
0:30	3	0	37	54	94	91	58%	0.69	3	30%	0.02
1:00	3	0	39	55	97	94	60%	0.71	3	30%	0.02
1:30	3	0	40	56	99	96	62%	0.73	3	30%	0.02
2:00	3	0	41	57	101	98	63%	0.74	3	30%	0.02
2:30	3	0	41	56	100	97	62%	0.73	3	30%	0.02
3:00	3	0	41	56	100	97	62%	0.73	3	30%	0.02
				Max	101	98	63%	0.74	5	50%	0.04

				Overall Max	103	101	65%	0.77	5	50%	0.04

FIGURE 2-3 **Monthly Adjustment Factors**

Land use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Late Dec[1]	Notes
Retail														
Retail	59%	61%	70%	67%	72%	72%	70%	73%	66%	69%	76%	100%	85%	5
Employee	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%	
Supermarket/grocery	93%	86%	94%	92%	97%	94%	96%	95%	92%	95%	95%	100%	95%	6
Employee	100%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Pharmacy	89%	85%	92%	89%	91%	89%	89%	90%	88%	92%	89%	100%	95%	6
Employee	99%	95%	100%	99%	100%	98%	98%	99%	98%	100%	98%	100%	100%	
Discount stores/ superstores	72%	72%	79%	76%	81%	79%	79%	81%	74%	79%	85%	100%	90%	6
Employee	82%	82%	88%	86%	91%	89%	89%	91%	84%	89%	95%	100%	100%	
Home improvement stores/garden	63%	62%	79%	90%	100%	92%	87%	84%	80%	85%	80%	75%	65%	6
Employee	72%	71%	89%	100%	100%	100%	97%	94%	90%	94%	90%	85%	75%	
Food and beverage														
Fine/casual dining	88%	87%	98%	94%	99%	94%	96%	96%	89%	93%	89%	100%	95%	6
Employee	99%	98%	100%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%	
Family restaurant	88%	87%	98%	94%	99%	94%	96%	96%	89%	93%	89%	100%	95%	6
Employee	99%	98%	100%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%	
Fast casual/fast food/ food court/food halls	85%	85%	97%	95%	99%	98%	100%	100%	93%	96%	92%	96%	95%	6
Employee	96%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Bar/lounge/nightclub	87%	87%	100%	93%	97%	94%	97%	96%	94%	98%	92%	96%	95%	7
Employee	95%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Entertainment and institutions														
Family entertainment (weekdays)[2]	20%	26%	36%	50%	23%	45%	87%	68%	22%	25%	20%	48%	100%	8
Employee	50%	50%	50%	60%	50%	55%	97%	78%	50%	50%	50%	58%	100%	
Family entertainment (weekends)	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	80%	8
Employee	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	90%	
Active entertainment	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	100%	8
Employee	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	100%	
Amusement park/ water park	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	100%	8
Employee	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	100%	
Adult active entertainment	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%	8
Employee	95%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
All movies (weekdays)[2]	50%	50%	45%	33%	55%	50%	75%	55%	25%	25%	55%	55%	100%	5
Employee	60%	60%	55%	50%	65%	60%	85%	65%	50%	50%	65%	65%	100%	
All movies (weekends)	25%	40%	60%	35%	70%	75%	75%	45%	35%	40%	80%	90%	100%	
Employee	50%	50%	70%	50%	80%	85%	85%	55%	50%	50%	90%	100%	100%	
Live theater	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	100%	100%	5
Employee	75%	70%	90%	100%	95%	90%	85%	80%	75%	85%	90%	85%	100%	
Outdoor amphitheater	0%	0%	0%	10%	100%	100%	100%	100%	100%	50%	10%	10%	0%	5
Employee	10%	10%	10%	50%	100%	100%	100%	100%	100%	60%	50%	50%	10%	

(continued on next page)

FIGURE 2-3 (continued)

Land use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Late Dec[1]	Notes
Entertainment and institutions (continued)														
Public park/ destination open space	25%	25%	50%	75%	100%	100%	100%	100%	100%	100%	75%	75%	25%	5
Employee	50%	50%	60%	85%	100%	100%	100%	100%	100%	100%	85%	85%	50%	
Museum/aquarium (weekdays)[2]	20%	26%	36%	50%	23%	45%	87%	68%	22%	25%	20%	48%	100%	8
Employee	50%	50%	50%	60%	50%	55%	97%	78%	50%	50%	50%	58%	100%	
Museum/aquarium (weekends)	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	80%	
Employee	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	90%	
Arena	90%	100%	100%	100%	100%	75%	0%	0%	60%	65%	90%	100%	95%	8
Employee	100%	100%	100%	100%	100%	100%	10%	10%	75%	75%	100%	100%	100%	
Pro football stadium[3]	0%	0%	0%	0%	90%	90%	90%	90%	100%	100%	100%	100%	100%	8
Employee	10%	10%	10%	10%	10%	10%	10%	100%	100%	100%	100%	100%	100%	
Pro baseball stadium	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	8
Employee	10%	10%	25%	90%	100%	100%	100%	100%	100%	100%	10%	10%	10%	
Health club	100%	95%	85%	70%	65%	65%	65%	70%	80%	85%	85%	100%	95%	9
Employee	100%	100%	95%	80%	75%	75%	75%	80%	90%	95%	95%	100%	10%	
Public library	75%	75%	80%	85%	90%	90%	90%	90%	95%	95%	90%	65%	50%	8
Employee	85%	85%	85%	90%	95%	95%	90%	95%	100%	100%	95%	65%	50%	
Convention center[4]	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	100%	0%	8
Employee	85%	100%	100%	65%	70%	60%	55%	85%	90%	95%	100%	100%	0%	
Hotel and residential														
Hotel-business	60%	75%	90%	100%	95%	95%	95%	85%	90%	95%	80%	60%	55%	10,11
Hotel-leisure	80%	90%	100%	100%	90%	90%	100%	100%	75%	75%	75%	50%	100%	
Hotel employees	Use same factor as guests for type of hotel													
Restaurant/lounge	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%	
All meeting banquet (<100 sq ft/key)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Convention (>100 sq ft/key)	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	100%	0%	
Restaurant/meeting employees	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Residential unreserved residents	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%	8
Reserved residents	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Visitor	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%	
Active senior housing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	8
Residents	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

(continued on next page)

FIGURE 2-3 (continued)

Land use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Late Dec[1]	Notes
							Office							
Office	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	12
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	
Open plan/ high-density office	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	12
Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	
Medical/dental office	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	5
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	
Daycare center	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	5
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	
Bank (drive-in branch)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	5
Employee	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

1. December = December 1–24; Late December = December 25–31.
2. Land uses particularly affected by school year on weekdays.
3. Because there is only one weeknight game and no Saturday games per NFL team September through November, and activity patterns are modified at adjacent uses, this category is not considered a design day for parking planning.
4. Many convention centers are completely dark in Late December.
5. Developed by team members from a combination of sources.
6. U.S. Census Bureau Unadjusted Estimates of Retail Sales, 2008–2017.
7. U.S. Census Bureau Unadjusted Estimates of Retail Sales, 2012–2017.
8. Confidential data provided by facility managers.
9. John W. Dorsett, "Parking Requirements for Health Clubs," *The Parking Professional*, April 2004.
10. https://catalog.data.gov/dataset/monthly-hotel-occupancy-b2f97.
11. https://www.statista.com/statistics/206546/us-hotels-occupancy-rate-by-month/.
12. Parking Study conducted by Patton Harris Rust & Associates for the Peterson Companies, 2001.

DIXIE OUTLET MALL - PARKING UTILIZATION SUMMARY

PROJECT NO.: 19373.230

Notes: Zone D is under construction

there is an unmarked area in Zone I, which roughly estimates to 225 spaces, NOT accounted for in the supply

SURVEY DATE: Friday Oct 28, 2022

ZONE	SUPPLY	OBSTRUCTED	AVAILABLE	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00
A	393	60	333	44	53	61	82	88	97	109	110	106	106	107	104	102	96	90	78	75	77	81	68	65	47	25
B	459	62	397	10	12	10	24	31	39	48	41	43	37	34	34	35	37	37	41	38	34	35	31	19	13	4
C	423	0	423	41	57	66	106	117	134	146	137	129	123	124	124	126	124	125	122	120	127	123	110	87	64	22
D	118	118	0	under construction																						
E	85	0	85	2	0	2	4	11	12	20	10	19	9	9	5	2	4	7	3	5	2	3	2	2	2	2
F	219	0	219	40	62	103	120	154	179	201	185	166	137	143	144	146	165	162	176	159	161	161	135	121	69	26
G	290	0	290	58	76	92	114	107	110	105	103	77	78	104	92	85	84	81	78	86	64	55	63	59	41	9
H	35	0	35	1	0	2	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
I	430	0	430	34	40	43	48	51	56	55	55	55	54	59	57	67	61	63	46	42	36	29	29	25	22	14
J	348	0	348	13	18	17	24	23	25	22	26	23	29	27	30	20	21	21	21	19	19	19	17	15	10	6
TOTAL	2800	240	2560	243	318	396	522	582	652	706	667	618	574	607	590	583	592	587	566	544	520	506	455	393	268	108

SURVEY DATE: Saturday Oct 29, 2022

ZONE	SUPPLY	OBSTRUCTED	AVAILABLE	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00
A	393	60	333	67	70	83	99	110	140	162	159	170	166	145	147	149	145	150	146	132	99	65	0	0	0	0
B	459	62	397	21	26	24	33	36	49	63	62	81	95	100	97	88	72	60	52	47	32	20	0	0	0	0
C	423	0	423	83	92	101	154	181	205	238	302	291	291	291	284	272	261	253	246	153	101	85	0	0	0	0
D	118	118	0	under construction																						
E	85	0	85	5	3	2	3	9	9	8	13	11	10	15	16	13	5	6	3	6	5	3	0	0	0	0
F	219	0	219	50	90	165	183	217	223	217	209	214	224	227	232	221	233	228	224	211	158	79	0	0	0	0
G	290	0	290	79	83	102	116	125	139	131	167	182	180	169	166	172	167	143	141	120	75	52	0	0	0	0
H	35	0	35	0	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0
I	430	0	430	48	54	77	85	92	89	105	112	100	107	98	99	96	80	71	54	50	22	19	0	0	0	0
J	348	0	348	29	27	27	36	42	37	34	41	43	53	60	56	46	41	33	27	18	15	11	0	0	0	0
TOTAL	2800	240	2560	382	446	582	709	812	892	959	1066	1093	1126	1105	1098	1058	1005	945	893	737	507	334	0	0	0	0

SURVEY DATE: Sunday Oct 30, 2022

ZONE	SUPPLY	OBSTRUCTED	AVAILABLE	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00
A	393	60	333	0	0	61	71	118	121	143	156	170	191	202	205	193	162	147	137	77	0	0	0	0	0	0
B	459	62	397	0	0	17	23	46	50	54	58	69	73	77	89	81	64	49	44	18	0	0	0	0	0	0
C	423	0	423	0	0	71	82	122	146	181	202	226	239	242	248	253	223	201	191	80	0	0	0	0	0	0
D	118	118	0	under construction																						
E	85	0	85	0	0	4	2	5	7	9	6	7	5	8	5	5	3	6	4	2	0	0	0	0	0	0
F	219	0	219	0	0	98	149	201	223	219	230	232	238	236	233	235	212	203	172	99	0	0	0	0	0	0
G	290	0	290	0	0	83	102	118	161	146	159	166	180	178	192	199	178	109	86	74	0	0	0	0	0	0
H	35	0	35	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I	430	0	430	0	0	68	78	95	98	107	111	120	129	137	126	122	96	67	57	38	0	0	0	0	0	0
J	348	0	348	0	0	24	22	34	36	36	44	48	53	50	44	36	33	31	18	14	0	0	0	0	0	0
TOTAL	2800	240	2560	0	0	426	529	739	842	895	967	1039	1108	1130	1142	1124	971	813	709	402	0	0	0	0	0	0

SURVEY DATE: Tuesday Nov 1, 2022

ZONE	SUPPLY	OBSTRUCTED	AVAILABLE	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00
A	393	60	333	49	57	62	79	90	111	118	110	99	97	94	90	85	81	77	68	65	72	77	71	67	51	24
B	459	62	397	14	19	30	27	21	23	27	27	29	25	23	24	27	20	21	22	24	26	24	21	18	14	6
C	423	0	423	47	68	83	94	115	117	122	124	120	119	115	115	111	109	95	91	93	90	88	81	64	35	21
D	118	118	0	under construction																						
E	85	0	85	4	6	5	5	9	9	4	11	7	9	5	3	2	5	3	1	3	0	5	3	2	0	0
F	219	0	219	40	53	113	152	167	178	172	165	151	137	152	138	125	121	116	106	110	129	116	98	66	52	27
G	290	0	290	52	59	65	89	88	79	78	82	97	73	77	67	71	68	68	63	65	57	57	60	30	22	10
H	35	0	35	0	0	1	0	1	2	0	0	0	0	1	1	0	0	0	0	1	0	1	1	1	0	0
I	430	0	430	5	9	31	35	38	40	47	45	49	48	42	43	41	45	45	36	33	28	26	25	25	25	17
J	348	0	348	18	18	18	18	18	18	19	19	18	20	23	19	19	20	20	22	21	18	18	16	15	10	8
TOTAL	2800	240	2560	229	289	408	499	547	577	587	583	570	528	532	500	481	469	445	409	415	420	412	376	288	209	113

SURVEY DATE: Saturday Nov 5, 2022

ZONE	SUPPLY	OBSTRUCTED	AVAILABLE	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00
A	393	60	333	57	71	101	132	149	160	183	205	226	229	228	208	199	195	186	183	177	141	80	0	0	0	0
B	459	62	397	18	30	38	49	56	59	65	70	70	66	72	75	80	78	71	65	49	33	17	0	0	0	0
C	423	0	423	55	87	137	173	216	235	275	298	317	321	328	324	320	296	283	267	203	163	87	0	0	0	0
D	118	118	0	under construction																						
E	85	0	85	5	7	10	12	13	15	10	9	19	17	15	14	4	5	3	2	4	2	1	0	0	0	0
F	219	0	219	47	92	126	163	211	232	230	233	235	231	234	233	231	226	209	210	180	150	103	0	0	0	0
G	290	0	290	89	87	100	109	113	168	166	181	174	157	159	148	136	118	107	83	75	65	81	0	0	0	0
H	35	0	35	0	0	1	1	1	1	2	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
I	430	0	430	41	46	81	98	102	93	100	115	113	110	118	129	111	101	89	70	46	40	36	0	0	0	0
J	348	0	348	20	23	27	32	36	38	39	37	44	46	45	49	47	52	50	40	30	24	21	0	0	0	0
TOTAL	2800	240	2560	332	443	621	769	897	1001	1070	1149	1199	1177	1199	1181	1129	1071	998	920	764	618	426	0	0	0	0

SURVEY DATE: Sunday Nov 6, 2022

ZONE	SUPPLY	OBSTRUCTED	AVAILABLE	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00
A	393	60	333	0	0	68	141	177	200	210	223	235	241	231	216	231	201	175	137	55	0	0	0	0	0	0
B	459	62	397	0	0	21	45	55	61	63	67	82	91	91	89	79	67	61	58	27	0	0	0	0	0	0
C	423	0	423	0	0	61	158	192	213	247	285	303	318	316	304	291	263	208	144	63	0	0	0	0	0	0
D	118	118	0	under construction																						
E	85	0	85	0	0	5	7	10	6	7	9	12	7	7	5	8	12	9	3	4	0	0	0	0	0	0
F	219	0	219	0	0	130	153	189	200	228	231	233	233	235	234	234	234	181	151	111	0	0	0	0	0	0
G	290	0	290	0	0	117	116	111	126	129	165	180	181	179	186	184	161	137	90	47	0	0	0	0	0	0
H	35	0	35	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
I	430	0	430	0	0	69	81	84	95	93	97	111	113	109	107	104	95	88	72	65	0	0	0	0	0	0
J	348	0	348	0	0	23	23	25	37	44	51	49	53	57	56	60	52	39	33	21	0	0	0	0	0	0
TOTAL	2800	240	2560	0	0	494	724	843	938	1021	1128	1205	1238	1226	1198	1192	1085	898	688	393	0	0	0	0	0	0

SUMMARY

Existing retail G 69810 sq.m.
Occupied retail GFA: 50625 sq.m.
Vacant retail GFA: 19185 sq.m.

