9 Transportation Master Plan Alternatives

Three (3) Transportation Master Plan (TMP) alternative solutions were considered to address the Problem and Opportunity Statement and to support the preferred land use alternative. This chapter identifies the three (3) TMP solutions and provides an analysis of each to identify the preferred TMP solution. The three (3) TMP solutions considered are outlined in **Table 9-1**.

Table 9-1: TMP Solutions

ID	TMP Solution	Built Form	Key Improvements
Ex	Existing Conditions		Existing transportation network
1	ECLRT and Planned Improvements		ECLRT and planned bike network improvements
2	Build a Grid Street Network		Grid street network (i.e. O'Connor Drive Extension and other improvements in **Section 7.5**)
3	Enhanced Transit Priority Network		Enhanced transit network and first/last mile solutions

9.1 TMP Solution Descriptions

Key elements of each TMP Solution are identified in this section to provide an understanding of how each TMP Solution is evaluated and to select a Preferred TMP Solution.

9.1.1 TMP Solution #1: ECLRT and Planned Improvements

Key Solution Components

Currently planned transportation improvements are incorporated into this TMP Solution. This includes the ECLRT plus planned cycling network improvements from Toronto's Ten Year Cycling Plan, approved by City Council on June 9, 2016. This

includes a bike lane or cycle track on Eglinton Avenue East, a bike lane or cycle track on Victoria Park Avenue, and the Meadoway Trail project along the Gatineau Hydro Corridor.

It is noted that TMP Solution #1 does not include the Preliminary Preferred Network shown in **Section 7.5**.

Mode Share Assumptions

The base future mode share, as detailed in **Section 8.2.1**, uses a multimodal trip generation approach for the future land use and includes changes to the existing mode share due to the introduction of the ECLRT. It was estimated that the ECLRT would result in an approximate 10% reduction for the vehicular mode[9]. Mode share for affordable housing and senior living was not modified from existing as these uses currently rely heavily on other modes other than auto. **Table 9-2** outlines the mode share for each land use.

Table 9-2: TMP Solution #1 – Input Future Mode Share and Auto Occupancy by Land Use

Parameters	Residential: Condo / Townhouse[3]	Residential: Affordable Housing[4]	Residential: Senior Living[5]	Office	Retail
Auto Driver	40%	29%	35%[6]	57%	51%
Auto Passenger	13%	8%	35%[6]	8%	16%
Vehicular[1]	53%	37%	35%	65%	67%
Transit	38%	42%	51%	30%	22%
Walking	6%	16%	11%	3%	8%
Cycling	3%	5%	3%	2%	3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Auto Occupancy[2]	**1.33**	**1.28**	**1.00**	**1.14**	**1.31**

[1]The sum of auto driver and auto passenger.

[2]Calculated as the ratio of total auto driver and auto passenger over auto driver.

[3]Baseline existing mode share for condo/townhouse is based on the average of the 2016 TTS Data for the proxy sites of the Scarborough Civic Centre and the apartments west of the GMSP Study Area.

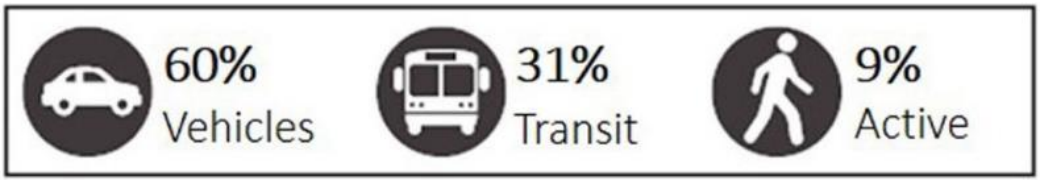
[4]Baseline existing mode share for affordable housing is based on the average of the 2016 TTS Data for the proxy sites of Parkway Forest and Regent Park.

[5] Baseline existing mode share data for senior living from City of New Haven.

[6]The 35% mode share for senior living is the combined mode share between the auto driver and auto passenger modes.

[9] Based on 1996 and 2016 TTS auto mode share in the Sheppard Avenue Corridor, where the implementation of the Sheppard Subway in 2002 resulted in a decrease in auto driver mode share for work trips from 59.4% to 49.7% in the PM peak period, which is a 9.7% decrease. While it is recognized that the comparison is being made between subway and LRT, the Sheppard Avenue subway proximity to Highway 401 represents a comparable dis-benefit to transit modal choice as on-street LRT versus subway. It is further noted that the significant proportion of retail trips in GMSP contributes to a lower existing mode share.

Based on the trips generated by this solution, the resulting mode shares are summarized as follows:



9.1.2 TMP Solution #2: Build a Grid Street Network

Strategic improvements to the street network and corresponding active transportation network improvements are identified as part of TMP Solution #2. TMP Solution #1 improvements are included in TMP Solution #2.

Street Network Solution Components

As noted in the Problem and Opportunity Statement, the existing built form encourages driving by requiring pedestrians to walk longer distances to reach their destinations, often across surface parking lots. A finer grained street network is needed to enhance connectivity within the GMSP area to improve mobility for all modes.

The identified Preliminary Preferred Network formed the starting point for TMP Solution #2. Through further testing on the Preferred Land Use Alternative and consultation with stakeholders and the public (the process described in **Section 7.5),** the refined Preliminary Preferred Network is carried forward for TMP Solution #2 which is illustrated in **Figure 9-1**. Additional details on these refinements is provided in **Section 10.1**.

Active Transportation Network Solution Components

Together with the proposed street network, dedicated and separated cycling facilities throughout the GMSP Study Area are recommended. Separate sidewalks are also intended to be included alongside cycling facilities except where shared use facilities are implemented. In addition, traffic signals at high volume locations are recommended to provide protected crossing locations. The active transportation network for TMP Solution #2 is illustrated in **Figure 9-2**.

Mode Share Assumptions

As a result of the grid street network, enhanced public realm and active transportation connections, the future mode share for several land uses was modified to reflect a lower auto mode share, as shown in **Table 9-3**. For residential condo/townhouse and office land uses, the transit mode share was increased to 41%. This increase also reflects the transit mode share in the Eglinton Connects planning study (**Section 2.4.2**). As mentioned above, the mode share for affordable housing and senior living was not modified as these uses rely heavily on other modes other than auto.

Table 9-3: TMP Solution #2 – Input Future Mode Share and Auto Occupancy by Land Use

Parameters	Residential: Condo / Townhouse[3]	Residential: Affordable Housing[4]	Residential: Senior Living[5]	Office	Retail
Auto Driver	32%	29%	35%[6]	41%	43%
Auto Passenger	12%	8%	35%[6]	8%	16%
Vehicular[1]	44%	37%	35%	49%	59%
Transit	41%	42%	51%	41%	30%
Walking	10%	16%	11%	5%	8%
Cycling	5%	5%	3%	5%	3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Auto Occupancy[2]	**1.38**	**1.28**	**1.00**	**1.20**	**1.37**

[1]The sum of auto driver and auto passenger.

[2]Calculated as the ratio of total auto driver and auto passenger over auto driver.

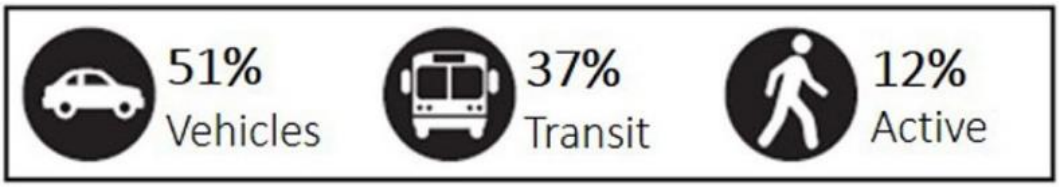
[3]Baseline existing mode share for condo/townhouse is based on the average of the 2016 TTS Data for the proxy sites of the Scarborough Civic Centre and the apartments west of the GMSP Study Area.

[4]Baseline existing mode share for affordable housing is based on the average of the 2016 TTS Data for the proxy sites of Parkway Forest and Regent Park.

[5] Baseline existing mode share data for senior living from City of New Haven.

[6]The 35% mode share for senior living is the combined mode share between the auto driver and auto passenger modes.

Based on the trips generated by this solution, the resulting mode shares are summarized as follows:



It is recognized that effective changes to mode share are possible with the implementation of a grid street network and supporting active transportation network.

Figure 9-1: Street Network Improvements (TMP Solution #2)

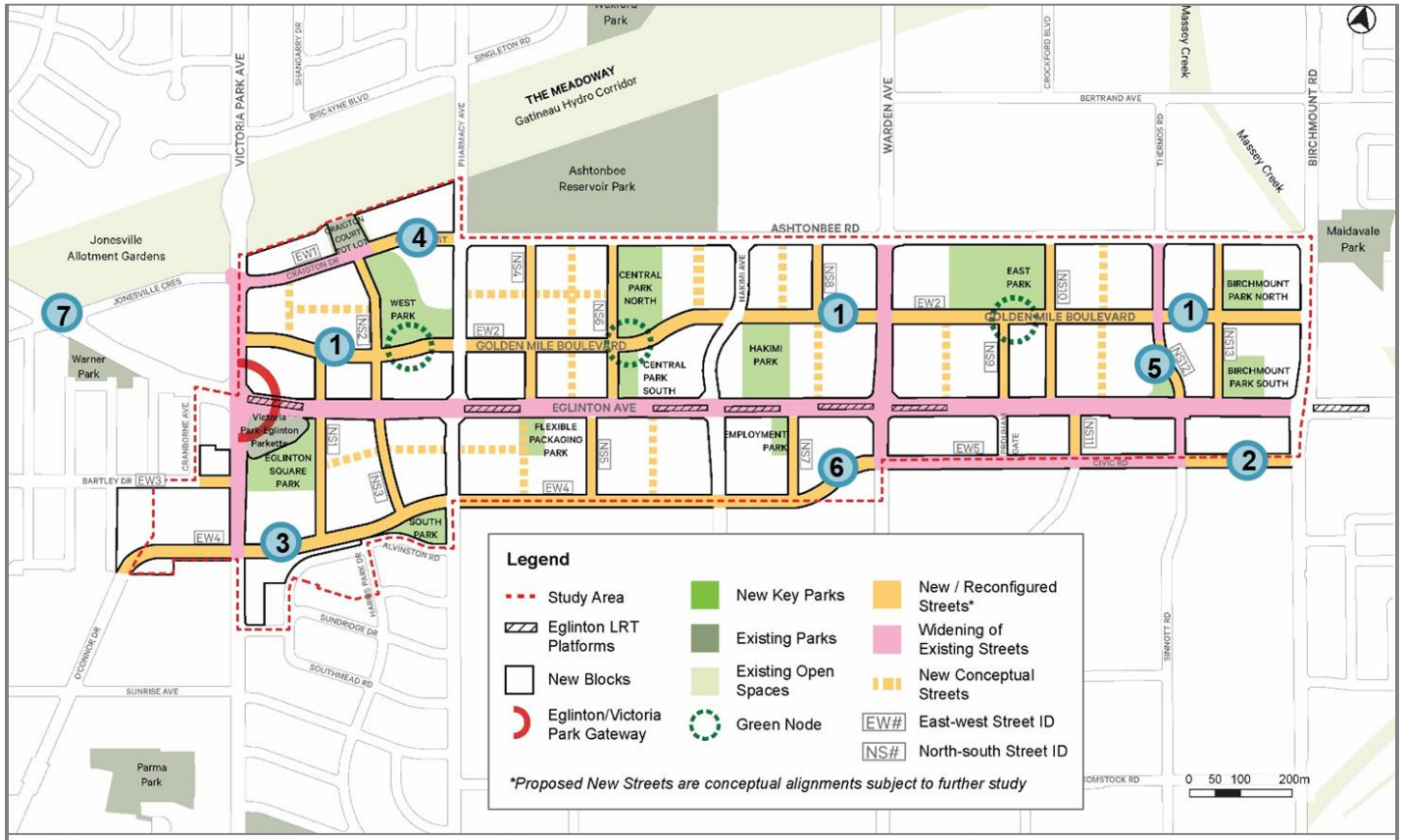
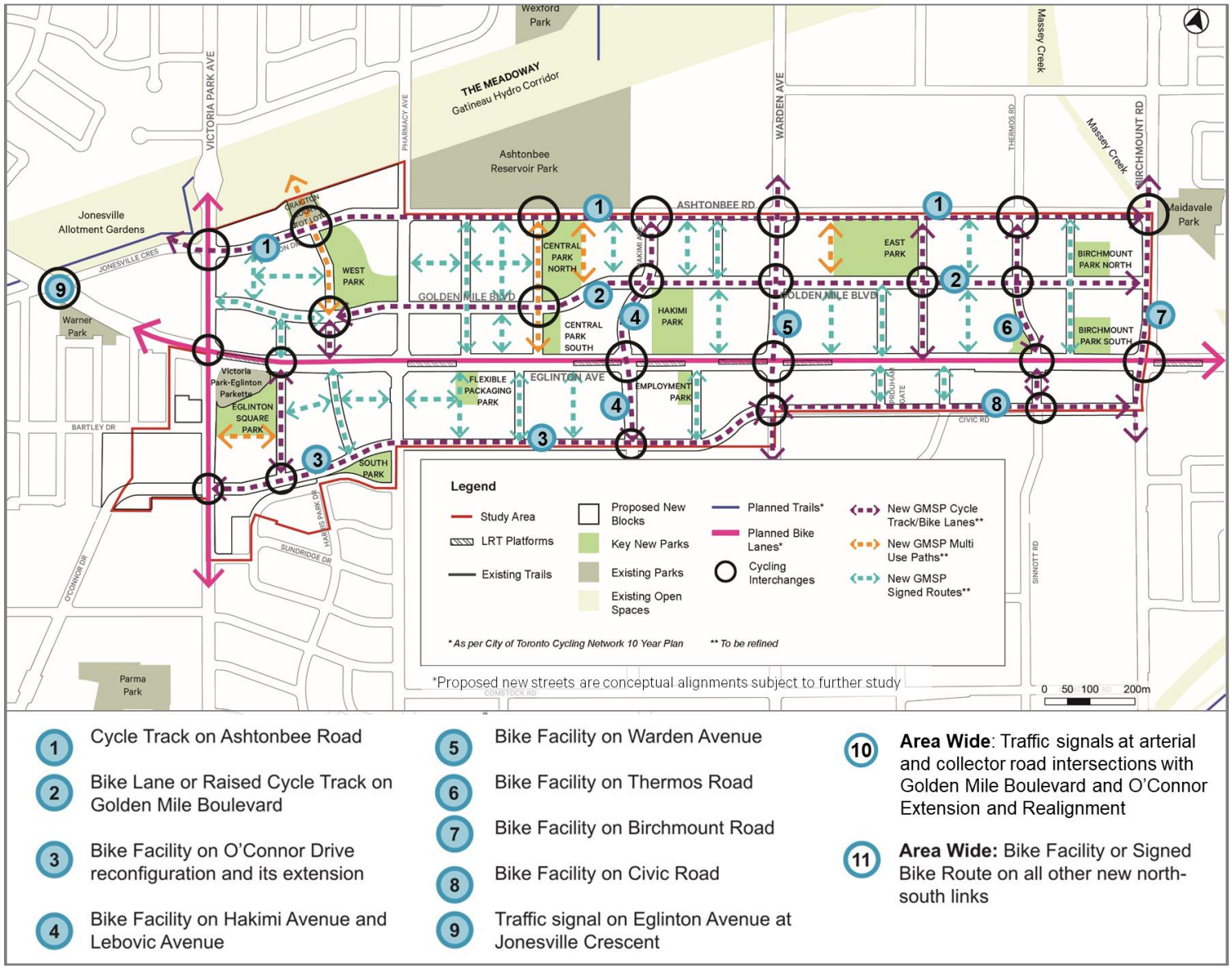


Figure 9-2: Active Transportation Network Improvements (TMP Solution #2)



9.1.3 TMP Solution #3: Enhanced Transit Priority Network

Transit Priority Plan Solution Components

Building upon the street and active transportation network improvements in TMP Solution #2, further improvements to transit services as well as first and last mile mobility solutions are emphasized for TMP Solution #3. Based upon the transit capacity analysis conducted during the analysis of land use alternatives (**Section 8.2**), transit priority improvements are recommended on Victoria Park Avenue and Warden Avenue to serve north-south transit demand through the GMSP Study Area. The exact nature of these improvements is subject to further study but could incorporate elements as directed in the Official Plan. The location of these corridors relative to the Preferred Network is illustrated in **Figure 9-3**.

First and Last Mile Solution Components

Shared mobility solutions can act as first and last mile solutions to encourage transit use in the GMSP Study Area and to reduce automobile ownership. This includes a concept called EcoMobility Hubs[10] which are one-stop service points for multimodal systems. These hubs include designated, comfortable waiting areas to find a share bike or scooter stations, car-share vehicle, or wait for a ride-share driver. These hubs can vary in size from large scale hubs which integrate multiple mobility services, often at higher-order transit stops, to medium and small scale, such as an on-street car-share station or an integrated bike/scooter share and bus stop.

A conceptual plan for EcoMobility Hubs is illustrated in **Figure 9-4**. Large scale hubs are identified in proximity to ECLRT stops. Medium scale hubs incorporating car share locations are identified in accessible locations central to development blocks, where convenient access to car share services may encourage reduced auto ownership. Finally small scale hubs are located at potential bus stop locations dispersed throughout the GMSP Study Area.

Mode Share Assumptions

The implementation of the transit priority improvements on Victoria Park Avenue and Warden Avenue coupled with improved first and last mile access to transit will result in an additional shift from vehicles to transit. The future mode share for several land uses was modified as shown in **Table 9-4.** It is assumed that the biggest impact occurs for residential, office and retail trips which increase transit mode share and reduce auto driver share by 3% for residential and office, and 1% for retail.

[10]1. Karim D. M., Innovative Mobility Master Plan: Connecting Multimodal Systems with Smart Technologies, Disrupting Mobility Conference, MIT Media Lab, Cambridge, USA, November 11~13, 2015.

2. Karim D. M., Creating an Innovative Mobility Ecosystem for Urban Planning Areas, Disrupting Mobility - Impacts of Sharing Economy and Innovative Transportation on Cities, Springer Book, Lectures in Mobility, ISBN: 978-3-319-51601-1, pages 21-47, 2017.

Table 9-4: TMP Solution #3 – Input Future Mode Share and Auto Occupancy by Land Use

Parameters	Residential: Condo / Townhouse[3]	Residential: Affordable Housing[4]	Residential: Senior Living[5]	Office	Retail
Auto Driver	29%	29%	35%[7]	38%	42%
Auto Passenger	12%	8%	35%[7]	8%	16%
Vehicular[1]	44%	37%	35%	49%	59%
Transit[6]	44%	42%	51%	44%	31%
Base Transit Share	41%	42%	51%	41%	30%
Transit priority improvements	1%			1%	0.33%
Peak period transit shift due to car / ride share availability	1%			1%	0.33%
Shared bike / scooter access to transit	1%			1%	0.33%
Walking	*10%*	*16%*	*11%*	*5%*	*8%*
Cycling	5%	5%	3%	5%	3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Auto Occupancy[2]	**1.41**	**1.28**	**1**	**1.21**	**1.38**

[1]The sum of auto driver and auto passenger.

[2]Calculated as the ratio of total auto driver and auto passenger over auto driver.

[3]Baseline existing mode share for condo/townhouse is based on the average of the 2016 TTS Data for the proxy sites of the Scarborough Civic Centre and the apartments west of the GMSP Study Area.

[4]Baseline existing mode share for affordable housing is based on the average of the 2016 TTS Data for the proxy sites of Parkway Forest and Regent Park.

[5]Baseline existing mode share for senior living data from City of New Haven.

[6]Transit share increases due to first-last mile EcoMobility Hub solutions. Modal shifts due to car share, ride share, bike/scooter share based on ConsumersNext TMP.

[7]The 35% mode share for senior living is the combined mode share between the auto driver and auto passenger modes.

Based on the trips generated by this solution, the resulting mode shares are summarized as follows:

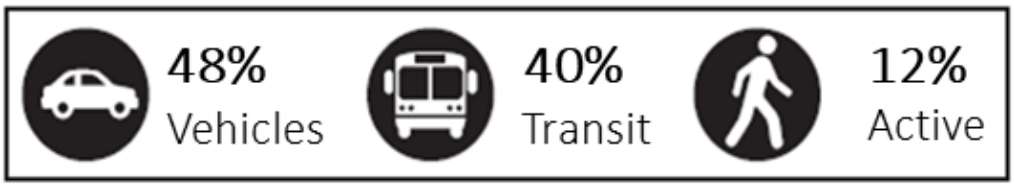


Figure 9-3: Transit Priority Improvements (TMP Solution #3)

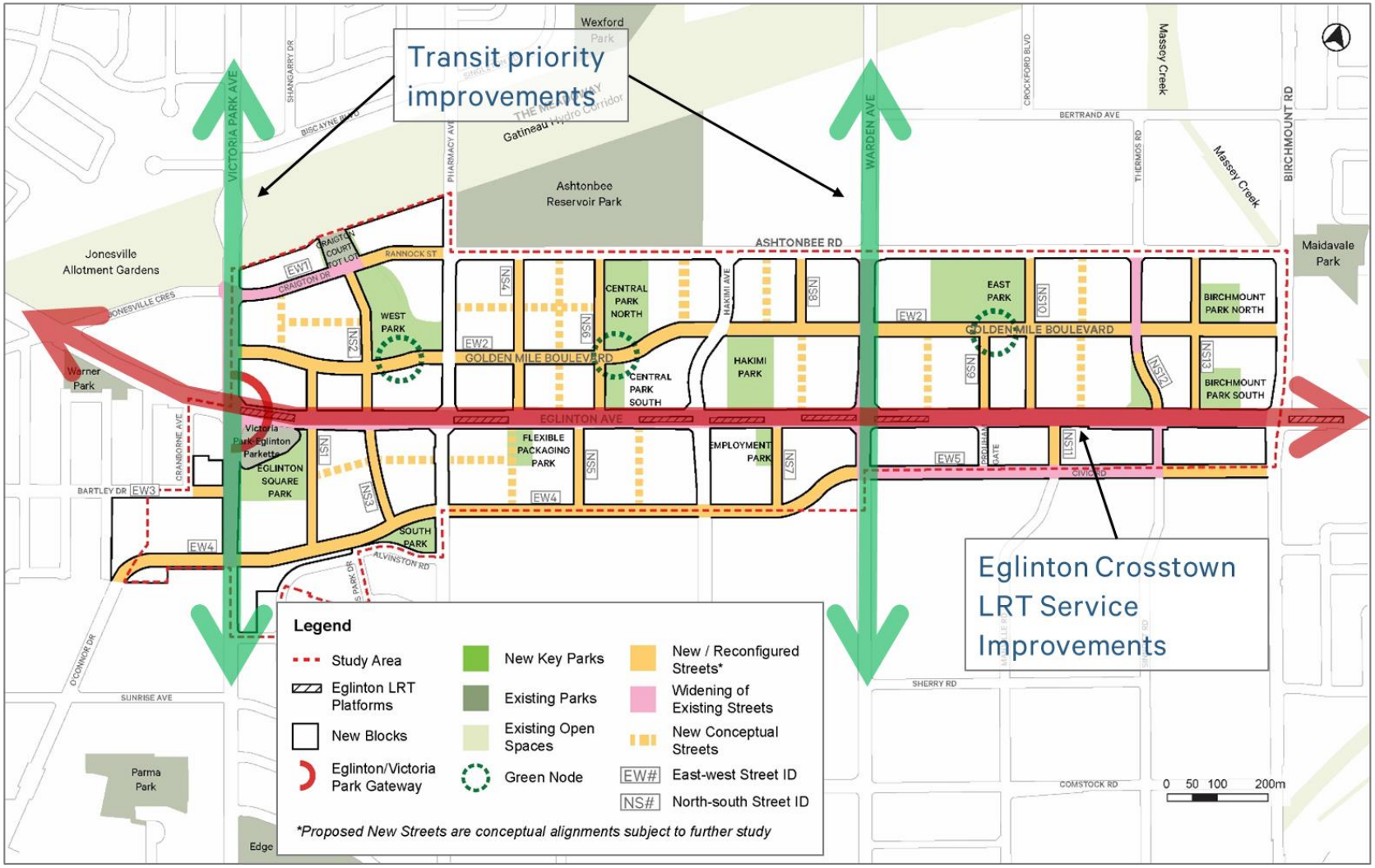
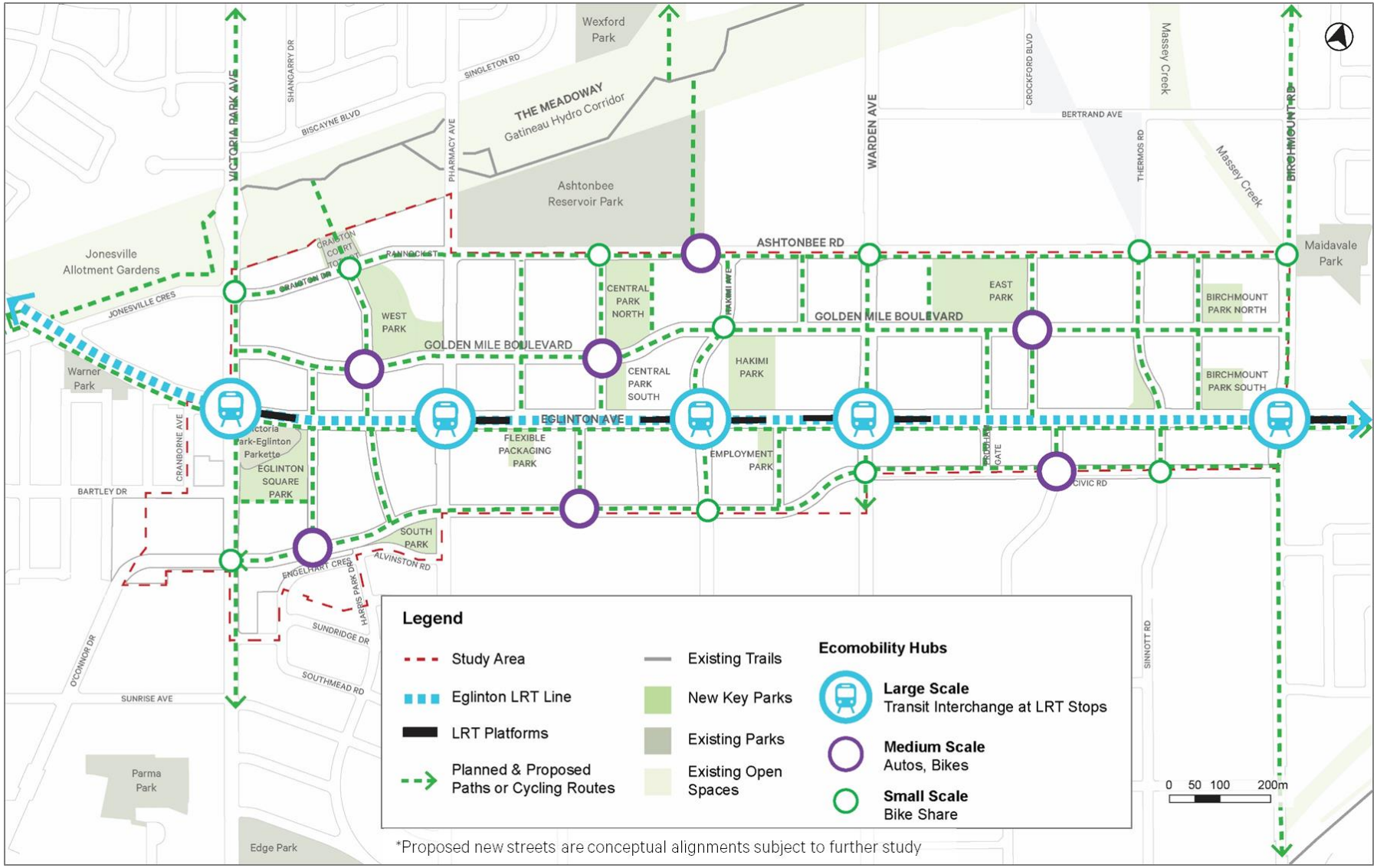


