

Development and Evaluation of Alternative Solutions

City of Mississauga **Transit and Road Infrastructure Plan**

June 2022

Contents

1	Introduction	1
2	Problem and Opportunity	1
2.1	Key Issues	1
2.2	Vision and Study Directions	2
3	Evaluation Criteria	3
3.1	Criteria	3
3.2	Additional Context for Select Measures	3
3.2.1	Transportation Equity	4
3.2.2	Transportation Safety	5
3.2.3	Community Health and Active Lifestyles	6
3.2.4	Natural Environment and Climate Change	6
4	Alternative Solutions	7
4.1	Higher-Order Transit Corridors with Bus-Only Lanes	7
4.2	Transit Priority Measures	10
4.3	High Occupancy Vehicle (HOV) Lanes Shared by Carpools and Buses	11
4.4	Traffic System Management	12
4.5	New Roads or Road Widenings	13
4.6	Road Diets	15
4.7	Travel Demand Management	16
5	Evaluation of Alternative Solutions	18
6	Draft Preferred Network	23
6.1	Long-Term Transit Network	23
6.2	Long-Term Road Network	25

Appendices

Appendix A – Equity

Appendix B – Model Network Assumptions

Appendix C – Model Findings

1 Introduction

In 2019, the City of Mississauga completed its first Transportation Master Plan. Through public and stakeholder engagement, research, and analysis, the final Mississauga Transportation Master Plan (MTMP) is a framework to guide City policy planning and direct investment in the City's transportation system.

The Transit and Road Infrastructure Plan (TRIP) was initiated to address two action items of the MTMP to develop a long-term transit network plan and a long-term road network plan.

The Transit and Road Infrastructure Plan will:

- Assess existing conditions and future opportunities
- Identify a problem and opportunity statement
- Identify and analyze alternative solutions
- Evaluate and select the preferred alternative
- Develop the preferred network solution
- Include public and stakeholder consultation throughout

2 Problem and Opportunity

2.1 Key Issues

The Existing Conditions and Directions Report identifies the key issues for the TRIP study. These include:

- The majority of Mississauga residents use an automobile as their primary mode of transportation. The automobile has been the primary mode of travel to, from and within Mississauga and, as a result, the transportation network has been developed in a manner that favours the private automobile.
- The road network will approach vehicular capacity in many areas of the city if current travel trends continue, impacting how well people and goods move around the city. As travel demand in Mississauga continues to grow, there are limits to continuing to expand the road network through building new roads and widening existing roads.
- While more people are making trips by transit, travel time by transit can take two to three times as long versus the automobile. Long transit travel times and challenging connections means transit is not often the first choice for travellers.
- Transit and road improvements are needed to support equity-seeking neighbourhoods and new transit-oriented communities around Major Transit Station Areas. The transportation system plays a critical role in providing equitable access to employment, education, health service and healthy foods for everyone in Mississauga.

- Addressing road safety for all users will make roads safer and more comfortable for pedestrians and cyclists – allowing these modes to be the mode of choice for short trips.
- Connections outside of Mississauga are also important to the transportation system for Mississauga’s residents and workers. Travel needs do not stop at the city’s borders – Mississauga’s residents work outside of the city and Mississauga’s workers live outside the city

2.2 Vision and Study Directions

The TRIP study is being developed under the umbrella of the transportation vision from the Mississauga Transportation Master Plan:

In Mississauga, everyone and everything will have the freedom to move safely, easily, and efficiently to anywhere at any time.

The study directions for TRIP, as identified through the Directions Exercise Workshop, to guide the development of alternatives are:

1. Support the City’s Climate Change Action Plan by making sustainable, lower-emission modes (low-emission MiWay transit vehicles, walking and cycling) more attractive for more travelers.
2. Move people and goods more reliably by addressing gaps in the network, prioritizing transit between key destinations, and developing strategies for goods movement.
3. Implement more Transit Priority Corridors to provide fast, reliable, and efficient transit to more people.
4. Expand infrastructure and services where needed to ensure equitable access for all users – with a focus on equity-seeking neighbourhoods and transit-oriented communities.
5. Support the City’s Vision Zero initiative by focusing on protecting vulnerable road users when planning and implementing road and transit infrastructure.
6. Provide a connected, integrated transportation system within the City and improved access to hubs outside the city where people are travelling to.

3 Evaluation Criteria

3.1 Criteria

After the alternative solutions were developed, they were measured against evaluation criteria.

The evaluation criteria and measures for the transit and road alternatives include:

Vision: aligns with TMP vision and study directions

Direction 1: Make sustainable modes more attractive

Direction 2: Address gaps, prioritize transit and goods movement

Direction 3: Implement more Transit Priority Corridors

Direction 4: Improve transportation equity

Direction 5: Increase transportation safety through Vision Zero

Direction 6: Provide connected system and access to hubs

Mobility Impacts: how well the road and transit networks perform, available capacity on the networks, reductions in delays

Community Impacts: supports community health and active lifestyles, provides transportation equity

Economic Impacts: supports businesses, provides reliable goods movement

Environmental Impacts: minimizes impacts to the natural environment (e.g., woodlands, rivers), minimizes impacts to cultural heritage features (e.g., historic buildings, cemeteries).

Financial Impact: minimizes capital costs, minimizes on-going operations and maintenance costs

3.2 Additional Context for Select Measures

The measures used to assess the alternatives against the evaluation criteria are both qualitative and quantitative. In some cases, the City's travel demand model was used to estimate future traffic demands, ridership and network performance which was used to inform the evaluation.

Some criteria are more difficult to define and measures. Below are commentary on four aspects of the criteria, why they are important and how they are evaluated: transportation equity; transportation safety; community health & active lifestyles; and natural environment & climate change.

3.2.1 Transportation Equity

Equity is about fairness. The Ontario Human Rights Commission defines equity as: *fairness, impartiality, even-handedness. A distinct process of recognizing differences within groups of individuals, and using this understanding to achieve substantive equality in all aspects of a person's life.*

Transportation equity is an important consideration in developing the transportation system. The transportation system provides access to resources and opportunities such as employment, education and healthcare. An equitable transportation system is one that provides everyone with the access they need to get to their destination, whether it is work, school, essential goods and services, recreation or other.

Mississauga's TMP vision is to provide everyone and everything the freedom to move. However, the TMP does not provide guidance on how to provide this freedom equitably. Transportation-related barriers to equity include:

- Cost – cost of owning and/or operating a car, transit fare
- Distance – a reasonable walk to bus stop from origin and destination
- Physical barriers – curbs without curb cuts, stairs, non-audible signals
- Safety – cycling in mixed traffic, lack of lighting along sidewalks and pathways, snow and ice clearing
- Convenience – being able to drop off kids at school/daycare on the way to work, pick up groceries on the way home
- Time – availability of transit service for early morning work shifts or late night work shifts

For the TRIP study, supporting equitable access to transportation will be measured by the number of projects that serve equity-seeking communities, as identified in the Existing Conditions report. Equity-seeking neighbourhoods were identified through:

- Social equity index that identified areas with higher percentages of lower-income households, new immigrants, youth and seniors.
- Peel Region Neighbourhood Index that measures neighbourhood wellbeing on a combination of demographic, economic, resident engagement, and safety and health factors.

Both indices identified Malton, Cooksville, Burnhamthorpe, Summerville, and Downtown Mississauga as potential equity-seeking neighbourhoods. Other neighbourhoods that could also be considered are Erin Mills, Erindale, and Lakeview. Maps of the social equity index and Peel Region Neighbourhood Index scores are provided in **Appendix A**.

During the COVID-19 pandemic, traffic patterns have changed and commuter travel demands have seen a significant reduction. Transit ridership, in particular, has experienced a sharp decrease in ridership compared to pre-pandemic conditions. A review of transit ridership by route in October 2020 against October 2019, showed that some routes and areas of the city saw transit demands that had a lesser decrease and continued strong demand (see **Appendix A**). This indicates areas where there may be a higher proportion of essential workers who had

to continue to commute to work (e.g., employees in manufacturing, warehousing, health care facilities, etc.) that should be considered in the analysis and evaluation. The routes that were least impacted by the pandemic included:

- 42 Derry and 104 Derry Express which connect to Malton
- 61 Mavis and 66 McLaughlin which connect to Downtown Mississauga and to City of Brampton
- 51 Tomken which serves major employment/industrial areas

3.2.2 Transportation Safety

The City of Mississauga officially committed to Vision Zero in 2018 with the goal of zero fatalities and serious injuries from collisions on city streets. The City's Vision Zero Action Plan 2021 identified 99 actions towards reaching that goal. Many of the actions relate to data, infrastructure design, enforcement, and programming. Relevant actions for consideration in the city-wide TRIP study are:

- #17 **Protected and Dedicated Cycling Infrastructure** – Continue to implement the cycling network approved in the Mississauga Cycling Master Plan. Where possible, strive for protected and dedicated infrastructure.
- #18 **Pedestrian Master Plan Implementation** – Continue to implement the recommendations of the Pedestrian Master Plan with particular focus on the actions related to a safe and connected network of pedestrian facilities.
- #19 **Protected Pedestrian Crossings** – Prioritize protected crossings for pedestrians based on the local context, specifically where pedestrian volumes are high and controlled crossings are not convenient or accessible.
- #20 **Road Diets/ 2+1 Roadways** – Explore opportunities across the city to transition 4-lane roads to 2+1 configuration where the local characteristics support this approach in an effort to reduce conflicts and improve safety.
- #24 **Posted Speed Limits/Neighbourhood Speeds Project** – Continue implementation of Neighbourhood Speeds Project to lower speed limits from 50 km/h to 40 km/h on local roads and from 40 km/h to 30 km/h in school zones. Explore opportunities to change speed limits on arterial and collector streets.
- #74 **Multi-Modal Level of Service (MMLOS) Guideline** – Develop MMLOS Guideline for Mississauga to help inform decision making that does not focus solely on vehicle delay and travel times. This guideline should be used to inform all transportation projects and environmental assessments for road-related projects.
- #77 **Long-Range Policy Planning** – The fundamental principles of Vision Zero should inform all long-range policy planning related to roads and transportation. Safety of vulnerable road users should be prioritized in all relevant Planning work

For the evaluation of alternative solutions, supporting safety in transportation will be measured by the potential for a project to reduce vehicular travel speeds, reduce vehicular traffic volumes, or protect more vulnerable road users.

The outcome of the TRIP study will be a long-term road and transit network. Subsequent planning and design for each component of that future network will incorporate safety considerations.

3.2.3 Community Health and Active Lifestyles

Physical activity is a significant indicator of community health outcomes. The transportation system plays an important role in providing opportunities for physical activity as part of an individual's daily routine, such as cycling to school, walking for errands or social visits or walking to the bus stop.

Building complete communities that promote more active, healthy lifestyles through walking, cycling and public transit. Studies have shown that active travel and taking public transit increases physical activity, and even modest increases in physical activity prevents premature death, diabetes, cardiovascular disease, and other health issues.¹ Additionally, reducing traffic-related air pollution also helps to prevent premature deaths and hospitalization.

For the evaluation of alternative solutions, alternatives that promote active transportation and transit will rank higher on community impacts while those that maintain the status quo or further support travel in motorized vehicles will rank lower.

Although, the TRIP study does not explicitly include active transportation network solutions, the study will consider how well the active transportation network components can be integrated with the alternative solutions.

3.2.4 Natural Environment and Climate Change

Greenhouse gases is a driving factor of climate change. As a community, 32% of greenhouse gas emissions in Mississauga come from transportation. Across Ontario, the largest sectors for greenhouse gas emissions are transportation at 36%, buildings at 24% and heavy industries at 17%.² Of the emissions from transportation, more than half is from passenger vehicles (cars, light trucks, motorcycles).

Other transportation-related impacts to the natural environment include loss of natural heritage features (e.g., wood lots or wetlands) for road projects, disturbing natural features or wildlife during construction, and noise and air pollution from vehicles. For the evaluation, alternative solutions that minimized impacts to the natural environment and reduced greenhouse gas emissions from transportation were rated higher.

¹ Improving Health by Design in the Greater Toronto-Hamilton Area, A Report of the Medical Officers of Health in the GTHA (Hamilton, Peel Simcoe-Muskoka, Toronto), May 2014 2nd Edition

² National Inventory Report 1990-2019: Greenhouse Gas Sources and Sinks in Canada, Canada's Submission to the United Nations Framework Convention on Climate Change, Part 3. Table A12-7 GHG Emissions for Ontario by Canadian Economic Sector, Selected Years.

4 Alternative Solutions

Alternative solutions to address the problem and opportunity statement were developed through a workshop with City stakeholders followed by engagement with agency and public stakeholders. A description of the alternatives is provided in the following sections.

The assessment of the alternative solutions is both quantitative and qualitative. The City's travel demand model was used to provide quantitative measures (forecasts of travel demand, transit ridership, mode share, etc.) where applicable.

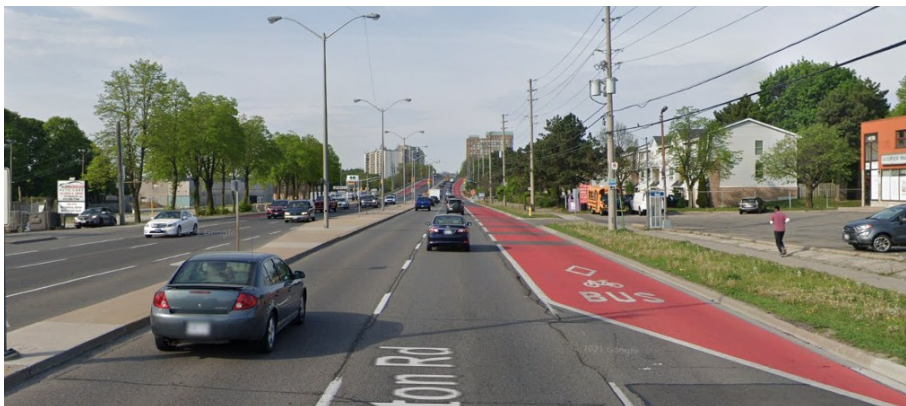
4.1 Higher-Order Transit Corridors with Bus-Only Lanes

In this solution, transit is prioritized by implementing bus-only lanes to increase transit operating speeds and reliability, resulting in shorter travel times and reduced delays for transit riders. Higher-order transit corridors move more riders more efficiently than conventional transit service operating in mixed traffic.

Exhibit 4.1: Example of Bus Rapid Transit (BRT) Operating in Bus-Only Lane (York Region)



Exhibit 4.2: Example of Standard Bus-Only Lane (Kingston Road, Toronto)



Source: Google Streetview (Kingston Road west of Overture Road)

