PH4.1 Attachment 3

steer davies gleave

Don Mills Crossing - Mobility Planning Study

Final Report
February 2019

City of Toronto

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Executive Summary

The Don Mills Crossing (DMC) Study Area, centred around the intersection of Don Mills Road and Eglinton Avenue, is a key focus area for City-building, especially as major investments have been made to expand surface transit through the area. The construction of the Eglinton Crosstown Light Rail transit (ECLRT) presents an opportunity to plan and develop a complete community within the Don Mills Crossing area through transit-oriented intensification and redevelopment that aligns with Provincial, municipal and local planning policies.

The anticipated growth in the vicinity of the Don Mills-Eglinton intersection creates a need for a more cohesive multi-modal transportation network to accommodate mobility users of all ages and abilities, with enhanced connectivity and integration at both local and regional levels. The purpose of this Mobility Planning Study (MPS) is to provide a framework to connect the existing, and future transit networks and planned developments in the Don Mills-Eglinton area, following a planning process that satisfies the requirements of the Municipal Class Environmental Assessment Process Phases 1 and 2.

This MPS builds on the findings from the City-led Don Mills Crossing Phase 1 Transportation Study, completed in December 2016; and takes into consideration the subsequent Phase 2 Public Realm Structure Plan to develop an overall planning framework that addresses transportation and mobility in the area. The Don Mills Crossing Study established a “core study area” centred at the intersection of Eglinton Avenue East and Don Mills Road. This core study area includes the four (4) corners of this intersection and extends to a radius of approximately 800 metres around the intersection. To review impacts and opportunities of the local area transportation network, a larger geographic area of influence was considered as the “transportation area of influence”.

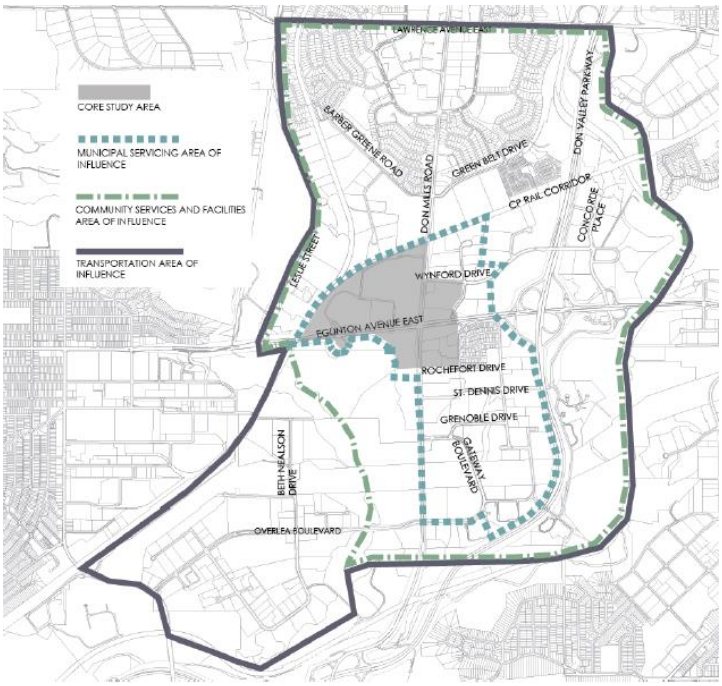


Exhibit E-1: Study Area

Existing and Future Conditions

The existing transportation network, as well as natural, socio-economic, cultural and built environment of the Don Mills Crossing study area inform the local baseline conditions, and set the stage for reviewing future conditions.

Transportation

Key findings in the Don Mills Crossing Phase 1 Transportation Study support the need to develop a comprehensive area Mobility Plan that addresses the existing challenges of: crossing barriers, providing connectivity both within the community and to future transit networks, and accommodating anticipated growth in adjacent development blocks.

- **Travel Behavior:** The existing transportation network in the study area is auto-oriented with limited options for people to travel by other modes. Although the existing transportation network is auto-oriented, findings from the 2011 Transportation Tomorrow Survey (TTS) indicate that the existing mode share within the transportation area of influence for transit and other sustainable modes of transportation (walking, cycling carpooling, etc.) is 40-47%. The local nature of travel in the transportation influence area highlights the need to improve active transportation and transit modes and support the range of land uses included within the study area.
- **Active Transportation:** The study area exhibits poor connectivity in pedestrian and cycling networks, which is attributed to the lack of local streets and presence of cul-de-sacs, discontinuous sidewalks and cycling facilities with physical barriers (valley / ravine system, Don Valley Parkway, CP rail corridor). Recreational trails are located along the West and East Don River, however there are a few key locations where the trails are not continuous, resulting in longer walking distances for nearby residents and visitors. Safety is another key concern for active transportation users, especially for crossing activities at the major intersection of Don Mills Road and Eglinton Avenue, where higher number of lanes, traffic exposure and longer clearance distances present higher collision risks.
- **Transit:** While the main arterial roads are served by bus transit, the neighbourhoods within the study area exhibit a “transit desert” effect which are pockets that are underserved by TTC transit, leading to lower usage and longer bus routes. The implementation of the ECLRT and enhanced bus service along Don Mills Road will increase transit options in the area, and along with active transportation network improvements can help develop a multi-modal hub.
- **Vehicular Travel:** Arterial roads and major intersections are congested during peak periods due to the lack of alternative routes for east-west movements. Don Mills Road and Eglinton Avenue East both serve as regional routes carrying a large proportion of through traffic in the area.

Natural Environment

A review of the natural heritage features of the study area indicated a few historic records of plant species and wildlife regulated under the Ontario Endangered Species Act, 2007; efforts should be undertaken to identify the location and sensitivity of habitat prior to commencement of any construction related activities.

Natural features within the study area also include one Area of Natural and Scientific Interest (ANSI), two Environmentally Significant Areas (ESAs) and areas regulated by Ontario Regulation 166/06 and by City of Toronto's Ravine and Natural Feature Protection (RNFP) By-law, requiring permitting from appropriate authorities for any works undertaken.

The major vehicle emissions as well as noise and vibration within the study area are the major existing roadways with higher traffic volumes, Eglinton Avenue East and Don Mills Road. It is considered very unlikely that future minor changes to the interior access roadways within the core study area and the desired shift of existing or new trips to more sustainable modes (transit, cycling, walking) will result in any significant noise or air quality impacts.

Heritage Resources

The identified cultural heritage resources within the core study area include two industrial properties, an institutional property, two commercial properties, and one railscape.

A Stage 1 Archaeological Assessment determined that one previously registered archaeological site is located within 1km of the core study area, while remaining portions of the core study area do not retain archaeological potential and will not require Stage 2 assessment.

Problems and Opportunities

Within the study area, Eglinton Avenue and Don Mills Road serve as regional roads that carry significant through traffic volumes, especially due to their proximity to the Don Valley Parkway. Historically, the intersection of these two major roads has experienced some of the highest traffic volumes and collision risks in the City of Toronto. There is currently limited transportation network connectivity, especially for active modes, due to major natural or man-made barriers including the Don Valley Parkway, Don Valley Ravine, CP Rail corridor, wide roadways, and separated development blocks. As a result, there is a lack of a coherent and integrated multi-modal transportation network.

However, the construction of the ECLRT will transform the area surrounding Don Mills Road and Eglinton Avenue, creating an opportunity to shift away from the originally planned vehicle-oriented place towards a more multi-modal and people-oriented place. A review of existing transportation conditions confirms the need for a more integrated multi-modal transportation network, internally and to the surrounding areas, that allows for:

- Walkable and connected communities;
- Cycling infrastructure within a connected network; and,
- Safe and convenient access to transit.

The arrival of new transit infrastructure will unlock the redevelopment of existing large, single use parcels of underutilized lands into a complete community with a range and mix of uses and fine-grained street network, and connectivity with higher priority to transit, walking, cycling and other sustainable shared vehicle modes or technologies.

The DMC MPS provides an opportunity to shape and manage the emerging multi-modal transportation network which includes: linkages to open spaces and the ravine system planned in conjunction with natural heritage considerations; new active transportation crossings, such as over the CP rail corridor, for a more complete and connected network; and new and safe street

connections that do not significantly affect roadway operations and are based upon high quality urban design.

Development and Evaluation of Alternative Solutions

Land development and transportation infrastructure concepts in each quadrant of the Don Mills-Eglinton intersection are currently in various stages of planning, and along with various transit expansion plans (ECLRT, bus services), and the Public Realm Structure Plan adopted by Council in 2017, will provide the future mobility concept of the study area.

To identify to alternative solutions for addressing the changing needs and existing constraints in the Don Mills Crossing study area, combinations of development levels and mobility infrastructure / service improvements were evaluated using a multi-modal transportation assessment model. The following set of alternative solutions were developed:

- Scenario A (Baseline): Full Development and implementation of the ECLRT;
- Scenario B (Limit Development): Partial Development and implementation of the ECLRT;
- Scenario C (Enhanced Mobility): Significant Development, Travel Demand Management (TDM) measures, and multimodal improvements including newer operations/technologies, implementation of the ECLRT and enhanced bus transit on Don Mills Road; and,
- Scenario D (Regional Transit): Full Development, and implementation of the ECLRT and the Relief Line North.

The alternative solutions were evaluated using five criteria including: Transportation, Natural Environment, Social Environment, Compliance with existing Policies and Cost.

A comparison of the four solutions showed that Scenarios A and B do not address the mobility needs and/or density requirements of the area to be supportive of the ECLRT.

Scenario D is the ideal long-term solution, although the integral higher order transit component is contingent upon other City initiatives.

Scenario C improves mobility on top of existing planned improvements with monitoring of impacts to allow for further development and is determined to be the best scenario to allow for development in the short and medium term.

Public Consultation

During Phase 1 of Don Mills Crossing Study, several public consultation events took place to gather public input. Feedback received from these included strong public desires for improved cycling infrastructure and connections, as well as pedestrian facilities and accessibility. Other concerns expressed by the public included potential congestion as future developments occur in the Don Mills Crossing area.

This Mobility Planning Study was undertaken through a planning process that satisfies Phases 1 and 2 of the Municipal Class Environmental Assessment process. In accordance with the requirements of the Municipal Class EA process, this project included a Notice of Study Commencement, a Public Information Centre (PIC), and consultations throughout the study with various stakeholders, as well as aboriginal communities. The public and stakeholders were

undertaken to ensure that the different needs and objectives of others is adequately considered and addressed.

For technical stakeholders, including transit agencies, TRCA, CP Rail and land developer, preliminary meetings were held early in the project to discuss key objectives, vision and needs. A public consultation was held on April 19th, 2018 for the overall planning study, with specific boards and presentation materials on the Mobility Plan Study component. Overall, there was support for the improvements to the mobility network in and around the core study area, including the ring road around Don Mills and Eglinton, the Wynford extension and other new streets.

Recommendations

Recognizing the benefits of an integrated multi-modal transportation system, the recommended mobility plan also reinforces low-carbon options, while addressing environmental and health benefits, and social equity in mobility planning for all users.

The overall mobility plan strategy has been developed based on the following:

- Multi-modal analysis;
- An emphasis on completing networks with connections to the wider transportation network and linkages to the surrounding neighbourhoods;
- Fully integrating the Eglinton Crosstown investment; and,
- Stakeholder and public consultation, including with on-going development planning initiatives.

To achieve the desirable and increased walk mode share for proposed developments and for existing neighbourhoods in the core study area, a high quality and safe pedestrian network should be implemented. It is recommended that existing planned connections be carried forward with new mid-block crossing implemented to reduce travel distance for pedestrians.

Planned cycling facilities along Eglinton Avenue should integrate and connect with local roads, developments, and the trail system. Transit access should be implemented incrementally, with multi-modal connections to the ECLRT stations as a priority. In the medium term, additional bus connections/routes should be added to support developments as they are completed, with the potential for a new regional transit line in the long-term.

The provision of parking should be planned to manage vehicular traffic growth and limit unnecessary car travel, thereby encouraging transit and active transportation modes. It is recognized that each planned development within the core study area will require parking, however policies and efforts to encourage shared uses should be implemented.

The Don Mills Road and Eglinton Avenue corridors will continue to function as major regional vehicular and truck routes and connecting to the Don Valley Parkway in the short- to medium term. As development growth occurs there will be additional vehicular trips on these key roads that will be competing for roadway space and priority with potential incremental transit improvements. Supporting goods movement is vital to an economically sustainable city. As noted, Don Mills Road, Eglinton Avenue and Wynford Drive will continue to function as major regional vehicular and truck routes connecting to the Don Valley Parkway.

Proactive Transportation Demand Management (TDM) and innovative multi-modal strategies will be required to be successful to achieve the planned development growth within the core transportation study area. These strategies promote travel demand measures and technological advances that support alternatives to single occupant vehicular travel, adding capacity to the network without requiring its expansion and additional major investment.

Next Steps

Following this Mobility Plan Study, additional work is required to fulfill phase 3 and 4 of the Class Environmental Assessment for the potential projects identified below and in **Figure E-2**:

1. Right-of-way widening along Wynford Drive and Gervais Drive to include cycle tracks, enhanced pedestrian environment including associated public realm, and surface bus operational improvements to ensure transit reliability and capacity. The reconfiguration of the Eglinton Avenue / Gervais Drive / Ferrand Drive intersection is critical to support surface transit improvements, to provide enhanced active transportation connections to the wider neighbourhood, and to facilitate access to the planned development in the southeast quadrant.
2. Wynford Drive extension, and multi-use trail (MUT) with connection to the existing Don Mills Trail north of the CP rail corridor and a grade-separated CPR corridor crossing; and to the south of Eglinton Avenue to the West Don River ravine. The preferred CPR corridor crossing solution is an elevated (pedestrian bridge) rail crossing.

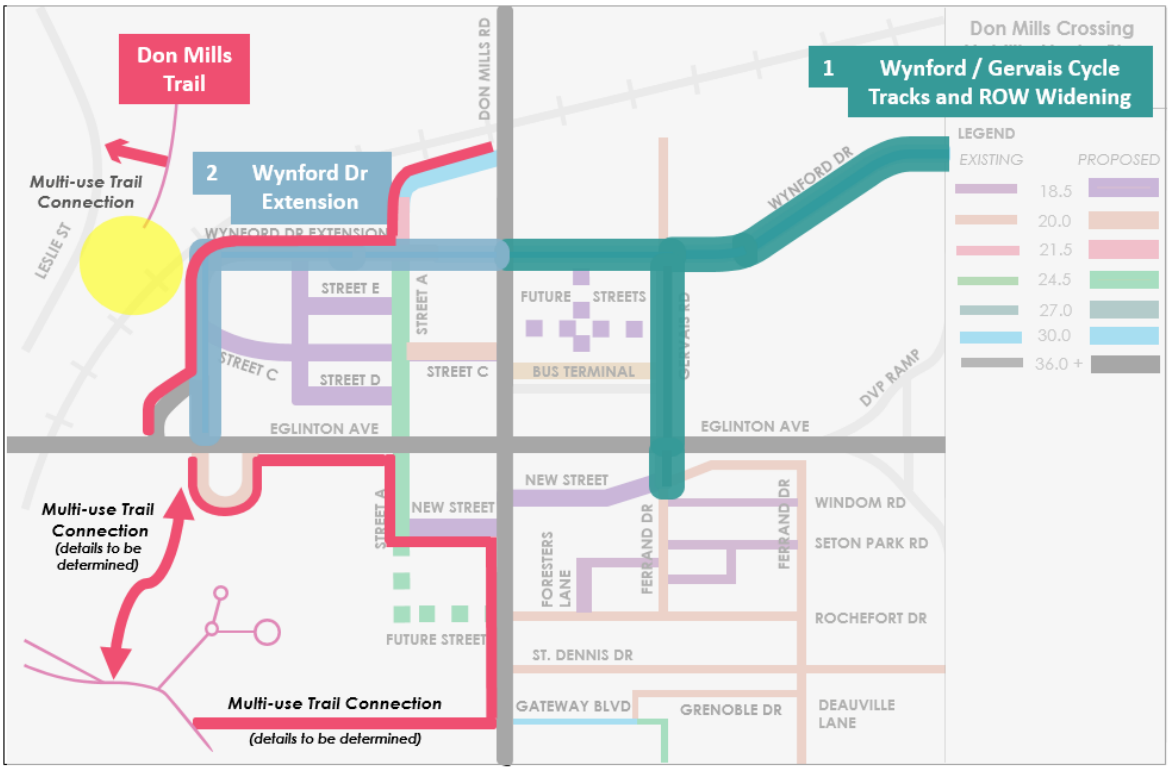


Exhibit E-2: Potential EA Requirements

Updates to the City's Official Plan, 10-Year Cycling Network Plan, and Secondary Plan should be completed to reflect the recommendations proposed. Due to the complexity of the study area, a

micro-simulation traffic analysis is suggested to determine impacts of development phases and new bus routes and/or dedicated transit facilities. Continued monitoring of parking, active transportation, and travel demand management strategies should be completed as development phases are implemented to ensure that mode shift and diversion from auto travel is occurring, and to inform planning and infrastructure decisions. Opportunities can also be identified in order to improve future policies and strategies with more local and area specific data.