Figure 9-4: EcoMobility Hub Plan (TMP Solution #3)



9.2 Analysis and Evaluation Methodology

The TMP Alternatives evaluation process assesses each of the alternative TMP Solutions using a set of quantitative and qualitative criteria to understand their benefits and drawbacks.

9.2.1 Evaluation Criteria and Indicators

Several indicators grouped into nine (9) categories, as detailed in **Table 9-5**, were developed to assess TMP Alternatives. The selection of these criteria and indicators considered the overall GMSP Vision and Guiding Principles, and well as other key priorities, such as cost, as part of the EA Process.

Table 9-5: TMP Evaluation Criteria and Indicators

Category	Criteria	Indicators
Policy Framework Does it deliver existing policies and guidelines?	Conformity with policies and city-wide guidelines including: • Official Plan Policies; • Complete Streets Guidelines; • Eglinton Connects	• Qualitative, reasoned argument approach
Healthy Communities Does it optimize the community's health and safety?	• Provision of contiguous sidewalk (direct, convenient connections) • Provision and quality of cycling facilities throughout the study area • Minimizes traffic infiltration	• Quantitative walkability metrics based on connectivity index and walkshed analysis • Traffic infiltration based on overall network congestion
Shaping the City Does it support the preferred land use option?	• Alignment of TMP Solution with the preferred land use alternative	• Quantitative percentage of people and jobs within 250m linear walkshed of LRT stops
Innovations in Shared Mobility Does it integrate innovative infrastructure and technologies to support shared mobility?	• Integration of innovative mobility technology and infrastructure • Convenient access to shared mobility options	• Qualitative, reasoned argument approach
Social Equity in Mobility Does it promote an active lifestyle for all ages and abilities?	• Connectivity to key destinations • Accessible network for users of all ages and abilities	• Quantitative walkability metrics based on connectivity index and walkshed analysis
Supporting Employment Does it support existing and future employment?	• Efficient, accessible transportation network for all modes	• Quantitative walkability metrics based on connectivity index and walkshed analysis • Comparative analysis of overall network congestion
Implementation and Affordability How feasible it is to implement?	• Construction Costs • Operations and Maintenance Costs • Property Requirements	• Quantitative, high-level estimation of construction, operation, and maintenance cost • High-level estimation of property impacts
Promoting Choice and Experience Does it promote a diversity of travel choices? Does it encourage an active lifestyle?	• Quality and Connectivity of Network for all modes	• Qualitative, reasoned argument approach
Resilience	• Ability of the transportation network to function during	• Qualitative, reasoned argument approach

9.3 Analysis of TMP Solutions

Building upon the evaluation methodology presented, quantitative analyses of the TMP Solutions was conducted to support for the recommendations and ultimately a Preferred Solution. This section provides additional detail on the quantitative analyses undertaken.

9.3.1 Connectivity Index

As noted in Section 4.3.3, a well-connected transportation network provides multiple options for different modes of transportation, such as; walking, cycling, transit or car. As shown in **Table 9-6**, Alternatives 2 and 3, both based on the same grid street network perform better that Alternative 1.

The existing Active Connectivity of 1.05 (**Section 4.6**) would be maintained for Alternative 1. Active Connectivity for Alternatives 2 and 3 have a connectivity of 1.59 based on the grid street network. The connectivity index score may be further improved where fine grain connections through privately owned public spaces are implemented.

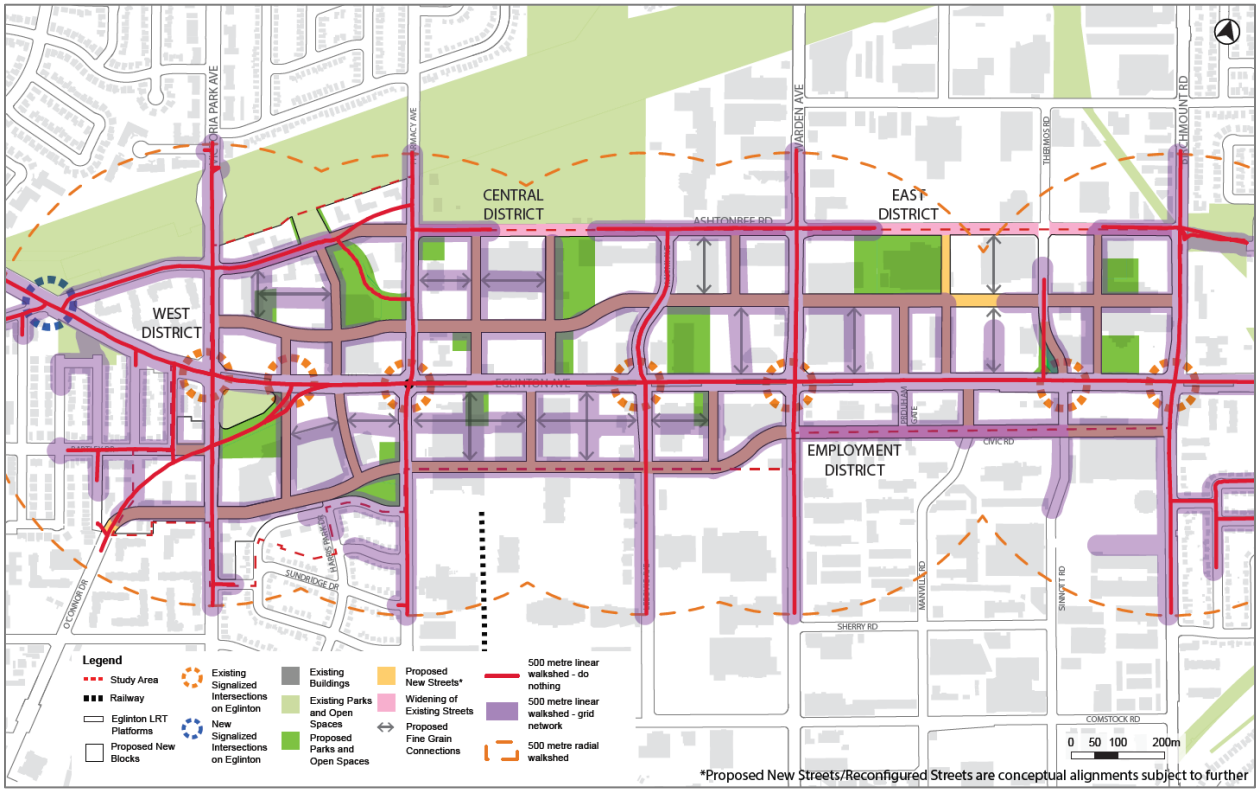
Table 9-6: Connectivity Index Scoring for the TMP Alternative Solutions

TMP Solution #	Links	Nodes	Connectivity Index
1	22	21	1.05
2 & 3	81	51	1.59

9.3.2 Walkshed

As shown in **Figure 9-5**, significantly more development blocks proposed in the preferred Land Use Alternative are within a 500 metre walk of an LRT station with the grid network proposed for TMP Solution #2 and #3 than the currently planned network proposed for TMP Solution #1.

Figure 9-5: Do Nothing and Grid Network 500 metre Walk Sheds



9.3.3 Traffic Analysis

The traffic analysis includes tweaks to the Preliminary Preferred Network which ultimately informed the Preferred Network. Test scenarios based upon the TMP Solutions identified were created to develop the recommendations. The Analysis Scenarios are identified in **Table 9-7**.

Table 9-7

Table 9-7: TMP Solution Traffic Analysis Scenarios

TMP Solution	Scenario No.	Defining Attributes
ECLRT and Planned Improvements	1	• Preferred land use • Committed transportation network

Build a Grid Network	2A	• Preferred land use
		• Preliminary Preferred Network which includes:
		  ○ Reconfiguration of O'Connor Drive and Extension
		  ○ Reconfiguration of Craigton Drive to meet Ashtonbee Road at Pharmacy Avenue
		• Golden Mile Boulevard

TMP Solution	Scenario No.	Defining Attributes
Build a Grid Network	2B	• Scenario 2A plus • 4 lanes for the O'Connor Drive Extension
Build a Grid Network	2C	• Scenario 2B plus • Signalized intersection at Jonesville Crescent and Eglinton Avenue
Enhanced Transit Priority Network	3A	• Preferred land use • Preferred Network (Scenario 2C) • Transit Priority Improvements on Victoria Park Avenue and Warden Avenue • First-last mile solutions (EcoMobility hubs)
Enhanced Transit Priority Network	3B	• Scenario 3A plus • Test impact of the O'Connor Drive Extension meeting Civic Road at Warden Avenue (subsequently incorporated into TMP Solution #2)

The sub-scenarios were developed through the study process which allowed for refinements and improvements to transportation conditions. Key improvements upon the Preliminary Preferred Network identified in **Section 7.4** include:

- O'Connor Drive Reconfiguration and Extension with 4-lane cross-section
- Signalized intersection at Jonesville Crescent and Eglinton Avenue
- Alignment of O'Connor Drive Extension to meet Civic Road at Warden Avenue

Overall the traffic conditions in each of the sub-scenarios improved with each iteration with Scenario 3B providing optimal traffic conditions relative to the other scenarios. Network volume to capacity ratio plots from the Emme travel forecasting software are provided for each of these scenarios in **Figure 9-6** to **Figure 9-11**.

Figure 9-6: TMP Solution #1 Volume to Capacity Ratio

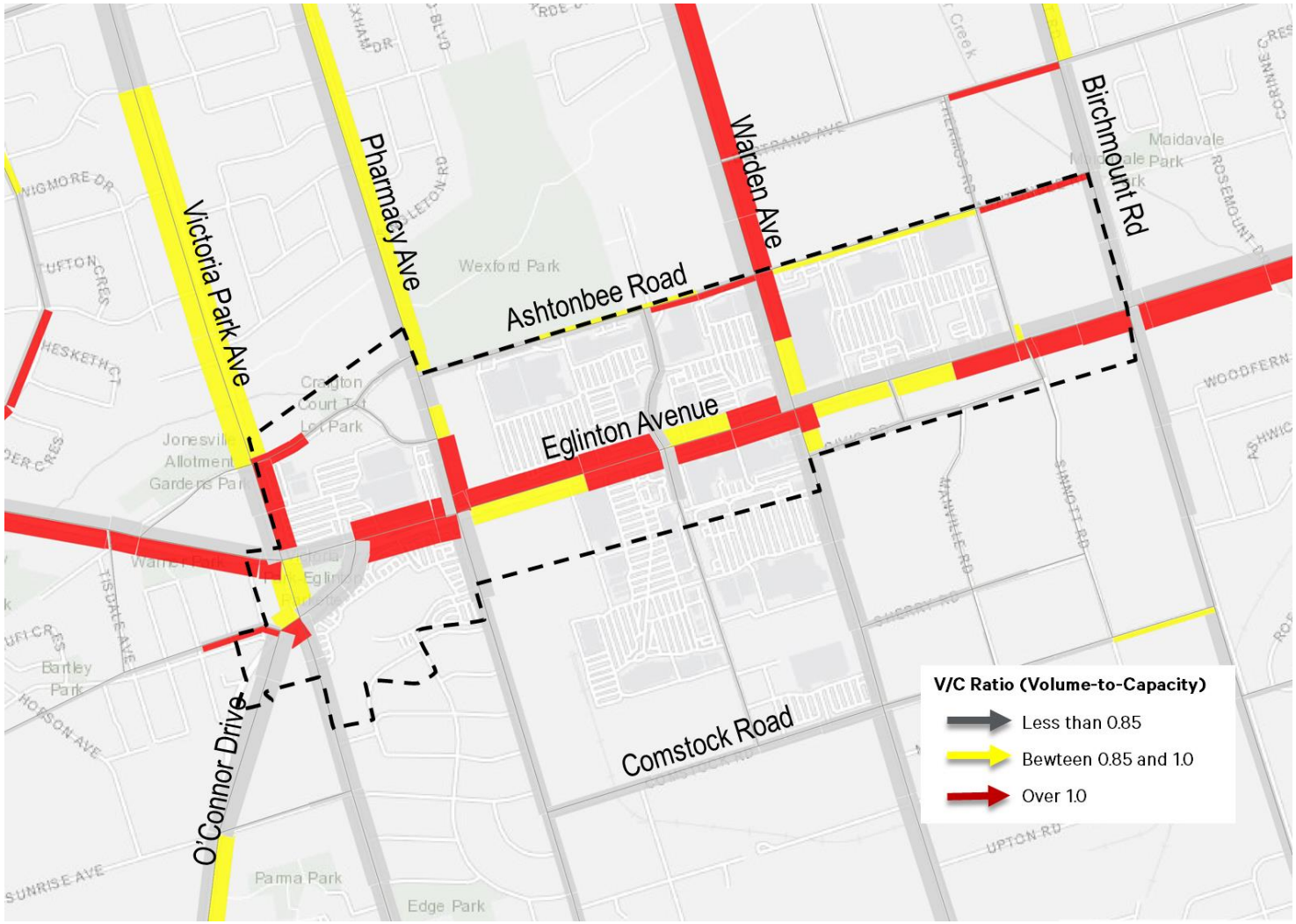


Figure 9-7: TMP Solution #2A Volume to Capacity Ratio

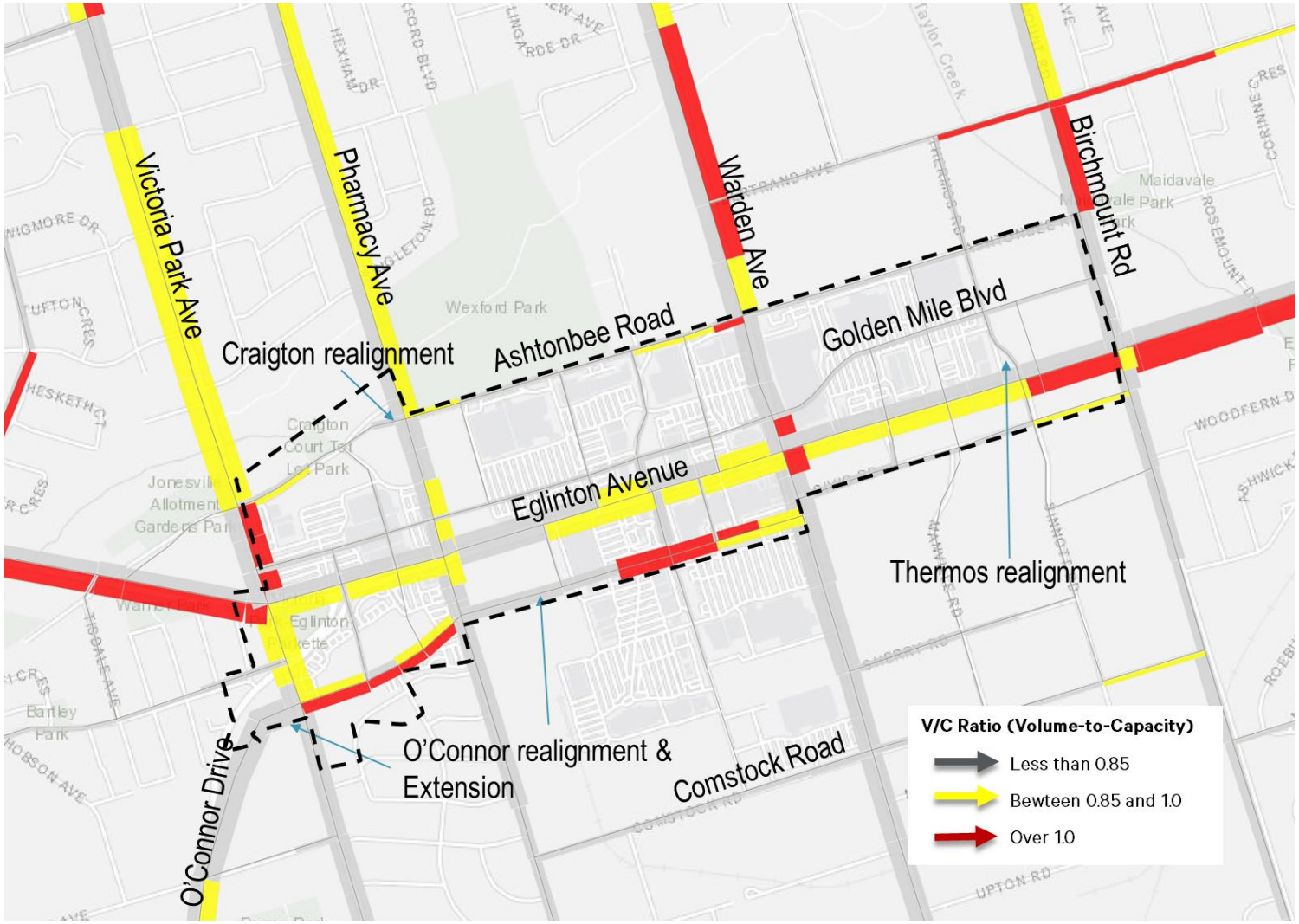


Figure 9-8: TMP Solution #2B Volume to Capacity Ratio

Figure 9-9: TMP Solution #2C Volume to Capacity Ratio

Figure 9-10: TMP Solution #3A Volume to Capacity Ratio

Figure 9-11: TMP Solution #3B Volume to Capacity Ratio

9.3.4 Transit Analysis

North-South Transit Capacity

Transit capacity was assessed for the land use alternatives as seen in **Table 8-14**. Without improvements to north-south transit service, transit services on Victoria Park Avenue, Pharmacy Avenue, and Warden Avenue are all expected to exceed capacity with the implementation of the preferred land use alternative. Because TTC bus services already operate with high frequency today (6 minute headways) on Victoria Park Avenue and Warden Avenue, additional transit priority measures are recommended on these streets in order to increase north-south transit capacity. These priority measures will improve the TTC's ability to operate more frequent service of up to 3 minute headways to effectively double capacity to meet future north-south transit demand. Because Pharmacy Avenue service is at 12 minutes today, service frequency increases without priority measures is sufficient.

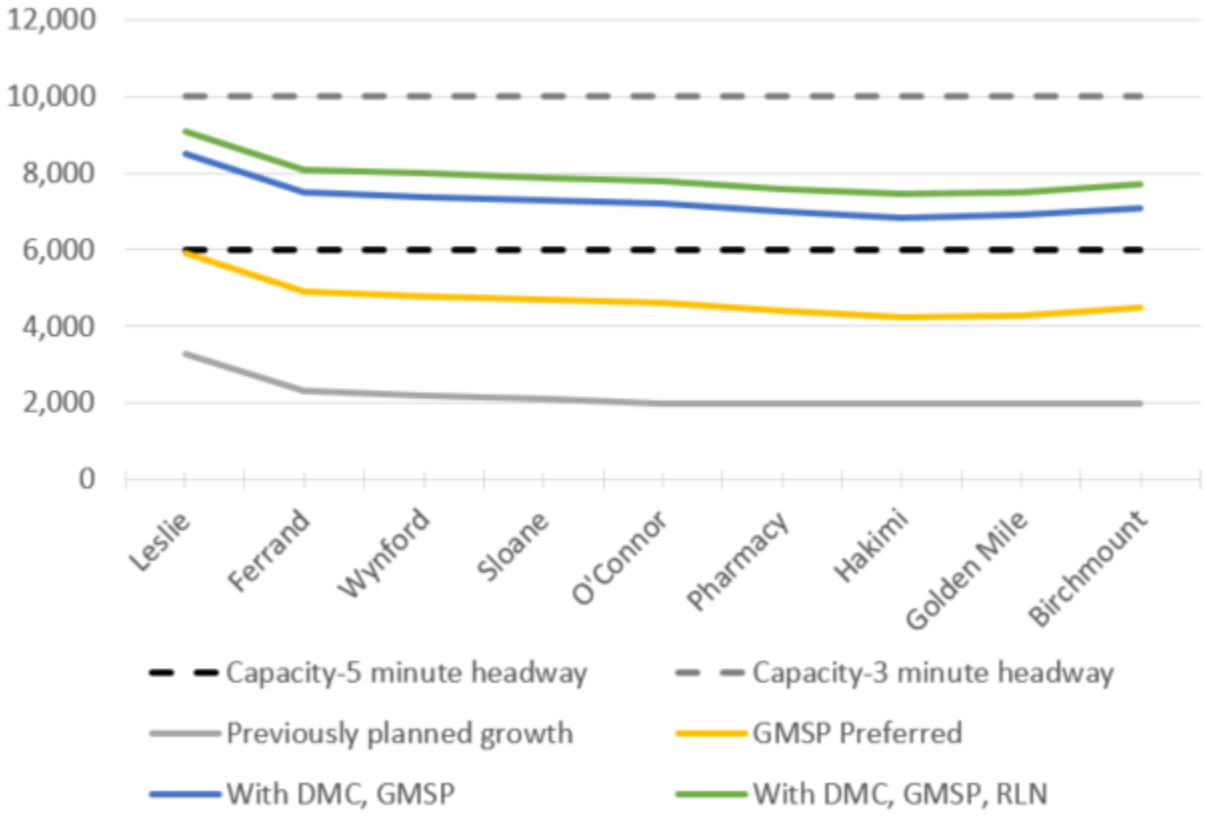
ECLRT Capacity Analysis

An analysis was conducted on the Preferred TMP scenario factoring in the growth along the Eglinton Avenue corridor beyond the study area including the Don Mills Crossing (DMC) Secondary Plan. When combining the growth in ridership anticipated by these two (2) studies, it is notable that the current plans for two (2)-car LRT trainsets operating at five (5) minute headways may not be sufficient with the full build out of these areas. It may be necessary to plan for service of up to three (3) minute headways and/or longer three (3)-car LRT trainsets.