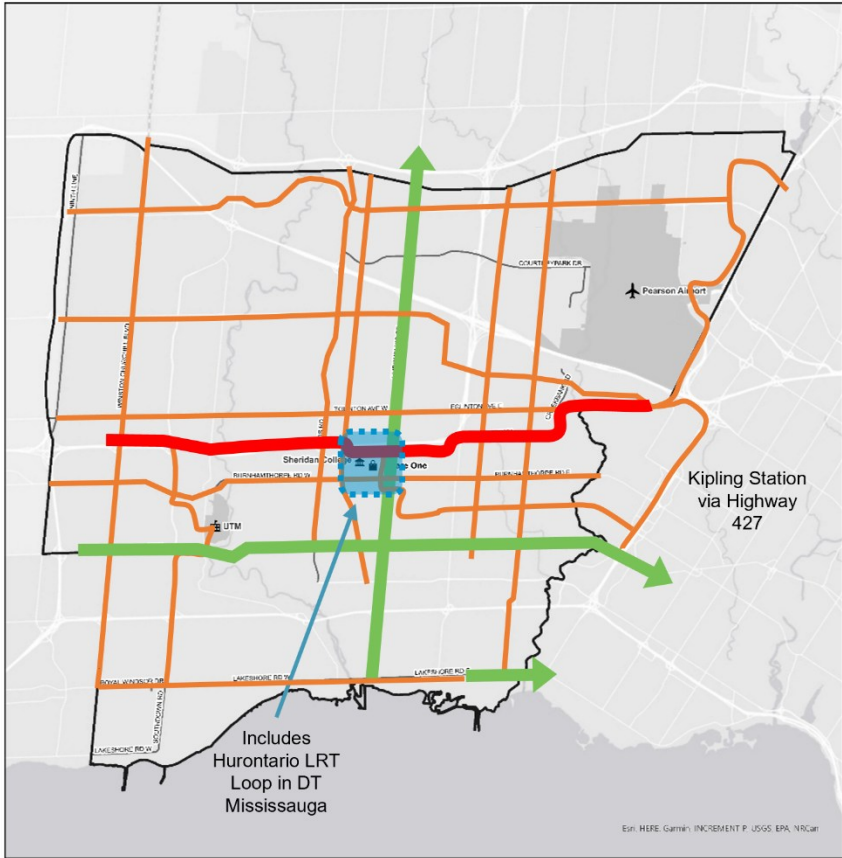
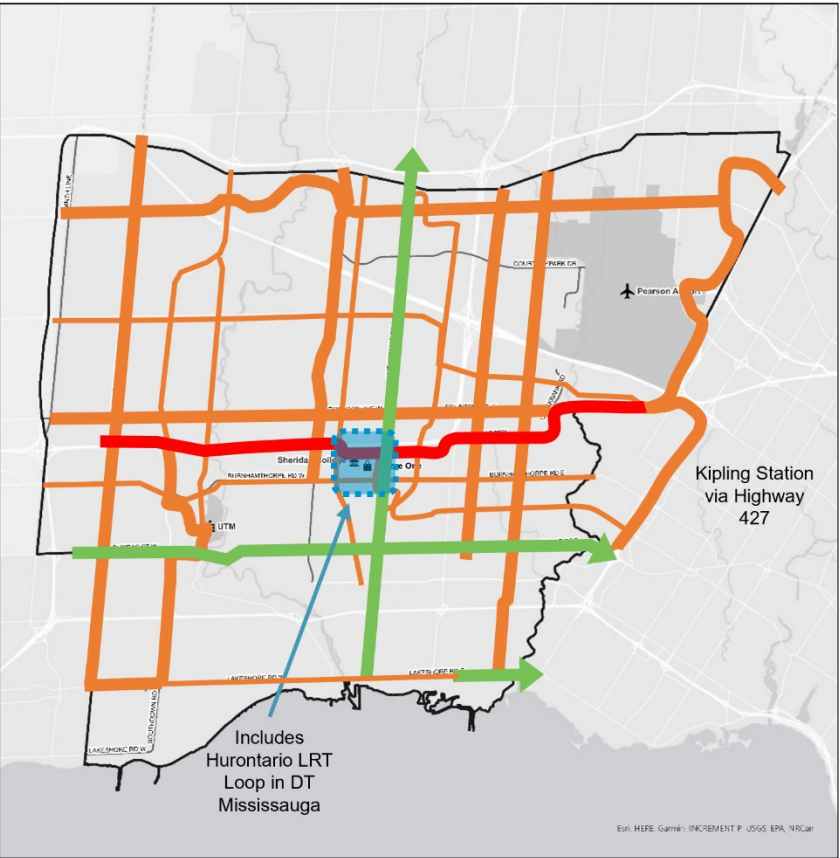
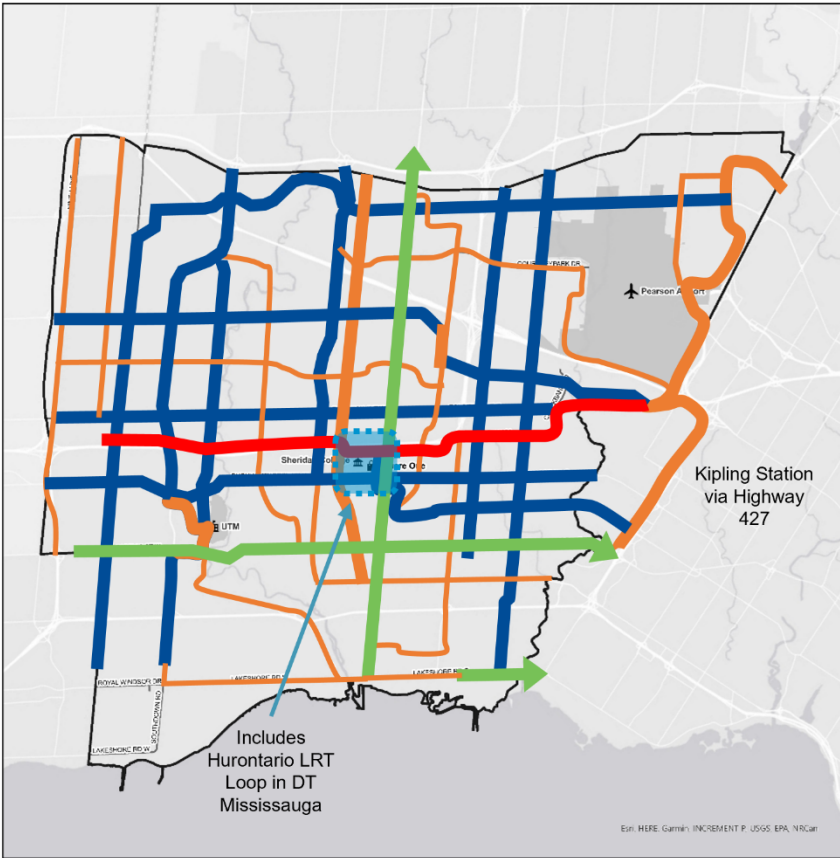


Three higher-order transit corridors are in various stages of planning in Mississauga. Hurontario LRT is under construction and expected completion is fall 2024. Two separate Transit Project Assessment Process (TPAP) studies are currently underway for Lakeshore BRT and Dundas BRT.

The City's travel demand model was used to forecast city-wide transit demand to identify corridors with higher transit demand where a higher-order transit facility would further enhance ridership demands.

Three modelling scenarios were used to forecast and assess transit demands as summarized in the table below. The modelling scenarios were developed to bookend potential low and high impacts to help inform the overall evaluation.

Exhibit 4.3: Modelling Scenarios – Transit

Modelling Scenario	Base	Transit 1	Transit 2
Description	<p>Planned transit projects including Hurontario LRT, Lakeshore BRT and Dundas BRT, but otherwise business as usual.</p> <p>Includes GO Expansion plans for two-way all-day service on the Lakeshore and Kitchener Lines.</p>	Base transit assumptions plus a network of frequent service corridors.	<p>Transit 1 assumptions plus an expanded network of frequent service corridors with bus-only lanes on all major corridors. This scenario is intended to identify latent transit demand in an unconstrained transit context.</p> <p>Where dedicated bus lanes are modelled on 6-lane roads, existing general-purpose lanes would be converted to bus-only lanes. Where dedicated lanes are modelled on 4-lane roads, bus-only lanes are added to the corridor (i.e., widening).</p>
Sketch	<p>2041 Base Transit</p>  <p>Includes Hurontario LRT Loop in DT Mississauga</p> <p>Kipling Station via Highway 427</p> <p> — Current Rapid Transit Projects (Dedicated Lanes) — Mississauga Transitway — Transit Priority (Dedicated Lanes) — ≤ 5 minute headways — 5 – 10 minute headways </p>	<p>2041 Transit Scenario 1</p>  <p>Includes Hurontario LRT Loop in DT Mississauga</p> <p>Kipling Station via Highway 427</p>	<p>2041 Transit Scenario 2</p>  <p>Includes Hurontario LRT Loop in DT Mississauga</p> <p>Kipling Station via Highway 427</p>

4.2 Transit Priority Measures

In this alternative solution, transit priority measures (TPM) are implemented at major intersections to give priority to transit vehicles. TPMs are a collection of improvements that work to reduce delay, improve travel time, and increase reliability of transit service, particularly around major intersections, bus stops and/or bottlenecks by prioritizing the right-of-way for a transit vehicle.

TPM can include regulatory measures such as lane use or on-street parking restrictions by time of day, transit signal priority (TSP) to provide priority for transit at signalized intersections, and physical measures such as dedicated transit lanes, queue jump lanes, preferential bus stop placement, bus bulbs, bus bays, etc.

Exhibit 4.4: Example of Queue Jump Lane



Dundas Street West at Erin Mills Parkway, Mississauga

For the purposes of the TRIP study, Transit Priority Measures are considered local in nature, that is, they are installed at an intersection or specific location and benefit the immediate area. Continuous transit priority measures, such as a dedicated bus-only lane, will be treated as a higher-order transit corridor (alternative solution #1).

Generally, TPM have lower implementation costs as they do not require major infrastructure investment. Improved transit operations due to TPM can provide opportunity for cost savings as increased speeds can improve service frequency and capacity.

The Mississauga's city-wide travel demand model is not an effective tool for measuring the impacts of TPM on the network. Through input from MiWay staff on the existing transit operations at major intersections, 20 key locations were selected for further analysis to identify a preferred TPM solution. These 20 locations are focused on five transit corridors:

- Eglinton Avenue
- Dixie Road
- Britannia Road
- Matheson Boulevard
- Tomken Road

The city-wide travel demand model will be used to forecast future ridership demands and traffic demands for more detailed operations analysis using VISSIM.

4.3 High Occupancy Vehicle (HOV) Lanes Shared by Carpools and Buses

By converting existing lanes or creating new lanes for high-occupancy vehicles and transit vehicles, this solution allocates additional roadway capacity to carpools and transit to maximize person-carrying capacity. While similar to bus-only lanes, HOV lanes allow use by transit vehicles and also passenger vehicles with multiple occupants, typically the minimum threshold for a passenger vehicle to use the HOV lane is set to 2 or 3 persons.

Exhibit 4.5: Example of a 3+ HOV Lane in Mississauga



Dundas Street East east of Dixie Road, Mississauga

The travel demand model was not used to assess a network for HOV lanes as this is not a built-in feature of the model.

While an HOV lane provides priority to transit by separating transit from general purpose traffic, it does not provide the same level of priority as a dedicated bus-only lane. An HOV lane would be suitable for corridors with moderately frequent bus service, however, as both transit frequency increases and carpool traffic increases, the shared lane would reach capacity as buses loading and unloading at stops would impede carpool traffic and merging carpool traffic would impede transit service.

Additionally, an HOV lane could be used as a first, interim phase in developing a higher-order transit corridor with bus-only lanes.

4.4 Traffic System Management

Mississauga's road network is a complex system of road segments and intersections controlled by traffic signals. A traffic system management tool to monitor the city-wide network of traffic signals, including transit signal priority, and improve traffic flow in real time maximizes the existing capacity of the road network.

The City of Mississauga has implemented an Advanced Transportation Management System (ATMS) to actively manage congestion by maximizing the capacity in the road network. The ATMS allows City staff to monitor traffic operations, respond to incidents or emergencies, communicate with traffic signals, and apply smart technologies to manage traffic. Improving the flow of traffic on city streets benefits general purpose traffic, goods movement, and transit.

Exhibit 4.6: Mississauga's ATMS Traffic Management Centre



Source: City of Mississauga

As the City grows, it is not sustainable nor physically feasible to continue to increase network capacity by building new roads or widening existing roads. Maximizing the available capacity in the City's existing network of roadways maximizes the City's prior investment in the road and transit network.

Investment in ATMS such as upgrades to traffic signal communications, traffic control systems, signal controllers, traffic cameras, etc., have city-wide benefits for a relatively low cost. Collaboration and coordination of the City's ATMS with Region of Peel, and adjacent municipalities will further integrate the multi-jurisdictional transportation networks. The City's capacity to implement and manage transit signal priority is also linked to the City's ATMS.

Continued upgrades and expansions to the City's ATMS will allow the City to keep abreast of new technologies and initiatives that could provide incremental improvements to the road and transit network without additional road infrastructure. Currently, the City of Mississauga is

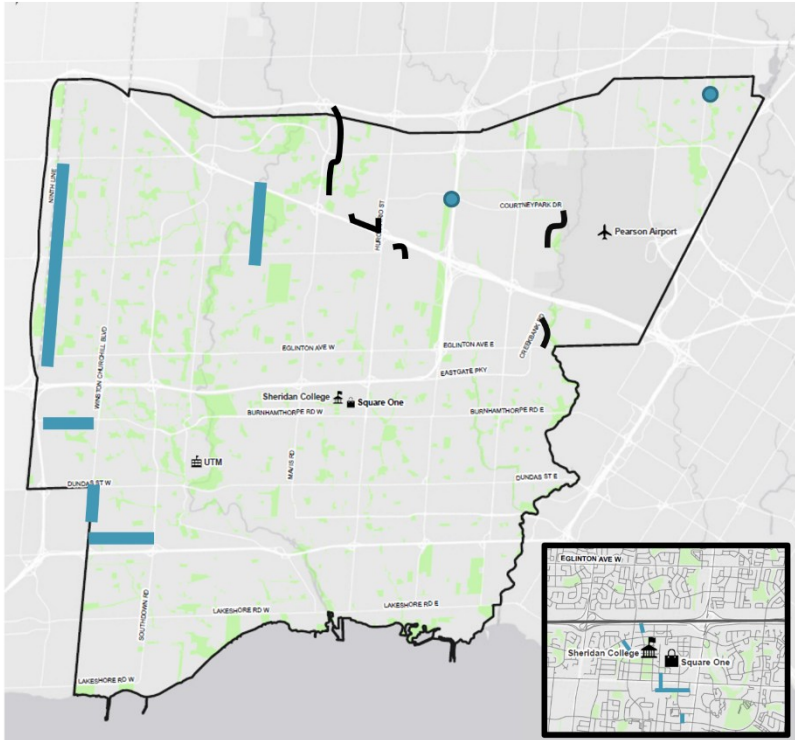
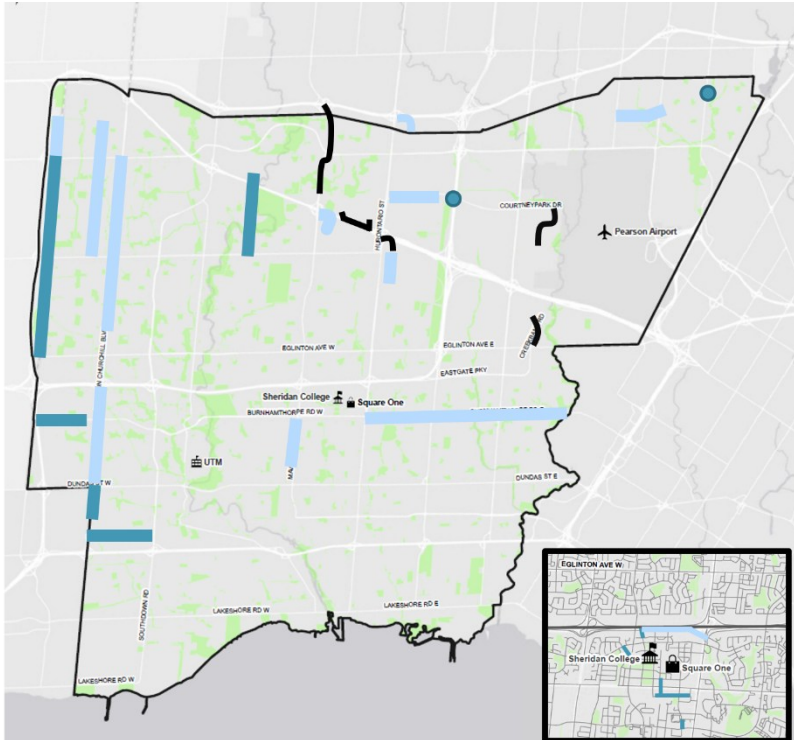
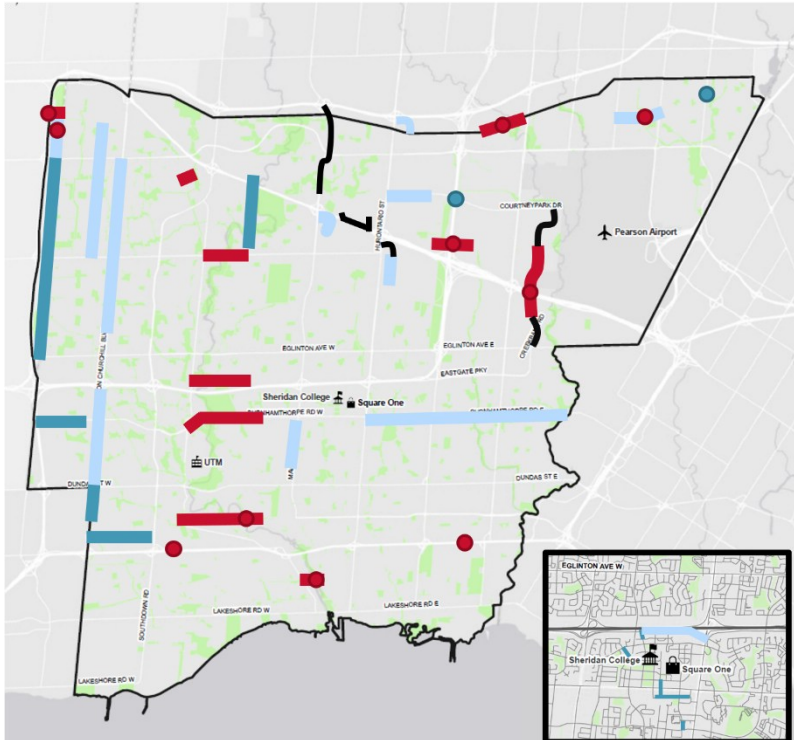
undertaking a signal pre-emption/priority study (expected completion summer 2022) to identify a signal priority system to accommodate all stakeholders (e.g., fire, transit, etc.).

4.5 New Roads or Road Widenings

This alternative seeks to expand the road network, by constructing new roads or widening existing roads, to increase capacity for all vehicles. The increased capacity serves growth in growth areas and addresses existing bottlenecks in the network.

The City's capital forecast was used as a starting point for analyzing this alternative. Road projects that are committed were assumed in the future base network. Two additional road scenarios were modelled to identify future demand and network performance. The modelling scenarios were developed to bookend potential low and high impacts to help inform the overall evaluation.

Exhibit 4.7: Modelling Scenarios – Roads

Modelling Scenario	Base	Roads 1	Roads 2
Description	Planned and committed road expansion projects	Road expansion projects focused in growth areas, intensification areas and employment areas.	In addition to Roads 1, road expansion projects that cross major barriers (Credit River, Highway 401, Highway 407, QEW, rail, etc.)
Sketch	<div> <div> <div>2041 Base Roads</div>  <div> <div>— Constructed</div> <div>— Base</div> <div>— Supporting Growth Areas and Employment Areas</div> <div>— Crossing of Major Barriers</div> </div> </div> <div> <div>2041 Roads 1</div>  <div> <div>— Constructed</div> <div>— Base</div> <div>— Supporting Growth Areas and Employment Areas</div> <div>— Crossing of Major Barriers</div> </div> </div> <div> <div>2041 Roads 2</div>  <div> <div>— Constructed</div> <div>— Base</div> <div>— Supporting Growth Areas and Employment Areas</div> <div>— Crossing of Major Barriers</div> </div> </div> </div>		

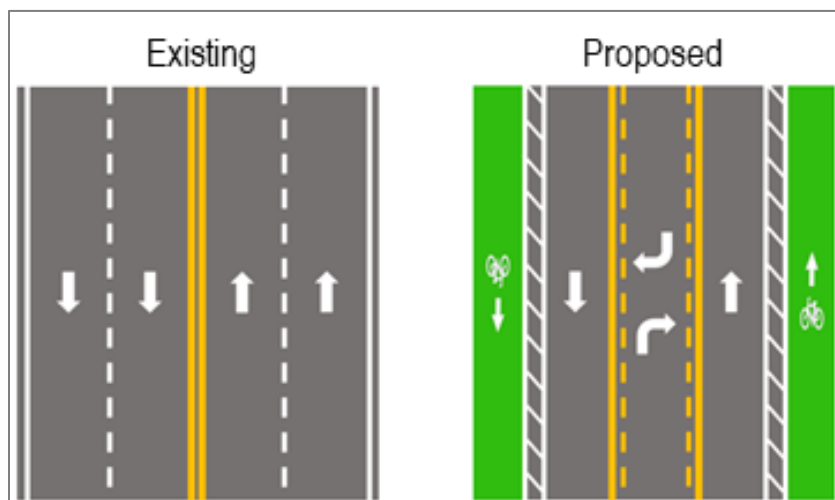
4.6 Road Diets

Roads serve multiple functions in an urban city. Roads are corridors that move people and goods through and around the city. Roads are also public spaces for passive and economic activity. Improvements to the public realm within the road right-of-way can support vibrant communities, foster economic development, and improve the quality of life for the community.

