Final Report (DRAFT)

Golden Mile Transportation Master Plan

City of Toronto
November 12, 2019

This page is intentionally left blank.

Contents

Tables

Figures

Appendices

Appendix A. Consultation
Appendix B. Travel Survey Memo
Appendix C. Synchro Calibration and Existing Conditions
Appendix D. Collision Analysis
Appendix E. Multimodal Trip Generation
Appendix F. 2041 PM Synchro Reports
Appendix G. VISSIM Model Output

This page is intentionally left blank.

1 Introduction

The Golden Mile area is expected to change significantly through construction of the Eglinton Crosstown LRT. The Golden Mile Transportation Master Plan (TMP) study will examine and recommend policies, programs, and infrastructure required to meet existing and future mobility needs. The recommended TMP will guide these changes in the study area and establish a transportation network supportive of all users.

The Golden Mile TMP will assist in the development of the planning framework of the Golden Mile Secondary Plan (GMSP) to support continued employment investment and intensification along the Eglinton Avenue corridor, as well as residential uses, community facilities, a revised street and block plan, and public realm improvements to serve local resident and working populations.

1.1 Study Area

To address the broader travel issues of the Golden Mile area, a larger TMP study area has been identified. The larger area is bounded by Lawrence Avenue to the north, Midland Avenue (north of Eglinton) and the Stouffville GO Rail Line and Danforth Avenue (south of Eglinton) to the east, St. Clair Avenue to the south, and the Richmond Hill GO Rail Line to the west. **Figure 1-1** illustrates the GMSP area and the broader Golden Mile TMP study area.

During the course of the study, the potential to reconfigure O'Connor Drive west of Victoria Park Avenue arose and thus resulted in an expanded study area boundary which is shown in **Figure 1-2**. It is noted that only the GMSP study area was modified while the broader Golden Mile TMP study area was not changed. The timing and public consultation surrounding this decision is described in **Section 3.2.4**.

Figure 1-1. Transportation Master Plan Study Area and Secondary Plan Area

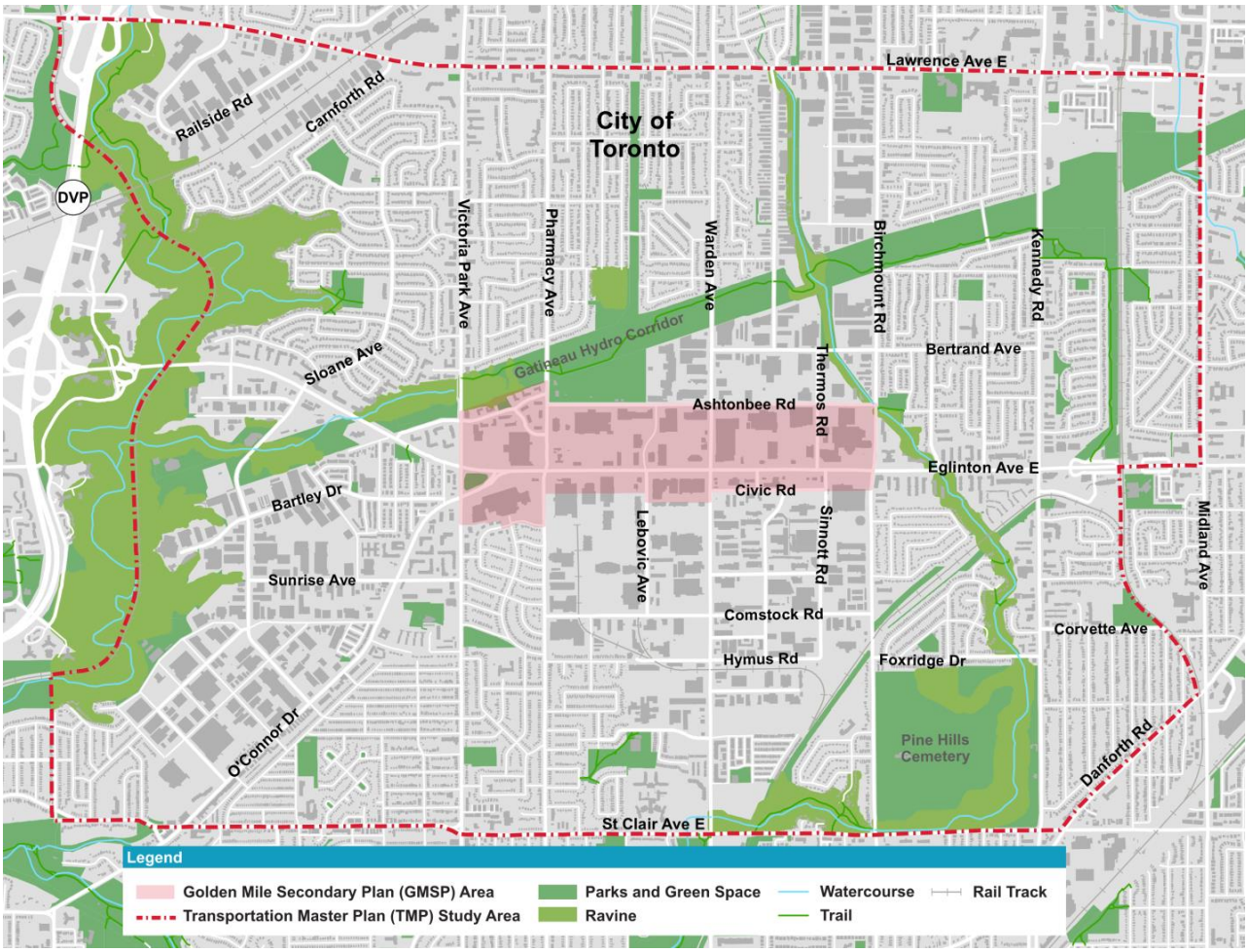
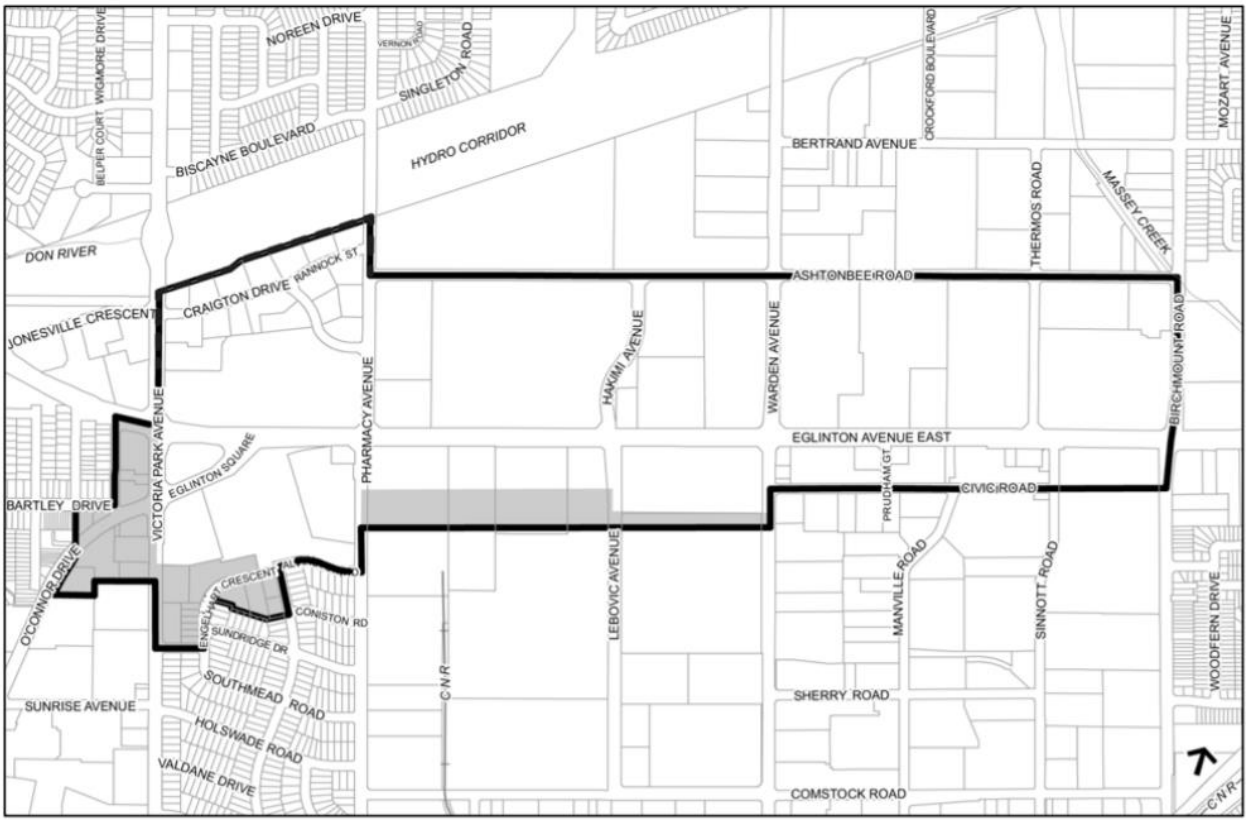


Figure 1-2. Expanded Secondary Plan Area Boundary

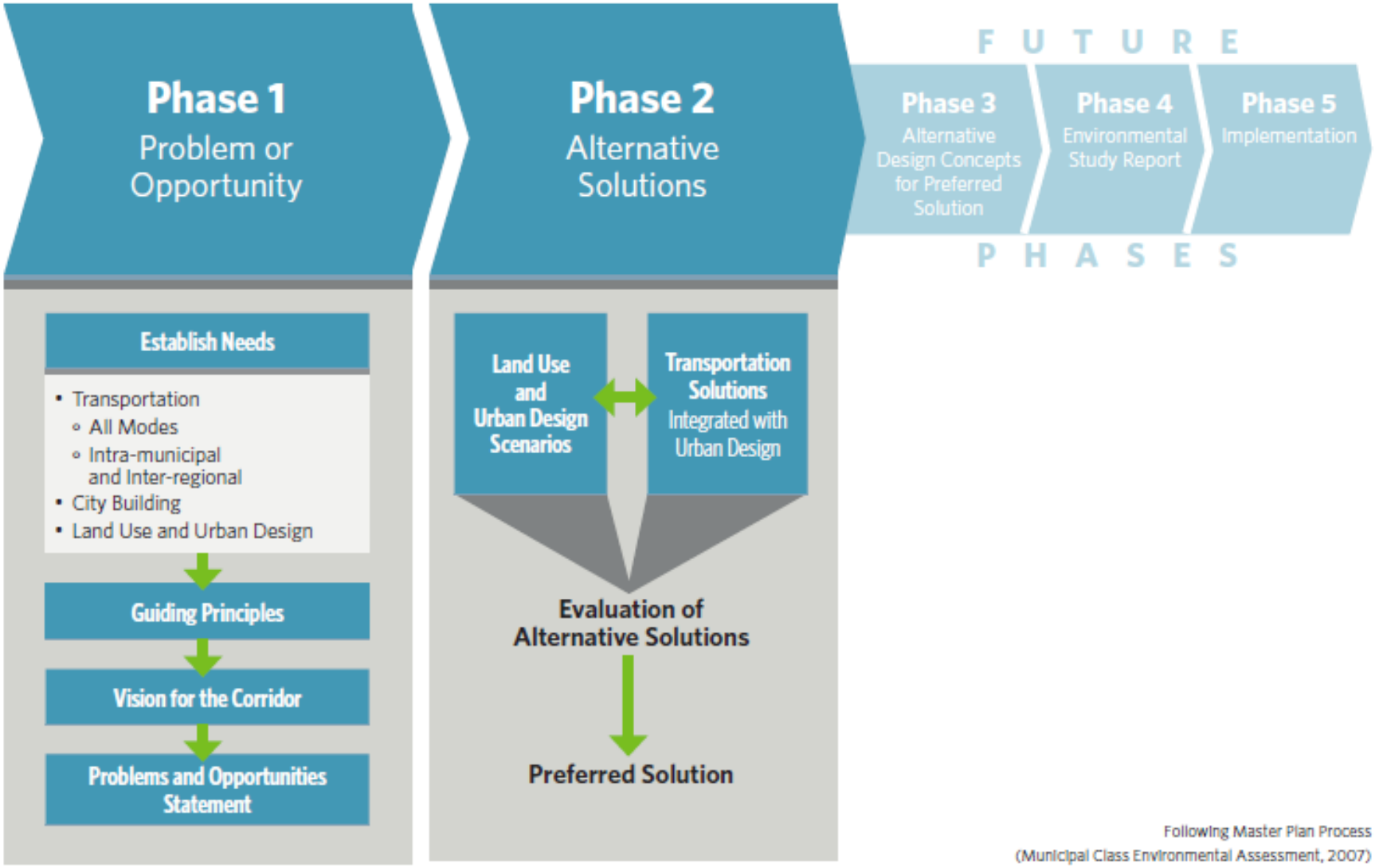


1.2 TMP Purpose and EA Process

A Transportation Master Plan (TMP) is a study defined in the Municipal Class Environmental Assessment (EA) process (October 2000, as amended in 2007, 2011, and 2015) which identifies the long-term transportation objectives of a defined area and specific solutions requiring further study. TMPs build on the policies of the Official Plan and are developed through a consultation process involving the public, technical agencies, First Nations and Aboriginal Peoples, and other stakeholders including affected property owners.

The TMP process follows Phase 1 and Phase 2 of the five-phase EA process by first defining a problem and/or opportunity statement followed by identifying and evaluating a range of alternative solutions to select one or more preferred solutions. Upon completion of the TMP, the preferred solutions can be studied further to meet the requirements of Phases 3, 4, and 5 as required. The TMP process is illustrated in **Figure 1-3**.

Figure 1-3. Transportation Master Plan Process



2 Policy Context and Background Studies

This section provides context for the study in relation to planning policies and guidance at the provincial and municipal level.

2.1 Provincial Policy Framework

A number of provincial policy documents provide the basis and guidance for the transportation vision for the TMP study. Provincial plans are identified and summarized below.

2.1.1 Provincial Policy Statement, Ontario (2014)

Provides direction on land use planning and development, including:

- Provide appropriate development while protecting resources, public health and safety, and the natural and built environments.
- Build strong, healthy communities by encouraging density and land uses which support active transportation, transit-supportive, and freight-supportive.
- Safe and energy efficient transportation systems that move people and goods.
- Integrated transportation and land use considerations at all stages of the planning process.
- Use of TDM strategies to maximize efficiency.

Land use pattern, density, and mix use developments to minimize length and number of vehicle trips, support current and future use of transit and active transportation.

2.1.2 Growth Plan for the Greater Golden Horseshoe (GGH), Ministry of Municipal Affairs (2006, 2013, 2017, and 2019 Update)

The Growth Plan for the Greater Golden Horseshoe is a long term plan released on June 16, 2006. The 2017 amendment sets forth a vision for 2041 including identification of Urban Growth Centres across the Greater Toronto Area (GTA), Major Transit Station Areas and Intensification Corridors. It aims to:

- Revitalize downtowns;
- Create complete communities;
- Provide housing options to meet the needs of people at any age;
- Curb sprawl and protect farmland and green spaces; and
- Reduce traffic gridlock by improving access to a greater range of transportation options.

Several key aspects of the 2017 update are as follows:

- **Managing Growth:** The updated Growth Plan prescribes the majority of growth to settlement areas that have a delineated built boundary, an existing or planned municipal water and wastewater system, and can support the achievement of complete communities.
- **Delineated Built-up Areas:** Density targets set in the 2006 plan were increased in 2017. Delineated built-up areas should be the site of at least 60% of all annual residential development by 2031; in each year until 2031, a minimum of 50% should be achieved. Land use and infrastructure planning should support this desired intensification. Land uses that would prevent the achievement of minimum density targets within station areas on priority corridors are prohibited.
- **Transit Corridors and Station Areas:** Eglinton Avenue is identified in the plan as a priority transit corridor. Planning should be prioritized for major transit station areas on these corridors to identify the area's boundaries and maximize the number of potential riders within them. The minimum density target for transit station areas served by light rail transit is 160 combined residents and jobs per hectare.
- **Employment:** The 2017 plan promotes economic development and competitiveness by making better use of existing, underutilized employment areas. It introduces the prime employment area designation for employment lands near major goods movement facilities and corridors, where sensitive land uses would be prohibited to facilitate primary employment uses. Major office and institutional development, not related to primary employment, is directed to major transit station areas or other areas of strategic growth. Retail uses are primarily directed to locations that support active transportation.
- **Moving People:** Through the updated plan, the province makes public transit the first priority for transportation infrastructure planning and major project investment. Decisions made in relation to this policy should prioritize areas that have achieved, or are planned to achieve, a high density and variety of uses; should support the creation of strategic growth areas; should increase transit capacity and modal share; and should contribute to the reduction of greenhouse gas emissions.
- **Moving Goods:** The Province and municipalities will work to facilitate the creation of major goods movement facilities and corridors, with emphasis on multimodal goods movement and freight-supportive land use and transportation system planning. Priority routes should be established for goods movement in and out of areas of significant commercial and employment areas.

The new Growth Plan for the Greater Golden Horseshoe, 2019 took effect on May 16th, 2019, replacing the Growth Plan for the Greater Golden Horseshoe, 2017. Two key changes made in the 2019 Plan include:

- Reducing the requirement that 60% of all residential development occur within the Delineated Built-up Area to 50% for more-urbanized areas; and

- Expanding the area affected by Major Transit Station Area policies and density targets from a 500 to 800 metre radius from the transit station.

2.1.3 2041 Regional Transportation Plan (2018)

The *2041 Regional Transportation Plan* (RTP) identifies a long-term vision for building an integrated transportation system in the Greater Toronto and Hamilton Area (GTHA). It sets forth a plan for Regional Rapid Transit, the regional Highway Network and Regional Express Rail (RER) now referred to as the GO Expansion Project.

GO Expansion will transform GO Rail into a frequent all-day, two-way express rail service that will provide an electrified service on existing GO Rail lines with 15 minute frequencies and all-day, two-way service.

In order to support the expanded services, improvement to infrastructure is needed:

- Track expansion, including upgrade of existing structures within corridor such as culverts, bridges;
- Grade separations;
- Maintenance and storage facilities;
- Electrification infrastructure;
- Station Expansions (parking, building, pedestrian access, etc.); and
- New stations that will optimize ridership and minimize delay.

2.1.4 Transit Supportive Guidelines, Ministry of Transportation (2012)

The Ministry of Transportation Transit Supportive Guidelines identifies best practices in Ontario, North America and abroad for transit-friendly land-use planning, urban design, and operations.

Key directions for planning around major transit station areas include:

- A rational progression of facilities from passenger pick up and drop off, bus transfer, parking to ticketing and wayfinding, safe and comfortable waiting areas to finally transit loading areas;
- Organize surface parking areas into smaller modules to facilitate defined walking and cycling paths to the stations and also to establish future development parcels over time;
- Prioritize pedestrian access; and
- Limit free surface parking where frequent feeder transit service is available.

2.1.5 GO Rail Station Access Plan, Metrolinx (2016)

The GO Rail Station Access Plan is intended to be used by Metrolinx to inform decision making on investments at GO rail stations, coordinate between

stakeholders who plan station areas and deliver local and regional transit services, support strategies that provide customers with multi-modal station access options, and provide a tool for monitoring the progress and success of investments over time. The plan provides recommendations to 2031.

The 2016 plan updates the 2013 *GO* Transit Rail Parking and Station Access plan in response to the implementation of the GO Expansion Project which is expected to significantly increase demand and change travel patterns across the region.

The Station Access Plan envisions a shift to rail station access that grows ridership, enhances customer experience and safety, and reduces dependence on single-occupancy vehicles. Access for active modes is prioritized. Relevant directions for interventions around stations include:

- Walking: establish a network of safe and comfortable pedestrian routes that connect directly to the station and are activated with transit-supportive uses.
- Transit: coordinate local and regional service schedules and fare systems.
- Cycling: create safe and direct routes to stations that are complemented with clear wayfinding.
- Pick up / Drop Off: provide efficient access and appropriately located facilities
- Drive and Park (and Carpool Passengers): explore innovative strategies for providing and managing parking.

2.1.6 #CycleON: Ontario's Cycling Strategy

Ontario's Cycling Strategy provides strategic direction to support and encourage growth in cycling over the next 20 years. The key strategic directions focus on:

- **Healthy, active and prosperous communities** – direction focuses on providing enhanced cycling infrastructure through buildings (including commercial, residential, and institutional buildings) and through planning guidelines and policies. It also advocates for partnerships with transit agencies and municipalities to create policies and transportation plans.
- **Cycling infrastructure** – this directions aims to improve the efficiency of the approval process for new cycling infrastructure and focuses on funding partnerships with municipalities to test and build cycling infrastructure.
- **Safer highways and streets** – this direction recognizes the need for continuing education and the enforcement of traffic laws to create a safe space for all road users.
- **Awareness and behavioural shift** - direction focuses on educating people to encourage them to cycle more through province-wide campaigns or through schools and communities. It also states the need to research, collect data, and develop cycling best practices.

- **Cycling tourism** – this directions aims to promote Ontario has a cycling tourism destination with a province-wide cycling network. It includes supporting items to develop this province-wide network, including prioritizing cycling infrastructure investments and improving inter-modal cycling connections.

2.2 City of Toronto Policy Framework

2.2.1 Toronto Official Plan

The City of Toronto Official Plan (OP) implements Provincial directions identified in the previous section and outlines the City's goals and vision (Section 1.1).

The City's OP highlights the need to integrate land use and the transportation network, maintain the existing network in a state of good repair, and looks to make better use of existing infrastructure. The policies also look to balance the needs of existing and future users within the right-of-way by accommodating pedestrians, people with mobility aids, transit, bicycles, automobiles, utilities, and landscaping. In addition, the OP provides for the design of high quality public realm for streets, parks, open spaces, and buildings, which provide a setting for community life, economic health and social equality.

Transportation Policies

Official Plan Amendment (OPA) 274 was completed as part of the City's Review of Official Plan Transportation Policies (Section 2.2), and provides official policy direction on ensuring the integration of land use and transportation planning as follows:

'The integration of transportation and land use planning is critical to achieving the overall aim of increasing accessibility throughout the City. Accessibility has two components: mobility (transportation) and proximity (land use). Increasing mobility by providing modal choice, and/or increasing the speed of travel allows more trips to be made within a given time, whereas increasing proximity through greater mixing of uses and/or higher densities achieves the same effect by shortening trip lengths. The policies of this Plan reflect the importance of mutually supportive transportation and land use policies that combine the mechanisms of mobility and proximity to maximize accessibility.'

The OP's transportation policy focuses on integrated transportation and land use planning, sustainability, active transportation, complete streets, accessibility, travel demand management, and goods movement.

Integrating land use and transportation planning means to emphasize the consolidation of the two fields as key to improving accessibility. Transit service should be improved in targeted growth areas, and likewise development should be prioritized to transportation nodes and corridors. Street design should follow the

philosophy of “Complete Streets”, made safe and accessible for all users and modes. The revised plan contains stronger protection for pedestrians and cyclists, and encourages design that facilitates these modes. Transportation studies for major developments should include TDM strategies, to ensure that infrastructure will be efficiently utilized, especially roadways and parking spaces. Finally, emphasis should be placed on protecting 400-series highways and other goods-movement arterials - which are indispensable parts of the regions freight distribution network - while also ensuring their compatibility with surrounding land uses. These are the guiding premises between the transportation policies introduced by OPA 274, which future plans should also comply.