As seen in **Figure 9-12**, the combination of both the GMSP Preferred Land Use Solution plus the Don Mills Crossing (DMC) Secondary Plan recommendations will result in ridership exceeding the capacity of the ECLRT at two (2)-car trainsets at five (5) minute headways. A sensitivity test conducted as part of the DMC study included the effect of the Relief Line North (RLN) project which connects a new subway line to the ECLRT. The addition of this project results in an overall increase to ECLRT ridership.

Given these potential constraints on ECLRT capacity, north-south transit priority improvements would be beneficial additions to the transit network to provide additional mobility choice.

Figure 9-12: Transit Capacity, 2041 PM Peak Hour Peak Direction ECLRT Ridership



Transit Analysis Findings

The transit priority measures identified for Victoria Park and Warden Avenue are incorporated into TMP Solution #3 via increased transit mode share as noted in **Table 9-4**. Higher frequency service on these key routes are critical to improving north-south transit capacity to service north south demand, to provide additional mobility choice to transit users particularly where the ECLRT experiences capacity constraints, and to achieve the mode share targets identified for TMP Solution #3.

9.4 Evaluation and Preferred Alternative

Each of the three (3) TMP Solutions were assessed against the indicators identified in **Table 9-5** to provide an overall picture of how each performs. The results of the evaluation are summarized in **Table 9-8**, where the three (3) TMP Solutions are evaluated comparatively on a three (3) point scale from least supportive (◯), somewhat supportive (◐), and most supportive (●).

Table 9-8: Evaluation of TMP Solutions

Category	Evaluation Summary	TMP Solution #1	TMP Solution #2	TMP Solution #3
Policy Framework Does it deliver existing policies and guidelines?	TMP Solution #1 generally does not align with the guidelines and policies from the Official Plan, Complete Streets Guidelines, Eglinton Connects, and other documents guiding growth in the study area. TMP Solution #2 and #3 create a grid network of streets which aligns with policy.	○	●	●
Healthy Communities Does it optimize the community's health and safety?	TMP Solution #1 offers no additional pedestrian connectivity throughout the study area or improvements to access to ECLRT stations. Bicycle facilities will be limited to Victoria Park Avenue, Eglinton Avenue East, and in the Meadoway. TMP Solution #2 and #3 provide substantially more pedestrian links and cycling facilities with the provision of sidewalks on all streets and cycling links on nearly all streets within the GMSP area. Several off-street cycling links are also provided. This results in a better active connectivity index. TMP Solution #3 adds bike share stations throughout the study area increasing accessibility of cycling, and thus maximizes opportunities for residents and works to live an active and healthy lifestyle and provide more choice through EcoMobility hubs to encourage less auto ownership / dependence and a more active, healthy lifestyle.	○	◐	●
Shaping the City Does it support the preferred land-use option?	TMP Solution #1 does not support the preferred land-use option compared to Solution #2 and #3. Significantly more development blocks are within a 500 metre walk of an LRT station with the new grid network than with the current network.	○	●	●

Category	Evaluation Summary	TMP Solution #1	TMP Solution #2	TMP Solution #3
Innovations in Shared Mobility Does it integrate innovative infrastructure and technologies to support shared mobility?	TMP Solution #1 offers no changes in support of innovations in mobility. TMP Solution #2 partially supports this objective with the finer grid network offering improved walkability to access shared mobility services. TMP Solution #3 directly supports this objective with the addition of EcoMobility hubs supporting car share, ride share, and bike shares services, facilitating reduced auto ownership and more opportunities for first and last mile access to transit.	○	◐	●
Social Equity in Mobility Does it promote an active lifestyle for all ages and abilities?	TMP Solution #1 offers little to promote an active lifestyle for all ages and abilities. TMP Solution #2 provides significant improvements to equity in mobility with the introduction of an improved pedestrian and cycling network. TMP Solution #3 provides the improvements offered by Solution #2, but maximizes the potential for equitable access to active transportation with the introduction of mobility hubs and improved transit service.	○	◐	●
Supporting Employment Does it support existing and future employment?	TMP Solution #1 provides the least support to existing and future employment and workers in the study area. TMP Solution #2 provides an improved network for both vehicles and active modes while TMP Solution #3 provides the most mobility choice.	○	◐	●
Implementation and Affordability Is it feasible to implement?	TMP Solution #1 minimizes construction, operations and maintenance, and property acquisition costs. Investments in the future transportation network are required for both TMP Solution #2 and TMP Solution #3.	●	◐	◐

Category	Evaluation Summary	TMP Solution #1	TMP Solution #2	TMP Solution #3
Promoting Choice and Experience Does it promote a diversity of travel choices? Does it encourage an active lifestyle?	Considering connectivity, TMP Solution #1 provides the least choice across modes, with a low Connectivity Index of 1.05 and 0.23 intersections per hectare. The new grid system proposed for TMP Solution #2 offers significantly more choice, with a Connectivity Index of 1.59 and 0.81 intersections per hectare (not including intersections with local streets, which would further improve the score). TMP Solution #3 provides significantly more choice with the addition of EcoMobility hubs and north-south Transit Priority.	○	◐	●
Resilience Does it contribute to a resilient transportation network and community?	TMP Solutions #2 and #3 introduce an additional major east-west corridor into the GMSP area with the O'Connor Drive reconfiguration and extension, and significantly improve north-south permeability. The improved grid network improves the ability of the GMSP network to accommodate a planned or unplanned shut-down on Eglinton Avenue or any other road, compared to TMP Solution #1. TMP Solution #3 improves resilience further through improvements to surface transit. Improvements, such as transit priority or dedicated lanes, could increase the capacity of surface transit routes, enabling them to absorb demand from other parallel routes facing a disruption. The improved grid network is also beneficial for emergency services access.	○	◐	●
Overall		Least Preferred	Less Preferred	**Preferred**

Based on the evaluation framework, TMP Alternative 3 “Enhanced Transit Priority Network” is the preferred TMP Alternative. The solution provides the components consistent with the policy framework, helps to support the preferred development alternative, provides the best potential to promote an active lifestyle for all ages and users, and contributes to a resilient network.

TMP Alternative 3 consists of a Preferred Street and Block Network (**Figure 9-1**) and Active Transportation Network (**Figure 9-2**), Transit Priority Network (**Figure 9-3**), and EcoMobility Hub Plan (**Figure 9-4**). The Preferred Solution is detailed further in the following section.

10 Detailing the Preferred TMP Solution

This chapter summarizes additional analysis supporting the Preferred TMP Solution:

- Key Street Network Improvements
- Street Right-of-Ways and Typical Cross-Sections
- Preferred Solution Traffic Operations
- Transit Recommendations
- Travel Demand Management

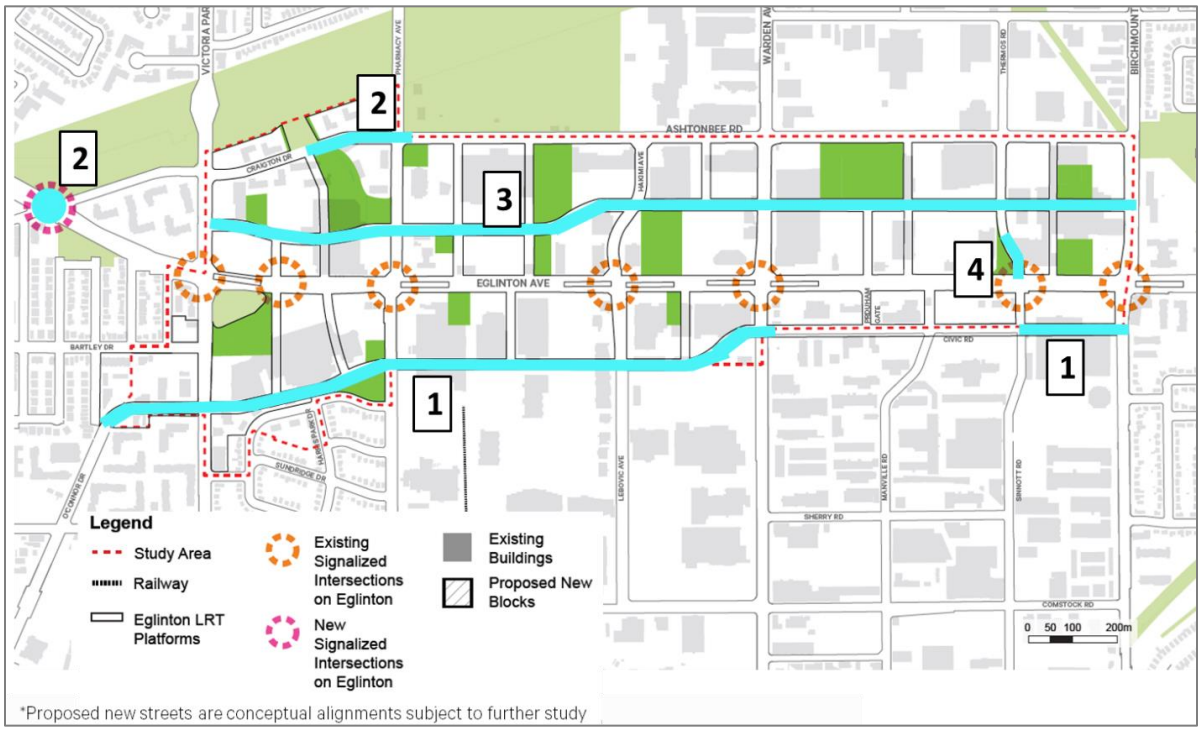
10.1 Key Street Network Improvements

Additional supporting analysis and justification for the key street network improvements is provided in the following sections for:

1. O'Connor Drive Reconfiguration and Extension and Civic Road Extension
2. Jonesville Crescent Signalization and Craigton Drive Reconfiguration
3. Golden Mile Boulevard
4. Jog Elimination of Thermos Road and Sinnott Road

The key improvements are identified in **Figure 10-1**. Additional recommended streets such as local north-south streets serve a local function and may generally be implemented through site plan approval.

Figure 10-1: Key Road Network Improvements



10.1.1 O’Connor Drive Reconfiguration and Extension and Civic Road Extension

The reconfiguration of O'Connor Drive and associated closure of Eglinton Square would create opportunities for improvements to the transportation and public realm networks within the Golden Mile. O’Connor Drive reconfiguration will:

- Establish a gateway at Eglinton Avenue and Victoria Park Avenue
- Expand Victoria Park - Eglinton Parkette
- Provide east-west alternative to Eglinton Avenue
- Enhance connectivity
- Support transit investment and development

Transportation Network Benefits

The O’Connor Drive reconfiguration west of Victoria Park Avenue and its extension east of Victoria Park Avenue to meet Civic Road at Warden Avenue is a critical network improvement in the Preferred TMP Solution. O’Connor Drive today carries significant volumes of commuter traffic which is routed directly onto Eglinton Avenue between Victoria Park Avenue and Pharmacy Avenue. This configuration plus the reduction in vehicular traffic lanes from six (6) to four (4) on Eglinton Avenue in addition to redevelopment intensification will result in high traffic delays and congestion. The proposed reconfiguration and extension of O’Connor Drive to Warden Avenue at Civic Road allows for the existing traffic on O’Connor Drive to be distributed to more north-south roadways east of Warden Avenue, alleviating traffic congestion along Eglinton Avenue.

Based on travel demand analysis for the Preferred TMP Solution, O’Connor Drive is recommended to have a four (4)-lane cross-section from the start of the realignment west of Victoria Park to Warden Avenue. East of Warden Avenue, traffic volumes are projected to disperse sufficiently such that two (2) lanes on the existing Civic Road are sufficient.

While maintaining two travel lanes, the existing Civic Road is a local two-lane roadway and would require upgrades as part of the extended O’Connor Drive. Civic Road also currently terminates at Sinnott Road. Therefore, Civic Road extension easterly to Birchmount Road is recommended to provide a continuous route across the study area.

Goods Movement Benefits

The O’Connor Drive corridor is envisioned to support truck traffic movements. Through the extension to Warden Avenue and Civic Road, the corridor will provide access to the employment and industrial lands south of the study area

Emergency Services Benefits

As noted in **Section** 9.4**,** emergency service vehicles (police, fire, ambulance) will benefit from the street network **improvement. It is notable that three (3) Toronto Fire Stations in the vicinity of the study area would likely be able to utilize the street** improvement – Station 235 and 200 Bermondsey Road, Station 224 at 1313 Woodbine Avenue, and Station 222 at 755 Warden Avenue. Toronto Fire through consultation at the TAC meetings, expressed strong support for the improvement.

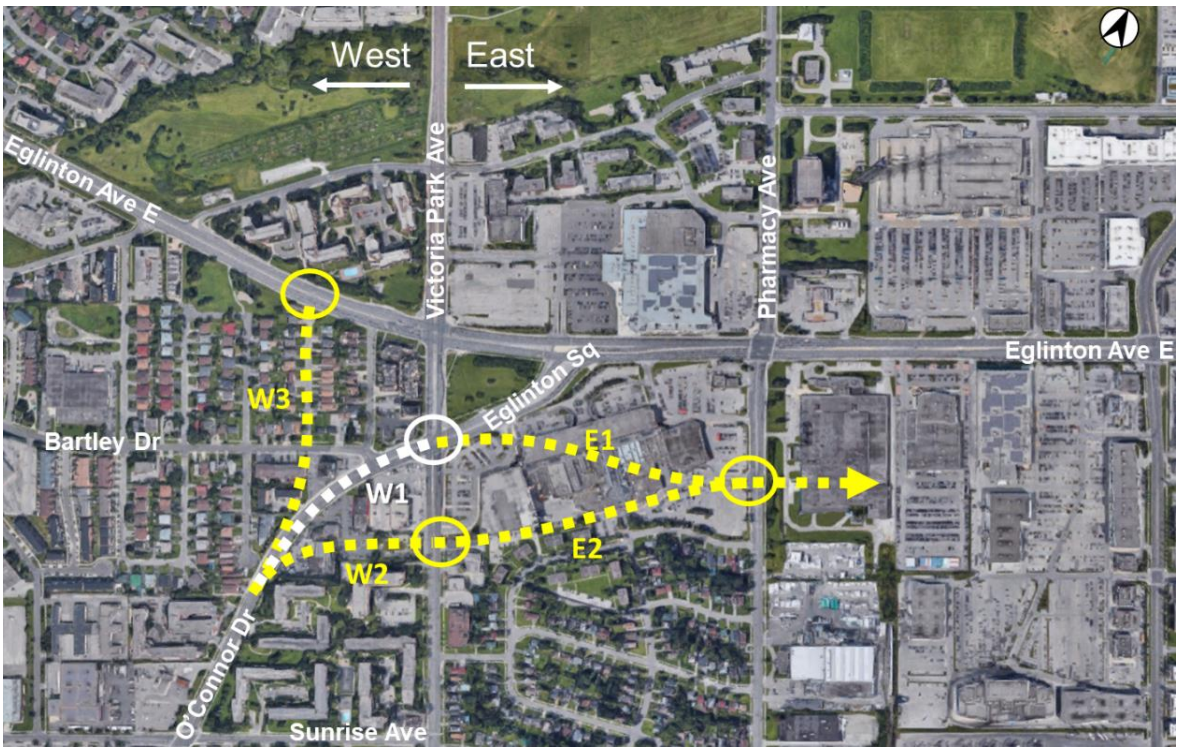
Multimodal Requirements

As the O'Connor Drive Extension generally forms the southern boundary of the Secondary Plan area, it must be designed as a welcoming and inviting space for both new and existing people in the surrounding community. This may be achieved by providing a high quality public realm with safe pedestrian and cycling facilities, protected street crossings, and infrastructure design which reduces speeds and prioritizes safety for all modes.

Recommendations for Further Study

As the alignments shown in the GMSP are conceptual, further Environmental Assessment Study is recommended for this key improvement to determine a preferred alignment which minimizes property impacts and impacts to the surrounding communities. Potential conceptual alignment options for further consideration are illustrated in **Figure 10-2**.

Figure 10-2: Potential Conceptual Alignment Options for O'Connor Drive Reconfiguration



Given the potential impacts to properties west of Victoria Park Avenue, three (3) potential conceptual alignment options are identified in **Figure 10-2** as follows:

- W1 maintains the existing alignment of O'Connor Drive
- W2 considers a reconfiguration to the south, meeting Victoria Park Avenue about 150m south of the existing intersection
- W3 considers a reconfiguration to the north, meeting Eglinton Avenue.

Two (2) options also exist east of Victoria Park Avenue:

- E1 meets Victoria Park Avenue at W1
- E2 meets Victoria Park Avenue at W2

Both options meet Pharmacy Avenue roughly at or just south of the existing traffic signal access for Eglinton Square Mall. The subsequent EA study must assess these options to determine a preferred alignment.

10.1.2 Jonesville Signalization and Craigton Drive Reconfiguration

The introduction of the ECLRT along Eglinton Avenue incorporates reduced through traffic lanes on Eglinton Avenue from six (6) lanes to four (4) lanes. This change, combined with development intensification, particularly on the north side of Eglinton Avenue results in increased traffic congestion on Eglinton Avenue and increased demand to access new development on the north side. Additionally, eastbound left-turn movements are projected to be particularly constrained in the afternoon peak hour. Introducing a new traffic signal at Jonesville Crescent and Eglinton Avenue just west of the study area will provide eastbound traffic with the opportunity to turn off of Eglinton Avenue prior to approaching the Eglinton Avenue and Victoria Park Avenue intersection. The traffic signal will also provide a protected crossing for pedestrians and cyclists which may align with a potential crossing of the Gatineau Hydro Corridor Trail / Meadoway Corridor at Eglinton Avenue.

A related improvement is the reconfiguration of Craigton Drive to meet Ashtonbee Road at Pharmacy Avenue. This improvement combined with the new traffic signal at Jonesville Crescent provides a continuous connection north of Eglinton Avenue for all travel modes across the study area.

It is further noted that there is a planned restriction of eastbound left turns at Victoria Park Avenue and Eglinton Avenue intersection; thus this improvement would allow traffic to access the study area via Jonesville and continuous Craigton Drive / Ashtonbee Road and alleviate congestion at the Eglinton Avenue and Victoria Park Avenue intersection. A vehicular traffic analysis with and without the Jonesville Crescent signalization was conducted to understand the potential impacts on the ECLRT operations and this can be found in **Section 9.3.3.**

Based on the travel demand analysis for the Preferred TMP Solution, two (2) vehicular traffic lanes are recommended for the Jonesville Crescent, Craigton Drive, and Ashtonbee Road corridor.

10.1.3 Golden Mile Boulevard

Golden Mile Boulevard is an important, continuous east-west street between Ashtonbee Road and Eglinton Avenue extending across the entire study area from Victoria Park Avenue to Birchmount Road. This street is envisioned to provide multimodal access to developments with an enhanced public realm. Based on the travel demand analysis of the Preferred TMP Solution, two (2) vehicular traffic lanes are needed to serve the projected demand.

10.1.4 Thermos Road and Sinnott Road Jog Elimination

Need and Justification

With the introduction of the ECLRT in the middle of Eglinton Avenue, there are limited opportunities to connect development on both sides of Eglinton Avenue particularly between Warden Avenue and Birchmount Road. The jog elimination of Sinnott Road and Thermos Road will provide all moves access for vehicles, pedestrians, and cyclists with direct connectivity across Eglinton Avenue and a continuous north-south route alternative to Warden Avenue and Birchmount Road between Bertrand Avenue and Comstock Road.

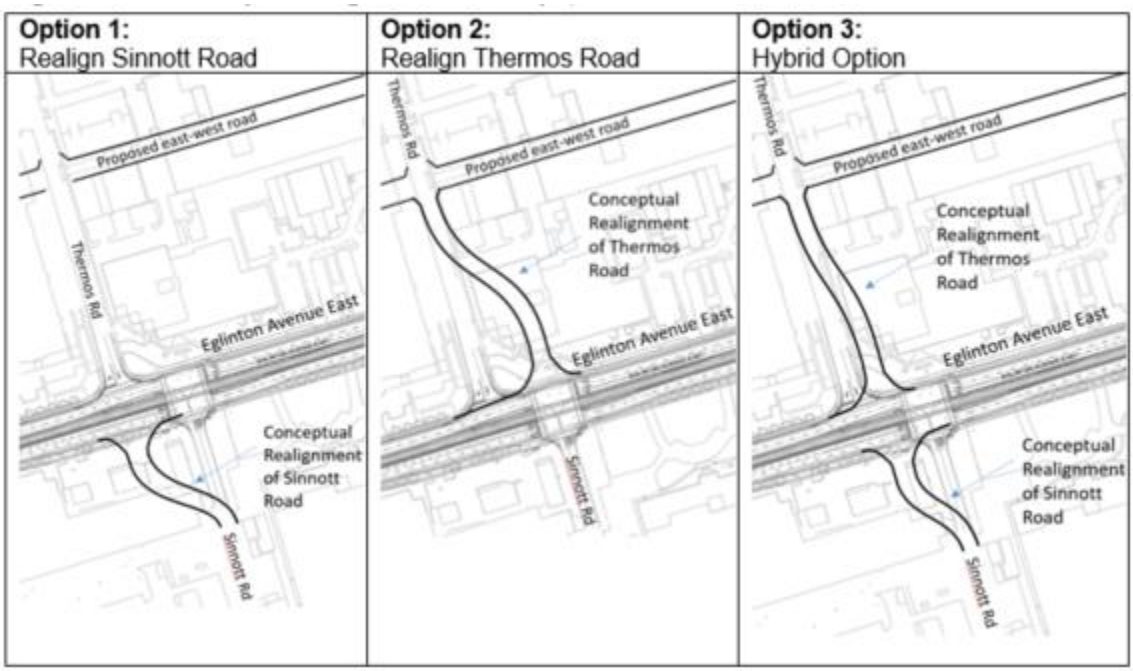
Under the current ECLRT design (as per the 100% Review detailed design of the ECLRT), each southbound vehicle on Thermos Road wishing to travel eastbound on Eglinton Avenue or southbound on Sinnott Road would be required to travel over 1.2 kilometres. These vehicles would make a southbound right-turn, travel over 500m westbound to Warden Avenue where they would be required to queue with the westbound left-turns, make a U-turn, and then travel another 500m eastbound back to Thermos Road.

Because of these benefits, the elimination of the jog between Sinnott Road and Thermos Road at Eglinton Avenue is recommended as a critical element of the preliminary preferred street and block network.

Jog Elimination Options

Three (3) unique options are considered for the jog elimination, outlined in **Figure 10-3**.

Figure 10-3: Conceptual Jog Elimination Options



Three (3) unique options for this connection were considered for the jog elimination and were evaluated based on ECLRT design / construction impacts; functional design; property impacts; and cost impacts.

A brief evaluation of these options is provided in **Table 10-1**, which considers ECLRT design and construction impacts, functional design, property and cost.

Table 10-1: Evaluation of Implementation Options

Performance Measure	Option 1: Realign Sinnott Road	Option 2: Realign Thermos Road	Option 3: Hybrid
ECLRT Design / Construction Impacts	**Negative** Will require change to current construction design / plans.	**Positive** No change to current construction design / plans.	**Negative** Will require change to current construction design / plans.
Functional Design	**Neutral** Horizontal curvature: straight approach on north side, substandard approach on south side.	**Positive** Horizontal curvature acceptable on both approaches.	**Positive** Horizontal curvature acceptable on both approaches.
Property Impacts	**Neutral** Does not impact properties on north side of Eglinton Avenue; impacts at least two properties on south side of Eglinton Avenue.	**Neutral** Does not impact properties on south side of Eglinton Avenue; impacts one property on north side of Eglinton Avenue.	**Negative** Lesser impact on property on north side of Eglinton Avenue; impacts at least one property on south side of Eglinton Avenue.
Construction Impacts (Cost	**Negative**	**Positive**	**Negative**

Performance Measure	Option 1: Realign Sinnott Road	Option 2: Realign Thermos Road	Option 3: Hybrid
/Transportation Service)	If no change to ECLRT design, significant new construction required including reconstruction of Eglinton Avenue roadway profile, modification to lane configurations and storage. Construction will also require the temporary closure of Eglinton Avenue to vehicular traffic.	Reduced construction costs and traffic impacts regardless of ECLRT design.	If no change to ECLRT design, significant new construction costs and traffic impacts similar to Option 1.
Overall	**Less Preferred**	**Preferred**	**Less Preferred**

Recommendation

Due primarily to the minimized impacts on the current ECLRT design and construction, reduced risk with respect to construction timing and costs, and equivalent impacts to properties on either side of Eglinton Avenue in all options, the preferred jog elimination option of Sinnott Road and Thermos Road at Eglinton Avenue is **Option 2: *Realign Thermos Road to meet Eglinton Avenue at the existing Sinnott Road intersection***.