A “road diet” refers to the reduction of one or more lanes on a roadway and re-purposing that space for other uses and users. A road diet prioritizes public space that is more accessible for all road users including pedestrians and cyclists.

A common road diet configuration is the conversion of a 4-lane road to a 3-lane road with a centre two-way left-turn lane as shown in **Exhibit 4.8**. The remaining space can be allocated for use by pedestrians (wider sidewalks), cyclists (bike lanes/paths), businesses (restaurant patios, on-street parking), or other public uses (parklets, pedestrian amenities, transit stops including landing pads and shelters). Any transit stop and its associated infrastructure should be included as part of the road diet design.

Exhibit 4.8: Example Road Diet Reconfiguration



Source: Aquitaine Avenue Safety Improvements Pilot Project

A road diet provides several benefits to users and to the municipality:

- Safety benefits – The Road Diet Informational Guide³ documents safety studies on road diet that indicate a reduction in crashes ranging from 20% to 45%. The Evaluation of Lane Reduction “Road Diet” Measures on Crashes⁴.....
- Operational benefits – left-turn traffic is separated from through traffic volumes, side-street traffic needs to cross fewer travel lanes, and speeds along the corridor are more consistent.

³ Road Diet Informational Guide, Federal Highway Administration, November 2014.

⁴ Evaluation of Lane Reduction “Road Diet” Measures on Crashes,
<https://www.fhwa.dot.gov/publications/research/safety/10053/10053.pdf>

- Pedestrian and Cyclist benefits – reallocated space can accommodate new or wider pedestrian and/or cyclist facilities. The reduction in travel lanes make crossing the roadway easier for pedestrians.

Some common concerns regarding road diets that are typically brought up by community members or stakeholders include:

- Reduced capacity with reduced travel lanes – the selection of roadways for a road diet must consider the road context including traffic volumes, traffic operations, transit operations and adjacent land uses. A road diet may not be the best solution for high volume roads.
- Traffic delays due to transit operations – a road diet can be designed with consideration for transit vehicles and bus stop locations such that buses do not block the travel lane while boarding and alighting passengers.
- Transit delays due to traffic – a road diet can be designed with queue jump lanes and bus priority at signalized intersections to reduce impacts on transit operations.
- Goods movement – a road diet can be designed with consideration for larger vehicles and curbside loadings areas. The opportunity to provide facilities that separate cyclists from commercial vehicles is a benefit on corridors with a higher proportion of commercial vehicles.

Road diets are not an appropriate solution for every road corridor. Major arterial roads that function to carry a high volume of traffic may not be suitable. However, road diets on some major collector or minor arterial roads in Mississauga may benefit adjacent communities and land uses.

Examples of corridor that the City of Mississauga is pursuing road diet pilot projects are Aquitaine Avenue (Tenth Line to Millcreek Drive) and Glen Erin Drive (Derry Road to Britannia Road). On Aquitaine Avenue, conversion of two travel lanes to a centre lane and bike lanes is being considered. On Glen Erin Drive, conversion of two travel lanes for on-street parking and cycle tracks (north of Battleford Road) and centre lane and buffered bike lanes (south of Battleford Road is being considered).

4.7 Travel Demand Management

Travel Demand Management (TDM) refers to strategies that influence travel behaviour to make more efficient use of the transportation system. Strategies can target changes in travel mode, time of day, frequency, length, route, or cost. Examples of TDM strategies include carpooling support, parking management, road pricing, flexible work hours, telecommuting, incentives for choosing carpooling, transit or active modes, and initiatives that discourage driving alone. Programs to promote and support more sustainable modes of travel such as ridematching, emergency-rides-home, transit passes, and supporting infrastructure (e.g., bicycle parking, transit amenities) helps to remove the barriers that prevent people from choosing more sustainable modes. Some TDM programming are city-wide (or region-wide) initiatives while other programs target major employers or residential development.

The City of Mississauga's TDM Strategy and Implementation Plan (2018) was developed to enable and encourage more sustainable modes of transportation. The plan recommends actions for decreasing automobile use by increasing the attractiveness of walking, cycling, carpooling and transit.

Benefits of effective TDM strategies include:

- Transportation – increased mobility with fewer cars on the road network leading to less congestion and more attractive environment for walking and cycling.
- Environmental – reduced single-occupant vehicle trips leads to reduced greenhouse gas emissions, cleaner air, and better community health.
- Economic – a network that provide mobility options attracts businesses and workers. For individuals, TDM measures to reduce automobile trips can reduce transportation-related costs such as fuel, parking, and vehicle maintenance.
- Social – less reliance on the automobile can promote community health and physical activity. Connected walking, cycling and transit networks increase equitable access to mobility.

The City's recent Parking Regulations Study has updated parking standards for new development, encouraging the provision of less parking. The City has also developed new bicycle parking standards to require the provision of bicycle parking facilities in new developments.

TDM programming supports and promotes changes in travel behaviour that are beneficial for the municipality – through more efficient use of the existing transportation investments – and the individual – through more mobility options and lower-cost mobility options.

Standalone TDM measures may have limited impact, but a suite of TDM measures that work together to provide sustainable, cost-effective mobility options can have significant influence in how and when people choose to travel, and longer-term benefits for community health.

Case studies on workplace TDM programs across North America highlight the effectiveness of a well-run program with engaged employees. In 2015 Metrolinx published a Smart Commute Workplace Program Impact Report⁵ that demonstrated the value of the Smart Commute program through a business case review. At a GTHA region-wide scale, the Smart Commute Workplace Program was estimated to take 2.4 million annual car trips off the road and add 2.9 million walking trips and 2.2 million carpool trips. At the employer level, the program was estimated to reduce single-occupant vehicle trips by 2% to 35%.

⁵ Smart Commute Workplace Program Impact Report, 2015.

https://www.metrolinx.com/en/regionalplanning/projectevaluation/benefitscases/Smart_Commute_Workplace_Impact_Report_EN.pdf

5 Evaluation of Alternative Solutions

Each alternative solution was evaluated against each other using the measures presented in **Section 3**. For each criterion, alternatives were assigned a rating of 'poor', 'acceptable', 'good', or 'preferred' as presented in **Table 5-1**.

The evaluation identified positive benefits in all the alternatives. The outcome of the evaluation is to carry forward all the alternatives, in varying degrees, in the development of the preferred network.

Table 5-1: Evaluation of Alternative Solutions

Criteria and Evaluation Metric		1: Bus-only lanes	2: Transit priority measures	3: HOV lanes for carpools and buses	4: Traffic system management	5: New roads or wider roads	6: Road diets	7: Travel demand management
Vision and Directions	Support Climate Change Action	<ul style="list-style-type: none"> Promotes transit by dedicating capacity for transit and improving reliability. 	<ul style="list-style-type: none"> Promotes transit by reducing delay for transit vehicles at intersections. 	<ul style="list-style-type: none"> Promotes sustainable modes by dedicating capacity for transit and carpools. 	<ul style="list-style-type: none"> Improves traffic flow, reducing congestion in the network for cars, transit, and trucks. 	<ul style="list-style-type: none"> Encourages use of passenger vehicles rather than more sustainable travel modes. 	<ul style="list-style-type: none"> Promotes sustainable modes by reallocating road space for walking and cycling. Reduction in vehicular travel lanes may result in congestion that may increase emissions. 	<ul style="list-style-type: none"> Promotes sustainable modes through initiatives and supporting programming.
	Move people and goods more reliably	<ul style="list-style-type: none"> Prioritizes transit and transit reliability to move people more reliably. Reduction in general purpose lanes may lead to inefficient goods movement in some areas. 	<ul style="list-style-type: none"> Prioritizes transit and transit reliability to move people more reliably. 	<ul style="list-style-type: none"> Prioritizes transit and transit reliability to move more people more reliably. Reduction in general purpose lanes may lead to inefficient goods movement in some areas. 	<ul style="list-style-type: none"> Improves traffic efficiency city-wide for passenger vehicles, transit, and goods movement. 	<ul style="list-style-type: none"> Additional capacity can help move goods more reliably. Provides more routing options for all vehicles Wider roads can be a barrier for pedestrians and cyclists. 	<ul style="list-style-type: none"> Prioritizes walking and cycling, additional boulevard space can also be allocated to transit amenities, on road diet corridors. Reduced vehicle traffic lanes can hinder traffic flow. Narrower roads are easier to cross for pedestrians and cyclists. 	<ul style="list-style-type: none"> Alleviates network congestion and promotes more efficient movements.
	Implement more Transit Priority Corridors	<ul style="list-style-type: none"> Prioritizes transit corridors. 	<ul style="list-style-type: none"> Prioritizes transit where measures are implemented. 	<ul style="list-style-type: none"> Prioritizes transit and carpooling on corridors with HOV lanes. 	<ul style="list-style-type: none"> Supports efficient movement on all corridors, including transit priority corridors and at transit priority intersections. 	<ul style="list-style-type: none"> Road widenings can help accommodate transit priority implementation. 	<ul style="list-style-type: none"> Design of road diet could include special accommodation for transit but does not support implementation of transit priority corridors. Reduction in travel lanes may worsen feasibility for implementing transit priority. 	<ul style="list-style-type: none"> TDM programming could promote and support transit ridership, reducing barriers to taking transit.
	Provide equitable access for all users	<ul style="list-style-type: none"> Promotes equity through allocation of road space to transit. Prioritizes access to transit. 	<ul style="list-style-type: none"> Reduces service delays and improves attractiveness of transit. 	<ul style="list-style-type: none"> Promotes equity through fairer allocation of road space. Prioritizes transit and carpooling. 	<ul style="list-style-type: none"> Improves efficiency throughout the network but does not prioritize underserved areas. 	<ul style="list-style-type: none"> New roads improve connectivity across major barriers (i.e., highways, rail, watercourses) for all modes. New roads serve new development areas. 	<ul style="list-style-type: none"> Prioritizes space for walking, cycling and transit access. Candidate corridors can focus on equity-seeking neighbourhoods. 	<ul style="list-style-type: none"> Promotes and supports sustainable travel options. TDM programming can focus on equity-seeking neighbourhoods.

Criteria and Evaluation Metric		1: Bus-only lanes	2: Transit priority measures	3: HOV lanes for carpools and buses	4: Traffic system management	5: New roads or wider roads	6: Road diets	7: Travel demand management
	Protect vulnerable road users	<ul style="list-style-type: none"> Dedicated bus lanes reduce interactions/ conflicts between transit and other vehicles/road users. 	<ul style="list-style-type: none"> Promotes safer and more efficient transit operations for merging transit vehicles. 	<ul style="list-style-type: none"> Promotes carpooling and transit use, reducing traffic congestion. Limited benefits to vulnerable road users. 	<ul style="list-style-type: none"> Improvements to traffic flow may reduce congestion leading to reductions in rear-end collisions. 	<ul style="list-style-type: none"> Limited benefits to vulnerable road users. 	<ul style="list-style-type: none"> Allocates more right-of-way space for pedestrians and cyclists. Promotes adoption of Complete Streets and design principles that prioritize vulnerable road users. Narrower roads are easier to cross for pedestrians and cyclists. 	<ul style="list-style-type: none"> TDM programming can reduce traffic congestion and support travel by transit, walking and cycling.
	Connect transportation system within Mississauga and to hubs outside of Mississauga	<ul style="list-style-type: none"> Bus-only lanes provide improved transit reliability along higher-demand corridors. 	<ul style="list-style-type: none"> Transit priority measures provide improved transit reliability along applicable corridors. 	<ul style="list-style-type: none"> HOV lanes provide improved transit reliability along applicable corridors. 	<ul style="list-style-type: none"> Improves operations of transportation system within Mississauga. 	<ul style="list-style-type: none"> Improves connectivity to new development, across barriers, and to hubs outside of Mississauga. 	<ul style="list-style-type: none"> Enhances connectivity for walking and cycling within Mississauga. 	<ul style="list-style-type: none"> Programming can improve connections/ options to transit hubs within and external to Mississauga.
		Preferred	Preferred	Good	Preferred	Acceptable	Good	Good
Mobility Impacts	Improve network performance	<ul style="list-style-type: none"> Shift of travel demand from SOV to transit could reduce overall network congestion. Conversion of existing lanes to bus-only lanes could result in more traffic congestion on subject corridors. Improves transit travel times on subject corridors. 	<ul style="list-style-type: none"> Prioritizes transit performance at subject intersections. Minor improvements to transit travel times and reliability on subject corridors. 	<ul style="list-style-type: none"> Prioritizes network performance of more sustainable modes. Potential to improve transit travel times. 	<ul style="list-style-type: none"> Improves traffic operations city-wide for vehicles, transit, and goods movement. 	<ul style="list-style-type: none"> Additional road capacity (i.e., widening) could reduce congestion on corridor or adjacent parallel corridors. Reduced traffic congestion benefits vehicles, transit, and goods movement. Wider roads may be more challenging or less comfortable for pedestrians and cyclists to cross and travel along. 	<ul style="list-style-type: none"> Improve attraction of sustainable modes on road diet corridors. Prioritizes performance (comfort) of walking and cycling on road diet corridors. 	<ul style="list-style-type: none"> Potential to reduce SOV demand and help alleviate congestion. Programming helps remove potential barriers to taking transit, carpooling, walking, or cycling.
	Provide adequate network capacity	<ul style="list-style-type: none"> Increases overall person-carrying capacity. Increases transit capacity but may decrease vehicle capacity if an existing general-purpose lane is converted to bus-only lane. 	<ul style="list-style-type: none"> Improves transit capacity at subject intersections 	<ul style="list-style-type: none"> Increases overall person-carrying capacity. Increases transit and carpool capacity but may decrease general purpose and goods movement road capacity if an existing general-purpose lane is 	<ul style="list-style-type: none"> Improves capacity at intersections city-wide. 	<ul style="list-style-type: none"> Widened corridors provide additional capacity for vehicles, transit, and goods movement. 	<ul style="list-style-type: none"> Reduction of travel lane reduces traffic capacity for vehicles, transit, and goods movement on those corridors. Improves network capacity for walking and cycling on road diet corridors. 	<ul style="list-style-type: none"> Reduces travel demand or shifts travel demand to other modes resulting in a modest decrease in SOV travel and reduces need for additional road capacity.

Criteria and Evaluation Metric		1: Bus-only lanes	2: Transit priority measures	3: HOV lanes for carpools and buses	4: Traffic system management	5: New roads or wider roads	6: Road diets	7: Travel demand management
Community Impacts				converted to HOV/bus lane.				
		Preferred	Preferred	Good	Preferred	Good	Acceptable	Good
	Promote community health and active lifestyles	<ul style="list-style-type: none"> Higher-order transit corridors and more compact development promotes more active lifestyles. Shifts in travel demand from SOV to transit can reduce emissions. 	<ul style="list-style-type: none"> Shifts in travel demand from SOV to transit can reduce GHG emissions. 	<ul style="list-style-type: none"> Shifts in travel demand from SOV to HOV and transit can reduce GHG emissions. 	<ul style="list-style-type: none"> More efficient traffic operations can reduce congestion and GHG emissions. 	<ul style="list-style-type: none"> Encourages SOV use rather than sustainable travel modes and may discourage active travel. New roads provide opportunity to add AT facilities where they do exist today. 	<ul style="list-style-type: none"> Provides additional facilities and/or more comfortable facilities for walking and cycling. Promotes adoption of Complete Streets and potential for improved streetscape. 	<ul style="list-style-type: none"> Shifts in travel demand from SOV to HOV, transit, walking, and cycling can reduce GHG emissions.
	Promote transportation equity	<ul style="list-style-type: none"> Improve transit service on corridors with existing or expected high transit demand. Improves travel time and reliability for transit riders. Can be implemented in equity-seeking communities. 	<ul style="list-style-type: none"> Improve transit service by prioritizing transit at busy intersections. Improves travel time and reliability for transit riders. Can be implemented in equity-seeking communities, 	<ul style="list-style-type: none"> Improve transit service on corridors with existing or expected high transit demand. Improves travel time and reliability for transit riders. Can be implemented in equity-seeking communities, 	<ul style="list-style-type: none"> City-wide system that benefits all areas of Mississauga. 	<ul style="list-style-type: none"> New roads could improve connectivity and access to new developments and across barriers for all modes, including walking, cycling, and transit. Can be implemented in equity-seeking communities, 	<ul style="list-style-type: none"> Can be implemented in equity-seeking communities, near neighbourhood facilities and hubs (parks, schools, community centres, main streets). Supports walking and cycling but may impede transit operations and goods movement. 	<ul style="list-style-type: none"> Programming can reduce barriers to taking transit, carpooling, walking, and cycling. Programming can be targeting to specific equity-seeking communities and groups.
		Preferred	Preferred	Preferred	Good	Acceptable	Good	Preferred
Economic Impacts	Support businesses	<ul style="list-style-type: none"> Increased economic opportunity from more compact development and improved access by transit. 	<ul style="list-style-type: none"> Increased economic opportunity from improved access by transit. 	<ul style="list-style-type: none"> Increased economic opportunity from improved access by HOV / transit. 	<ul style="list-style-type: none"> Improves traffic operations and access to all areas of the city. 	<ul style="list-style-type: none"> Increases capacity and access by car, but new roads or road widening may impact property. Widening may reduce right-of-way for other uses – e.g., sidewalks, boulevards, patios, public space. 	<ul style="list-style-type: none"> Road diets on 'main streets' improves access by walking/ cycling and areas for placemaking. 	<ul style="list-style-type: none"> TDM programming typically provides support to employees that commute by transit, carpooling or active modes.
	Move goods reliably	<ul style="list-style-type: none"> Shift of travel demand to transit could reduce congestion and delay on roadways, otherwise limited direct benefit to goods movement. May decrease road network capacity if an existing general-purpose lane is converted to bus-only lane. 	<ul style="list-style-type: none"> Shift of travel demand to transit could reduce congestion and delay on roadways, otherwise limited direct benefit to goods movement. 	<ul style="list-style-type: none"> Shift of travel demand to transit could reduce congestion and delay on roadways, otherwise limited direct benefit to goods movement. May decrease road network capacity if an existing general-purpose lane is converted to HOV/bus lane. 	<ul style="list-style-type: none"> Improved traffic operations benefit goods movement 	<ul style="list-style-type: none"> Additional road capacity could improve traffic flow and access to goods movement network. 	<ul style="list-style-type: none"> Reduction of travel lane reduces traffic capacity for all vehicles, which may impact goods movement. 	<ul style="list-style-type: none"> Shift of travel demand to transit, carpooling, walking, and cycling could reduce congestion on roadways, otherwise limited direct benefit to goods movement.
		Acceptable	Good	Acceptable	Preferred	Good	Acceptable	Good