The following policies on streets are particularly relevant to Golden Mile:

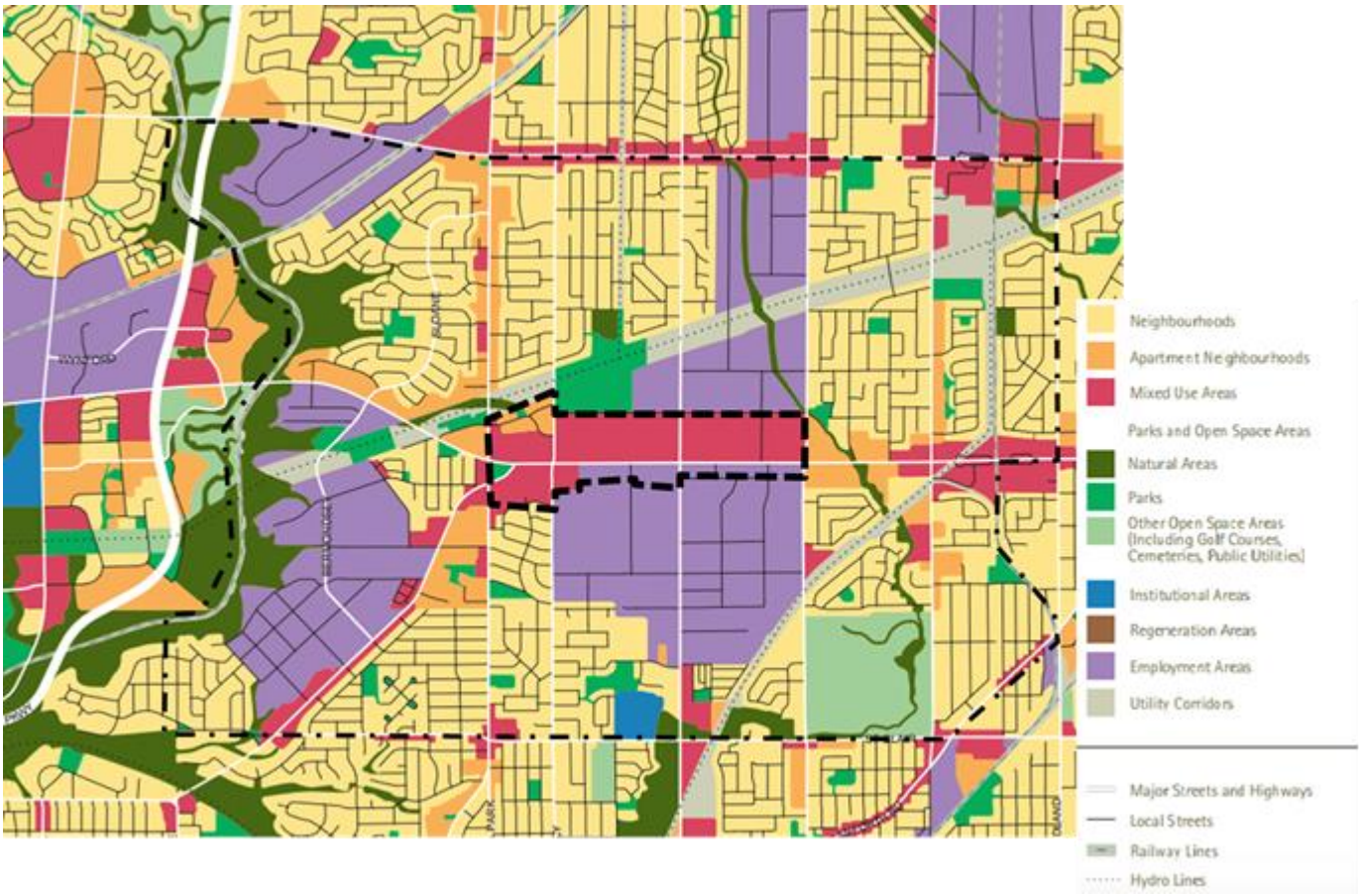
1. Defined right-of-way widths for major streets throughout the City in Map 3. In the GMSP study area this includes Eglinton Avenue (36m), Victoria Park Avenue (30m), Pharmacy Avenue (27m), Warden Avenue (30m), and Birchmount Avenue (30m).
2. Identified higher order transit corridors throughout the City in Map 4 and surface transit priority segments in Map 5. The Eglinton Avenue corridor is identified across the City of Toronto in both maps.
3. Provide connections with adjacent neighbourhoods;
4. Promote a connected grid of streets that offers safe and convenient travel options;
5. Divide larger sites into smaller development blocks using new public streets that provide access and address for new development;
6. Implement a Complete Streets approach to develop a street network that provides adequate space for pedestrians of all ages and abilities, cyclists, transit vehicles and users, goods and services vehicles, emergency vehicles, motorists, utilities and services, trees and landscaping, green infrastructure, snow and stormwater management, wayfinding, boulevard cafes, marketing and vending, and street furniture; and
7. Provide access for emergency vehicles.

OPA 274 also includes provisions for supporting TDM opportunities for existing and new developments and provides for strong consideration for multi-modal review of development application.

Land Use

The GMSP area comprises mixed use, employment, and apartment neighbourhood areas, as illustrated in **Figure 2-1**. The Golden Mile TMP study area includes neighbourhoods including Ionview, Victoria Village, O'Connor-Parkview, Parma Court, Clairlea, Kennedy Park, and Wexford. There are some areas of employment by the western boundary and directly adjacent to the GMSP area including the Wexford and Dorset Employment District.

Figure 2-1. City of Toronto Official Plan Land Use Plan



Source: Toronto Official Plan, Map 20 Land Use Plan

2.3 Design Guidance

2.3.1 City of Toronto Complete Streets Guidelines

The City of Toronto's Complete Streets Guidelines (2017) provide Toronto-specific direction on how to allocate space in the street right-of-ways that account for all users as provided for by the Official Plan. The three guiding principles are summarized in **Table 2-1**.

Table 2-1: Complete Streets Guidelines

Street Type	Description
STREETS FOR PEOPLE	• Improve safety and accessibility of streets for the most vulnerable road users in mind – children, the elderly, and individuals with disabilities. • Give people mobility choices. • Make connected network and infrastructure for all mobility choices. • Promote healthy and active living by designing streets that are more comfortable and inviting for walking and cycling.
STREETS FOR PLACEMAKING	• Create beautiful and vibrant public spaces where people naturally want to stop, spend time, and engage with the social fabric of the street. • Respect and respond to the local area context as provided by the envisioned land uses and the character of the surrounding neighbourhoods. • Improve environmental sustainability goals through incorporating street vegetation and other progressive stormwater management systems.
STREETS FOR PROSPERITY	• Support economic vitality and the neighbourhood businesses that front it. • Enhance social equity by welcoming all races, incomes, genders, and abilities. • Balance flexibility and cost-effectiveness by having the ability to adapt to the City's changing needs over time.

The Complete Street Guidelines describe a range of street types in Toronto, and is intended to be considered in all street design projects in the City of Toronto. It outlines the steps involved in street design and provides an overview of the design principles and considerations for the key components and functions of streets (i.e. the design for pedestrians, cycling, transit, green infrastructure, roadways, and intersections).

The Golden Mile TMP represents an opportunity to transform streets along the corridor into Complete Streets and design the future street network for all users.

2.3.2 City of Toronto Vision Zero Road Safety Plan

Toronto's Vision Zero Plan is a strategic five year (2017-2021) action plan that aims to eliminate deaths and serious injuries on the City's roads. The plan includes over 50 measures across four (4) key pillars – engineering, enforcement, technology, and education. The plan outlines measures based on six (6) emphasis areas: pedestrians, school children, older adults, cyclists, motorcyclists, and aggressive driving and distraction.

The Golden Mile TMP provides an opportunity to implement many of the recommendations contained within the Vision Zero Plan across the study area. **Table 2-2** lists several measures contained within the Plan that will inform the TMP.

Table 2-2: Vision Zero Plan - Selected New/Enhanced Safety Measures

Emphasis Area	New or Enhanced Measure
Pedestrians	• Pedestrian Safety Corridors • Pedestrian street lighting improvements • Automated pedestrian detection • Pavement marking improvements • Accessibility improvements • Advance green for pedestrians • New corner radius design • No Right turn on red prohibitions • Connecting discontinuous sidewalks • Road safety audits at high-risk locations • Innovative local road pedestrian crossovers • Removal of right turn slip lanes
School Children	• School Safety Zones • Driver feedback signs • Automated enforcement pilot • Active and safe routes to schools
Older Adults	• Senior Safety Zones • Increased crossing times • Reduced crossing distances • New midblock crossings
Cyclists	• Automated cyclist detection • Advance green for cyclists • Signalized crossings for cyclists • Enhanced cycling facilities including cycle tracks and bike boxes
Motorcyclists	• Motorcycle warning signs • Consideration of motorcyclist issues in road safety audits
Aggressive Driving and Distractions	• Geometric safety improvements and traffic calming • LED signage depicting prohibited turns • Reduced speed limits • Red light cameras

2.3.3 City of Toronto Curb Radii Guidelines

While Transportation Association of Canada (TAC) Guidelines are typically relied upon for design, the City of Toronto Curb Radii Guidelines were developed to better incorporate the needs of all road users. These curb radii Guidelines retain many of the elements of the TAC guidelines but look for ways to increase active transportation user confidence and sense of safety, rather than implementing larger radii to improve vehicular speed and flow. Some notable diversions from previous intersection design guidelines include:

- Greater burden of proof required when justifying increasing curb radii;
- Greater considerations for bike lanes when determining effective turning radii;
- Options for 1m radii at intersection corners where right turns are restricted; and

- Maximum radii of 15m – this should never be increased, instead the truck route type should be downgraded.

The curbs within the study area were likely designed under an older standard meaning opportunities exist to re-examine curb radii as a component of street design recommendations to further advance active transportation in the study area.

2.3.4 City of Toronto Vehicle Travel Lane Width Guidelines

The City's Travel Lane Width Guidelines were reviewed and updated in January 2015 and will become part of the future Toronto-specific street design guidelines. The new guidelines rebalance safety, access, and comfort of all road users, including cyclists and pedestrians, when recommending lane widths. The Guidelines apply to all collector, minor arterial, and major arterial streets. Local roads, which typically do not have lane markings, are addressed in the City's Road Engineering Design Guidelines.

Appropriate lane width ranges are decided based on 13 relevant context characteristics presented in **Figure 2-2**. Note the symbols in in the exhibit include "X" for target width, "-" for minimum width, and "+" for maximum width.

Figure 2-2. City of Toronto Vehicle Travel Width Guidelines

			Minimum (m)	Target (m)	Maximum (m)	TTC			
						TTC Bus Routes	TTC Streetcar Routes	High Truck Volume	Horizontal Alignment Curves
Through Lane	60km/h or more		3.0	3.0	3.5	x	+[1]	+	+
	50km/h			3.0	3.3				
	40km/h or less			3.0	3.0				
Curb Lane	Shared Curb Lane without Urban Shoulder		3.3	4.3	4.3	+[2]	x	+	+
	Shared Curb Lane with Urban Shoulder or Curb Lane with Dedicated Cycling Facility	60km/h or more	3.0	3.5	3.5				
		50km/h		3.3	3.5				
		40km/h or less		3.3	3.5				
Urban Shoulder			1.2	2.3	2.3				
Two-way Left Turn Lane			3.0	3.0	3.3	x	x	+	+
Dedicated Left Turn Lane			3.0	3.0	3.3	x	x	+	+
Dedicated Right Turn Lane			3.0	3.0	3.3	+	x	+	+
Dedicated Parking Lane			2.0	2.4	2.8	x	x	x	+
Dedicated Cycling Facility			Note 1						

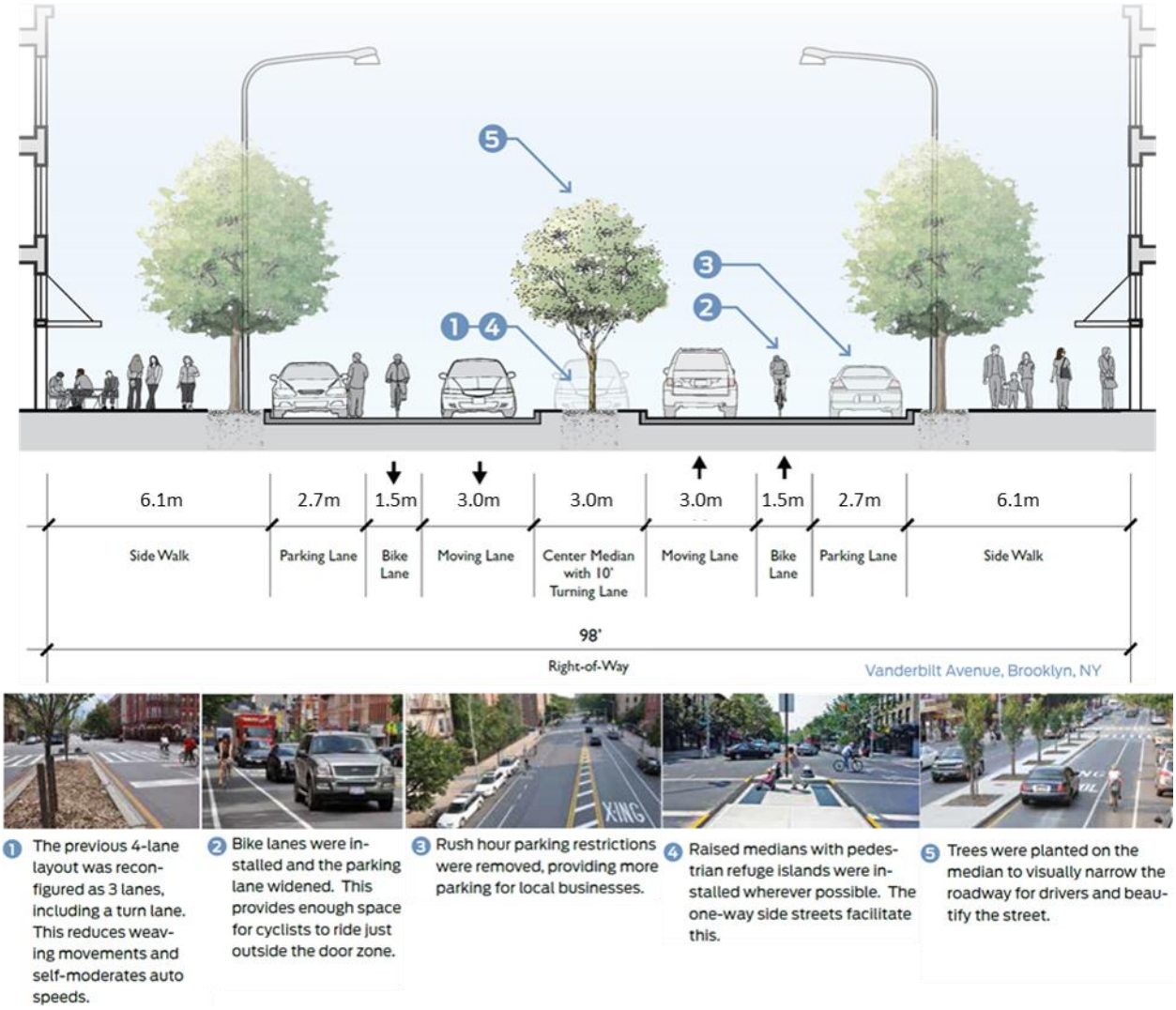
Source: City of Toronto Lane Width Guidelines (2017)

2.3.5 NACTO

The National Association of City Transportation Officials (NACTO) has produced two documents – Urban Bikeway Design Guide and Urban Streets Design Guide – that provide specific guidance for curb radii, cycling facilities, lane width, pedestrian crossings, and other complete streets elements in an urban context. Many other design guidelines cited in this report draw upon NACTO as a primary resource. The guidelines will be used in conjunction with Toronto and Ontario-specific guidelines in making recommendations for the study area.

A sample case study from the Urban Streets Design Guide is provided in **Figure 2-3**, illustrating a four (4) lane street converted to three (3) lanes plus a median and bike lanes, with commentary on design treatments to improve the street for all users.

Figure 2-3. NACTO Urban Street Design Guide – Case Study of a 4-lane to 3-lane conversion



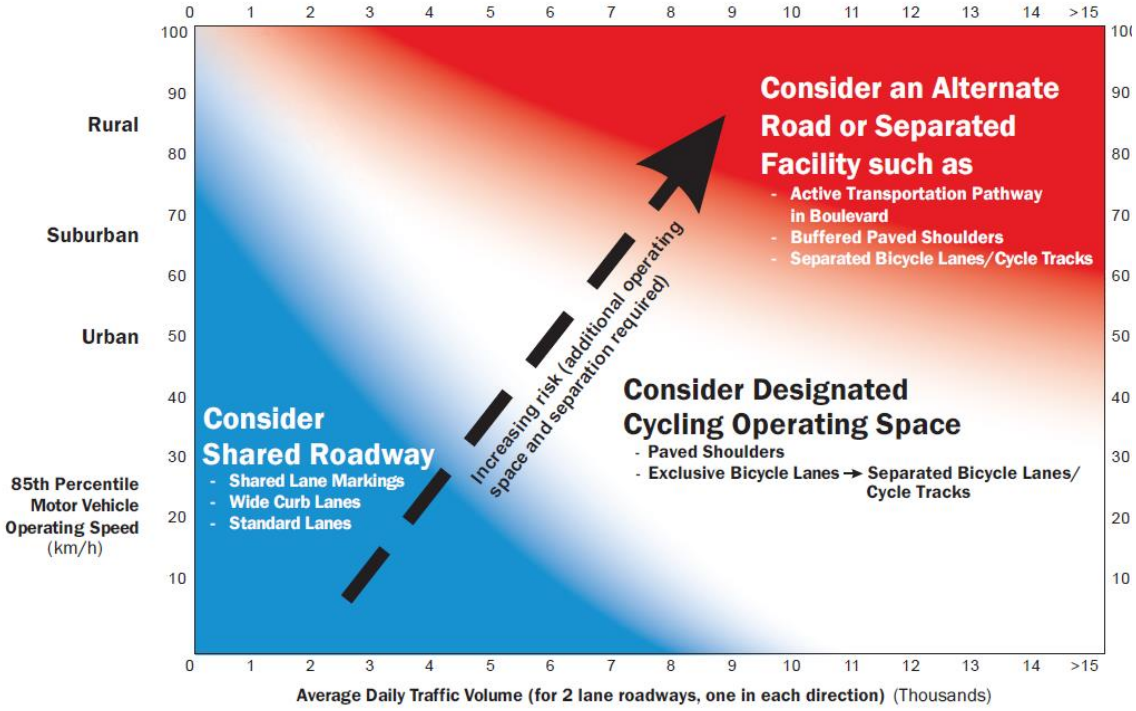
Source: NACTO Urban Street Design Guide

2.3.6 Ontario Traffic Manual (OTM) Books 15 and 18

The Ontario Traffic Manual (OTM) comprises a number of Books which provide guidance for the "planning, design, construction, and operation of traffic control devices and systems", thus promoting uniformity of approaches across Ontario. There are two recently updated Books which provide the latest innovation and guidance on active transportation: Book 15–Pedestrian Crossing Facilities and Book 18–Cycling Facilities.

Book 18 (2013) offers guidelines for bicycle network design, facility selection, facility design, and network implementation (see **Figure 2-4**). Facilities range in separation from shared routes and bike lanes to cycle tracks and in-boulevard multi-use trails. Selection criteria include vehicle speed and volume, traffic mix, space availability, existing and future demand, and cost. The diverse nature of the streets within the study area will merit a nuanced approach to bicycle network design using the tools presented in Book 18.

Figure 2-4. Desirable Cycling Facility Pre-Selection Nomograph



Source: OTM Book 18

Book 15 (2010) outlines and provides guidance on the selection and design of pedestrian crossing facilities. Book 15 provides practitioners with guidance and information regarding:

- **Legal requirements** – highlights pedestrians' and road users' legal right-of-way and responsibilities at different forms of controlled and uncontrolled crossings;

- **Pedestrian crossing devices** – guiding principles for the decision process for different crossing methods, including controlled and uncontrolled crossings;
- **Physically separated facilities** – guidance on the selection process which includes a needs assessment and, if eligible, a feasibility study; and
- **Accessibility** – outlines the overall design considerations for accessible crossings.

2.3.7 Cycling Facilities

Table 2-3 illustrates the types of cycling facilities that could be implemented in the GMSP study area, listing them in order of increasing separation from vehicular traffic. This table can be used to determine what type of future cycling infrastructure could be implemented in the TMP study area to enhance/support the City vision and Ten Year Cycling Plan. According to the City's Ten Year Cycling Plan, the proposed bike lanes or cycle tracks on Eglinton Avenue could be implemented as either protected or raised cycle tracks. The design for the appropriate cycling facility type along Eglinton Avenue is currently under review by Crosslinx Transit Solutions.

Table 2-3: Types of Cycling Facility Design Considerations

Cycling Facility	Description	Advantages	Disadvantages	Application
Sharrows 	• Directional signs; not a facility • Not dedicated to cyclists, shared lane with vehicles • No separation from traffic • Does not require narrowing of travel lanes or removal of on-street parking	• Viable option when roadway is too narrow for conventional bike lanes • Requires no additional street space • Encourages cyclists to position themselves safely in lanes and alerts motor vehicles to their presence • Provides a wayfinding element along bike routes	• Less protection for cyclists than a conventional bike lane	• Most appropriate for local roads with low traffic volumes and speeds • Where street width can only accommodate a bicycle lane in one direction (on hills, lanes should be provided in the uphill direction) • To fill a gap in an otherwise continuous bike network segment, generally for a short distance • Can be implemented on internal mid-block local streets.
Conventional Bike Lanes 	• On-road facility • Dedicated to cyclists • Some separation from traffic • Can accommodate cyclists on both sides of the street • May require narrowing of travel lanes to accommodate bike lanes	• Increased cyclist comfort and confidence on busy streets • Separation between cyclists and motor vehicles • Increased predictability of cyclist and motorist positioning • Visual reminder of cyclists' right to the street	• Space requirements may require the elimination of parking or travel lanes • Less protection for cyclists than protected bike lanes or off-road paths	• Bike lanes are typically located along urban arterial or collector roads with higher traffic volumes, operating speeds, and proportions of commercial and transit vehicles compared to local urban roadways, or where space is lacking to build cycle tracks or off-road paths • Can be implemented on local or collector streets.

Cycling Facility	Description	Advantages	Disadvantages	Application
Buffered Bike Lanes 	• On-road facility • Dedicated to cyclists • Separated from traffic by painted buffer • Accommodates cyclists on both sides of the street • May require narrowing of travel lanes or removal of on-street parking to accommodate bike lanes	• Greater separation between motor vehicles and cyclists • More space for cyclists to pass one another without entering the vehicle travel lane • More space for cyclists to ride outside the “door zone”	• Space requirements may require the elimination of parking or travel lanes • Less protection for cyclists than protected bike lanes or off-road paths	• On streets with high traffic volume, regular truck traffic, high parking turnover, or speed limits greater than 50 km/h, treatments that provide greater separation between bicycles and motor traffic should be considered • Can be implemented on collector or arterial streets.
Protected Cycle Tracks 	• On-road facility • Dedicated to cyclists • Separated from traffic by physical buffer • Accommodates cyclists on one or both sides of the street • Would require narrowing of travel lanes or removal of on-street parking to accommodate cycle tracks	• Dedicates and protects space for bicyclists in order to enhance comfort and safety • Prevents double-parking, unlike a bike lane. • More attractive for bicyclists of all levels and ages. • Can have low implementation cost by making use of existing pavement and drainage and by using parking lane as a barrier.	• Cyclists may be outside the direct field of vision of motorists, potentially posing a problem at intersections • Required right of way may require removal of travel lane or parking • On bi-directional paths, left turns must be made in a non-standard manner • Can be expensive if road re-building is required	• Protected cycle tracks are appropriate for streets with high bicycle volumes where bike lanes or shared lanes would cause cyclists to feel stress because of factors such as multiple lanes, high traffic volumes, high speed traffic, high demand for double parking, or high parking turnover • Can be implemented on arterial streets.