Survey Date	Max Observed Demand	Max Demand (Monthly Adjustment Factor Applied)	Max Demand (Adjusted) / 100 m2 GFA (Occupied)	Zoning By-law Rate Applied to Vacant Retail GFA	Total Demand	Total Demand / 100 m2 GFA
Friday Oct 28, 2022	706	929	1.83	1036	1965	2.81
Saturday Oct 29, 2022	1126	1482	2.93	1036	2518	3.61
Sunday Oct 30, 2022	1142	1503	2.97	1036	2539	3.64
Tuesday Nov 1, 2022	587	772	1.53	1036	1808	2.59
Saturday Nov 5, 2022	1199	1578	3.12	1036	2614	3.74
Sunday Nov 6, 2022	1238	1629	3.22	1036	2665	3.82

Existing Supply	2800	
Existing Supply Rate	4.01	spaces per 100 sq.m GFA
Existing Unobstructed Supply	2560	
Existing Unobstructed Supply Rate	3.67	spaces per 100 sq.m GFA
Existing Supply, including unmarked area	2950	
Total Existing Supply Rate	4.23	spaces per 100 sq.m GFA
Spaces to be removed (MTO)	279	
Supply After Expropriation	2671	
Supply Rate After Expropriation	3.83	spaces per 100 sq.m GFA
Net loss of parking due to development	486	
Supply after development	2185	
Future GFA (m2)	53929	
Supply Rate after development	4.05	spaces per 100 sq.m GFA

APPENDIX J

Precedent Development Application Excerpts

1750 Bloor St & 3315 Fieldgate Dr

MISSISSAUGA

NOTICE OF THE PASSING OF
AN OFFICIAL PLAN AMENDMENT AND A ZONING BY-LAW

DATE OF NOTICE	May 12, 2022	
OPA NUMBER	OPA 123 (By-law 0072-2022)	
ZONING BY-LAW NUMBER	0073-2022	
DATE PASSED BY COUNCIL	May 04, 2022	
LAST DATE TO FILE APPEAL	**June 01, 2022**	
FILE NUMBER	OZ 17/014	Ward 3
APPLICANT	Bousfields Inc.	
PROPERTY LOCATION	Southeast corner of Bloor Street and Fieldgate Drive, in the City of Mississauga. The subject lands are located in the Applewood Neighbourhood Character Area, as identified in Mississauga Official Plan.	

TAKE NOTICE that on May 04, 2022 the Council of the Corporation of the City of Mississauga passed the above noted Official Plan Amendment OPA 123 and Zoning By-law, under Section 17 or 21 of the Planning Act, R.S.O., 1990, c.P.13, as amended. Council has considered the written and oral submissions from the public on this matter.

THE PURPOSE AND EFFECT of the Official Plan Amendment is to add a Special Site to the Applewood Neighbourhood Character Area and to delete the floor space index (FSI) range from the subject site.

The purpose of the Zoning By-law is to permit a 15 storey apartment building and a one storey amenity building in addition to the two existing 11 storey apartment buildings. This By-law amends the zoning of the property outlined on the attached Schedule "A" from "RA3-1" (Apartments - Exception) to "RA3-38" (Apartments - Exception).

The Zoning By-law shall not come into force until Mississauga Official Plan Amendment Number 123 is in full force and effect.

The decision of Council is final if a notice of appeal is not received on or before the last day for filing a notice of appeal.

IF YOU WISH TO APPEAL to the Ontario Land Tribunal a copy of an appeal form is available from the OLT website at olt.gov.on.ca. An appeal may be filed by registered mail or courier addressed to the Clerk of the City of Mississauga, Attention: Diana Rusnov, 300 City Centre Drive, Mississauga, Ontario L5B 3C1 no later than **June 01, 2022**.

Only individuals, corporations and public bodies may appeal a by-law to the Ontario Land Tribunal. A notice of appeal may not be filed by an unincorporated association or group. However, a notice of appeal may be filed in the name of an individual who is a member of the association or the group on its behalf.

No person or public body shall be added as a party to the hearing of the appeal unless, before the official plan amendment and/or by-law was passed, the person or public body made oral submissions at a public meeting or written submissions to the City of Mississauga Council or, in the opinion of the Ontario Land Tribunal, there are reasonable grounds to add the person or public body as a party.

The Notice of Appeal must:
1) set out reasons for the appeal;
2) be accompanied by the fee prescribed under the *Ontario Land Tribunal Act* in the amount of $1,100.00 per application, payable by certified cheque or money order to the Minister of Finance. A copy of the Ontario Land Tribunal Fee Schedule may be found at https://olt.gov.on.ca/appeals-process/fee-chart/
3) be accompanied by a fee in the amount of $300.00, payable to the City of Mississauga.

MORE INFORMATION: A copy of the Official Plan Amendment and Zoning By-law in their entirety can be found at www.mississauga.ca/portal/cityhall/publicnotices or from Tori Stockwell of the City of Mississauga, Planning and Building Department at (905) 615-3200 X 5531.

Sacha Smith, Manager & Deputy Clerk
Legislative Services,
Corporate Services Department
905-615-3200 X 4516

THE CORPORATION OF THE CITY OF MISSISSAUGA

BY-LAW NUMBER 0072-2022

A by-law to Adopt Mississauga Official Plan Amendment No. 123

WHEREAS in accordance with the provisions of sections 17 or 21 of the *Planning Act*, R.S.O. 1990, c.P.13, as amended, ("*Planning Act*") Council may adopt an Official Plan or an amendment thereto;

AND WHEREAS, pursuant to subsection 17(10) of the *Planning Act,* the Ministry of Municipal Affairs and Housing authorized the Regional Municipality of Peel, ("Region" or "Regional"), an approval authority, to exempt from its approval any or all proposed Local Municipal Official Plan Amendments;

AND WHEREAS, Regional Council passed By-law Number 1-2000 which exempted all Local Municipal Official Plan Amendments adopted by local councils in the Region after March 1, 2000, provided that they conform with the Regional Official Plan and comply with conditions of exemption;

AND WHEREAS, the Commissioner of Public Works for the Region has advised that, with regard to Amendment No. 123, in his or her opinion the amendment conforms with the Regional Official Plan and is exempt;

AND WHEREAS, Council desires to adopt certain amendments to Mississauga Official Plan to add a Special Site to the Applewood Neighbourhood Character Area;

NOW THEREFORE the Council of The Corporation of the City of Mississauga ENACTS as follows:

1. The document attached hereto, constituting Amendment No. 123 to Mississauga Official Plan, is hereby adopted.

ENACTED and PASSED this 4th day of May, 2022.

Approved by
Legal Services
City Solicitor
City of Mississauga

Bonnie Crombie

MAYOR

THE CORPORATION OF THE CITY OF MISSISSAUGA

BY-LAW NUMBER 0073-2022

A by-law to amend By-law Number 0225-2007, as amended.

WHEREAS pursuant to section 34 of the *Planning Act*, R.S.O. 1990, c.P.13, as amended, the council of a local municipality may pass a zoning by-law;

NOW THEREFORE the Council of The Corporation of the City of Mississauga ENACTS as follows:

1. By-law Number 0225-2007, as amended, being a City of Mississauga Zoning By-law, is amended by adding the following Exception Table:

4.15.4.38	Exception: RA3-38	Map # 19	By-law:
In a RA3-38 zone the permitted **uses** and applicable regulations shall be as specified for a RA3 zone except that the following **uses**/regulations shall apply:			
Regulations			
4.15.4.38.1	The provisions contained in Subsection 2.1.14 of this By-law shall not apply		
4.15.4.38.2	Maximum **floor space index - apartment zone**		1.8
4.15.4.38.3	For the purposes of this By-law, all lands zoned RA3-38 shall be considered one **lot**		
4.15.4.38.4	The **lot line** abutting Bloor Street shall be deemed the **front lot line**		
4.15.4.38.5	Maximum projection of a **balcony** located above the **first storey** measured from the outermost face or faces of the **building** from which the **balcony** projects		1.5 m
4.15.4.38.6	Minimum number of resident **parking spaces** per rental apartment **dwelling unit**		0.8
4.15.4.38.7	Minimum number of visitor **parking spaces** per rental apartment **dwelling unit**		0.09
4.15.4.38.8	Minimum setback from a waste enclosure/loading area to a **street line**		7.5 m

2. Map Number 19 of Schedule "B" to By-law Number 0225-2007, as amended, being a City of Mississauga Zoning By-law, is amended by changing thereon from "RA3-1" to "RA3-38", the zoning of Part of Lot 13, Concession 1, North of Dundas Street, in the City of Mississauga, PROVIDED HOWEVER THAT the "RA3-38" zoning shall only apply to the lands which are shown on the attached Schedule "A", which is deemed to be an integral part of this By-law, outlined in the heaviest broken line with the "RA3-38" zoning indicated thereon.

3. This By-law shall not come into force until Mississauga Official Plan Amendment Number 123 is in full force and effect.

ENACTED and PASSED this 4th day of May 2022.

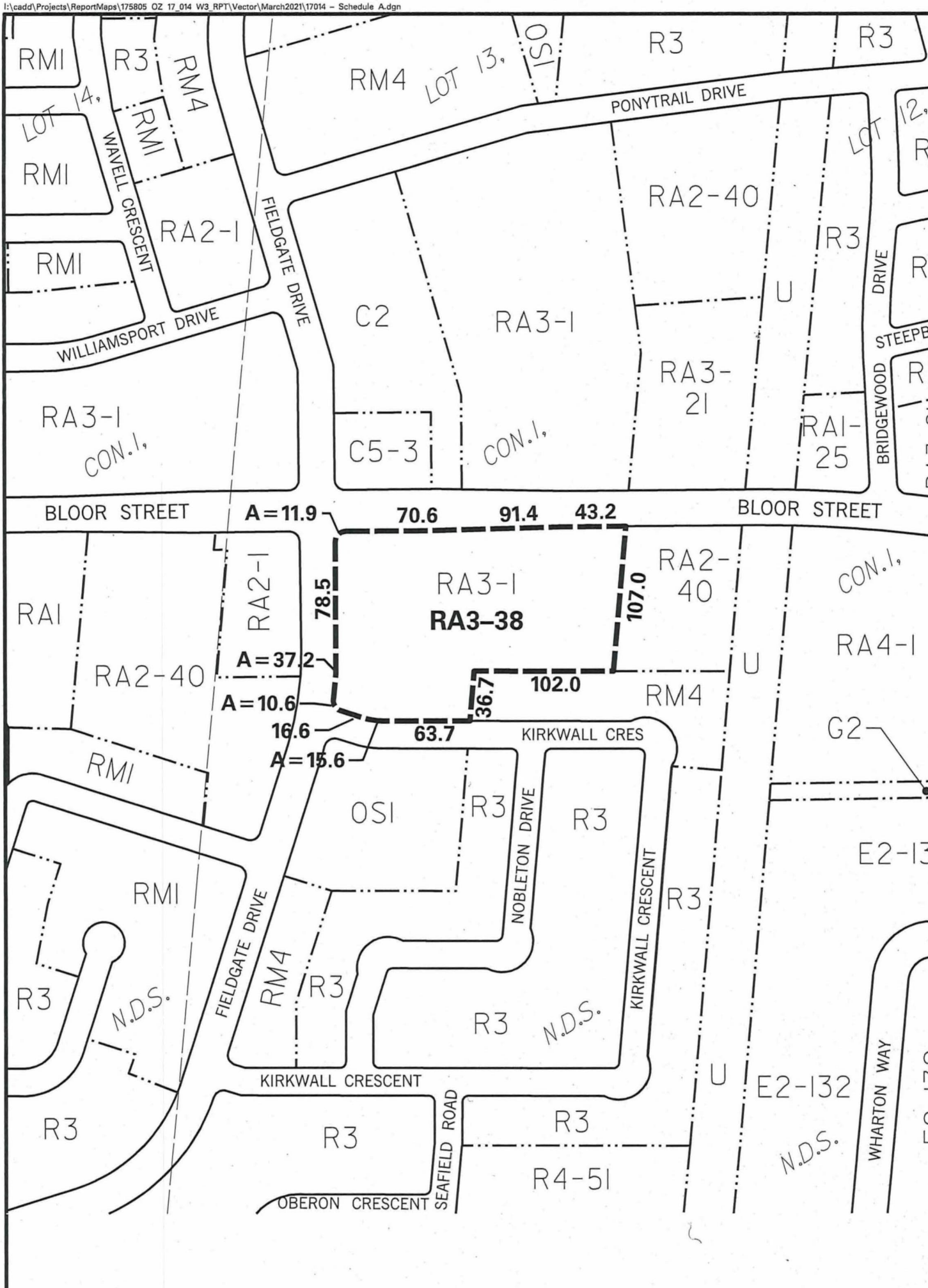
Bonnie Crombie

MAYOR

CLERK

Approved by Legal Services **City Solicitor** City of Mississauga
MEM
Michal Minkowski
Date: April 25, 2022
File: OZ 17/014

I:\cadd\Projects\ReportMaps\175805 OZ 17_014 W3_RPT\Vector\March2021\17014 – Schedule A.dgn



9. Zoning

The proposed **RA3-38** (Apartments - Exception) is appropriate to accommodate the proposed 15 storey apartment building with a maximum FSI of 1.8 and a total of 204 additional units for a total of 566 residential units.

Below is an updated summary of the proposed site specific zoning provisions:

Proposed Zoning Regulations

Zone Regulations	RA3 Zone Regulations	Proposed RA3-38 Zone Regulations
Maximum **floor space index (FSI)**	1.2	1.8
Maximum h**eight**	38.0 m (124.7 ft.) 12 **storeys**	54m (177/2 ft.) 15 **storeys**
Setbacks and building separations will be identified on an exception schedule in accordance with the site plan drawing		
Maximum projection of a **balcony** located above the **first storey** measured from the outermost face or faces of the **building** from which the **balcony** projects	1.5 m (4.9 ft.)	2.5 m (8.2 ft.)
Minimum setback from a waste enclosure/loading area to a **street line**	10.0 m (32.8 ft.)	7.5 m (24.6 ft.)
Notwithstanding any other provisions of this By-law, the calculation of **height** for **apartment, long-term care** and **retirement buildings**, shall be exclusive of mechanical or architectural appurtenances such as mechanical equipment, mechanical penthouse, elevator machine rooms, telecommunication equipment and enclosures, parapets, turrets, cupolas, stairs and stair enclosures, located on the roof of a dwelling provided that the maximum height of the top of such elements is no higher than 8.5 m above the height limit otherwise applicable.		
Amenity uses will be permitted at the		√

Zone Regulations	RA3 Zone Regulations	Proposed RA3-38 Zone Regulations
mechanical penthouse level		
Minimum number of resident **parking spaces** per rental apartment **dwelling unit**	1.18 per 1 bedroom unit 1.16 per 2 bedroom unit 1.50 per 3 bedroom unit	0.80
Minimum number of visitor **parking spaces** per rental apartment **dwelling unit**	0.25	0.09

In addition to the regulations listed, other minor and technical variations to the implementing by-law may also apply, including changes that may take place before Council adoption of the by-law, should the application be approved.