Criteria and Evaluation Metric		1: Bus-only lanes	2: Transit priority measures	3: HOV lanes for carpools and buses	4: Traffic system management	5: New roads or wider roads	6: Road diets	7: Travel demand management
Environmental Impacts	Minimize impacts to natural environment	<ul style="list-style-type: none"> Shifts in travel demand from SOV to transit can reduce GHG emissions. Widening to add bus-only lanes could impact to natural environment but conversion of general-purpose lane to bus-only lane would not. 	<ul style="list-style-type: none"> Shifts in travel demand from SOV to transit can reduce GHG emissions. Any widenings are typically local to intersections only. 	<ul style="list-style-type: none"> Shifts in travel demand from SOV to HOV/transit can reduce GHG emissions. Widening to add HOV/bus lanes could impact to natural environment but conversion of general-purpose lane to bus-only lane would not. 	<ul style="list-style-type: none"> Improved traffic operations can reduce congestion and GHG emissions. 	<ul style="list-style-type: none"> New roads could have significant impact to natural environment (i.e., crossing Credit River valley) Could encourage SOV use, leading to increased GHG emissions. 	<ul style="list-style-type: none"> Promotes walking and cycling. Reduction in vehicular travel lanes may result in congestion that may increase emissions. 	<ul style="list-style-type: none"> Shifts in travel demand from SOV to HOV, transit, walking, and cycling can reduce GHG emissions.
	Minimize impacts to cultural/socio environment	<ul style="list-style-type: none"> Widening of corridors to accommodate bus-only lanes could have significant property impacts but conversion of general-purpose lane to bus-only lane would not. 	<ul style="list-style-type: none"> Limited property impacts - any widenings are typically minor. 	<ul style="list-style-type: none"> Widening of corridors to accommodate bus-only lanes could have significant property impacts but conversion of general-purpose lane to bus-only lane would not. 	<ul style="list-style-type: none"> No property impacts. 	<ul style="list-style-type: none"> New roads and road widenings could have significant property impacts. 	<ul style="list-style-type: none"> Limited property impacts but could affect access to property abutting road diet. 	<ul style="list-style-type: none"> No property impacts
		Good	Preferred	Good	Preferred	Acceptable	Good	Preferred
Financial Impacts	Minimize capital costs	<ul style="list-style-type: none"> New LRT/BRT corridors are a significant capital investment. Simpler bus-only lanes would a low to moderate capital investment depending on property requirements. 	<ul style="list-style-type: none"> Lower capital investment focused at select intersections. 	<ul style="list-style-type: none"> Lower capital investment if road widening is not required. Widenings to add HOV/bus lanes are a significant capital investment 	<ul style="list-style-type: none"> Lower capital investment for city-wide impact 	<ul style="list-style-type: none"> New road / widenings are a significant capital investment 	<ul style="list-style-type: none"> Lower capital investment as typically uses existing infrastructure. May require moderate capital investment for full upgrade of pedestrian and cycling facilities in the boulevards. 	<ul style="list-style-type: none"> Lower capital investment.
	Minimize operations / maintenance costs	<ul style="list-style-type: none"> Higher on-going operations and maintenance costs. 	<ul style="list-style-type: none"> Lower on-going maintenance costs. 	<ul style="list-style-type: none"> Lower on-going maintenance costs. 	<ul style="list-style-type: none"> Lower on-going operations costs 	<ul style="list-style-type: none"> Higher on-going maintenance costs. 	<ul style="list-style-type: none"> Lower on-going maintenance costs. 	<ul style="list-style-type: none"> Lower on-going operational costs.
		Acceptable	Preferred	Acceptable	Preferred	Poor	Good	Good
Recommendation		Good Carry Forward at strategic locations only	Preferred Carry Forward	Acceptable Carry Forward at strategic locations only	Preferred Carry Forward	Acceptable Carry Forward at strategic locations only	Good Carry Forward at strategic locations only	Good Carry Forward

6 Draft Preferred Network

The recommended solution for the future transportation network in Mississauga is a combination of the alternative strategies that seek a more balanced transportation network to support travelling by a variety of modes and the movement of goods.

A preliminary recommended network was identified that combined a network of higher-order transit and transit priority corridors and key road capacity improvements at strategic locations, supported by city-wide transportation system management, and travel demand management initiative. HOV lanes and road diets will also be considered where appropriate candidates are identified.

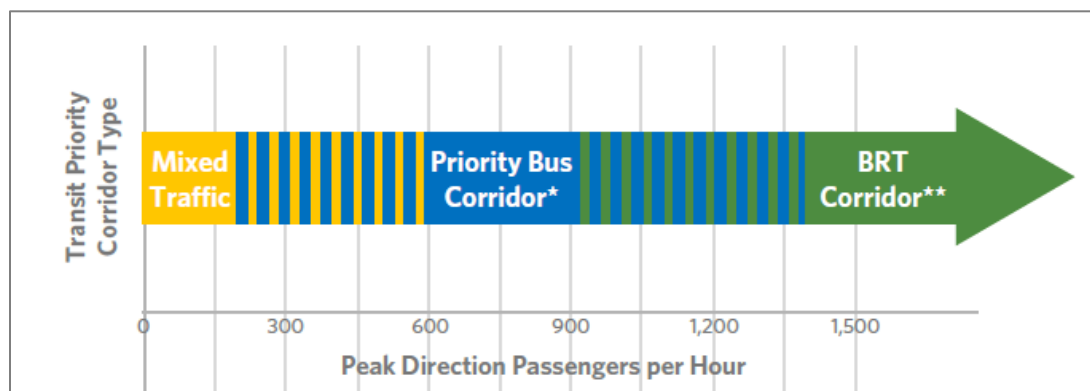
Model network assumptions are included in **Appendix B**, with model outputs summarized in **Appendix C**.

6.1 Long-Term Transit Network

The Transit 2 modelling scenario was used to identify corridors with the highest transit ridership demand. The review of pre- and peri-pandemic ridership highlighted corridors where ridership was more stable throughout the pandemic, indicating a higher likelihood that the route is serving essential businesses/services and essential workers. These factors, combined with a desire to provide high-quality, frequent transit service to most of the city, informed the preliminary network.

For modelling purposes, the model erred on the side of higher transit service – with frequent service on dedicated lanes – where ridership reached about 900 to 1,000 peak direction peak hour passengers. However, as shown in **Exhibit 6.1**, there is a wide range of ridership demands that are suitable for either priority bus corridors or dedicated lanes. The preliminary preferred network will continue to be refined through the study process. Ultimately, the corridor type will be determined through subsequent studies and an environmental assessment process. Consideration can also be given to phasing – transit priority measures can be implemented in the shorter term with planning for dedicated transit lanes in the long term.

Exhibit 6.1: Typical Ridership Demand by Transit Corridor Type



* Priority Bus Corridor can be either Mixed Traffic + Queue Jump + TSP or HOV lanes + TSP

** BRT is frequent transit service in exclusive bus-only lanes

Table 6-1 identifies the higher order transit corridors and locations of dedicated lanes. Note these projects would require conversion of existing auto lanes or road widening to accommodate dedicated transit lanes. **Table 6-2** identifies other potential transit priority corridors. The preliminary preferred network is shown in **Exhibit 6.2**.

Table 6-1: Higher-Order Transit Corridors

	Corridor	Route Description	Proposed Location of Dedicated Lanes	Preliminary Peak Period Ridership (both dir.)	Segment with forecasts >900 pass/h (peak dir.)
Dedicated Lanes					
1	Burnhamthorpe Road	South Common Mall to Kipling Station (Toronto)	Creditview Road to Etobicoke Creek (Toronto border)	8,700	East of Confederation Parkway
2	Dixie Road	Long Branch GO to Bramalea Terminal (Brampton)	QEW to south of Highway 407 (Brampton border)	7,600	North of Dixie GO station
3	Eglinton Avenue	Ninth Line loop to Kipling Station (Toronto)	Ninth Line to Highway 427 (Toronto border)	7,300	Mavis Road to Dixie Road
4	Derry Road	Meadowvale Town Centre to Westwood Square	Glen Erin Drive to Goreway Drive	5,400	Hurontario Street to Dixie Road
5	Dundas Street	Laird/Vega Terminal to Kipling Station (Toronto)	Winston Churchill Boulevard to Confederation Parkway	n/a	n/a

Table 6-2: Transit Priority Corridors

	Corridor	Route Description	Preliminary Peak Period Demand (both dir.)
Transit Priority Corridors			
1	Bloor Road	City Centre to Kipling Station (Toronto)	4,600
2	Britannia Road / Matheson Boulevard	Meadowvale Town Centre to Renforth Station	3,400
3	Winston Churchill Boulevard	Many routes from Meadowvale Town Centre; to Kipling Station (Toronto) and Clarkson GO	2,400
4	Erin Mills Parkway	Erin Mills Station to Erin Mills Parkway and Steeles (Brampton)	2,200
5	McLaughlin Road / Confederation Road	Trillium Hospital to Sheridan College (Brampton) Routes separate at City Centre	3,900
6	Mavis Road	City Centre to Sheridan College (Brampton)	2,300
7	Mississauga Road	UTM to Meadowvale Town Centre	1,700
8	Kennedy Road	Cooksville GO to Highway 407 Park and Ride	1,600
9	Tomken Road	Dundas Street (Middlegate Loop) to Derry Road (Lorimar Drive)	1,600
10	Glen Erin Drive	Clarkson GO to Meadowvale Town Centre	1,200
11	Cawthra Road	Port Credit GO to Cawthra Station	1,200
12	Courtneypark Drive	Sheridan College (Brampton) to Renforth Station	700

6.2 Long-Term Road Network

Through the evaluation process, new roads and road widening were identified as an acceptable solution only. While the strategy has ranked lower under several categories, there are still recognized benefits of providing adequate road capacity and connectivity to new development, across barriers and gaps, and for goods movement. In most cases, new roads or road widenings also provide improved connectivity for transit, walking and cycling.

A review of the Roads 1 and Roads 2 modelling scenarios, along with the evaluation, led to the road corridors in **Table 6-3** being identified for new connections or widening to serve growth

areas, employment areas, and connect across major barriers. Additional road changes required to support dedicated transit lanes are listed in **Table 6-4**.

Table 6-3: Road Capacity Improvement Corridors

	Corridor	Description	Limits	Remarks
Capacity and Connectivity – Growth Areas				
1	Centre View Drive	4 to 5 lane widening	Duke of York Boulevard to Rathburn Road	To be confirmed through Downtown Movement Plan.
2	Square One Drive	New 2 lane road	Hurontario Street to Rathburn Road	To be confirmed through Downtown Movement Plan
3	Ninth Line	2 to 4 lane widening	Derry Road to Highway 401	
4	Ninth Line at CPR	Grade separation		GO Expansion on Milton Line
Improving Access to Employment / Industrial Areas and Goods Movement				
5	Edwards Boulevard	New 2 lane road	Topflight Drive to Hurontario Street	
6	Drew Road	2 to 4 lane widening	Torbram Road to Airport Road	
7	Drew Road @ CNR	New grade separation		
8	Drew Road	New 2 lane road	Dixie Road to Tomken Road	2 lane road, option for alignment to avoid watercourse.
9	Creekbank Road	New 4 lane road	Highway 401 to Britannia Road	
10	Creekbank Road	New 2 lane road	Creekbank Road to south of Highway 401	
11	Belgrave Drive Ramp	New 4 lane	Mavis Road to Cantay Road	
12	Whittle Road	2 to 4 lane widening	Britannia Road to Matheson Boulevard	
Crossings of Major Barriers				
13	Burnhamthorpe Road	4 to 6 lane widening across Credit River	Mississauga Road to Creditview Road	Benefits for road and transit networks.
14	Britannia Road (RR3)	4 to 6 lane widening across Credit River	Mississauga Road to Creditview Road	Benefits for road and transit networks.
15	Britannia Road Extension	New crossing of Highway 410	Kennedy Road to Tomken Road	Relieves Derry Road and Courtneypark Drive
16	Argentia Road Future Extension	New crossing of 407ETR	Tenth Line to 407ETR	<i>Protect for future growth</i>

Table 6-4. Road Changes for Dedicated Transit Lanes

	Corridor	Description	Limits
1	Burnhamthorpe Road	Conversion of 2 auto lanes to dedicated transit lanes	Creditview Road to Hurontario Street
2	Burnhamthorpe Road	Road widening for 2 new dedicated transit lanes	Hurontario Street to Etobicoke Creek (Toronto border)
3	Dixie Road	Conversion of 2 auto lanes to dedicated transit lanes	South of Highway 407 (Brampton border) to QEW
4	Eglinton Avenue	Road widening for 2 new dedicated transit lanes	Ninth Line to Winston Churchill Boulevard
5	Eglinton Avenue	Conversion of 2 auto lanes to dedicated transit lanes	Winston Churchill Boulevard to Eastgate Parkway
6	Derry Road	6 to 4 lane reduction; new dedicated transit lanes	Glen Erin Drive to Goreway Drive
7	Dundas Street	Road widening for 2 new dedicated transit lanes	Winston Churchill Boulevard to west of Erindale Station Road
8	Dundas Street	6 to 4 lane reduction; new dedicated transit lanes	West of Erindale Station Road to west of Confederation Parkway

Note: Road network changes for committed Rapid Transit projects (Hurontario LRT, Lakeshore BRT and Dundas BRT) are subject current Environmental Assessment studies.

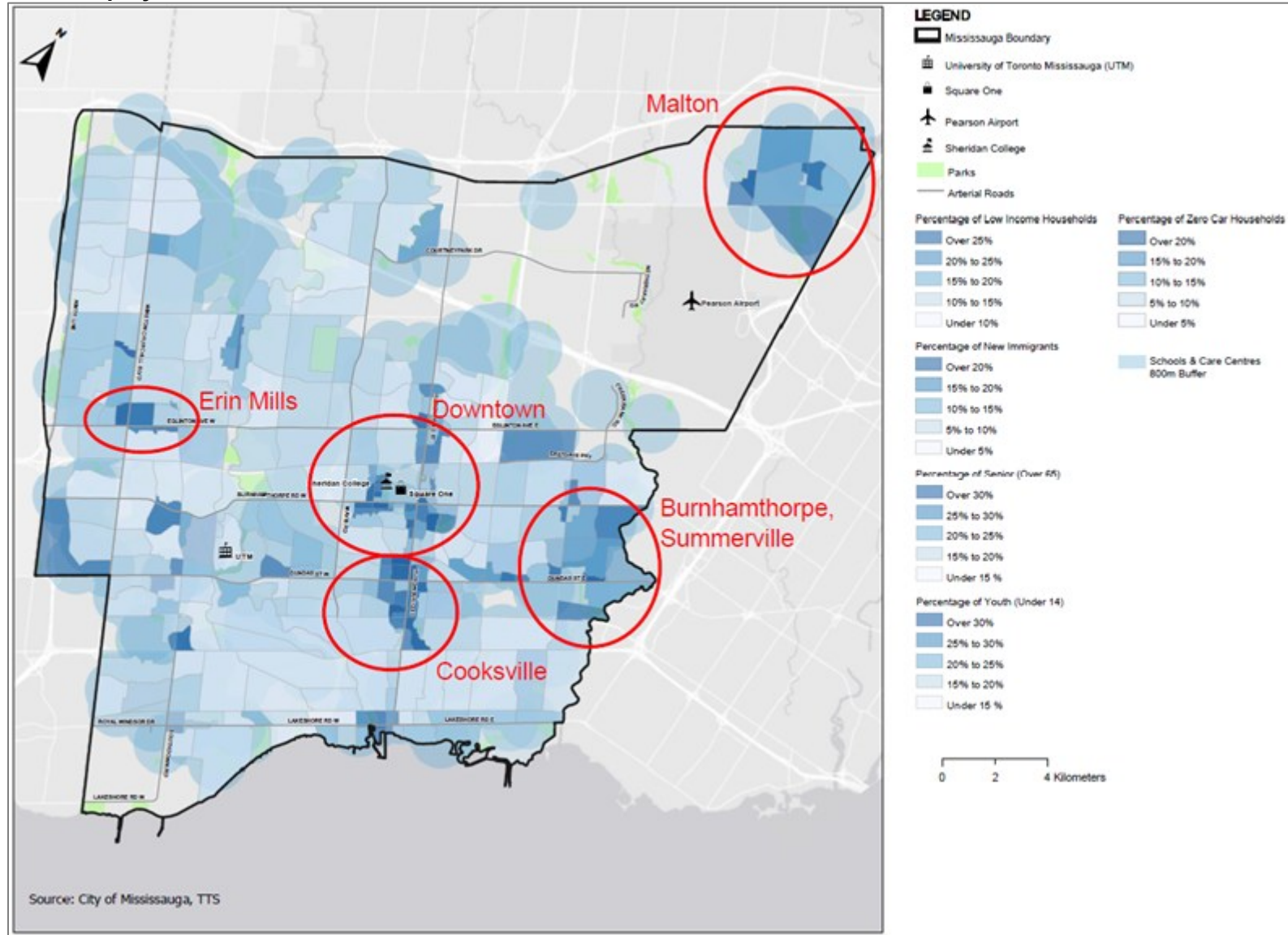
Exhibit 6.2: Draft Preferred Networks

Modelling Scenario	Transit	Roads
Sketch	<div> <div>Draft Preferred 2041 Transit Priority Network</div> <div> <div> <div>Mississauga Transitway</div> <div>Current Rapid Transit Projects (Dedicated Lanes)</div> <div>Transit Priority (Dedicated Lanes)</div> <div>Transit Priority (Other)</div> <div>Higher-Order Regional Transit Connections</div> <div>Potential Regional Connections</div> <div>GO Rail</div> <div>GO Station</div> <div>Major MiWay Terminal (Turnaround Service)</div> </div> <div>Community-based transit routes are not shown on this map.</div> </div> </div>	<div> <div>Draft Preferred 2041 Road Network</div> <div> <div>Base</div> <div>Constructed</div> <div>Supporting Growth Areas and Employment Areas</div> <div>Road changes subject to Current Rapid Transit Projects</div> <div>Crossing of Major Barriers (New or Widen)</div> <div>Widening for Dedicated Transit Lanes</div> <div>Conversion for Dedicated Transit Lanes</div> </div> </div>