Cycling Facility	Description	Advantages	Disadvantages	Application
Raised Cycle Tracks 	• Off-road facility • Dedicated to cyclists • Fully separated from traffic at level of sidewalk or intermediate level between road and sidewalk • Accommodates cyclists on one or both sides of the street • Would require reconfiguration of boulevards and removal of on-street parking to accommodate cycle tracks	• Dedicates and protects space for bicyclists in order to enhance comfort and safety • Prevents double-parking, unlike a bike lane. • Reduces risk of 'dooring' compared to a bike lane • More attractive for cyclists of all levels and ages. • Can provide direct access to main street commercial areas	• Cyclists may be outside the direct field of vision of motorists, potentially posing a problem at intersections • Required right of way may require removal of travel lane or parking • On bi-directional paths, left turns must be made in a non-standard manner • Can be expensive if road re-building is required	• Raised cycle tracks are appropriate for streets with high bicycle volumes where bike lanes or shared lanes would cause cyclists to feel stress because of factors such as multiple lanes, high traffic volumes, high speed traffic, high demand for double parking, or high parking turnover • Can be implemented on arterial streets.
Multi-Use Path 	• Off-road facility • Not dedicated to cyclists, shared with pedestrians • Accommodates cyclists on one side of the street only • Would require reconfiguration of boulevards and removal of on-street parking to accommodate multi-use path	• Offers routes with minimal motor vehicle conflicts	• Connectivity restriction that may result from a facility on one side of the road, and distant from the road, should be considered • Right of Way requirements • Conflicts could arise in areas with high bicycle traffic or speeds	• Off-street pathways are appropriate for parks and other green spaces and streets with high bicycle volumes where bike lanes or shared lanes would cause cyclists to feel stress because of factors such as multiple lanes, high traffic volumes, high speed traffic, high demand for double parking, or high parking turnover, and where right of way allows

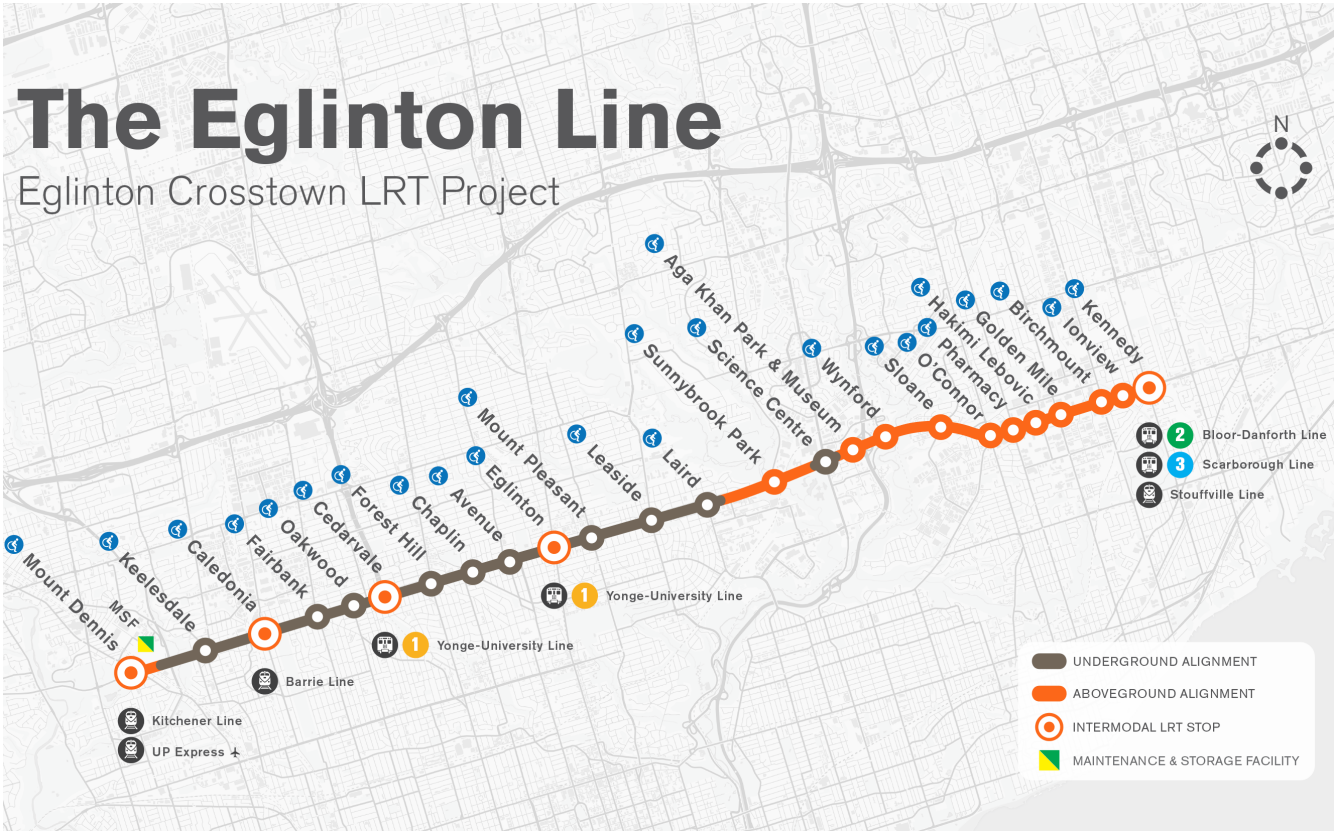
2.4 Background Studies

2.4.1 Eglinton Crosstown Light Rail Transit (ECLRT)

The Eglinton Crosstown LRT (ECLRT) is one of the first projects to improve transit service in the City of Toronto to be implemented from the Big Move. The ECLRT is a 19 kilometre corridor that will run across Eglinton Avenue between Weston Road (Mount Dennis Station) and Kennedy Station in dedicated transit lanes. The ECLRT is currently under construction and is scheduled to be in operation by 2021.

Figure 2-5 illustrates the alignment of the ECLRT and indicates the aboveground and underground sections of the corridor, as well as the station stops, intermodal LRT stops, and the maintenance and storage facility. The ECLRT will have 25 stations and stops, with connections to three (3) subway stations, 54 bus routes, and three (3) GO Rail lines.

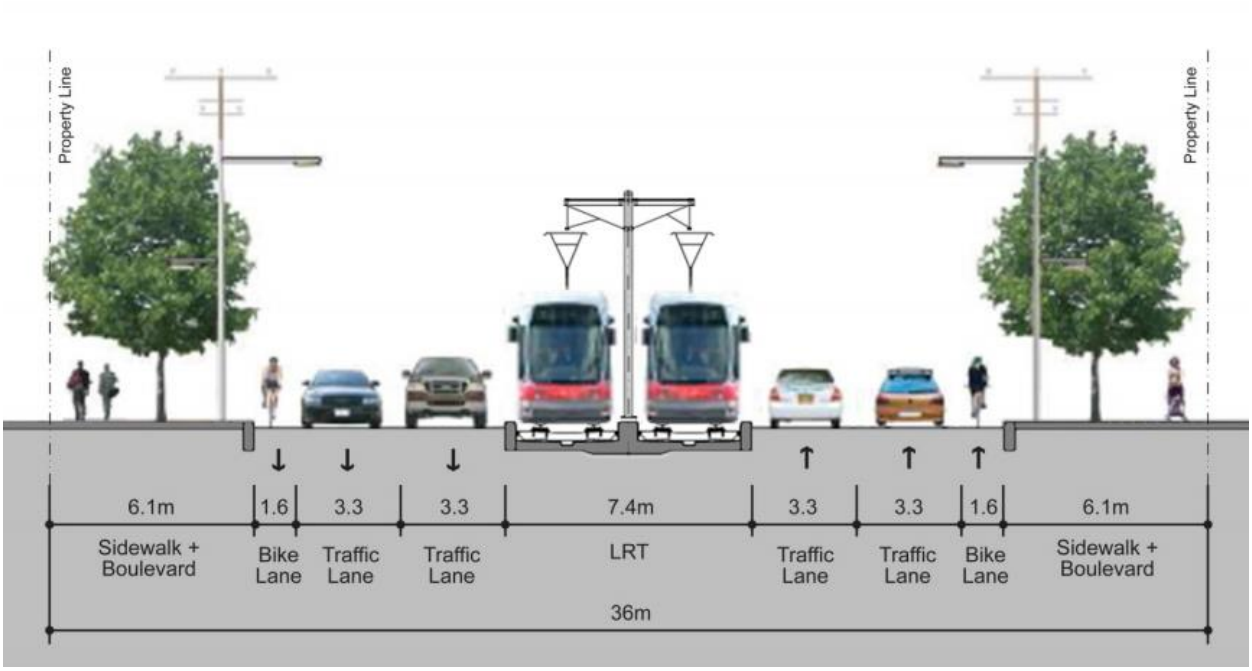
Figure 2-5. Eglinton Crosstown LRT



Source: Eglinton Crosstown (http://www.thecrosstown.ca/the-project)

Figure 2-6 illustrates a typical mid-block cross-section of a surface LRT in dedicated transit lanes. The ECLRT will be located in the centre of the ROW and will use Bombardier's Flexity Freedom Light Rail Vehicles (LRV).

Figure 2-6. Typical Mid-Block Cross-Section of Surface LRT



Source: Eglinton Crosstown Light Rail Transit Environmental Project Report (http://www.thecrosstown.ca/the-project)

A significant advantage of the Crosstown vehicles is the flexibility of adding LRV cars to accommodate user demand compared to a fixed bus or articulated bus. Each Crosstown vehicle has a maximum capacity of 163 users compared to 43 users of a TTC bus. With the ability to connect up to three (3) Crosstown vehicles, each Crosstown consist will be able to accommodate up to 490 people.

The Crosstown project expected to significantly improve travel time across Eglinton Avenue. The existing bus service has an average speed of 17 km/h while the Crosstown LRVs will have average speed of 28 km/h. As a result, travel time from Kennedy Station to Yonge-Eglinton will improve from approximately 40 minutes via bus to 26 minutes via the Crosstown LRT, according to the project's website[1].

2.4.2 Eglinton Connects

Eglinton Connects is a comprehensive planning study that complements the investment in the ECLRT by identifying a planning framework for new development, built form, street functionality and mobility. It examined the future land use, built form, public realm, and transportation network along Eglinton Avenue from Mount Dennis (Weston Road) to Kennedy Road, in anticipation of the ECLRT.

The Study resulted in a Plan with 21 recommendations, informed by a vision "that Eglinton will become Toronto's central east-west avenue – a green, beautiful linear space that supports residential living, employment, retail and public uses in a setting

[1] http://www.thecrosstown.ca/the-project

of community vibrancy. Its design will balance all forms of mobility and connect neighbourhoods and natural valley systems to the larger City and the region."

Toronto City Council adopted the 21 recommendations in May, 2014. Key recommendations relevant to the Golden Mile Study are summarized in **Table 2-4**.

Table 2-4: Key Recommendations of Eglinton Connects

Theme	Key Recommendation
Travelling	• Create a complete street: provide a safe, convenient and active mix of transportation options for all users • Provide wide sidewalks • Build protected cycling lanes: should be considered along the full length of Eglinton Avenue with connections to transit stations, and trails • Reallocate road space to meet projected needs and mobility mix • Maintain parking supply • Extend the network of rear lanes • Implement streetscape typologies
Greening	• Implement greening typologies • Create a network of green and open spaces • Grow great trees • Relocate hydro below-grade • Green transit infrastructure / trackway
Building	• Encourage mid-rise buildings for portions of the corridor identified as an Avenue • Plan for intensification in Focus Areas

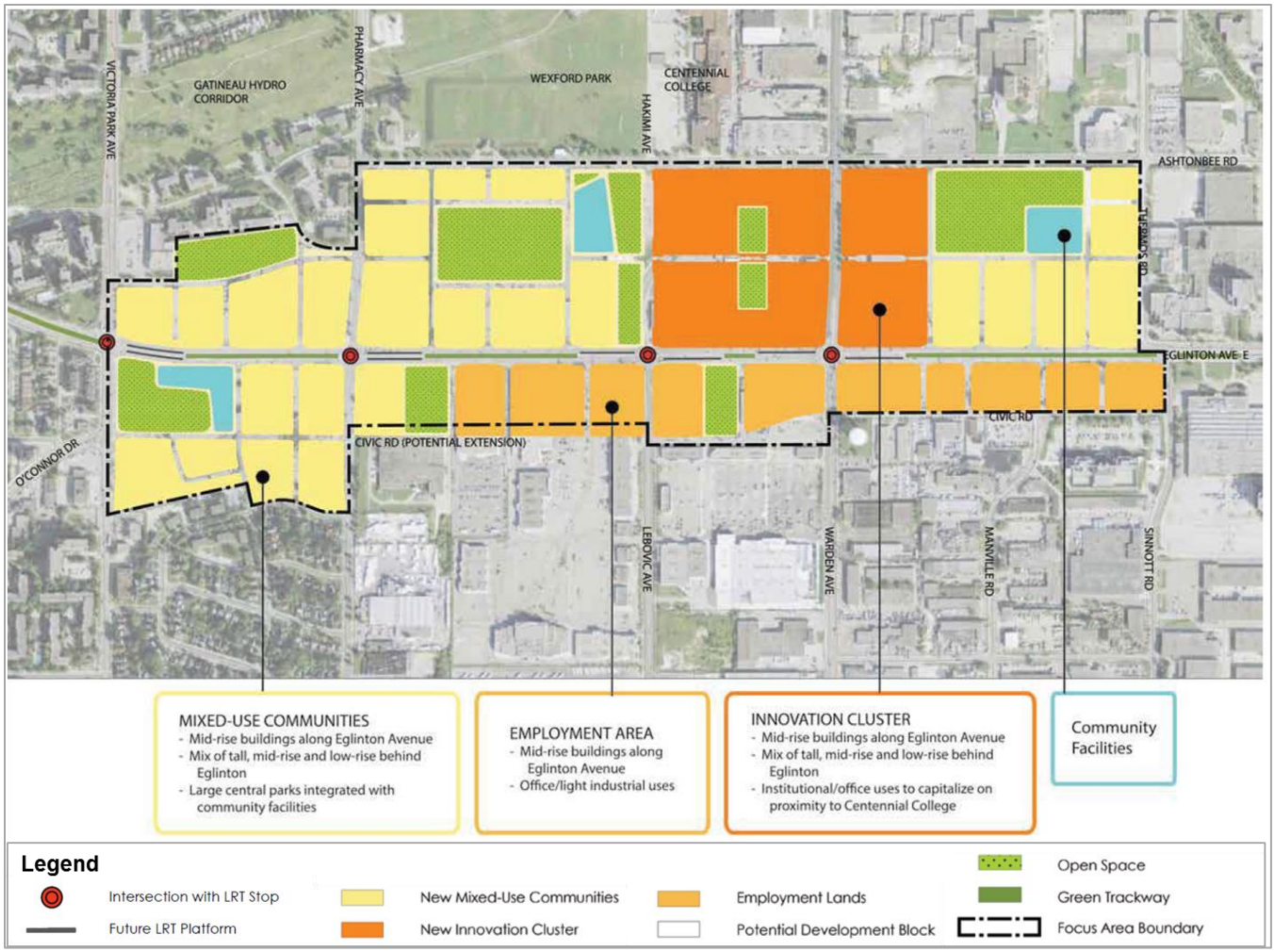
The Plan identified six (6) focus areas for further study that could potentially support additional height and density. The Golden Mile was identified as the largest focus area and the one with the greatest capacity for intensification. It recommends preserving the area's role as a regional retail centre by integrating large format retail into the base of buildings, while also fostering the growth of an "innovation cluster", leveraging its proximity to Centennial College. The objectives and principles for redevelopment, summarized below, align with the overall vision for the Eglinton Corridor:

- Create a new urban structure for the area with a predominately mid-rise built form, based on a multi-modal street pattern ;
- Develop a series of precinct plans to inform redevelopment;
- Include new, large and centrally located open spaces;
- Create new public destinations along Eglinton Avenue, such as plazas;

- Incorporate a range of building types, and consider potential locations for tall buildings;
- Include new community services and facilities, including a new library and recreation centre; and
- Develop an employment and economic development policy to enhance employment uses in the area and attract new industry.

These objectives informed the development of several planning directions and a possible neighbourhood framework plan, shown in **Figure 2-7**.

Figure 2-7. Eglinton Connects Golden Mile Focus Area Recommendations



Source: Eglinton Connects

Directions relevant to this study include:

- Travelling
  - Develop a Transportation Master Plan that addresses the following:
    - Fine grained street network with walkable blocks;
    - Cycling and pedestrian network to connect destinations within and beyond the focus area;
    - Consider options to ensure a generous public realm along Eglinton Avenue, including potential ROW widening;
    - Goods movement through the focus area;
    - Appropriate amount and location of on and off street parking; and
    - A strong cycling component, including consideration of a protected cycling lane along Eglinton Avenue.
  - Determine feasibility and desirability of extending Civic Road, and regularizing the intersection of O'Connor Drive/Eglinton Square and Victoria Park Avenue, creating a series of parallel arterials as an alternative to alleviate traffic on Eglinton Avenue; and
  - Develop a parking, loading, and access management strategy.
- Greening
  - Create a green connection from the LRT Stops to Centennial College's Ashtonbee campus; and
  - Provide for a wider boulevard along Eglinton Avenue for an improved pedestrian environment.
- Building
  - Conduct a Built Form and Urban Design Study that considers:
    - The future of the Eglinton Square Mall Site as a mixed use site; and
    - Location of high density buildings.

The Plan is accompanied by a Streetscape Plan illustrating the proposed arrangement of right-of-way elements. Within the Golden Mile study area, the Streetscape Plan proposes reducing the number of through lanes on Eglinton Avenue in each direction from three (3) to two (2); eliminating both eastbound and westbound peak period HOV lanes in order to accommodate the ECLRT at grade in the median, bicycle lanes, and wider sidewalks. The plan also proposes normalizing the intersection of Eglinton Square and Eglinton Avenue, to allow north-south traffic movements. The Eglinton Connects recommendations will be reviewed as part of the GMSP study.

2.4.3 TTC ECLRT Transit Project Assessment Study

In February 2010 the Toronto Transit Commission (TTC) undertook a preliminary traffic assessment of the future ECLRT operation, as part of the Transit Project Assessment Process (TPAP) Study. Two sections of the report, the Overall Traffic Analysis and U-Turn Traffic Analysis are relevant to the GMSP study. The Golden Mile TMP Study will verify the TTC's assessments, traffic turn restrictions and U-turn movements.

The Overall Traffic Analysis consisted of two steps: an analysis of existing and future conditions to identify critical signalized intersections, followed by a detailed analysis of the identified intersections to develop an effective LRV operation that will be further refined during preliminary and detailed design. To evaluate LRT operations, a priority scheme was employed at signalized intersections that ensures a safe transportation system for all road users. The scheme consists of the following measures:

1. Ensure high quality LRT operations
2. Facilitate pedestrian movements
3. Facilitate bus operations
4. Facilitate the movement of vehicles at signalized intersections

Two study horizons were analyzed: existing 2008 conditions and future conditions, which assumes a time period where the ECLRT is operational, roadways and intersections are reconfigured, and signal timings are modified. Existing turning movement counts were employed for the future scenario.

The implementation of the ECLRT was projected to have the following traffic impacts:

- Left turn prohibitions from unsignalized streets and entrances throughout the corridor;
- Some left turn prohibitions at specific major signalized intersections; including Victoria Park Avenue, Pharmacy Avenue, and Birchmount Road within the study area. Left turns will be rerouted to new midblock U-turns;
- Reduced roadway capacity due to the removal of one (1) travel lane in each direction at some locations; and
- Increased delays for vehicular traffic, particularly for left-turn movements due to the introduction of separate left- and U-turn signal phases.

Eglinton Avenue at Victoria Park Avenue was the only intersection in the GMSP study area identified as critical in this section. The study identified several site traffic issues associated with the intersection “hot spot”, including:

- Close signal spacing along Eglinton Avenue;
- Intersections already operating near or at capacity;
- Capacity reduction on Eglinton Avenue from three (3) lanes in each direction to two (2) lanes; and
- Land development opportunities.

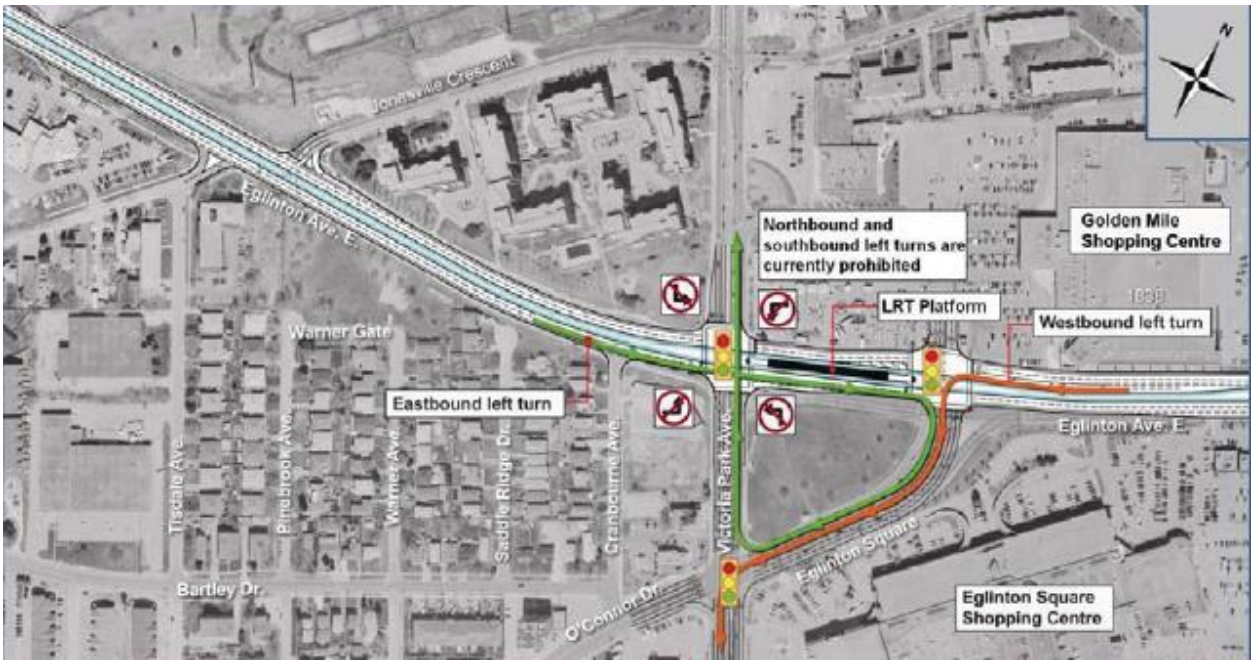
The U-turn traffic analysis provided more detailed analysis for ten (10) identified intersections that were candidates for the addition of “U-turn signals” or other mitigating methods. The operation of traditional left turns was compared to various left turn rerouting scenarios, with consideration to truck routing and high left turn volumes. Scenarios were compared based on projected delays to LRVs, cross-street transit vehicles, general traffic, and pedestrians. In addition to Victoria Park Avenue, the intersections of Eglinton Avenue at Pharmacy Avenue, Lebovic Avenue, Warden Avenue, and Birchmount Road were analyzed. The recommended solutions of the overall traffic and U-turn traffic analyses are summarized below. In all cases the study area included the surrounding road network.

Victoria Park Avenue

The final scenario (**Figure 2-8**) incorporated several modifications including:

- Prohibition of all left turns on Eglinton Avenue at Victoria Park Avenue;
- Signalization of the intersection of Eglinton Avenue and Jonesville Crescent to allow for eastbound left turns;
- Upgrades to the eastbound approach at Jonesville Crescent and Victoria Park Avenue to separate left turning vehicles from through and right turning vehicles;
- Redesign of the intersection of Eglinton Avenue and Eglinton Square to allow for eastbound right turns; and
- Recalibration of traffic signal timing plans to allow for 90 seconds cycle length along the corridor section.

Figure 2-8. TTC Transit Project Assessment Study U-Turn Traffic Analysis: Recommended Scenario for Eglinton Avenue at Victoria Park Avenue



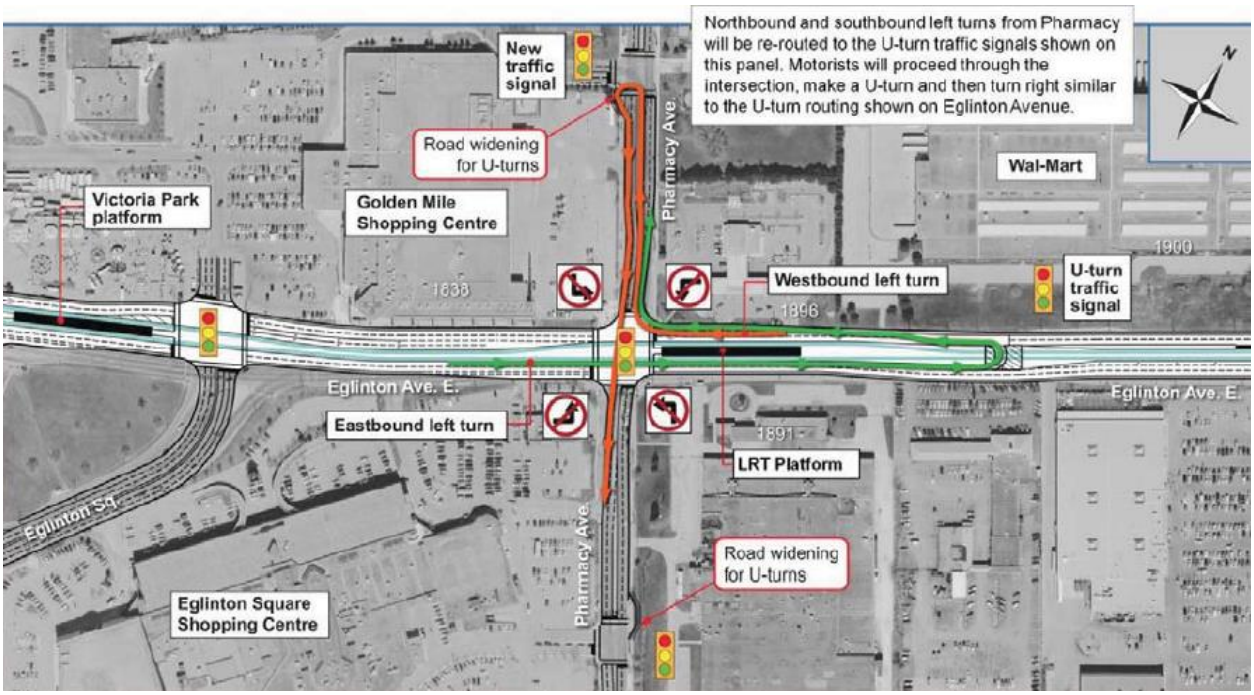
Source: Toronto Transit Commission (TTC) Transit Project Assessment Study – Consolidate Traffic Report, February 2010

Pharmacy Avenue

The main features of the scenario at Pharmacy Avenue (**Figure 2-9**) include:

- Prohibition of all left turns on Eglinton Avenue at Pharmacy Avenue;
- Four phase signal operation at Eglinton Avenue at Pharmacy Avenue with rerouted east-west and north-south left turn movements;
- Minimum of 24 seconds for east-west green time;
- Exclusive east-to-north and west-to-south right turn lanes; and
- A new U-turn signal on Eglinton Avenue between Pharmacy Avenue and Lebovic Avenue which will also allow for pedestrian crossings.