10. Bonus Zoning

Council adopted Corporate Policy and Procedure 07-03-01 – Bonus Zoning on September 26, 2012. In accordance with Section 37 of the *Planning Act* and policies contained in the Official Plan, this policy enables the City to secure community benefits when increases in permitted height and/or density are deemed to be good planning by Council through the approval of a development application.

The subject lands are currently zoned **RA3-1** (Apartments – Exception) which permits apartments. The **RA3-1** zone allows buildings up to12 storeys and a maximum floor spaces index (FSI) of 1.2. The applicant is seeking to permit a 15 storey apartment building, in addition to the existing two 11 storey apartments with a proposed FSI of 1.8. As the project is higher than what is permitted on the site, it meets the minimum threshold for a Section 37 contribution.

11. Site Plan

Prior to development of the lands, the applicant will be required to obtain site plan approval. A site plan application has been submitted for the proposed development under File SP 20-129 W3.

While the applicant has worked with City departments to address many site plan related issues through review of the rezoning concept plan, further revisions will be needed to confirm fire servicing distances, lighting plan, noise and wind migration measures. In addition, staff will continue to work with the applicant to introduce further improvements to the building elevations and the composition of exterior finishes that will result in an appropriate visual transition relative to the existing buildings and the surrounding context.

12. Conclusions

In conclusion, City staff has evaluated the applications to permit a 15 storey apartment building and one storey amenity/service building against the *Provincial Policy Statement*, the *Growth Plan for the Greater Golden Horseshoe*, Region of Peel Official Plan and Mississauga Official Plan.

LEA Consulting Ltd.
625 Cochrane Drive, 9th Floor
Markham, ON, L3R 9R9 Canada
T | 905 470 0015 F | 905 470 0030
WWW.LEA.CA

April 8th, 2020 **Reference Number:** 18005/220

Ms. Lorie Sterritt
Planner
City of Mississauga
Email: lorie.sterritt@mississauga.ca
Telephone: 905-615-3200 ext. 5403

RE: Transportation Update Addendum
Proposed Residential Development
1750 Bloor Street & 3315 Fieldgate Drive, City of Mississauga

Dear Ms. Sterritt:

LEA Consulting Ltd. (LEA) was retained by Timbercreek Asset Management Inc. to complete various transportation and parking studies in support of a proposed residential development at 1750 Bloor Street & 3315 Fieldgate Drive in the City of Mississauga. The previous documents prepared by LEA in support of the proposed development include:

- Transportation Impact Study (October 31, 2017);
- Transportation Impact Study Update (April 19, 2018);
- Transportation Impact Study Update (October 19, 2018);
- Parking Justification (October 19, 2018);
- Parking Justification Update Draft (December 7, 2018); and
- Parking Justification Update (April 24, 2019).

Based on discussion with City staff during a meeting on February 14, 2019, City staff has requested for additional parking surveys to be conducted in support of the reduced parking provisions. Accordingly, LEA has completed additional parking surveys which has been documented in this letter. This letter also provides an update on the proposed site plan.

COMPARISON OF SITE STATISTICS

The October 2018 site plan and statistics proposed the addition of 292 units to the existing 302 units on the subject site. The updated site plan, dated October 2019, proposes an additional 258 units to the existing 302 units. A comparison of the October 2018 and current submission is provided in **Table 1**.

Table 1: Site Statistics Comparison

	October 2018 Submission	Current Submission	Difference
Existing	302 units		
Proposed	292 units	258 units	-34 units
Vehicular Parking	385 Residential spaces + 80 Visitor spaces = 465 spaces (0.78 spaces/unit)	363 Residential spaces + 2 Car Share spaces + 85 Visitor spaces = 450 spaces (0.80 spaces/unit)	-15 spaces

As the site statistics are decreased from the October 2018 site plan, the updated site statistics will have a minor impact on the October 2018 TIS Update in the Trip Generation, Future Total Traffic Conditions and Parking Review. The location of the subject site is shown in **Figure 1**, and the site plan for the current submission is illustrated in **Figure 2**. The subject site remains accessible from an access on Kirkwall Crescent and the relocated signalized access on Bloor Street.

Figure 1: Site Location

Table 3: Recommended Parking Requirements and Proposed Parking Supply

Unit Type	Units	Parking Rate (spaces/unit)	Spaces Required
1-Bedroom	302	1.18	356
2-Bedroom	238	1.36	324
3-Bedroom	20	1.5	30
		Total Resident	**712**
Visitor	560	0.20	112
		Total	**824**
		OVERALL RATE	*1.47*

According to the City's Zoning By-law, the subject development is required to provide a total of 824 parking spaces consisting of 712 resident and 112 visitor spaces. Currently, the development is proposing a total of 575 physical parking spaces (1.027 spaces/unit), which is 249 spaces short of the By-law requirement.

EXISTING PARKING DEMAND

In order to understand the existing parking demand at the subject site, the parking rental information from early 2019, provided by the Owner, was reviewed for the two existing residential towers – 1750 Bloor Street (Tower A) and 3315 Fieldgate Drive (Tower B). This information details the number of resident parking permits that are currently leased by the tenants. The overall number of units, occupied units, parking supply, rented parking spaces, and the existing parking demand rates for Towers A and B are summarized in **Table 4**.

Table 4: Existing Parking Permits

Building	Units	Occupied Units	Residential			Visitor	
			Supply	Rented Spaces	Demand Rate	Supply	Supply Rate
Tower A	153	150	173	104	0.69	18	0.12
Tower B	149	147	172	88	0.60	15	0.10
TOTAL	**302**	**297**	**345**	**192**	**0.65**	**33**	**0.11**

Based on the parking rental information, there are currently 297 occupied units and a total of 192 resident parking permits leased for both buildings. Therefore, it is our understanding that the residential parking demand should not exceed these values. Based on the occupied units, the combined resident parking demand for the subject site is currently **0.65 spaces/unit**, while the combined visitor supply rate is 0.11 spaces/unit, resulting in an overall parking rate of 0.76 spaces/unit. In comparison to our previous Parking Justification Update (December 2018), there were 299 occupied units and 170 leased spaces, yielding a permit rate of 0.57 spaces/unit.

PARKING DEMAND SURVEY

As confirmed with City staff, LEA conducted additional on-site parking demand surveys of both residential buildings over four (4) days from Thursday, February 28, 2019 to Sunday March 3, 2019 between 6:00pm and 1:00am. Correspondence with City staff is provided in **Attachment 1**. The results of the parking surveys are summarized in **Table 5** below, with detailed survey results provided in **Attachment 2**. It is noted that the "Combined Peak Demand" is the peak of the combined demand observed for both buildings at each

1785 Bloor St

Ontario Hydro owned lands. Beyond the immediate area surrounding the site, land uses consist mostly of low-density detached dwellings.

3. PROPOSED DEVELOPMENT

The site plan, provided by onespace, is shown in Figure 2. The proposed development consists of a new 14-storey apartment building addition to the lot, consisting of 238 units. The unit breakdown is as follows:

- 1-Bedroom: 73 units
- 2-Bedroom: 126 units
- 3-Bedroom: 39 units

The existing apartment building on site is to remain unchanged, with the new structure to be in place of the existing parking lot. A total of 314 residential units are to be provided on-site, including the existing 76 units. The unit breakdown is as follows:

- Bachelor: 20 units
- 1-Bedroom: 91 units
- 2-Bedroom: 164 units
- 3-Bedroom: 39 units

Parking on site is to be provided via 19 at-grade visitor parking spaces, and two levels of underground parking consisting of 270 spaces. In total, 289 parking spaces are provided, with 48 visitor parking spaces and 241 resident parking spaces. Although not included in the total parking count, 15 tandem parking spaces are also provided in the underground levels for resident use to be coordinated. Access to the site is currently to remain via the existing drive aisle from Bloor Street.

4. EXISTING CONDITIONS

4.1 Road Network

The roadways located in the study area are described as follows:

Bloor Street is an arterial road that runs in an east-west direction, under the jurisdiction of the City of Mississauga. It consists of four travel lanes, two in each direction. The posted speed limit within the study area is 50km/h.

Fieldgate Drive is a local road under the jurisdiction of the City of Mississauga, running in a north-south direction. It has two travel lanes, one in each direction. The speed limit is unposted, and is assumed to be 50 km/h.

Bridgewood Drive is a local road under the jurisdiction of the City of Mississauga, running in a north-south direction. It has two travel lanes, one in each direction. The speed limit is unposted, and is assumed to be 50 km/h.

There is also a Signalized Pedestrian Crossing (PXO) located between the 1745-1759 site access driveways (30m west of subject site access), which will be included in the road network analyzed through this report.

The existing study area roadway characteristics are shown in Figure 3.

Table 12 below shows a comparison of projected parking demands, generated using parking rates based on city by-law requirements, to those generated by the surveyed parking rate.

Table 12 – Comparison of Projected Parking Demand

1785 Bloor Street Parking Statistics	Existing Apartment (76 units)		Existing + Additional Development (314 units)	
	Required (City By-law)	Existing	Required (City By-law)	Proposed
Supply	108	99	472	289
Rate	108 / 76 = 1.42	99 / 76 = 1.30	472 / 314 = 1.50	289 / 314 = 0.92

As noted above, the City parking requirements generate a parking rate of 1.42 for the existing development, and 1.50 with the addition of the new residential development. The surveyed 0.92 rate generated from the current parking utilization survey estimates a peak demand of 289 total parking spaces.

10.6 Parking Supply Allocation

Based on the surveyed rate of 0.92 parking spaces / unit, 289 parking spaces are proposed for the residential development.

Table 13 – Parking Space Count

314 units	Resident Parking	Visitor Parking	Total	Tandem Spaces
Supply	241	48	289	15
Parking Rate	0.77 spaces / unit	0.15 spaces / unit	0.92 spaces / unit	0.05 spaces / unit

To match the existing visitor parking rate of 0.15 spaces / unit, 48 visitor parking spaces are proposed for the 314 residential units. The remaining 241 parking spaces are to be provided for residents. Although each unit would not have a vehicle parking space, the residential units would be catered to those who do not own a personal vehicle. In addition, 15 tandem spaces are provided for residents for an additional 0.05 resident spaces / unit. Although not included in the parking supply count for requirements, the additional spaces would allow residents who require additional spaces to purchase the tandem spaces.

1000 & 1024 Dundas Street East

City of Mississauga
Corporate Report

MISSISSAUGA

Date: April 14, 2023

To: Chair and Members of Planning and Development Committee

From: Andrew Whittemore, M.U.R.P., Commissioner of Planning & Building

Originator's file:
OZ/OPA 22-18 W1

Meeting date:
May 8, 2023

Subject

PUBLIC MEETING INFORMATION REPORT (WARD 1)

Official Plan Amendment and Rezoning applications to permit 4, 16 and 20 storey rental apartment buildings with at grade commercial uses
1000 and 1024 Dundas Street East, south side of Dundas Street East and east of Tomken Road
Owner: Ahmed Group (1000 Dundas St. E.) Inc. and Ahmed Group (1024 Dundas St. E.) Inc.
File: OZ/OPA 22-18 W1

Pre-Bill 109

Recommendation

That the report dated April 14, 2023, from the Commissioner of Planning and Building regarding the applications by Ahmed Group (1000 Dundas St. E.) Inc. and Ahmed Group (1024 Dundas St. E.) Inc. to permit 4, 16 and 20 storey rental apartment buildings with at grade commercial uses, under File OZ/OPA 22-18 W 1, 1000 and 1024 Dundas Street East, be received for information.

Background

The applications have been deemed complete and circulated for technical comments. On January 20, 2023 the owner appealed the applications to the Ontario Land Tribunal (OLT) due to non-decision by City Council and a pre-hearing has been scheduled for May 8, 2023. The purpose of this report is to provide preliminary information on the applications and to seek comments from the community. The report consists of two parts, a high level overview of the applications and a detailed information and preliminary planning analysis (Appendix 1).

Attachments

Appendix 1: Detailed Information and Preliminary Planning Analysis

A Whittemore

Andrew Whittemore, M.U.R.P., Commissioner of Planning & Building

Prepared by: Paul Stewart, Development Planner

Detailed Information and Preliminary Planning Analysis

Owner: Ahmed Group (1000 Dundas St. E.) Inc. & Ahmed Group (1024 Dundas St. E.) Inc.

Address: 1000 and 1024 Dundas Street East

Table of Contents

1. Proposed Development

The applicant proposes to develop the property with 4, 16 and 20 storey rental apartment buildings containing 543 apartment units with at grade commercial space along Dundas Street East. Official plan amendment and rezoning applications are required to permit the proposed development (refer to Section 4 for details concerning the proposed amendments).

Development Proposal		
Applications submitted:	Received: August 4, 2022 Circulated: September 1, 2022 Appealed to OLT: January 20, 2023	
Developer/ Owner:	Ahmed Group (1000 Dundas St. E.) Inc. Ahmed Group (1024 Dundas St. E.) Inc.	
Applicant:	Plan Logic Consulting Inc.	
Number of units:	543 units(1)	
Proposed Gross Floor Area:	Residential: 37,401 m^2 (402,581 ft^2) Commercial: 750 m^2 (8,073 ft^2) Total: 38,151 m^2 (410, 654 ft^2)	
Tenure of Residential	Rental Apartment Units	
Height(2):	20 storeys / 70.4 m (231 ft.) 16 storeys / 62.2 m (204 ft.) 4 storeys / 15.0 m (49 ft.)	
Floor Space Index:	4.7	
Anticipated Population:	1,189* *Average household sizes for all units (by type) based on the 2016 Census	
Vehicular Parking: resident spaces visitor spaces retail Total	Required(3) 489 109 Share with visitor 598	Provided(3) 370 69 Share with visitors 439
Green Initiatives:	A number of initiatives have been proposed including: • Rainwater harvesting • Native vegetation • Conservation strategies (e.g. tri-sorter system, high-efficiency water fixtures)	
(1) The exact unit count is dependent on the size and type of residential units that are marketable at the site plan approval stage. The planning justification report and draft zoning by-law amendment indicate a total of 543 units are proposed; however, this number could drop as low as 462 units depending on the ultimate unit mix. (2) Height figures include rooftop mechanical penthouses. The 20 storey building has a proposed 7 m (23 ft.) tall mechanical penthouse and the 16 storey building has a proposed 10 m (33 ft.) tall mechanical penthouse. There is no mechanical space proposed for the 4 storey building. See Section 4 for additional information on zoning and measurement of height. (3) Required parking spaces based on 543 units and current zoning by-law requirements. Proposed parking spaces based on statistics provided in the Urban Design Brief, which identify 462 residential units with 370 residential parking spaces (including 35 spaces with mechanical systems where vehicles can be stacked vertically on top of each other) and 69 visitor spaces. The City has requested clarification as to the number of parking spaces based on proposed maximum of 543 units.		