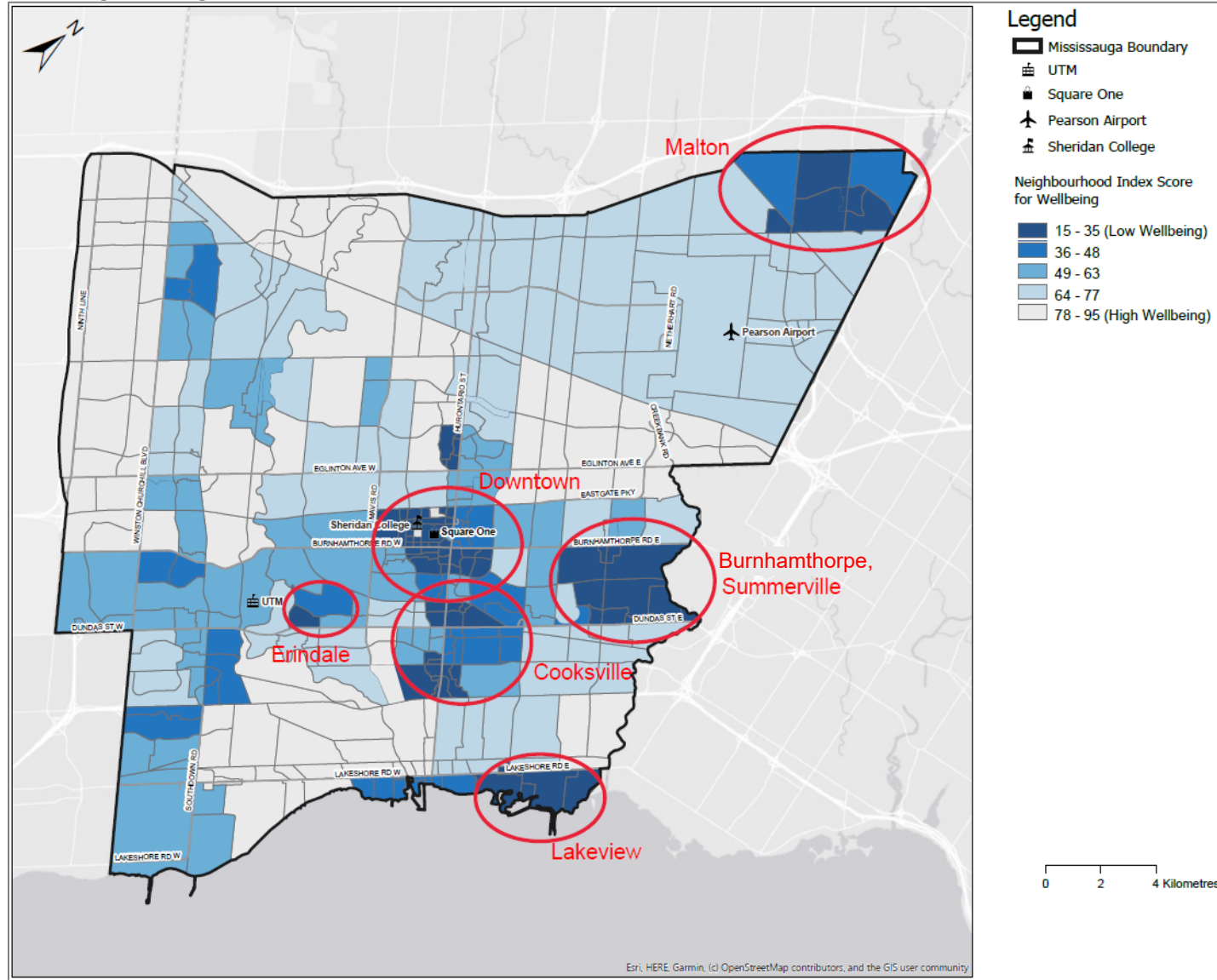


Appendix A – Equity

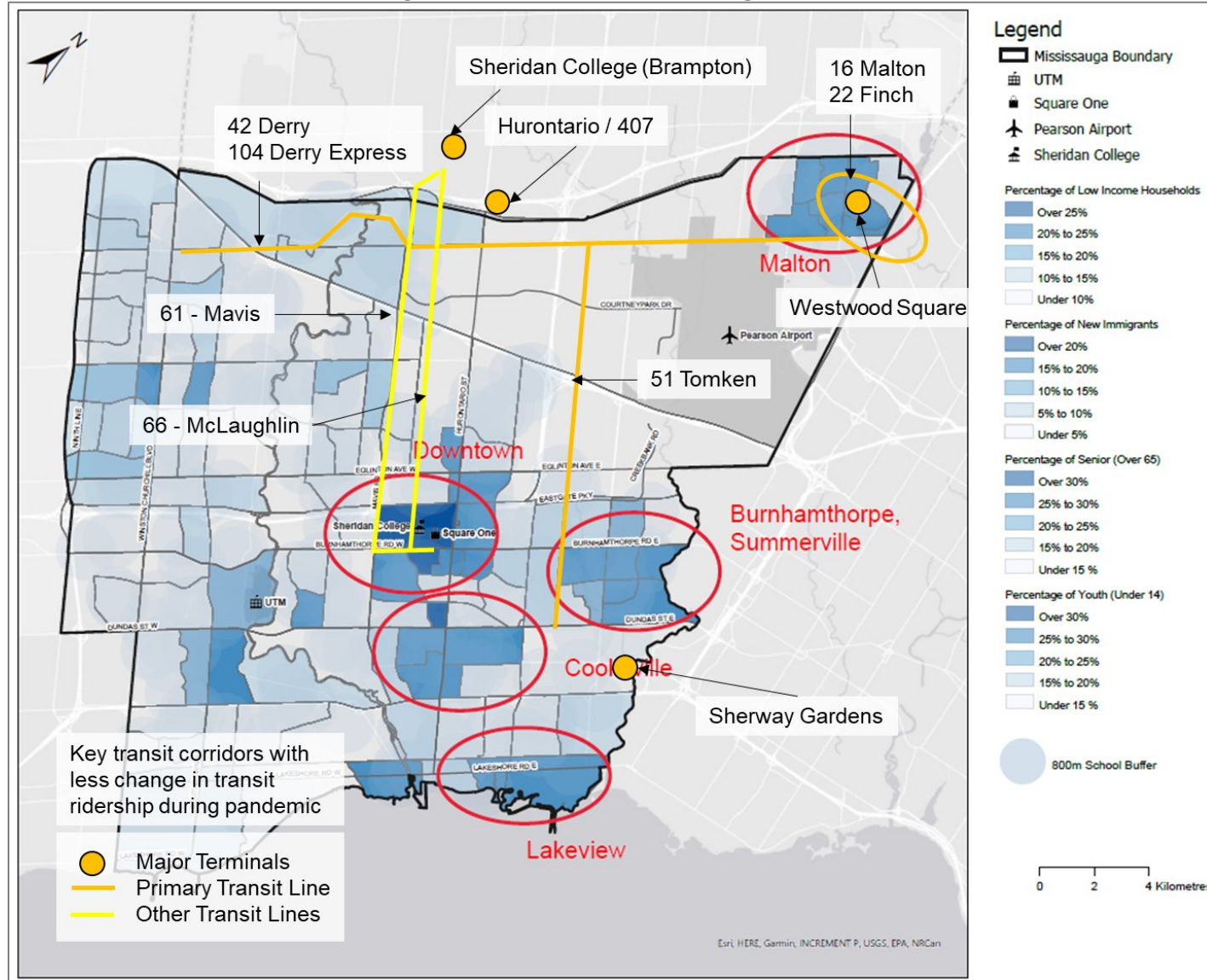
Social Equity Index



Peel Region Neighbourhood Information Index



Transit Corridors with Less Change in Transit Ridership during COVID-19 Pandemic (October 2020 vs October 2019)



Appendix B – Model Network Assumptions

Table A1. Draft Preferred Road Network Assumptions

Road Projects								2041			
ID	Corridor	Improvement	From	To	Length (km)	Notes	Status	Base	Roads 1	Roads 2	Draft Preferred
Committed Projects											
B-1	Mavis Road	4 to 6 lanes	Courtneypark Drive	Northern City limit	2.75		EA completed in 2017 (construction recently completed)	Yes	Yes	Yes	Yes
B-2	Courtneypark Drive	4 to 6 lanes	West of Highway 410 Ramp	East of Highway 410 Ramp	0.5		under construction	Yes	Yes	Yes	Yes
B-3	Courtneypark Drive and Highway 410 Interchange	Additional Ramps			n/a	Capital Budget - committed	under construction	Yes	Yes	Yes	Yes
B-4	Creditview Road	2 to 4 lanes	Bancroft Road	Old Creditview Road	2.2	Capital Budget - committed	EA completed 2016	Yes	Yes	Yes	Yes
B-5	Goreway Drive	Grade Separation	CNR		n/a	Capital Budget - committed		Yes	Yes	Yes	Yes
B-6	Burnhamthorpe Road	2 to 4 lane widening	Ninth Line	Loyalist	1.5	Capital Budget	EA completed 2020	Yes	Yes	Yes	Yes
B-7	Ninth Line	2 to 4 lane widening	Eglinton Avenue	Derry Road	6.15	Capital Budget	EA completed 2021	Yes	Yes	Yes	Yes
B-8	Sheridan Park Drive	New 2 lane road	West Leg Speakman Drive	East Leg Speakman Drive	0.9	Capital Budget	EA completed 2019	Yes	Yes	Yes	Yes
B-9	Square One Drive	0 to 2 lanes	Confederation Parkway	Rathburn Road	0.3	Capital Budget - committed	EA completed 2017	Yes	Yes	Yes	Yes
B-10	Kariya Drive	0 to 2 lanes	South of Elm Drive	Central Parkway West	0.16	Capital Budget - committed	EA completed 2020	Yes	Yes	Yes	Yes
B-11	The Exchange	New 2 lane road	Burnhamthorpe Road	Webb Drive	0.15	Capital Budget	EA completed 2020	Yes	Yes	Yes	Yes
B-12	Webb Drive	2 to 4 lane widening	Duke of York Boulevard	Kariya Drive	0.3	Capital Budget	EA completed 2020	Yes	Yes	Yes	Yes
B-13	Living Arts Drive	New 2 lane road	Rathburn Road	Centre View Drive	0.2	Note - not in Capital Budget	EA completed 2018	Yes	Yes	Yes	Yes
Capacity and Connectivity Serving Growth Areas											
G-1	Centre View Drive	4 to 5 lane widening	Duke of York Boulevard	Rathburn Road	0.8	Capital Budget			Yes	Yes	Yes - DMP
G-2	Square One Drive	New 2 lane road	Hurontario Street	Rathburn Road	0.25	Capital Budget			Yes	Yes	Yes - DMP
G-3	Burnhamthorpe Road	4 to 6 lane widening	Hurontario Street	Cawthra Street	2.05	Capital Budget			Yes	Yes	Dedicated transit lanes
G-4	Burnhamthorpe Road	4 to 6 lane widening	Cawthra Street	Dixie Road	2.09	Capital Budget			Yes	Yes	Dedicated transit lanes
G-5	Burnhamthorpe Road	4 to 6 lane widening	Dixie Road	Etobicoke Creek	2.15	Capital Budget			Yes	Yes	Dedicated transit lanes
G-6	Ninth Line	2 to 4 lane widening	Derry Road	Highway 401	2.45	Capital Budget	EA completed 2014		Yes	Yes	Yes
G-7	Ninth Line at CPR	Grade Separation			n/a	Capital Budget	EA completed 2014		Yes	Yes	Protect (timing dependent on Milton GO service expansion)
G-8	Tenth Line	2 to 4 lane widening	Britannia Road	Derry Road	3.06	Capital Budget			Yes	Yes	No
G-9	Tenth Line	2 to 4 lane widening	Derry Road	Railway Tracks	1.3	Capital Budget			Yes	Yes	No
G-10	Tenth Line	2 to 4 lane widening	Railway Tracks	Argentia Road	0.2	Capital Budget			Yes	Yes	No
G-11	Winston Churchill Boulevard	4 to 6 lane widening	Derry Road	Britannia Road	3	Capital Budget			Yes	Yes	No
G-12	Winston Churchill Boulevard	4 to 6 lane widening	Britannia Road	Erin Centre Boulevard	2.5	Capital Budget			Yes	Yes	No
G-13	Winston Churchill Boulevard	4 to 6 lane widening	Dundas Street	Highway 403	3.2	Capital Budget			Yes	Yes	No

Road Projects								2041			
ID	Corridor	Improvement	From	To	Length (km)	Notes	Status	Base	Roads 1	Roads 2	Draft Preferred
Improving Access to Employment/Industrial Areas / Goods Movement											
E-1	Edwards Boulevard	New 2 lane road	Topflight Drive	Hurontario Street / Highway 407	0.5	Capital Budget			Yes	Yes	Yes
E-2	Drew Road	2 to 4 lane widening, new at-grade crossing	Torbram Road	Airport Road	1.06	Capital Budget			Yes	Yes	Yes
E-3	Drew Road @CNR	Grade Separation			n/a	Capital Budget				Yes	Yes
E-4	Drew Road	New 4 lane road	Dixie Road	Tomken Road	0.8	Capital Budget				Yes	Yes
E-5	Creekbank Road	New 4 lane road	Highway 401	Britannia Road	1.6	Capital Budget	EA 2002			Yes	Yes
E-6	Creekbank Road	New 2 lane road	Creekbank Road	South of Highway 401	1.3	Capital Budget				Yes	Yes
E-7	Belgrave Drive Ramp	New 4 lane	Mavis Road	Cantay Road	0.23	Capital Budget			Yes	Yes	Yes
E-8	Whittle Road	2 to 4 lane widening	Britannia Road	Matheson Boulevard	1.1	Capital Budget			Yes	Yes	Yes
E-9	Courtneypark Drive	4 to 6 lane widening	Maritz Drive	Kennedy Road	3.46	Capital Budget			Yes	Yes	Yes
E-11	Mavis Road	5 to 6 lane widening	CPR	Central Parkway	0.6	Capital Budget			Yes	Yes	No
E-12	Mavis Road	4 to 6 lane widening	Central Parkway	Burnhamthorpe Road	0.65	Capital Budget			Yes	Yes	No
Northern Distribution Road and Related Connections											
NDR-1	Northern Distribution Road		Duke of York Boulevard	Rathburn Road	n/a	Capital Budget	uncertainty around NDR / MTO				No
NDR-2	Northern Distribution Road		Duke of York Boulevard Ramp	Northern Distribution Road	n/a	Capital Budget	uncertainty around NDR / MTO				No
NDR-3	Northern Distribution Road		Confederation Parkway	Northern Distribution Road	n/a	Capital Budget	uncertainty around NDR / MTO				No
NDR-4	Northern Distribution Road	New 2 lane road	Mavis Road	Hurontario Street	2.04	Capital Budget	uncertainty around NDR / MTO				No
NDR-5	City Centre Drive Flyover				n/a	Capital Budget	uncertainty around NDR / MTO				No
NDR-6	City Centre Drive Ramp				n/a	Capital Budget	uncertainty around NDR / MTO				No
NDR-7	Confederation Parkway		Confederation Parkway Ramp	Northern Distribution Road	n/a	Capital Budget	uncertainty around NDR / MTO				No
NDR-8	Duke of York Boulevard Flyover	New flyover			0.5	Capital Budget	uncertainty around NDR / MTO				No
NDR-9	Duke of York Boulevard Ramp	New ramp			0.25	Capital Budget	uncertainty around NDR / MTO				No
New Crossings of Major Barriers											
C-1	New EW Crossing of Credit River	new road across Credit River	Queensway	Mississauga Road	0.8	Increase capacity/ connectivity across Credit R.				Yes	No
C-2	Burnhamthorpe Road	4 to 6 lane widening	Mississauga Road	Creditview Road	2	Increase capacity/ connectivity across Credit R. and rail				Yes	Yes
C-3	Britannia Road (RR3)	4 to 6 lane widening	Mississauga Road	Creditview Road	1.4	Increase capacity/ connectivity across Credit R. and rail				Yes	Yes
C-4	Haig Blvd QEW Crossing	new crossing of QEW	Haig Boulevard	Stanfield Road	0.2	Increase capacity/ connectivity across QEW				Yes	No
C-5	Clarkson Road QEW Crossing	new crossing of QEW	Clarkson Road	North Sheridan Way	0.2	Increase capacity/ connectivity across QEW				Yes	No
C-6	Aquitane Road Extension	new road across rail	Millcreek Drive	Argentia Road	0.4	Off load Derry Road and Erin Mills Pkwy				Yes	No