Figure 2-9. TTC Transit Project Assessment Study U-Turn Traffic Analysis: Recommended Scenario for Eglinton Avenue at Pharmacy Avenue



Source: Toronto Transit Commission (TTC) Transit Project Assessment Study – Consolidate Traffic Report, February 2010

Warden Avenue

The main features of the scenario at Warden Avenue (**Figure 2-10**) include:

- 90 second cycle length;
- Protected U-turns (mixed with left turn traffic) for eastbound approach at Eglinton Avenue and Prudham Gate;
- Protected U-turns (mixed with left turn traffic) for westbound approach at Eglinton Avenue and Lebovic Avenue;
- 38 seconds for east-west green time; and
- Exclusive east-to-north and west-to-south right turn lanes.

Figure 2-10. TTC Transit Project Assessment Study U-Turn Traffic Analysis: Recommended Scenario for Eglinton Avenue at Warden Avenue

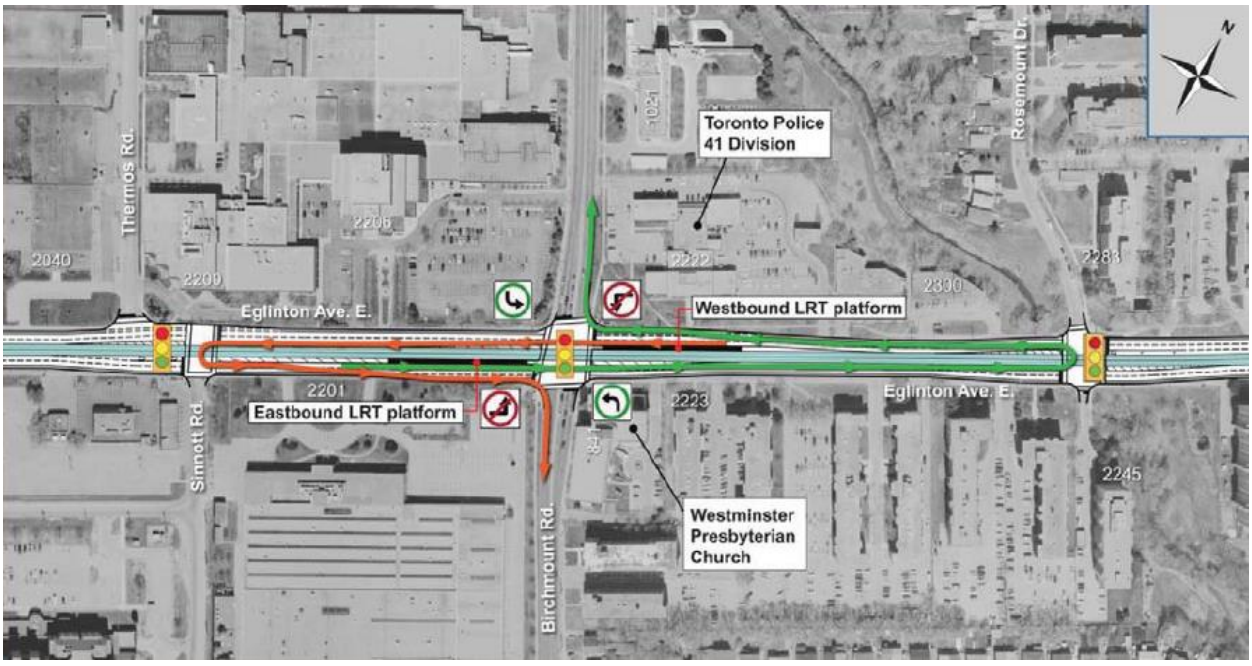
Source: Toronto Transit Commission (TTC) Transit Project Assessment Study – Consolidate Traffic Report, February 2010

Birchmount Road

The main features of the scenario at Birchmount Road (**Figure 2-11**) include:

- Five phase signal operation (four phase during the AM peak) at Eglinton Avenue at Birchmount Road;
- Prohibition of east-west left turn movements at Birchmount Road. East-west left turns rerouted through U-turns at downstream signalized locations on Eglinton Avenue;
- Minimum of 26 seconds for east-west green time; and
- Exclusive east-to-north and south-to-west right turn lanes.

Figure 2-11. TTC Transit Project Assessment Study U-Turn Traffic Analysis: Recommended Scenario for Eglinton Avenue at Birchmount Road



Source: Toronto Transit Commission (TTC) Transit Project Assessment Study – Consolidate Traffic Report, February 2010

2.4.4 Line 2 East Extension (L2EE)

The City of Toronto, together with the TTC, is planning an extension to the Bloor-Danforth Subway (Line 2) to Scarborough Center. The Line 2 East Extension (L2EE) is a 3 stop extension of Line 2 with an estimated in-service date of 2030. The proposed L2EE will replace the aging Scarborough RT and contribute to an integrated and comprehensive rapid transit network that will improve transit service in Scarborough and across Toronto. This will create a seamless journey for transit users by eliminating the need to transfer at Kennedy Station.

The Transit Project Assessment Process (TPAP) was completed in October 2017 to satisfy the requirements of the Municipal Class EA Process.

3 Public Consultation

Throughout the study, the general public, key stakeholders, agencies, first nations and aboriginal peoples were contacted and consulted with to ensure that those who may be affected by the study had sufficient opportunity to review materials and provide input.

An extensive public engagement process identified for this study goes beyond Municipal Class EA (MCEA) requirements, including four (4) Community Consultation Meetings (CCMs), five (5) Technical Advisory Committee (TAC) meetings, five (5) Local Advisory Committee (LAC) meetings, Stakeholders Meetings, Planners in Public Spaces (PiPS), and Pop-Up events throughout the length of the project. It is noted that an additional community consultation meeting was held on June 3, 2019 to notify the public of a change in the study boundary due to the proposed realignment of O'Connor Drive at Victoria Park Avenue.

A summary of all consultation activities is provided in **Appendix A**.

3.1 Public Notices

To satisfy the requirements of the Transportation Master Plan (TMP) process, public notices were issued to the general public at key points throughout the study, including a Notice of Study Commencement, Notice of Community Consultation Meetings, and a Notice of Study Completion. The Public Notices for the Study and dates of issue are summarized in **Table 3-1**.

Table 3-1: Public Notices

Public Notice	Date of Issue
Notice of Study Commencement	June 2, 2017
Notice of Community Consultation Meeting #1	June 2, 2017
Notice of Community Consultation Meeting #2	September 28, 2017
Notice of Community Consultation Meeting #3	June 6, 2018
Notice of Community Consultation Meeting: Potential Street Network Changes at O'Connor Drive / Victoria Park Avenue	May 21, 2019
Notice of Community Consultation Meeting #4	June 11, 2019

3.2 Community Consultation Meetings

3.2.1 Community Consultation Meeting #1: Project Launch (June 28, 2017)

On Wednesday June 28, 2017 the City of Toronto hosted the first Community Consultation Meeting for Renew Golden Mile, a study focused on developing a vision and planning framework (including a new Secondary Plan and guidelines) for the Golden Mile area. The purpose of this first meeting was to: introduce the Golden Mile Secondary Plan Study, the Study team, and the overall process; share information about what is driving change in the Golden Mile area; answer questions about the

study; discuss what's working in the Golden Mile area and what can be improved, and; promote and seek participation in future outreach events. Over 140 people attended the meeting.

Key messages heard at the meeting include:

- **Infrastructure needs to keep pace with growth**. The Golden Mile's infrastructure — its sewers, parks, transit, roads, and community services — need to keep up with growth, especially with new development and the Crosstown LRT coming.
- **Concerns about construction**. The construction of new development and the LRT will have big impacts on the area, especially on traffic congestion.
- **Congestion, pedestrian safety, and accessibility are big concerns**. Many of the roads are badly congested. Because of the area's wide roads, a lack of crosswalks, and short pedestrian crossing times, many pedestrians and cyclists do not feel safe navigating the area. It should be easier to navigate the area without a car, especially for seniors and people with mobility issues.
- **The Golden Mile should have a range of housing options for different kinds of people**. There should be opportunities for people of varying incomes, ages, and family sizes to own, rent, and/or invest in the area.
- **There should be more and better parks, public spaces, benches, and green spaces**. There are too few places for people to meet, gather, or just sit.

3.2.2 Community Consultation Meeting #2: Visioning Workshop (October 14, 2017)

On Saturday October 14, 2017, the City of Toronto hosted the second Community Consultation Meeting for Renew Golden Mile, a study focused on developing a vision and planning framework for the Golden Mile area. The purpose of this meeting was to review the Study purpose and to discuss draft Guiding Principles, a Vision, and Emerging Opportunities. Over 35 people attended and participated in the meeting.

Key messages expressed by participants are summarized below:

- **Keep the Golden Mile affordable for all**. There was strong concern that current and future redevelopment projects in the Golden Mile would only be affordable to wealthy people, displacing some of the area's existing residents. This Secondary Plan study must ensure affordable housing is part of the Golden Mile's future.
- **Provide services and facilities tailored to the area's demographics**. The area has a diverse range of demographics, including diverse cultural backgrounds, ages, and physical abilities. The Golden Mile needs to plan for and be responsive to the different needs of these various demographics.
- **Create better, safer connections within and beyond the Golden Mile**. The Secondary Plan should create more and better connections to help drivers,

cyclists, and pedestrians safely access transit and other community facilities. Congestion is a big issue in the Golden Mile that needs to be addressed.

- **Some support for taller buildings but preference for more low- to mid-rise buildings**. Most participants thought that taller buildings would make sense near major transit stations, but said these buildings should be limited outside of these areas to preserve views and a feeling of openness.
- **More beautiful green space and gathering places**. The Golden Mile should include a mix of parks and gathering places in a connected public realm network that provide spaces for the community to gather, sit, play and relax outdoors. Environmental sustainability is an important consideration, too.

3.2.3 Community Consultation Meeting #3: Emerging Development Alternatives (June 26, 2018)

On Tuesday June 26, 2018, the City of Toronto hosted the third Community Consultation Meeting for Renew Golden Mile, a study focused on developing a vision and planning framework for the Golden Mile area. The purpose of this third meeting was to review and discuss emerging development alternatives and an evaluation framework for the Study. Approximately 70 people attended.

The following key messages emerged from the feedback provided by participants. They are meant to be read along with the more detailed summary provided in Appendix TMP-1.

- **Traffic congestion and pedestrian safety are big concerns.** Many participants liked that the alternatives included new roads, saying these roads could be helpful in better distributing traffic. Some were concerned that these new roads could lead to more traffic infiltration into residential areas. Several were concerned about pedestrian and cyclist safety and wanted to see more measures to make the area safer.
- **The Golden Mile needs more community services and parks**. Participants wanted to see the plan identify locations for community services like schools, community centres, recreation centres, and facilities for seniors and others in the area.
- **Eglinton Square Mall is an important social and gathering space**. Many said that Eglinton Square Mall is very important, providing indoor gathering space, acting as a community hub, and providing seniors with a place to walk. Many advocated for retaining the mall as part of the future of the area; others said they would be willing to accept redevelopment of the mall if its important social and gathering functions were retained or scaled up as part of new development. Several said it would be important for there to be indoor retail space in the area.
- **Height and density near transit**. Several liked the idea of directing growth to areas near the future LRT on Eglinton (and further from existing neighbourhoods). A few wanted to see density distributed evenly through the area, while others didn't want to see many tall buildings at all.

3.2.4 Community Consultation Meeting: Potential Street Network Changes at O'Connor Drive / Victoria Park Avenue (June 3, 2019)

As part of the City Council recommendation adopted on April 16 and 17, 2019 City Council requested the Chief Planner and Executive Director, City Planning to hold a special meeting with residents of former East York and North York west of Victoria Park for the road reconfiguration. Therefore, an additional community consultation meeting was held on June 3, 2019 to inform residents and business owners of the expanded study area boundary, the potential reconfiguration of O'Connor Drive at Victoria Park Avenue and the proposed major infrastructure improvements. The expanded Secondary Plan area boundary, shown in **Figure 1-2**, was presented to the attendees.

3.2.5 Community Consultation Meeting #4: Draft Recommended Plan (June 25, 2019)

On Tuesday June 25, 2019, the City of Toronto hosted the fourth Community Consultation Meeting for Renew Golden Mile, a study focused on developing a vision, planning framework, and ultimately a secondary plan for the Golden Mile area. The purpose of this fourth meeting was to share and seek feedback on the draft final design and implementation strategies for the Golden Mile Secondary Plan Study. Approximately 125 people attended.

A number of participants showed support for the overall draft final design and shared appreciation for the ongoing work from City staff and the project team throughout the Golden Mile Secondary Plan Study process. Participants also identified specific parts of the draft final design that they liked, including aspects of the Transportation Master Plan that aim to create a safer and more comfortable environment for pedestrians and cyclists, including the creation of a grid street network.

Some refinements were suggested at the meeting as well. With respect to the TMP, suggestions include:

- **Traffic congestion**. Some participants suggested widening north and south roads in an effort to increase room for vehicles and improve traffic flow in the area. Others raised concerns that increased residential development will increase the number of cars on the road and make the already congested area worse. There were some suggestions to reduce the planned population density for the area. There was also a concern that terminating existing and planned future east-west roads (Ashtonbee Rd, Golden Mile Parkway, and Civic Rd) at Birchmount Rd will result in traffic spillover and congestion in nearby residential areas.
- **Improving the cycling environment**. There were mixed opinions about the inclusion of cycling infrastructure in the area. Some participants strongly supported the proposed cycling network and infrastructure (e.g. bike lanes, cycle tracks, and multi-use trails). Others suggested adding more roads without bike lanes.

- **Ensure there is adequate transit to move people quickly through the area**. Some participants said they are not convinced the planned LRT will be able to adequately support the number of people that will eventually live in the area. There were concerns that because the LRT is planned above ground it will be slowed down by traffic signals and other road users and won't be able to move people through the area fast enough. There was a suggestion to provide pedestrian connections to future LRT stops and across Eglinton either underground or above street level to increase safety for pedestrians. There was also a request to increase transit service on Pharmacy Avenue.
- **Ensure road maintenance is a priority**. Some participants said road maintenance has been an issue in the past and would like to see this become a priority for the area, including regular repaving of streets as required
- **Concerns with the proposed redesign of O'Connor Dr**. There was a concern that proposed changes to O'Connor Dr (making it four lanes and ending it at Birchmount Rd) would make the street less walkable and separate the existing Clairlea community from future amenities on Eglinton. Participants also expressed concerns that the O'Connor Drive Extension could eliminate access to the Eglinton Square Mall traffic signal, which currently provides residents of the Clairlea neighbourhood safe vehicular access to Pharmacy Avenue. There was also a concern raised that the proposed realignment of O'Connor Drive would impact active development applications in the area and that the financial and other consequences related to the realignment have not been sufficiently assessed, and as such, the proposed realignment of O'Connor Drive was premature.

3.3 Community Pop-up Events (July to August 2017)

During summer 2017, the Study Team hosted a series of pop up events in and around the Golden Mile to share information, answer questions, and learn about what residents, business owners, employees, and others thought was working well and what could be improved in the study area.

3.4 Walking Tour (September 25, 2017)

On September 25, 2017, City staff and consultants hosted a Moving Conversation Walking Tour, which was also attended by members of the LAC.

The purpose of walking tour was to use the local environment to engage attendees in a discussion about the existing conditions and potential opportunities within the Golden Mile Secondary Plan Study area.

3.5 Local Advisory Committee / Stakeholder Meetings

The Renew Golden Mile engagement process includes a Local Advisory Committee (LAC), a forum for discussion of approaches, concepts, and alternatives as part of the study. The Local Advisory Committee included a selection of members of the

public including community representatives as well as members of the development community. A detailed summary of the meetings with the LAC is provided in **Appendix A**.

3.6 Technical Advisory Committee Meetings

Throughout the study, agency stakeholders were contacted and kept informed of study findings. Three Technical Advisory Committee (TAC) meetings were held at key points during the study to seek input on background conditions, alternative solutions, and preliminary recommendations. A summary of the key input from the final TAC meeting on the preliminary recommendations. A detailed summary of the meetings with the TAC is provided in **Appendix A**.

3.7 Aboriginal Community Consultation

First nations and aboriginal peoples were contacted and consulted with to ensure that those who may be affected by the study had sufficient opportunity to review materials and provide input. Formal correspondence with First Nations, Aboriginal Peoples and agencies are documented in **Appendix A**.

4 Existing Conditions

This section provides an understanding of existing conditions within the GMSP TMP study area as it relates to land use, built form, travel demand, the street network, transit, active transportation, goods movement, and travel demand management (TDM) or Smart Commute services.

It is important to note that the existing conditions analysis occurred prior to the change of the Secondary Plan area boundary presented to the public in June 2019 and illustrated in **Figure 1-2**. As noted in **Section 3.2.4**, as work progressed, the Secondary Plan area was revised to include the southwest corner of Victoria Park Avenue and Eglinton Avenue to understand the implications of the O'Connor Drive reconfiguration. As such work completed at the start of the study may reflect a different study area boundary than the final boundary.

This existing conditions analysis was conducted as background information to identify the transportation challenges and opportunities within the Golden Mile. As the transportation challenges and opportunities did not change with the change in Secondary Plan area boundary expansion, the existing conditions analysis presented in this section focuses on the original Secondary Plan area and the unchanged TMP study area.

4.1 Land Use and Built Form

The GMSP study area comprises approximately 130 hectares (321 acres) and is bounded by Ashtonbee Road to the north, Birchmount Road to the east, Civic Road and Alvinston Road to the south, and Victoria Park Avenue to the west. The area is comprised of commercial, industrial, office, institutional, and residential uses.

4.1.1 Population and Employment Forecasts

The overall TMP study area is primarily composed of low density residential uses and includes the Clairlea, Kennedy Park, Victoria Village, O'Connor-Parkview, Ionview, Parma Court, and Wexford neighbourhoods and the Golden Mile Employment areas.

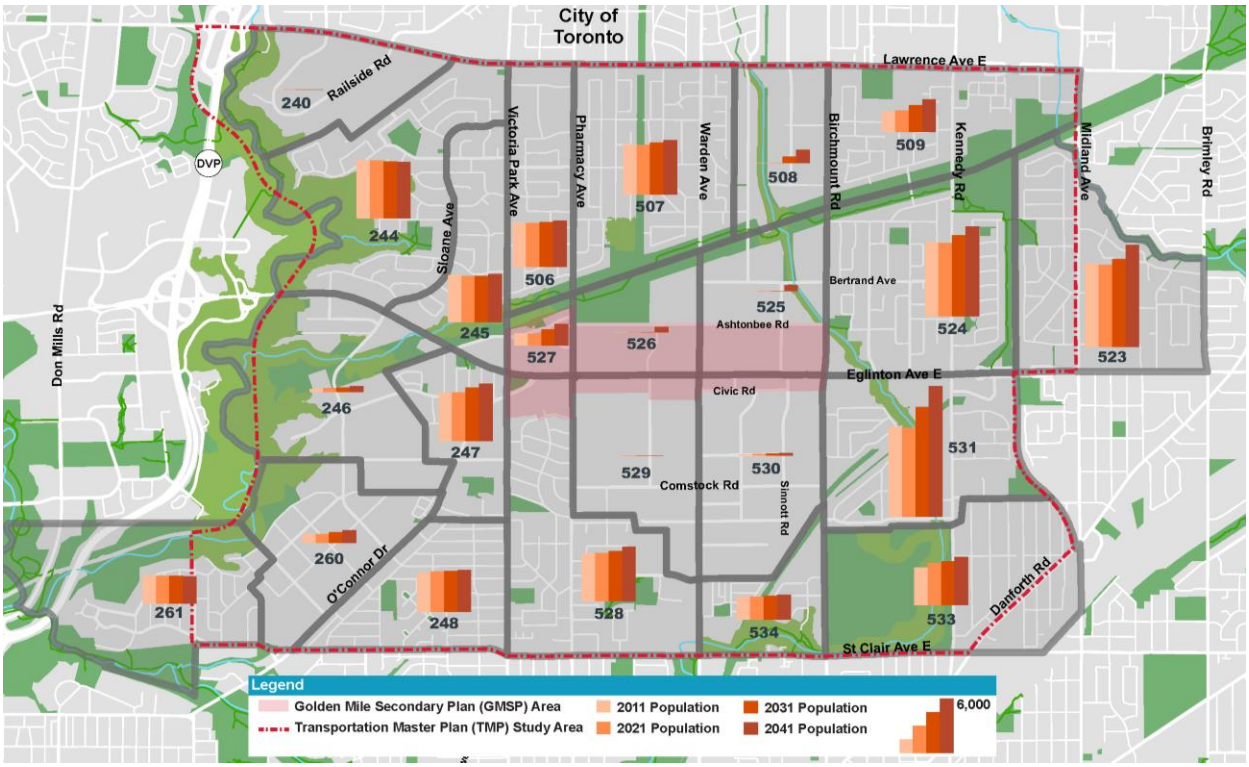
Table 4-1 provides the population and employment forecasts for the TMP study area based on the City's "Low with SmartTrack" for population and "Scenario 2 medium with SmartTrack" for employment. The City's approach at the time of study initiation has been to use this policy forecast for planning studies. **Figure 4-1** and **Figure 4-2** illustrate the population and employment growth by traffic zone, respectively.