10.2 Traffic Operational Recommendations and Analysis

Traffic operational analysis is conducted for the Preferred TMP Solution. Future turning movement level forecasts for the 2041 PM peak hour were generated via the demand forecasting process detailed in **Chapters 7** and **8**. Intersection controls and recommended lane configurations are illustrated in **Figure 10-4**. The Preferred TMP Solution 2041 PM peak hour turning movement volumes are shown in **Figure 10-5**.

Figure 10-4: Preferred TMP Solution Intersection Controls and Lane Configurations

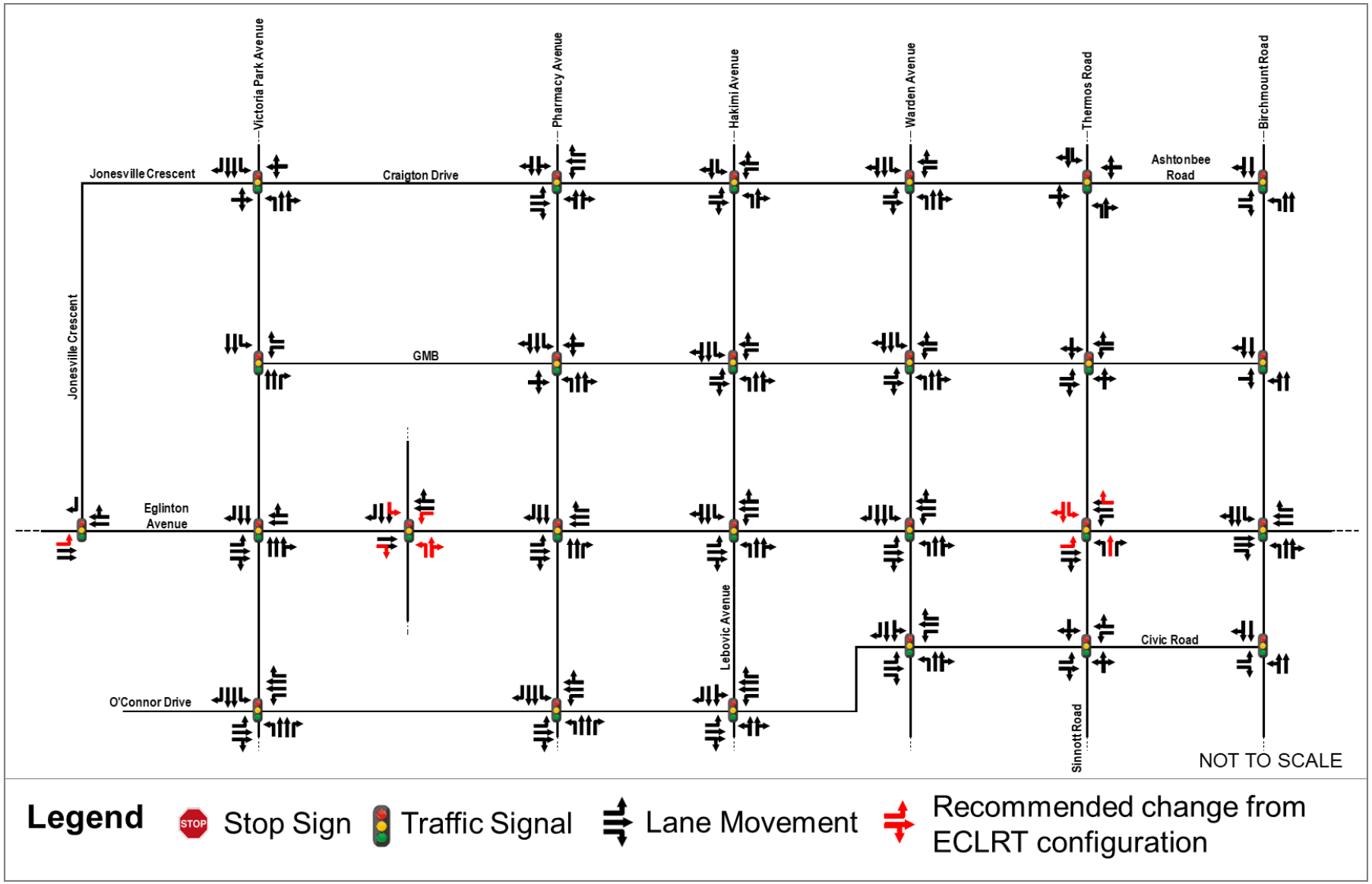
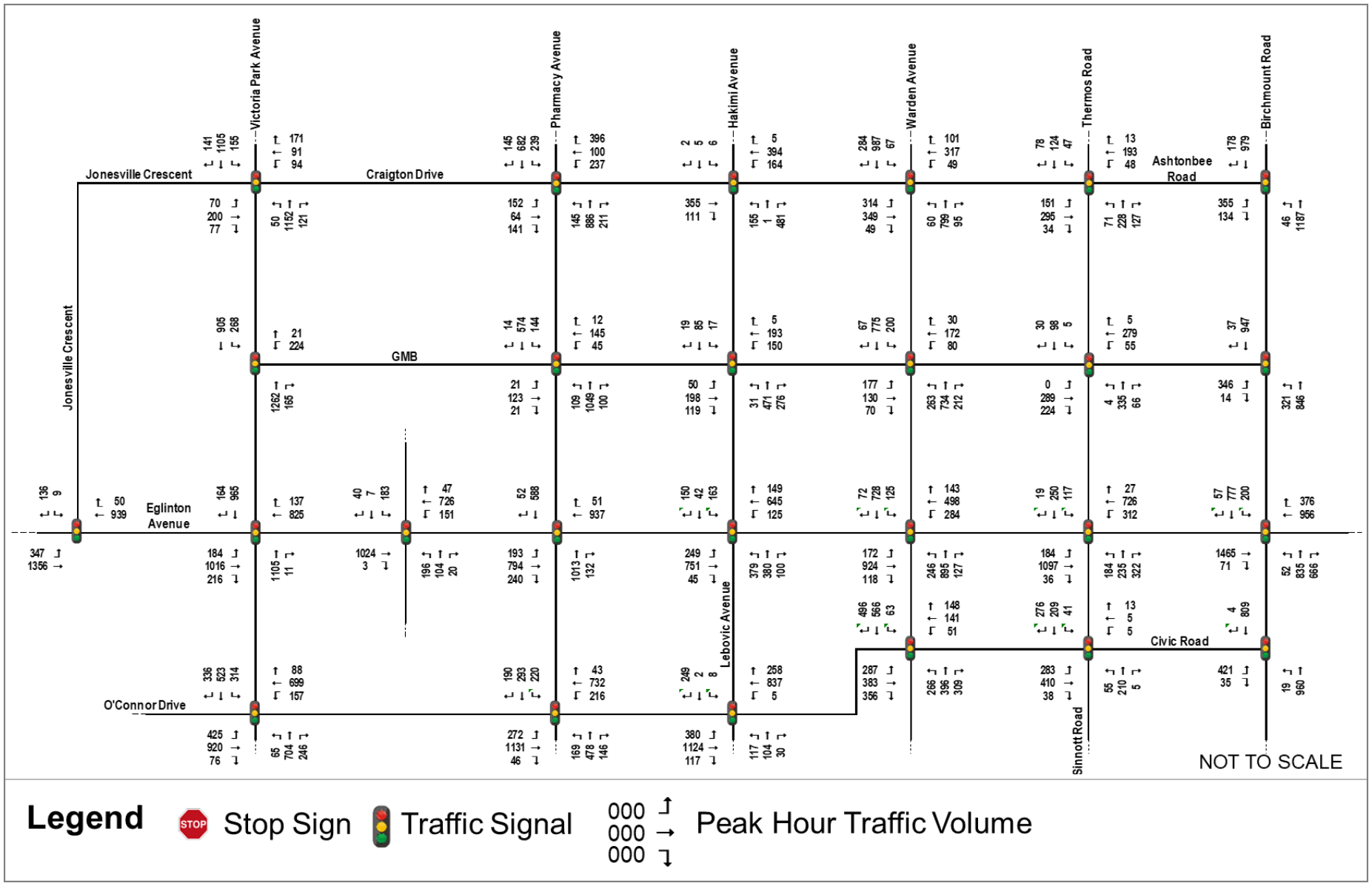


Figure 10-5: Preferred TMP Solution 2041 PM Peak Hour Volumes



10.2.1 Modifications to the ECLRT Design

In the Preferred TMP Solution a number of changes to intersection controls and lane configurations are proposed along Eglinton Avenue relative to the lane configurations currently under construction for the ECLRT. The changes are illustrated in **Figure 10-4** and include:

- Signalization of Jonesville Crescent at Eglinton Avenue and eastbound left-turn auxiliary lane
- Modified lane configurations at the Eglinton Square and Eglinton Avenue intersection with the addition of a new local / collector road access on the north side of Eglinton, and reconfigured approach on the south side (due to O'Connor reconfiguration)
- Modified lane configurations at the Sinnott Road and Eglinton Avenue Intersection adding a north leg for the Thermos Road realignment

10.2.2 Intersection Capacity Analysis

The intersection capacity analysis for the study area was assessed using Synchro 9 software. The City of Toronto's Guidelines for using Synchro were used in this study along with input from City of Toronto Transportation staff.

An iterative process was used to refine and develop recommendations for the intersection controls, lane configurations and signal phasing. Each signal's phasing and splits were optimized and adjusted in Synchro based on the forecasted volumes and to accommodate known design constraints. It is noted that new traffic signals are recommended for the new east-west streets at each of the north-south arterial road and collector road intersections in the study area.

Table 10-2 summarizes the results of the signalized intersection capacity analysis for the existing and proposed signalized intersections in the 2041 weekday PM peak hour along Eglinton Avenue (see **Appendix F** for details). Critical movements are defined as through or turning lanes with LOS of 'E' or 'F' and/or a v/c ratio of 1.00 or worse. The majority of signalized intersections are expected to operate at overall LOS 'D' or better.

Capacity constraints are noted at the intersections of Eglinton Avenue at Warden Avenue and Eglinton Avenue at Birchmount Road. These intersections operate at overall LOS 'F' in the PM peak hour. These intersections do not have sufficient capacity to accommodate both the high volume turning traffic on Eglinton Avenue and the high volume right-turning traffic from Birchmount Road (666 vehicle/hour for northbound right turn). Travel Demand Management strategies and policies intended to reduce vehicular travel are recommended to mitigate these potential issues.

Table 10-2: Detailed Future PM Peak Hour Traffic Operations

Intersection & Approach / Movement	Delay (s)	LOS	v/c
Eglinton Avenue & Jonesville Crescent (Signalized)			
EBL	55.6	E	0.85
EBT	12.3	B	0.66
WBTR	58.2	E	0.90
SBLR	49.1	D	0.13
Overall Intersection	**35.5**	**D**	**0.67**
Eglinton Avenue & Victoria Park Avenue (Signalized)			
EBL	27.6	C	0.42
EBTR	14.9	B	0.65
WBTR	69.2	E	1.07
NBTR	30.1	C	0.77
SBT	48.9	D	0.96
SBR	18.2	B	0.27
Overall Intersection	**37.6**	**D**	**0.91**
Eglinton Avenue & Eglinton Square (Signalized)			
EBTR	25.6	C	0.66
WBL	40.6	D	0.70
WBTR	4.4	A	0.36
NBL	61.8	E	0.82
NBTR	38	D	0.32
SBLT	38.8	D	0.40
SBR	34.9	C	0.03
Overall Intersection	**24.9**	**C**	**0.71**
Eglinton Avenue & Pharmacy Avenue (Signalized)			
EBL	47.0	D	0.73
EBTR	28.2	C	0.57
WBT	33.6	C	0.84
WBR	86.2	F	0.04
NBT	37.3	D	0.88
NBR	21.7	C	0.16
SBT	22.6	C	0.51
SBR	0.2	A	0.04
Overall Intersection	**32**	**C**	**0.83**
Eglinton Avenue & Hakimi Avenue / Lebovic Avenue (Signalized)			
EBL	35.7	D	0.78
EBTR	42.6	D	0.71
WBL	38.7	D	0.47
WBTR	36.5	D	0.79

Intersection & Approach / Movement	Delay (s)	LOS	v/c
NBL	73.1	E	0.97
NBTR	29.2	C	0.39
SBL	67.8	E	0.83
SBTR	35.2	D	0.11
Overall Intersection	**42.8**	**D**	**0.88**
Eglinton Avenue & Warden Avenue (Signalized)			
EBL	56.7	E	0.80
EBTR	92.6	F	1.08
WBL	118.0	F	1.14
WBTR	25.7	C	0.64
NBL	104.7	F	1.07
NBTR	130.2	F	1.16
SBL	64.3	E	0.71
SBT	58.4	E	0.89
SBR	99.2	F	0.07
Overall Intersection	**86.1**	**F**	**1.14**
Eglinton Avenue & Thermos Road / Sinnott Road (Signalized)			
EBL	51.5	D	0.56
EBTR	95.2	F	1.13
WBL	56.5	E	0.98
WBTR	46.3	D	0.72
NBL	56.2	E	0.82
NBT	50.2	D	0.7
NBR	42.9	D	0.47
SBL	34.7	C	0.47
SBTR	59.1	E	0.82
Overall Intersection	**64.2**	**E**	**0.98**
Eglinton Avenue & Birchmount Road (Signalized)			
EBT	114.2	F	1.16
EBR	45.9	D	0.06
WBT	36.4	D	0.76
WBR	32.2	C	0.52
NBL	19.3	B	0.24
NBTR	146.7	F	1.25
SBL	148.8	F	1.07
SBTR	2.2	A	0.49
Overall Intersection	**86.2**	**F**	**1.19**

10.2.3 Eglinton Avenue Corridor Delay Analysis

To inform the future operations of the ECLRT service and identify any potential mitigation measures to plan for, a VISSIM microsimulation analysis was conducted to measure travel times for automobiles and transit vehicles.

Micro Modelling (VISSIM) Methodology

To assess corridor travel times, three (3) scenarios were tested to understand the impact of development on ECLRT operations:

1. A future “do-nothing” scenario which includes only currently planned population and employment growth in the study area
2. The preferred land use and transportation network (without new traffic signal at Jonesville Crescent and Eglinton Avenue)
3. The preferred land use and transportation network (including new traffic signal at Jonesville Crescent and Eglinton Avenue)

Additional details on VISSIM methodology and key assumptions are provided in **Appendix G**.

ECLRT Travel Times

Modelled ECLRT corridor 2041 PM peak hour travel times for the three scenarios are summarized in **Figure 10-6** for eastbound and **Figure 10-7** for westbound.

In the peak eastbound direction, there appears to be little variation in the cumulative travel time for the corridor. As the ECLRT approaches from the west of the study area, both the do nothing scenario and the preferred scenario (without Jonesville) operate similar with respect to travel times. The introduction of the new traffic signal at Jonesville does negatively impact eastbound ECLRT travel time as it approaches Victoria Park Avenue. However as the ECLRT progresses, the travel time improves in this scenario such that the cumulative time is the same as the other two (2) scenarios. It is estimated that the vehicular traffic benefits of the Jonesville signal allow traffic to divert away from Eglinton Avenue and thus allow for improved signal timings to maximize ECLRT progression.

Figure 10-6: ECLRT 2041 PM Peak Hour Travel Time - Eastbound

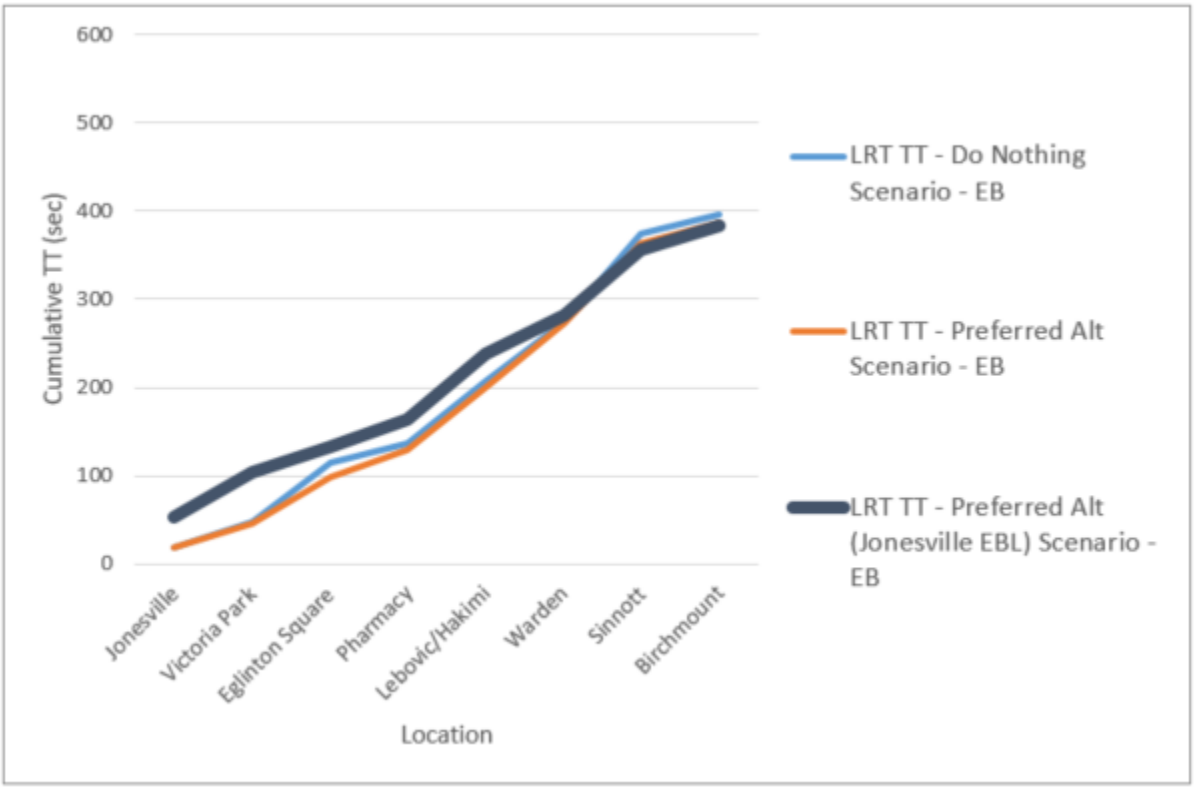
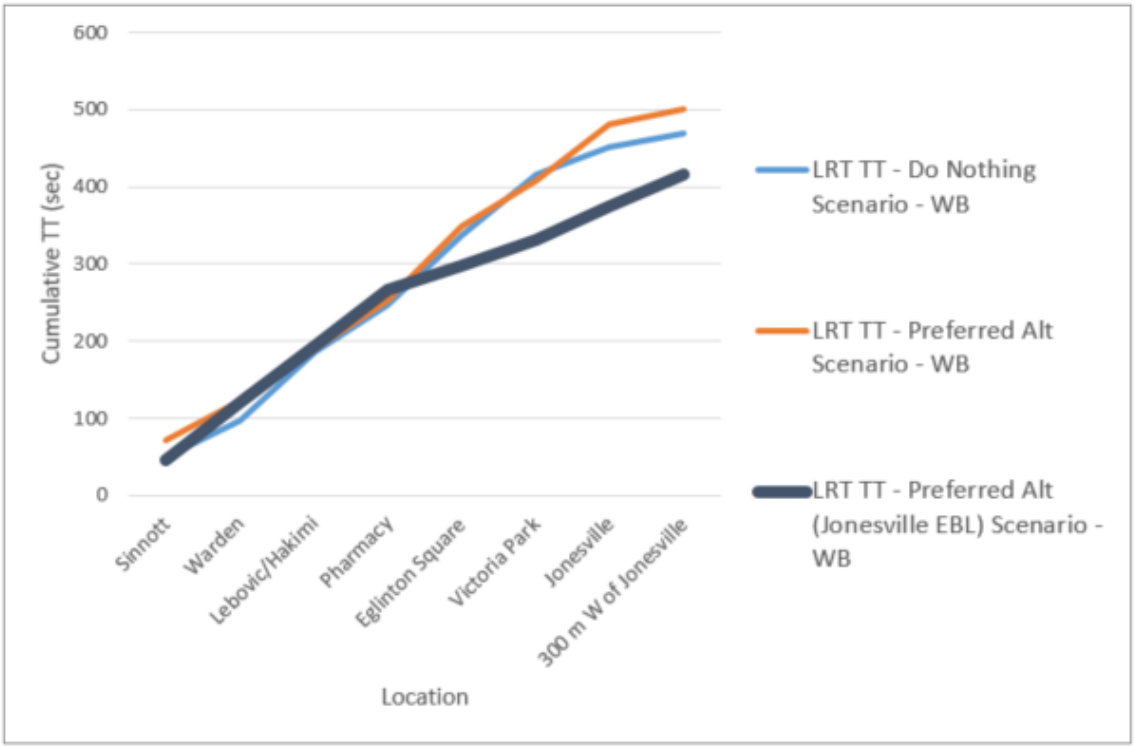


Figure 10-7: ECLRT 2041 PM Peak Hour Travel Time - Westbound



In the off-peak westbound direction, the cumulative travel time impacts of the preferred land use scenario and the benefits of the preferred transportation network are more pronounced than in the peak direction. This is likely due to greater sensitivity to signal timings.

Auto Travel Times

The corridor travel times for the three (3) scenarios are summarized in **Figure 10-8** and **Figure 10-9**. Automobile progression across the corridor is slightly worse in the "with Jonesville" scenario versus the "without Jonesville" scenario. This is due to high traffic volumes and associated queues resulting in higher delays. Overall however the delay is minimal with a maximum estimated increase of 10% to corridor travel times. This increase is balanced out by a 20% benefit to westbound ECLRT travel times.