Road Projects								2041			
ID	Corridor	Improvement	From	To	Length (km)	Notes	Status	Base	Roads 1	Roads 2	Draft Preferred
C-7	Britannia Road Extension	new road across Hwy 410	Kennedy Road	Tomken Road	1	OP future road / increase connectivity across 410				Yes	Yes
C-8	Argentia Road Extension	midblock crossing of 407	Tenth Line	Highway 407	1.8	OP future road / 10 year capital plan				Yes	Protect Corridor

Table B2. Draft Preferred Transit Network Assumptions

Transit Improvements					2041			
ID	Corridor	From	To	Notes	Base	Transit 1	Transit 2	Draft Preferred
Higher Order Transit								
T-1	Hurontario LRT (Dedicated Lanes)	Lakeshore Road / Port Credit GO	Steeles Avenue	under construction	7.5 minutes / dedicated	7.5 minutes / dedicated	7.5 minutes / dedicated	5 minutes (loop) / dedicated
T-2	Hurontario Local	Lakeshore Road / Port Credit GO	Steeles Avenue		20 minutes / mixed traffic	15 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Dundas Street								
T-3	Dundas BRT (Dedicated Lanes)	Ridgeway Drive	Eastern City limit / Toronto	planning study	4 minutes / dedicated	4 minutes / dedicated	4 minutes / dedicated	4 minutes / dedicated
T-4	Dundas Local	Laird / Vega	Eastern City limit / Toronto		10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Lakeshore Road								
T-5	Lakeshore BRT (Dedicated Lanes)	70 Mississauga Road	Eastern City limit / Toronto	has ICIP funding	5 minute / dedicated	5 minute / dedicated	5 minute / dedicated	5 minute / dedicated (following Lakeshore TPAP b/w East Ave and Eastern City limit)
T-7	Lakeshore Express	Western City limit / Oakville	70 Mississauga Road				10 minutes / mixed traffic	5 minute / mixed traffic (following Lakeshore TPAP b/w 70 Mississauga and East Ave)
T-8	Lakeshore Local	Lakeshore Road / Clarkson GO	Toronto / Long Branch GO		10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Mississauga Transitway Routes								
T-9	Airport / Transitway Express	Winston Churchill Station	Pearson Airport Terminal 1/3		10 minute / Transitway - mixed traffic	5 minute / Transitway - mixed traffic	5 minute / Transitway - mixed traffic (Airport Road dedicated)	5 minute / Transitway- mixed traffic (no dedicated lanes on Airport Road)
T-10	Meadowvale / Winston Churchill Express	Meadowvale Town Centre	Kipling Bus Terminal		10 minute / Transitway - mixed traffic	5 minute / Transitway - mixed traffic	5 minute / Transitway - mixed traffic (Winston Churchill Boulevard dedicated)	5 minute / Transitway- mixed traffic (no Winston Churchill)
T-11	Malton-University Express	Clarkson GO	Humber College		10 minute / Transitway - mixed traffic	5 minute / Transitway - mixed traffic	5 minute / Transitway - mixed traffic (Erin Mills Parkway dedicated)	5 minute / Transitway- mixed traffic (no dedicated lanes on Erin Mills)
T-12	407 Transitway Extension	407 Transitway	Winston Churchill Station					
Other 2041 RTP Corridors								
Eglinton Avenue								
T-13	Eglinton Express	Ninth Line	Eastern City limit / Toronto	OP Schedule 6	10 minutes / mixed traffic	5 minutes / mixed traffic	5 minutes / dedicated	5 minutes / dedicated
T-14	Eglinton Local	Ninth Line	Eastern City limit / Toronto		10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic

Transit Improvements					2041			
ID	Corridor	From	To	Notes	Base	Transit 1	Transit 2	Draft Preferred
Derry Road								
T-15	Derry Express	Ninth / 407 / Lisgar GO	Eastern City limit / Toronto	OP Schedule 6	10 minutes / mixed traffic	5 minutes / mixed traffic	5 minutes / dedicated	5 minutes / dedicated
T-16	Derry Local	Ninth / 407 / Lisgar GO	Eastern City limit / Toronto		10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Erin Mills Parkway								
T-17	Erin Mills North Express	Mississauga Transitway	Northern City limit / Brampton	OP Schedule 6		10 minutes / mixed traffic	5 minutes / mixed traffic	5 minutes / mixed traffic
T-18	Erin Mills South Express				see 'T-11 Malton-University Express'			
T-19	Erin Mills Local (North + South)	Lakeshore Road / Clarkson GO	Northern City limit / Brampton		15 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Dixie Road								
T-20	Dixie Express	Dundas Street / Dixie GO	Northern City limit / Brampton	OP Schedule 6	15 minutes / mixed traffic	5 minutes / mixed traffic	5 minutes / dedicated	5 minutes / dedicated
T-21	Dixie Express	Lakeshore Road / Long Branch GO	Dundas Street / Dixie GO				10 minutes / mixed traffic	10 minutes / mixed traffic
T-22	Dixie Local	Lakeshore Road / Long Branch GO	Northern City limit / Brampton		10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Airport Road								
T-23	Airport Express	Highway 427 / Southern City Limit	Northern City limit / Brampton	OP Schedule 6	see 'T-9 Airport / Transitway Express'			
T-24	Airport Local	City Centre	Westwood Square		15 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Other Corridors								
Winston Churchill Blvd								
T-25	Winston Churchill North Express	Meadowvale Town Centre	Winston Churchill Station		see 'T-10 Meadowvale / Winston Churchill Express'			
T-26	Winston Churchill South Express	Winston Churchill Station	Lakeshore Road / Clarkson GO				5 minute / dedicated	Removed
T-27	Winston Churchill Local	Lakeshore Road	Northern City limit / Lisgar GO		10 minute / mixed traffic	5 minutes / mixed traffic	10 minutes / mixed traffic	10 minutes / mixed traffic
Mississauga Road								
T-28	Mississauga Road North Local	UTM	Erin Mills Parkway		15 minutes / mixed traffic	10 minute / mixed traffic	5 minute / dedicated	5 minute / mixed traffic
T-29	Mississauga Road South Local	Port Credit GO	UTM				10 minute / mixed traffic	Removed, low ridership
Mavis Road								
T-30	Mavis Express	City Centre	Highway 407		10 minutes / mixed traffic	10 minutes / mixed traffic	5 minutes / dedicated	10 minutes / mixed traffic
T-31	Mavis North Local	City Centre	Highway 407		10 minutes / mixed traffic	5 minutes / mixed traffic	10 minutes / mixed traffic	5 minutes / mixed traffic
T-32	Mavis South Local	City Centre	Queensway				10 minute / mixed traffic	Removed, low ridership
McLaughlin Road / Confederation Road								
T-33	McLaughlin Express	City Centre	Highway 407		15 minutes / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic
T-34	McLaughlin Local	City Centre	Highway 407		10 minute / mixed traffic	10 minute / mixed traffic	5 minute / mixed traffic	5 minute / mixed traffic
T-35	Confederation Local	City Centre	Queensway		10 minute / mixed traffic	10 minute / mixed traffic	5 minute / mixed traffic	5 minute / mixed traffic
Kennedy Road								
T-36	Kennedy Local	Cooksville GO	Highway 407		15 minute / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic
Tomken Road								
T-37	Tomken Express	Derry Road	Dundas St		10 minute / mixed traffic	10 minute / mixed traffic	5 minute / dedicated	10 minute / mixed traffic
T-38	Tomken Local	Derry Road	Dundas St		10 minute / mixed traffic	5 minute / mixed traffic	10 minute / mixed traffic	5 minute / mixed traffic
Britannia West - Matheson Road								
T-39	Britannia - Matheson Express	407 Transitway	Mississauga Transitway		10 minute / mixed traffic	10 minute / mixed traffic	5 minute / dedicated	10 minute / mixed traffic
T-40	Britannia - Matheson Local	407 Transitway	Mississauga Transitway		15 minutes / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic	5 minute / mixed traffic
Burnhamthorpe Road								
T-41	Burnhamthorpe Express	Ninth Line	Eastern City limit / Toronto		10 minute / mixed traffic	10 minute / mixed traffic	5 minute / dedicated	5 minute / mixed traffic (dedicated east of Credit River)
T-42	Burnhamthorpe West Local	Erin Mills Parkway	City Centre		10 minute / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic

Transit Improvements					2041			
ID	Corridor	From	To	Notes	Base	Transit 1	Transit 2	Draft Preferred
T-43	Burnhamthorpe East Local	City Centre	Kipling Bus Terminal		7.5 minute / mixed traffic	7.5 minute / mixed traffic	5 minute / mixed traffic	5 minute / mixed traffic
Bloor Street								
T-44	Bloor Express	City Centre	Kipling Bus Terminal		10 minute / mixed traffic	10 minute / mixed traffic	5 minute / dedicated	5 minute / dedicated
T-45	Bloor Local	City Centre	Kipling Bus Terminal		10 minute / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic	10 minute / mixed traffic
Transit Improvement Corridors (Local Service)								
T-46	Ninth Line	Dundas Street	Highway 407 / Lisgar GO				10 minute / mixed traffic	Removed, low ridership
T-47	Tenth Line	Eglinton Avenue	Highway 407 / Lisgar GO				10 minute / mixed traffic	Removed, low ridership
T-48	Creditview Road	Derry Road	Central Parkway Station				10 minute / mixed traffic	10 minute / mixed traffic (existing route)
T-49	Queensway	Mavis Road	Toronto				10 minute / mixed traffic	Removed, low ridership
T-50	Courtneypark Drive	Renforth Station	Meadowvale Town Centre				10 minute / mixed traffic	10 minute / mixed traffic (existing route)
T-51	Thomas Street - Bristol Road	Ninth Line	City Centre				10 minute / mixed traffic	Removed, low ridership
T-52	Cawthra Road	Mississauga Transitway	Lakeshore				10 minute / mixed traffic	10 minute / mixed traffic (existing route)
T-53	Other Routes				20 minute / mixed traffic	20 minute / mixed traffic	15 minute / mixed traffic	

Appendix C – Summary of Model Outputs

Transit and vehicular metrics from the City's travel demand model are provided below.

Table B1. Model Results Overview

	2016	2041 Base	2041 Draft Preferred ¹
Auto (AM Peak Hour)			
Auto Demand			
Total AM Auto Demand	1,101,770	1,316,550	1,310,750
Mississauga Origins	120,195	140,617	131,797
Mississauga Destinations	141,758	178,274	174,671
Mississauga Internals	71,888	80,937	78,143
Mississauga Total (vehicles)	190,065	237,954	228,324
Auto VKT			
Total AM Auto VKT	20,492,697	22,328,494	22,275,686
All Mississauga, No Highways VKT (v/c > 0.85)	494,397	490,658	481,205
All Mississauga, No Highways VKT (v/c > 1.00)	273,692	259,437	252,994
Mississauga VKT	1,152,885	1,241,916	1,202,861
Auto Driver Mode Share	62.36%	61.0%	59.65%
Auto Passenger Mode Share	15.99%	14.3%	14.2%
Transit (AM Peak Period)			
Transit Demand			
Total AM Transit Demand	709,038	959,436	967,856
Mississauga Origins	38,872	49,439	56,171
Mississauga Destinations	35,914	53,878	60,971
Mississauga Internals	20,008	27,349	32,079
Mississauga Total	54,778	75,968	85,063
Transit Mode Share	12.3%	15.6%	17.05%
Transit Ridership			
Mississauga Ridership (boardings)	49686	86,525	108,866
MiWay buses per hour	553	711	925

1. The 2041 Draft Preferred scenario includes adjustments to auto ownership for traffic zones in Downtown Mississauga to reflect the expected mode share based on observed trends between driver mode share and development intensity

Table B2. Model Results – Comparison of Modelling Scenarios

	2016	2041 Base	2041 Roads 1	2041 Roads 2	2041 Transit 1	2041 Transit 2
Auto (AM Peak Hour)						
Auto Demand						
Total AM Auto Demand	1,101,770	1,316,550	1,313,770	1,313,730	1,313,950	1,313,080
Mississauga Origins	120,195	140,617	140,372	140,543	140,259	139,604
Mississauga Destinations	141,758	178,274	178,071	178,320	177,721	176,856
Mississauga Internals	71,888	80,937	80,716	80,825	80,644	80,217
Mississauga Total (vehicles)	190,065	237,954	237,727	238,038	237,336	236,244
Auto VKT						
Total AM Auto VKT	20,492,697	22,328,494	22,327,015	22,330,843	22,322,576	22,285,028
All Mississauga, No Highways VKT (v/c > 0.85)	494,397	490,658	500,275	490,889	487,129	504,366
All Mississauga, No Highways VKT (v/c > 1.00)	273,692	259,437	250,196	240,757	254,295	277,654
Mississauga VKT	1,152,885	1,241,916	1,258,570	1,272,309	1,241,691	1,187,320
Auto Driver Mode Share	62.4%	61.0%	61.0%	61.0%	60.7%	60.6%
Auto Passenger Mode Share	16.0%	14.3%	14.5%	14.6%	14.2%	13.9%
Transit (AM Peak Period)						
Transit Demand						
Total AM Transit Demand	709,038	959,436	957,352	957,914	962,344	965,246
Mississauga Origins	38,872	49,439	48,848	48,724	51,773	53,754
Mississauga Destinations	35,914	53,878	54,105	54,072	56,120	58,447
Mississauga Internals	20,008	27,349	27,405	27,289	28,807	30,337
Mississauga Total	54,778	75,968	75,548	75,507	79,087	81,864
Transit Mode Share	12.3%	15.6%	15.5%	15.4%	16.1%	16.6%
Transit Ridership						
Mississauga Ridership (boardings)	49,686	86,525	87,366	87,493	98,041	106,640
MiWay buses per hour	553	711	704	703	862	994

Figure B1. 2016 Auto Screenlines (AM Peak Hour)

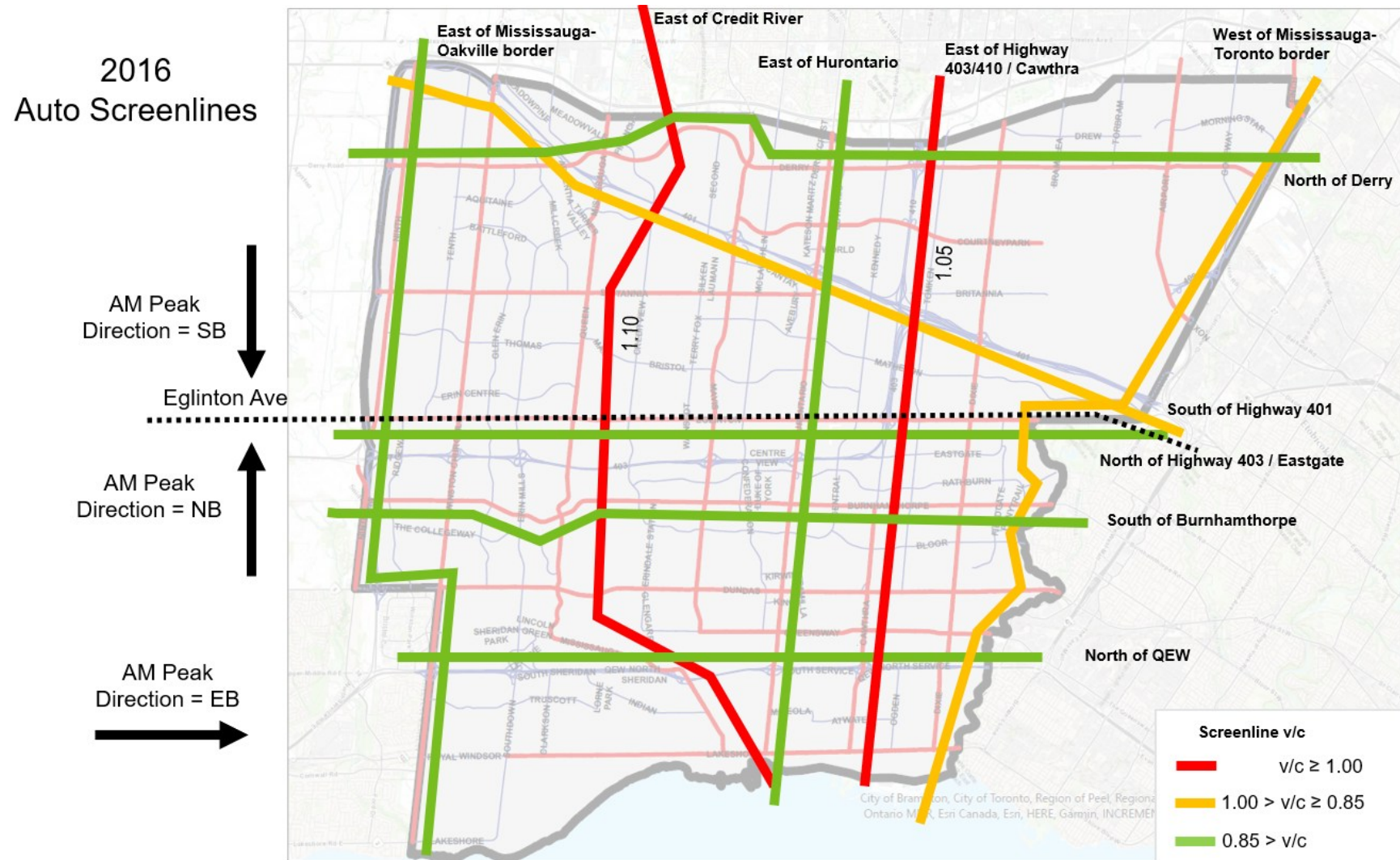


Figure B2. 2041 Base Auto Screenlines (AM Peak Hour)