Table 4-1: Population and Employment Forecasts

Traffic Zone	2011 Pop.	2021 Pop.	2031 Pop.	2041 Pop.	2011 Emp.	2021 Emp.	2031 Emp.	2041 Emp.
240	0	0	0	0	1,680	1,875	1,905	1,940
244	6,470	6,385	6,320	6,255	960	1,100	1,150	1,180
245	5,190	5,110	5,205	5,320	415	485	505	535
246	325	435	515	650	3,065	3,370	3,500	3,565
247	5,310	5,350	5,890	6,325	765	885	985	1,035
260	990	985	1,200	1,410	2,640	3,020	3,065	3,045
261	3,165	3,115	3,090	3,065	295	340	360	355
248	4,350	4,480	4,550	4,620	510	590	645	695
506	4,945	4,865	5,005	5,150	480	575	650	705
507	5,590	5,510	5,775	6,045	895	1,020	1,080	1,120
508	0	0	725	1,465	1,225	1,405	1,495	1,555
509	2,220	2,340	2,925	3,575	280	325	355	365
527	1,355	1,335	1,830	2,375	695	715	765	790
526	0	0	0	600	2,325	2,500	2,635	2,725
525	0	0	0	645	3,965	4,210	4,285	4,345
524	8,265	8,125	9,020	9,960	890	1,010	1,115	1,165
523	9,255	9,130	9,745	11,340	965	1,095	1,235	1,320
528	5,280	5,345	5,550	6,040	2,305	2,745	3,110	3,345
529	0	0	0	0	3,265	3,605	3,725	3,775
530	150	195	240	300	5,515	5,855	6,070	6,235
534	2,555	2,515	2,660	2,770	50	55	60	70
531	9,990	9,840	12,165	14,500	1,000	1,125	1,235	1,295
533	4,135	4,615	4,835	5,335	295	335	370	385
Total	**79,540**	**79,675**	**87,245**	**97,745**	**34,480**	**38,240**	**40,300**	**41,545**

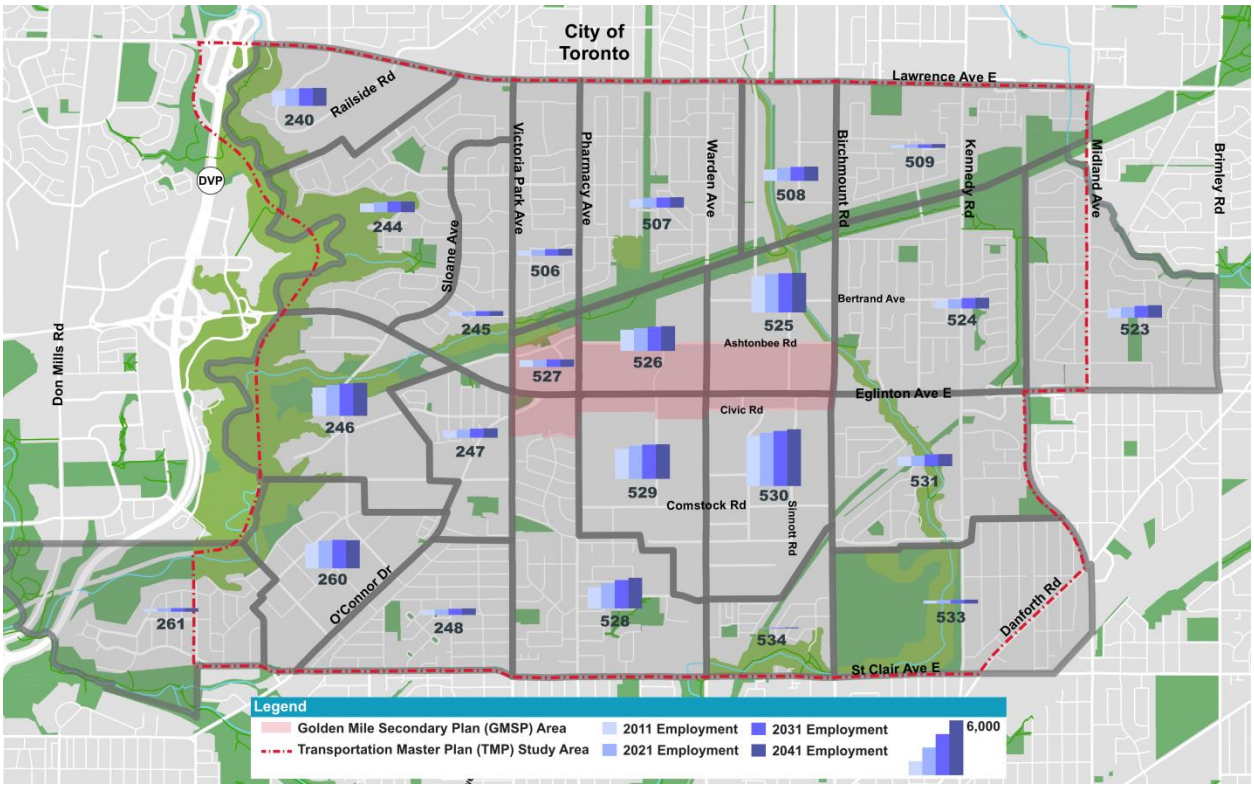
Source: City of Toronto – Population Growth “Low with SmartTrack” Employment Growth “Scenario 2 Medium with SmartTrack”

Figure 4-1. Population Growth (2011 – 2041)



Source: City of Toronto – "Low with SmartTrack" population growth scenario

Figure 4-2. Employment Growth (2011 – 2041)

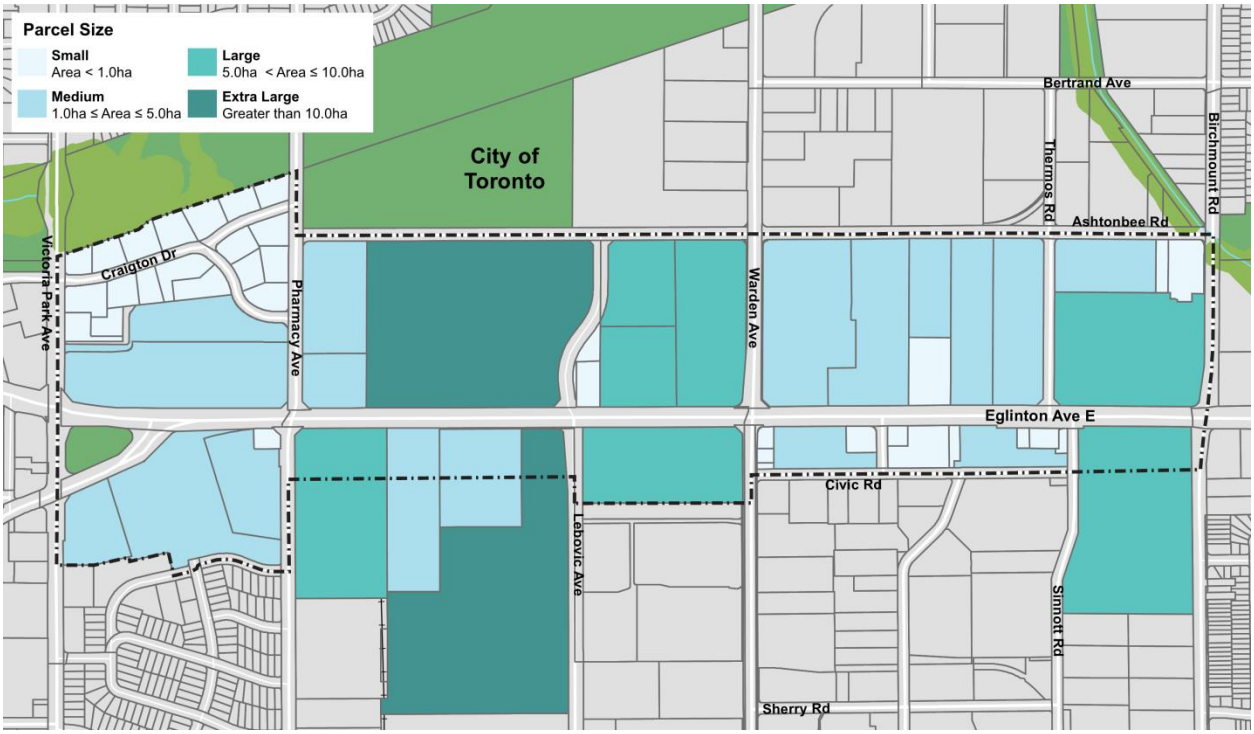


Source: City of Toronto – "Scenario 2 - Medium with SmartTrack" employment growth scenario

4.1.2 Block Pattern and Built Form

The majority of the GMSP study area is divided into medium to large parcels to accommodate the big box mixed land use within the area, as illustrated in **Figure 4-3**. This block pattern and built form can be characterized as auto-centric, where most building and entrances are set back from the street, often accommodating parking lots along the street frontage (**Section 4.1.3**).

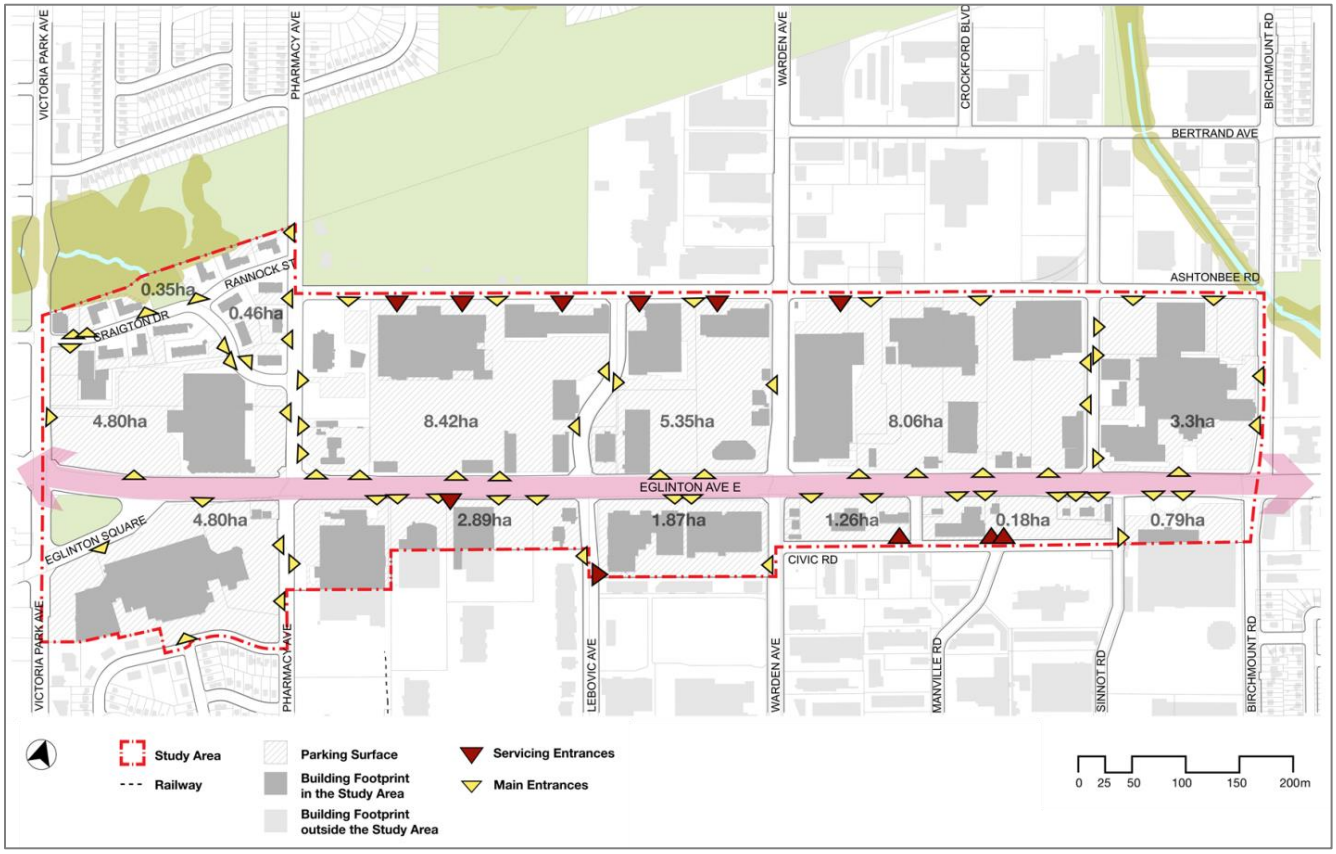
Figure 4-3. Existing Parcel Sizes



4.1.3 Surface Parking

As previously mentioned, the GMSP study area is auto-oriented, characterized by large parcel sizes and parking lots along Eglinton Avenue. **Figure 4-4** illustrates the surface parking in the study area showing that approximately half of the lot coverage is dedicated to surface parking. As a result, the majority of trips destined to the GMSP study area are made by automobile.

Figure 4-4. Surface Parking in GMSP Study Area



Source: SvN

4.2 Travel Context

Travel characteristics are summarized from the historical Transportation Tomorrow Survey (TTS) from 2001, 2006, and 2011, and from a travel survey conducted in June to August of 2017. The travel survey was available online at the study website and hard copies were available to the public at CCM #1 in July and at various PiPS and Pop-Up events throughout July and August 2017 at various locations within the Golden Mile.

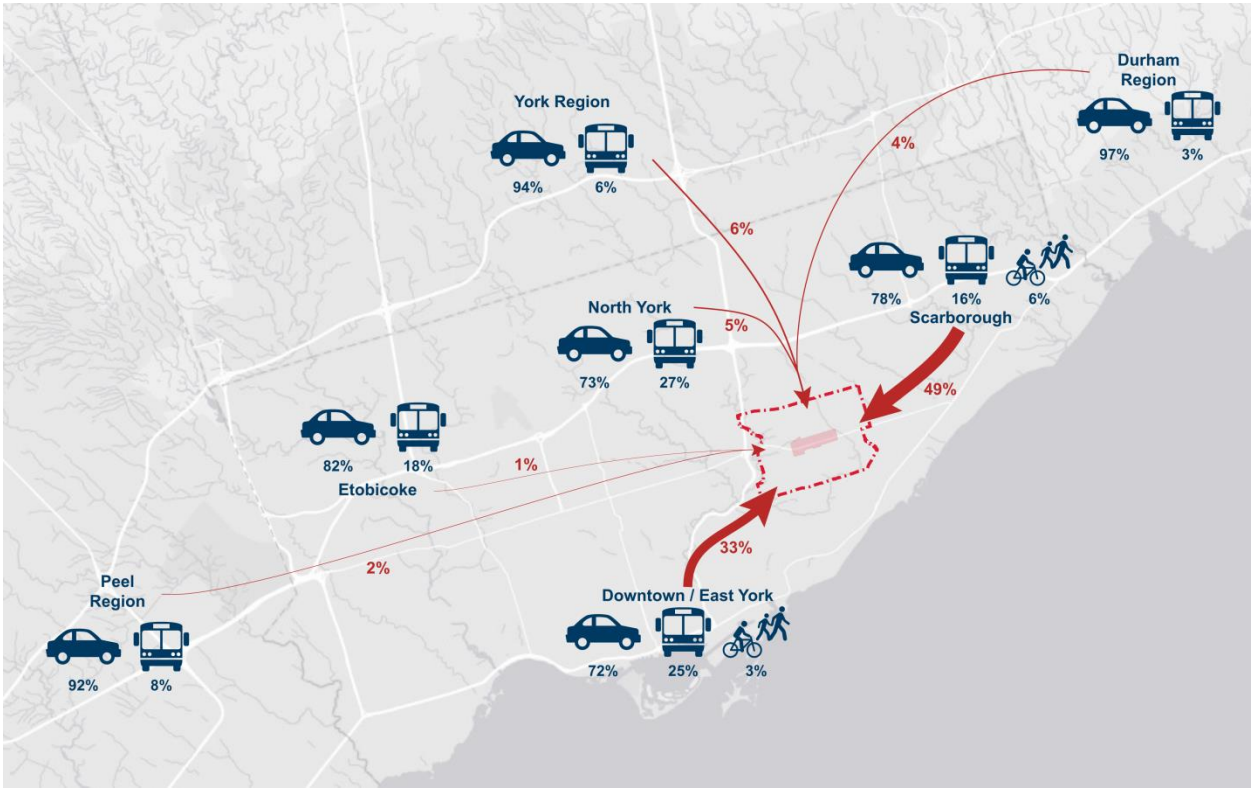
4.2.1 TTS Travel Characteristics (TMP Study Area)

Travel Demand

An origin-destination (OD) analysis of TTS data shows that 87% of commuters to the Golden Mile TMP study area are from the City of Toronto and 12% are from outside the City, as illustrated in **Figure 4-5**. Within Toronto, 49% of all trips are from Scarborough and within the GMSP study area, 33% from Downtown / East York, and 5% from North York. Trips from the City of Toronto have a higher percentage of transit users than regional trips due to their proximity to the Golden Mile and the convenience of a single transit system. Regional travel is dominated by auto trips

due to longer travel distances and the relative difficulty of commuting by transit, which requires transfers between systems.

Figure 4-5. Daily Travel Demand and Modal Split



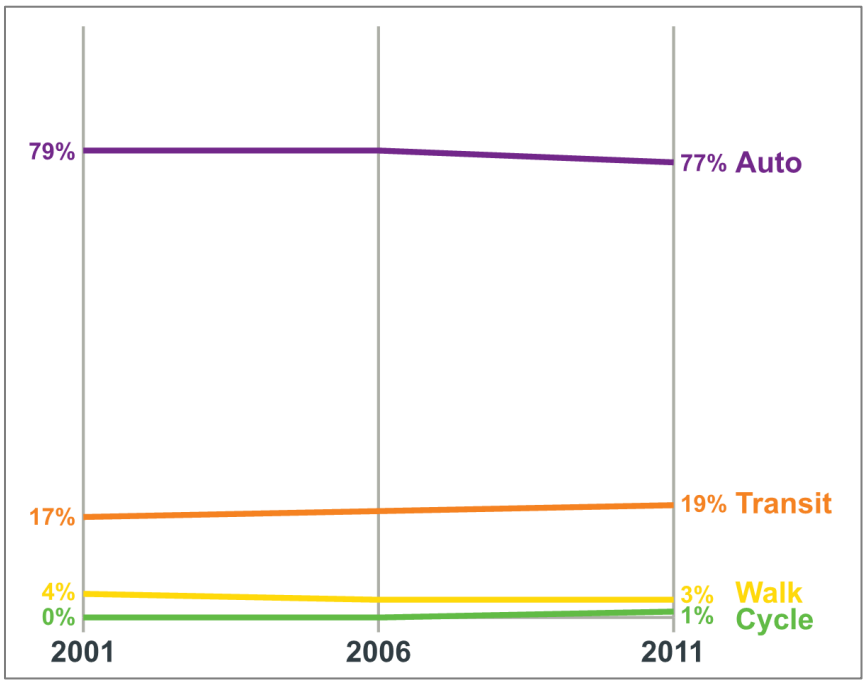
Source: 2011 TTS Data

Modal Split

An analysis of TTS data reveals a minor shift in travel behaviour towards less auto trips and more transit trips. A 2% decrease in auto trips and a 2% increase in transit trips occurred between 2001 and 2011 as shown in **Figure 4-6**. Active transportation trips have overall remained the same which is likely due to the limited active transportation infrastructure and improvements in the area.

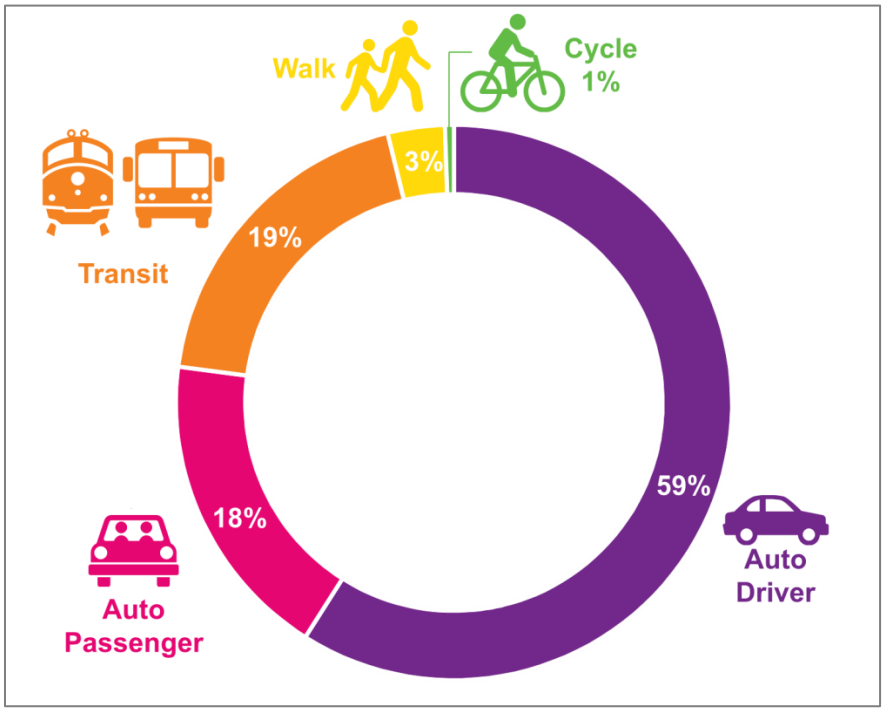
A total of approximately 169,000 trips are made to the Golden Mile TMP study area. Of the 169,000 trips, 59% were made by auto drivers, 18% by auto passengers, 19% by transit, 3% by walking, and 1% by cycling, as illustrated in Figure 4-7. There is a high propensity to travel by car, which is indicative of a primarily auto-oriented, low-density area in close proximity to a major highway.

Figure 4-6. Historic Modal Split (2001 – 2011)



Source: 2001 – 2011 TTS Data

Figure 4-7. Existing Modal Split



Source: 2011 TTS Data

Active Trips

Active transportation is most feasible for trips of a shorter length. As walking trips are typically less than one (1) kilometre long and cycling trips are generally less than five

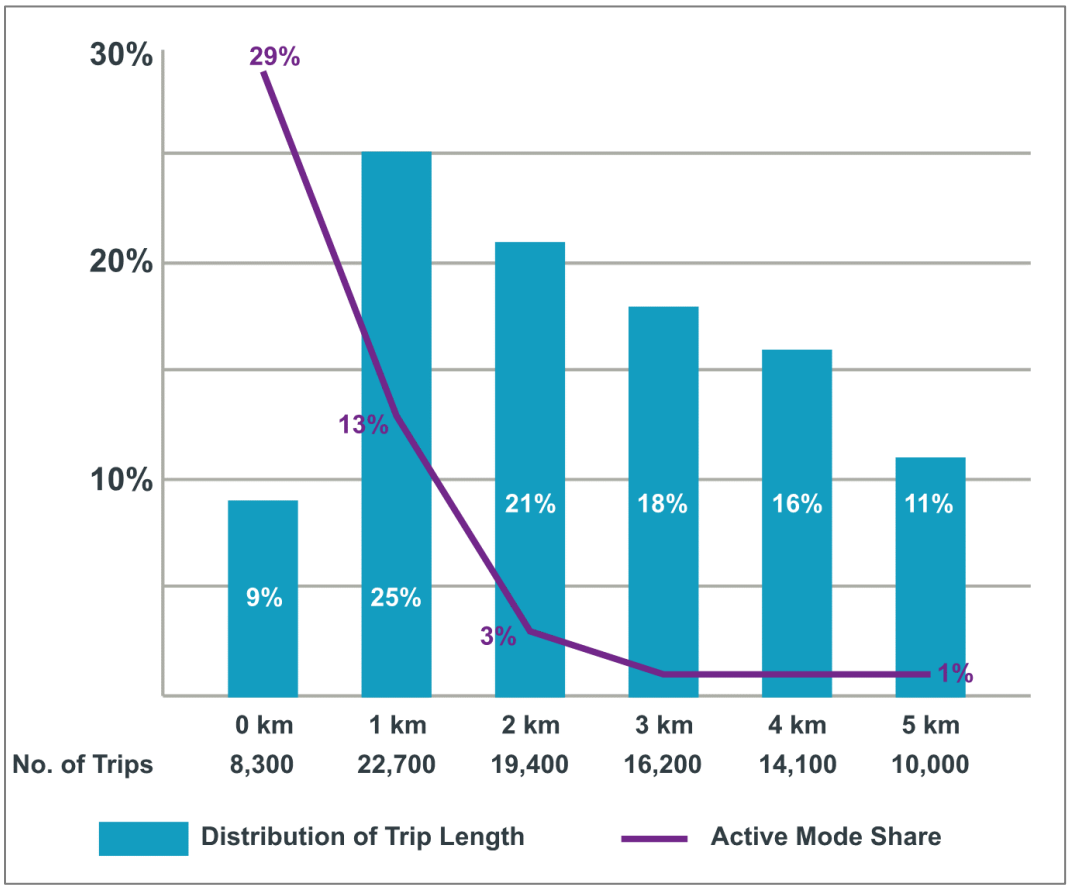
(5) kilometres long; therefore, trips with a length less than or equal to five (5) kilometres are considered to be within walking or cycling distance. For the Golden Mile TMP study area, 54% of all trips made to the study area are less than or equal to five (5) kilometres. Of these trips, only 7% are made by walking or cycling while 80% are made by the private automobile, as illustrated in **Figure 4-8**. There is a greater opportunity to shift trips to active modes due to a high percentage of short trips.

Figure 4-8: Trip Lengths Less Than or Equal To 5KM to Golden Mile

Source: 2011 TTS Data

Figure 4-9 illustrates the trip length distribution and active mode share (i.e. pedestrian and cyclists). The active mode share is higher for trips of shorter length, as seen for trips less than or equal to two (2) kilometres. Despite recognizing that not all trips less than five (5) kilometres can realistically be expected to be active (due to age and ability limitations), even a modest shift in the modal share noted above can result in significant change.

Figure 4-9. Trip Length Distribution (For Trips Less Than or Equal to 5km in Length)



Source: 2011 TTS Data

4.2.2 Golden Mile Travel Survey (GMSP Study Area)

The Golden Mile Transportation Master Plan Travel Survey was designed by HDR with input from the City of Toronto. The survey questions focused on finding out for what purposes respondents travel to the Golden Mile; when and how often; what specific destinations they visit; and what & why modes they use. Questions also explored what factors would contribute to modal shifts in the future. An open-ended response was included for respondents to leave detailed feedback on issues not adequately addressed by specific questions in the survey.

There is a discrepancy between the GMSP Travel Survey and the 2011 TTS modal split, which can be attributed to the survey design as the TTS tends to focus more on a typical day, and under-represent discretionary travel.

The survey was made available online and through hard copies between June 28 and August 14, 2017. Hard copies of the survey were distributed at several public engagement sessions include four (4) City led Planners in Public Spaces (PiPS) events, three (3) consultant team led pop-up engagements, and Community Consultation Meeting (CCM) #1. A total of 143 responses were received during this time.

The detailed travel survey memo is provided in **Appendix B**. The major findings of the survey are as follows:

- Majority of the respondents travel by private auto to and within the Golden Mile, whether as a driver or as a passenger. The proportion of respondents who walk (4%) or cycle (8%) is high compared to the results of 2011 TTS for the Golden Mile TMP study area, which found that only 3% of trips were made by walking and 1% by cycling. This data shows that a higher share of walking and cycling can be supported.
- 88% of auto drivers and 100% of auto passengers choose those modes because they are the quickest options. Few auto drivers drive because of lack of alternatives (15%) or because it is cheaper (22%). This suggests that most people who travel by car, they do so by choice and are unlikely to change their behavior unless driving becomes more costly or other modes more attractive.
- 75% of TTC riders take it because they have no other choice, and 75% because it is cheaper. Few of the respondents (20%) chose the TTC due to its reliability and no respondents chose the TTC because of comfort. This suggests that TTC users are “captive” riders, who may switch to other modes if the opportunity presents itself.
- Two-thirds of respondents whom walking is their primary mode choose this mode because it is the cheapest, and half of them choose walking because it is the quickest way of commuting.
- Over half (55%) of people who ride bicycles choose to do so for environmental reasons.
- Just over half of respondents have a travel time of less than 15 minutes to and/or from the Golden Mile area. Car drivers (63%) and passengers (44%) are most likely to have commute time shorter than 15 minutes, whereas two-thirds of people who walk to and/or from the Golden Mile have travel times between 45 minutes to an hour.
- Approximately a quarter of respondents change their mode of choice based on season. Unsurprisingly, cyclists were most likely to make a seasonal change.
- The survey results clearly illustrate the Golden Mile’s function as a destination for retail and other non-work trips. A significant majority of respondents (87%) stated that their main purpose for travelling to the Golden Mile area on a typical day was for non-work activities. 93% of these trips take place at midday and later, likely because many stores and services are not yet open during the morning.
- Eglinton Crosstown’s opening has the potential to affect a significant mode shift for trips to and/or from Golden Mile. 33% of drivers, 56% of auto passengers, 17% of walkers, and 55% of cyclists would consider shifting to transit.
- When asked to select the top three (3) factors that would make transit more attractive; respondents as a whole prioritized more frequent service and shorter travel times.