1 Introduction

The Don Mills Road and Eglinton Avenue East area was identified as a Gateway Mobility Hub by Metrolinx's 2008 Regional Transportation Plan. Since then, significant transit investment has been made in the Eglinton Crosstown Light Rail Transit (ECLRT), which will run through the area separated from regular traffic along Eglinton Avenue. Once the ECLRT is operational, the areas surrounding the intersection of Don Mills Road and Eglinton Avenue East will be serviced by several stations, including the at-grade Sunnybrook Park Station; the underground Science Centre Station and associated bus terminal; the at-grade Aga Khan Park & Museum Station; and, the Wynford Station to the east of the Don Valley Parkway.

New development is expected to be generated by this public investment, consistent with the Provincial Policy Statement and the 2017 Growth Plan for the Greater Golden Horseshoe, as well as the City of Toronto's Council support for intensification through the adoption of the 2012 Eglinton Connects Implementation Report.

Building on Eglinton Connects, the on-going Don Mills Crossing Study is a City of Toronto strategic initiative to update the planning framework, which will include implementation measures such as a new Secondary Plan supported by urban design guidelines; and, transportation and servicing master plans to support continued employment and residential investment and intensification, and related community infrastructure.

Steer (formerly Steer Davies Gleave) was retained by the City of Toronto to conduct the transportation master plan, a Mobility Planning Study (MPS) for the Don Mills Crossing (DMC) study area, satisfying the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment (EA) process.

The DMC MPS builds on the Don Mills Crossing Phase 1 Transportation Study that was completed in December 2016. Also, the Don Mills Crossing Public Realm Plan, which was completed in 2017 and focused on the public realm, streets and trails, parks, facilities, and built form, has been considered in developing a comprehensive set of transportation mobility solutions in this DMC MPS. These reports, including the DMC MPS, will ultimately support the development of a Don Mills Crossing Secondary Plan that will guide future development.

1.1 Study Purpose

The purpose of the MPS is to provide a mobility framework in the Don Mills-Eglinton area to support a complete community that supports intensification centred around transit. Planned intensification and redevelopment of lands surrounding the Don Mills-Eglinton area align with the broad city-building initiatives.

To meet the growth objectives, there is a need for a more cohesive multi-modal transportation network to accommodate mobility for users of all ages and abilities. This MPS was conducted to

assess and identify the transportation infrastructure requirements necessary to support current and future growth within in the DMC area. The MPS was undertaken in accordance with the master planning process requirements of Phases 1 and 2 of the Municipal Class EA process.

1.2 Study Area

The Don Mills Crossing Study established a "core study area", as shown in **Exhibit 1-1**, which is centred at the intersection of Don Mills Road and Eglinton Avenue East and includes surroundings lands within approximately 800 metres of the intersection.

Larger areas of influence are also being studied in relation to the following city building matters: municipal servicing; community services and facilities; and transportation.

The "transportation area of influence" encompasses a larger geographic area for data collection and review of impacts and opportunities within the larger transportation network. To correspond with available existing smart data sets and investigate major travel behaviours and trends, the transportation area of influence is bounded by Lawrence Avenue East to the north, Leslie Street and CP Rail corridor to the west, and the Don Valley Parkway to the south and east.

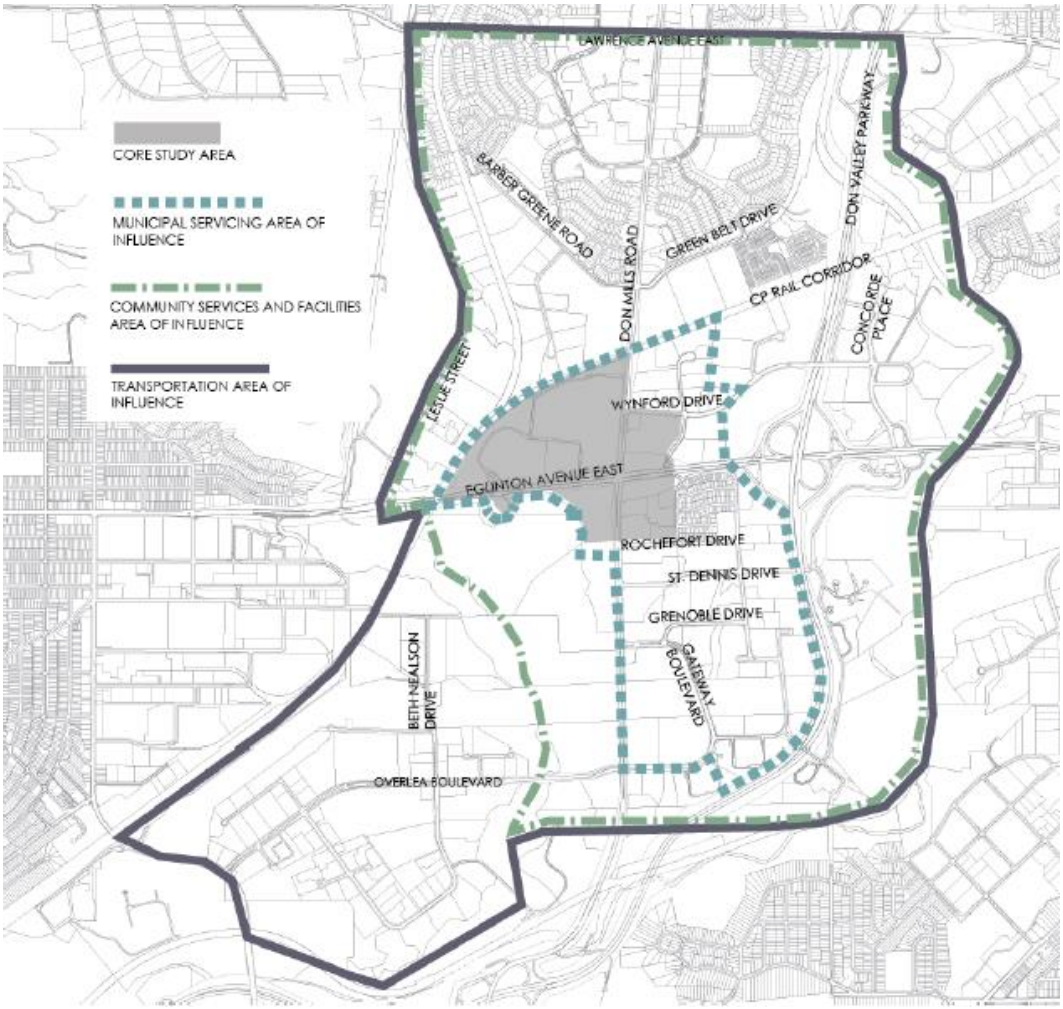


Exhibit 1-1: Study Area

1.3 Environmental Assessment Process and Mobility Master Plan

The *Ontario Environmental Assessment Act, R.S.O. 1990 (Ontario EA Act)* requires potential environmental effects of a class or group of municipal / provincial undertakings to be considered through an approved environmental planning and decision-making process, referred to as a Class Environmental Assessment (Class EA). Public consultation is mandatory for Class EAs, and government agencies, indigenous communities and the general public are encouraged to be involved throughout.

This study is being conducted in accordance with the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment (MCEA) process, which is approved under the *Ontario EA Act*.

1.3.1 Municipal Class Environmental Assessment (MCEA) Process

The MCEA (dated October 2000, as amended in 2007, 2011 and 2015) establishes a self assessment-based planning and approval process to allow municipalities to design, construct, maintain, rehabilitate, and/or retire municipal road, water, wastewater and transit projects without requiring project-specific approvals under the *Ontario EA Act*.

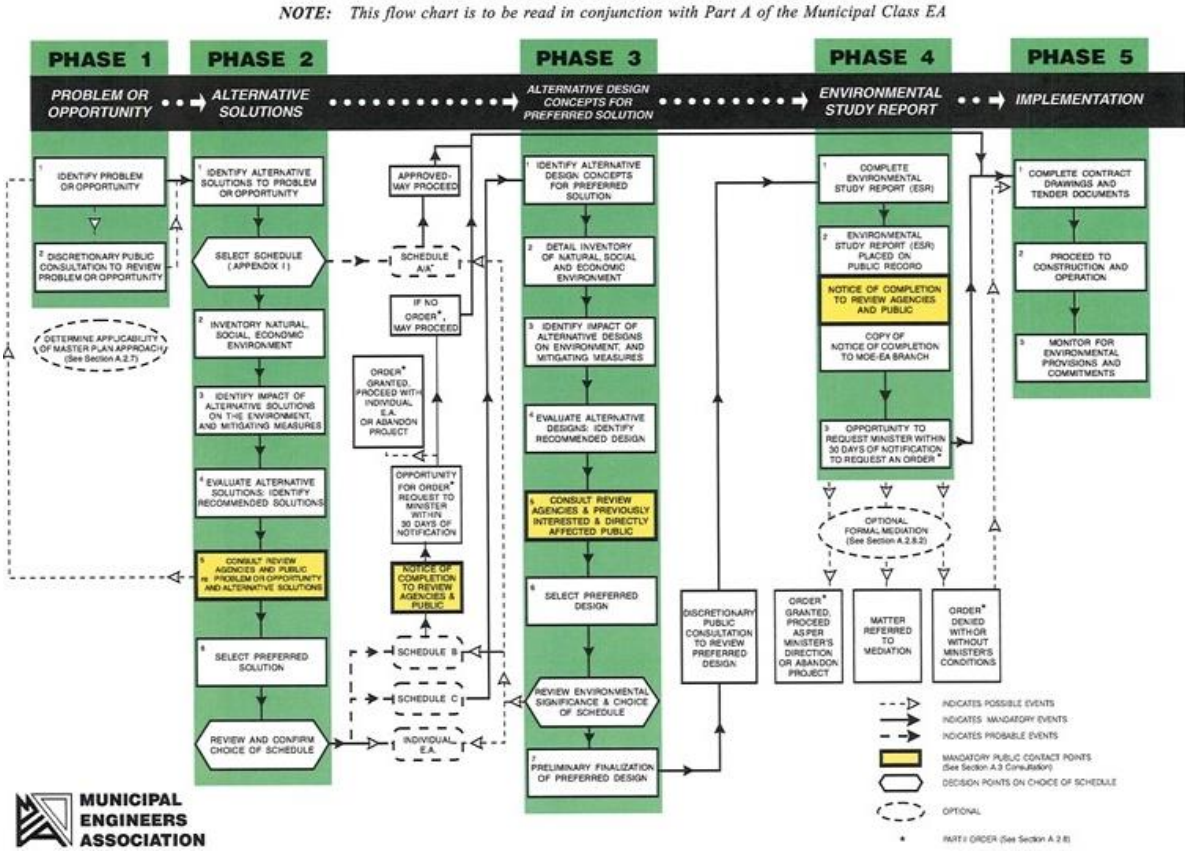


Exhibit 1-2: Municipal Class EA Planning and Design Process

(Source: Exhibit A.2 2015 Municipal Class Environmental Assessment, Municipal Engineer's Association)

(**http://www.municipalclassea.ca/manual/page10.html**)

The Class EA process includes five phases as shown in **Exhibit 1-2** and summarized as follows:

- Phase 1 - Problem or Opportunity: identify the problems or opportunities to be addressed, and the needs and justification;
- Phase 2 – Alternative Solutions: identify alternative solutions to the established problems or opportunities by taking into consideration the existing environment, and establish the preferred solution considering public and agency input;
- Phase 3 – Alternative Design Concepts for the Preferred Solution: examine alternative methods of implementing the preferred solution based upon the existing environment, public and agency input, and anticipated net environmental effects (i.e. minimizing negative effects and maximizing positive effects);
- Phase 4 – Environmental Study Report (ESR): document in an ESR, a summary of the rationale, planning, design and consultation process for the project(s) as established through previous phases, and make the documentation available for formal review by review agencies and the public; and
- Phase 5 – Implementation: move forward with design, construction and operation, including any identified monitoring requirements for adherence to established provisions and commitments.

This DMC MPS follows a transportation master planning process that satisfies the requirements of Phases 1 and 2 of the MCEA process. Future studies will be undertaken to address Phases 3, 4 and 5, as required, building upon the identified preferred solution(s).

1.3.2 Study Approach

The DMC MPS, in addition to following the requirements of Phases 1 and 2 of the Municipal Class EA process, was also highly coordinated with the on-going Don Mills Crossing Study and consistent with several City guidelines / policies. The overall study process is illustrated in **Exhibit 1-3.**

In summary, the DMC MPS includes a review of background studies, Provincial, City and local guidelines and other planning documents; identification of the problems and opportunities in the study area; development of alternative solutions based on multi-modal transportation demand forecasting and analysis; evaluation and recommendation of the preferred solution following an established evaluation framework; and, preparation of a phasing and implementation strategy.

As per requirements of the Municipal Class EA process, the study also includes public and stakeholder engagement and consultation.

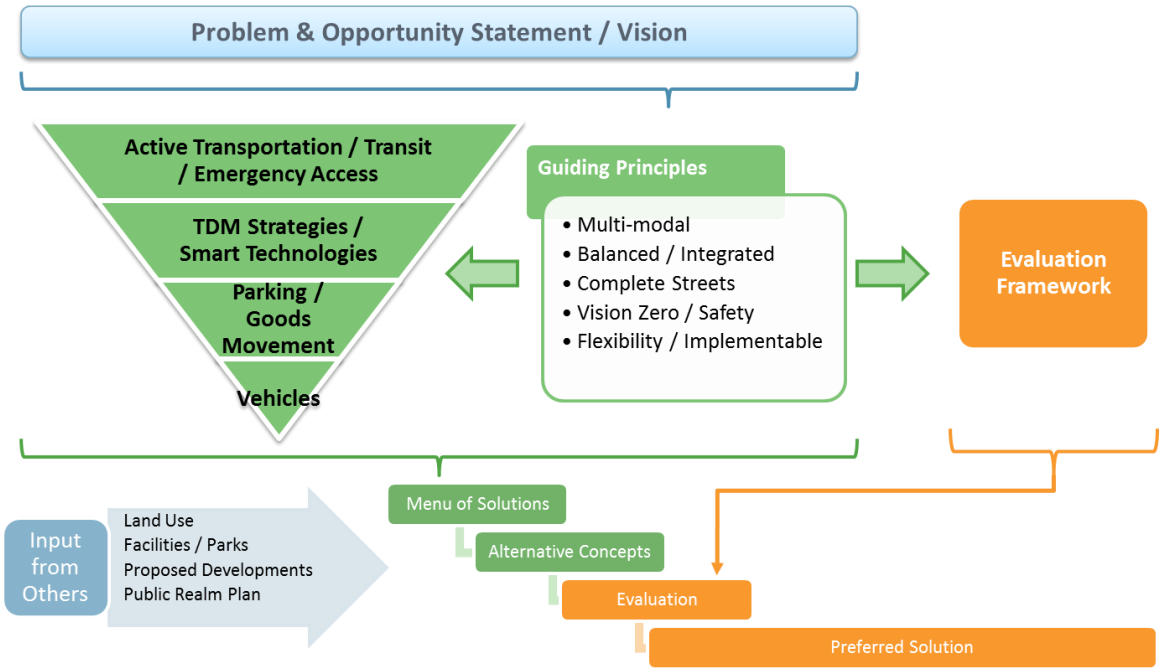


Exhibit 1-3: Study Process Overview

Building on the completed Don Mills Crossing Study work (i.e. Public Realm Plan, Transportation Existing Conditions Study) and corresponding City **guiding principles** such as multi-modal planning approach, integrated urban design / complete streets design, and safe mobility choices, overall study objectives were identified. These study objectives are illustrated in **Exhibit 1-4**, and were incorporated in both developing and evaluating alternative solutions / concepts, along with stakeholder and public input.