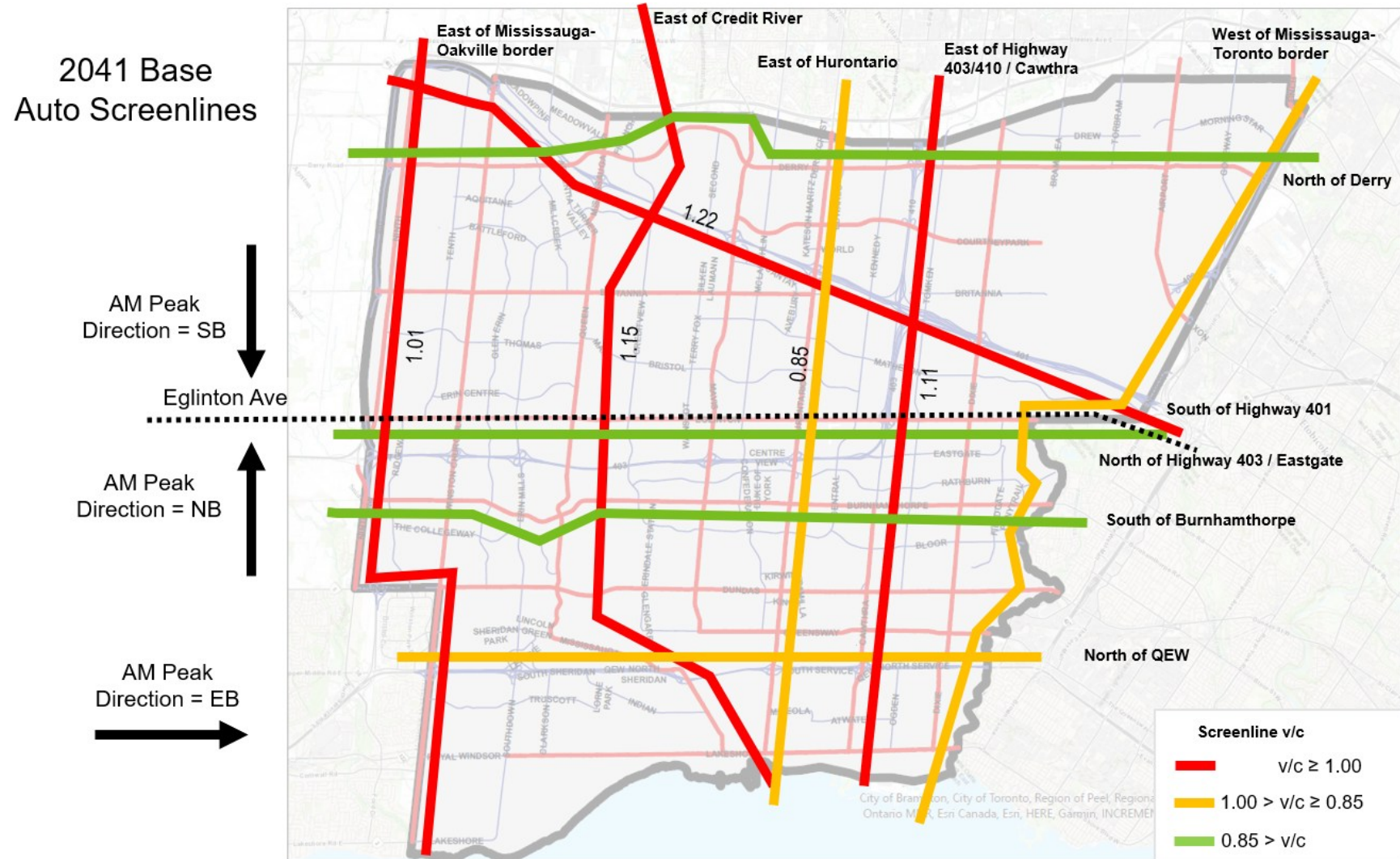


Figure B3. 2041 Roads 1 Auto Screenlines (AM Peak Hour)

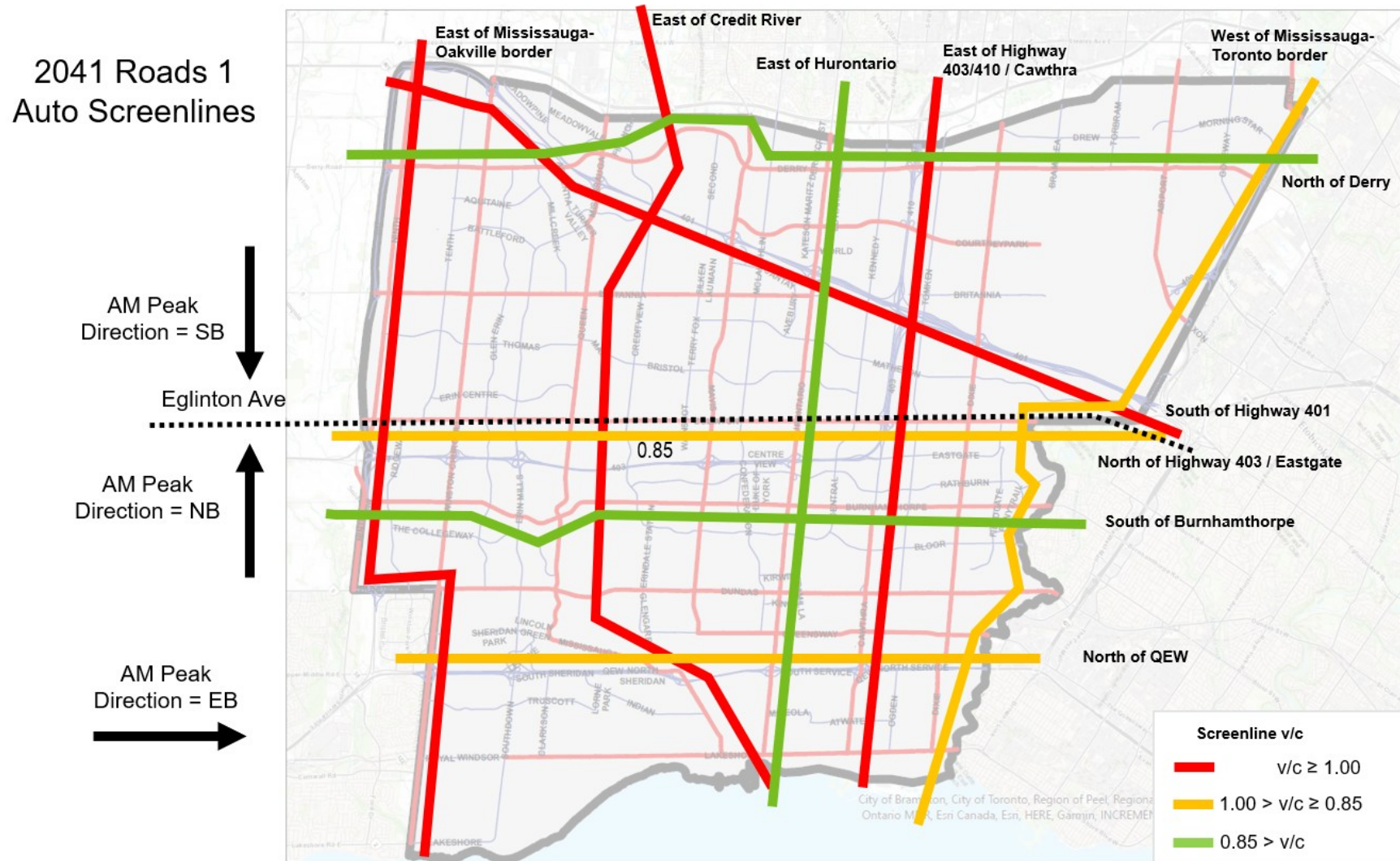


Figure B4. 2041 Roads 2 Auto Screenlines (AM Peak Hour)

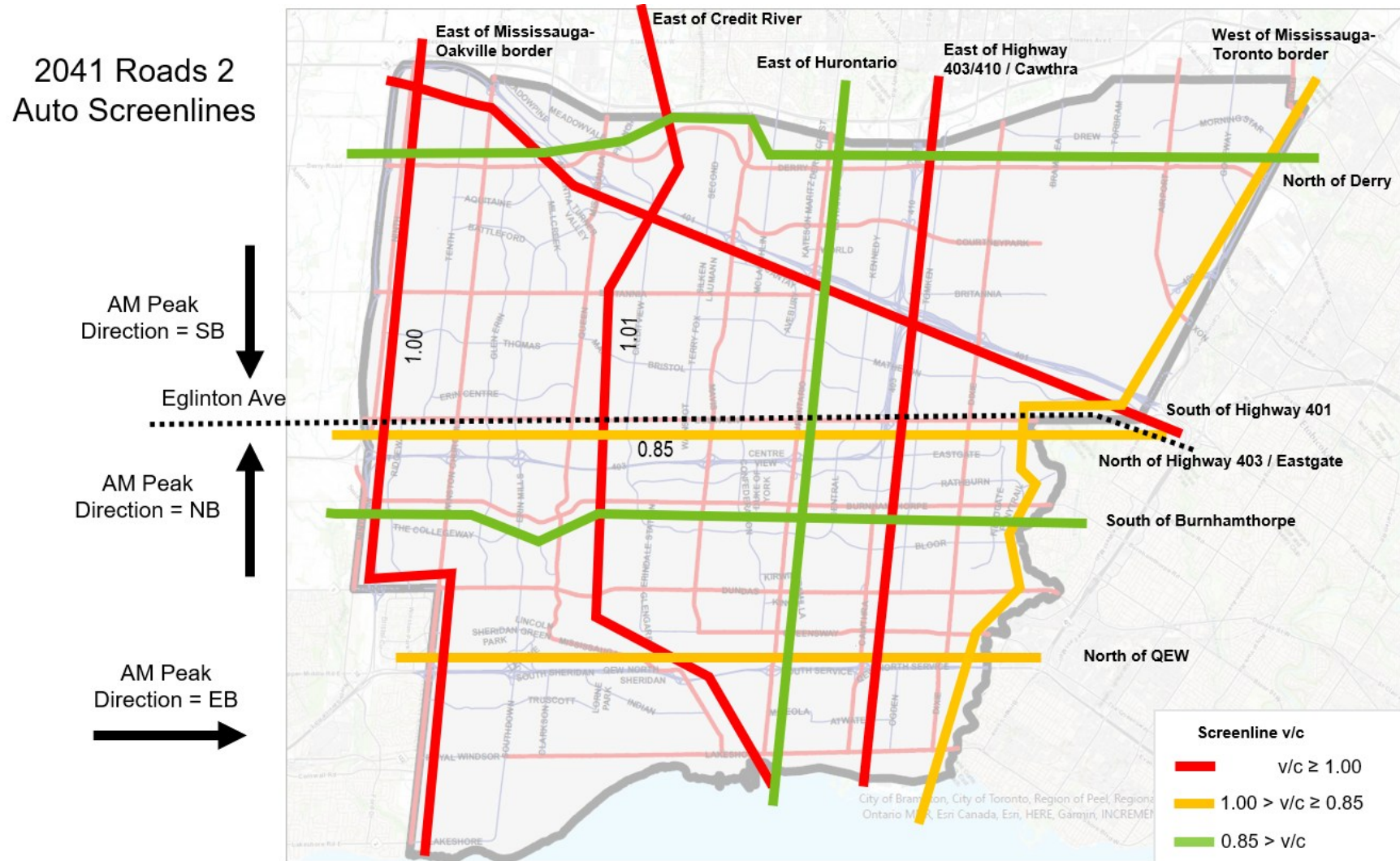


Figure B5. 2041 Transit 1 Auto Screenlines (AM Peak Hour)

2041 Transit 1 Auto Screenlines

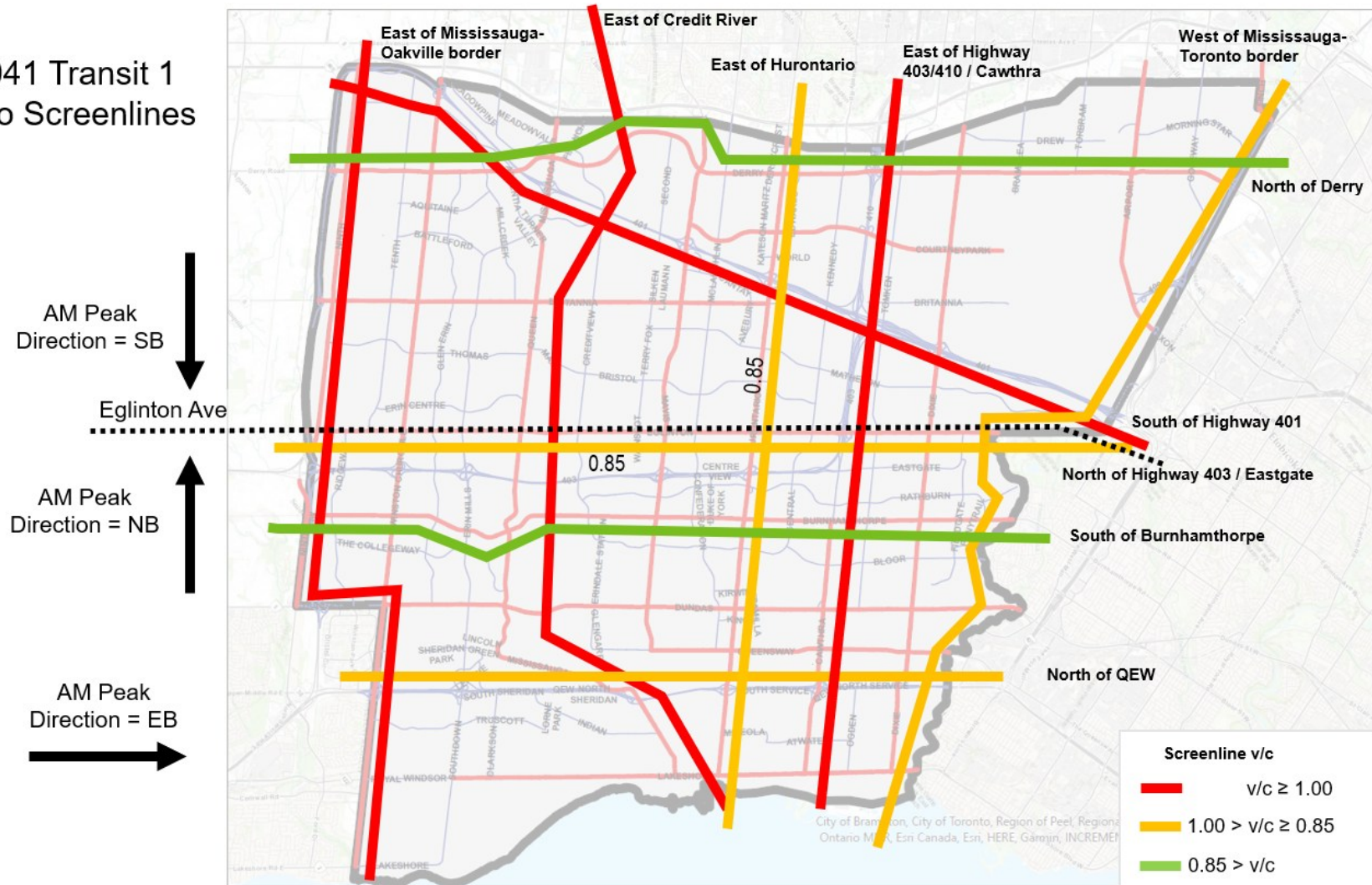


Figure B6. 2041 Transit 2 Auto Screenlines (AM Peak Hour)

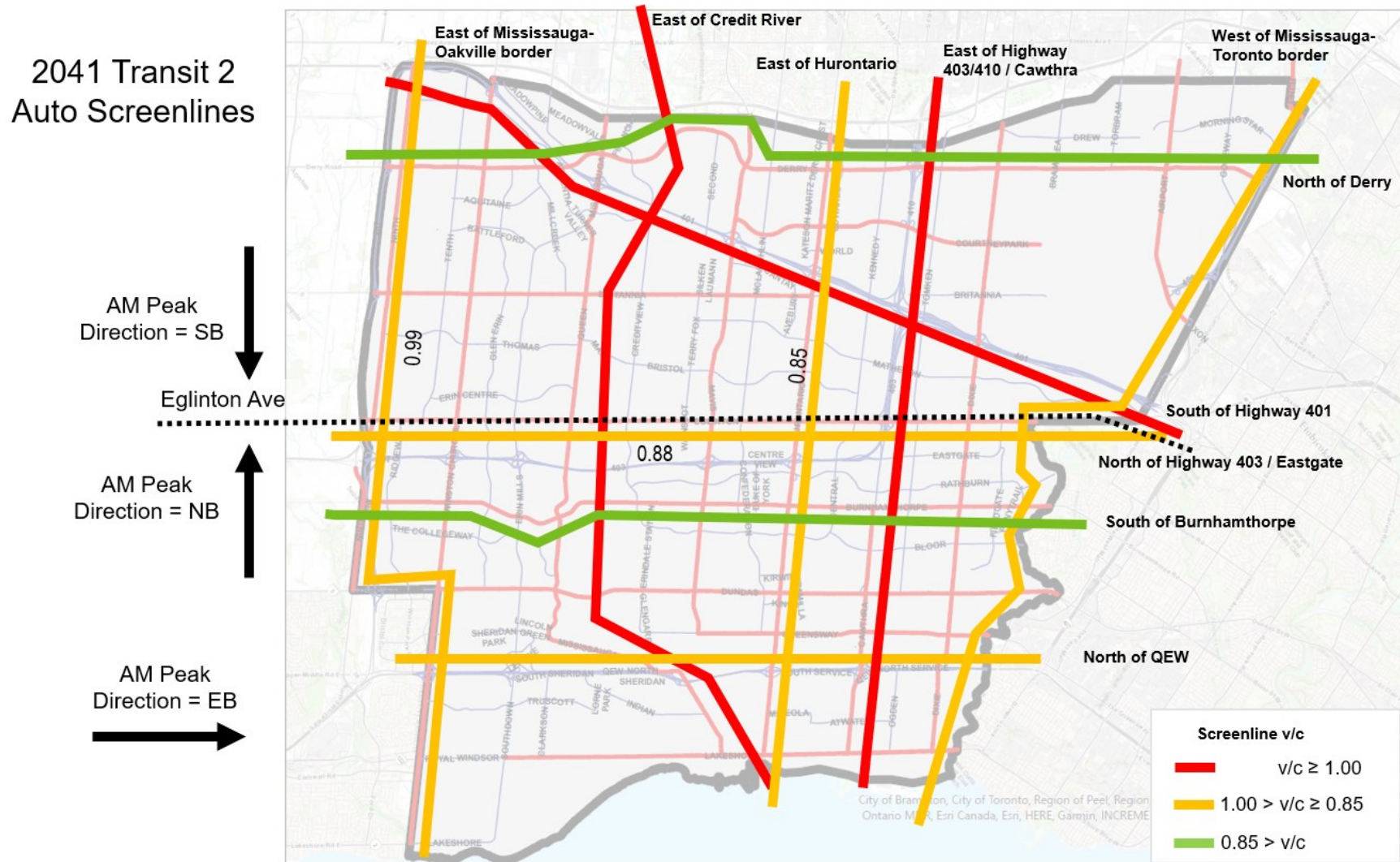


Figure B6. 2041 Draft Preferred Auto Screenlines (AM Peak Hour)