Supporting Studies and Plans

The applicant has submitted the following information in support of the applications which can be viewed at http://www.mississauga.ca/portal/residents/development-applications:

- Architectural Drawings
- Planning Justification Report
- Draft Official Plan and Zoning Amendments

Zone Regulations	RA5 Base Zone Regulations	Proposed RA5 Exception Zone Regulations
Maximum encroachment or projection of other building elements	1.0 m (3.3 ft.) (for encroachment of a **balcony** located above the **first storey**, sunroom, window, **chimney**, pilaster, cornice, balustrade or roof eves into a required **yard**) 1.8 m (5.9 ft.) (for encroachment into a required **yard** of a **porch, balcony**, located on the **first storey**, staircase, landing or awning, provided that each shall have a maximum width of 6.0 m / 19.7 ft.) 1.0 m (3.3 ft.) (for projection of a **balcony** located above the **first storey** measured from the outmost face or faces of the **building**)	No distance specified Elements that may extend beyond required setbacks, include: above grade electrical transformer, window, chimney, pilaster, cornice balustrade, eave, roof overhang, staircase, staircase enclosure, landing, awning, canopies, lighting fixtures, guard rails, decks, porches, structures for wind mitigation, retaining walls, stairs, stair enclosures, ramps and associated structures, bicycle storage enclosures or racks.
Rental Apartment Use Required Minimum Parking Spaces	Residential space per unit: 0.9 Visitor space per unit: 0.2 Combined space per unit: 1.1	Combined residential and visitor spaces per unit: 0.8
Non-Residential Use Required Minimum Parking Spaces	Visitor parking spaces may be shared with required non-residential spaces, subject to conditions (e.g. number of spaces must be the greater of visitor parking spaces or the required parking spaces for non-residential uses)	Non-residential parking spaces are to be shared with residential / visitor parking

Zone Regulations	RA5 Base Zone Regulations	Proposed RA5 Exception Zone Regulations
Accessible parking spaces for residential uses[7]	The minimum number of required accessible parking spaces are calculated based on a visitor parking rate of 0.2 spaces per unit	The minimum number of required accessible parking spaces are calculated based on a visitor parking rate of 0.1 spaces per unit
Minimum setback from a **parking structure** completely below finished grade, inclusive of external access stairwells to any **lot line**	3.0 m (9.8 ft.)	0.0 m Proposed regulation also requests a 0.0 m setback to a municipal easement for an existing sanitary sewer (located on 2550 Stanfield Road) Proposed regulation also requests a 0.0 m setback for an underground retaining wall adjacent to a municipal easement
Location of **parking** and **loading spaces**	All **parking, loading spaces** and **electric vehicle ready parking spaces** shall be provided, maintained and be clearly identified and marked by permanent lines and markings painted on the paved surface on the same **lot** for which the **parking, loading spaces** and **electric vehicle ready parking spaces** are required.	Request regulation not apply
Obstruction of **parking spaces**	No **use** shall be located on any required **parking area** or obstruct any required **parking space**	Request regulation not apply
Access to **parking** and **loading spaces**	Access to and from **parking** and **loading spaces** shall be provided by unobstructed on-site **driveways** or **driveways** and **aisles**	Request regulation not apply

Affordable Housing

In October 2017 City Council approved *Making Room for the Middle – A Housing Strategy for Mississauga* which identified housing affordability issues for low and moderate incomes in the city. In accordance with the Provincial Growth Plan (2019) and Amendment No. 1 (2020), *Provincial Policy Statement* (2020), Regional Official Plan and Mississauga Official Plan (MOP), the City requests that proposed multi-unit residential developments incorporate a mix of units to accommodate a diverse range of incomes and household sizes. The proposed development will provide 543 rental apartment units, with the following unit mix:

Proposed Unit Mix	
Type of Unit	Number of Units
Studio	233
1 Bedroom	77
1 Bedroom + Den	92
2 Bedroom	94
2 Bedroom + Den	45
3 Bedroom	2
Total	543
Unit mix subject to change	

5. School Accommodation

The Peel District School Board

Student Yield	School Accommodation		
46 Kindergarten to Grade 5 20 Grade 6 to Grade 8 27 Grade 9 to Grade 12	Westacres Public School	Allan A. Martin Senior Public School	Cawthra Park Secondary School
	Enrolment: 268 Capacity: 248 Portables: 0	Enrolment: 448 Capacity: 524 Portables: 0	Enrolment: 1,285 Capacity: 1,044 Portables: 5

The Dufferin-Peel Catholic District School Board

Student Yield	School Accommodation		
10 Kindergarten to Grade 8 8 Grade 9 to Grade 12	St. Thomas More Elementary School	Philip Pocock Secondary School	
	Enrolment: 564 Capacity: 648 Portables: 0	Enrolment: 1118 Capacity: 1257 Portables: 0	

1225 Dundas Street East

City of Mississauga
Corporate Report

MISSISSAUGA

Date: January 6, 2023

To: Chair and Members of Planning and Development Committee

From: Andrew Whittemore, M.U.R.P., Commissioner of Planning & Building

Originator's file:
OZ/OPA 22-20 W3

Meeting date:
January 30, 2023

Subject

PUBLIC MEETING INFORMATION REPORT (WARD 3)

Official Plan Amendment and Rezoning applications to permit a 12 storey apartment with ground floor commercial uses and 34 back to back townhouses
1225 Dundas Street East, northeast corner of Dundas Street East and Arena Road
Owner: Stephen-Mitchell Reality Limited, Whitehorn Investments Limited, Lynrob Investments Limited, Richco Investments Limited and Tobdele Investments Limited
Files: OZ/OPA 22-20 W3

Pre-Bill 109

Recommendation

That the report dated January 6, 2023, from the Commissioner of Planning and Building regarding the applications by Stephen-Mitchell Reality Limited, Whitehorn Investments Limited, Lynrob Investments Limited, Richco Investments Limited and Tobdele Investments Limited to permit a 12 storey apartment with ground floor commercial uses and 34 back to back townhouses, under File OZ/OPA 22-20 W3, 1225 Dundas Street East, be received for information.

Background

The applications have been deemed complete and circulated for technical comments. The purpose of this report is to provide preliminary information on the applications and to seek comments from the community. The report consists of two parts, a high level overview of the applications and a detailed information and preliminary planning analysis (Appendix 1).

PROPOSAL

The official plan amendment and rezoning applications are required to permit a 12 storey apartment with ground floor commercial uses and 34 back to back townhouses. In total, 496 dwelling units and 675.5 m^2 (7,271 ft^2) of ground floor commercial uses are proposed. The

Detailed Information and Preliminary Planning Analysis

Owner: Stephen-Mitchell Reality Limited, Whitehorn Investments Limited, Lynrob Investments Limited, Richco Investments Limited and Tobdele Investments Limited

1225 Dundas Street East

Table of Contents

1. Proposed Development

The applicant proposes to construct a 12 storey apartment building with 675.5 m^2 (7,271 ft^2) of ground floor commercial area and 34 back to back townhouses. In total, 496 dwellings are proposed. Official plan amendment and rezoning applications are required to permit the proposed development (refer to Section 4 for details concerning the proposed amendments).

Development Proposal		
Applications submitted:	Received: July 8, 2022 Deemed complete: October 7, 2022	
Developer/ Owner:	Stephen-Mitchell Reality Limited, Whitehorn Investments Limited, Lynrob Investments Limited, Richco Investments Limited and Tobdele Investments Limited	
Applicant:	Glen Schnarr & Associates	
Number of units:	469 units	
Proposed Gross Floor Area:	43,770.2 m^2 (471,138.5 ft^2)	
Height: Apartment Townhomes	 12 storeys / 161.5 m (529.9 ft.) 3 storeys / 9.2 m (30.0 ft.)	
Floor Space Index:	3.66	
Anticipated Population:	1220* *Average household sizes for all units (by type) based on the 2016 Census	
Parking: resident spaces visitor spaces retail Total	Required 537 111 24 672	Provided 306 56 14 376
Green Initiatives:	• Landscape irrigation	
	• Bicycle storage • Erosion and sediment control • Public transportation access	

Supporting Studies and Plans

The applicant has submitted the following information in support of the applications which can be viewed at http://www.mississauga.ca/portal/residents/development-applications:

- Acoustical Feasibility Study
- Arborist Report
- Architectural Drawings
- Draft Official Plan Amendment
- Draft Zoning By-law Amendment
- Erosion and Sediment Control Plan
- Functional Servicing and Stormwater Management Report
- Grading and Servicing Plan
- Green Design Features
- Housing Report
- Landscape Plan
- Low Impact Design Features
- Parcel Registry
- Phase 1 Environmental Site Assessment
- Planning Justification Report
- Sun Shadow Study
- Traffic Impact Study
- Tree Inventory and Preservation Plan
- Urban Design Brief
- Wind Study

Zone Regulations	Existing C3 Zone Regulations	RA3 Base Zone Regulations	Proposed RA3-Exception Zone Regulations
For that portion of the dwelling with a **height** greater than 26.0 m (85.3 ft.):		15.0 m (49.2 ft.) **Back to Back Townhouse** n/a	11.4 m (37.4 ft.) **Back to Back Townhouse** 2.7 m (8.9 ft.)
Minimum setback from a **parking structure** completely below finished grade, inclusive of external access stairwells, to any **lot line**	N/A	3.0 m (9.8 ft.)	1.3 m (4.3 ft.)
Minimum **Landscaped Area**	N/A	40% of the **lot area**	37.5% of the **lot area**
Minimum number of **Parking Spaces**	Varying rates depdening on use	**Apartment** 1.0 resident spaces per unit 0.2 visitor spaces per unit **Towhouse** 2.0 spaces per unit 0.25 visitor per unit	**Apartment** 0.51 resident spaces per unit 0.1 visitor spaces per unit **Towhouse** 0.9 spaces per unit 0.18 visitor per unit

Affordable Housing

In October 2017 City Council approved *Making Room for the Middle – A Housing Strategy for Mississauga* which identified housing affordability issues for low and moderate incomes in the city. In accordance with the Provincial Growth Plan (2019) and Amendment No. 1 (2020), *Provincial Policy Statement* (2020), Regional Official Plan and Mississauga Official Plan (MOP), the City requests that proposed multi-unit residential developments incorporate a mix of units to accommodate a diverse range of incomes and household sizes.

225 Dundas Street West

City of Mississauga
Corporate Report

MISSISSAUGA

Date: December 17, 2021

To: Chair and Members of Planning and Development Committee

From: Andrew Whittemore, M.U.R.P., Commissioner of Planning & Building

Originator's file:
OZ/OPA 21-004 W7

Meeting date:
January 10, 2022

Subject

PUBLIC MEETING INFORMATION REPORT (WARD 7)

Official Plan Amendment and Rezoning applications to permit a 14 storey (stepped) apartment building with a 6 storey podium containing ground floor commercial uses
255 Dundas Street West, northwest corner of Dundas Street West and Parkerhill Road
Owner: 2683340 Ontario Inc.
Files: OZ/OPA 21-4 W7

Recommendation

That the report dated December 17, 2021, from the Commissioner of Planning and Building regarding the applications by 2683340 Ontario Inc. to permit a 14 storey (stepped) apartment building with a 6 storey podium containing ground floor commercial uses, under File OZ/OPA 21-4 W7, 255 Dundas Street West, be received for information.

Background

The applications have been deemed complete and circulated for technical comments. The purpose of this report is to provide preliminary information on the applications and to seek comments from the community. The report consists of two parts, a high level overview of the applications and a detailed information and preliminary planning analysis (Appendix 1).

PROPOSAL

The official plan amendment and rezoning applications are required to permit a 14 storey (stepped) apartment building with a 6 storey podium containing ground floor commercial uses. The 14 storey apartment building gradually steps down to 8 storeys at the east property line and 4 storeys along the north property line. The applicant is proposing to redesignate the property from **Mixed Use** to **Residential High Density** to permit a 14 storey (stepped) apartment building with ground floor commercial uses. The zoning by-law will also need to be amended from **C3-26** (General Commercial) to **RA4-Exception** (Apartments) to implement this development proposal.

Detailed Information and Preliminary Planning Analysis

Owner: 2683340 Ontario Inc.

255 Dundas Street West

Table of Contents

1. Proposed Development

The applicant proposes to develop the property with a stepped 4 to14 storey apartment building containing 393 dwelling units and ground floor commercial uses within a 6 storey podium along the Dundas Street West frontage. Official plan amendment and rezoning applications are required to permit the proposed development (refer to Section 4 for details concerning the proposed amendments).

Development Proposal		
Applications submitted:	Received: May 4, 2021 Deemed incomplete: June 3, 2021 Deemed complete: June 17, 2021	
Developer/ Owner:	2683340 Ontario Inc. (c/o Domenic Poretta)	
Applicant:	Blackthorne Development Corp. (c/o Maurizio Rogato)	
Number of units:	393 residential units	
Existing Gross Floor Area:	2,194.70 m^2 (23,616 ft^2)	
Proposed Gross Floor Area:	31,468.00 m^2 (338, 718.73 ft^2) residential 1,293.00 m^2 (13,917.73 ft^2) commercial	
Height:	14 storeys / 48.63 m (159.54 ft.)	
Lot Coverage:	40 %	
Floor Space Index:	3.48	
Landscaped Area:	46%	
Road Type:	Public	
Anticipated Population:	861* *Average household sizes for all units (by type) based on the 2016 Census	
Parking: resident spaces	Required: 393	Provided: 333
visitor spaces Total	Required: 59 452	Provided: 58 391
Green Initiatives:	• Storm Water will be re-used for irrigation in summer months • Dry swale	

Supporting Studies and Plans

The applicant has submitted the following information in support of the applications which can be viewed at http://www.mississauga.ca/portal/residents/development-applications:

- Planning Justification Report
- Concept Plan and Elevations
- Urban Design Study
- Acoustic Study (Environmental Noise)
- Sun/shadow Study
- Pedestrian Level Wind Study
- Arborist Report (Tree Inventory/Preservation Plans)
- Archaeological Assessment (Clearance)
- Draft Official Plan and Zoning By-law Amendments
- Transportation Impact Study with Parking Utilization Study
- Transportation Demand Strategy
- Functional Servicing Report
- Phase I Environmental Report
- Grading and Servicing Plans

Zone Regulations	RA4 Zone Regulations	Proposed RA4 Amended Zone Regulations
	dwelling with a **height** greater than 20.0 m and less than or equal to 26.0 m - 9.5 m (31.1 ft)	
	8.4 For that portion of the dwelling with a **height** greater than 26.0 m - 10.5 m (34.4 ft)	Shall not apply
Minimum **front yard** and **exterior side yard** setback		2.0 m (6.56 ft.)
Minimum number of resident **parking spaces** per **dwelling unit**	Section 3 – • resident space per studio unit • 1.25 resident spaces per one-bedroom unit • 1.40 resident spaces per two-bedroom unit • 1.75 resident spaces per three-bedroom unit	0.85
Minimum number of visitor **parking spaces** per **dwelling unit**	Section 3 – • 0.20 visitor spaces per unit	0.15
Minimum setback from a **parking structure** completely below finished grade, inclusive of external access stairwells, to any lot	3.0 m (9.8 ft)	Shall not apply

Zone Regulations	RA4 Zone Regulations	Proposed RA4 Amended Zone Regulations
line		
Minimum depth of a landscaped buffer abutting a lot line that is a street line	4.5 m (14.8 ft.)	0.0 m

Affordable Housing

In October 2017 City Council approved *Making Room for the Middle – A Housing Strategy for Mississauga* which identified housing affordability issues for low and moderate incomes in the city. In accordance with the Provincial Growth Plan (2019) and Amendment No. 1 (2020), *Provincial Policy Statement* (2020), Regional Official Plan and Mississauga Official Plan (MOP), the City requests that proposed multi-unit residential developments incorporate a mix of units to accommodate a diverse range of incomes and household sizes.