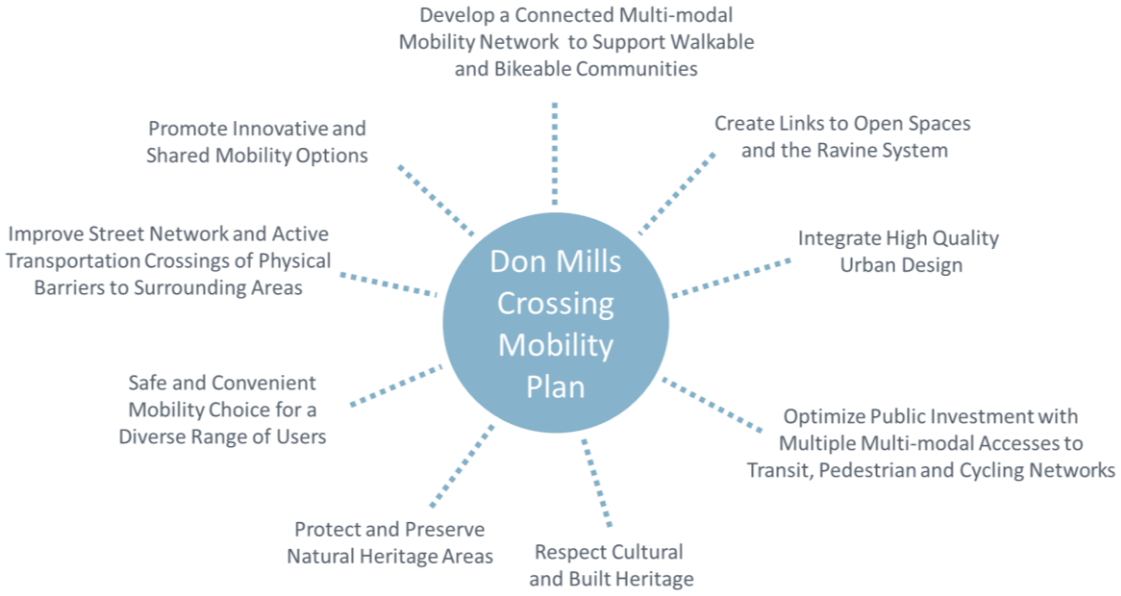


Exhibit 1-4: Study Objectives

1.3.3 Report Organization

This report documents the process to select the preferred alternative mobility plan solution for the DMC core study area, as presented in the following chapters:

- Chapter 2 provides an overview of directly supportive background policies and planning documents;
- Chapter 3 documents existing conditions of the transportation, natural, social, cultural and built environments;
- Chapter 4 outlines the potential planned development, and corresponding multi-modal transportation assessment for the core study area;
- Chapter 5 identifies transportation multi-modal problems and opportunities for the study;
- Chapter 6 presents an overview of alternative solution developed to address the identified transportation multi-modal problems and opportunities;
- Chapter 7 documents the evaluation process to identify the preferred alternative solution;
- Chapter 8 summarizes stakeholder and public consultation efforts throughout the study;
- Chapter 9 describes the preferred alternative multi-modal transportation solution, including associated recommendations; and,
- Chapter 10 identifies next steps required to move forward with the preferred alternative mobility plan.

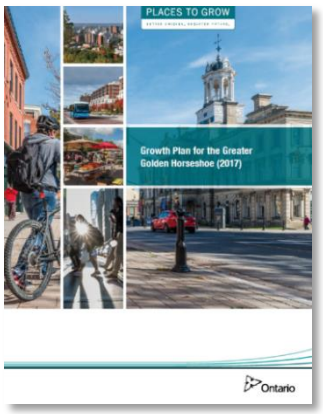
2 Background Planning Policies, Guidelines and Studies

There are numerous guiding principles and policies from the Provincial government and the City that provide direction and guidance on the future mobility objectives in the study area. The planning policies and studies relevant to the DMC MPS are identified in this section along with discussions of key plans. Detailed documentation of each identified policy / study is provided in **Appendix A**.

2.1 Provincial Planning Context

At the Provincial level, the context for planning the DMC MPS is set through various documents including:

- Provincial Policy Statement (2014)
- Growth Plan for the Greater Golden Horseshoe (2017)
- Ontario's Five Year: Climate Change Action Plan (2016-2020)
- Ministry of Transportation Ontario (MTO): Transit Supportive Guidelines (2012)
- Ministry of Transportation Ontario (MTO): CycleON: Ontario's Cycling Strategy (2013)
- Metrolinx The Big Move (2008) and 2041 Regional Transportation Plan (2018)
- Metrolinx Mobility Hub Guidelines (2011).



The Provincial Policy Statement laid the foundations for the **2017 Growth Plan**, which sets new intensification targets and policies across the Greater Golden Horseshoe area for the 2041 planning horizon. Transit corridor and station areas were also given growth targets depending on the type of transit that the corridor/area is serviced by. The minimum density targets are as follows:

- 200 residents and jobs combined per hectare, for those areas served by subways;
- 160 residents and jobs combined per hectare for those areas served by light rail transit or bus rapid transit; and,
- 150 residents and jobs combined per hectare for those areas served by the GO Transit rail network.

Areas around light rail transit stops such as the Don Mills-Eglinton intersection when the Eglinton Crosstown Light Rail Transit (ECLRT) project comes online, will experience an increase in residential and employment density as directed by the 2017 Growth Plan. The intensification should be accompanied by a shift in users from a traditional auto-oriented mode of travel to a transit-oriented mode of travel.

Provincial plans such as Metrolinx's regional transportation plan, the **Big Move (2008)**, identified the Don Mills-Eglinton intersection as a future Gateway Hub with connections to Rapid Transit (ECLRT, which is currently planned to be completed in 2021, and the potential Downtown Relief Line extension) as well as local bus service integration. Gateway Hubs are expected to have significant passenger activities with a projected boarding and alighting forecast of 4,500 or more in the 2031 morning peak period. The updated **2041 Regional Transportation Plan (2018)** also included priority actions that are relevant to improving mobility in the Don Mills-Eglinton area, such as:

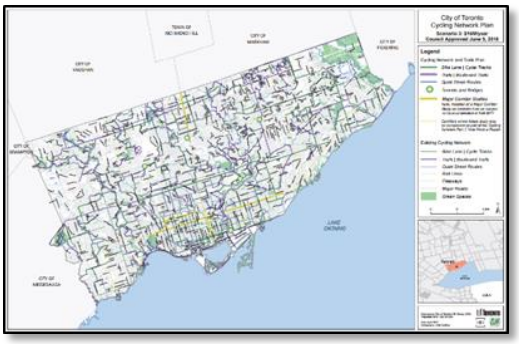
- Making Transportation Demand Management (TDM) a priority (Section 3.7);
- Further integrating road and transit planning and operations (Section 3.9);
- Focusing development on Mobility Hubs and Major Transit Station Areas along Priority Transit Corridors (Section 4.3);
- Planning and designing communities including development and redevelopment sites and public rights-of-way that support and promote a shift in travel behaviours to the maximum extent that is feasible (Section 4.5); and,
- Embedding transportation demand management into land use planning and development (Section 4.7).

2.2 City of Toronto's Policy Framework

At the municipal level, the City of Toronto's policy framework, programs and documents also support the rationale for the DMC MPS. These include:

- City of Toronto's Official Plan (2006)
- Ten-year Cycling Network Plan (2016)
- Road Safety Plan, Vision Zero (2017)
- Complete Street Policies and Guidelines (2014)
- Multi-Use Trail Design Guidelines (2014)
- Toronto Walking Strategy (2009)
- Ravine Strategy (2017)
- Natural Environment Trails Strategy (2013)
- The Parks Plan (2013-2017)
- Road to Health: Improving Walking and Cycling in Toronto (2012)
- Accessibility Design Guidelines (2004)
- Wet Weather Flow Master Plan (2006)
- Natural Heritage Study (2001).

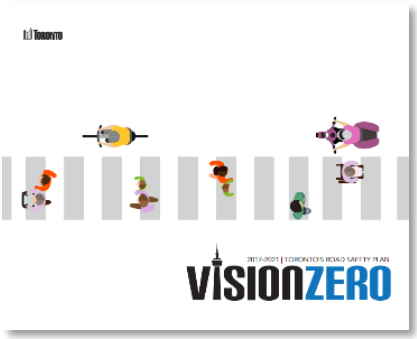
The policy documents highlight the need for a multi-modal approach in planning and designing complete communities with sustainable transportation alternatives such as transit and active transportation facilities. For example, the **10-Year Cycling Network Plan** proposed approximately 525 centreline kilometres (km) of new cycling infrastructure. Within the study area, the cycling plan shows



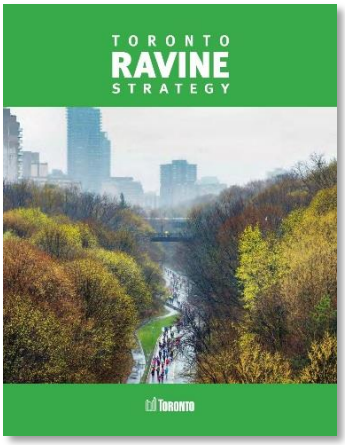
planned bike lane / cycle tracks along Eglinton Avenue.

Through public feedback on the 10-Year Cycling Network Plan, new cycling routes and connections to public transit were identified as a need within the Flemingdon Park community located in the southern quadrants of the Don Mills-Eglinton intersection. As of 2018, the City has begun installing the proposed cycling facilities within the community to the east of Don Mills Road.

The **Complete Streets Policies and Guidelines (2014)** provides guidance on improving design quality and convenience of active transportation facilities, along with balancing the needs of various users and uses in the road right of way.



Other policies that are complimentary to active transportation plans include the **Vision Zero Road Safety Plan (2017)** which identified six areas for emphasis: pedestrians; school children; older adults; cyclists; motorcyclists; and, aggressive driving and distraction. Between 2010 and 2016, there was at least one person killed or seriously injured in the Don Mills-Eglinton area as a result of aggressive driving and distraction. New safety measures / enhancements suggested in the Road Safety Plan which are pertinent to developing alternative solutions for the Don Mills Crossing Study will be considered for accommodating vulnerable road users.



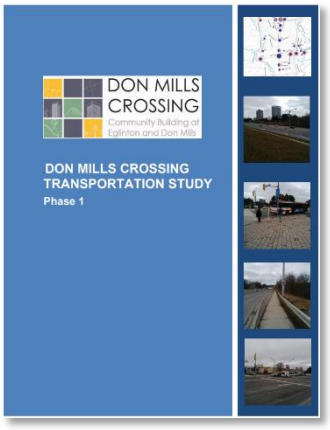
The DMC MPS includes a potential active transportation connection to the ravine system in the study area. As such, the City's **Ravine Strategy (2017)** is an important policy document to be considered in developing alternative solutions that do not impact the local Environmentally Significant Areas (ESAs). The City's Parks, Forestry and Recreation, and City Planning divisions along with Toronto Water worked collaboratively to develop the following guiding principles for ravines:

- All actions related to ravines should be guided by the goal of protecting ravines by maintaining and improving their ecological health.
- Look for efficient ways to manage ravines and opportunities to expand the system.
- Understand and appreciate the value of our ravine system and have physically opportunities to connect with these spaces in a safe and sustainable manner.
- Work in partnership with the community, the TRCA, neighbouring municipalities, other levels of government, property owners, utility providers and other stakeholders to provide opportunities for contributions and collaborations to these spaces.

2.3 Local Planning Initiatives, Studies and Projects

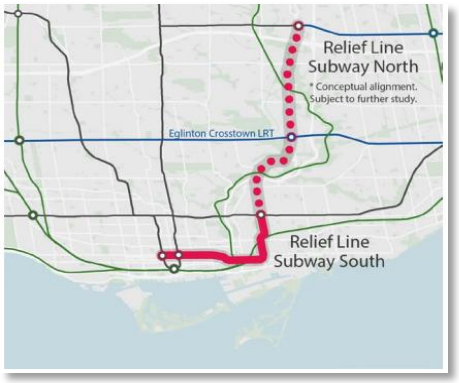
Local area transportation studies, planning reports, and other documentation for on-going transit projects and developments provide a comprehensive picture of the study area's growth potential. Prior studies such as **Eglinton Connects (2012)**, **Site and Area Specific Policy (SASP) 511 for**

Celestica Lands (2012) and the **Crosstown Light Rail Project (2014)** set the stage for future land use assumptions, transportation network and transit services within the study area.



Don Mills Crossing Study Phases 1, 2 & 3 (2016, On-going): Building on the work of the Eglinton Connects Study, the City initiated the Don Mills Crossing Study, a comprehensive review of the anticipated growth around the intersection of Don Mills Road and Eglinton Avenue. Phase 1 of the Study focused on understanding the study area and its surrounding context as well as identifying a way forward with areas of future study. Through Phase 2, a Public Realm Plan (discussed below) has been developed to direct the structure for the new community in the study area and to ultimately guide the development of a proposed new Secondary Plan in Phase 3 of the Study. The DMC MPS builds on the findings of the Phase 1 Transportation Analysis, considers the findings of the Phase 2 work; and develops a set of recommendations, strategies and solutions that address mobility challenges within the study area.

Don Mills Crossing Study Phase 2 Public Realm Structure Plan (2017): The primary functions of the emerging public realm concept included connectivity of the four quadrants through an inner and outer ring road for different modes of travel, as well as trail connections to the Leslie spur trail, and the Don Valley Trail. These high-level concepts were brought forward for more comprehensive assessment of feasibility for different amenities such as bike lanes, sidewalks and bus stops within the Don Mills Crossing core study area.



Downtown Relief Line North (2017, On-Going): The Relief Line North (northerly rapid transit extension from Pape-Danforth) will provide an alternative rapid transit line, diverting demand from the Toronto Transit Commission's (TTC) Line 1, and increasing transit capacity and service to the downtown area. This portion of the Relief Line will facilitate a potential connection to the ECLRT Science Centre Station at the Don Mills-Eglinton intersection, emphasizing the need to provide seamless integration between the emerging rapid transit network and the DMC study area. Note that currently there is no commitment by any order of government to fund the capital costs of building the Relief Line North.

Wynford Green Master Plan: This active application proposes the redevelopment of the approximately 24-ha Celestica Inc. property into a new mixed-use community. This is the largest development block within the core study area located on the northwest quadrant of the intersection of Don Mills Road and Eglinton Avenue, bounded to the north and west by the CP rail corridor. The proposed mix of uses for the site includes employment, commercial, residential, parks, open spaces, and community uses. The proposal also includes an affordable housing component, preservation of heritage resources, land for a new community centre, public streets, pedestrian / cycling connections to the surrounding community, and public access to the future ECLRT. A transportation network was also proposed as part of this development which includes several new public streets.

CreateTO Developments: There are three CreateTO owned development blocks in the core study area. The development blocks in the southeast and southwest quadrants have been submitted to the City for re-zoning. The northwest quadrant is bordered by Eglinton Avenue to the south and a bus terminal to the north and is highly constrained in terms of access. It is expected that other than minor interim uses, this block would not be feasible for re-development until further changes to the bus terminal and/or alternative access arrangements are determined.

3 Existing Conditions

The existing transportation, natural, social, cultural and built environment conditions within the Don Mills Crossing core study area was assembled to inform the local baseline conditions; to identify problems and opportunities for improvements to mobility in the study area; and, to develop, evaluate and select the preferred multi-modal transportation solution.

3.1 Transportation

A review of the existing transportation system in within the transportation study area has been documented in the Don Mills Crossing Study Phase 1 Transportation Analysis Report and is detailed in **Appendix B** along with supplemental analysis to capture the existing transportation context of the study area.

Key findings support the need to develop a comprehensive area Mobility Plan that addresses the existing challenges of – crossing barriers, providing connectivity both within the community and to future transit networks, and accommodating anticipated growth in adjacent development blocks.

3.1.1 Transportation Network and Connectivity

- The existing transportation network in the study area is auto-oriented with limited options for people to travel by other modes.
- The study area exhibits poor connectivity in pedestrian and cycling networks, as measured by the Connectivity Index (see **Appendix B** for details). The main contributing factor for the poor connectivity is the lack of local streets and presence of cul-de-sacs, discontinuous sidewalks and cycling facilities with physical barriers (valley / ravine system, Don Valley Parkway, CP rail corridor).
- Pedestrian Walkshed analysis for future ECLRT transit stops based on existing pedestrian infrastructure confirm poor street network links to transit service points (**Exhibit 3-1**).
- Therefore, improving the active transportation network by providing better connectivity, safer and more comfortable conditions will be crucial for the Mobility Plan.

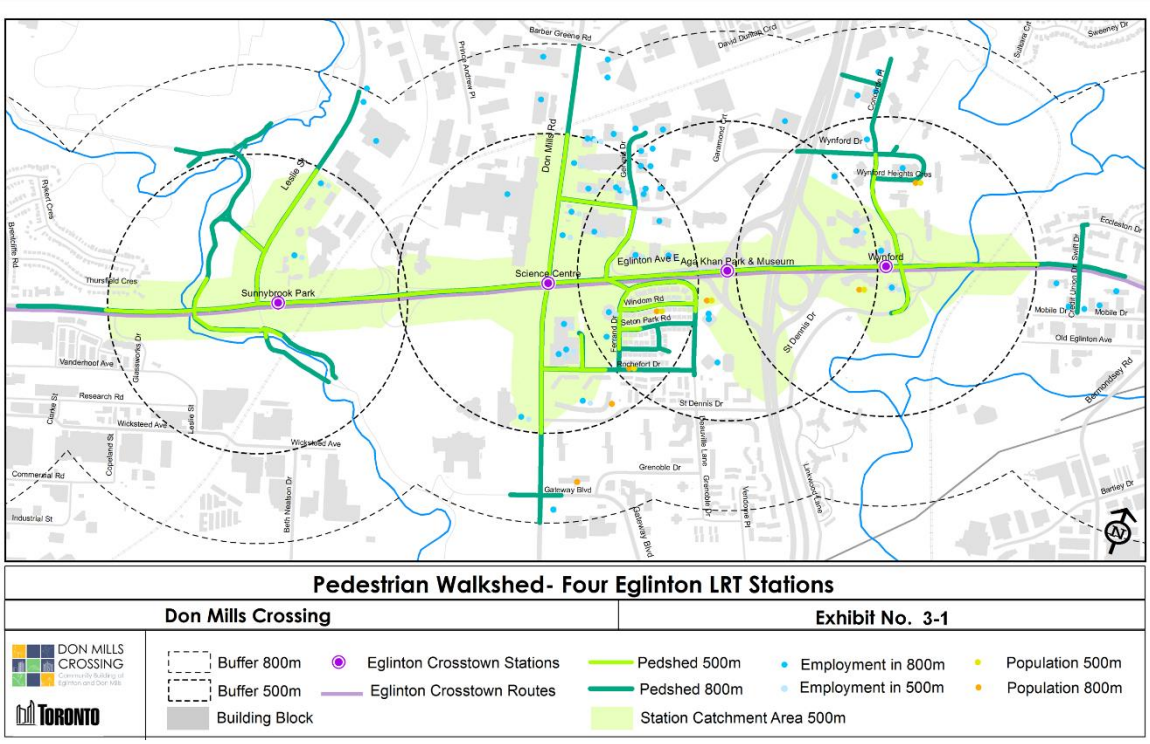


Exhibit 3-1: Pedestrian Walkshed Review for ECLRT Stations

3.1.2 Travel Demand Characteristics

Existing travel characteristics of the area are shown in Exhibit 3-2.