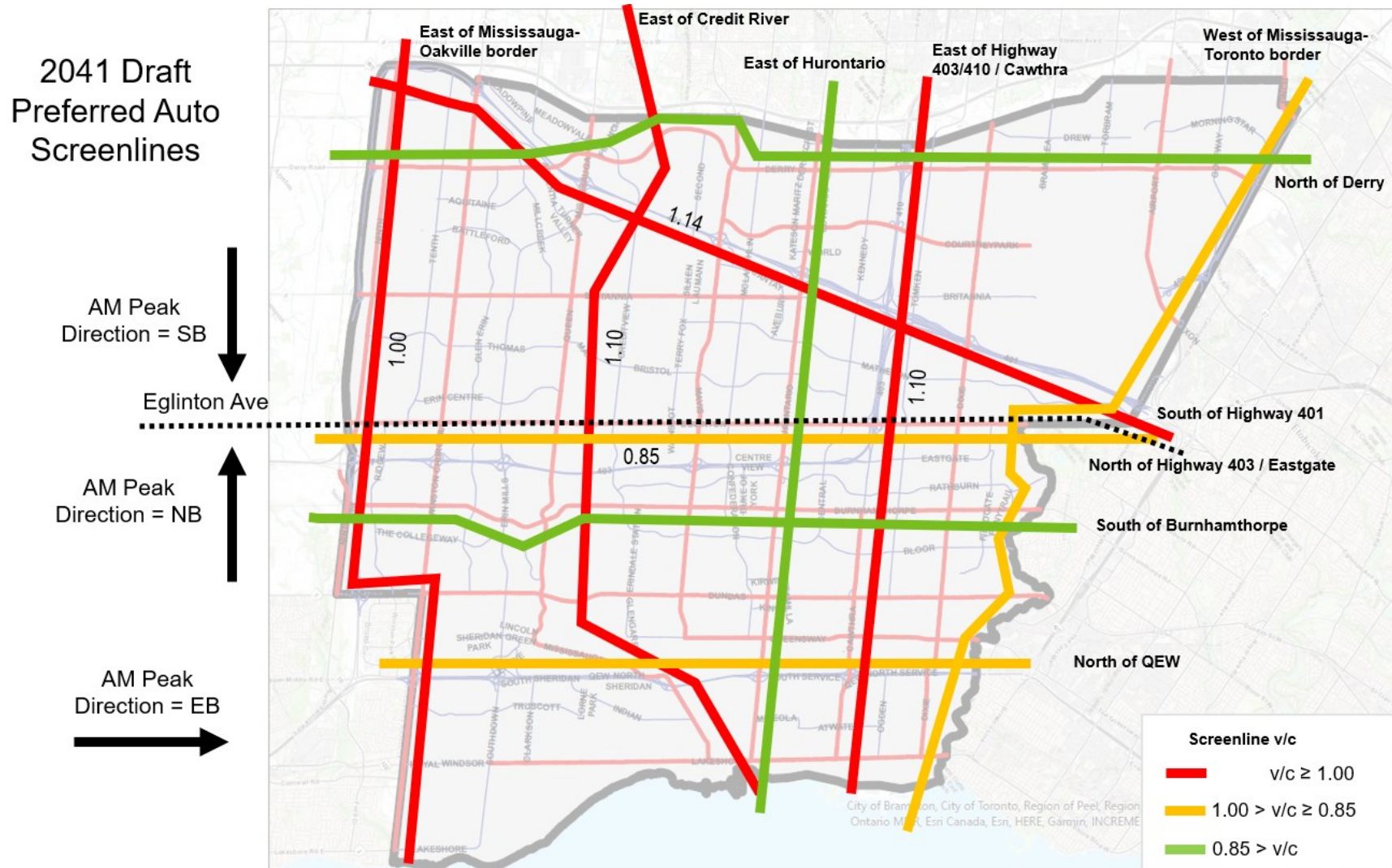




Table B3. Transit Ridership Overview (AM Peak Period)

Transit			Ridership		
			2016	2041 Base	2041 Draft Preferred
All Routes			50,605	86,528	108,863
Higher Order Transit					
Hurontario Street					
Hurontario LRT (Dedicated Lanes)	Lakeshore Road / Port Credit GO	Steeles Avenue	2,661	10,087	14,870
Hurontario Local	Lakeshore Road / Port Credit GO	Steeles Avenue	6,953	434	401
Total			9,614	10,521	15,271
Dundas Street					
Dundas BRT (Dedicated Lanes)	Ridgeway Drive	Eastern City limit / Toronto	3,022	5,926	7,716
Dundas Local	Laird / Vega	Eastern City limit / Toronto	3,336	4,203	2,156
Total			6,358	10,129	9,872
Lakeshore Road					
Lakeshore BRT (Dedicated Lanes)	70 Mississauga Road	Eastern City limit / Toronto	-	1,410	1,282
Lakeshore Express	Western City limit / Oakville	70 Mississauga Road			0
Lakeshore Local	Lakeshore Road / Clarkson GO	Toronto / Long Branch GO	675	1,150	1,087
Total			675	2,560	2,369
Mississauga Transitway Routes					
Airport / Transitway Express	Winston Churchill Station	Pearson Airport Terminal 1/3	-	1,397	2,419
Meadowvale / Winston Churchill Express	Meadowvale Town Centre	Kipling Bus Terminal	1,779	3,086	4,873
Malton-University Express	Clarkson GO	Humber College	2,867	3,216	6,357
Total			4,646	7,699	13,649
Other 2041 RTP Corridors					
Eglinton Avenue					
Eglinton Express	Ninth Line	Eastern City limit / Toronto	-	1,664	3,291
Eglinton Local	Ninth Line	Eastern City limit / Toronto	2,919	5,530	2,528
Total			2,919	7,194	5,819



Transit			Ridership		
			2016	2041 Base	2041 Draft Preferred
Derry Road					
Derry Express	Ninth / 407 / Lisgar GO	Eastern City limit / Toronto	-	2,321	3,814
Derry Local	Ninth / 407 / Lisgar GO	Eastern City limit / Toronto	2,285	2,340	1,674
Total			2,285	4,661	5,488
Erin Mills Parkway					
Erin Mills North Express	Mississauga Transitway	Northern City limit / Brampton	-	-	1,940
Erin Mills Local (North + South)	Lakeshore Road / Clarkson GO	Northern City limit / Brampton	120	486	336
Total			120	486	2,276
Dixie Road					
Dixie Express	Dundas Street / Dixie GO	Northern City limit / Brampton	368	592	5,312
Dixie Local	Lakeshore Road / Long Branch GO	Northern City limit / Brampton	2,101	1,810	1,193
Total			2,469	2,402	6,505
Airport Road					
Airport Local	City Centre	Westwood Square	860	560	804
Other Corridors					
Winston Churchill Blvd					
Winston Churchill South Express	Winston Churchill Station	Lakeshore Road / Clarkson GO	-	-	-
Winston Churchill Local	Lakeshore Road	Northern City limit / Lisgar GO	1,386	2,324	2,044
Total			1,386	2,324	2,044
Mississauga Road					
Mississauga Road North Local	UTM	Erin Mills Parkway	586	558	1,774
Mississauga Road South Local	Port Credit GO	UTM	-	-	-
Total			586	558	1,774



Transit			Ridership		
			2016	2041 Base	2041 Draft Preferred
Mavis Road					
Mavis Express	City Centre	Highway 407	-	633	874
Mavis North Local	City Centre	Highway 407	840	2,079	1,902
Mavis South Local	City Centre	Queensway	-	-	-
Total			840	2,712	2,776
McLaughlin Road / Confederation Road					
McLaughlin Express	City Centre	Highway 407	-	264	216
McLaughlin Local	City Centre	Highway 407	314	749	1,432
Confederation Local	City Centre	Queensway	506	1,383	1,748
Total			820	2,396	3,396
Kennedy Road					
Kennedy Local	Cooksville GO	Highway 407	293	1,164	1,440
Tomken Road					
Tomken Express	Derry Road	Dundas St	-	600	238
Tomken Local	Derry Road	Dundas St	1,005	892	1,520
Total			1,005	1,492	1,758
Britannia West - Matheson Road					
Britannia - Matheson Express	407 Transitway	Mississauga Transitway	-	1,290	2,232
Britannia - Matheson Local	407 Transitway	Mississauga Transitway	223	1,770	2,061
Total			223	3,060	4,293
Burnhamthorpe Road					
Burnhamthorpe Express	Ninth Line	Eastern City limit / Toronto	-	2,259	4,705
Burnhamthorpe West Local	Erin Mills Parkway	City Centre	1,137	611	1,415
Burnhamthorpe East Local	City Centre	Kipling Bus Terminal	1,575	2,377	2,404
Total			2,712	5,247	8,524
Bloor Street					
Bloor Express	City Centre	Kipling Bus Terminal	-	1,941	3,483
Bloor Local	City Centre	Kipling Bus Terminal	2,101	1,810	1,193
Total			2,101	3,751	4,676



Transit			Ridership		
			2016	2041 Base	2041 Draft Preferred
Transit Improvement Corridors (Local Service)					
Ninth Line	Dundas Street	Highway 407 / Lisgar GO	-	-	-
Tenth Line	Eglinton Avenue	Highway 407 / Lisgar GO	-	-	-
Creditview Road	Derry Road	Central Parkway Station	619	1,365	1,113
Queensway	Mavis Road	Toronto	-	-	-
Courtneypark Drive	Renforth Station	Meadowvale Town Centre	628	691	780
Thomas Street - Bristol Road	Ninth Line	City Centre	-	-	-
Cawthra Road	Mississauga Transitway	Lakeshore	860	560	804



Table B4. Additional Transit Results (AM Peak Period)

Transit			2016	2041 Base	2041 Roads 1	2041 Roads 2	2041 Transit 1	2041 Transit 2
All Routes			50,605	86,528	87,366	87,491	98,042	106,636
Higher Order Transit								
Hurontario Street								
Hurontario LRT (Dedicated Lanes)	Lakeshore Road / Port Credit GO	Steeles Avenue	2,661	10,087	10,023	9,948	8,609	8,287
Hurontario Local	Lakeshore Road / Port Credit GO	Steeles Avenue	6,953	434	419	415	476	622
Total			9,614	10,521	10,442	10,363	9,085	8,909
Dundas Street								
Dundas BRT (Dedicated Lanes)	Ridgeway Drive	Eastern City limit / Toronto	3,022	5,926	7,743	7,705	5,928	5,791
Dundas Local	Laird / Vega	Eastern City limit / Toronto	3,336	4,203	4,193	4,161	4,105	3,957
Total			6,358	10,129	11,936	11,866	10,033	9,748
Lakeshore Road								
Lakeshore BRT (Dedicated Lanes)	70 Mississauga Road	Eastern City limit / Toronto	-	1,410	1,480	1,499	1,309	1,524
Lakeshore Express	Western City limit / Oakville	70 Mississauga Road						214
Lakeshore Local	Lakeshore Road / Clarkson GO	Toronto / Long Branch GO	675	1,150	1,080	1,114	1,092	1,020
Total			675	2,560	2,560	2,613	2,401	2,758
Mississauga Transitway Routes								
Airport / Transitway Express	Winston Churchill Station	Pearson Airport Terminal 1/3	-	1,397	1,372	1,352	2,228	2,423
Meadowvale / Winston Churchill Express	Meadowvale Town Centre	Kipling Bus Terminal	1,779	3,086	3,052	3,022	4,830	4,576
Malton-University Express	Clarkson GO	Humber College	2,867	3,216	3,146	3,143	5,910	5,858
Total			4,646	7,699	7,570	7,517	12,968	12,857



Transit			2016	2041 Base	2041 Roads 1	2041 Roads 2	2041 Transit 1	2041 Transit 2
Other 2041 RTP Corridors								
Eglinton Avenue								
Eglinton Express	Ninth Line	Eastern City limit / Toronto	-	1,664	1,626	1,673	2,957	2,767
Eglinton Local	Ninth Line	Eastern City limit / Toronto	2,919	5,530	5,441	5,504	4,911	4,461
Total			2,919	7,194	7,067	7,177	7,868	7,228
Derry Road								
Derry Express	Ninth / 407 / Lisgar GO	Eastern City limit / Toronto	-	2,321	2,306	2,305	3,987	3,714
Derry Local	Ninth / 407 / Lisgar GO	Eastern City limit / Toronto	2,285	2,340	2,327	2,324	2,003	1,575
Total			2,285	4,661	4,633	4,629	5,990	5,289
Erin Mills Parkway								
Erin Mills North Express	Mississauga Transitway	Northern City limit / Brampton	-	-	-	-	-	2,092
Erin Mills Local (North + South)	Lakeshore Road / Clarkson GO	Northern City limit / Brampton	120	486	479	467	364	308
Total			120	486	479	467	364	2,400
Dixie Road								
Dixie Express	Dundas Street / Dixie GO	Northern City limit / Brampton	368	592	599	627	5,216	6,320
Dixie Local	Lakeshore Road / Long Branch GO	Northern City limit / Brampton	2,101	1,810	1,786	1,828	1,310	1,180
Total			2,469	2,402	2,385	2,455	6,526	7,500
Airport Road								
Airport Local	City Centre	Westwood Square	860	560	546	561	827	741
Other Corridors								
Winston Churchill Blvd								
Winston Churchill South Express	Winston Churchill Station	Lakeshore Road / Clarkson GO	-	-	-	-	-	1,618
Winston Churchill Local	Lakeshore Road	Northern City limit / Lisgar GO	1,386	2,324	2,346	2,329	3,911	1,720
Total			1,386	2,324	2,346	2,329	3,911	3,338



Transit			2016	2041 Base	2041 Roads 1	2041 Roads 2	2041 Transit 1	2041 Transit 2
Mississauga Road								
Mississauga Road North Local	UTM	Erin Mills Parkway	586	558	568	532	928	2,095
Mississauga Road South Local	Port Credit GO	UTM	-	-	-	-	-	482
Total			586	558	568	532	928	2,577
Mavis Road								
Mavis Express	City Centre	Highway 407	-	633	631	633	456	1,834
Mavis North Local	City Centre	Highway 407	840	2,079	2,027	2,010	3,080	1,112
Mavis South Local	City Centre	Queensway	-	-	-	-	-	345
Total			840	2,712	2,658	2,643	3,536	3,291
McLaughlin Road / Confederation Road								
McLaughlin Express	City Centre	Highway 407	-	264	268	261	359	249
McLaughlin Local	City Centre	Highway 407	314	749	754	749	633	1,327
Confederation Local	City Centre	Queensway	506	1,383	1,411	1,389	1,352	1,882
Total			820	2,396	2,433	2,399	2,344	3,458
Kennedy Road								
Kennedy Local	Cooksville GO	Highway 407	293	1,164	1,182	1,190	1,769	1,535
Tomken Road								
Tomken Express	Derry Road	Dundas St	-	600	616	623	258	1,077
Tomken Local	Derry Road	Dundas St	1,005	892	913	922	1,656	538
Total			1,005	1,492	1,529	1,545	1,914	1,615
Britannia West - Matheson Road								
Britannia - Matheson Express	407 Transitway	Mississauga Transitway	-	1,290	1,264	1,280	984	2,254
Britannia - Matheson Local	407 Transitway	Mississauga Transitway	223	1,770	1,741	1,761	2,285	1,762
Total			223	3,060	3,005	3,041	3,269	4,016
Burnhamthorpe Road								
Burnhamthorpe Express	Ninth Line	Eastern City limit / Toronto	-	2,259	2,294	2,326	2,262	4,298
Burnhamthorpe West Local	Erin Mills Parkway	City Centre	1,137	611	612	614	790	1,382
Burnhamthorpe East Local	City Centre	Kipling Bus Terminal	1,575	2,377	2,405	2,428	2,365	2,087



Transit			2016	2041 Base	2041 Roads 1	2041 Roads 2	2041 Transit 1	2041 Transit 2
Total			2,712	5,247	5,311	5,368	5,417	7,767
Bloor Street								
Bloor Express	City Centre	Kipling Bus Terminal	-	1,941	1,797	1,794	1,758	3,398
Bloor Local	City Centre	Kipling Bus Terminal	2,101	1,810	1,786	1,828	1,310	1,180
Total			2,101	3,751	3,583	3,622	3,068	4,578
Transit Improvement Corridors (Local Service)								
Ninth Line	Dundas Street	Highway 407 / Lisgar GO	-	-	-	-	-	624
Tenth Line	Eglinton Avenue	Highway 407 / Lisgar GO	-	-	-	-	-	184
Creditview Road	Derry Road	Central Parkway Station	619	1,365	1,429	1,448	1,262	990
Queensway	Mavis Road	Toronto	-	-	-	-	-	329
Courtneypark Drive	Renforth Station	Meadowvale Town Centre	628	691	698	689	462	731
Thomas Street - Bristol Road	Ninth Line	City Centre	-	-	-	-	-	1,141
Cawthra Road	Mississauga Transitway	Lakeshore	860	560	546	561	827	741