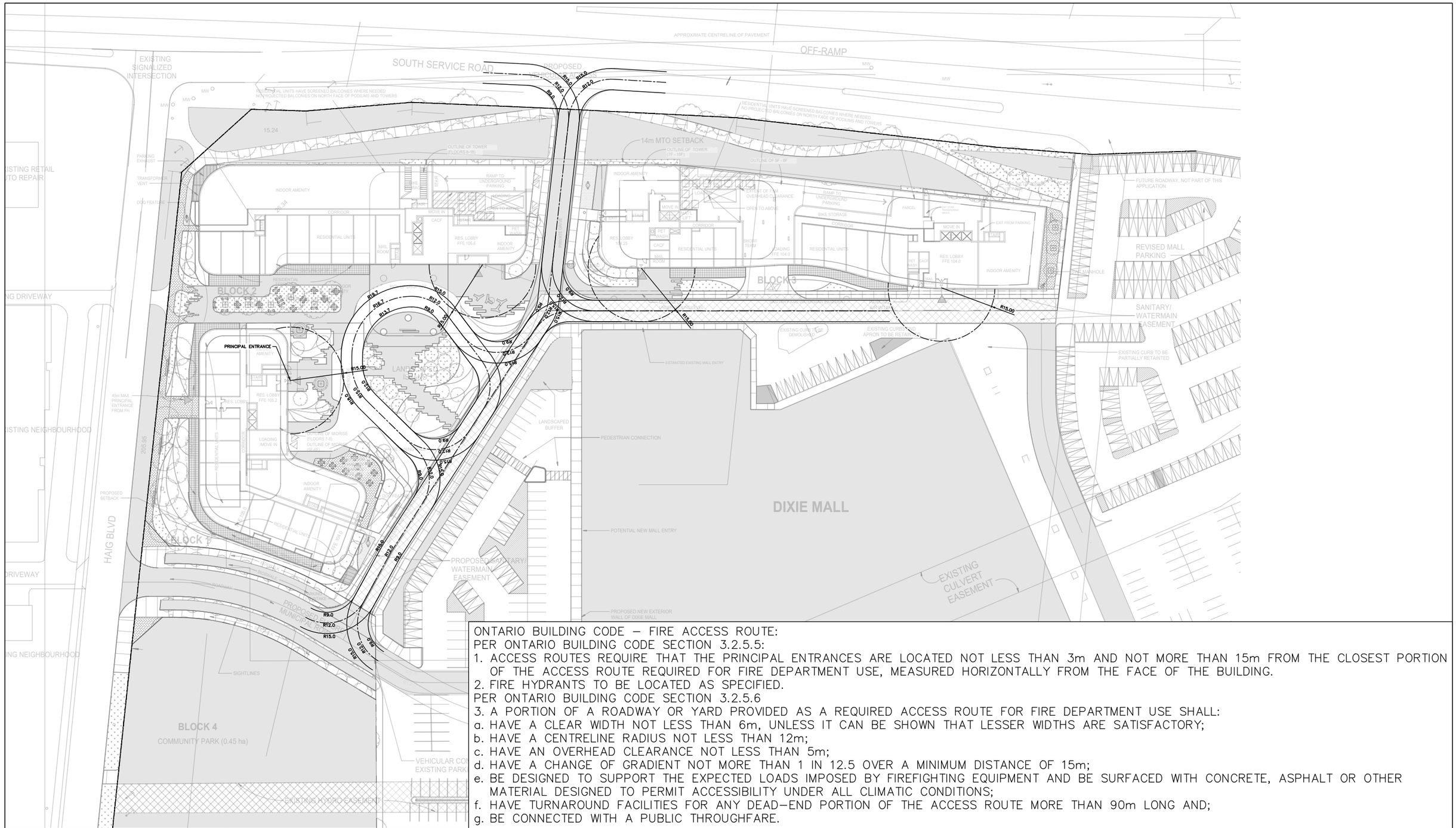
Applicants proposing non-rental residential developments of 50 units or more – requiring an official plan amendment or rezoning for additional height and/or density beyond as-of-right permissions – will be required to demonstrate how the proposed development is consistent with/conforms to Provincial, Regional and City housing policies. The City's official plan indicates that the City will provide opportunities for the provision of a mix of housing types, tenures and at varying price points to accommodate households. The City's annual housing targets by type are contained in the Region of Peel Housing and Homelessness Plan 2018-2028 https://www.peelregion.ca/housing/housinghomelessness/pdf/plan-2018-2028.pdf.

To achieve these targets, the City is requesting that a minimum of 10% of new ownership units be affordable. The 10% contribution rate will not be applied to the first 50 units of a development. The contribution may be in the form of on-site or off-site units, land dedication, or financial contributions to affordable housing elsewhere in the city.

The City is seeking to ensure that a minimum of 10% of units are affordable to middle income households. The 10% rate is not applied to the first 50 units. Based on the existing proposal, the City is seeking to ensure that a minimum of 35 units are middle income affordable units.

APPENDIX K

Functional Design Review



ONTARIO BUILDING CODE – FIRE ACCESS ROUTE:
PER ONTARIO BUILDING CODE SECTION 3.2.5.5:

1. ACCESS ROUTES REQUIRE THAT THE PRINCIPAL ENTRANCES ARE LOCATED NOT LESS THAN 3m AND NOT MORE THAN 15m FROM THE CLOSEST PORTION OF THE ACCESS ROUTE REQUIRED FOR FIRE DEPARTMENT USE, MEASURED HORIZONTALLY FROM THE FACE OF THE BUILDING.
2. FIRE HYDRANTS TO BE LOCATED AS SPECIFIED.

PER ONTARIO BUILDING CODE SECTION 3.2.5.6

3. A PORTION OF A ROADWAY OR YARD PROVIDED AS A REQUIRED ACCESS ROUTE FOR FIRE DEPARTMENT USE SHALL:

a. HAVE A CLEAR WIDTH NOT LESS THAN 6m, UNLESS IT CAN BE SHOWN THAT LESSER WIDTHS ARE SATISFACTORY;
b. HAVE A CENTRELINE RADIUS NOT LESS THAN 12m;
c. HAVE AN OVERHEAD CLEARANCE NOT LESS THAN 5m;
d. HAVE A CHANGE OF GRADIENT NOT MORE THAN 1 IN 12.5 OVER A MINIMUM DISTANCE OF 15m;
e. BE DESIGNED TO SUPPORT THE EXPECTED LOADS IMPOSED BY FIREFIGHTING EQUIPMENT AND BE SURFACED WITH CONCRETE, ASPHALT OR OTHER MATERIAL DESIGNED TO PERMIT ACCESSIBILITY UNDER ALL CLIMATIC CONDITIONS;
f. HAVE TURNAROUND FACILITIES FOR ANY DEAD–END PORTION OF THE ACCESS ROUTE MORE THAN 90m LONG AND;
g. BE CONNECTED WITH A PUBLIC THROUGHFARE.

LEA Consulting Ltd.
Consulting Engineers and Planners
www.LEA.ca

Project No. 19373

Date APR. 3, 2024

DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

10 0 10 20 30m
1:1000

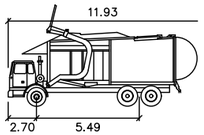
GROUND FLOOR – FIRE ROUTE

Drawing No. 001

DRAWN BY: CBARTOS PLOT DATE: April 3, 2024

DRAWING NAME: F:\19373\Drafting\19373WF028_FDR.dwg

ENTRY PATH



Garbage Peel (2020)

	meters
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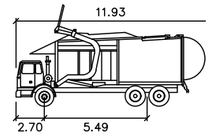
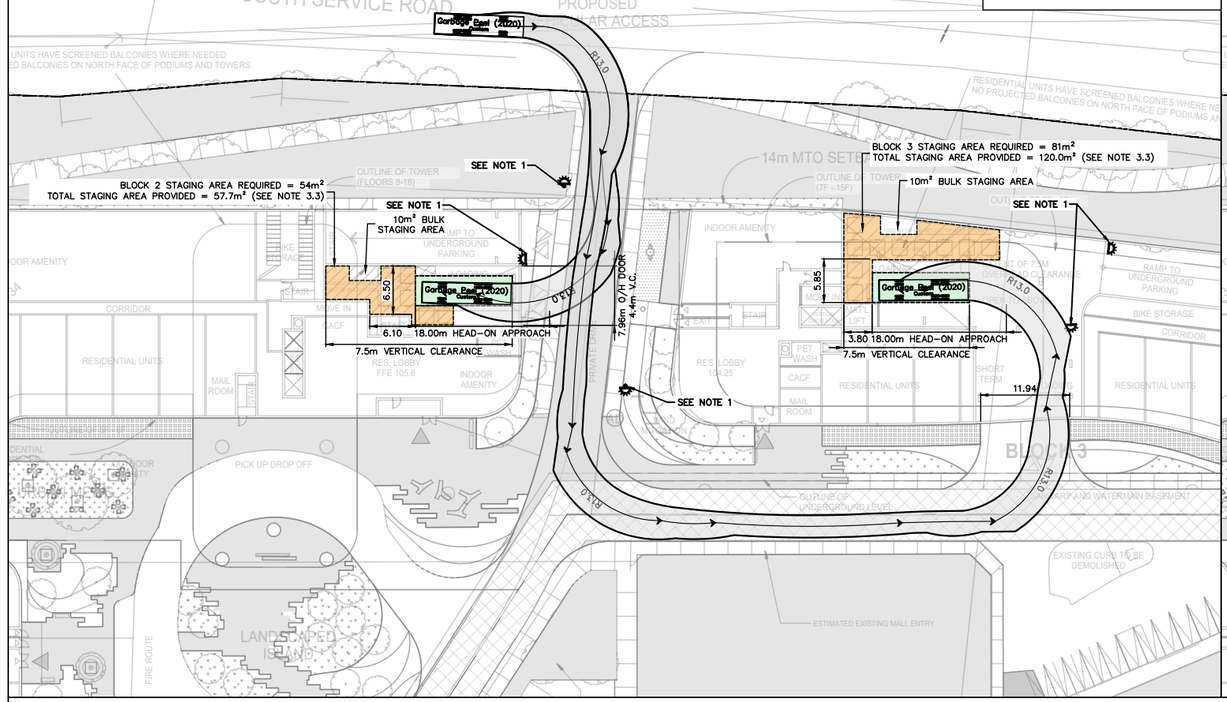
Track	: 2.77
Lock to Lock Time	: 6.0
Steering Angle	: 25.0

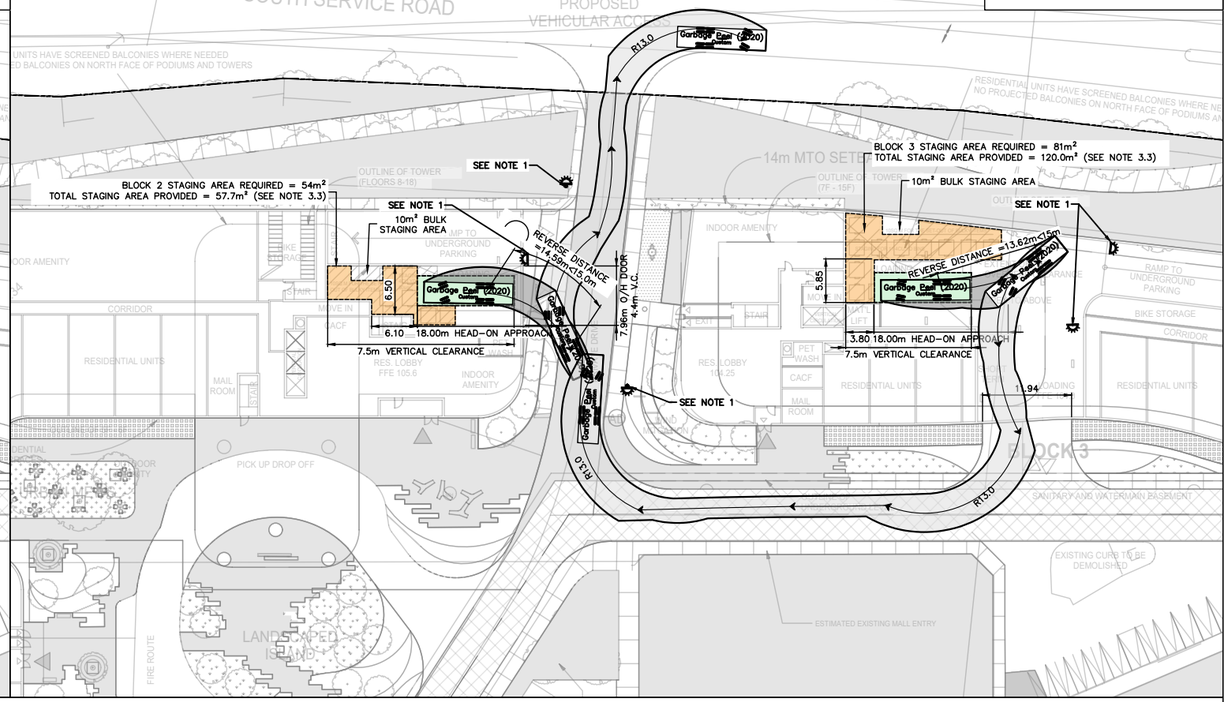
EXIT PATH



Garbage Peel (2020)

	meters
Width	: 2.77
Track	: 2.77
Lock to Lock Time	: 6.0
Steering Angle	: 25.0





NOTES:

1. FLASHING WARNING LIGHT TO BE ACTIVATED WHEN TRUCKS ENTER AND EXIT THE SITE. THE SYSTEM TO REMAIN ACTIVATED DURING THE CITY GARBAGE COLLECTION ACTIVITY AND UNTIL THE TRUCK EXITS THE SITE. FIVE (5) WARNING SIGN TO BE MOUNTED BELOW THE FLASHING LIGHT.
2. A TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER THE GARBAGE BINS FOR THE COLLECTION DRIVER AND ACT AS A FLAG MAN WHEN THE TRUCK IS REVERSING. IN THE EVENT AND ON-SITE STAFF MEMBER IS UNAVAILABLE AT THE TIME OF CITY COLLECTION VEHICLE ARRIVES AT THE SITE, THE COLLECTION VEHICLE WILL LEAVE THE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED COLLECTION DAY.
3. PER REGION OF PEEL WASTE COLLECTION DESIGN STANDARDS MANUAL (2020)

3.1. ACCESS ROAD
- 3.1.1. TURNS MUST HAVE A MIN. OF 13M TURNING RADIUS FOR WASTE COLLECTION VEHICLES.
- 3.1.2. ALL ACCESS ROADS MUST HAVE A MIN. 6M WIDTH AND MAX. 8% GRADING.
- 3.1.3. WASTE COLLECTION VEHICLES SHALL NOT REVERSE IN EXCESS OF 15m AND TURN WHILE REVERSING.
- 3.1.4. OUTSIDE THE COLLECTION POINT, A CLEARANCE HEIGHT OF 4.4M FROM TOP OF ACCESS ROAD MUST BE PROVIDED ALONG THE WASTE COLLECTION VEHICLE ACCESS.

3.2. COLLECTION POINT
- 3.2.1. MIN. 18m STRAIGHT HEAD-ON APPROACH TO THE COLLECTION POINT
- 3.2.2. A MIN. CLEARANCE HEIGHT OF 7.5m FROM THE CONCRETE PAD TO THE COLLECTION POINT.
- 3.2.3. MIN. 6m WIDTH AND MAX 2% SLOPE AT CONCRETE PAD AND 18m APPROACH.

3.3. NUMBER OF RECYCLE BINS SHOWN IN STAGING AREA IS MEANT TO DENOTE THAT THE SPACE CAN ACCOMMODATE THE NECESSARY NUMBER OF RESIDENTIAL COLLECTION BINS AS PER SECTION 4.
- RECYCLE COLLECTION GOVERNS THE STAGING AREA REQUIREMENT
  - BLOCK 2: FOR 338 UNITS, $\frac{338}{60}$ = 6 4-YD^3 BINS ARE REQUIRED.
  - BLOCK 3: FOR 500 UNITS, $\frac{500}{60}$ = 9 4-YD^3 BINS ARE REQUIRED.
- EACH 4-YD^3 BIN RESERVES 3mx3m SPACE:
  - BLOCK 2 STAGING AREA = 54m²
  - BLOCK 3 STAGING AREA = 81m²

3.4. GARBAGE STAGING AREA CONFIGURATION SUBJECTED TO THE APPROVAL OF REGION OF PEEL'S WASTE MANAGEMENT DEPARTMENT.

WATCH FOR TURNING TRUCKS WHEN FLASHING

(600x300)
BLACK LEGEND & BORDER,
WHITE REFL. BACKGROUND.