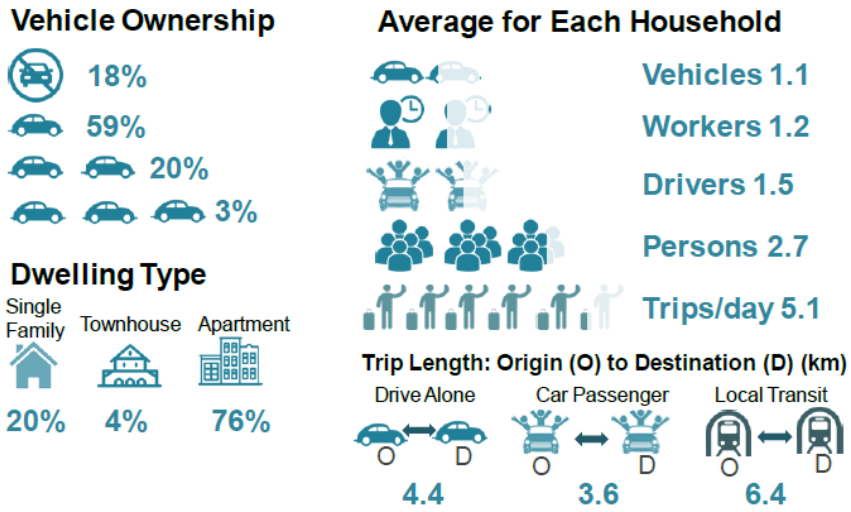


Exhibit 3-2: Area Travel Characteristics

- Based on 2011 Transportation Tomorrow Survey (TTS) data, 18% of households in Ward 26 (currently designated as Ward 16), within which the core study area is located, do not own vehicles, with the higher percentages occurring in the southern neighbourhoods of the ward.

- Although the existing transportation network is auto-oriented, the existing mode share within the transportation area of influence for transit and other sustainable modes of transportation (walking, cycling carpooling, etc.) is approximately 40-47%.
- Higher share of transit trips occur in the southern neighbourhoods of the transportation influence study area, such as in the Flemingdon Park community, while higher vehicle usage occurs to the north of the CP rail corridor.
- Average trip length for all trips within the study area was found to be in the short "urban" range (approximately 5-6 kilometres), regardless of the mode taken.

Based on the above existing travel patterns, the following considerations are relevant in developing the study area and the DMC MPS:

- The local nature of travel in the transportation influence area highlights the need to improve active transportation and transit modes, as well as provide broader range of land uses.
- The differences in mode share between neighbourhoods highlight the need to balance mobility options for all neighbourhoods within the transportation influence area. New connections to Leslie Street and improvements to cycling and trail connections are crucial transportation links for all communities. Opportunities for reducing auto mode share can also be realized by providing safer and shorter connections to transit in auto-oriented neighbourhoods.

3.1.3 Transit

- The Toronto Transit Commission operates several bus routes within the transportation area of influence. There are no GO bus or regional transit services available within the transportation area of influence.
- The existing Don Mills Crossing area exhibits a high transit demand along the Don Mills Road corridor with more than approximately 1,000 riders per direction during weekday peak hours. The TTC has eased transit capacity issues on bus routes along Don Mills Road and Lawrence Avenue through the introduction of articulated buses and an express service along Don Mills Road.
- While the main arterial roads are served by bus transit, the neighbourhoods within the Transportation Area of Influence exhibit a "transit desert" effect which are pockets that are underserved by the TTC, leading to lower usage and longer bus routes.
- The poor street connectivity and circuitous routes affect the attractiveness of transit by increasing the first-mile and last-mile travel times.
- With the future planned growth in the Don Mills Crossing area, transit demand within the area will require further improvements to transit service and operations, as well as better access to the anticipated ECLRT.

The ECLRT is currently undergoing construction with an expected completion date of 2021. The current designs provided by the City of Toronto form a basis for the development and evaluation of alternative solutions concepts as part of the DMC MPS. The design includes surface stations at Leslie Street (Sunnybrook Park Station), Ferrand Drive (Aga Khan Park & Museum Station), as well as an underground station at Don Mills Road (Science Centre Station) with two access points in the northeast and southwest corners of the Don Mills-Eglinton intersection.

3.1.4 Active Transportation

- Although sidewalks generally are present on both sides of the roadways throughout the transportation area of influence (excepting along the cloverleaf ramp and the private roadway to the Celestica employment area), mobility challenges exist due to complex intersection layouts, wide road widths, and man-made barriers.
- Lack of mid-block crossings and long crossing distances contribute to an undesirable walking environment, while existing topography presents grading challenges for walking facilities, which often include stairs.
- Very low connectivity and crossing activities were observed in most of the study area neighbourhoods, including those with higher transit usage.
- Pedestrians on major arterials experience very poor level-of-service (LOS E), as per the City of Ottawa's Multi-Modal LOS analysis methodology, due to high traffic volumes and high speeds next to the pedestrian facilities. The Don Mills Road and Eglinton Avenue East intersection experiences high safety risk on all crossing directions, due to high traffic exposure and operating speeds. Details of the pedestrian LOS and cross-walk safety indices analysis can be found in **Appendix B**.

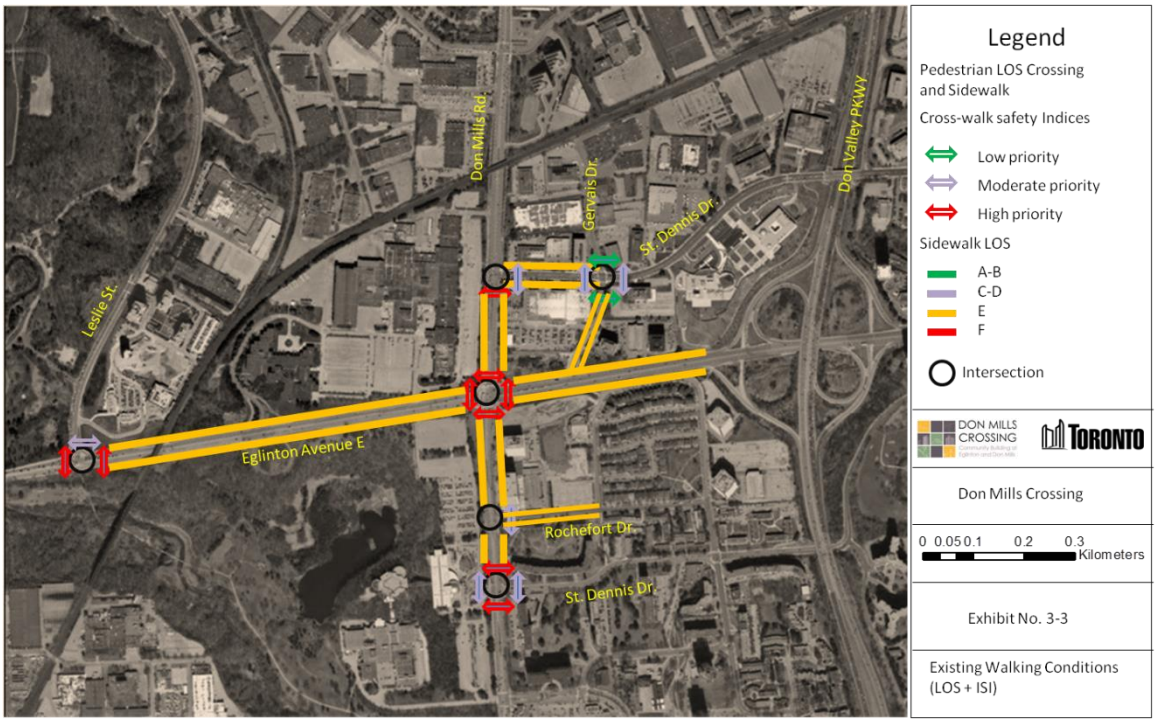


Exhibit 3-3: Existing Walking Conditions

- Recreational trails are located along the West and East Don River, however there are a few key locations where the trails are not continuous, resulting in longer walking distances for nearby residents.
- The core study area currently lacks continuous cycling infrastructure. The existing Don Mills trail abruptly ends north of the CP Rail corridor, and continues south of Eglinton Avenue.
- There is a moderate level of cycling activities along Don Mills Road, the West Don River Trail, Millwood Road, and Overlea Boulevard. Overlea Boulevard currently serves as a major arterial for cyclists originating from the residential area on the east side of the West Don River Trail to the west of the West Don River Trail. Don Mills Road, Millwood Road, and the Ravine Trails experience higher cycling activity in the area despite the lack of cycling amenities.
- The cycling LOS along Eglinton Avenue East, and Don Mills Road corridors are very poor (LOS F) because there is no dedicated cycling infrastructure to separate cyclists from high speed and high-volume traffic. Internal roads exhibit a better cycling LOS (LOS E) because of lower traffic speeds and lower traffic volumes, but still lack dedicated cycling infrastructure. Left-turn movements at intersections are difficult and dangerous for cyclists to make.

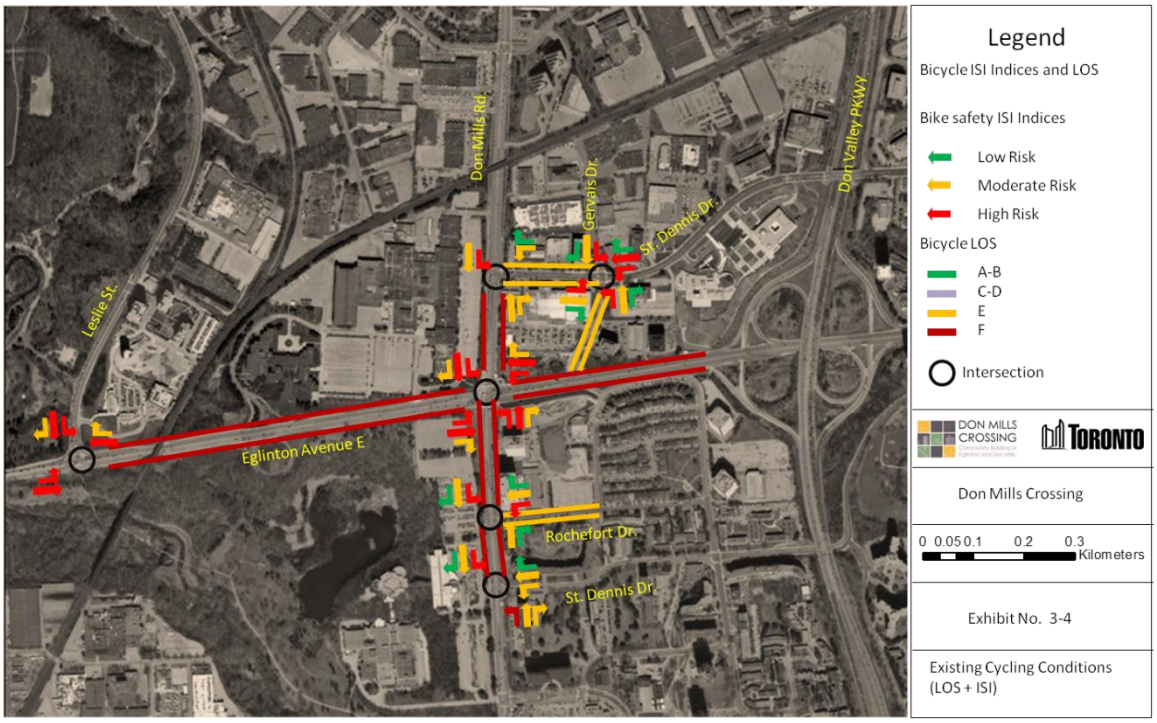


Exhibit 3-4: Existing Cycling Conditions

3.1.5 Vehicular Traffic

The Don Mills Crossing Phase 1 Transportation Study investigated existing traffic conditions in the study area with traffic data from approximately 2011 to 2015. Construction of the ECLRT began in 2011. Key findings show:

- Arterial roads and major intersections are congested during peak periods due to the lack of alternative routes for east-west movements.
- Existing T-intersection at Leslie Street and Eglinton Avenue results in traffic volume spillage onto the heavily congested Don Mills-Eglinton intersection which services 90,000 vehicles per day.
- Proximity of the Don Valley Parkway to the Don Mills-Eglinton intersection results in large volumes of traffic passing through the intersection.
- Roadways with higher number of lanes and wider intersections tend to have higher collision risks generally due to the higher traffic exposure and longer clearance distance.
- Truck traffic is observed to be relatively low, at 2.5% of total trips in the study area.
- There are opportunities to provide better connectivity and create a more compact street network to improve existing traffic conditions.

3.2 Natural Environment

As part of the natural heritage assessment, background information was collected and reviewed to understand the significance and sensitivity of natural features in the core study area and the transportation influence study area. The detailed Natural Heritage Report is attached in **Appendix C**.

Vegetation: A review of secondary sources indicated that vegetation communities within the core study area are part of the regulated area associated with the Don River West Branch. As per OMNR Natural Heritage Information Centre (2018) there are no recent records of plant species that are regulated under the Ontario *Endangered Species Act, 2007* or the Canada *Species at Risk Act* (those plant species regulated as Special Concern, Endangered, Rare or Threatened).

Historic records (older than 15 years) were identified for red mulberry (*Morus rubra*) and butternut (*Juglans cinerea*), considered Endangered; however, it is unlikely that red mulberry still exists in the study areas. It is likely the butternut tree is still in existence within the transportation influence study area.

Wildlife and Wildlife Habitat: Significant Wildlife Habitat (SWH) were found within the core study area, in the form of seeps and springs (Azimuth Environmental Consulting 2017). Despite not meeting the criteria for Woodland Raptor Nesting Habitat, as described by the MNRF, presence of a Cooper's Hawk and suitable nesting habitat for the species southwest of the intersection of Eglinton Avenue and Don Mills Road suggest there is potential for SWH in this woodland feature.

There are three historic records for species that are regulated under the Ontario *Endangered Species Act, 2007* and the Canada *Species at Risk Act* (2002) within the core study area. Five Species At Risk (SAR) have been reported (NHIC 2018, TRCA 2017, and Azimuth Environmental Consulting 2017) in the transportation influence study area, and are likely associated with the Don River West valleylands. Of the SAR observed by the TRCA, one species, the Chimney Swift, is 'Threatened' under the *Endangered Species Act, 2007*. Detailed list of the SAR can be found in **Appendix C**.

Aquatic Habitat: No records of SAR were found within the core and transportation influence study areas.

Designated Natural Areas:

- There is one candidate Area of Natural and Scientific Interest (ANSI), West Don River Valley ANSI (Regional Life Significance) located within the study area.
- Two Environmentally Significant Areas (ESAs), the ET Seton Park ESA and Wilket Creek Forest ESA, are located within the core study area and transportation influence area, respectively.
- Both the core study area and transportation influence area are within the Ontario Regulation 166/06 limit which regulates work taking place within valley and stream corridors, wetlands and associated areas of interference and the Lake Ontario waterfront; and requires a permit from the Toronto and Region Conservation Authority (TRCA).