Figure 10-8: Automobile 2041 PM Peak Hour Travel Time - Eastbound

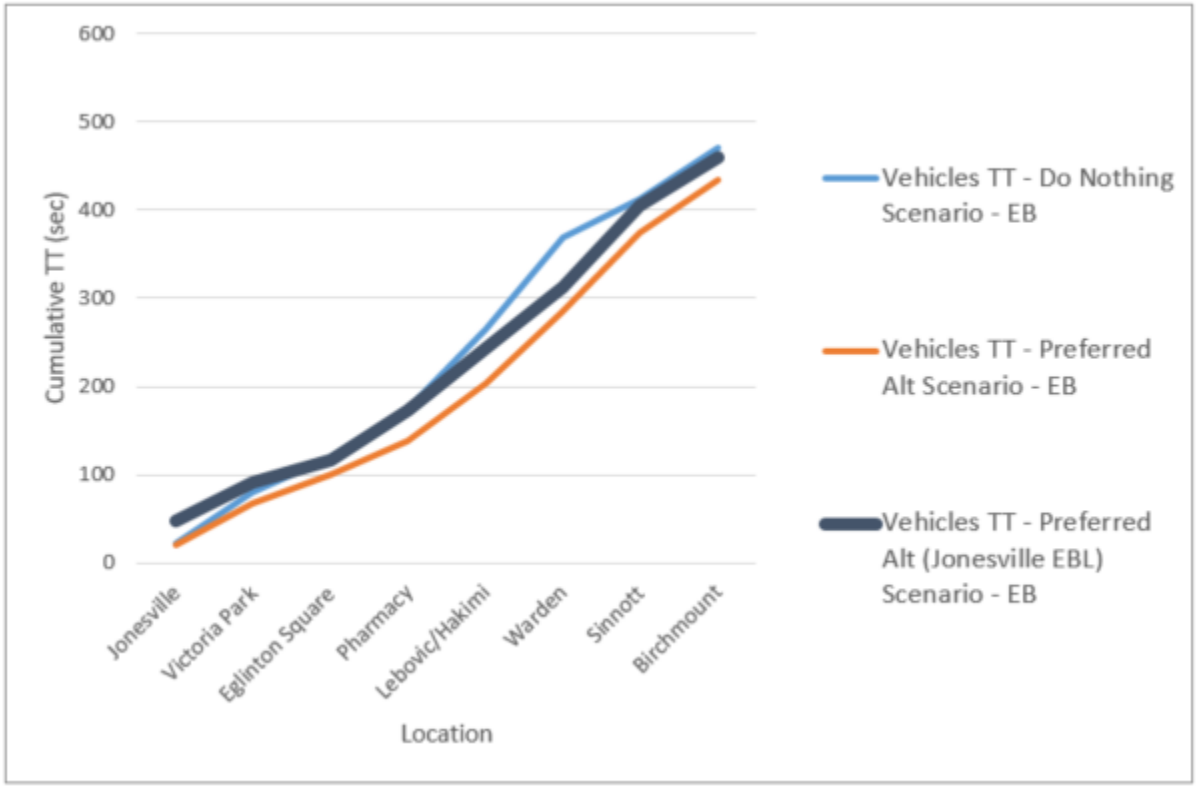
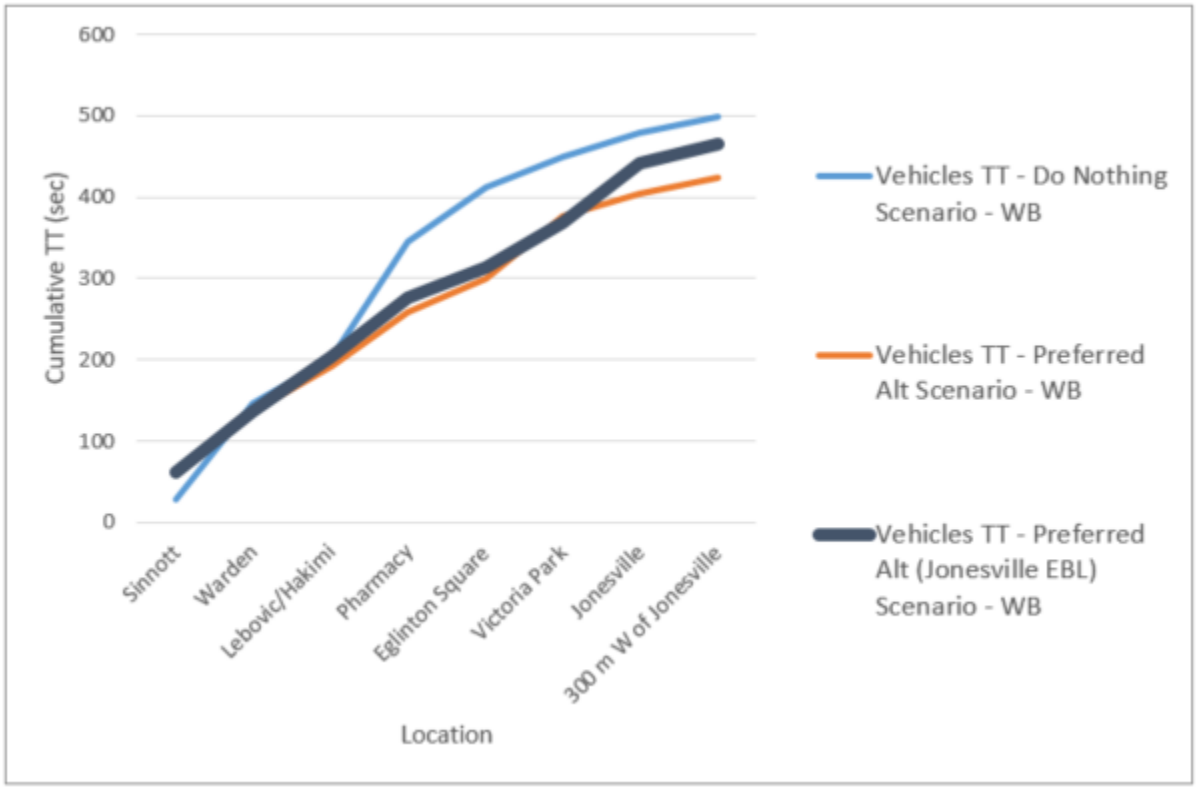


Figure 10-9: Automobile 2041 PM Peak Hour Travel Time - Westbound



Queue Length Analysis

Queue lengths for Eglinton Avenue intersections were assessed to determine the impacts of the Preferred TMP Solution. **Table 10-3** summarizes the results of the VISSIM queue analysis. Overall queue lengths appear to be acceptable with the exception of the eastbound left-turn at Eglinton Avenue and Pharmacy Avenue, Eglinton Avenue and Hakimi Avenue and the westbound left-turn at Eglinton Avenue and Warden Avenue.

Table 10-3: VISSIM 2041 PM Peak Hour Intersection Analysis-Queue Lengths

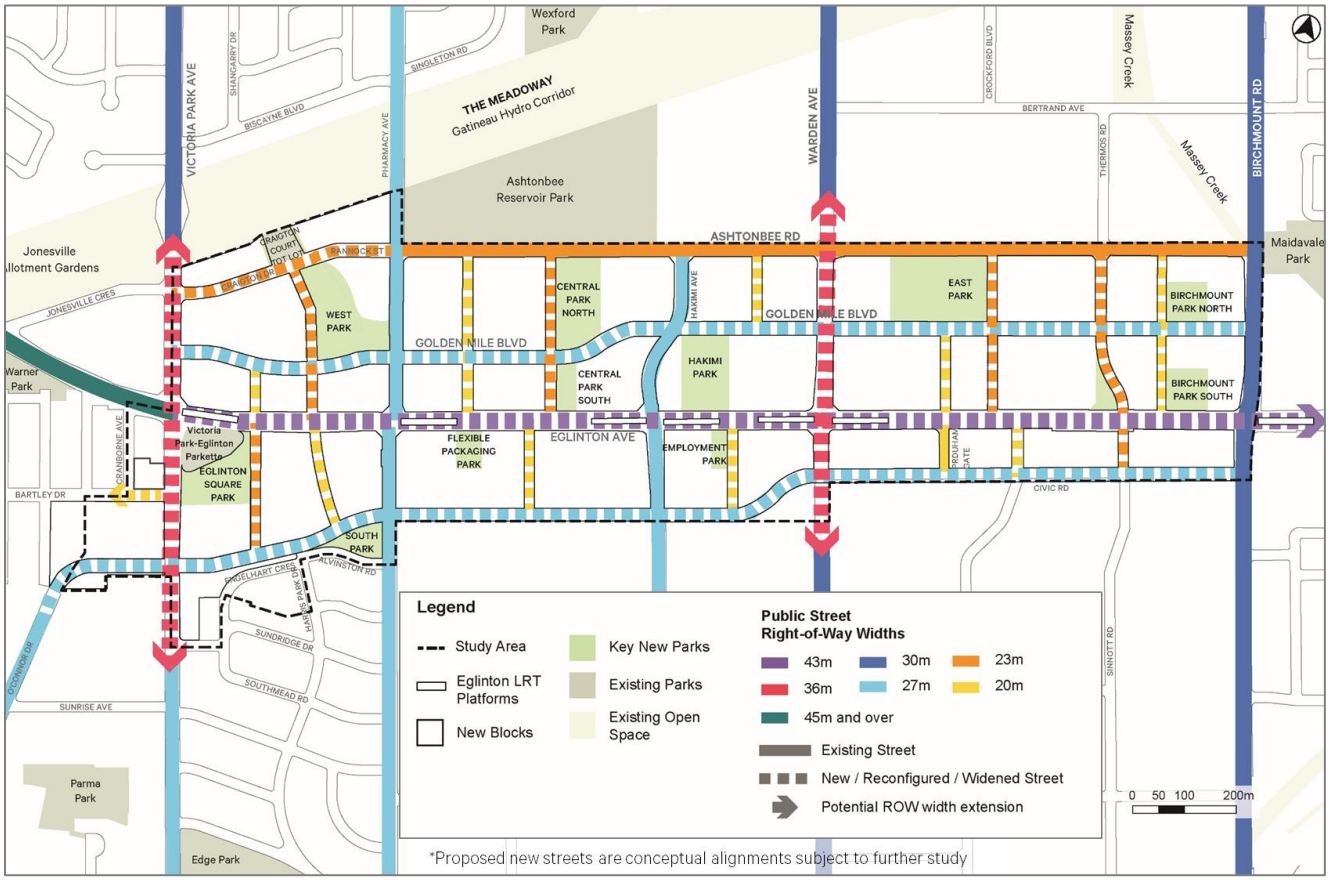
Intersection & Approach / Movement	Vehicle Delay (s)	LOS	95th % Queue	Maximum Queue (m)
Eglinton Avenue & Victoria Park Avenue (Signalized)				
EBL	52	D	30	106
EBT	18	B	30	204
EBR	19	B	30	204
WBT	57	E	64	142
WBR	53	D	64	142
Eglinton Avenue & Eglinton Square (Signalized)				
EBT	16	B	23	132
EBR	12	B	23	132

Intersection & Approach / Movement	Vehicle Delay (s)	LOS	95th % Queue	Maximum Queue (m)
WBL	58	E	15	76
WBT	17	B	13	95
WBR	15	B	13	95
Eglinton Avenue & Pharmacy Avenue (Signalized)				
EBL	126	F	94	263
EBT	13	B	16	91
EBR	17	B	16	91
WBT	26	C	28	128
WBR	8	A	0	12
Eglinton Avenue & Hakimi Avenue/ Lebovic Avenue (Signalized)				
EBL	141	F	192	292
EBT	30	C	29	123
EBR	31	C	29	123
WBL	75	E	27	87
WBT	22	C	21	152
WBR	27	C	21	152
Eglinton Avenue & Warden Avenue (Signalized)				
EBL	71	E	44	112
EBT	38	D	57	211
EBR	42	D	57	211
WBL	145	F	149	247
WBT	27	C	22	106
WBR	30	C	22	106
Eglinton Avenue & Thermos Road/ Sinnott Road (Signalized)				
EBL	63	E	36	180
EBT	31	C	69	255
EBR	29	C	69	255
WBL	55	E	46	149
WBT	33	C	28	127
WBR	35	C	28	127
Eglinton Avenue & Birchmount Road (Signalized)				
EBT	30	C	76	209
EBR	15	B	0	7
WBT	23	C	29	139
WBR	7	A	0	16

10.3 Street Right-of-Ways and Typical Cross-Sections

Right-of-way (ROW) widths for the preferred network for existing and future streets are illustrated in **Figure 10-10**. Golden Mile Boulevard and O'Connor Drive are all recommended for 27m ROW width to accommodate required street elements building upon the cycling network recommendations, Transit Priority plan and EcoMobility hub plan presented in **Section 9.1**. 36m ROW is required on Victoria Park Avenue and Warden Avenue to facilitate future transit priority and cycling improvements, which would be subject to future transit corridor or Environmental Assessment study. Eglinton Avenue will require additional ROW to accommodate enhanced public realm. Finally, all local streets are generally 20m with the exception of key north-south streets adjacent to proposed parks which may accommodate on-street parking or public realm enhancements supporting the EcoMobility Hub conceptual plan.

Figure 10-10: Preferred Street Network Right-of-Way Widths



10.3.1 Typical Cross-Sections

Typical cross-sections for the street ROW widths are provided for guidance on implementation (**Figure 10-11** to **Figure 10-19**). Cross-section drawings include:

- Eglinton Avenue East (43m)
- Victoria Park / Warden Avenue (36m ROW)
- Birchmount Road (30m ROW)
- Golden Mile Boulevard (GMB) from Victoria Park Avenue to West Park (27m ROW), and from West Park to Birchmount (27m ROW)
- O'Connor / Hakimi / Lebovic (27m ROW)
- Craigton/Ashtonbee and New Street with Bike Lanes (23m ROW)
- New Street with Multi-Use Path (23m ROW)
- New Street (20m ROW)

Figure 10-11: Typical Cross-Section - Eglinton Avenue East (43m ROW)

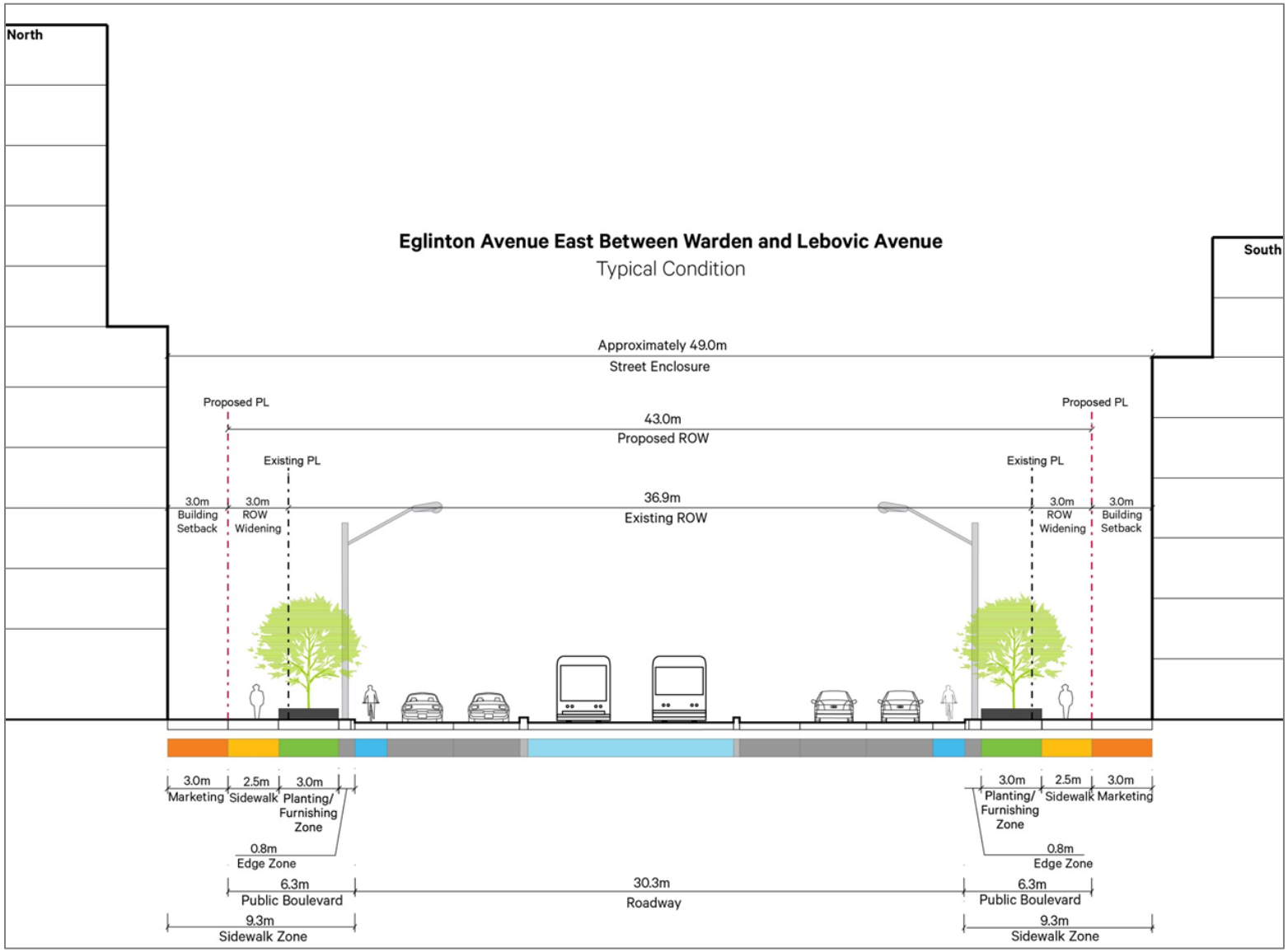


Figure 10-12: Typical Cross-Section – Victoria Park / Warden Avenue (36m ROW)

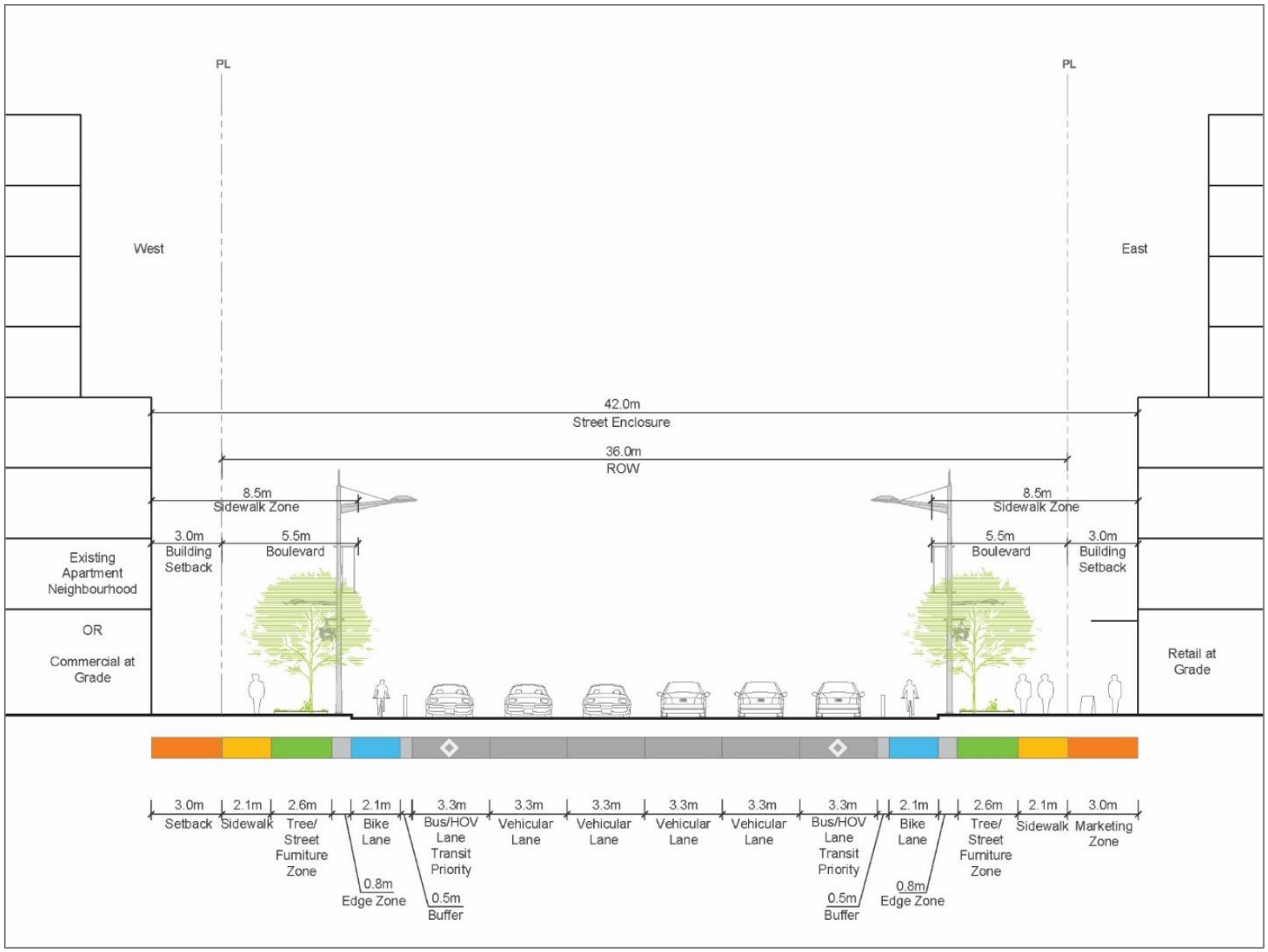


Figure 10-13: Typical Cross-Section – Birchmount Road (30m ROW)

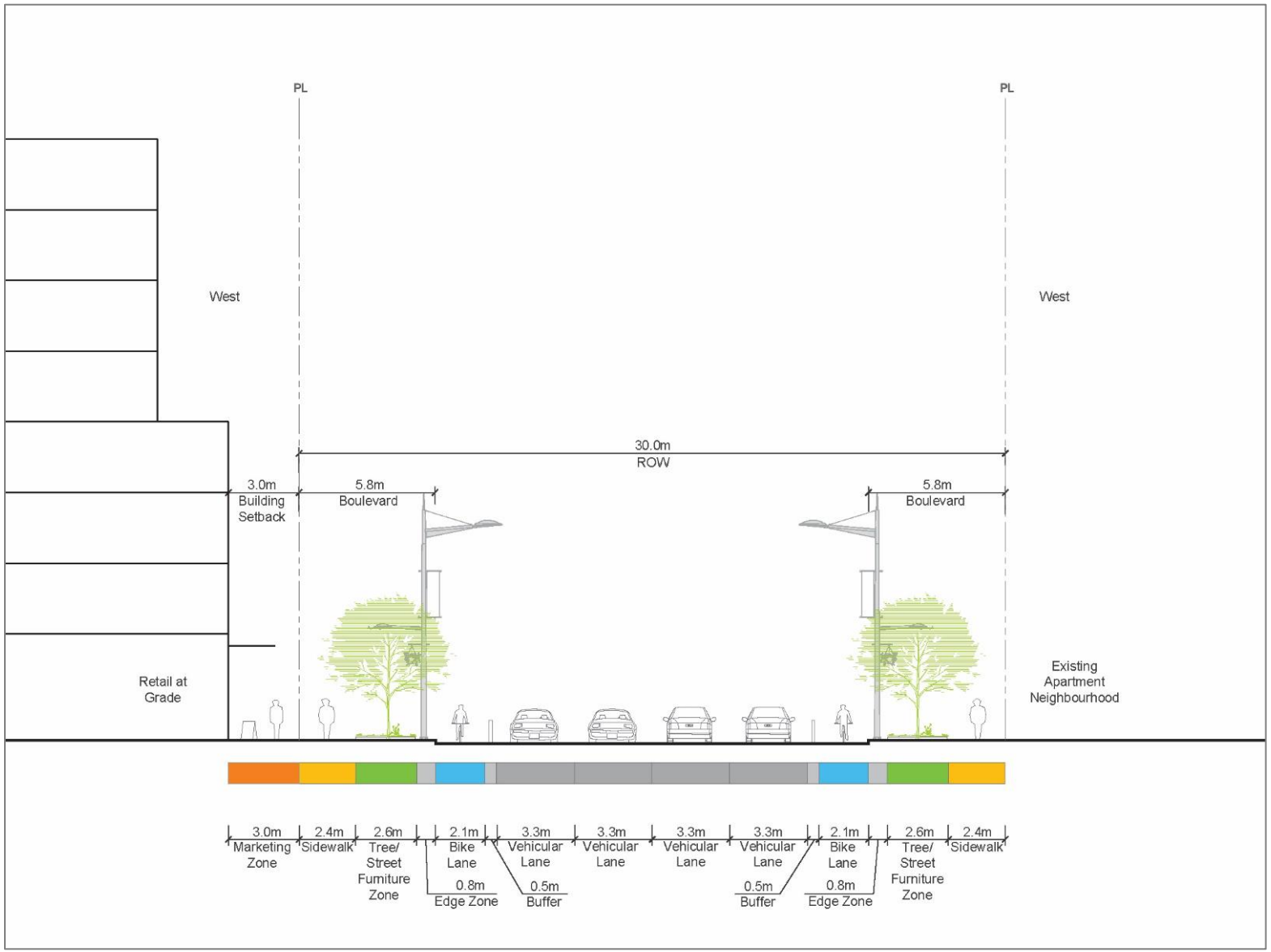


Figure 10-14: Typical Cross-Section – Golden Mile Boulevard, Victoria Park Avenue to West Park (27m ROW)