PLOT DATE: April 3, 2024
DRAWN BY: CBARTOS

LEA Consulting Ltd.
Consulting Engineers and Planners
www.LEA.ca

Project No. 19373

Date APR. 3, 2024

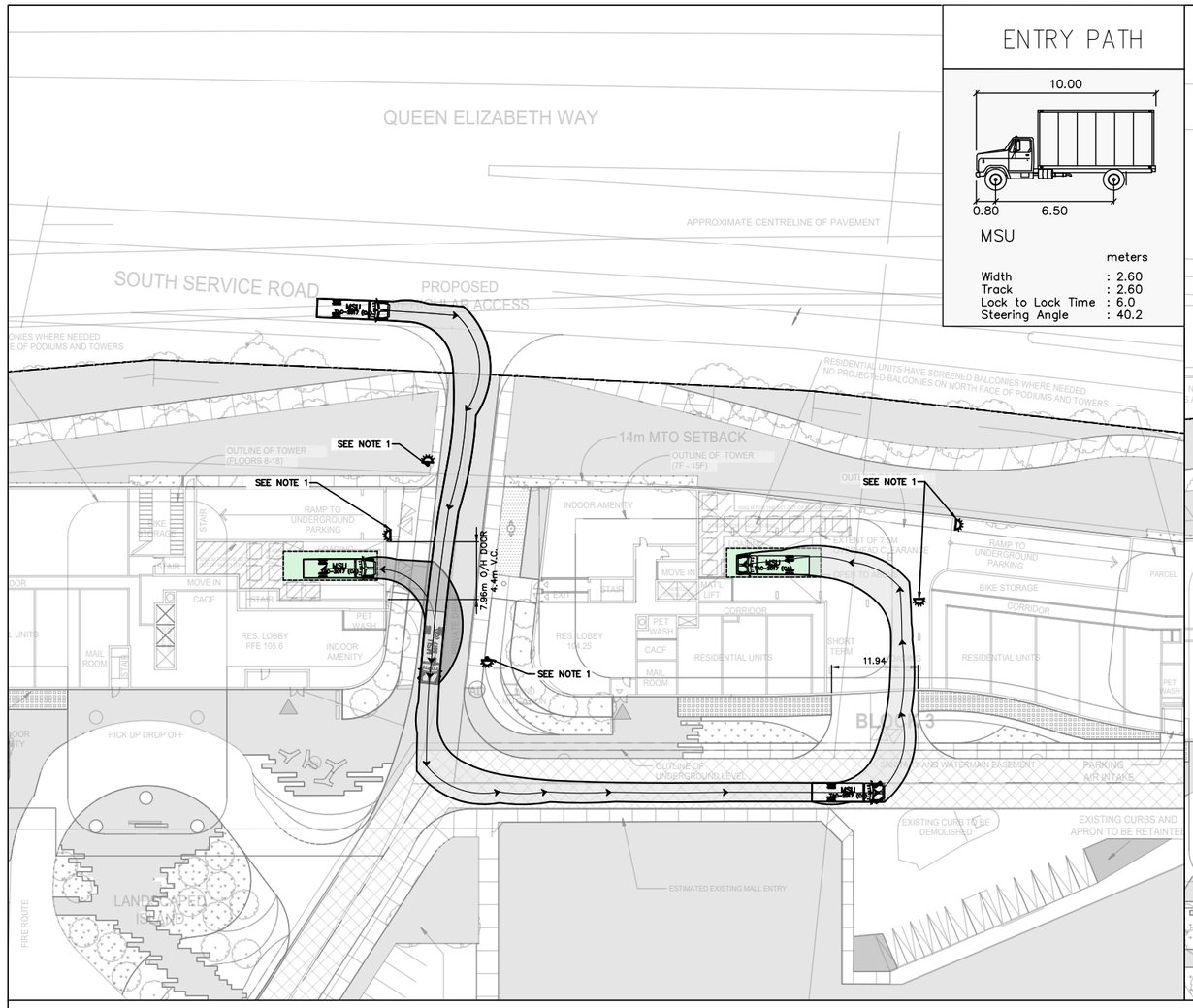
DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

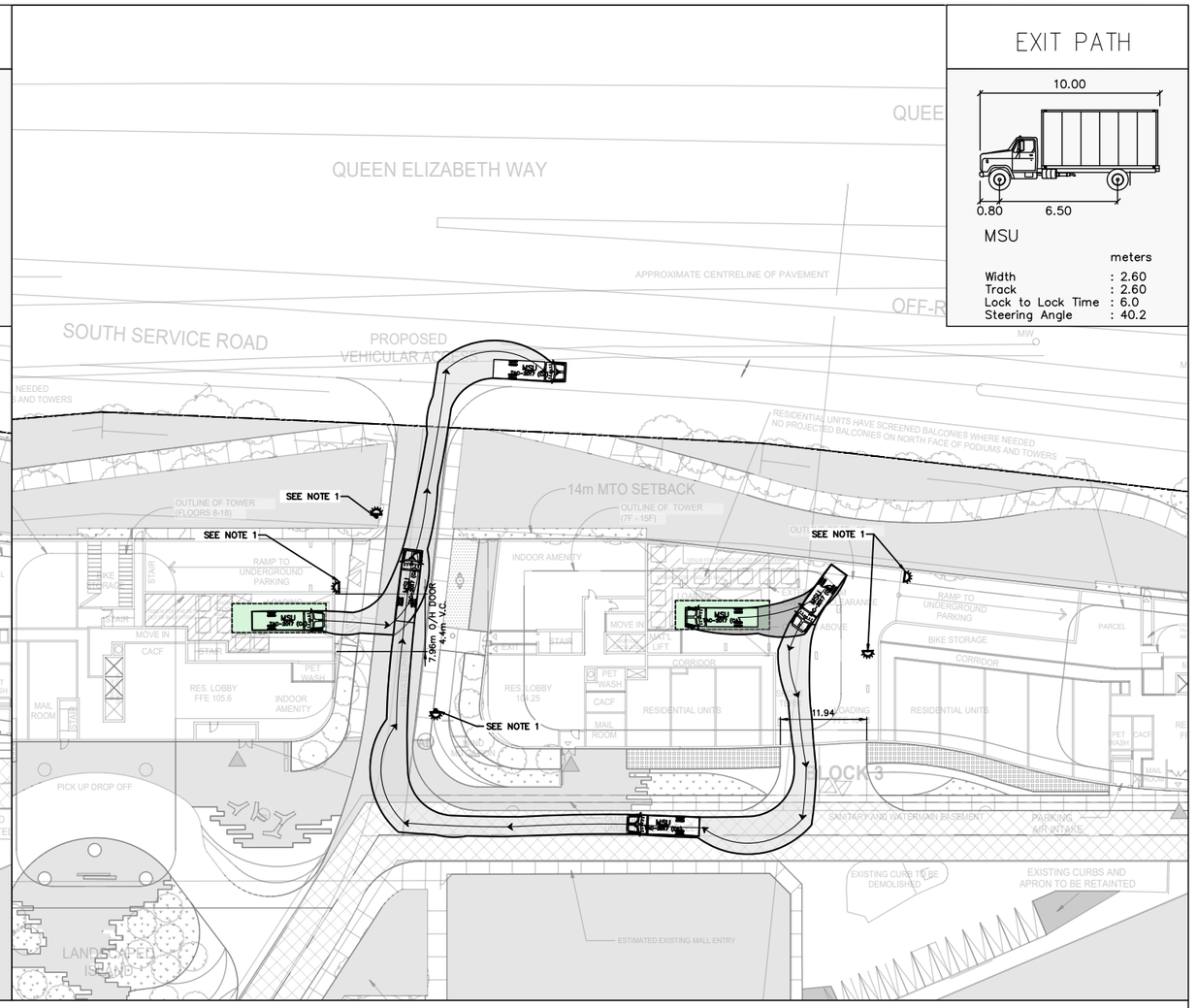
8 0 16 24 32
1:800

GROUND FLOOR – LOADING REVIEW
REGION OF PEEL GARBAGE TRUCK
ENTRY & EXIT PATHS

Drawing No. 002

DRAWING NAME: F:\19373\Drafting\19373WF028_FDR.dwg





NOTES:

1. FLASHING WARNING LIGHT TO BE ACTIVATED WHEN TRUCKS ENTER AND EXIT THE SITE. THE SYSTEM TO REMAIN ACTIVATED DURING THE CITY GARBAGE COLLECTION ACTIVITY AND UNTIL THE TRUCK EXITS THE SITE. FIVE (5) WARNING SIGN TO BE MOUNTED BELOW THE FLASH LIGHT.
2. A TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER THE GARBAGE BINS FOR THE COLLECTION DRIVER AND ACT AS A FLAG MAN WHEN THE TRUCK IS REVERSING. IN THE EVENT THE ON-SITE STAFF MEMBER IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLE ARRIVES AT THE SITE, THE COLLECTION VEHICLE WILL LEAVE THE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED COLLECTION DAY.
3. MINIMUM VERTICAL CLEARANCE OF 4.4.
4. LOADING SPACES TO A MIN. WIDTH OF 3.5m AND A MIN. LENGTH OF 9.0m.

WATCH FOR TURNING TRUCKS WHEN FLASHING

(600x300)
BLACK LEGEND & BORDER,
WHITE REFL. BACKGROUND.

DRAWN BY: CBARTOS PLOT DATE: April 3, 2024

LEA Consulting Ltd.
Consulting Engineers and Planners
www.LEA.ca

Project No. 19373

Date APR. 3, 2024

DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

8 0 16 24 32
1:800

GROUND FLOOR LOADING REVIEW
MSU (DELIVERY) TRUCK
ENTRY & EXIT PATHS

Drawing No. 003

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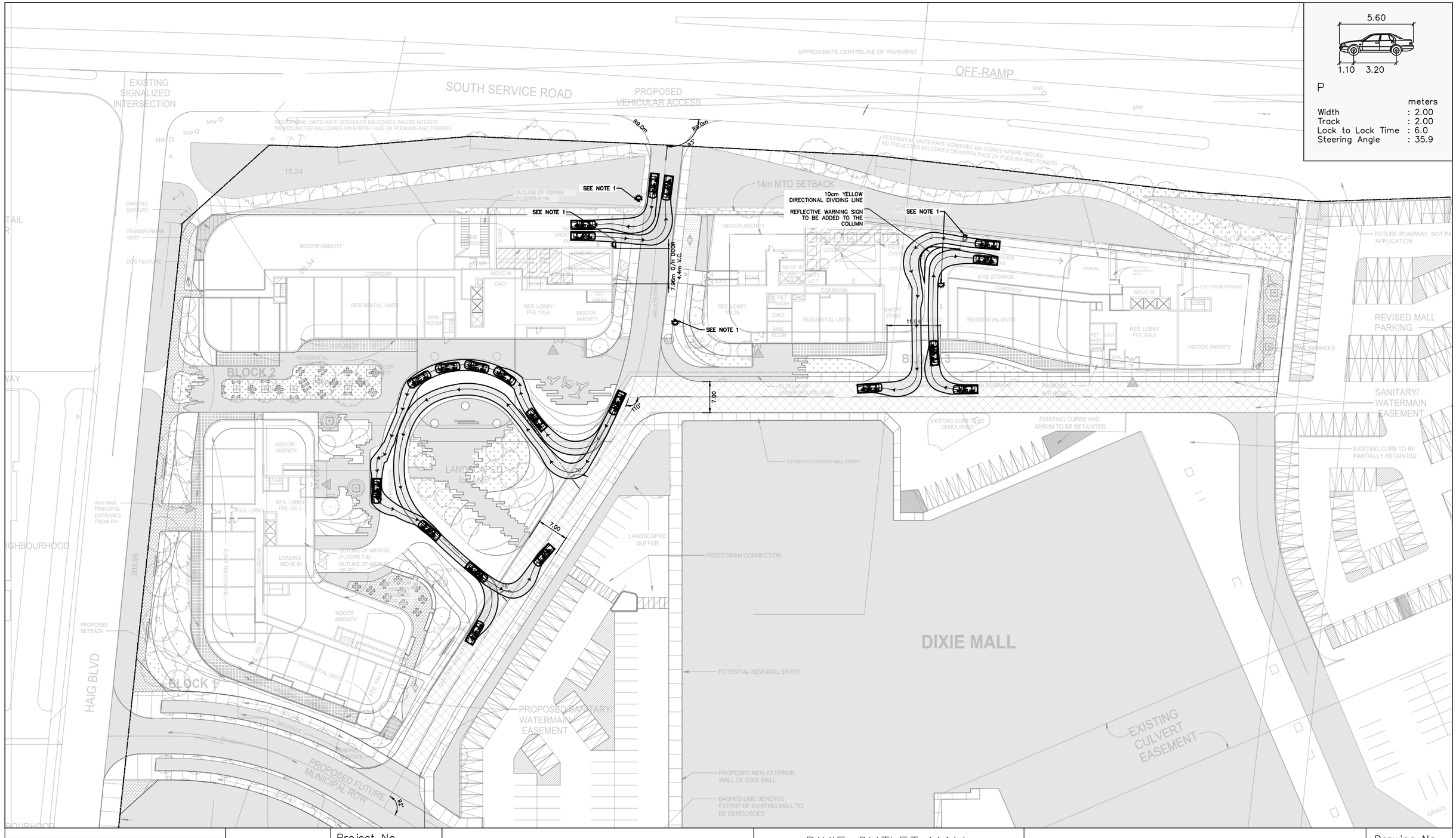

DRAWN BY: CBARTOS PLOT DATE: April 3, 2024

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Consulting Engineers and Planners
www.LEA.ca

Project No.	Date
19373	APR. 3, 2024

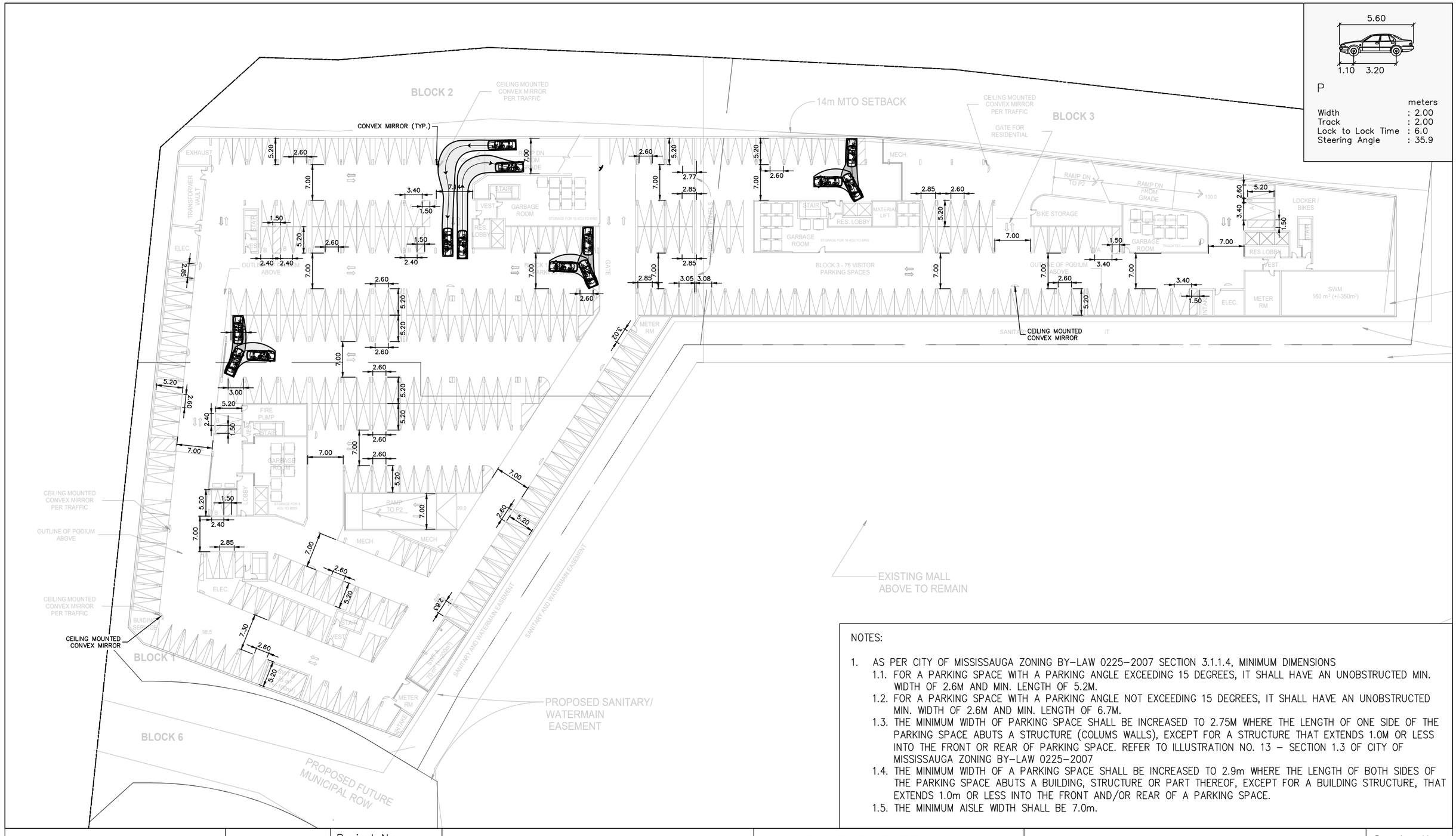
DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