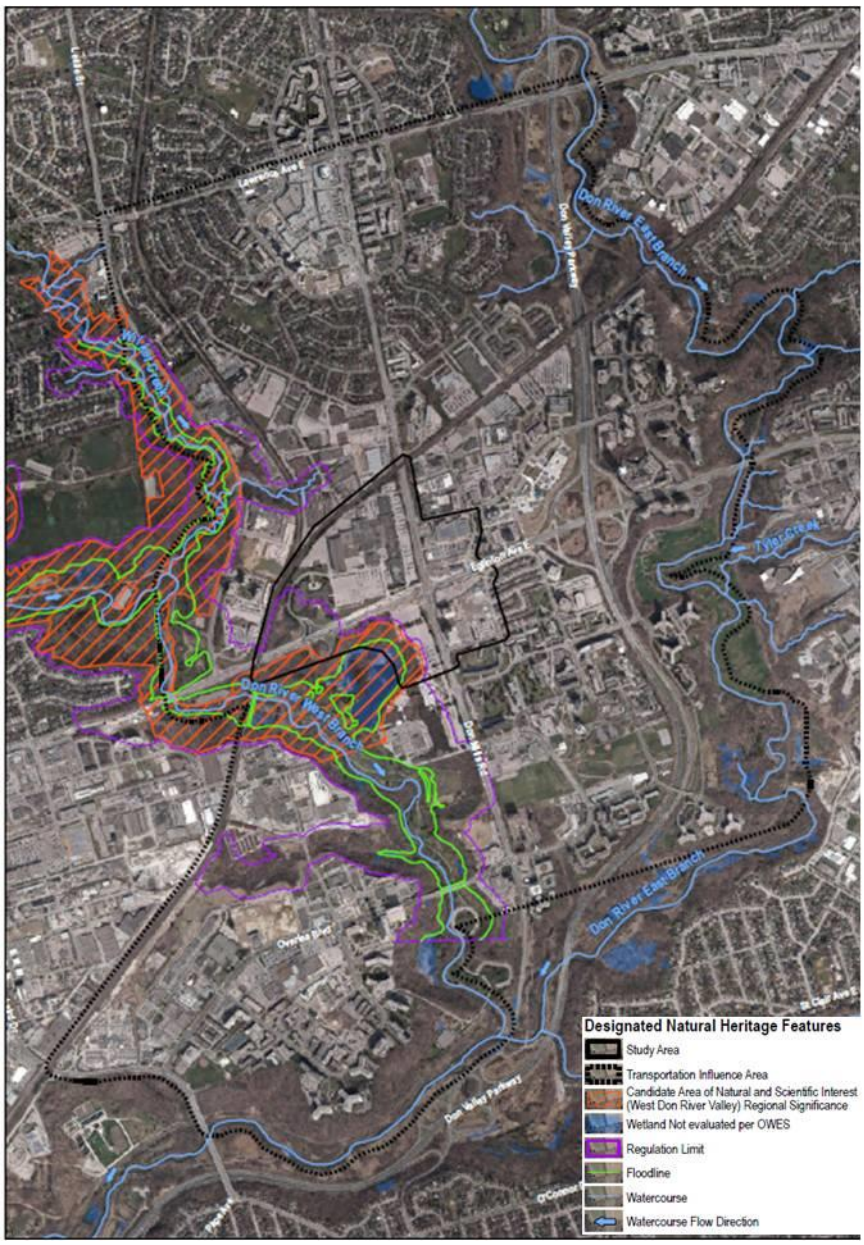


Exhibit 3-5: Designated Natural Heritage Features

- A portion of the core study area is located within the City of Toronto's Ravine and Natural Feature Protection (RNFP) By-law limits as shown in **Exhibit 3-6**. The City of Toronto Ravine and Natural Feature Protection By-law (Municipal Code Chapter 648) restricts activity within the protection limits. Both the core study area and transportation influence area are within the RNFP boundary. A permit will be required from Urban Forestry for any works undertaken within the RNFP limits, as well as compensation in the form of replacement trees will be required for the removal and/or injury of any trees. RNFP also ensures that site restoration is implemented in alignment with the principals and guidelines set out in the City's Strategic Forest Management Plan.

Exhibit 3-6: Ravine and Natural Feature Protection By-Law in the Core Study Area

Based on the above review of the existing natural heritage conditions, the following recommendations are made:

- Efforts should be undertaken to identify the location and any additional butternut trees prior to commencement of any construction related activities.
- Consideration should be given to the sensitivity of potential SWH in the woodland feature southwest of the intersection of Eglinton Avenue and Don Mills Road for future planning studies.
- Consideration should be given to the sensitivity of West Don River Valley ANSI (Regional Life Significance) in the study area and efforts should be made to minimize impacts to the ANSI.
- Appropriate permits should be sought for any works undertaken within RNFP and Ontario Regulation 166/06 limits.

3.3 Noise and Vibration

Within the core study area, the primary generators of noise are vehicles along Eglinton Avenue, Don Mills Road, and trains along the CP Railway line. The Don Valley Parkway and minor local roadways within the transportation influence study area are considered secondary transportation noise sources. The noise sensitive areas are residential developments and hospitals/nursing homes, with Outdoor Living Areas (OLAs).

The evaluation of noise impacts is determined by the change in cumulative sound levels from the future “no-build” scenario to the future “build” scenario. Assessments are based on a minimum ten-year future horizon year (i.e., traffic volumes 10 years after the completion of the project). Noise mitigation is warranted when increases in sound level over the “no-build” ambient are

greater than 5 dBA. It is very unlikely that future minor changes to the interior access roadways within the core study area will result in any significant noise impacts.

The Noise and Vibration report can be found in **Appendix D.**

3.4 Air Quality

The air quality review identified sensitive receptors within a buffer of 300m around the core study area as shown in **Exhibit 3-7**. It was noted that most sensitive receptors are residential, with a few places of worship and one educational facility. It was also recommended that although the Science Centre is not explicitly classified as a sensitive receptor, it should be considered one.

The major vehicle emissions sources within the study area are the major existing roadways with higher traffic volumes, Eglinton Avenue East and Don Mills Road.

Given that the Don Mills Crossing MPS focuses on shifting existing and new trips to more sustainable modes such as cycling, transit, and walking, the overall impacts to air quality are expected to be minimal. The Air Quality report can be found in **Appendix E.**

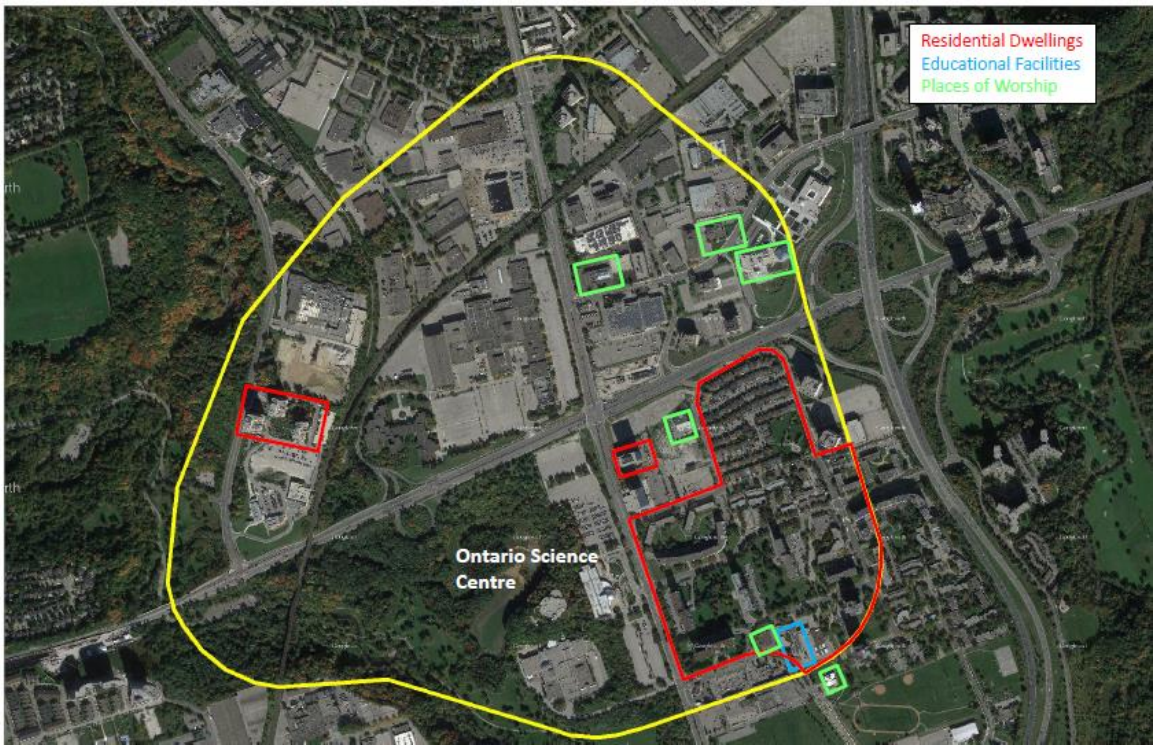


Exhibit 3-7: Sensitive Receptor Locations

3.5 Environmental Site Assessment (Contaminate Screening)

A Contaminated Property identification and Management Overview Study (COS) was conducted as for the properties on all four quadrants of the Don Mills Road-Eglinton intersection, in general accordance with the Canadian Standards Association (CSA) Standard Z768-01. The Contaminate Screening report can be contained in **Appendix F.**

Based on the findings of the COS, which included a review of historical records and a Site reconnaissance, the properties illustrated in **Exhibit 3-8** have been identified as being a medium or high potential source of environmental concern within a 250m buffer of the core study area.

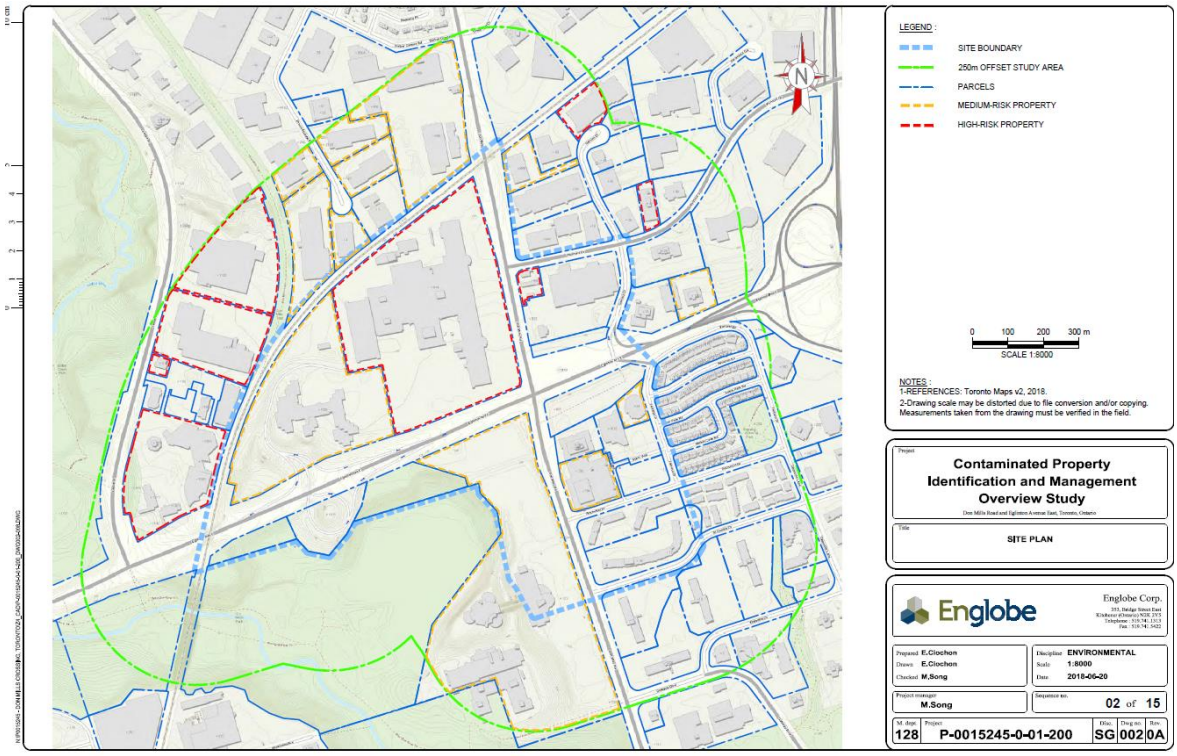


Exhibit 3-8: Contaminated Property Identification

3.6 Cultural Heritage

Background research, data collection, and field review were conducted for the Don Mills Crossing core study area and it was determined that six cultural heritage resources are located within or adjacent to the core study area. The identified cultural heritage resources include two industrial properties (BHR 1 and BHR 2), an institutional property (BHR 3), two commercial properties (BHR 4 and BHR 5), and one railscape (CHL 1).

These properties are marked on **Exhibit 3-9** and discussed in detail in the Cultural Heritage Report in **Appendix G**.

3.7 Archaeology

A Stage 1 Archaeological Assessment determined that one previously registered archaeological site is located within 1km of the core study area. Details can be found in **Appendix H**.

Property inspections indicated that some of lands within the core study area are sloped in excess of 20 degrees, while the remainder of the study area has been subjected to deep soil disturbance events associated with construction of the rights-of-way and commercial development. These areas, highlighted in **Exhibit 3-10,** do not retain archaeological potential and will not require Stage 2 assessment.