- When asked to select the top three (3) factors that would make cycling more attractive, respondents showed a strong preference for physically separated on-street bicycle lanes (55%) followed by new off-street bicycle paths (39%), and new on-street bicycle lanes (34%).
- When asked to select the top three (3) factors that would make walking more attractive, responses were very balanced across a number of factors, except for additional street trees and landscaping which over 50% of respondents identified. Based on these responses, there appears to be support for providing improving streetscaping as a means towards encouraging pedestrian travel.
- Majority (78%) of respondents were not aware of Smart Commute. 52% of all respondents would consider using Smart Commute, however only 44% of drivers would do so.

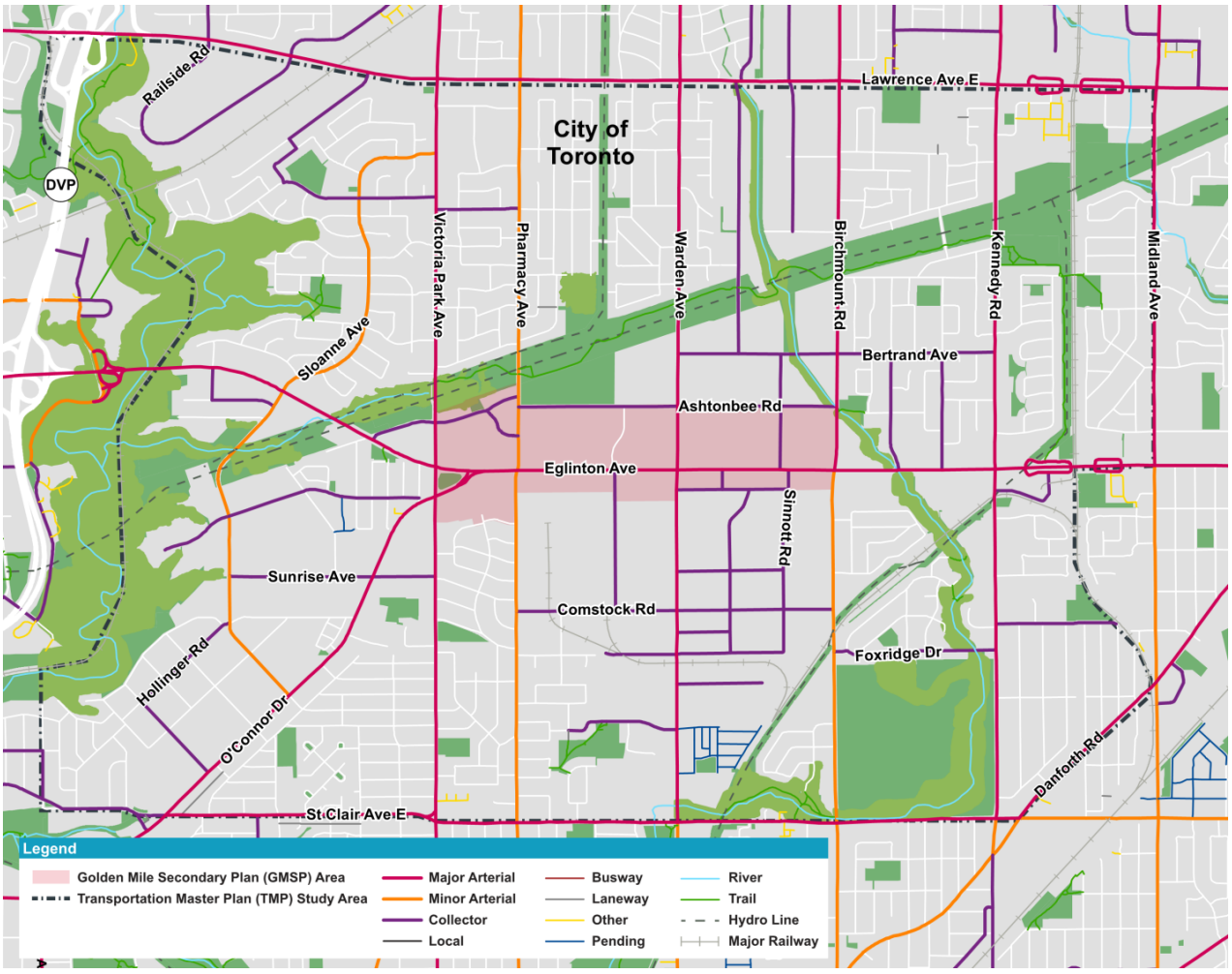
4.3 Street Network Context

4.3.1 Connectivity and Continuity

The Golden Mile and adjacent residential areas are supported by an extensive arterial, collector, and local street network, as illustrated in **Figure 4-10**.

Lawrence Avenue East, Eglinton Avenue East, and St. Clair Avenue East are the major east-west arterials in the TMP study area, with the first two providing direct access to the Don Valley Parkway. As the east-west collector road network has several gaps, the listed arterial roads provide the only continuous east-west connectivity across the study area. As a result, east-west capacity is constrained, leading to congestion in peak periods.

Figure 4-10. Golden Mile Street Network



Source: Toronto Road Classification System, Updated by Council November 27, 2012

North of Eglinton Avenue, Ashtonbee Road provides a good alternate to Eglinton Avenue between Pharmacy Avenue and Birchmount Road. While Craigton Road provides a connection between Pharmacy and Victoria Park Avenues which is not continuous with Ashtonbee Road. To provide a better alternative to Eglinton Avenue, street connectivity improvements should be considered.

South of Eglinton Avenue, Civic Road is the only street in close proximity to Eglinton Avenue which provides an alternative route. The presence of the Eglinton Square mall and large, sprawling retail and industrial buildings hinder the potential for a new street on the south side. In addition, there are several rail spurs that come into the industrial area south of the GMSP study area that resulted in a lack of mid-concession collector roads. Because of this, east-west connectivity through the GMSP and TMP study areas relies heavily on the major arterial roads; therefore, improving east-west connectivity is very important to the future growth and development of the GMSP study area.

The TMP study area is better serviced with north-south connectivity and continuity through several major north-south arterial and collector roads, including Victoria Park

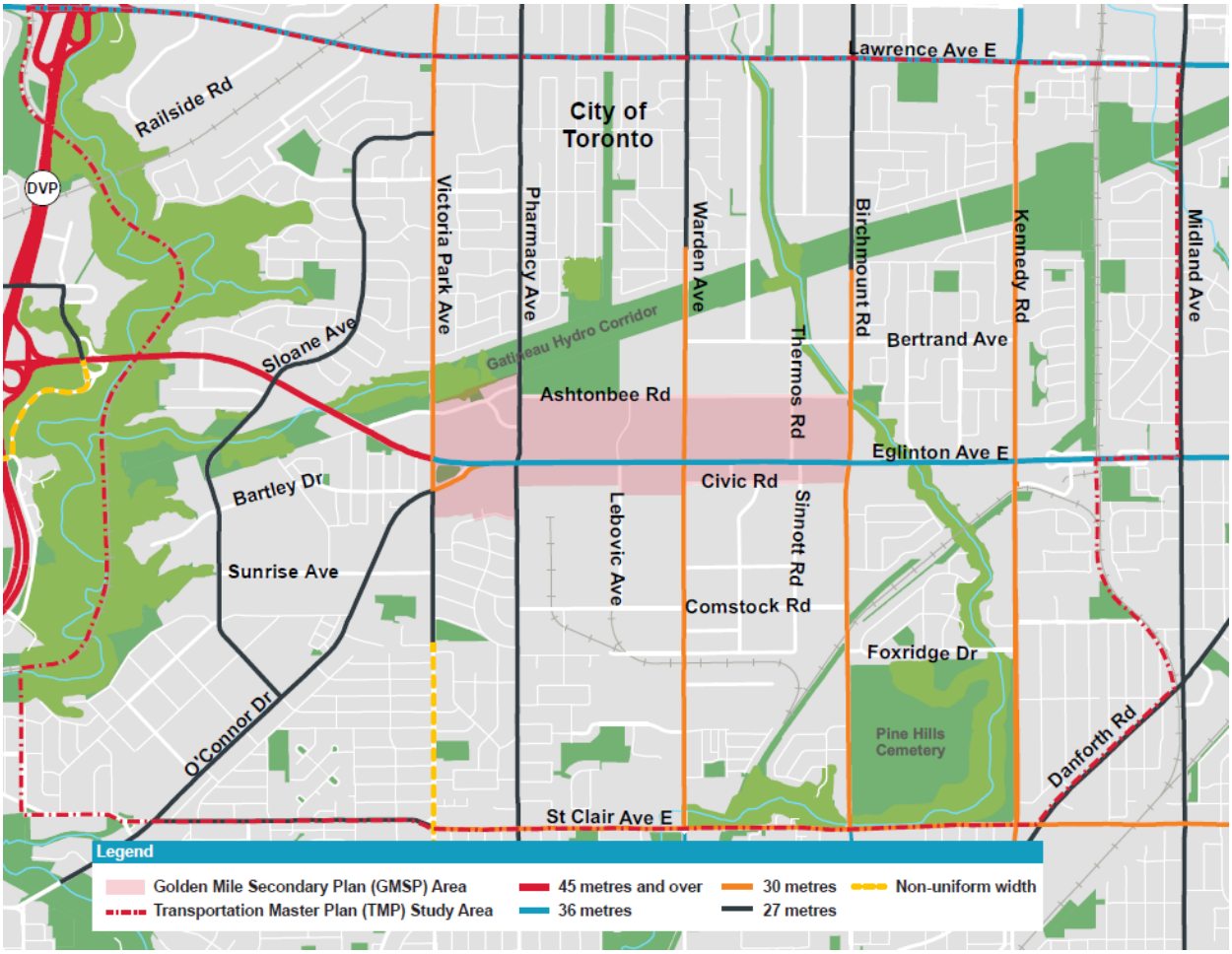
Avenue, Pharmacy Avenue, Warden Avenue, Birchmount Road, Kennedy Road, and Midland Avenue. All of these corridors provide continuous service through the study area. Sloane Avenue and O'Connor Drive also provide a continuous north-south connection to the western residential areas.

Within the GMSP study area, Eglinton Avenue is the major east-west corridor and provides access to several retail areas. As the GMSP study area is made up of large parcels for big-box retailers, there is no finer grid street network to provide connectivity to the adjacent collector and arterial roads. As a result, Eglinton Avenue becomes congested during peak periods; however, there are significant opportunities to improve connectivity through the GMSP study area.

4.3.2 Existing Right-of-Way

The right-of-way of existing arterials and collector roads in the TMP study area, per the City's Official Plan, is illustrated in **Figure 4-11**. Any changes to the cross section of the corridors in the study area, including the addition of pedestrian or cycling infrastructure, will occur in the existing ROW.

Figure 4-11. Right-of-Way



Source: Toronto Official Plan Map 3 - Right-of-Way Widths associated with Existing Major Streets

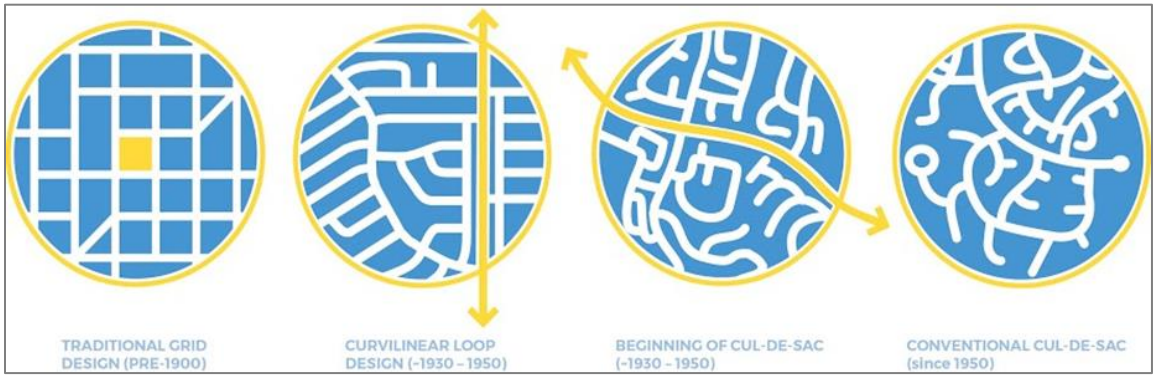
4.3.3 Connectivity Index

A well connected transportation network provides multiple options for different modes of transportation, such as; walking, cycling, transit or car. According to the Victoria Transport Policy Institute, “connectivity refers to the directness of links and the density of connections in path or road network”. A well-connected road or path network has many short links, numerous intersections, and minimal dead ends (cul-de-sacs). As connectivity increases, travel distances decrease and route options increase, allowing more direct travel between destinations, creating a more accessible and resilient system. Based on the City of Calgary Transportation Plan (CTP) Draft Connectivity Handbook, increased connectivity has numerous benefits including[2]:

- Improving public health by providing walking and cycling as a sustainable transportation option;
- Enhancing accessibility to arterial and collector streets and reducing delays for motorists; and
- Reducing walking distances to and from transit stops.

In urban areas, street network concepts are traditionally hierarchical with local, collector and arterial streets. Local streets provide access to land uses while collector streets provide access to local streets, increasing vehicular mobility by increasing distances between access points. Arterial streets are generally found on the outskirts of neighbourhoods and are designed to maximize vehicular mobility while minimizing access points. Many post-World War 2 neighbourhoods were designed with the primary purpose of funneling automobile traffic, minimizing access points (intersections) while including unfriendly elements to walking or cycling in cul-de-sacs and dead ends. **Figure 4-12** illustrates the types of street network design which ranges from the most to least connected neighbourhoods.

Figure 4-12: Types of Street Network Design and Connectivity



Source: Neighbourhood Street Design Guidelines: A Recommended Practice of the Institute of Transportation Engineers, 2010.

[2] The City of Calgary Transportation Plan Connectivity Handbook, Draft, 2010

It is possible to quantify the degree of connectivity of a neighborhood street network. Better connectivity is a key component of good neighborhood design to provide more direct access for transit and active transportation users. In this TMP, connectivity is measured through the Connectivity Index method developed by the City of Calgary.

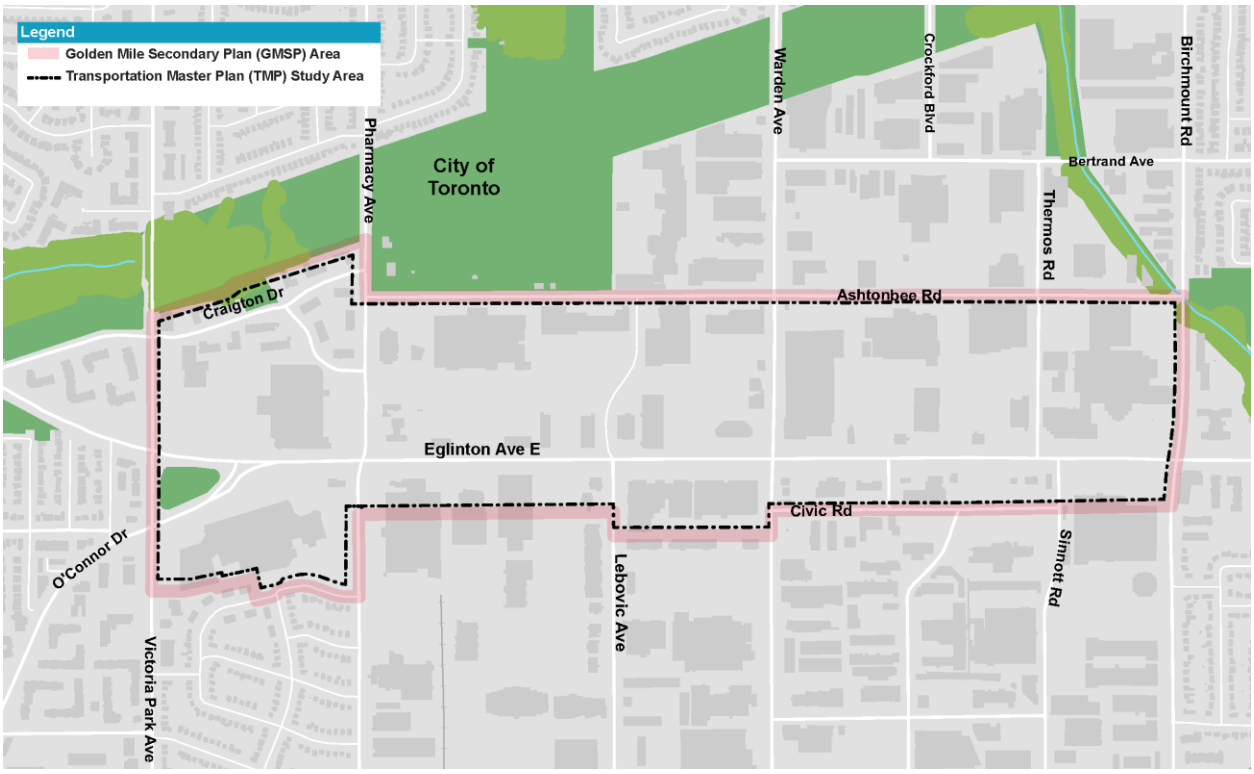
The Connectivity Index (CI) uses the “Links and Nodes” method and measures “street connectivity” for vehicles and an “active mode” index for active transportation users. In this study, the Calgary Connectivity Handbook methodology is used to measure CI, as the same methodology/ approach has been recently utilized for two major mobility hub secondary plan studies in City of Toronto: the Keele-Finch Plus and Don Mills Crossing Phase 1 Reports.

The “Links and Nodes” methodology for the street connectivity calculates the ratio between the streets (links) and intersection (nodes) and crossing the CI analysis area. To calculate the number of links for the CI analysis, all links inside the boundary and crossing the boundary, with the exclusion of alleys and private driveways, are summed up. Links crossing the boundary are included as they provide direct access into the boundary. To calculate the number of nodes for the CI analysis, all intersections within the boundary and any intersections just outside of the boundary are summed up, as long as intersections outside of the boundary include a link that provides access into the boundary. The lowest possible ratio is 1.00 which indicates no connectivity in the study area while the maximum ratio of 2.00 indicates complete connectivity. Based on the Roadway Connectivity: Creating More Connected Roadway and Pathway Networks (2017) paper by the Victoria Transportation Policy Institute, a ratio of 1.4 to 1.7 indicates a desirable index zone for connectivity.

The active modes CI is calculated in a similar manner to the street connectivity index as it also uses the “Links and Nodes” methodology. The main difference with the active modes connectivity index is what is classified as a link. Links for active modes include Multi Use Pathways (MUPs), walkways and other pathways, in addition to streets if they have a sidewalk on one side. A street can only be counted as one link at maximum, even if there are multiple active facilities in the ROW (e.g. sidewalk and bike lane). Based on the Roadway Connectivity: Creating More Connected Roadway and Pathway Networks (2017) paper by the Victoria Transportation Policy Institute, a ratio of 1.5 to 1.8 indicates a desirable index zone for active modes connectivity.

Figure 4-13 illustrates the CI analysis area used for the street and active CI.

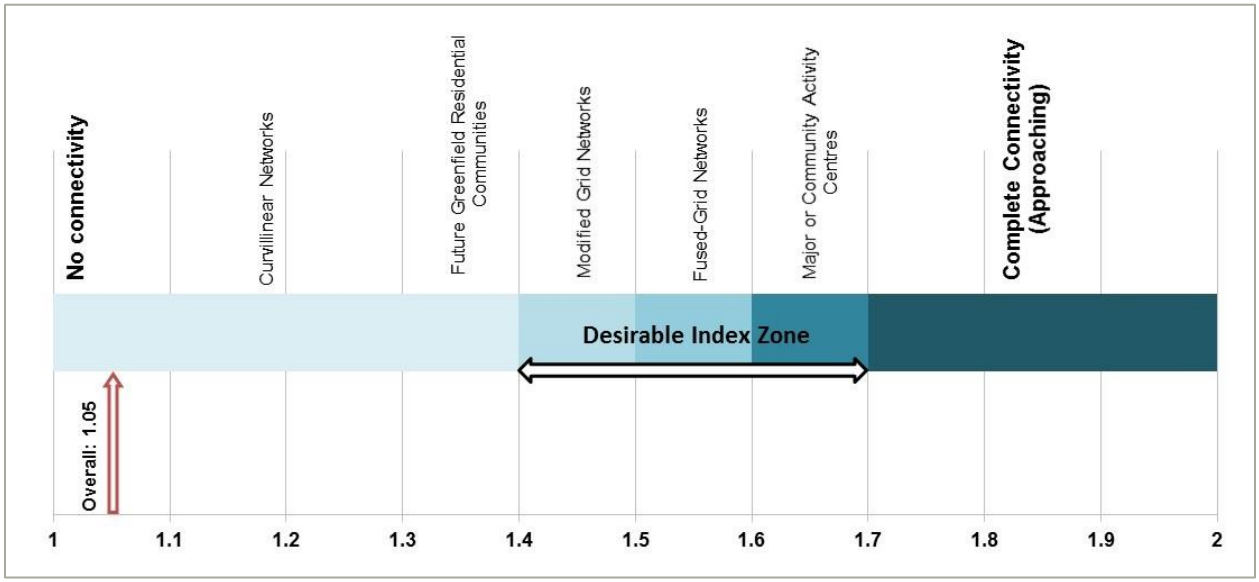
Figure 4-13. Connectivity Index Analysis Area



The street network connectivity index was calculated based on 22 links and 21 nodes in the CI analysis area, resulting in a street connectivity of 1.05 (**Figure 4-14**), which indicates that the vehicular street network has very poor connectivity. This is attributed to the large block pattern which have limited continuous east-west collectors in the study area. Additional east-west and north-south streets in the study area would improve the street network connectivity.

A secondary methodology for calculating the street connectivity that should be considered is the number of intersections per hectare, known as intersection density. Based on MTO's Transit-Supportive Guidelines (2012), mixed-use nodes and corridors should achieve an intersection density of over 0.6. The GMSP study area has a total of 23 intersections over approximately 100 hectares, resulting in an intersection density of 0.23. This low score indicates that the area comprises large blocks and undeveloped area (surface parking), as seen in **Section 4.1.2** and **Section 4.1.3**.

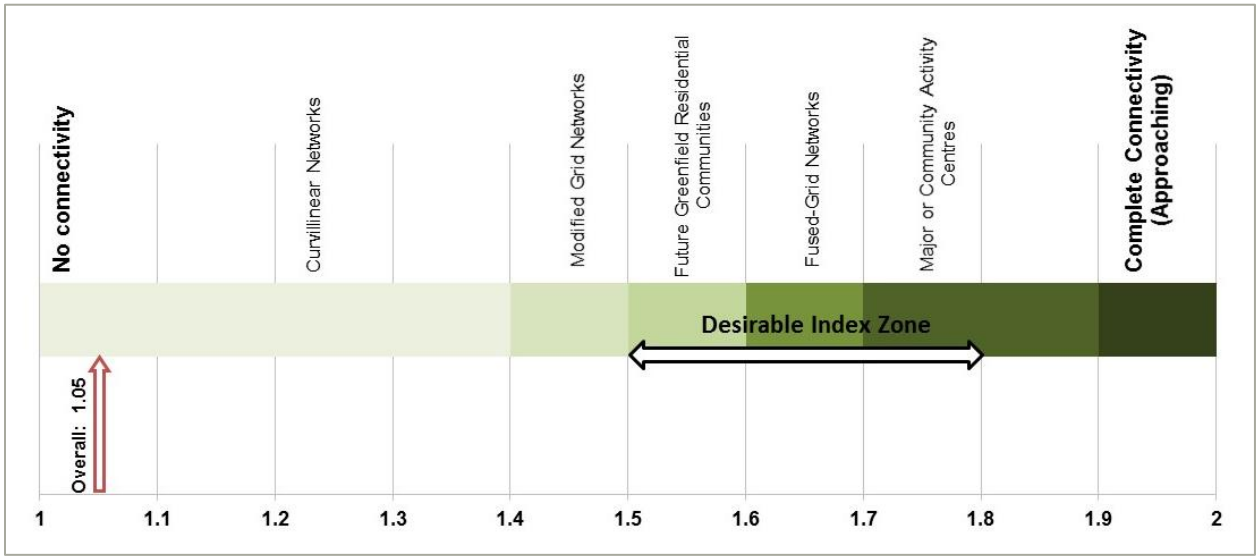
Figure 4-14: Street Network Connectivity Index



The active modes connectivity index was calculated based on 20 links and 19 nodes in the CI analysis area, resulting in an active connectivity of 1.05 (**Figure 4-15**). Prudham Gate and Sinnott Road are excluded from this calculation as they do not have sidewalks. Since these links are excluded, the intersections of Prudham Gate and Sinnott Road at Civic Road are also excluded, as only nodes with active links can be included in the calculation. This is a shortcoming of the methodology as these nodes should be included to represent the lack of pedestrian connections in the street ROW. With these nodes included, the active modes connectivity index would be reduced to 0.95, indicating no active connectivity within the study area.