8 0 16 24 32
1:800

GROUND FLOOR – PUDO REVIEW

Drawing No. 004

DRAWING NAME: F:\19373\Drafting\19373WF028_FDR.dwg



P

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

NOTES:

1. AS PER CITY OF MISSISSAUGA ZONING BY–LAW 0225–2007 SECTION 3.1.1.4, MINIMUM DIMENSIONS
   - 1.1. FOR A PARKING SPACE WITH A PARKING ANGLE EXCEEDING 15 DEGREES, IT SHALL HAVE AN UNOBSTRUCTED MIN. WIDTH OF 2.6M AND MIN. LENGTH OF 5.2M.
   - 1.2. FOR A PARKING SPACE WITH A PARKING ANGLE NOT EXCEEDING 15 DEGREES, IT SHALL HAVE AN UNOBSTRUCTED MIN. WIDTH OF 2.6M AND MIN. LENGTH OF 6.7M.
   - 1.3. THE MINIMUM WIDTH OF PARKING SPACE SHALL BE INCREASED TO 2.75M WHERE THE LENGTH OF ONE SIDE OF THE PARKING SPACE ABUTS A STRUCTURE (COLUMS WALLS), EXCEPT FOR A STRUCTURE THAT EXTENDS 1.0M OR LESS INTO THE FRONT OR REAR OF PARKING SPACE. REFER TO ILLUSTRATION NO. 13 – SECTION 1.3 OF CITY OF MISSISSAUGA ZONING BY–LAW 0225–2007
   - 1.4. THE MINIMUM WIDTH OF A PARKING SPACE SHALL BE INCREASED TO 2.9m WHERE THE LENGTH OF BOTH SIDES OF THE PARKING SPACE ABUTS A BUILDING, STRUCTURE OR PART THEREOF, EXCEPT FOR A BUILDING STRUCTURE, THAT EXTENDS 1.0m OR LESS INTO THE FRONT AND/OR REAR OF A PARKING SPACE.
   - 1.5. THE MINIMUM AISLE WIDTH SHALL BE 7.0m.

DRAWN BY: CBARTOS PLOT DATE: April 3, 2024

LEA Consulting Ltd.
Consulting Engineers and Planners
www.LEA.ca

Project No. 19373

Date APR. 3, 2024

DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

7 0 7 14 21m
1: 700

U/G PARKING LEVEL 1

Drawing No. 005

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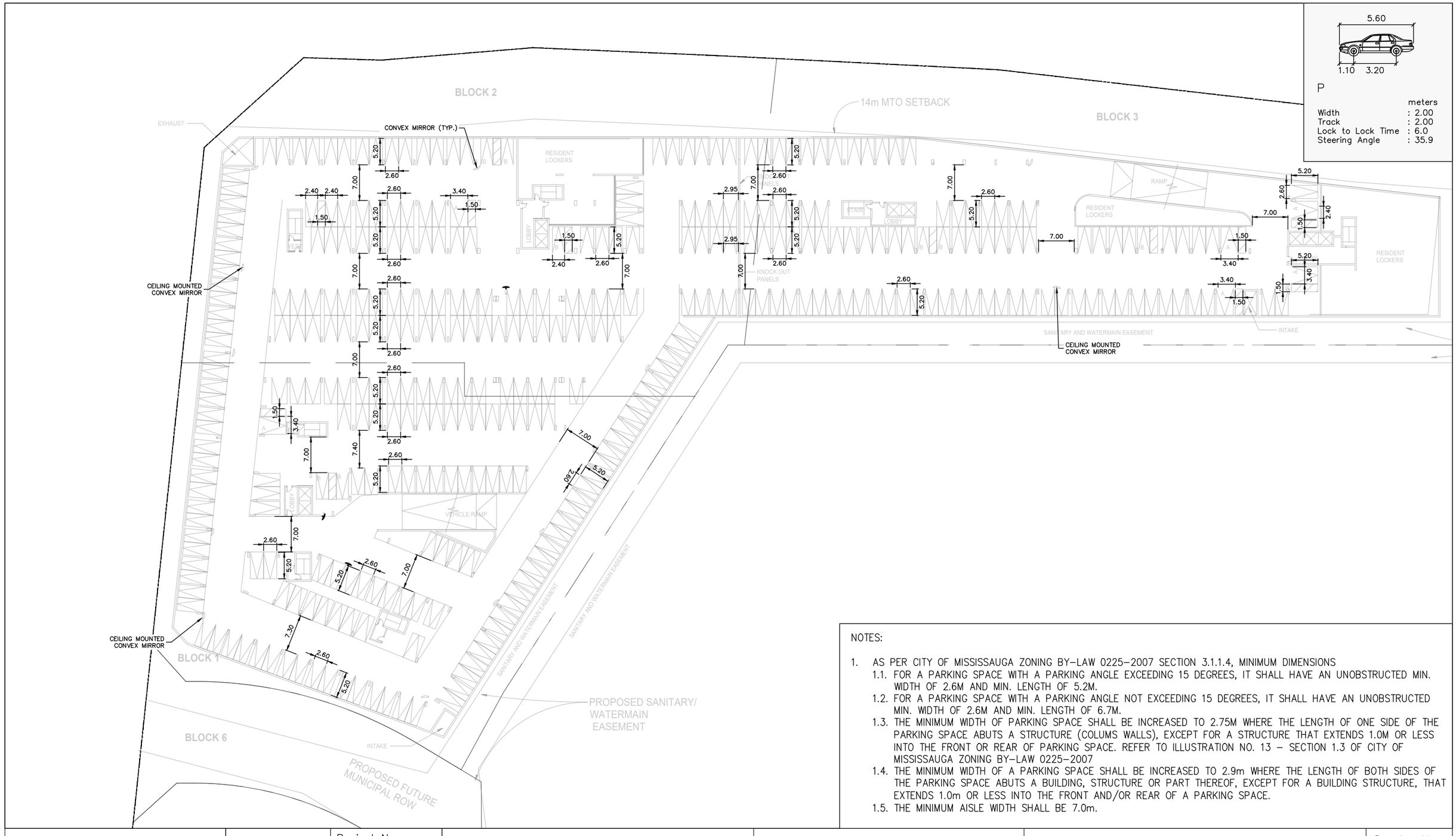

NOTES:

1. AS PER CITY OF MISSISSAUGA ZONING BY-LAW 0225-2007 SECTION 3.1.1.4, MINIMUM DIMENSIONS
   - 1.1. FOR A PARKING SPACE WITH A PARKING ANGLE EXCEEDING 15 DEGREES, IT SHALL HAVE AN UNOBSTRUCTED MIN. WIDTH OF 2.6M AND MIN. LENGTH OF 5.2M.
   - 1.2. FOR A PARKING SPACE WITH A PARKING ANGLE NOT EXCEEDING 15 DEGREES, IT SHALL HAVE AN UNOBSTRUCTED MIN. WIDTH OF 2.6M AND MIN. LENGTH OF 6.7M.
   - 1.3. THE MINIMUM WIDTH OF PARKING SPACE SHALL BE INCREASED TO 2.75M WHERE THE LENGTH OF ONE SIDE OF THE PARKING SPACE ABUTS A STRUCTURE (COLUMS WALLS), EXCEPT FOR A STRUCTURE THAT EXTENDS 1.0M OR LESS INTO THE FRONT OR REAR OF PARKING SPACE. REFER TO ILLUSTRATION NO. 13 – SECTION 1.3 OF CITY OF MISSISSAUGA ZONING BY-LAW 0225-2007
   - 1.4. THE MINIMUM WIDTH OF A PARKING SPACE SHALL BE INCREASED TO 2.9m WHERE THE LENGTH OF BOTH SIDES OF THE PARKING SPACE ABUTS A BUILDING, STRUCTURE OR PART THEREOF, EXCEPT FOR A BUILDING STRUCTURE, THAT EXTENDS 1.0m OR LESS INTO THE FRONT AND/OR REAR OF A PARKING SPACE.
   - 1.5. THE MINIMUM AISLE WIDTH SHALL BE 7.0m.

DRAWN BY: CBARTOS PLOT DATE: April 3, 2024

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Project No. 19373

Date APR. 3, 2024

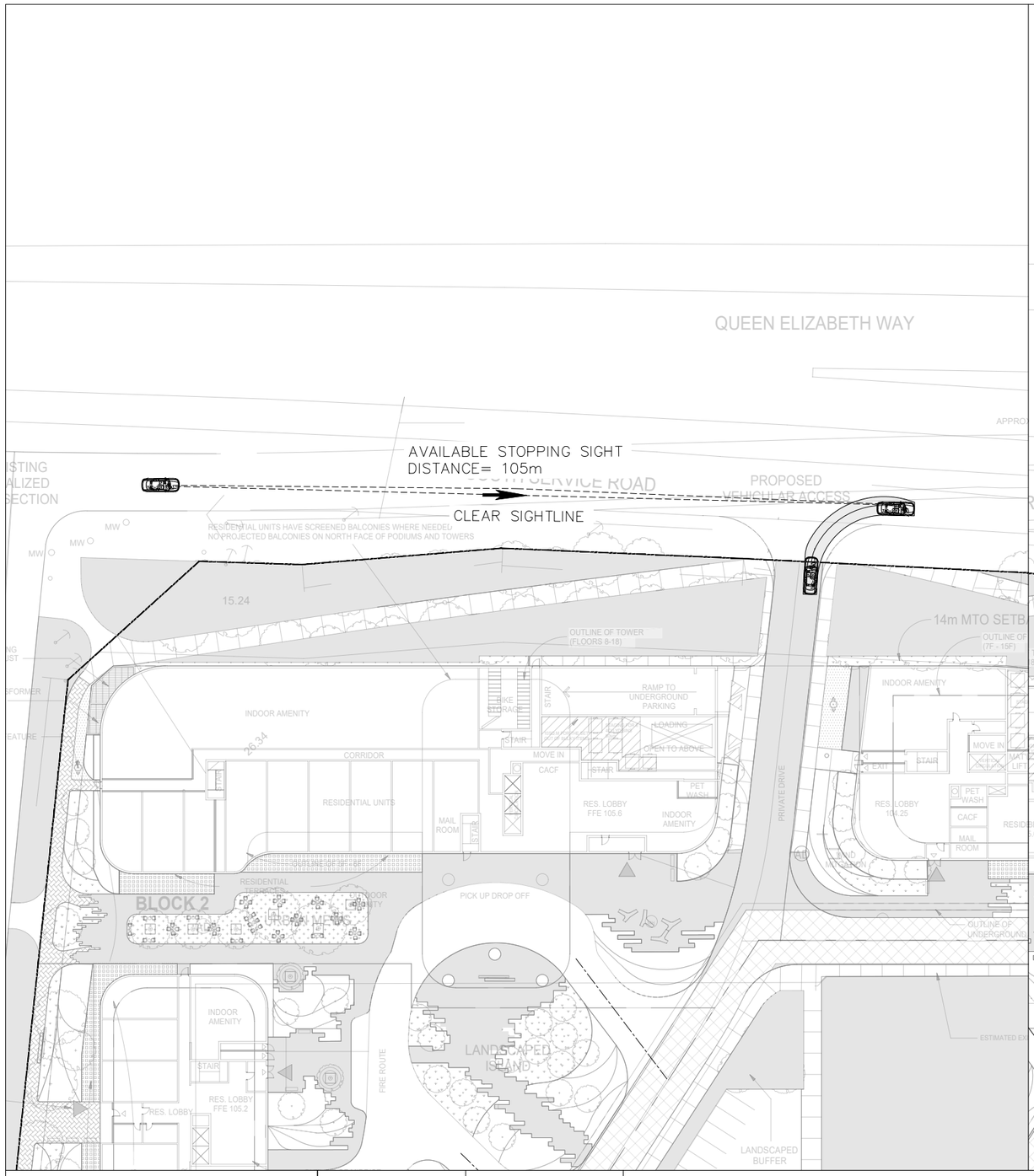
DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

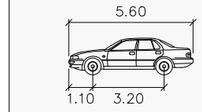
7 0 7 14 21m
1: 700

U/G PARKING LEVEL 2 & 3

Drawing No. 006

DRAWING NAME: F:\19373\Drafting\19373WF028_FDR.dwg





P

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

STOPPING SIGHT DISTANCE
- PER "TAC" TABLE 9.9.6
- POSTED SPEED = 60km/h
- DESIGN SPEED = 70km/h
- REQUIRED STOPPING SIGHT DISTANCE = 105m
- AVAILABLE STOPPING SIGHT DISTANCE => 105m
- DOES IT MEET REQUIREMENT – YES