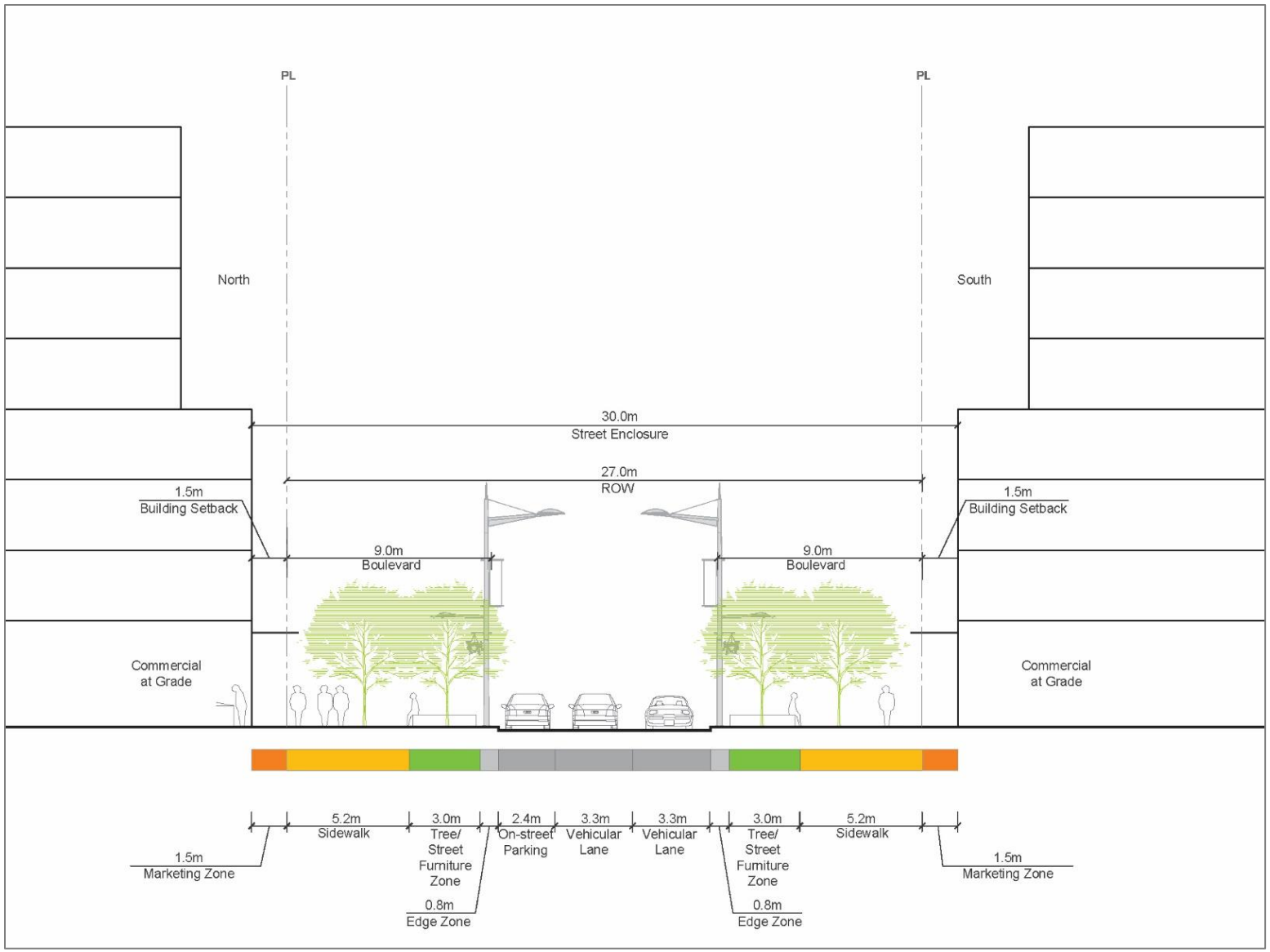


Figure 10-15: Typical Cross-Section – Golden Mile Boulevard, West Park to Birchmount Road (27m ROW)

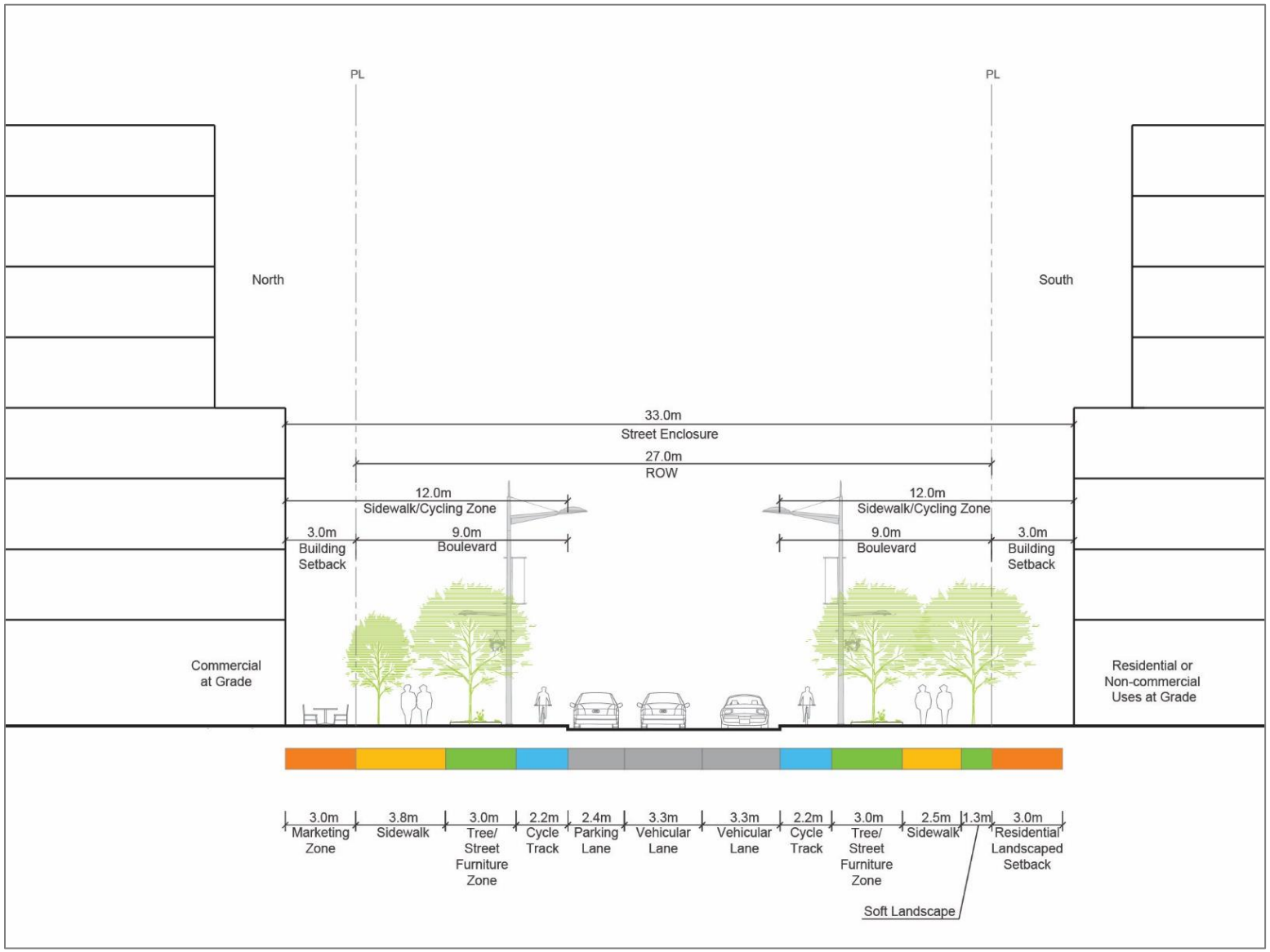


Figure 10-16: Typical Cross-Section – O'Connor / Hakimi / Lebovic (27m ROW)

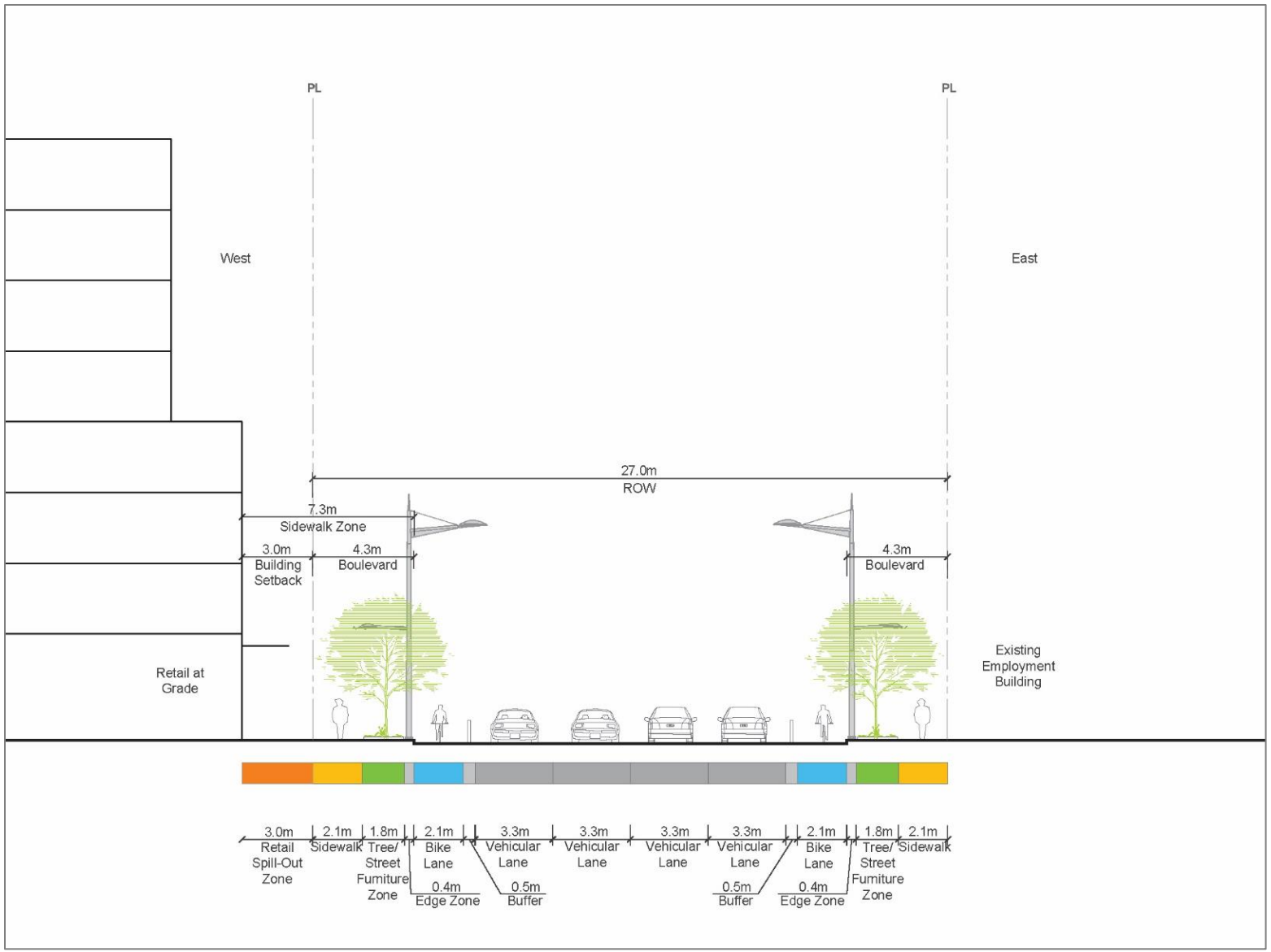


Figure 10-17: Craigton / Ashtonbee and New Street with Bike Lanes (23m ROW)

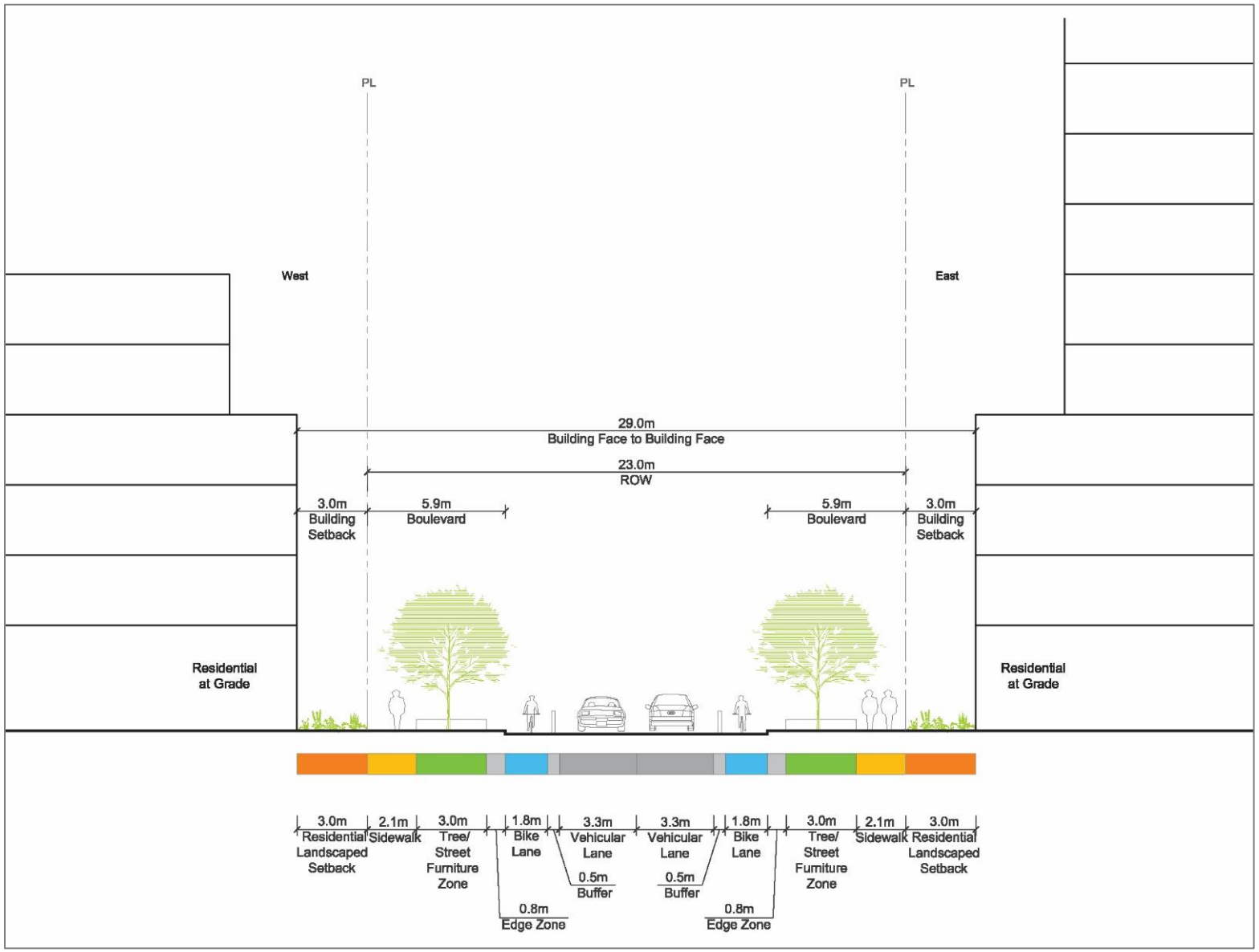


Figure 10-18: New Street with Multi-Use Path (23m ROW)

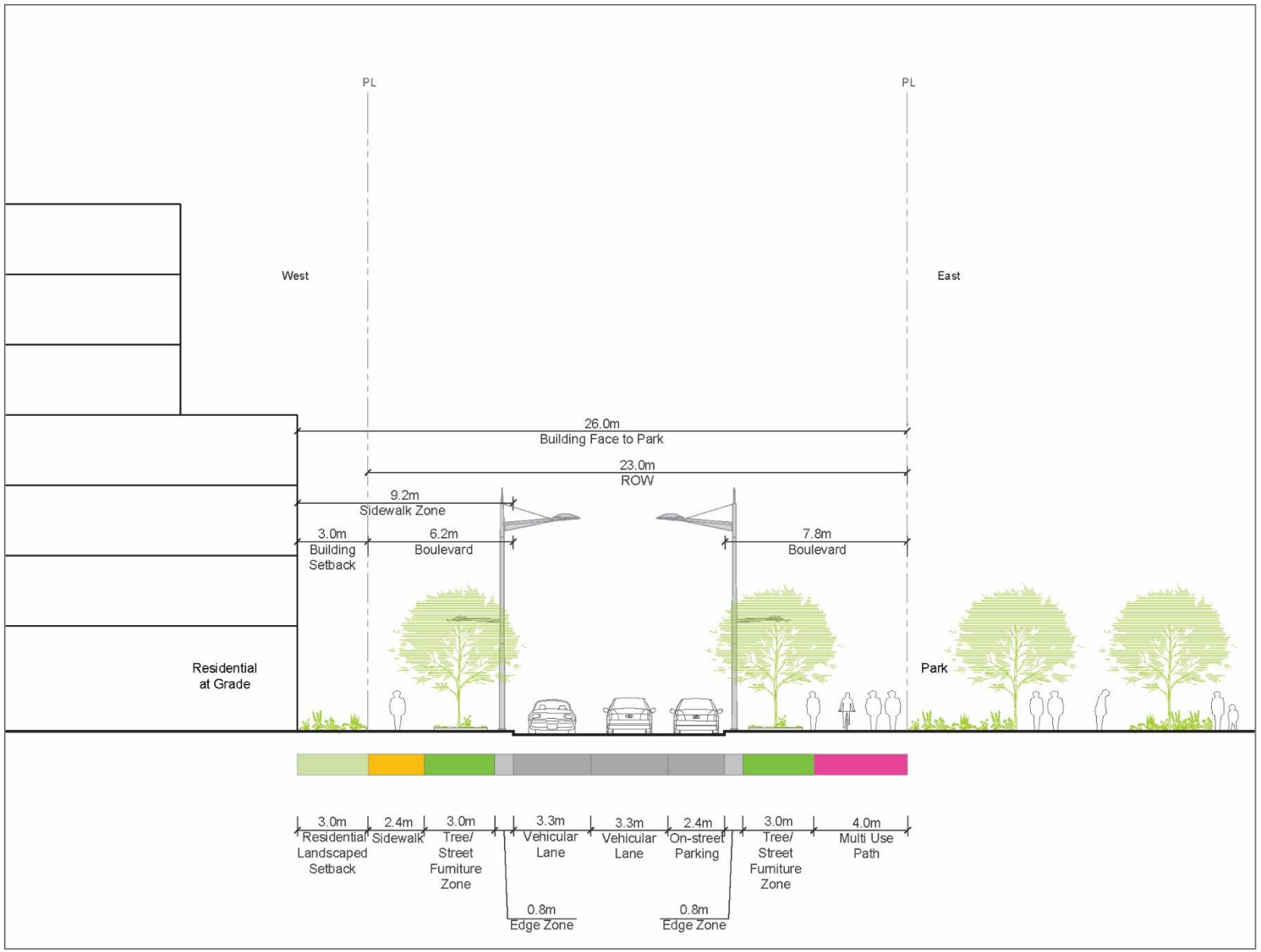
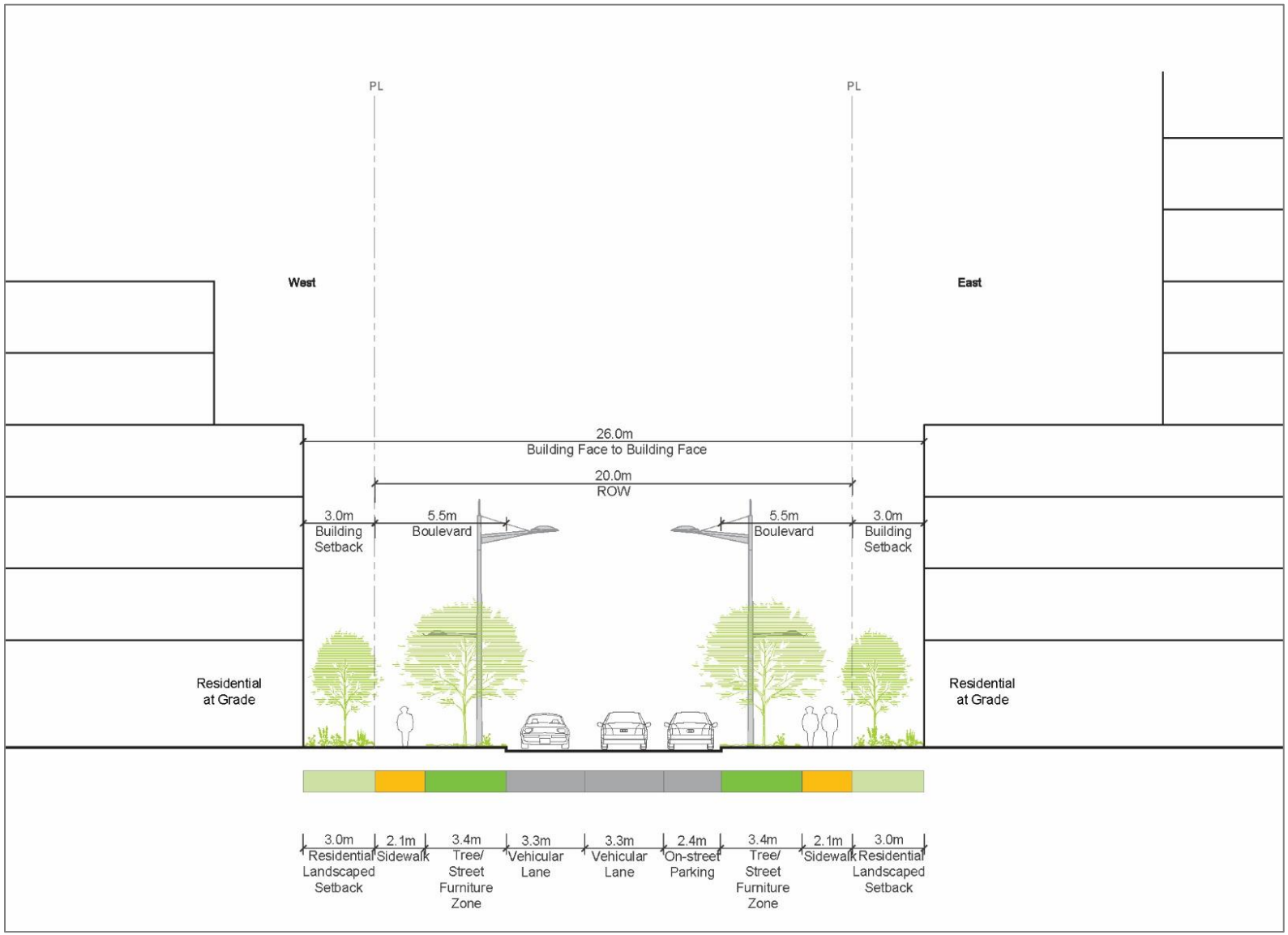


Figure 10-19: New Street (20m ROW)



10.4 Pedestrian and Cycling Network Considerations

The vision for the cycling network is to create a connected and safe network to promote cycling as a viable mode for cyclists of all abilities. This includes the consideration of desirable separation based on vehicular traffic and providing connections to existing and proposed parks, including the Meadoway. **Figure 9-2** presented the recommended pedestrian and cycling network and the following sections provide additional guidance on midblock crossings, pedestrian and cycling priority streets, and new connections beyond the study area.

10.4.1 Midblock Crossing Considerations

In alignment with the Toronto Complete Streets Guidelines, midblock pedestrian crossings may be implemented within long blocks and at key destinations such as schools, transit stops or stations, offices or shopping plazas. Treatment types may include traffic signals, mid-block pedestrian signals, pedestrian crossovers (also known as PXOs) and pedestrian crossing or refuge islands.

Traffic Control Signals are already recommended at all arterial and collector road intersections. Additional crossings of the new east-west streets should be considered within long blocks between Victoria Park Avenue and Pharmacy Avenue, Pharmacy Avenue and Hakimi / Lebovic Avenue, and Warden Avenue to Thermos Road.

10.4.2 Pedestrian and Cycling Priority Streets

Recognizing that it may not be possible to accommodate all users or uses on every street, the Complete Streets approach instead recommends creating a network that provides safe and efficient access for all street users, activities and functions. Similarly, the Toronto Vision Zero Plan recommends implementing enhanced safety measures along designated Pedestrian Safety Corridors. As such, the potential to create a network of pedestrian and cycling priority streets throughout the GMSP should be investigated. Pedestrian and bicycle priority streets can take many forms; however, they generally have low volume, low-speed streets that allow, but discourage, motorized traffic. These streets are optimized for pedestrian and bicycle movements with design features like curb bump-outs, and motor vehicle through-traffic restrictions.

This approach can accommodate the ongoing need for goods movement in the Golden Mile, including truck access to the light industrial sites and for loading/deliveries to shopping centres and retail stores. The pedestrian and cycling priority network can be planned in such a way that it avoids routes with frequent truck traffic, while still maintaining safe and efficient access to all areas of the Golden Mile.

The new north-south streets may be designated as pedestrian / cyclist priority depending on site-plan layout particularly with respect to parking and loading access. Another option includes providing policy direction to design privately owned public spaces as key active connections in the network.