This disconnected network is due to lack of sidewalk connections, paths, and large parcel blocks. Improving active transportation connectivity with more routes, safer and more comfortable conditions will be an important focus of the future planning framework for Golden Mile TMP study.

Figure 4-15: Active Transportation Network Connectivity Index



4.4 Transit Network

4.4.1 Inter-Regional Transit

Existing Routes

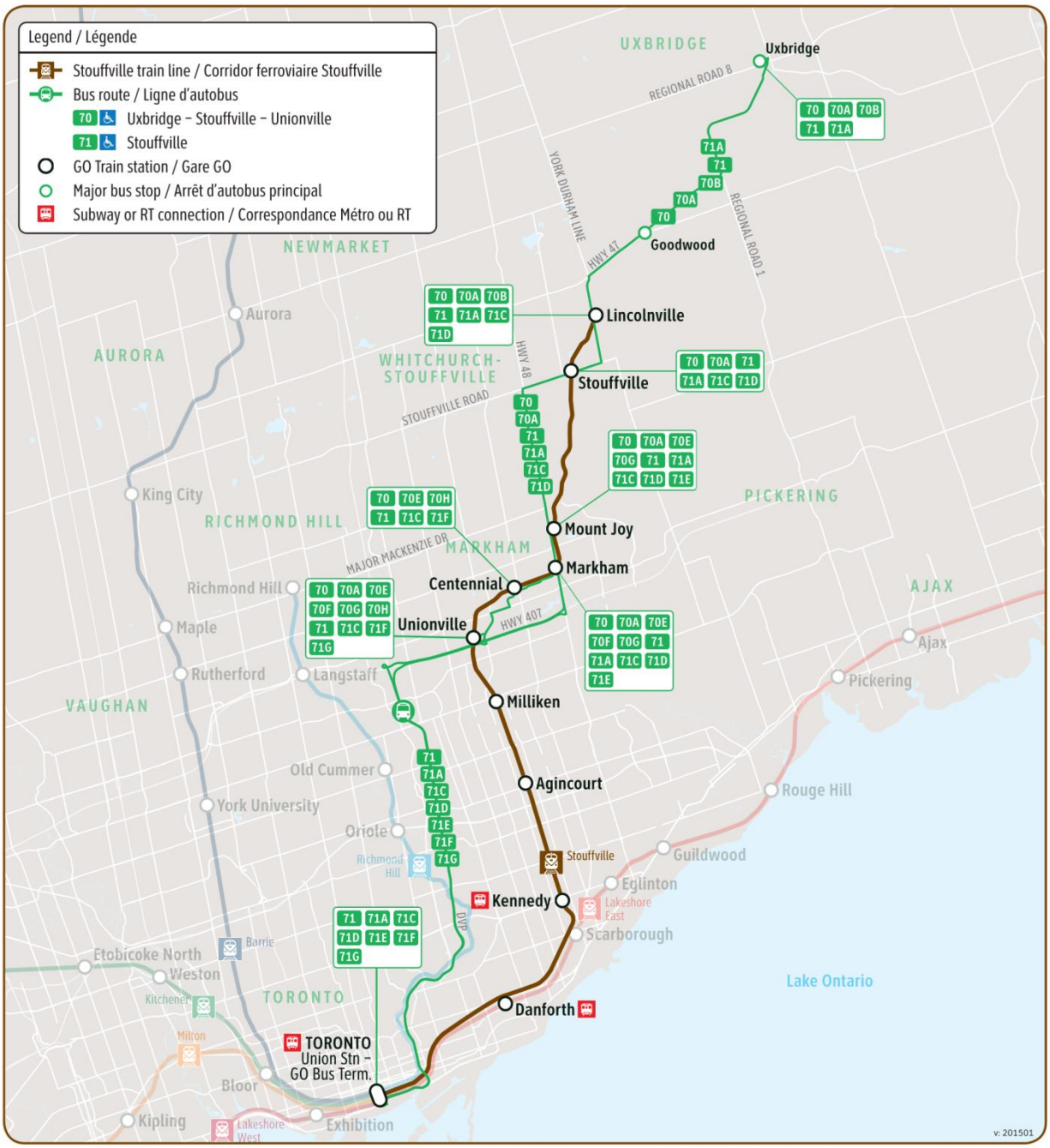
GO Transit offers inter-regional transit for users in the Golden Mile through two (2) rail lines: Stouffville and Lakeshore East. These routes provide connections to Union Station, Markham, Stouffville, Pickering, Ajax, Whitby, and Oshawa. Although the Richmond Hill line is located at the western end of the TMP study area, it does not have any stops in the area.

Two (2) GO Transit stations are located by the edge of the Golden Mile TMP study area: Kennedy GO Station and Scarborough GO Station.

The Kennedy GO Station is on the Stouffville GO Rail Line and is located on Eglinton Avenue between Kennedy Road and Midland Avenue. **Figure 4-16** illustrates the GO Rail service for Kennedy GO Station. During weekdays, hourly train service is available all day for both directions. Additional trains run in the peak direction during peak hours providing half hour service. There is no weekend rail service for Kennedy GO Station.

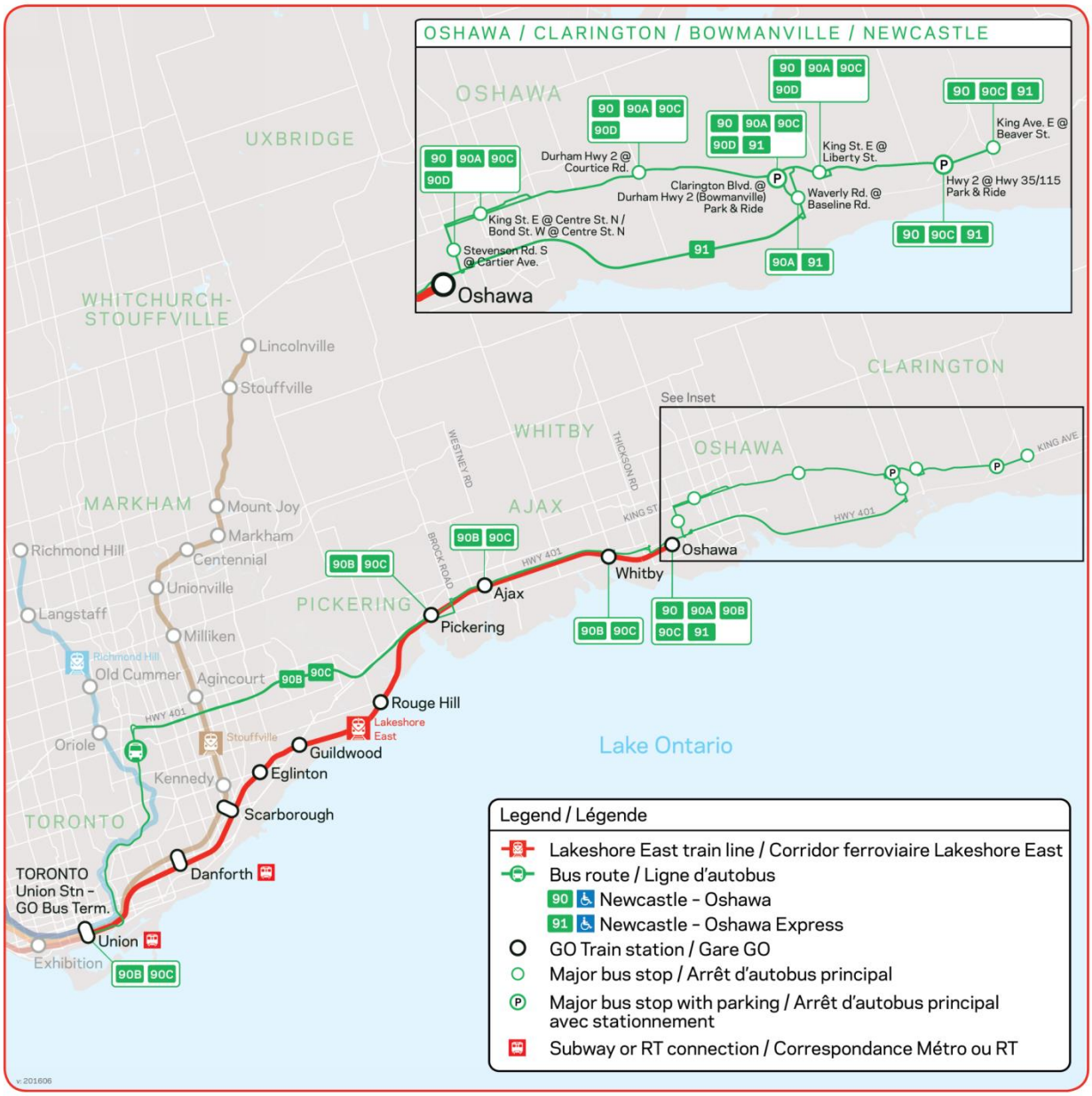
Scarborough GO Station is on the Lakeshore East Rail line, but also can be serviced by the Stouffville Rail Line. **Figure 4-17** illustrates the GO Rail service for the station. It is located on St. Clair Avenue between Kennedy Road and Midland Avenue. Lakeshore East train service provides two-way, all day train service every half hour on weekdays and weekends. Additional trains are provided on weekdays during the peak periods. The Stouffville Rail Line services the station only once per day, in the eastbound direction in the peak period.

Figure 4-16. Stouffville GO Rail Service



Source: Metrolinx Route Maps,
http://www.gotransit.com/timetables/en/PDF/Maps/06170917/Table71.pdf

Figure 4-17. Lakeshore East GO Rail Service



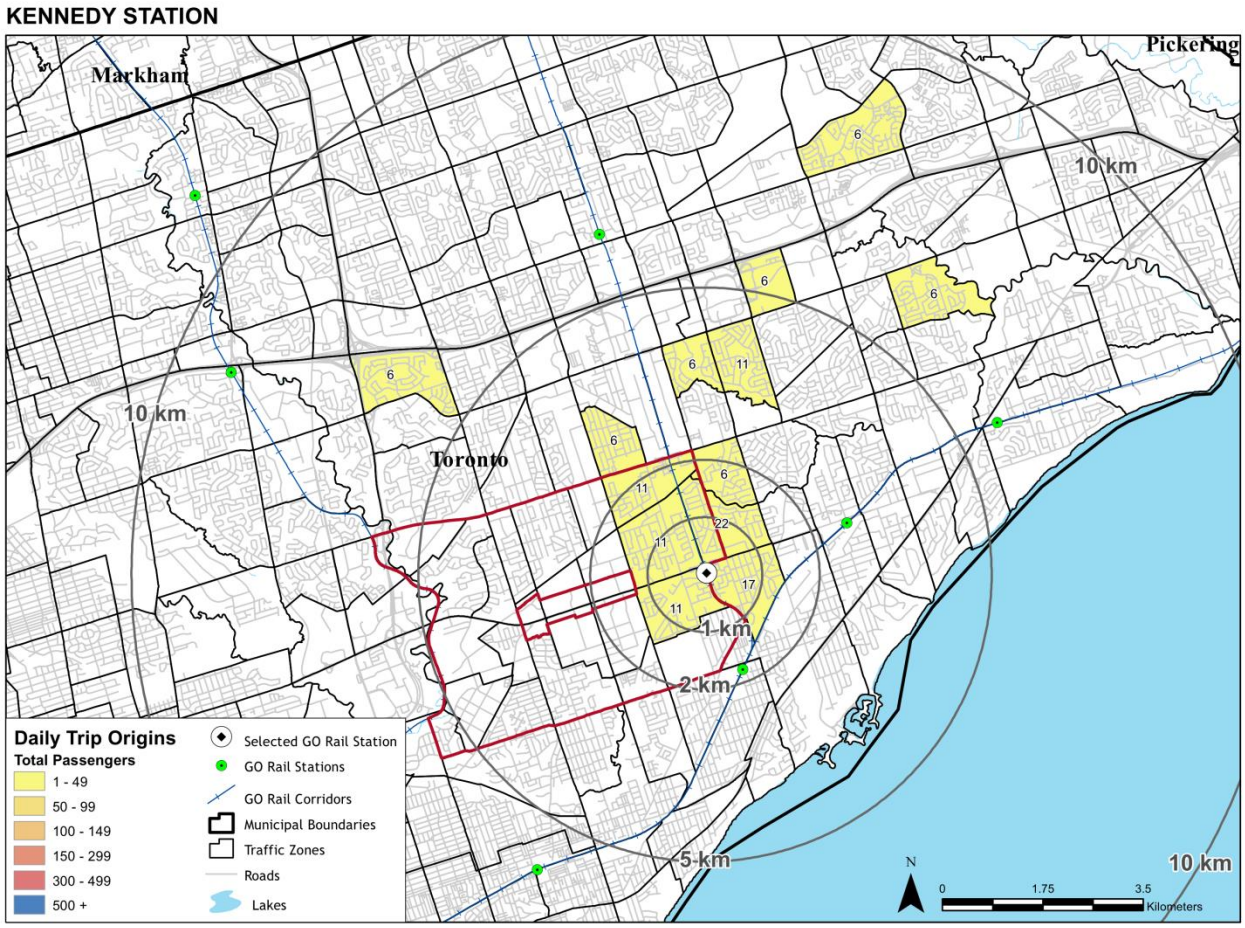
Source: Metrolinx Route Maps, http://www.gotransit.com/timetables/en/PDF/Maps/06170917/Table9.pdf

Existing Demand

According to the 2015 GO Rail Origin Destination (OD) Survey provided by MTO, there were 123 boardings[3] at Kennedy GO Station and 779 boardings at Scarborough GO Station, illustrated in **Figure 4-18** and **Figure 4-19** respectively.

[3] The survey data was expanded to represent total ridership, however due to a small sample size (less than 30 records), results should be interpreted with caution.

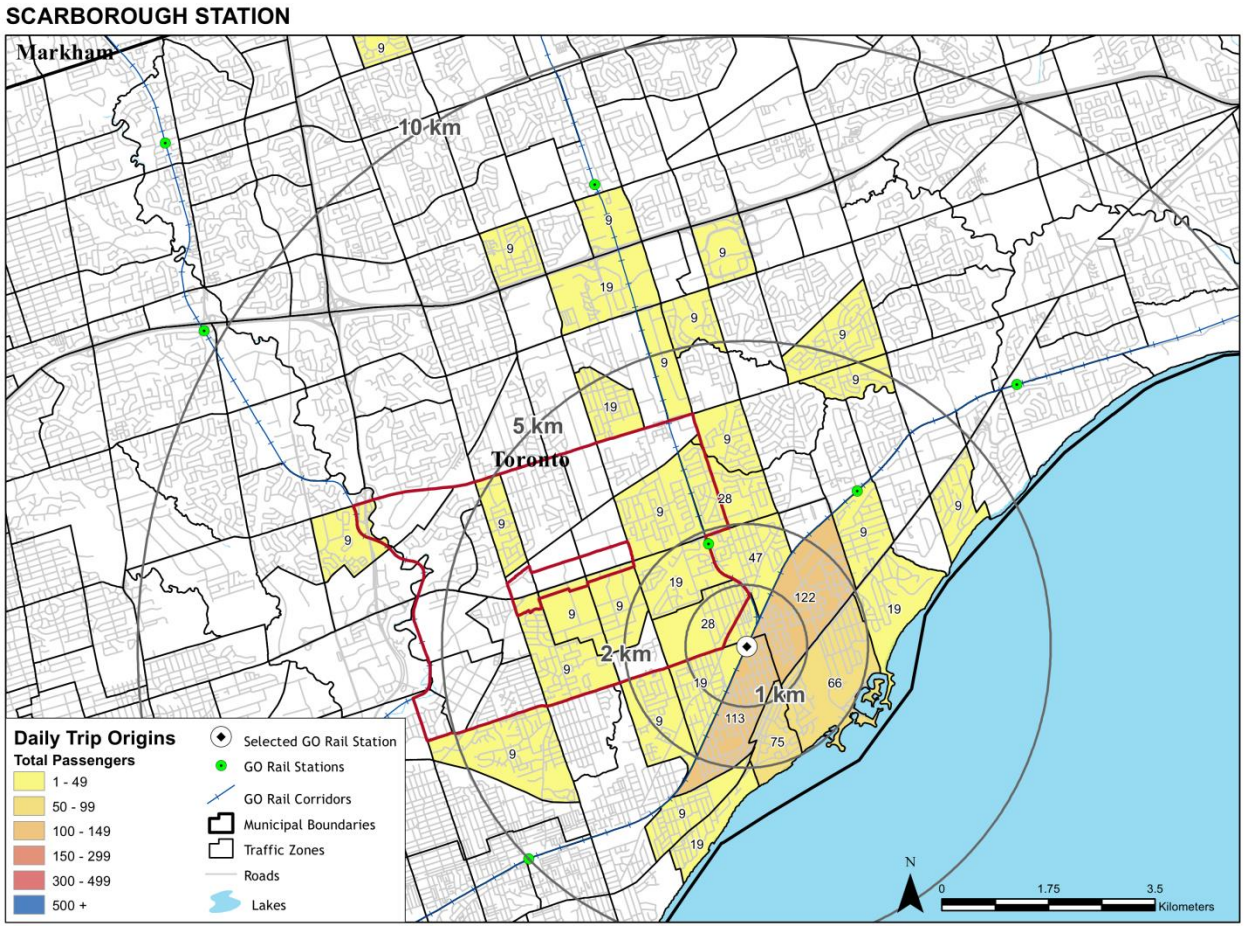
Figure 4-18. Kennedy GO Station – Daily GO Rail Trip Origins



Source: Metrolinx 2015 GO Rail OD Survey

Note: The survey data was expanded to represent total ridership, however due to a small sample size (less than 30 records), results should be interpreted with caution.

Figure 4-19. Scarborough GO Station – Daily GO Rail Trip Origins



Source: Metrolinx 2015 GO Rail OD Survey

Table 4-2 illustrates the number of trips by access distance for each GO Station. Due to the small sample size for Kennedy GO Station, the number of trips is similar from all distances. For Scarborough GO Station, 30% of trips are within two (2) kilometres of the station, and only 21% of trips originated more than five (5) kilometres away from the station.

Table 4-3 illustrates mode of access at Scarborough and Kennedy GO Stations. The data show differing access characteristics. At Kennedy GO, the majority of passengers (40%) walked while at Scarborough GO Station the majority of passengers (58%) drove to the station.

Table 4-2. Number of Trips by Access Distance

Access Distance	Kennedy GO Station	Kennedy GO Station %	Scarborough GO Station	Scarborough GO Station %
< 1km	22	18%	56	7%
1 ≤ distance < 2km	34	27%	235	30%
2 ≤ distance < 5 km	34	27%	338	42%
≥ 5 km	34	28%	169	21%
Total	124	100%	798	100%

Source: Metrolinx 2015 GO Rail OD Survey

Table 4-3. GO Rail Trip Access Mode

Access Mode	Kennedy GO Station	Kennedy GO Station %	Scarborough GO Station	Scarborough GO Station %
Drove Myself (parked at GO Station)	28	23%	469	58%
Carpooled (as driver or passenger)	-	-	19	2%
Passenger in a Vehicle (dropped off)	17	14%	132	17%
Passenger in a Vehicle (parked at GO Station)	-	-	28	4%
Local Transit	28	23%	-	-
Specialized Transit (i.e. Wheel Trans)	-	-	9	1%
Walked	51	40%	132	17%
Cycled	-	-	9	1%
Total	124	100%	798	100%

Source: Metrolinx 2015 GO Rail OD Survey

Future Network Plans and Opportunities

Metrolinx introduced a 10-year program for the Regional Express Rail (RER), which aims to provide improved service by running trains more frequently, providing all day service, and faster electric trains.

RER will introduce all day 15-minute service in both directions during weekdays and weekends to the Kennedy and Scarborough GO Stations. The demand between the Golden Mile TMP study area these two GO stations illustrates existing demand to access the Stouffville GO line and Lakeshore East GO line respectively. It is noted that future demand to access these GO lines will be provided through the ECLRT connection to Kennedy GO on the Stouffville GO line in the short term, while a longer

term future connection to the Lakeshore East GO line, via Eglinton GO station will be provided through the Eglinton East LRT project.

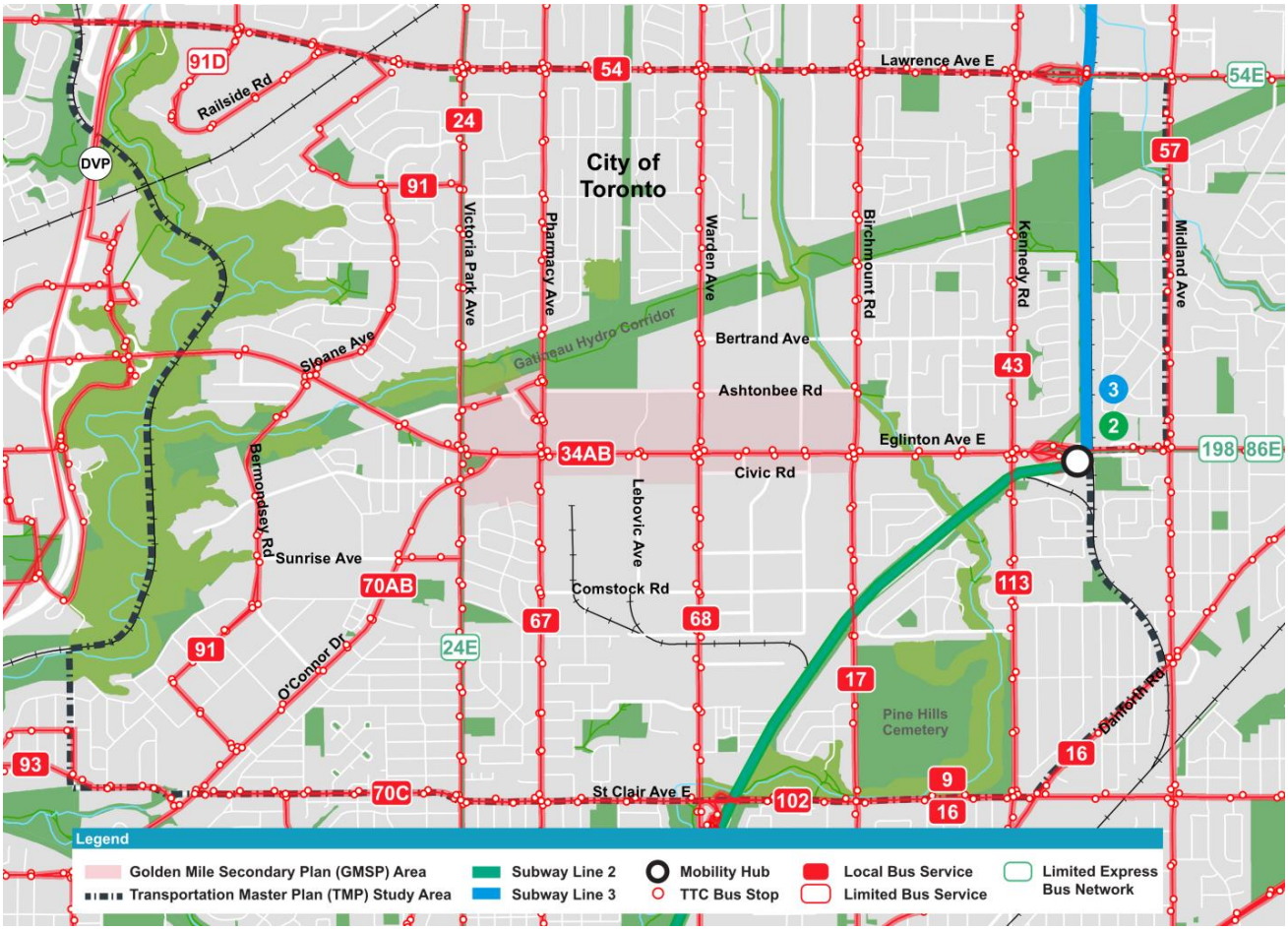
4.4.2 Local Transit

Routes

The Golden Mile TMP study area is served by the TTC transit network, as illustrated in **Figure 4-20**. The majority of the arterial and collector road network is serviced by the local bus service, with few corridors serviced by the limited bus service and limited express bus network. The eastern end of the study area is also serviced by TTC Subway Line 2 (Bloor-Danforth) and Line 3 (Scarborough) through the Kennedy Subway Station.

There are a total of five (5) unique bus routes and at least 56 buses during the AM peak hour that service the GMSP study area.