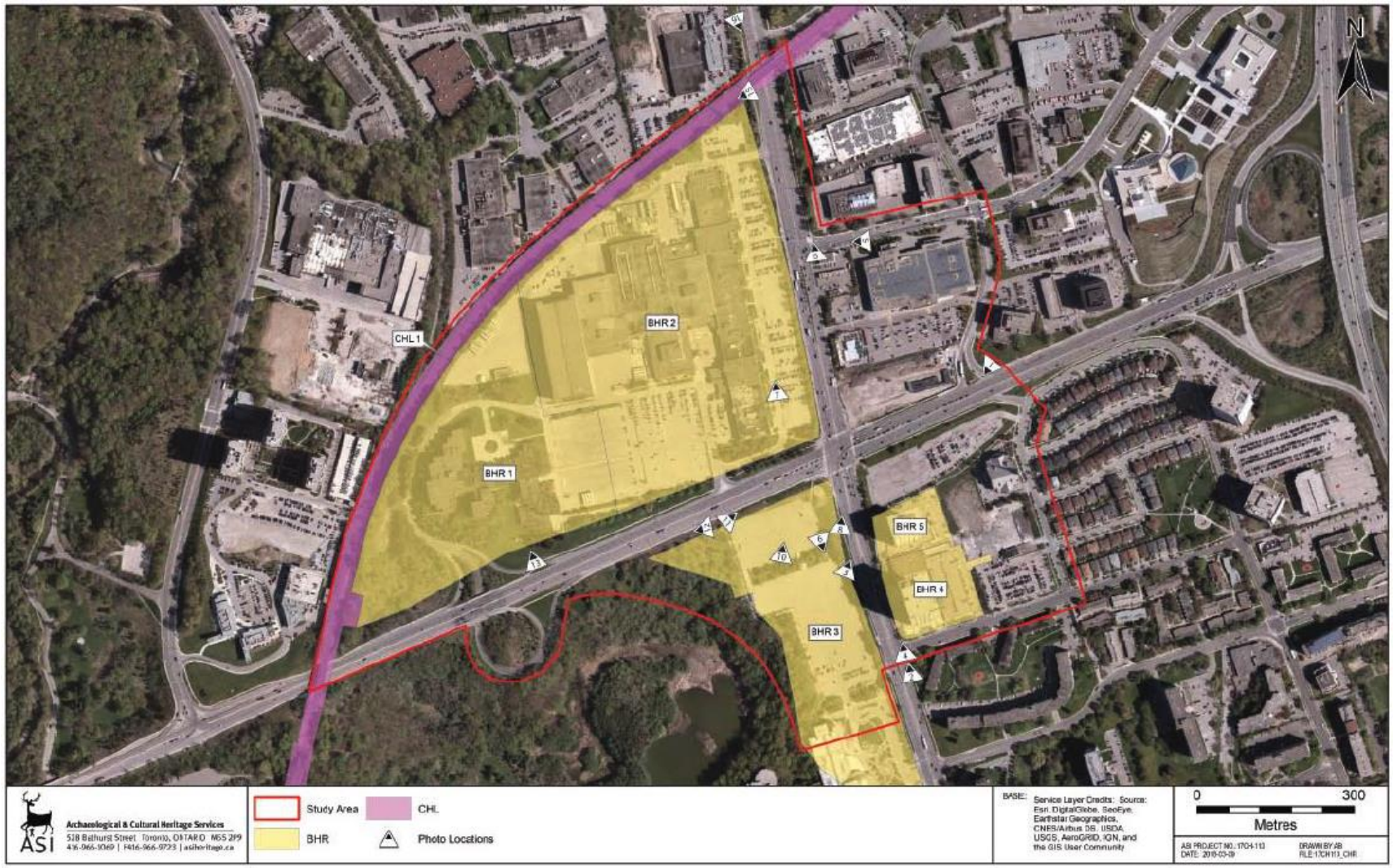


Exhibit 3-9: Location of Cultural Heritage Resources

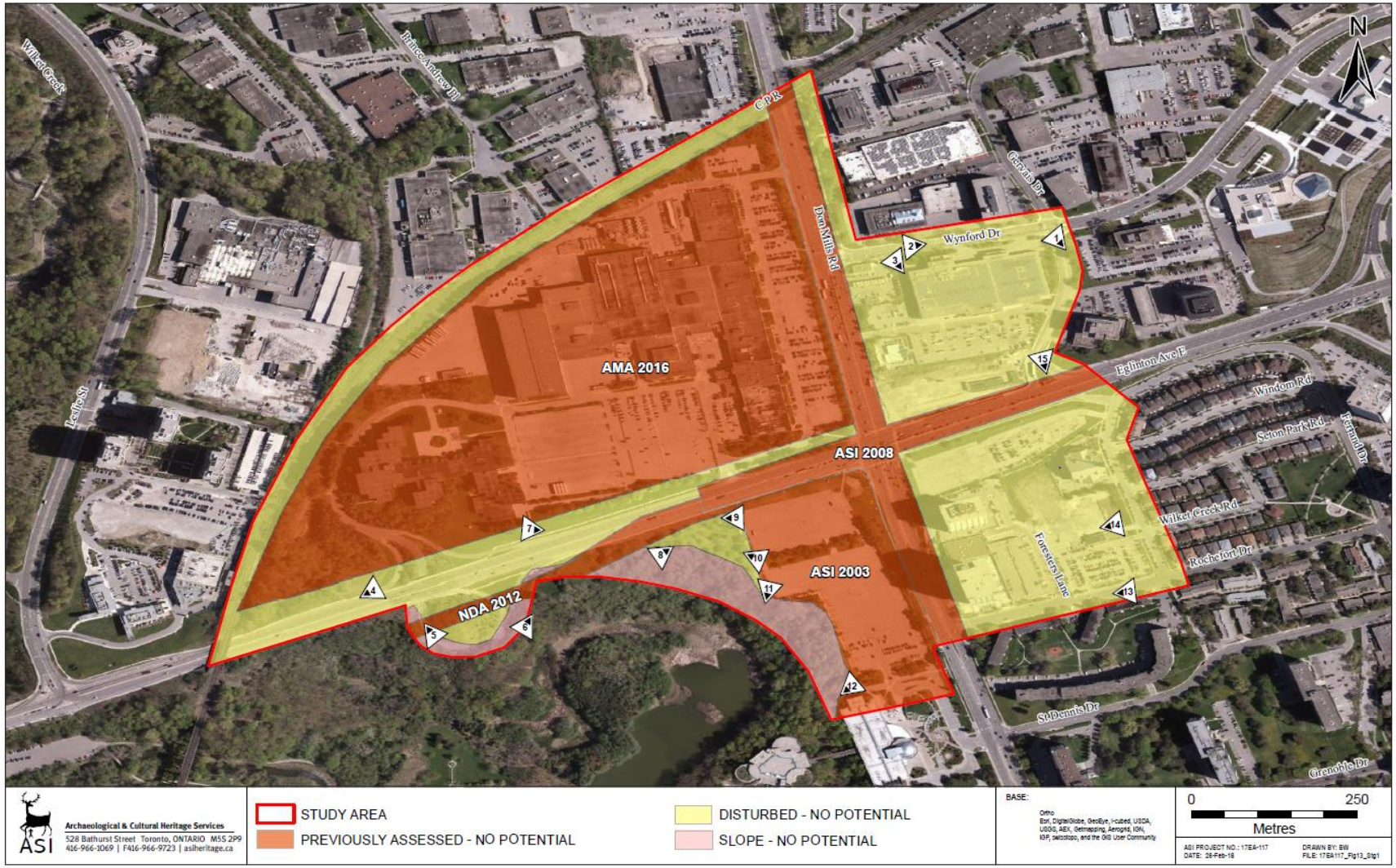


Exhibit 3-10: Archaeological Resource Potential

4 Planned Development and Multi-Modal Transportation Assessment

The Don Mills Road and Eglinton Avenue East area will be anchored by significant transit investment in the ECLRT, spurring new developments and intensification which are consistent with the growth objectives of the 2017 Growth Plan for the Greater Golden Horseshoe, the Provincial Policy Statement and city-building initiatives in Toronto.

This chapter reviews current re-development plans for the four quadrants of the Don Mills-Eglinton intersection with consideration for the existing transportation network and transit expansion plans, the combination of which will shape the future mobility context of the area.

A brief introduction to developments anticipated in the Don Mills Crossing area was provided in **Section 2.3**. The proposed development in each quadrant of the Don Mills-Eglinton intersection is marked in **Exhibit 4-1** and described below.

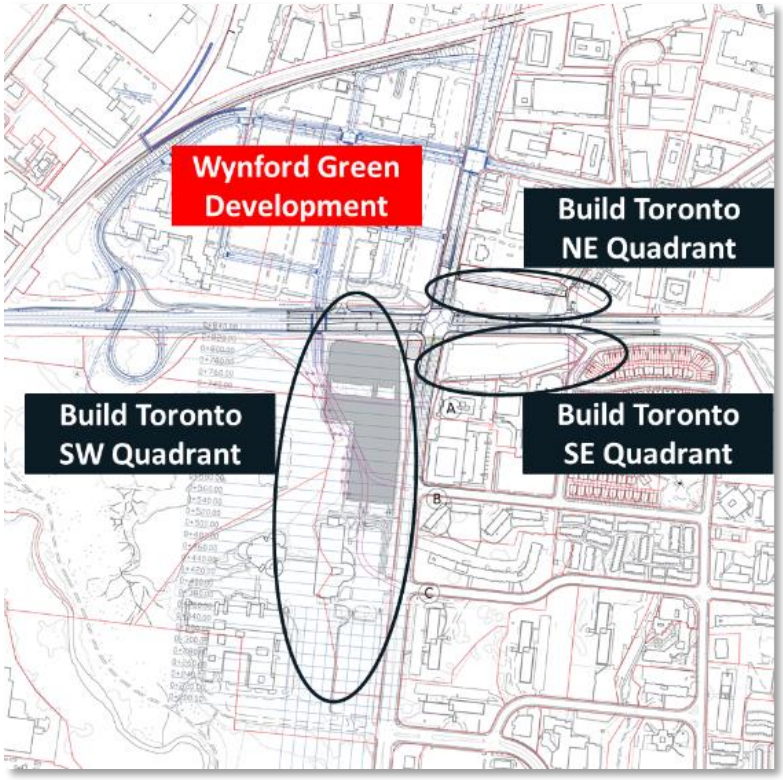


Exhibit 4-1: Planned Developments

4.1.1 Northwest Quadrant

The Wynford Green community, planned in the northwest corner of Don Mills Road and Eglinton Avenue, is intended to be a mixed-use development that will be constructed in phases, in line with infrastructure improvements as demands increase. The development is located to the east of the CP rail corridor and will consist of residential units, office space, retail units, and recreational and cultural uses (arena, community centre and a small community hub).

A transportation network was also proposed as part of this development, including several new public streets and active transportation crossings as shown in **Exhibit 4-2**. According to the Wynford Green Master Plan (2016), the expected modal split for the development is: 41% Auto, 41% Transit, 14% Walking, and 4% Cycling.

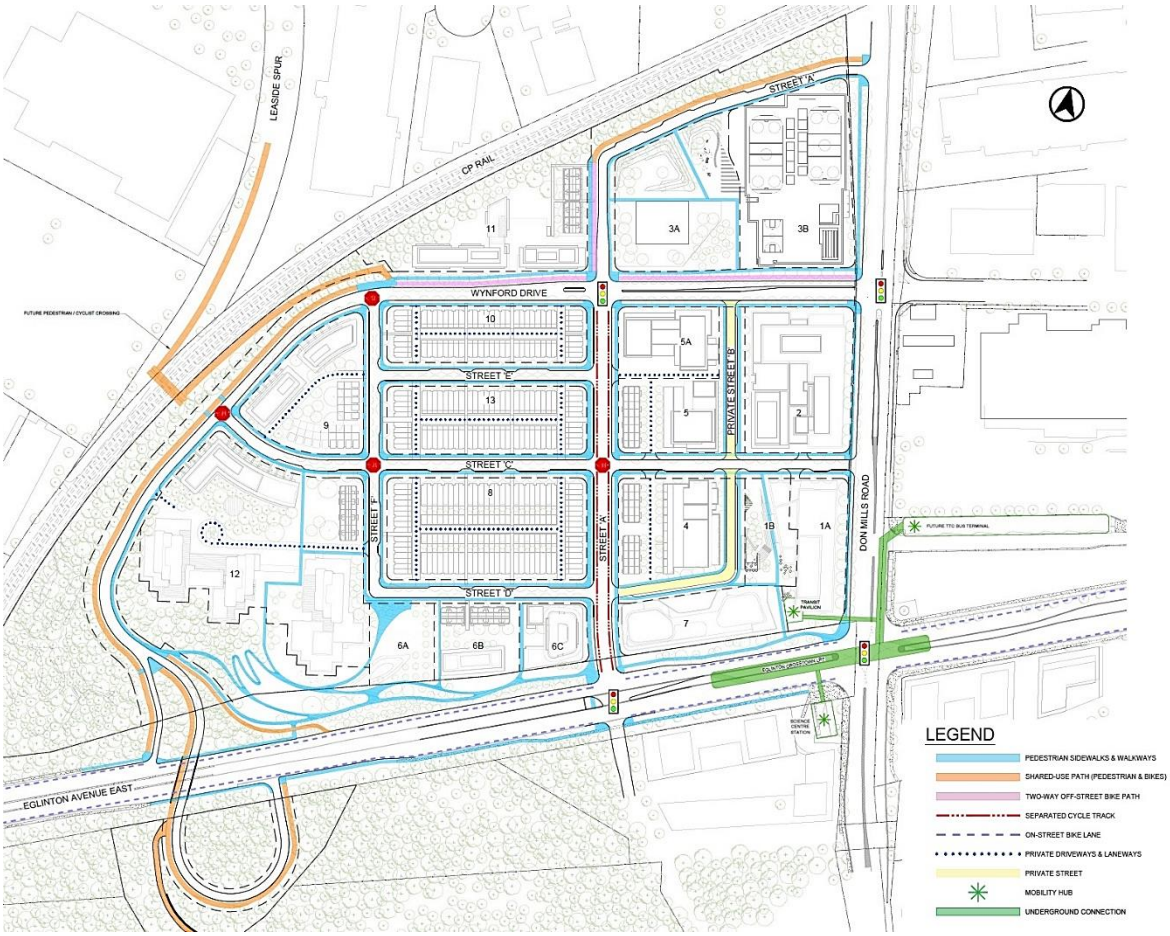


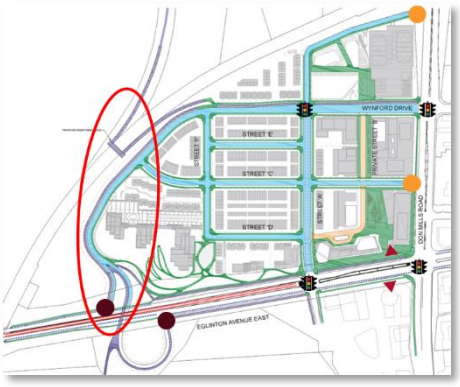
Exhibit 4-2: Wynford Green Development Conceptual Plan

A number of key considerations for mobility in the area are discussed in the following sub-sections.

Wynford Drive Extension

The Wynford Green community is expected to generate additional volumes of traffic in the area. A major portion of the inbound traffic is expected to use the ramp onto Wynford Drive, making it a critical inbound path.

Design elements for the Wynford Drive extension, including the impact of steep grades, sightlines, safe crossings, and emergency access are critical considerations in providing adequate access to the northwest quadrant.

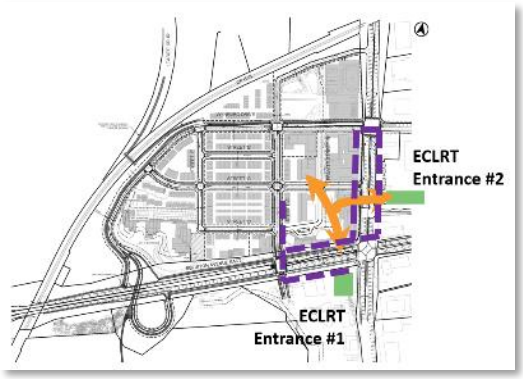


Entry Points/Emergency Access

Access into the development is also expected to be provided via signalized intersections along Don Mills Road and Eglinton Avenue. However, not all movements are protected at the signalized intersections. Emergency service access for the development, e.g. for fires services located at Leslie Street, should be considered to avoid indirect or circuitous routes.

Active Transportation and Transit Connections

This development is poised to provide direct access to the mobility hub around the Science Centre station on the future ECLRT. Along with improved pedestrian and cycling linkages, there is potential for enhanced connectivity to local and regional transit as well as the network of open spaces and recreational trails in the vicinity of the development.



To achieve the proposed modal split for the community, active transportation facilities should provide porosity through the development to surface transit stops. There may be opportunities to provide direct connections to ECLRT platforms, as well as access to the bus terminal located on the east side of Don Mills Road. Night-time bus operations and access along Eglinton Avenue should also be supported by integrated, safe, visible, and convenient intermodal connections.

Proposed Rail Crossing

A key component of the transportation network within the Wynford Green community is a grade separated crossing of the adjacent CP rail corridor, since the railway presents a physical barrier to pedestrian and cyclist porosity. An underground (tunnel) or elevated (pedestrian bridge) rail crossing provides the opportunity for easy pedestrian and cyclist access from the new

development to Leslie Street, Wilket Creek Park and the greater Don Valley parklands. Considerations in the planning and design of the crossing include steep grades with concerns for AODA compliance, the need to evaluate security and visibility, ownership, costs and maintenance requirements.

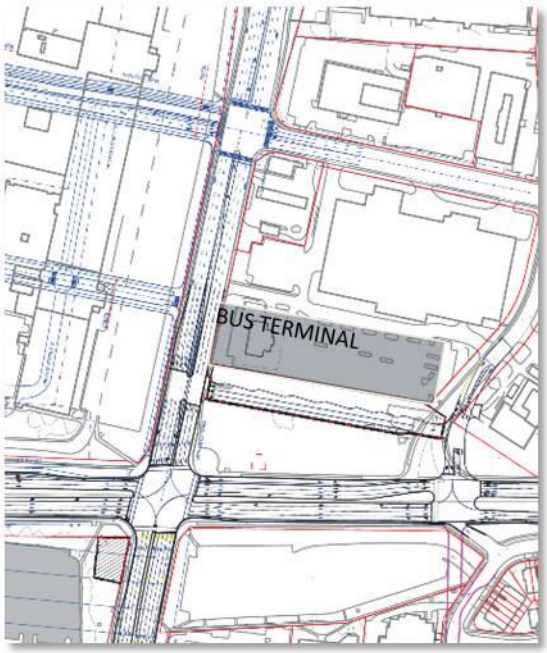
4.1.2 Northeast Quadrant

The northeast quadrant is bordered by Eglinton Avenue to the south and the bus terminal to the north and is highly constrained in terms of access.

The close spacing between the bus terminal and the intersection of Don Mills Road and Eglinton Avenue presents traffic operational concerns, such as queue spilling back from the intersection and potential blockages to bus exiting the terminal.

It is expected that other than minor interim uses, re-development of this block, owned by CreateTO, would not be feasible until further changes to the bus terminal and/or alternative access arrangements are determined or required for regional transit expansion such as for the potential Relief Line North.

4.1.3 Southwest Quadrant



CreateTO owns the lands in the southeast and southwest corners of the Don Mills and Eglinton intersection. The southeast and southwest quadrant development blocks have been submitted to the City for re-zoning.

Considerations in the development of this land includes:

- Short-and long-term Don Mills Road access points, access controls and safety implications;
- Cycling infrastructure and connectivity / continuity of facilities north and south of Eglinton Avenue;
- Potential direct connections to the ECLRT station and linkage to the Science Centre; and,

- Presence of the ravine system regulated under City of Toronto's Ravine and Natural Feature Protection (RNFP) By-law and TRCA, and its associated long term slope erosion hazard.

Another potential redevelopment site in the southwest quadrant was identified by the City - a secondary block situated on the north Science Centre parking lot (shown in **Exhibit 4-3**). However, no formal rezoning or applications have been submitted for review yet.