10.4.3 Cycling Interchanges

To facilitate safe cycling movements along identified cycling corridors, “cycling interchanges” are identified at the intersection of two streets with on-street bike-lanes. Considerations should be made for safe cycling intersection design such as protected intersections or bike-boxes which can help facilitate left-turn movements.

The location of potential cycling interchanges is illustrated in **Figure 9-2**.

10.4.4 Crockford Boulevard Connection

Crockford Boulevard is an existing north-south street which crosses the Gatineau Hydro Corridor / Meadoway Trail. A direct multimodal connection to this street to and from the study area is recommended for further study and consideration as lands become available.

In the interim, Crockford Boulevard can be accessed via Thermos Road and Bertrand Avenue and dedicated cycling facilities along this route are recommended.

10.4.5 Meadoway Trail Crossing at Jonesville Crescent and Eglinton Avenue

The proposed Meadoway Trail will cross Eglinton Avenue in the vicinity of Jonesville Crescent. It is recommended that this crossing be aligned with the new Jonesville signal, and that the design the signalized intersection should safely accommodate pedestrian and cyclist movements. Similarly, the east-west cycling facilities on Craigton Drive should connect to the Meadoway Trail west of Victoria Park Avenue to provide a continuous east-west connection towards the Jonesville Crescent and Eglinton Avenue intersection.

10.5 Transit Recommendations

10.5.1 North-South Transit Priority Corridors

As noted in **Section 9.3.4**, transit priority improvements are recommended on Victoria Park Avenue and Warden Avenue to serve north-south transit demand through the GMSP Study Area. The exact nature of these improvements is subject to further study but could incorporate elements as identified in OP policies.

10.5.2 Policy Recommendations

Future coordination with Metrolinx

It is also noted that through coordination with adjacent Secondary Plan studies along the Eglinton Avenue corridor, that there is a potential transit capacity issue along the Eglinton Crosstown LRT line, particularly west of the GMSP Study area towards Yonge-Eglinton. This includes GMSP, Don Mills Crossing and Laird-in-Focus. The City should consider identifying these future potential issues to Metrolinx.

Impacts to TTC Bus Routes

TTC Route 67AB (Pharmacy) and 70AB (O'Connor) will be impacted by the Preferred TMP Solution. The recommended street network may facilitate new bus loops/turnarounds and new bus stops. The planning and implementation of the preferred street network through development must coordinate with the TTC to ensure that adequate space is provided to accommodate TTC needs.

Transit Stop Improvements

Providing amenities at bus stops in the study area including shelter and benches are essential to promoting transit use. Bike share should also be considered where warranted and in alignment with the EcoMobility hub recommendations identified as part of the Preferred TMP Solution.

10.6 Travel Demand Management and Parking

Travel Demand Management (TDM) policy and strategies are a critical component of the Preferred TMP Solution which can assist in influencing travel decisions. TDM can be especially effective when aligned with higher density development and new transit and active transportation infrastructure to further encourage sustainable travel behaviour. TDM strategies generally seek to affect travel behaviour through:

1. **Education, promotion and outreach.** This could include strategies such as special events, marketing campaigns, or skills training.
2. **Incentives and disincentives.** This could include rewards, convenience improvements, and/or increased costs.

The measures and examples listed below include continuations of existing programs in the study area, implementation of strategies used elsewhere in Toronto, and new measures.

10.6.1 Improving Travel Options

Five (5) measures were identified to improve travel options. This includes:

- Integrate walking, transit, and cycling
    - Provide enhanced walking routes to ECLRT stations
    - Provide bike parking at stations
    - Consider bike-friendly policies for ECLRT vehicles
- Support cycling
    - Make bike parking more visible, secure, and convenient
    - Provide guidelines and support for workplaces and other destinations on bike parking
    - Encourage better shower and change facilities at workplaces

- Make transit easier to use
  - Provide transit information kiosks with real-time information
  - Continue support for shuttle bus services
- Support carpooling and mobility on-demand services
  - Plan for public carpooling parking spots and make arrangements with property owners to permit carpool parking (i.e. preferential carpool parking spaces and discounted fees)
  - Provide coordination support for carpooling programs
  - Provide Passenger Pick-Up and Drop-Off (PPUDO) spots near ECLRT stations and other destinations
- Support car sharing operations
  - Provide parking stalls for car sharing services
  - Favour proposals to reduce on-site parking in developments where car sharing vehicles are accommodated

10.6.2 Outreach Measures

Three (3) outreach specific measures include:

- Promote a culture of active transportation and transit
  - Implement messaging campaigns and workplace award campaigns
- Increase opportunities to trial active or public transportation or car sharing
  - Consider free bike share promotions or open-streets events
  - Encourage the inclusion of car share or bikeshare memberships or transit passes with the purchase of new condos or through social-service agencies
- Increase convenience, confidence, and safety for users and prospective users of active transportation
  - Provide maps, implement wayfinding, and offer skills courses

10.6.3 Rationalize Parking

Two (2) measures were identified to rationalize parking:

- Cost
  - Increase the cost of parking
- Supply
  - Eliminate minimum parking standards and consider maximum parking rates to avoid over-supply for new transit supportive developments

- Allow cash in lieu of parking for new developments to fund shared parking facilities

Consider a Centralized Parking Facility that would be operated by the Toronto Parking Authority or a private-public venture, as recommended in the *Golden Mile Market Analysis and Economic Strategy* (2016). This would allow for a more efficient use of parking space, by allowing various land uses to share spaces, instead of designating separate spaces for separate uses. For example a single facility could accommodate both office parking demand (generally higher during the day), and residential parking in the evening.

Parking improvements work to reduce the overall parking supply in the Golden Mile while recognizing that retail and other uses will continue to require a minimum amount of parking for customers and deliveries.

11 Implementation Plan

This chapter outlines the implementation plan of the preferred TMP strategy. This includes:

- Policy directions;
- Implementation of the components of the preferred strategy;
- Travel Demand Management (TDM);
- Phasing of development;
- Transportation requirements for block development;
- Additional studies and recommendations; and
- Funding tools and programs.

11.1 Policy Directions

To guide the development of the preferred TMP strategy, several policy directions have been developed in regards to the new street and block network and potential amendments to the Official Plan, Cycling Network Plan, and the Zoning By-Law.

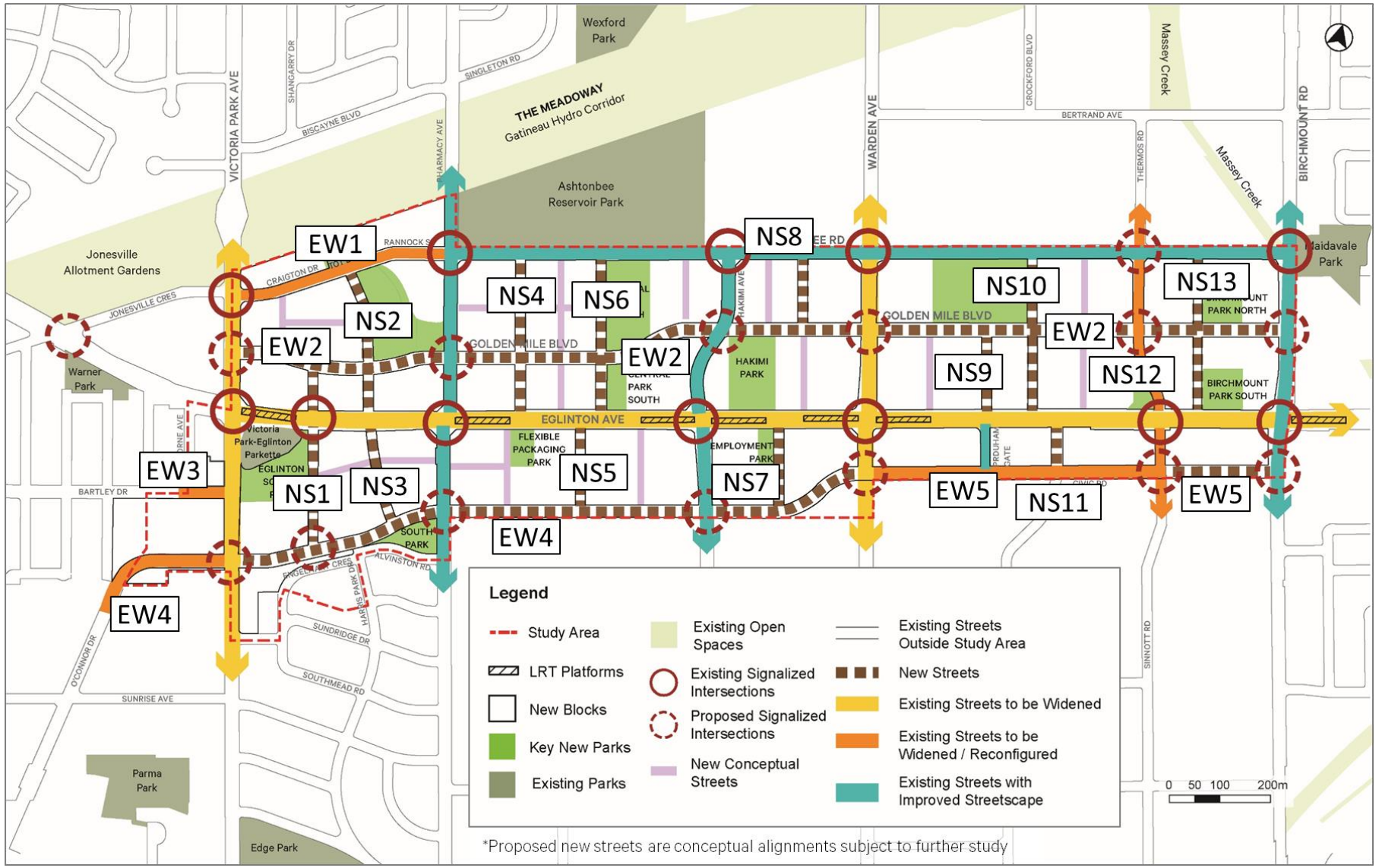
11.1.1 New Street Network Schedule

The recommended new street network for the Study Area is broken down into unique segments, classified and assigned a recommended right-of-way width, and a roadway length is estimated. The streets are identified in **Table 11-1** and illustrated with Street ID's in **Figure 11-1**.

Table 11-1: Schedule of Proposed Streets

Street ID	Location Flexibility	Street Name	Proposed Classification	Basic Right-of-Way (m)	Approx. Length (m)
EW1	Fixed: subject to EA Study	Craigton Drive Widening and Realignment	Collector	23	440
EW2	Fixed: subject to EA Study	Golden Mile Boulevard	Collector	27	2100
EW3	Fixed	Bartley Drive Extension	Local	20	100
EW4	Fixed: subject to EA Study	O'Connor Drive Reconfiguration and Extension	Collector	27	1500
EW5	Fixed: subject to EA Study	Civic Road Widening and Extension	Collector	27	810
NS1	Fixed	North-south Street 1 (Eglinton Square)	Local	23	370
NS2	Flexible	North-south Street 2	Local	23	300
NS3	Flexible	North-south Street 3	Local	20	210
NS4	Flexible	North-south Street 4	Local	20	330
NS5	Flexible	North-south Street 5	Local	20	180
NS6	Flexible	North-south Street 6	Local	23	330
NS7	Flexible	North-south Street 7	Local	20	180
NS8	Flexible	North-south Street 8	Local	20	150
NS9	Flexible	North-south Street 9	Local	20	180
NS10	Flexible	North-south Street 10	Local	23	330
NS11	Flexible	North-south Street 11	Local	20	100
NS12	Fixed	Thermos Road Realignment	Local	23	130
NS13	Flexible	North-south Street 13	Local	20	330

Figure 11-1: Recommended Street Network and Signalized Intersections



11.1.2 Amendments

Official Plan

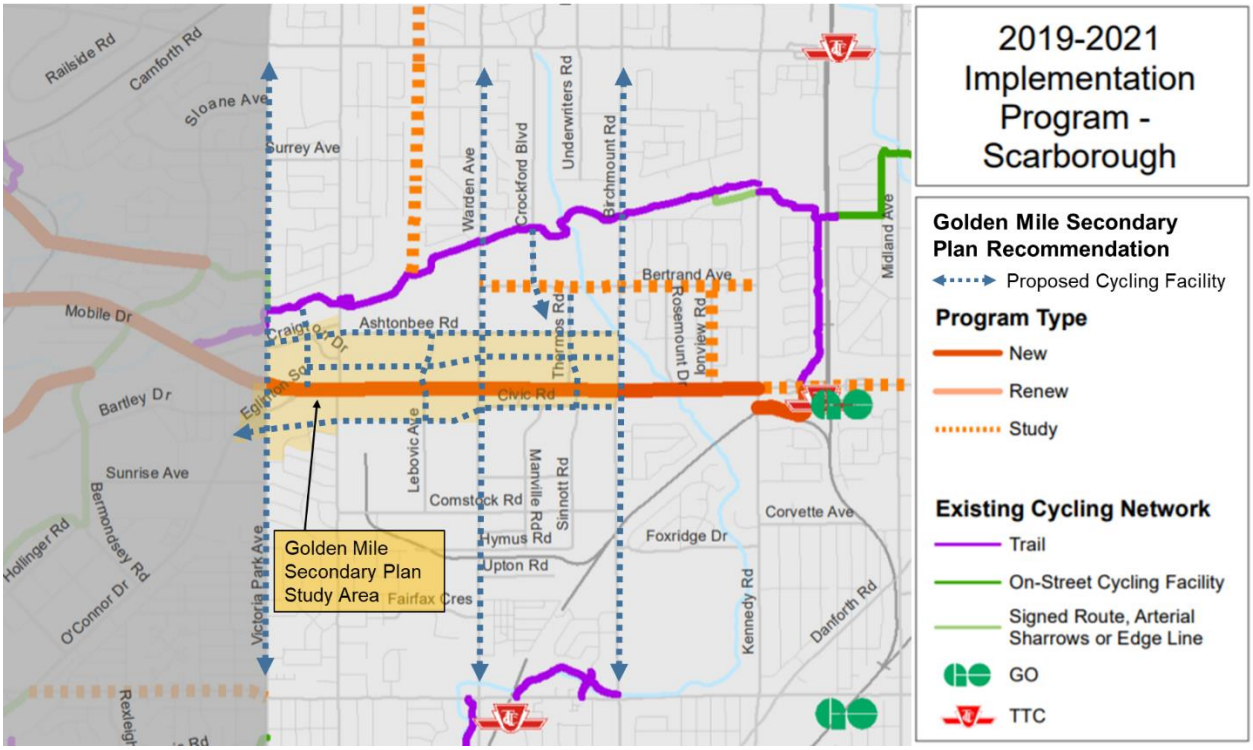
To implement the preferred transportation strategy for the GMSP study area, several potential amendments may be required to the City's Official Plan. These include:

- Schedule 1: Add new public streets with ROW width greater than 20m
- Schedule 2: Add new planned but unbuilt roads
- Map 3: Add the following streets:
    - Expanded ROW widths on Victoria Park Avenue (36m), Warden Avenue (36m), and Eglinton Avenue (43m)
    - New streets to be added:
        - Craigton Drive Widening and Realignment (23m)
        - Golden Mile Boulevard (27m)
        - O'Connor Drive Reconfiguration and Extension to Warden Avenue (27m)
        - Civic Road widening and extension to Birchmount Avenue (27m ROW)
- Map 5: Identification of Warden Avenue as a "Transit Priority Segment"
- Provide policy directions to accommodate shared mobility and EcoMobility hubs City-wide

Cycling Network Plan

The recommended cycling network is overlaid on top of the 2019-2021 program implementation map in **Figure 11-2**. A future amendment to the Cycling Network Plan should incorporate the recommendations of the Golden Mile Secondary Plan.

Figure 11-2: Cycling Network Plan Recommendations



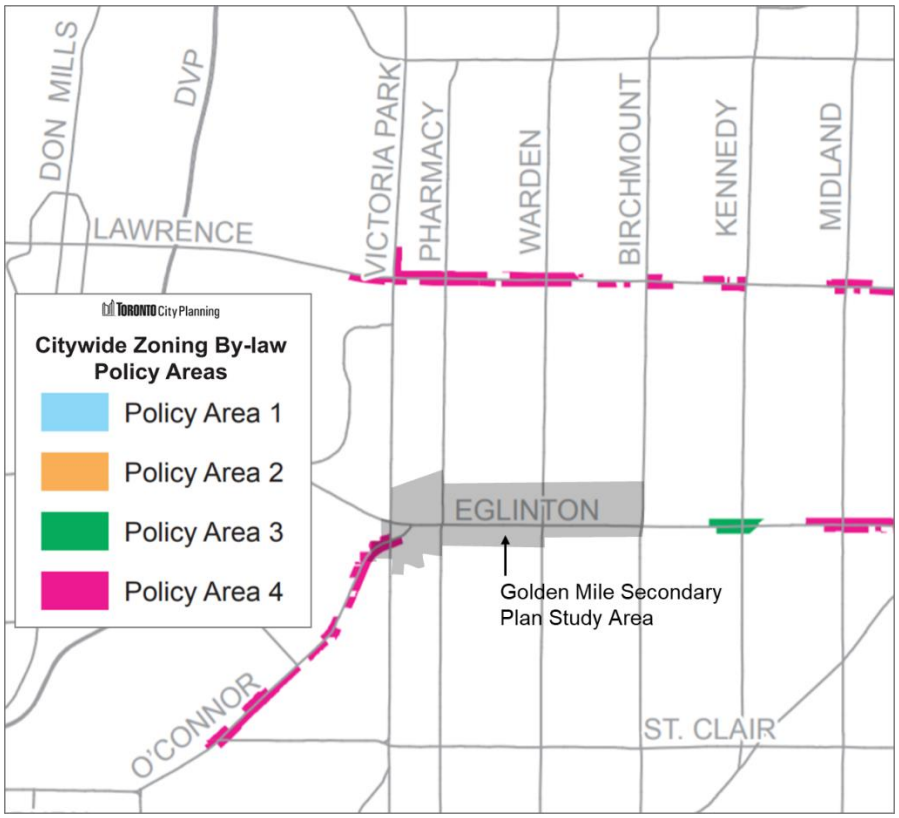
Zoning By-Law

As the City of Toronto Zoning By-Law 569-2013 governs the provision of parking by development, the potential for an amendment to the Zoning By-Law as it affects the Study Area should be considered to support the Preferred TMP Solution.

The City's Zoning By-Law identifies Policy Areas which reflect the urban structure in terms of transit availability and population density. The downtown core of the City is mostly Policy Area 1, meaning that it has the lowest parking rates and therefore also the smallest parking supply requirements relative to the rest of the City. Parking rates are increased incrementally for Policy Areas 2, 3, 4, and the highest rates are for 'all other areas of the City'. Policy Areas 1 to 4 also dictate maximum parking rates, since oversupplying parking spaces can encourage a higher vehicle modal split.

The current policy areas in the study area are illustrated in **Figure 11-3**.

Figure 11-3: City of Toronto Zoning By-Law Policy Areas Map



It is recommended that the policy be amended such that the Golden Mile Secondary Plan Study Area falls under Policy Area 4 at a minimum. Furthermore, site specific reductions in parking space rates may also require a Zoning By-law Amendment (ZBA) to reduce the amount of parking on-site.

11.2 Implementation of Solution Components

The components of the preferred TMP strategy have been evaluated to determine the next steps for implementation. This includes determination of the potential Municipal Class EA requirements which are identified based on the following Schedules (MCEA Project Schedules, December 2015):

- **Schedule A** projects are limited in scale, have minimal adverse environmental effects, and include a number of municipal maintenance and operational activities. These projects are pre-approved and may proceed to implementation without following the full Class EA planning process. Examples include new sidewalks and cycling facilities within existing ROW,
- **Schedule A+** projects are also limited with minimal adverse environmental effects but may have impacts on the general public and may be approved locally after public input. Examples include intersection modifications, signalization and reconfiguration, and in-boulevard treatments such as streetscaping and public amenities.

- **Schedule B** projects have the potential for some adverse environmental effects, and the municipality is required to undertake a screening process with the public and relevant review agencies to ensure that they are aware of the project and their concerns are addressed. Once outstanding concerns resolved, the project may proceed to the implementation stage. Examples include reconstruction or widening the road where the new facility will not be utilized for the same purpose, use, or capacity (i.e. conversion of vehicular lane to bike lane), new road construction less than one (1) kilometre in length, and new sidewalks or cycling facilities outside of existing ROW with a construction cost under $2.6M (MCEA Clarification on Cost Thresholds, March 2019).
- **Schedule C** projects have the potential for significant adverse environmental effects and must proceed under the full planning and documentation procedures specified in the Class EA document (Phases 1 to 4), including an Environmental Study Report (ESR) which must be made available for review by the public and regulatory review agencies. Examples include new road construction exceeding the cost threshold of $2.6M and/or greater than one (1) kilometre in length including major transit projects which fall under the six (6)-month Transit Project Assessment Process (TPAP).

The following tables identify next steps for implementation, anticipated EA schedule, and responsibility. Implementation steps for new streets are identified in **Table 11-2** with reference to Street ID's in **Figure 11-1.** Implementation steps for transit and active transportation improvements are summarized in **Table 11-3**, with reference to the projects noted in **Figure 11-4**.

Table 11-2: New Street Project Implementation*

Street ID	Street Name	Next Steps	Anticipated EA Schedule	Responsibility
EW1	Craigton Drive Widening and Realignment	EA Study	C	City/ Landowner
EW2	Golden Mile Boulevard	EA Study	C	City/ Landowner
EW3	Bartley Drive Extension	Implement through Planning Act	N/A	City / Landowner
EW4	O'Connor Drive Reconfiguration and Extension	EA Study	C	City/ Landowner
EW5	Civic Road Widening and Extension	EA Study	C	City/ Landowner
NS1 to NS13	North-south Street 1 to north-south street 13	Implement through Planning Act	N/A	City / Landowner

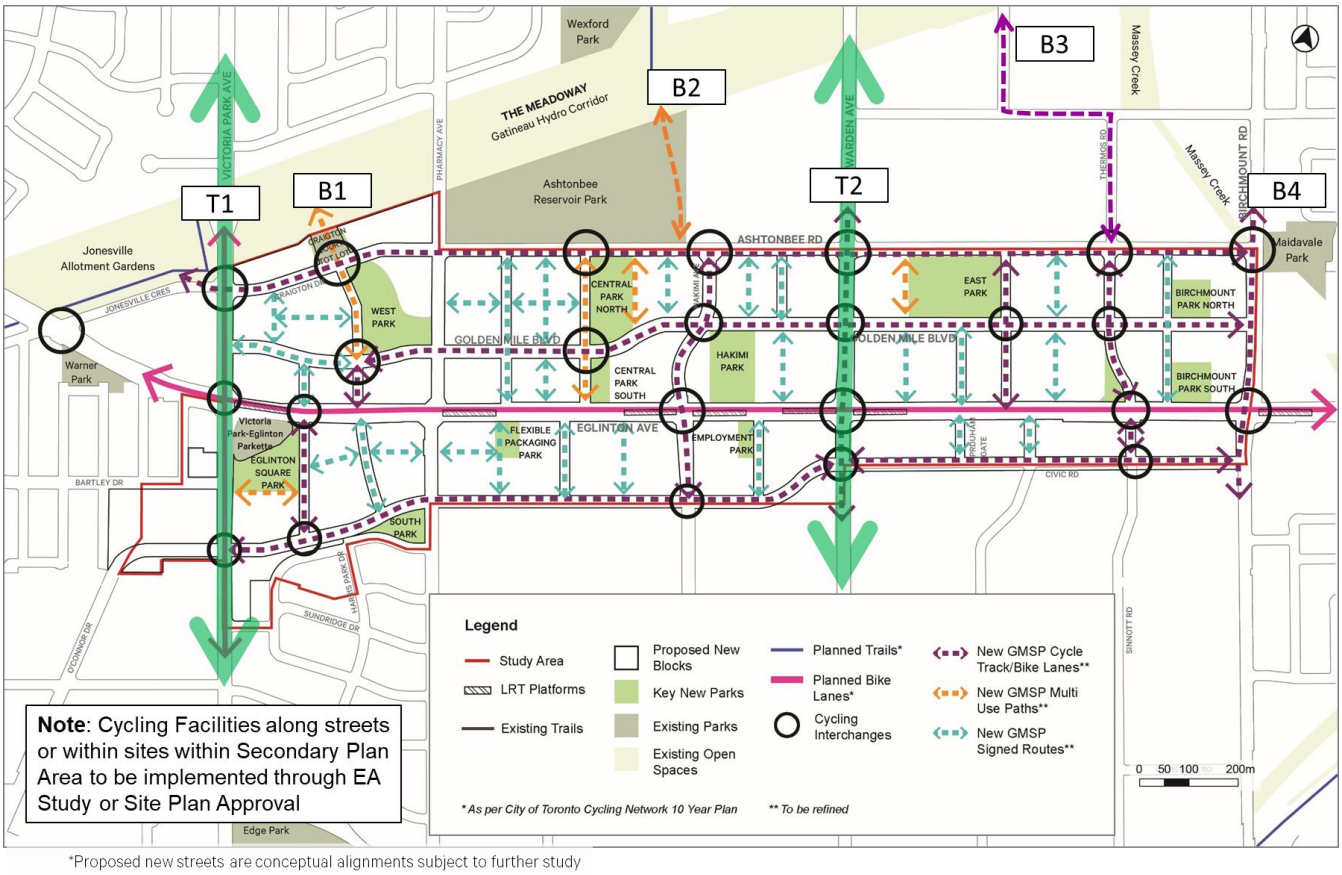
*Note: New Streets to incorporate recommended cycling facilities. Recommended intersection controls to be implemented through future EA study of associated new streets.