Figure 4-20. TTC Service within the Golden Mile TMP Study Area



Source: TTC

Demand and Quality of Service

Table 4-4 summarizes the transit ridership for the five (5) TTC bus routes in the GMSP study area. The TTC bus capacity is based on the TTC crowding standards, which limits capacity to approximately 51 people.

Table 4-4: Summary of Transit Demand in the GMSP Study Area (Peak Direction)

Bus Routes (in study area)	Peak Direction Ridership AM (PM)	Buses Per Peak Hour AM (PM)	Transit Route Capacity (TTC Crowding Standards) AM (PM)	Max. Segment V/C AM (PM)
17 Birchmount	312 (301)	8 (8)	408 (408)	0.73 (0.74)
24 Victoria Park	557 (493)	10-16 (10-16)[1]	510-816 (510-816)[1]	0.68 (0.60)
34 Eglinton East	513 (619)	11 (16)	561 (816)	0.89 (0.76)
67 Pharmacy	134 (108)	3-7[2] (5)	153-357[2] (255)	0.83 (0.42)
68 Warden	532 (391)	13 (10)	663 (510)	0.83 (0.77)

[1]Range due to express bus service (24E) at Eglinton Square and Eglinton Avenue
[2]Range due to additional service (67B) south of Rannock Street

Figure 4-21 and **Figure 4-22** illustrate the AM and PM peak hour ridership and transit vehicle/capacity (v/c) ratio, the latter serving as a proxy for Transit Level of Service (LOS). Eglinton Avenue and Warden Avenue experience the highest transit demand in the study area and operate between 50 – 100% of capacity in the peak direction. Victoria Park Avenue experiences moderate demand in both directions during both peak periods and operates at 50-75% capacity while other routes exhibit a more obvious “peak direction”.

Figure 4-21. Transit Demand and V/C Ratio (AM Peak Hour)

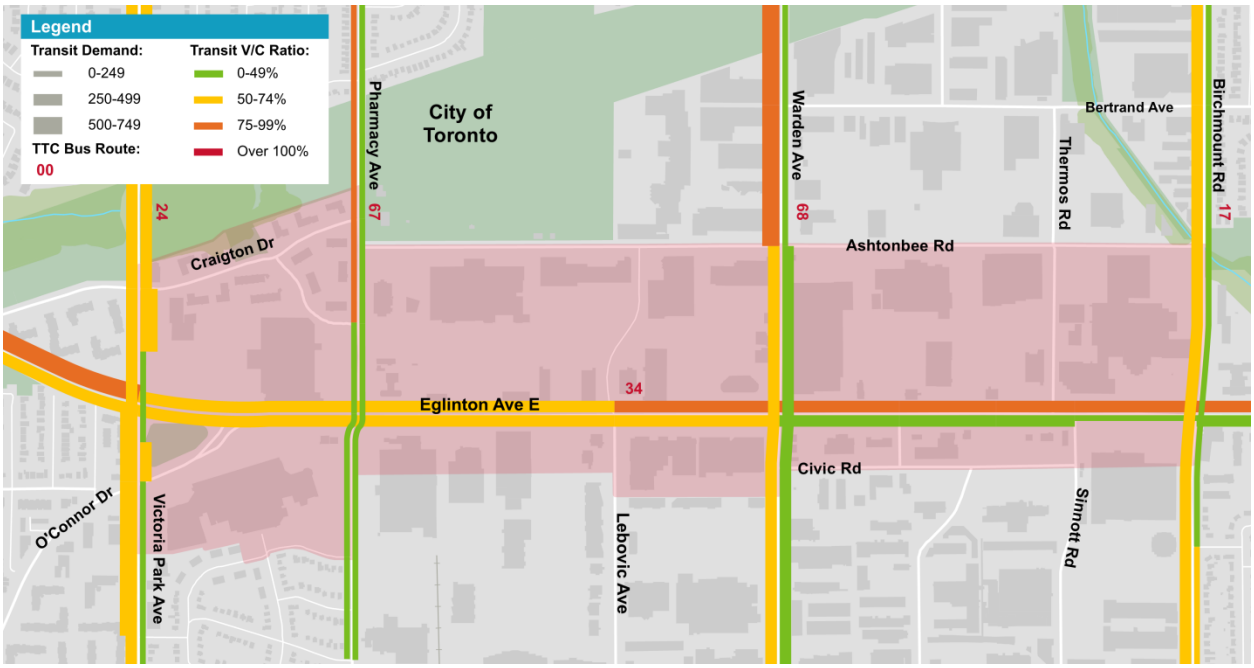
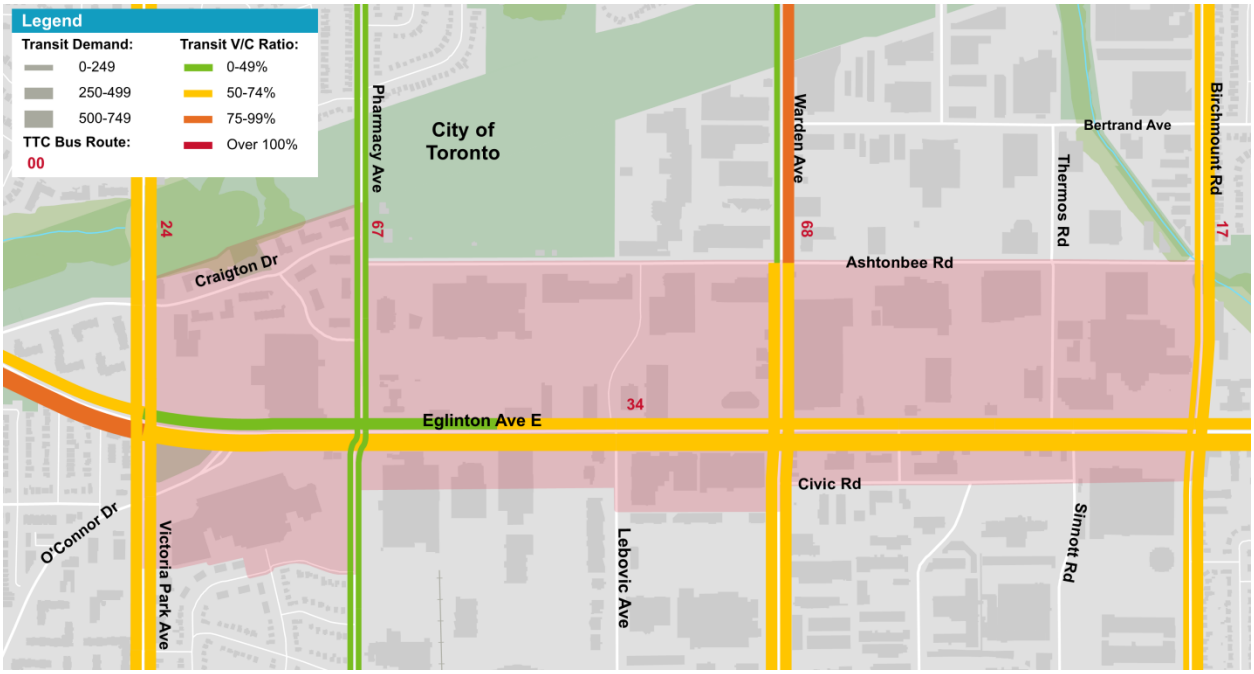


Figure 4-22. Transit Demand and V/C Ratio (PM Peak Hour)



Service Planning Standards

The TTC maintains service planning standards and criteria for various performance measures. These criteria, based on the standards released in May 2017, are identified in **Table 4-5** and are compared against the characteristics observed in the GMSP study area.

On average, only 65% of the time transit service reliability is within three (3) minutes of the scheduled headway. Improving transit priority could be beneficial to schedule reliability for the transit routes within the GMSP study area.

Table 4-5: TTC Service Planning Standards vs GMSP Study Area Transit Service

Criteria	TTC Service Standard	Observed Service
Average Travel Speed	No speed criteria – slower speeds however impact operating costs	17 Birchmount: 19.3 km/h 24 Victoria Park: 15.8 km/h 34 Eglinton East: 13.7 km/h 67 Pharmacy: 19.3 km/h 68 Warden: 17.2 km/h
In-Vehicle Volume / Capacity[1]	Peak: 50 – 53 persons max to regular bus, 77 for articulated buses	17 Birchmount: Sufficient capacity 24 Victoria Park: Sufficient capacity 34 Eglinton East: Approaching capacity 67 Pharmacy: Sufficient capacity 68 Warden: Approaching capacity
Stop Spacing	300 – 400m	17 Birchmount: 310m average 24 Victoria Park: 195m average 34 Eglinton East: 280m average 67 Pharmacy: 190m average 68 Warden: 260m average
Reliability[2]	+/-3 minutes of scheduled headway	17 Birchmount: meets the standard 66% of the time 24 Victoria Park: meets the standard 62% of the time 34 Eglinton East: meets the standard 69% of the time 67 Pharmacy: meets the standard 64% of the time 68 Warden: meets the standard 60% of the time

[1]Approaching capacity is based on a v/c ratio over 0.75
[2]Based on the TTC 2014 Q4 Quarterly Route Performance Report

4.5 Bicycle Movement

4.5.1 Cycling Network

The existing and planned cycling network for the Golden Mile TMP study area is illustrated in **Figure 4-23**. Existing cycling infrastructure within the study area is limited; the Gatineau Hydro Corridor trail (extended west to Eglinton Avenue in 2018) and other off-street trails make up most of the existing cycling infrastructure.

Proposed cycling infrastructure reflects the City of Toronto's Ten Year Plan, which was approved by City Council on June 9, 2016. There is significant planned cycling infrastructure in the study area, including proposed bike lanes / cycle tracks along major corridors (i.e. Eglinton Avenue, Victoria Park Avenue, and Sloane Avenue /

Bermondsey Road). Cycling connectivity to the study area from other areas of Toronto will also be improved by the Meadoway project, which will integrate the existing Gatineau Hydro Corridor Trail into a 16km linear urban park and trail system connecting Downtown Toronto to Rouge Park. Previous projects have constructed a total of 10 km of trail. Planning for the remaining six kilometers is underway.

Figure 4-23. Existing and Planned Cycling Facilities in the Golden Mile TMP Study Area

Source: City of Toronto Cycling Network Ten Year Plan (2016) with updates provided by City

4.5.2 Bicycling Level of Service (BLOS)

The methodology employed for this study is based on the City of Ottawa Multi-Modal Level of Service (MMLOS) Guidelines. These guidelines were selected over other variations mainly for their intuitiveness, accommodation of contemporary facility designs, and explicit recognition that cycling LOS should be based on user comfort, safety, and convenience and are thus subjective in nature.

Bicycling Level of Service (BLOS) is calculated at the intersection and mid-block in recognition that, unlike vehicular LOS, a cyclist's experience is determined by the conditions both between crossings and at the crossing itself.

The methodology for the evaluation of segment BLOS utilizes a look-up table approach based on roadway characteristics and facility type and quality. The methodology measures each segment's and intersection's Level of Traffic Stress (LTS) experienced by the cyclist, established in the Mineta Transportation Institute report (no. 11-19). Each LTS score is associated with a category of cyclist (e.g. "all ages" to "very confident cyclists only") and score (A to F). Segment BLOS are calculated using a look-up table approach and considers facility type, street width, operating speed, and parking characteristics. At the intersection, the left and right turning conditions are evaluated with a look-up table approach as well as the average score of the approaches to determine the overall intersection BLOS.

Segment BLOS is the most sensitive to facility type, with physically separated bikeways such as cycle tracks, protected bike lanes and multi-use paths receiving a score of 'A' while cycling in mixed traffic conditions with varying operating speeds and street widths generally scoring lower of 'D' to 'F'. The scoring ranges as follows:

- **BLOS 'A' to 'C' –** Physically separated facilities such as cycle tracks, protected bike lanes, and multi-use paths (MUPs) are attractive to most cyclists. At intersections, continuous cycling facilities are provided and separated from vehicles and pedestrians.
- **BLOS 'D' to 'E' –** Designated bike lanes adjacent to high speed traffic lanes or shared facilities on low volume, low speed streets with wide curb lanes provide some comfort, but the majority of potential cyclists typically will not cycle. Greater conflicts at intersections with turning vehicles are experienced.
- **BLOS 'F' –** Non-separated, shared roadways with high traffic volumes and speeds, and no accommodations at intersections.

Figure 4-24 illustrates the BLOS in the GMSP study area. There is very limited cycling infrastructure in the study area, therefore many intersections and segments experience a BLOS of 'D' or worse due to high vehicular operating speeds and high traffic volumes. Quieter streets without bicycle infrastructure, including Craigton Drive and Civic Road, operate with a BLOS of 'B' due to low operating speeds and low traffic volumes. Although Civic Road does provide access to goods movement vehicles, the type of vehicular traffic accessing a segment is not currently considered as part of the bicycling methodology.

Figure 4-24. Bicycling Intersection and Segment Level of Service

4.6 Pedestrian Movement

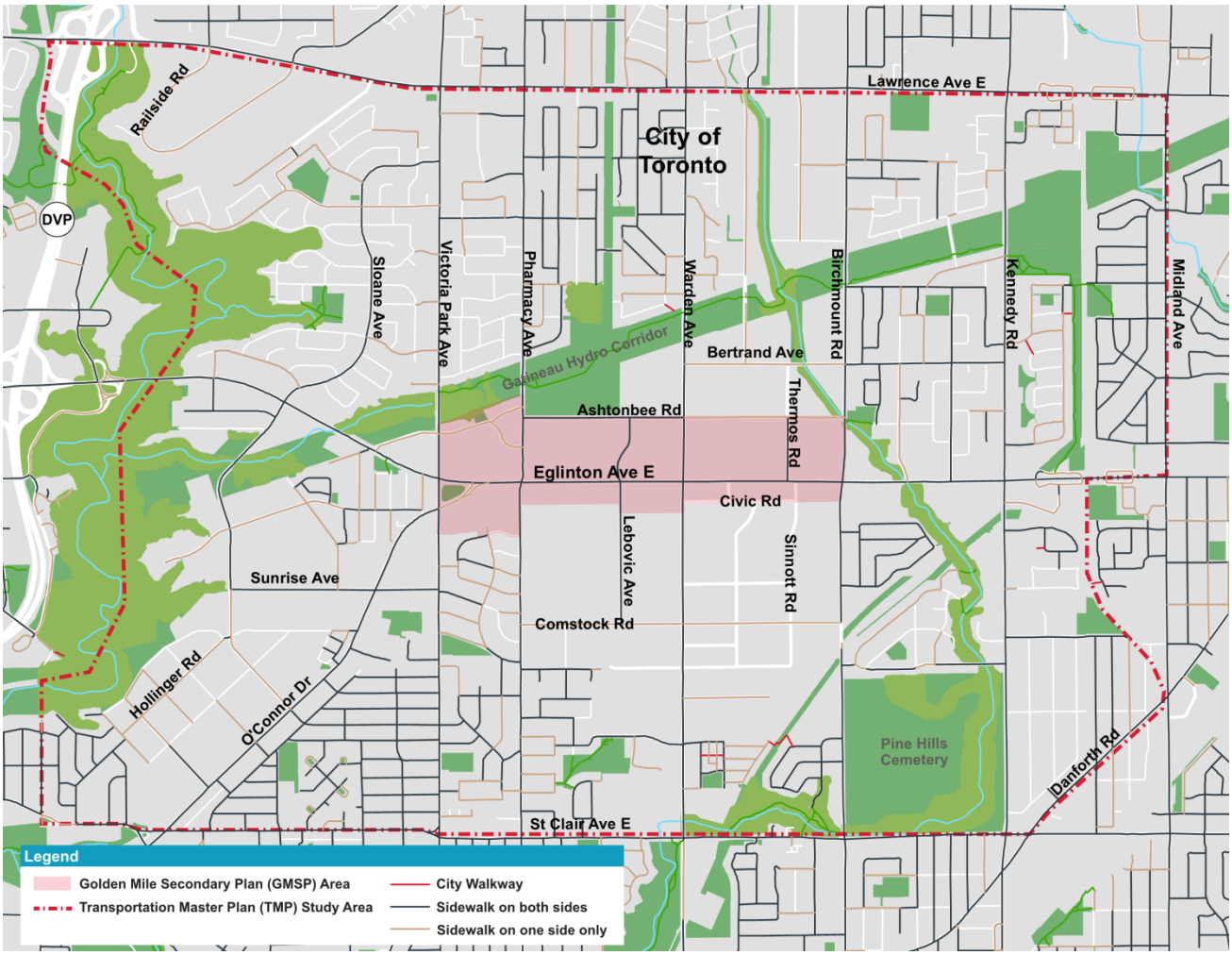
4.6.1 Existing Sidewalks

The existing sidewalk network (**Figure 4-25**) within the TMP study area is largely complete; however, the 1.4 metre sidewalk provided on some segments of the major and minor arterial roads in the study area is narrower than current City standards for these road classifications. On some streets, the sidewalk is separated from traffic by a grass or asphalt buffer that occasionally contains street furniture or trees. This buffer provides some safety benefits for pedestrians; however, the majority of the northern sidewalk on Eglinton Avenue does not have any separation from traffic, where high volumes of traffic are operating at a speed of 60 km/hr.

There are also several streets in the TMP study area without sidewalks, including Civic Road, Sinnott Road, and Manville Road, which are located directly south of Eglinton Avenue. The lack of sidewalks on these corridors are most likely due the industrial nature of the area; however, pedestrian facilities should be included in the ROW to promote walking to/from places of work and transit stops or the commercial area of the GMSP study area.

Given the high vehicular traffic volumes and speed on the major arterial roads and limited amenity provided, the overall environment for pedestrians is poor. Furthermore, the large block pattern of the street network within the Golden Mile, with limited midblock crossings, creates poor connectivity from buildings to the arterial roads and most transit stops. Consequently, informal connections through private property and parking lots have emerged, but do not adequately provide for pedestrian safety and comfort.

Figure 4-25. Existing Sidewalk Infrastructure in the Golden Mile TMP Study Area



Source: City of Toronto Open Data

Safety issues arise where pedestrian and vehicular traffic meets at intersections and private driveways. **Figure 4-26** illustrates a pedestrian crossing design typical to the study area along Eglinton Avenue, long crossing distances with a minimal or non-existent mid-crossing median. However, zebra markings have been employed at most major intersections, increasing crossing visibility to motorists. This excludes any private driveways which provide commercial access to the uses adjacent to Eglinton Avenue.

Large turning radii are employed at most intersection in the study area. While this facilitates vehicular flow, especially for goods movement, it impacts pedestrian safety by increasing crossing length and vehicle speed. **Figure 4-27** exhibits a large turning radii where vehicles can make turns at higher speeds than intersections with smaller turning radii.

Figure 4-26. Signalized Crossing on the South Side of Warden Avenue and Eglinton Avenue

Source: Google Maps

Figure 4-27. Large Turning Radii at the Northwest Corner of Birchmount Road and Eglinton Avenue

Source: Google Maps

A number of private driveways interrupt the pedestrian realm along the study area's major arterials, providing vehicular access to buildings that are well set back from the street. These driveways increase the amount of instances where pedestrians and vehicles must interact, as illustrated in **Figure 4-28**. Some driveways are not signed appropriately with stop control, which can be increasingly hazardous for pedestrians at the high volume driveways within the study area.

Figure 4-28. Private Driveways Example on Eglinton Avenue

Source: Google Maps

4.6.2 Pedestrian Demand

As illustrated in **Figure 4-29** and **Figure 4-30**, pedestrian crossings within the GMSP study area are concentrated at intersections along Eglinton Avenue, particularly where Eglinton intersects other arterial roads. Relatively few crossings were observed along minor roads in the study area. This may be attributable to the presence of heavily used TTC bus routes along arterial roads, meaning that intersections function as transfer points. Generally, significant trip generators are concentrated along Eglinton Avenue, causing pedestrians to use the corridor in spite of the poor quality of pedestrian facilities relative to the parallel Ashtonbee Road. High levels of pedestrian crossings at intersections on either end of the study area may also be related to their proximity to existing residential neighbourhoods. Pedestrians are also shown to use Civic Road, despite the absence of sidewalks.

Pedestrian demand is much higher during the PM peak than the AM peak hours. This may relate to the area's role as a retail hub since shopping trips tend to occur later in the day.

Figure 4-29: Existing Pedestrian Demand

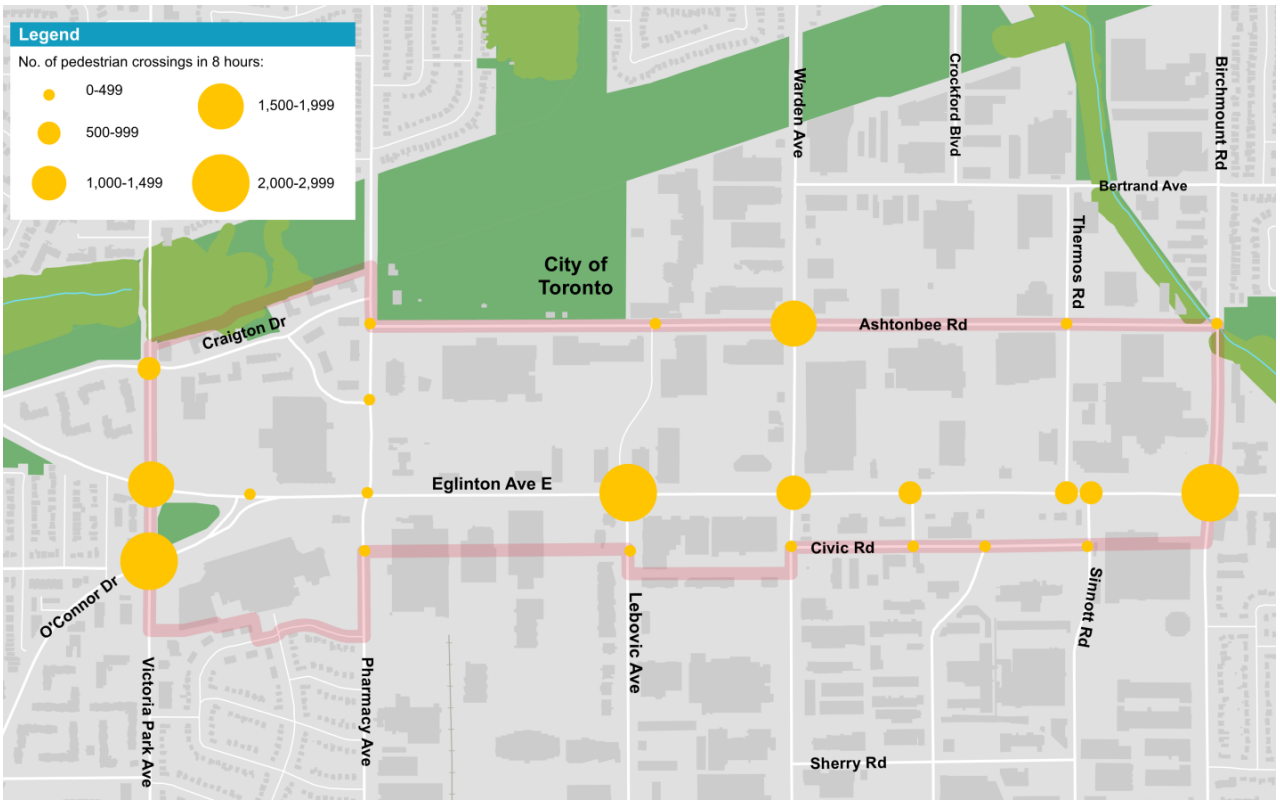


Figure 4-30: Existing Peak Hour Pedestrian Demand

4.6.3 Walkshed Analysis to/from LRT Stops

Transit walkshed refers to the pedestrian catchment area of a transit facility. It is determined by the distance people are generally willing to walk to a transit stop; 400 metres for a bus service and 800 metres for higher order transit[4]. The simplest way of measuring the walkshed of a transit facility is to include the entire area within a 400-metre or 800-metre radius. However, this approach may include areas that are, in reality, not accessible to pedestrians (i.e. over a ravine) or require longer walking distances due to barriers or irregular street patterns. An alternative method is to map the "true" linear walking distance from a transit facility using the existing street network accessible to pedestrians. Comparing the two methods can illustrate issues with connectivity and point to where new pedestrian links may be necessary.

Figure 4-31 illustrates the radial and linear walkshed analysis of the future ECLRT stations with the GMSP study area, based on the 400-metre and 800-metre walking distances. When comparing the radial and linear walkshed analysis, the linear walkshed meets the radial walkshed only when there is a straight line trip. However, there are many areas where the linear walkshed does not cover the same area as the radial walkshed. This includes the central section of Bertrand Avenue, and stretches along Comstock Road, Sherry Road, and Sinnott Road.

The walkshed analysis also illustrates the lack of walking connectivity across the big blocks between Pharmacy Avenue and Birchmount Road and relates to the low street connectivity score seen in **Section 4.3.3**. Eglinton Avenue provides the only continuous east-west walking connection across the area.

[4] Ontario Ministry of Transportation. (2012). Transit Supportive Guidelines.