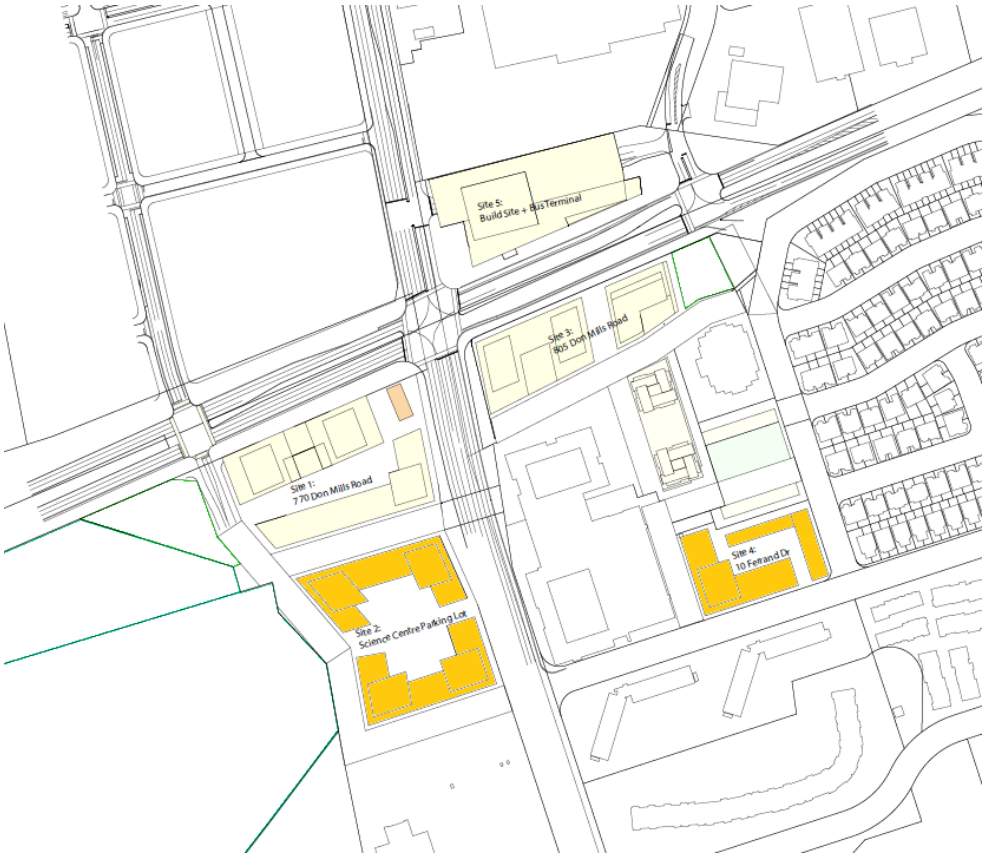
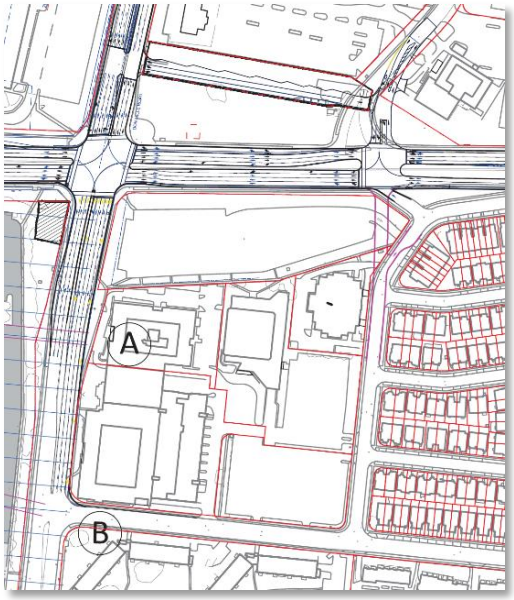


Exhibit 4-3: Proposed Soft-Sites to be considered

4.1.4 Southeast Quadrant

The CreateTO lands in the southeast quadrant of the Don Mills-Eglinton intersection have also been submitted for re-zoning. Similar to the lands in the southwest quadrant, it is expected that with the changing paradigm of travel modes and the shift towards transit modes spurred by the ECLRT, active transportation linkages will be key considerations in this quadrant. Other considerations include:

- Access point locations and configurations along Don Mills road and Eglinton Avenue;
- Potential for re-alignment/ Re-configuration of the intersection of Eglinton Avenue with Ferrand Drive and Gervais Drive, incorporating bus storage, cycling provisions etc.; and,
- Potential for direct connection to the ECLRT station.



A secondary block in the southeast quadrant (shown in **Exhibit 4-3**), on the existing Forester parking facility has been identified by the City with the potential for redevelopment, especially as the share of sustainable transportation modes increase in the area, possibly making the site redundant; however no formal rezoning or applications have been submitted yet.

4.2 Public Realm Structure Plan

As discussed in **Chapter 2,** an Public Realm Structure Plan was developed through Phase 2 of the Don Mills Crossing Study which outlines the structure for a new, vibrant, mixed use and transit-oriented community around the intersection of Don Mills Road and Eglinton Avenue. This plan forms the basis for advancing the preparation of a Secondary Plan for the Don Mills Crossing area, and provides a focus on pedestrian and cycling movements with a complete streets approach to transportation infrastructure planning.

The main components of this plan include Crossings and Connectors as shown in **Exhibit 4-4**. Crossings are arterial roads that provide connectivity to the rest of the City, while connectors are local routes which link neighbourhood destinations into a consistent and integrated network for the local area travel needs.

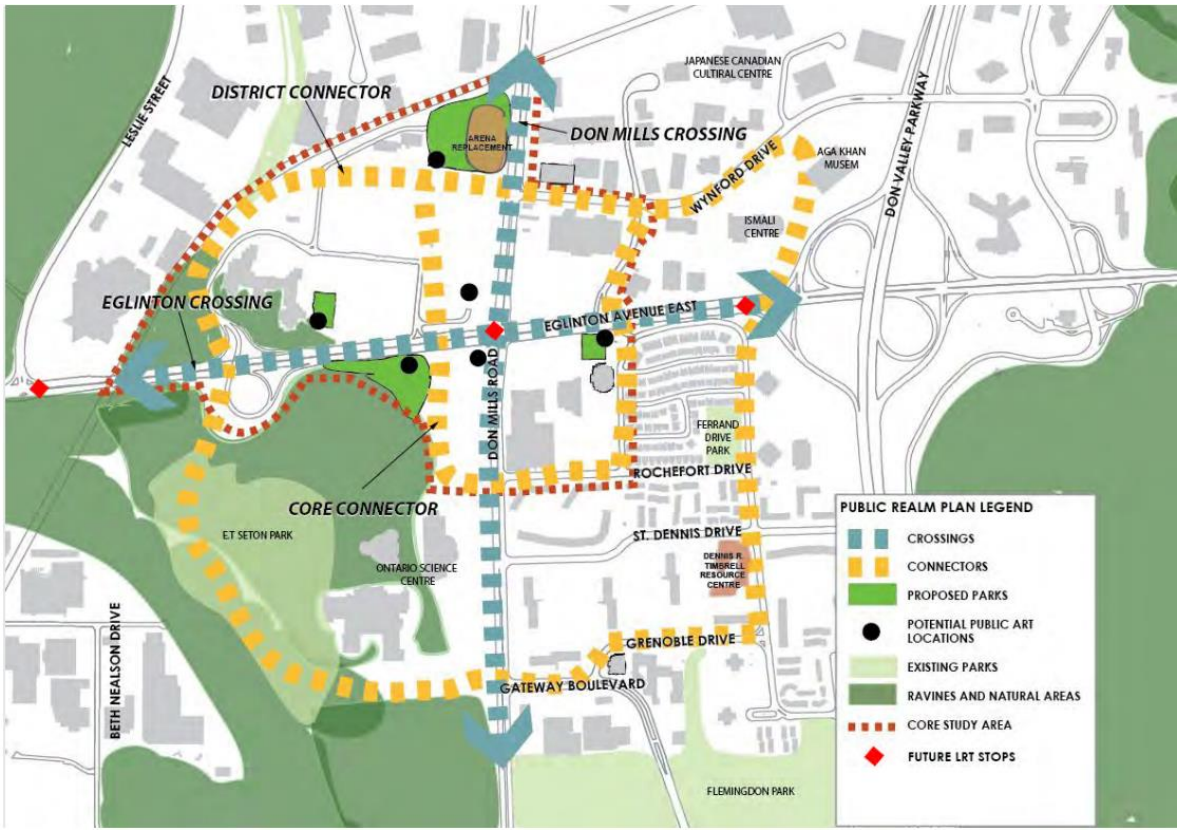


Exhibit 4-4: Don Mills Crossing Public Realm Plan

- **Eglinton Crossing**: In the Public Realm Structure Plan, right-of-way along Eglinton Avenue is rebalanced following the implementation of the ECLRT, with improvements for pedestrians / cyclist infrastructure, as well as streetscaping and landscaping.
- **Don Mills Crossing**: There are opportunities to enhance the urban characteristics of this north-south corridor through appropriate setbacks to better accommodate pedestrian activity.
- **District Connector**: The District Connector, which is a set of streets and trails around the core study area, is planned with emphasis on active transportation modes, including potential for active transportation infrastructure improvements along Wynford Drive and its extension into the Celestica lands, thereby connecting to dedicated cycling and pedestrian trails north of the Rail Corridor (Leaside Spur Trail) and south of Eglinton Avenue East (E.T. Seton Park).
- **Core Connector**: The Core Connector is comprised of local public streets and open spaces to improve day to day mobility to and from the future transit services at Don Mills Road and Eglinton Avenue.

4.3 Multi-modal Transportation Assessment

4.3.1 Multi-Modal Transportation Demand

Given the development potential for the lands within the study area and the emerging public realm concepts, a multi-modal transportation demand assessment model was developed to understand the impact of development levels on the transportation network capacity. The model

is depicted in **Exhibit 4-5** and each step is briefly described below. Details of the model and methodology can be found in **Appendix I**.

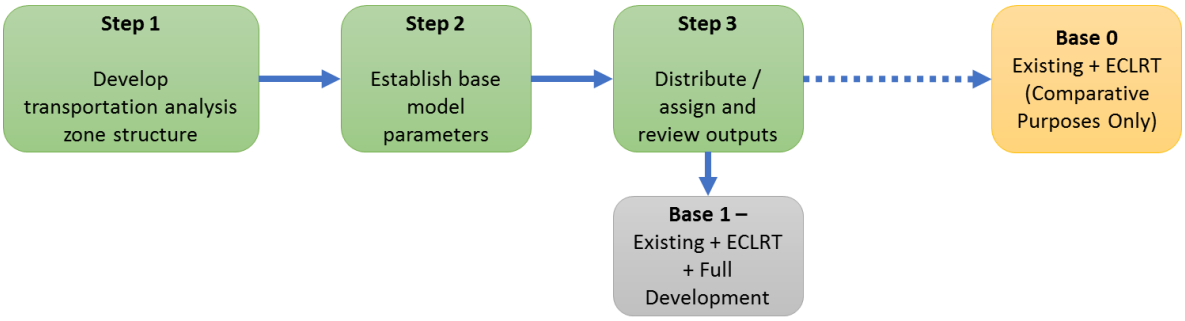


Exhibit 4-5: Multi-Modal Transportation Demand Assessment Model

Step 1: Develop transportation analysis zone structure

In this step, development blocks within the transportation influence study area were identified as transportation analysis zones. Travel demand was computed for the developments, based on Residential, Office/Employee, Commercial and Community/Institutional trip generation rates from sources including TTS data, ITE Trip Generation Rates Manual and the Wynford Green Transportation Study.

Anticipated future development population and employment projections around the Don Mills-Eglinton intersection are shown in **Exhibit 4-7**.

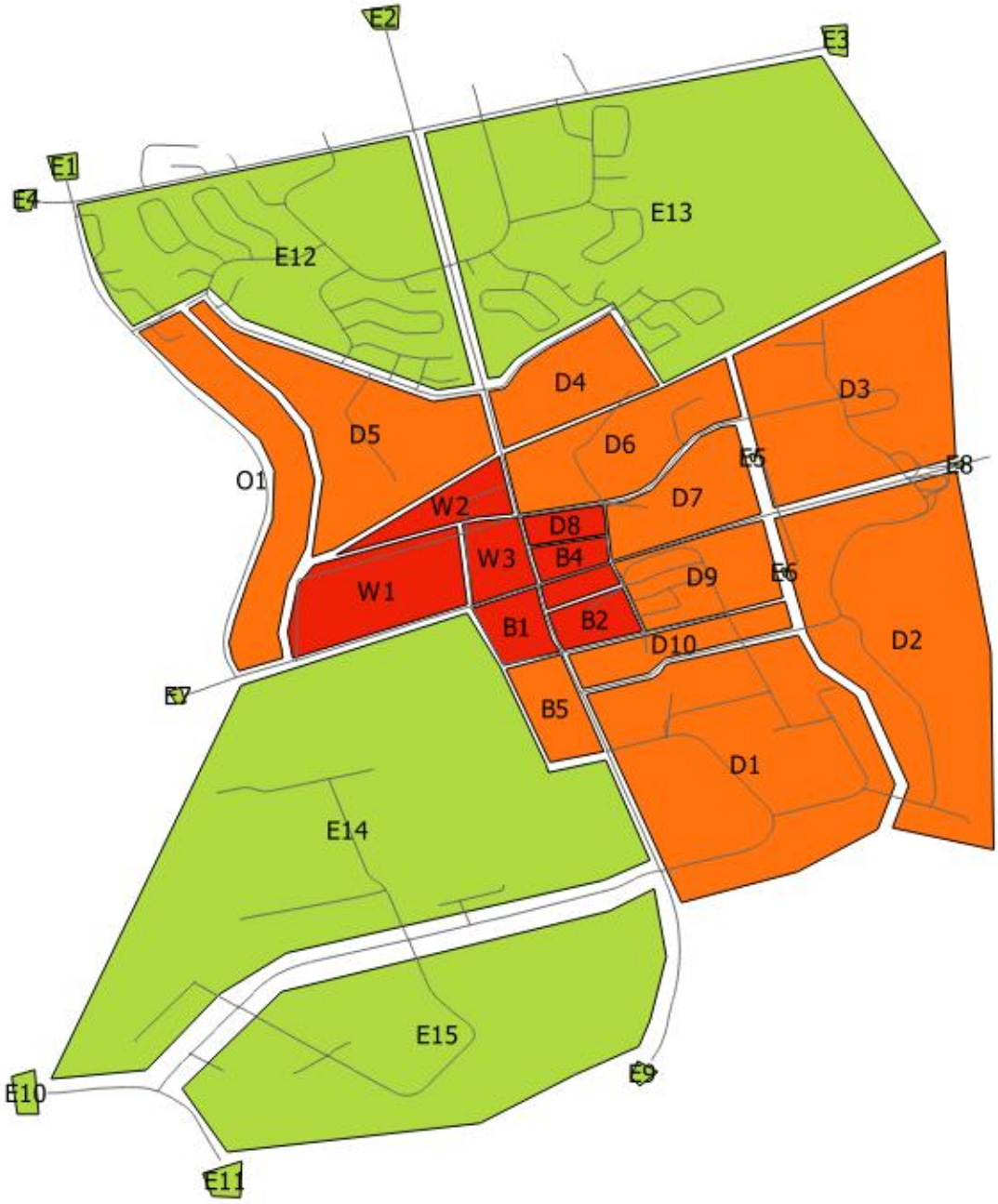


Exhibit 4-6: Analysis Zone IDs

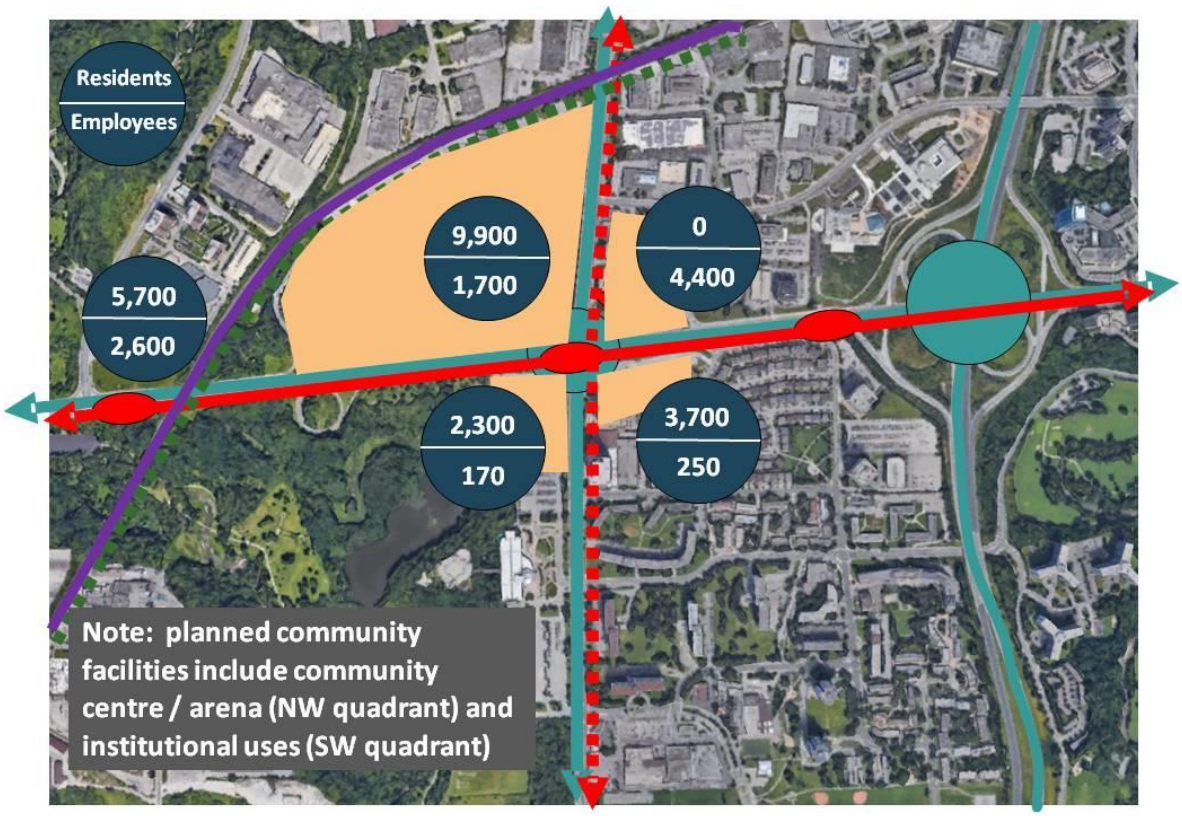


Exhibit 4-7: Base Future Assumed Population and Employment

Step 2: Establish Model Parameters

A comprehensive review of each zone was conducted and assumptions for the mode split in each block was made based on the following factors:

- Proximity to transit station;
- Amenities or proposed amenities to promote active and transit use; and,
- Potential for mode share changes based on travel demand management programs.

The proposed mode share for each development block and land-use is documented in **Appendix I**.

Step 3: Distribute / Assign Trips and Review Output

Trips were distributed considering each mode, development block and land use type, mobility choice / quality, and existing mode splits and mode volumes. Trips were assigned considering location-based data for vehicles, projected ridership for transit, and TTS data for active transportation, existing road, transit, cycling / pedestrian networks and connections.