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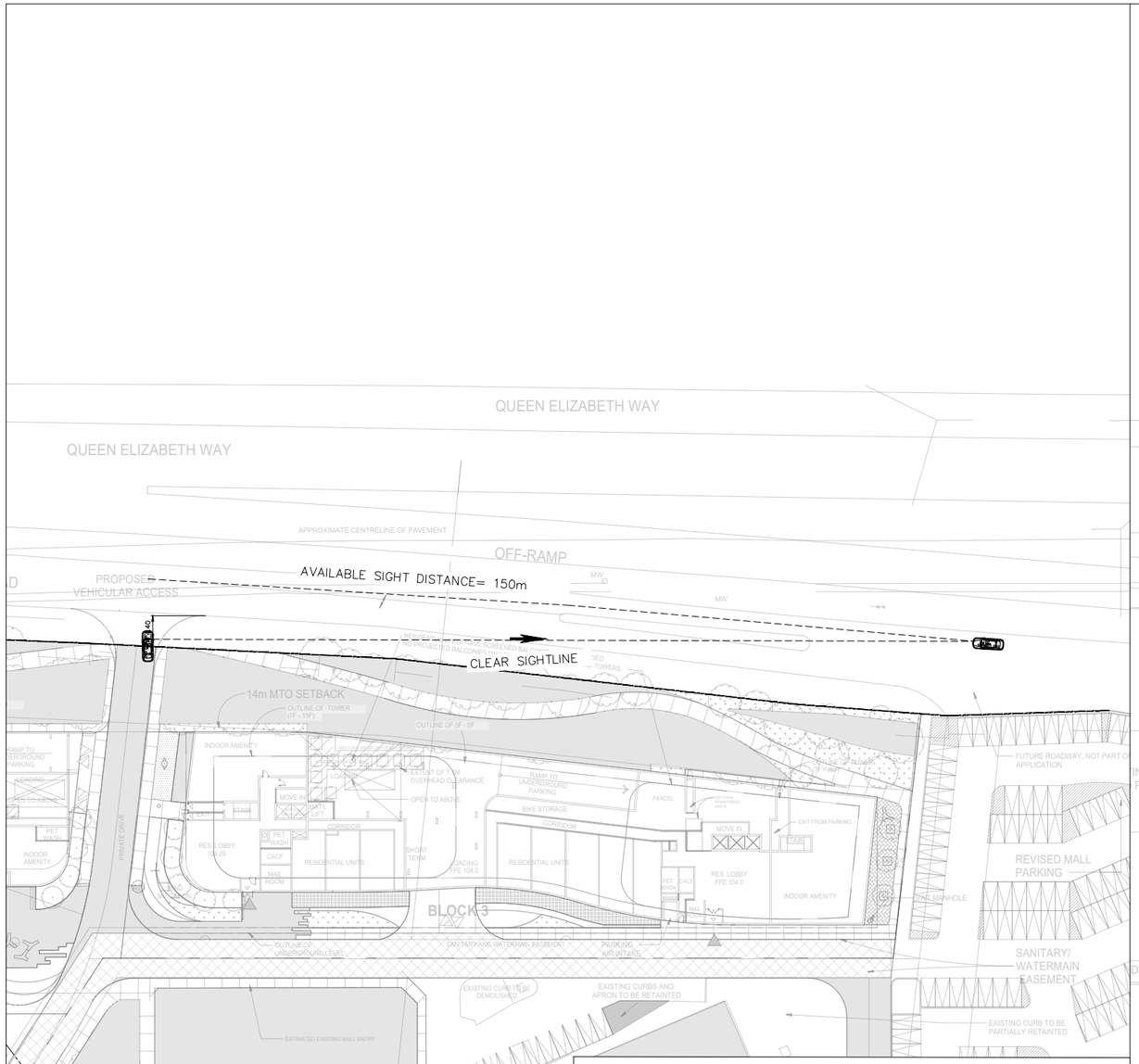
DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

7.5 0 7.5 15 22.5m
1:750

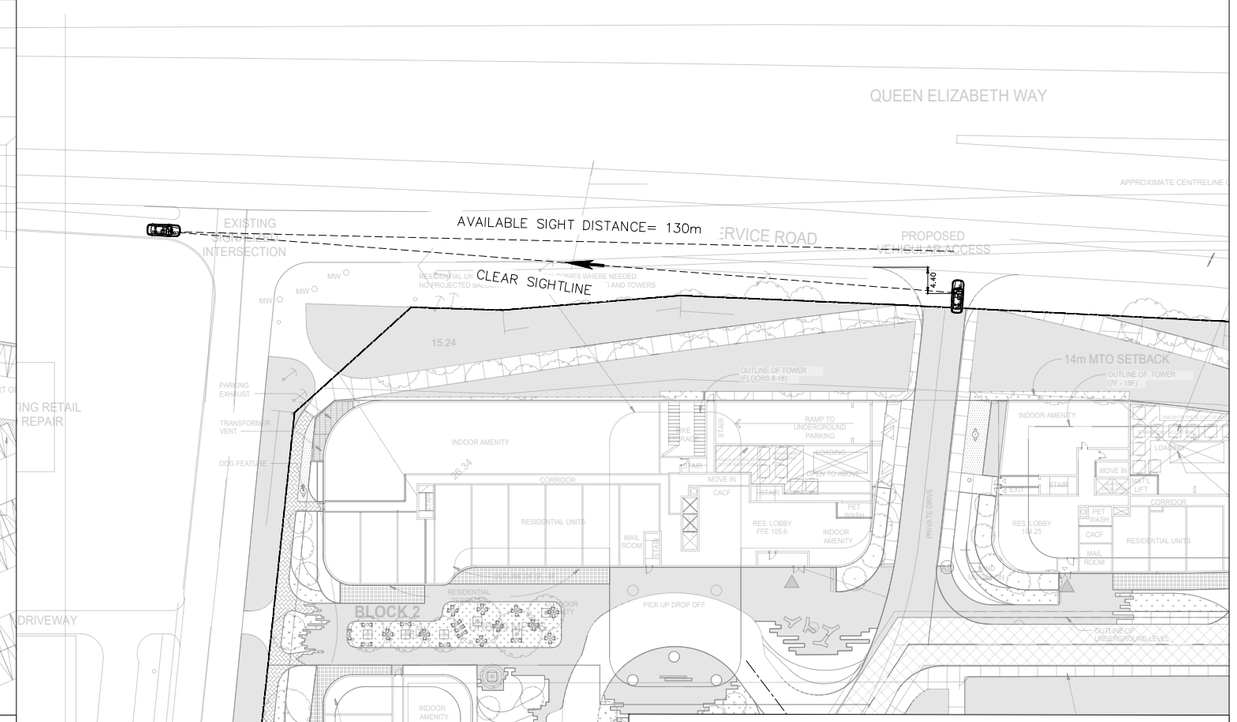
SIGHT LINE ANALYSIS
STOPPING SIGHT DISTANCE (SSD)
ACCESS 1

Drawing No. 007



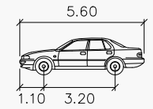
INTERSECTION SIGHT DISTANCE
- POSTED SPEED = 60km/h
- DESIGN SPEED = 70km/h

(CASE B2: LEFT TURN FROM STOP)
- PER "TAC" TABLE 9.9.4
- REQUIRED LEFT TURN SIGHT DISTANCE = 150m
- AVAILABLE STOPPING SIGHT DISTANCE => 150m
- DOES IT MEET REQUIREMENT – YES



INTERSECTION SIGHT DISTANCE
- POSTED SPEED = 60km/h
- DESIGN SPEED = 70km/h

(CASE B2: RIGHT TURN FROM STOP)
- PER "TAC" TABLE 9.9.6
- REQUIRED RIGHT TURN SIGHT DISTANCE = 130m
- AVAILABLE STOPPING SIGHT DISTANCE => 130m
- DOES IT MEET REQUIREMENT – YES



P

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

DRAWN BY: CBARTOS PLOT DATE: April 3, 2024

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Project No. 19373

Date APR. 3, 2024

DIXIE OUTLET MALL
MISSISSAUGA ONTARIO

10 0 10 20 30m
1:1000

SIGHT LINE ANALYSIS
INTERSECTION SIGHT DISTANCE (ISD)
ACCESS 1

Drawing No. 008

APPENDIX L

TDM Checklist

Appendix E

Transportation Demand Management and Pedestrian Circulation Checklist

This checklist is designed to evaluate the incorporation of Transportation Demand Management (TDM) measures, including pedestrian circulation techniques, into development proposals. The template is modelled on the prototype Class 2: Medium Density/Moderate Congestion (TDM Moderate) checklist contained in *TDM Supportive Guidelines for Development Approvals* (ACT Canada, 2008).

The applicant must complete and return this checklist with their **Transportation Demand Management Plan** (TDMP) and/or **Pedestrian Circulation Plan** (PCP).

Application Summary

Development Application No: OZ/OPA 22/32 W1	Date: March 22, 2024
Applicant: Slate Asset Management	Staff:
SCORE AND RATING: 74%: 3 star	**TDM SUPPORTIVE?** Yes X No

Scorecard

Use the scorecard below to determine the TDM rating and supportiveness of the development proposal based on the final score calculated on page E-5. If the proposal does not satisfy the minimum threshold, review and enhance the TDM measures.

Final Score	Rating	TDM Supportive?
91% - 100%	***** (5 Star)	YES
81% - 90%	**** (4 Star)	
71% - 80%	*** (3 Star)	
61% - 70%	** (2 Star)	NO (Review and Enhance TDM Measures)
50% - 60%	* (1 Star)	
Less than 50%	(None)	

CATEGORY A – Pedestrian Circulation					
In creating an environment that facilitates and supports pedestrian activity, the public realm needs to be accessible, safe, and comfortable to encourage movement on the street and in the surrounding area(s).					
	Features	**Yes**	**No**	**N/A**	**Comments**
A1	Development located within 800 m walking distance of residential (if employment) or employment (if residential) uses		X		Dixie Mall is the main employer within 800m, otherwise very little employment nearby.
A2	Development located within 400 m walking distance of retail, restaurant, or other pedestrian-oriented uses or similar services provided on-site	X			Dixie Mall provides retail and restaurants.
A3	At least one functional building entrance oriented towards public space (i.e., street, park, square)	X			Access to South Service Road via building entrances on north face.
A4	At least one functional building entrance located close to on-site or adjacent street transit stop	X			Access to transit stops along South Service Road via building entrances on north face.
A5	Nearest functional building entrance located within 50 m of (and connected to) public street with sidewalk	X			Building entrances are within 50m, and connected to public sidewalks.
A6	Accessible on-site pedestrian routes provided and connected to surrounding network and transit	X			Pedestrian routes will be accessible.
A7	Continuous sidewalks (1.5 m min. width) provided along all on-site roads and both sides of adjacent public streets	X			Sidewalks will be provided along the internal road network, and on both sides of the proposed public street.
A8	No conflict points between pedestrians and other users (i.e., vehicles, cyclists)		X		
A9	Adequate and properly designed pedestrian crossings provided on-site	X			Pedestrian crossings will be properly designed.
A10	Off-site road works designed to maximize pedestrian safety and minimize pedestrian crossing distances (e.g., no right turn channelization)	X			Channelized right turns have been removed along Dixie Rd, and sidewalks have been improved along Dixie Rd and South Service Rd as part of reconstruction.
A11	Amenities provided along pedestrian routes (i.e., benches, street furniture)	X			Pedestrian amenities will be included on the site as the design develops.
A11	Shelters and benches provided at transit stops	X			The City has committed to enhanced bus shelters at Dixie Mall and on Dixie Rd.
A12	Wayfinding provided to guide pedestrians	X			
A13	Lighting provided along pedestrian routes	X			Lighting will be included on the site as the design develops.
A14	Weather protection provided along pedestrian routes		X		
A15	Vehicle parking areas located away from street and pedestrian routes		X		
A16	Protected pedestrian routes provided through vehicle parking lots and linked to building(s)	X			Sidewalks in the internal road network will connect the development to the Dixie Mall parking lot.

CATEGORY A – Pedestrian Circulation					
In creating an environment that facilitates and supports pedestrian activity, the public realm needs to be accessible, safe, and comfortable to encourage movement on the street and in the surrounding area(s).					
	Features	**Yes**	**No**	**N/A**	**Comments**
A17	Passenger pick-up and drop-off areas located to side or rear of buildings, downstream from major building entrance points, but no more than 30 m away	X			Pick-up/drop-off areas are located within 30m of the primary entrances of residential buildings.
A18	Loading areas located away from street and pedestrian routes	X			Loading areas are located within ground floor of each block, away from street and sidewalks.
	Sub-Total	15	4		

CATEGORY B – Cycling Orientation					
In creating an environment that facilitates and supports cycling activity, the public realm needs to be accessible, safe, and comfortable to encourage movement on the street and in the surrounding area(s).					
	Features	**Yes**	**No**	**N/A**	**Comments**
B1	On-site cycling routes provided and connected to surrounding network			X	No adjacent network to connect to
B2	Class A (long-term) and Class B (short-term) bicycle parking spaces provided per City of Mississauga Zoning By-law (reproduced at end of this checklist for reference)	X			
B3	Bicycle repair station provided at-grade or within underground structure close to long-term bicycle parking	X			
B4	Wayfinding provided to guide cyclists	X			
B5	Other amenities provided for cyclists (e.g., showers, change rooms)	X			Bike wash station and cycling-centred community events.
	Sub-Total	4	0	1	

CATEGORY C – Transit Service					
The availability and proximity of convenient public transit service with direct pedestrian linkages to the building expands the range of viable travel options for employees, visitors, and residents.					
	Features	**Yes**	**No**	**N/A**	**Comments**
C1	Development located within 800 m walking distance of a rapid transit station (existing or planned) or within 400 m of two or more public bus routes with minimum 15-minute headway service during peak commuter periods and every 30 minutes throughout the remainder of the day		X		
C2	Information about public transit routes, schedules, and fares provided in accessible and visible location on-site and in adjacent bus stops	X			
C3	Sufficient capacity available to accommodate transit riders generated by development			X	Unknown
	Sub-Total	1	1	1	

CATEGORY D – Motor Vehicle Parking					
The location and design of motor vehicle parking facilities can affect the character and cost of a development. Avoiding the oversupply of parking can also help reduce single occupant vehicle travel.					
	Features	**Yes**	**No**	**N/A**	**Comments**
D1	No more than the minimum number of parking spaces required by the Zoning By-law provided	X			Proposed parking supply is below requirements for Precinct 4.
D2	Priority parking equivalent to 10% of employee spaces provided for carpooling/vanpooling			X	Typically only provided for employment uses.
D3	Priority parking equivalent to 3% of full-time building occupants provided for auto share and hybrid/alternative fuel vehicles	X			20% of residential parking and 10% of visitor parking will be prioritized for EV parking, and equipped with chargers
D4	Priority parking equivalent to 1% of the parking stalls provided for mopeds, motorcycles, and minicars		X		
D5	Parking shared for different uses on-site and/or adjoining properties		X		
D6	50% of parking located underground or in structured parking	X			All new residential/visitor parking located underground. Some retail surface parking remains on the subject site.
	Sub-Total	3	2	1	

CATEGORY E – Incentives

Building owners and tenants can offer occupants Transportation Demand Management incentives that help reduce single occupant vehicle travel.

	Features	Yes	No	N/A	Comments
E1	TDM Plan prepared that targets a 10% reduction in peak hour trips using forecast trip generation with status quo travel characteristics	X			
E2	Building owner/tenant will provide a ride matching service for car/vanpooling			X	Typically only provided for employment uses.
E3	Building owner/tenant will provide emergency ride home options			X	Typically only provided for employment uses.
E4	Building owner/tenant will provide subsidized transit passes for all occupants for a period of at least two years		X		
E5	Building owner/tenant will charge for parking as an unbundled cost to occupants	X			
E6	Building owner/tenant will reduce cost for users of car/van pool, bicycle, moped/motorcycle/minicar spaces			X	No car/van pool or moped/ motorcycle/minicar parking is provided.
E7	Building owner/tenant will become a member of a local TMA and appoint a TDM Coordinator to oversee and coordinate promotional opportunities and events on site	X			
	Sub-Total	3	1	3	

SCORING SUMMARY

Count the number of applicable features for each category (items not assigned "N/A") and enter under the column "Applicable" in the table below.

Assign 1 point to each "Yes" answer, except for Category A (Pedestrian Circulation) where each "Yes" answer is worth ½ a point and Category C (Transit Service) where each "Yes" answer is worth 2 points. Award 0 points for a "No" answer. Tally the points for each category under the column "Points" in the table below.

Calculate "Final Score" as a percentage by dividing total "Points" by the total "Applicable" and enter in the table below and in the "SCORE AND RATING" field on page E-1.

Category	Possible	Applicable	Points	Comments
A – Pedestrian Circulation	9 (18/2)	9.5 (19/2)	7.5 (15/2)	
B – Cyclist Orientation	5	4	4	
C – Transit Service	6 (3x2)	4 (2x2)	2 (1x2)	
D – Motor Vehicle Parking	6	5	3	
E – Incentives	7	4	3	
TOTAL	**33**	26.5	19.5	
Score% (Points/Applicable)			74%	