Table 11-3: Transit and Active Transportation Project Implementation

Project ID	Project Name	Next Steps	Anticipated EA Schedule	Responsibility
T1	Victoria Park Avenue Multimodal Transit Priority Corridor	EA / Transit Feasibility Study	C (if implemented as an EA)	City
T2	Warden Avenue Multimodal Transit Priority Corridor	EA / Transit Feasibility Study	C (if implemented as an EA)	City
B1	Meadoway Connection from Craigton Drive	Design and Implementation	A+	City/ Landowner
B2	Meadoway Connection at Hakimi Avenue	Design and Implementation	A+	City/ Landowner
B3	Thermos Road to Crockford Boulevard Cycling Facility	Design and Implementation	A+	City/ Landowner
B4	Birchmount Road Cycling Facility	EA Study to determine property impacts	B or C	City/ Landowner

*Note: Cycling facilities along streets or within sites within Secondary Plan Area to be implemented through EA study or site plan approval.

Figure 11-4: Transit and Active Transportation Projects



*Proposed new streets are conceptual alignments subject to further study

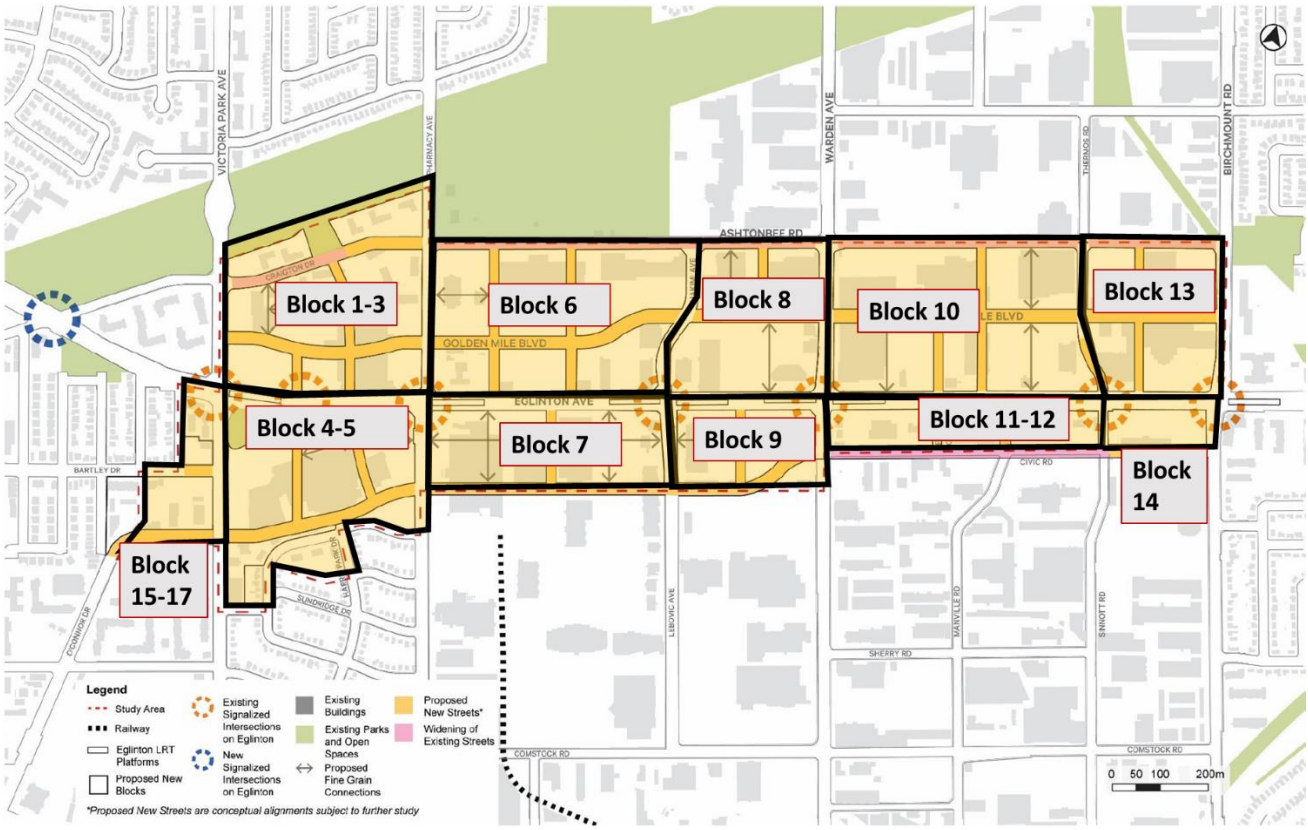
11.3 Development Phasing

To ensure that development is supported by a safe and accessible multimodal transportation system, it is imperative to develop policies which encourage the implementation of the Preferred TMP Solution Components alongside development. Firstly, the development of specific sites must be required to contribute to both improvements on-site or externally for key improvements which benefit that specific site. Secondly, those key improvements must be implemented in order for the full scale of development within the Golden Mile Secondary Plan shall be allowed to proceed. These two topics are explored further in the following subsections.

11.3.1 Transportation Requirements for Block Development

Implementation or contribution to the implementation of the Preferred TMP Solution Components is a requirement for development to proceed. A plan for implementation block-by-block within the Secondary Plan is identified in this section based on the block system shown in **Figure 11-5**.

Figure 11-5: Development Blocks for Implementation



The following tables identify required contribution by development block for new street projects in **Table 11-4**, and for transit and active transportation projects in **Table 11-5**.

Table 11-4: New Street Project Implementation*

Street ID	Street Name	Next Steps	Development Block Required Contribution
EW1	Craigton Drive Reconfiguration	EA Study	All
EW2	Golden Mile Boulevard	EA Study	All
EW3	Bartley Drive Extension	Implement through Planning Act	15-17
EW4	O'Connor Drive Reconfiguration and Extension	EA Study	All
EW5	Civic Road Extension	EA Study	All
NS1	North-south Street 1	Implement through Planning Act	1-3, 4-5
NS2	North-south Street 2	Implement through Planning Act	1-3
NS3	North-south Street 3	Implement through Planning Act	4-5
NS4, NS6	North-south Street 4 and 6	Implement through Planning Act	6
NS5	North-south Street 5	Implement through Planning Act	7
NS7	North-south Street 7	Implement through Planning Act	9
NS8	North-south Street 8	Implement through Planning Act	8
NS9, NS 10	North-south Street 9 and 10	Implement through Planning Act	10
NS11	North-south Street 11	Implement through Planning Act	11-12
NS12	Thermos Road Realignment	Implement through Planning Act	10-13
NS13	North-south Street 13	Implement through Planning Act	13

*Note: New Streets to incorporate recommended cycling facilities

Table 11-5: Transit and Active Transportation Project Implementation

Project ID	Project Name	Next Steps	Development Block Required Contribution
T1	Victoria Park Avenue Multimodal Transit Priority Corridor	EA / Transit Study	All
T2	Warden Avenue Multimodal Transit Priority Corridor	EA / Transit Study	All
B1	Meadoway Connection from Craigton Drive	Design and Implementation	1-3
B2	Meadoway Connection at Hakimi Avenue	Design and Implementation	6,8
B3	Thermos Road to Crockford Boulevard Cycling Facility	Design and Implementation	10,13
B4	Birchmount Road Cycling Facility	EA Study to determine property impacts	13,14

11.3.2 Development Capacity

The phasing of development in the Golden Mile is dependent on the implementation of the grid street and block network to facilitate active transportation, improved

access to the ECLRT stops, and to provide more mobility choice and capacity for vehicular trips.

The development capacity threshold is based on the following principles:

1. The network today is congested with the current level of auto trips. Despite a loss of auto capacity on Eglinton Avenue, it is assumed that the base number of auto trips will not decrease.
2. The implementation of the ECLRT will result in an initial modal shift from autos to transit and active transportation, such that new development in the study area results in new trips that are made via other modes.
3. This initial modal shift should not exceed the target mode share for the Preferred TMP Scenario. It is noted that the target mode share of 40% transit and 12% active modes, which results in over 50% non-auto mode share aligns with the Eglinton Connects vision for the Eglinton Avenue Corridor. An **allowable initial development threshold of 35%** is based on the approximate average of transit mode shares as more elements of the preferred TMP solution are implemented (i.e. between TMP Alternative 1 transit mode share of 32% to TMP Alternative 3 transit mode share of 40%).
4. The Preferred TMP Solution is required to promote further mode share shift firstly, and secondly to accommodate further development by providing improved connectivity, modal choice, and vehicular route choice
5. The remaining 65% of development should be held until these key improvements are implemented in conjunction with the grid street network as follows:
    a. O'Connor Drive Extension (30%)
    b. Golden Mile Boulevard and Craigton Realignment (25%)
    c. Warden Avenue and Victoria Park Avenue Transit Priority Corridors (10%)
6. Between the total 55% allocated to grid street network improvements, development thresholds are roughly based on the recommended number of lanes and thus capacity for the three (3) new streets: Craigton Drive Reconfiguration (2 lanes), Golden Mile Boulevard (2 lanes), and O'Connor Drive Reconfiguration and Extension (4 lanes). O'Connor Drive which provides a broader network connection beyond the study area to the west and south, is allocated an additional 5% due to this benefit.

Calculations supporting the initial development threshold are provided in **Table 11-6**.

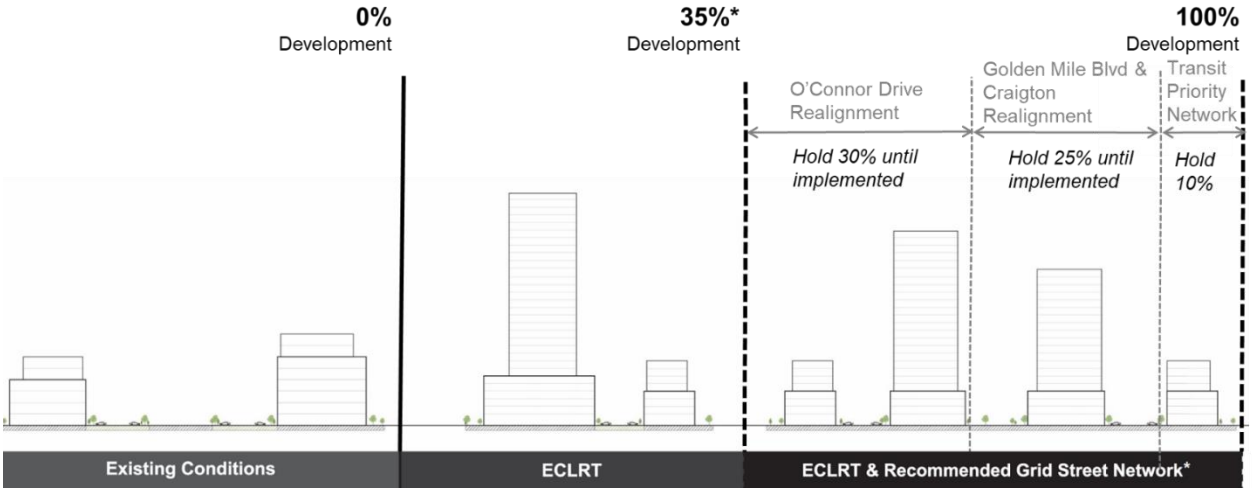
Table 11-6: Initial Development Threshold

Total Trips (PM Peak Hour)	**Existing Trips**	**Future Trips** (total projected trips)	**Future Trips** (no increase to auto trips)	**Future Trips** (no increase to auto trips, with TMP Solution #1 non-auto targets)	**Future Trips** (no increase to auto trips, TMP Solution #2 non-auto targets)	**Future Trips** (no increase to auto trips, with TMP Solution #3 non-auto targets)
Auto	5,990	14,890	5,990	5,990	5,990	5,990
Transit	1,730	12,250	12,250	3,060	4,360	4,900
Walking	330	2,380	2,380	600	850	950
Cycling	160	1,250	1,250	310	440	500
Total	8,210	30,770	21,870	9,960	11,640	12,340
% New Development		**100%**	**71%**	**32%**	**36%**	**40%**
Mode Shares						
Auto	73%	48%	27%	60%	51%	48%
Transit	21%	40%	56%	31%	38%	40%
Walking	4%	8%	11%	6%	7%	8%
Cycling	2%	4%	6%	3%	4%	4%
Total	100%	100%	100.0%	100%	100%	100%

Based on the analysis presented above, between 32% and 40% of the preferred land use scenario is allowable following ECLRT implementation, and prior to the implementation of the three (3) key road network improvements (TMP Solution #2) and the north-south transit priority corridors (TMP Solution #3). This analysis resulted in an initial capacity threshold of 35%.

As the road network is completed, additional development capacity should be allowed as the new continuous, alternative east-west routes provide relief to Eglinton Avenue intersections, and as the transit priority improvements encourage further non-auto modal shift. This concept illustrated in **Figure 11-6**.

Figure 11-6: Development Threshold Recommendation



The thresholds noted shall be applied equitably across the study area as the key east-west road improvements and transit priority corridor improvements all provide network-wide benefits through additional route choice options to support Eglinton Avenue.

11.4 Travel Demand Management Implementation

11.4.1 Innovative Mobility Plan Checklist

In order to facilitate the implementation of the TDM strategies outlined in **Section 10.6**, the City of Toronto should develop a list of requirements and guidelines to review transportation actions as part of development application.

The Regional Municipality of York and City of Toronto report titled **Transportation Demand Management for Toronto –York Spadina Subway Extension** identifies such a checklist which lists the City of Toronto's policies and implementation structure as part of OPA 274. It is recommended that the City use this list in conjunction with the requirements set forth by the Toronto Green Standard (**Section 4.8.5**) as a foundation in developing a comprehensive Innovative Mobility Plan checklist for the Golden Mile study area.

11.4.2 Smart Commute Programs

As described in **Section 4.8.2**, Smart Commute Scarborough, a program of the City of Toronto and Metrolinx, is the Transportation Management Association (TMA) serving Scarborough. Working with 15 leading employers that represent more than 18,000 employees, the program provides and promotes alternative commute solutions such as carpooling, transit use and active transportation throughout Scarborough, including the Golden Mile study area.

Smart Commute Scarborough will continue to be a key partner in implementing TDM measures going forward, including through the ongoing provision of its present services.

As part of the Golden Mile's TDM measures, it is recommended to integrate development in the study area with Smart Commute and to include the program as part of the EcoMobility hub concept.

11.4.3 Parking Strategies

It is proposed that the City and the Toronto Parking Authority (TPA) work together to implement parking strategies within the GMSP area. These strategies include:

- Providing public parking infrastructure alongside shared mobility services through the EcoMobility hub concept. This includes the implementation of rideshare spaces, car share spaces, real time display information, bike share spaces, and dynamic prices to manage parking demand; and
- Potential to create a centralized parking facility as recommended in the *Golden Mile Market Analysis and Economic Strategy* (2016). This would allow for a more

efficient use of parking space, by allowing various land uses to share spaces, instead of designating separate spaces for separate uses. For example a single facility could accommodate both office parking demand (generally higher during the day), and residential parking in the evening.

- Reduce parking requirements through shared parking, payment-in-lieu, off-site parking and other strategies that must be detailed in a parking study to be submitted in conjunction with the development application.

11.4.4 Transportation Impact Studies

As described in **Section 4.8.4**, the primary mechanism by which the City of Toronto can influence the provision of TDM measures and parking policies is through Transportation Impact Studies (TIS), which provide the city with information on the transportation impacts of a new development project. Mitigation can include transportation infrastructure investments and TDM programs and strategies designed to reduce drive alone rates and encourage walking, cycling, transit use and other alternatives to reduce single auto occupancy. In the Golden Mile Secondary Plan Area, TIS for new developments must align with the policies of the GMSP in addition to TDM Plan requirements of the TIS process.

11.4.5 Cycling Programs

The Scarborough Cycles project, described in **Section 4.8.3**, delivers programming that aims to:

- Create and disseminate knowledge about cycling network in the City of Toronto, study area and surrounding neighbourhood;
- Build capacity among local agencies and individuals to support cycling;
- Address barriers to cycling; and
- Engage with residents and stakeholders about the benefits of improved cycling infrastructure.

Given their existing capacity and operations in adjacent communities to the Golden Mile, these organizations should be engaged to support TDM measures related to education, promotion, and outreach.

11.4.6 Other Stakeholders

To maximize success, a wide variety of stakeholders should be engaged in the development and implementation of TDM measures.

Additional stakeholders that should be engaged include:

- Employers
- Schools
- Centennial College

- Property managers and developers
- Social service agencies
- The TTC
- Metrolinx
- Communauto, ZipCar and other car share providers
- Toronto Bikeshare and other bikeshare providers
- Lyft, Uber, and other on-demand transportation providers
- Toronto Parking Authority

11.5 Recommended Studies

The Preferred TMP Solutions has satisfied Phases 1 and 2 of the Municipal Class EA process by establishing the Problem and Opportunity and considering alternative solutions. Further study is required for the key transportation recommendations as follows:

Table 11-7: Recommended Study and Priority

Recommended Study and Priority	Study Objectives
Golden Mile Major Roads Environmental Assessment (High priority)	Advance the planning and preliminary design for: • The Jonesville Crescent, Craigton Drive and Ashtonbee Road corridor from Eglinton Avenue to Birchmount Road. • Determine a preferred alignment for the reconfiguration of Craigton Drive • Golden Mile Boulevard from Victoria Park Avenue to Birchmount Road which determines a preferred alignment and considers landowner property impacts • O'Connor Drive Reconfiguration and Extension which determines a preferred alignment, considers landowner property impacts and impacts to adjacent communities
Victoria Park Avenue Multimodal Transit Corridor Study (Medium-term priority)	Identify a service and infrastructure plan to improve bus capacity along the Victoria Park Avenue Corridor generally from Steeles Avenue to Line 2 and determine ROW requirements to provide improved cycling facilities and public realm.
Warden Avenue Multimodal Transit Corridor Study (Medium-term priority)	Identify a service and infrastructure plan to improve bus capacity along the Warden Avenue Corridor generally from Steeles Avenue to Line 2 and determine ROW requirements to provide improved cycling facilities and public realm.

Recommended Study and Priority	Study Objectives
Crockford Boulevard extension study (Long-term priority)	Advance the planning for a future multimodal connection between Crockford Boulevard at Bertrand Avenue to either Thermos Road or an alternative north-south local road at Ashtonbee Road.

11.6 Monitoring Program

Until the full implementation of the transportation network including the ECLRT, north-south transit priority routes, and new and reconfigured streets as identified in the TMP, incremental growth via new development will need to be reviewed in the context of the available transportation network capacity. A transportation monitoring program will be developed and undertaken with landowners to monitor development levels and travel patterns as the transportation network and associated improvements are implemented through development. The findings of the Monitoring Program reveal a significant change in trends, assumptions, or the ability to provide more or less transportation system capacity than that required to accommodate the projected transportation demand associated with the development levels.

At appropriate times, a monitoring program will also be conducted by the City to inform Transportation Impact Studies submitted with development applications, and may include:

- The travel characteristics of employees, residents and visitors including modal split, vehicular occupancy, trip distribution and peak hours of travel;
- An evaluation of trip volumes from a multi-modal perspective on streets and at key intersections, and the future capacity of all transportation modes against development levels and network improvements provided for by this Secondary Plan;
- An evaluation of transit ridership and traffic volumes in the context of available capacity, new or approved transit availability, and the future total capacity of the transit network;
- An evaluation of existing, planned and proposed development;
- An evaluation of parking availability, usage and location in relation to land use, as well as the performance of shared mobility options; and
- The findings of the transportation monitoring program will inform future comprehensive transportation analysis supporting new transit infrastructure and/or improvements to transit service as well as any future reviews of this Secondary Plan. The findings may also be considered in the review of individual development applications and the implementation or refinement of required TDM programs, as well as any future reviews of this Plan.

The Golden Mile TMP provides a transportation planning framework for creating transportation choices in support of the Golden Mile Secondary Plan. To ensure that the TMP recommendations are implemented in and the progress towards the ultimate vision is maintained, the City should monitor project status on an annual basis as follows:

- Within the first year, initiate high priority environmental assessment studies and design for Schedule A+ projects;
- Within the first three (3) years, complete high priority studies and initiate medium priority studies;
- Five (5) years following the implementation of the ECLRT, the City should conduct an ECLRT corridor monitoring study to assess the level of development and transportation conditions. This study may be used to inform and update implementation policies within respective Secondary Plan studies relative to transportation capacity;
- Continue to monitor goods movement through the area and develop strategies to maintain efficiency in the transportation network; and
- Work with Smart Commute to implement EcoMobility hub pilot program alongside one or more development applications.
- Implement smart video detection technology to monitor conditions as implementation occurs. This technology can provide a source of traffic and multimodal count information, curbside activity monitoring and real-time information, real-time parking information, traffic and vulnerable road user safety through near-miss collision detection, etc.

11.7 Funding Tools and Programs

The funding opportunities outlined below should be considered to assist in the implementation of the improvements identified in this document and defray the cost to existing taxpayers.

11.7.1 Development Charges

The City already conducts development charges studies in order to collect funds for transportation service improvements under the Development Charges (DC) Act, and should continue to update its development charges studies in the future. DC studies typically identify all types of transportation infrastructure required to serve development growth, including roads, and active transportation infrastructure. A potential refinement to the DC By-Law may include the addition of EcoMobility hubs if not yet covered under the By-Law.

11.7.2 Federal Gas Tax Fund

The federal Gas Tax Fund, legislated in 2011 as a permanent source of infrastructure funding for municipalities, is a key source of funding for all

municipalities in Canada. In Ontario, funding is generally allocated on a per capita basis and provided up front, twice a year, to the province, the Association of Municipalities of Ontario, and the City of Toronto. Projects are chosen at the local government level and are prioritized according to the infrastructure needs of each community.

11.7.3 Ontario Gasoline Tax

A similar program to the Federal Gas Tax Fund is offered by the province of Ontario. 2 cents per litre of the collected Ontario Gasoline Tax is transferred to municipalities exclusively for public transit. The allocation is based upon each municipality's proportionate share of the province's population and transit ridership. The funds can be used for either operating or capital costs. Funds could be available specifically for transit service improvements identified in this Plan.

11.7.4 Additional Programs

Further to the above noted items, a number of other funds, grants, and programs are identified which could provide additional funds to support transportation the improvements and programs identified in this TMP study:

- Federation of Canadian Municipalities Green Municipal Fund;
- The Canada-Ontario Infrastructure Program;
- Employment and Social Development Canada funding opportunities, including the Enabling Accessibility in Communities Fund;
- Corporate donations which may consist of money or services in-kind, and have been contributed by a number of large and small corporations over the years;
- Potential future funding that might emerge from the Province in rolling out the Ontario Trails Strategy; and
- Private Citizen Donations / bequests, that can also include a tax receipt for the donor where appropriate.

New or existing relationships with non-profit organizations could be leveraged to obtain funding not directly available to the City of Toronto. This funding could be used to implement certain aspects of the program, such as educational programs proposed as part of the TDM strategy or EcoMobility Hubs. These funding streams include:

- Environment and Climate Change Canada – EcoAction Community Funding Program;
- Ontario Trillium Foundation funding; and
- Corporate Environmental Funds such as those from Shell and Mountain Equipment Co-op that tend to fund small, labour-intensive projects where materials or logistical support is required.