A screen-line analysis was completed to determine major roadway capacity constraints in and out of the study area. As shown in **Exhibit 4-8**, four key screen-lines, at north, south, east and west locations were selected to capture demands going to and from these directions. The capacity of major roadways was based on estimates of current capacity along these roadways.

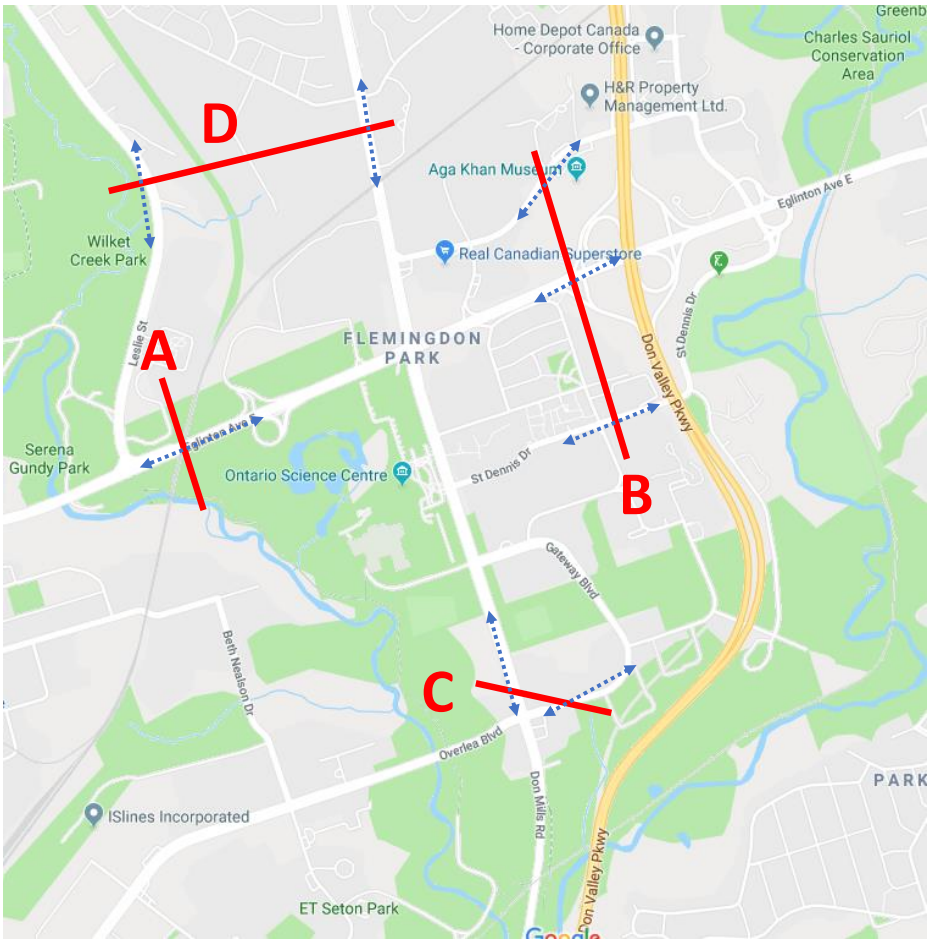


Exhibit 4-8: Assessed Screen-lines

4.3.2 Base Transportation Network Review

A base transportation network was assumed which includes the ECLRT (currently under construction) and feeder bus network, the proposed CP rail corridor crossing and any road network improvements related to the planned developments in the four quadrants of the Don Mills-Eglinton intersection.

For comparison purposes, two development levels were tested on the base transportation network – existing developments, i.e. no new developments (Base 0) and Full Development (Base 1).

- **Existing Developments Only**: If no new developments are implemented within the Don Mills crossing area and the ECLRT is completed as per schedule, traffic levels on Don Mills Road are still expected to exceed estimated capacity in both directions during the AM and PM Peak periods (**Exhibit 4-9** shows the AM peak period capacity constraints only). Eglinton Avenue and Wynford Drive to the east of Ferrand Drive / Gervais Drive are expected to operate close to effective capacity.

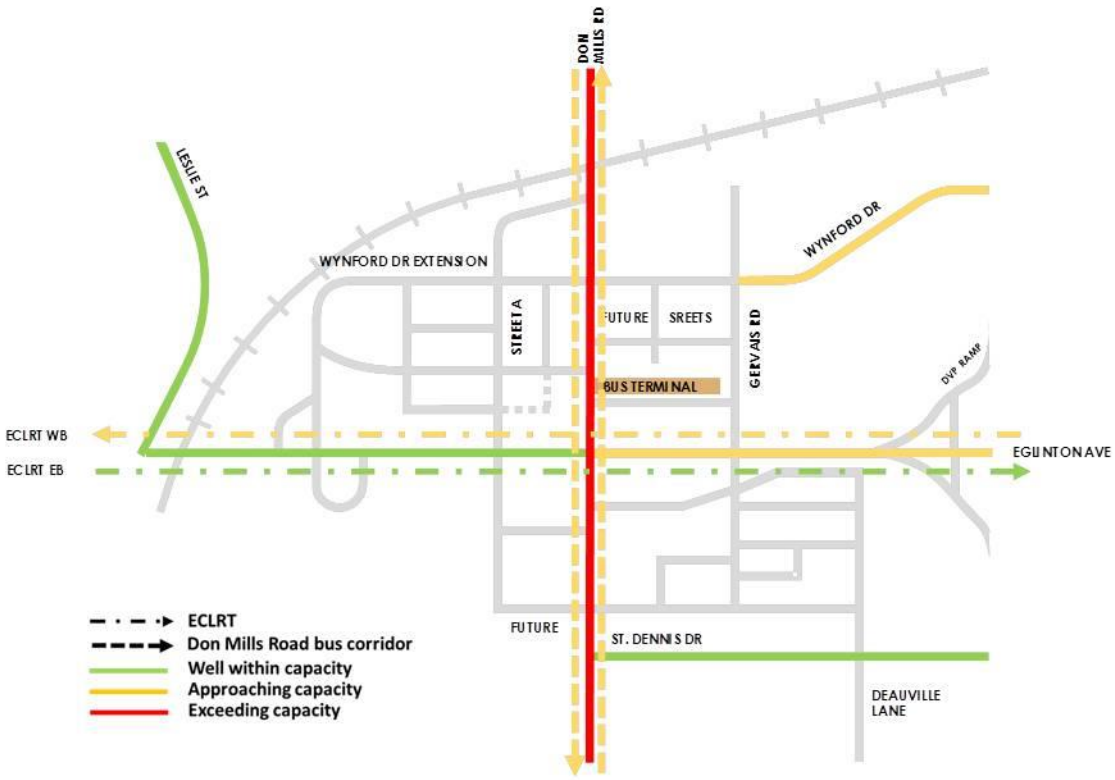


Exhibit 4-9: Transportation Network - No Development and ECLRT (AM Peak Period)

- **Full Development**: This scenario reflects the development levels associated with the anticipated future development population and employment projections around the Don Mills-Eglinton intersection in **Exhibit 4-7.** Vehicular traffic volumes in the AM peak period within the transportation area of influence are shown in **Exhibit 4-10**. As noted earlier, Eglinton Avenue and Don Mills Road both carry significant traffic volumes due to their regional significance, with Lawrence Avenue, Leslie Street and the local road network carrying traffic to these major roads. The same patterns hold in the PM peak period.

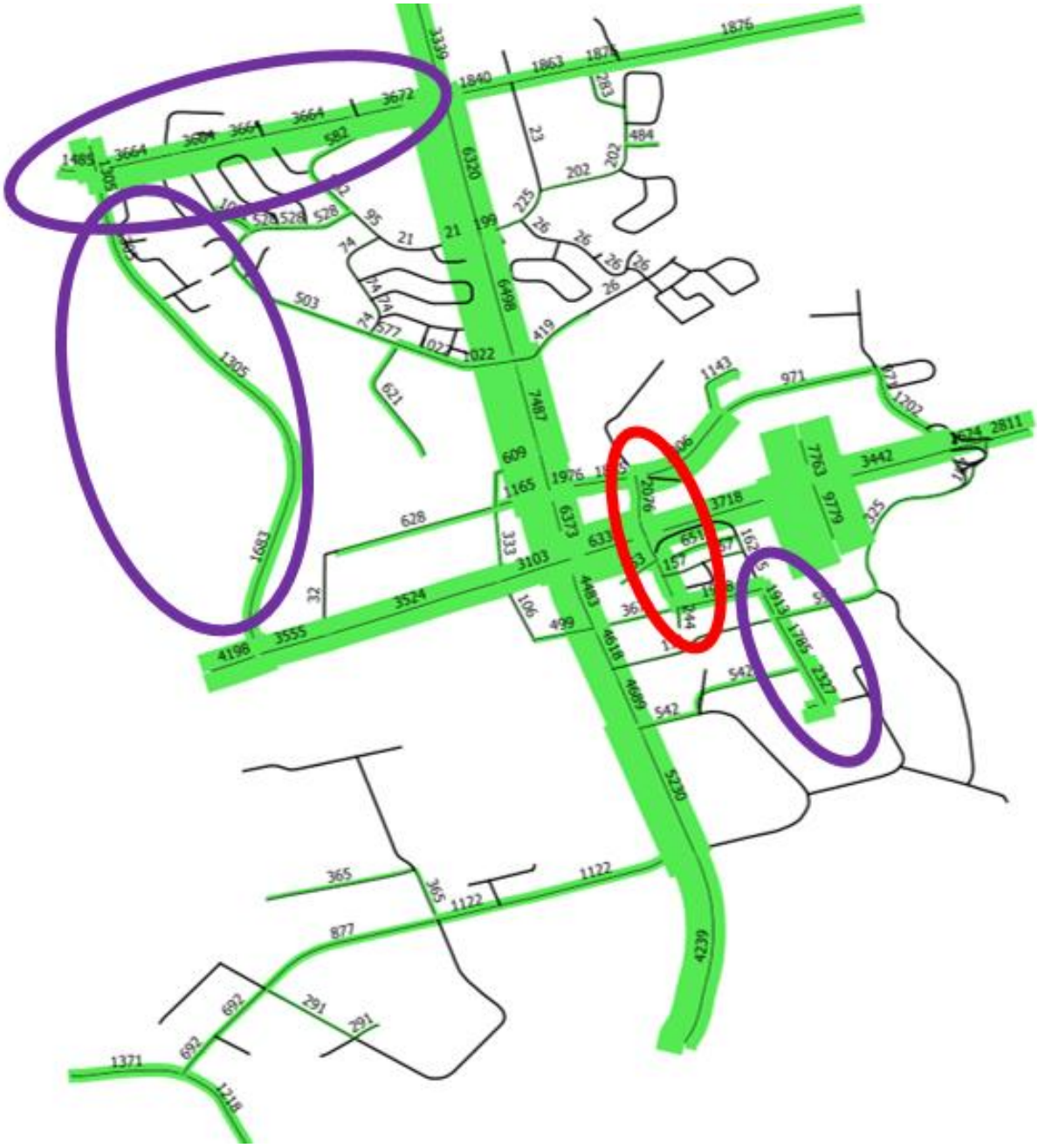


Exhibit 4-10: Projected Traffic Volumes – Full Development and ECLRT (AM Peak Period)

Application of the multi-modal transportation demand assessment model showed that the planned density and land use mix in the study area cannot be addressed by the base transportation network.

As shown in **Exhibit 4-11**, the overall capacity in / out of the study area is either reached or exceeded and all major roads are over capacity:

- Don Mills Road (both directions, AM/PM peak)

- Wynford Drive (peak direction in the AM peak, both directions in the PM peak)
- Eglinton Avenue (both directions, AM/PM peak)

The transit network is also expected to be nearing capacity or operating at capacity:

- ECLRT at / over capacity in peak direction
- Don Mills Road buses nearing / at capacity

Investigation of any alternate routing and capacity constraints within the local area is not included in the assessment as it requires more detailed analysis using micro-simulation modelling.

With full development, significant pedestrian and cycling volumes can also be expected north of the CP railway corridor, and along the existing sections of Wynford Drive and Gervais Drive. See **Appendix I** for details.

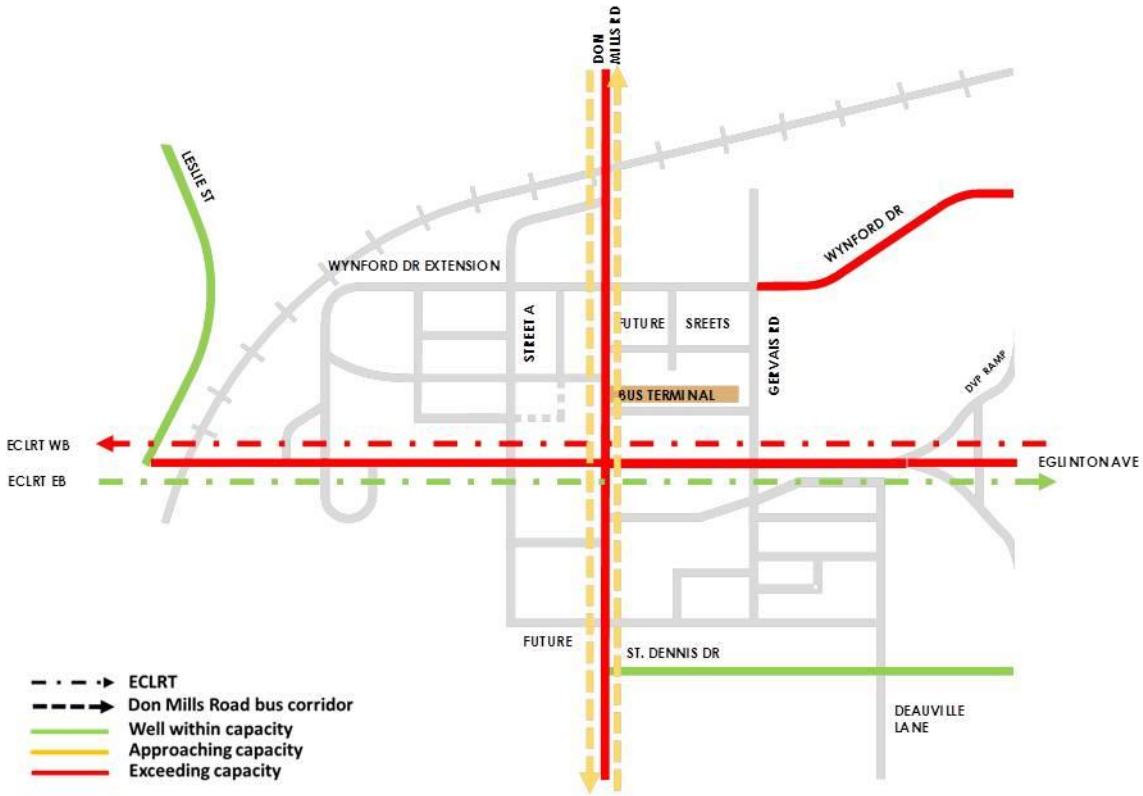


Exhibit 4-11: Transportation Network - Full Development and ECLRT (AM Peak Period)

4.4 Key Considerations for Mobility Plan

The growth in travel demands expected from the development of lands in the four quadrants of the Don Mills-Eglinton intersection presents an overall concern regarding capacity and operations within the existing transportation network. Local mobility challenges also depend on site-specific access and connectivity considerations in each quadrant of the Don Mills-Eglinton intersection.

Based on the previous discussions of deficiencies in the existing transportation network, future transit network expansion and re-development in the area, the following key constraints and considerations are key in addressing mobility challenges in the area:

- Existing Constraints:
    - Don Mills and Eglinton Avenue both have regional functions and already carry high volumes of traffic through the Don Mills Crossing area.
    - Natural and man-made barriers such as the ravine system and the CP rail corridor, currently limit continuity / connectivity within the active transportation network.
- Future Sustainable Transpiration Network:
    - With the advent of the ECLRT, there is potential to develop high quality connections and porosity to encourage walking and cycling to and from the ECLRT transit station and adjacent developments, as well as support more transit use.

- Developments, connectivity and access:
    - Significant developments within the northwest and southeast quadrants may benefit from direct connectivity to the ECLRT underground station at the Science Centre stop.
    - There is potential to improve connectivity in the public realm via District and Core connectors, which include extension of Wynford Drive to Eglinton Avenue East and a north-south public street from the northwest quadrant to development sites south of Eglinton Avenue.
    - The southwest development blocks are significantly constrained by the Don Valley Ravine and any new roadway can significantly impact the development potential of these blocks.
    - The current bus terminal configuration does not accommodate modification of the intersection of Eglinton Avenue and Gervais Drive, which limits access to the southeast development blocks.
    - Given the close spacing of multiple signalized intersections along Don Mills Road and Eglinton Avenue, development access directly onto these two major arterials would be highly undesirable.

- The southeast quadrant and adjacent areas currently do not have a consistent multi-modal design language, and space may be constrained for further improvements.

5 Problems or Opportunities

The purpose, needs and justification for the DMC MPS are based on the existing and anticipated conditions of the local area as discussed in the previous chapters, supported by the applicable planning policies that guide the growth and mobility objectives of the area.

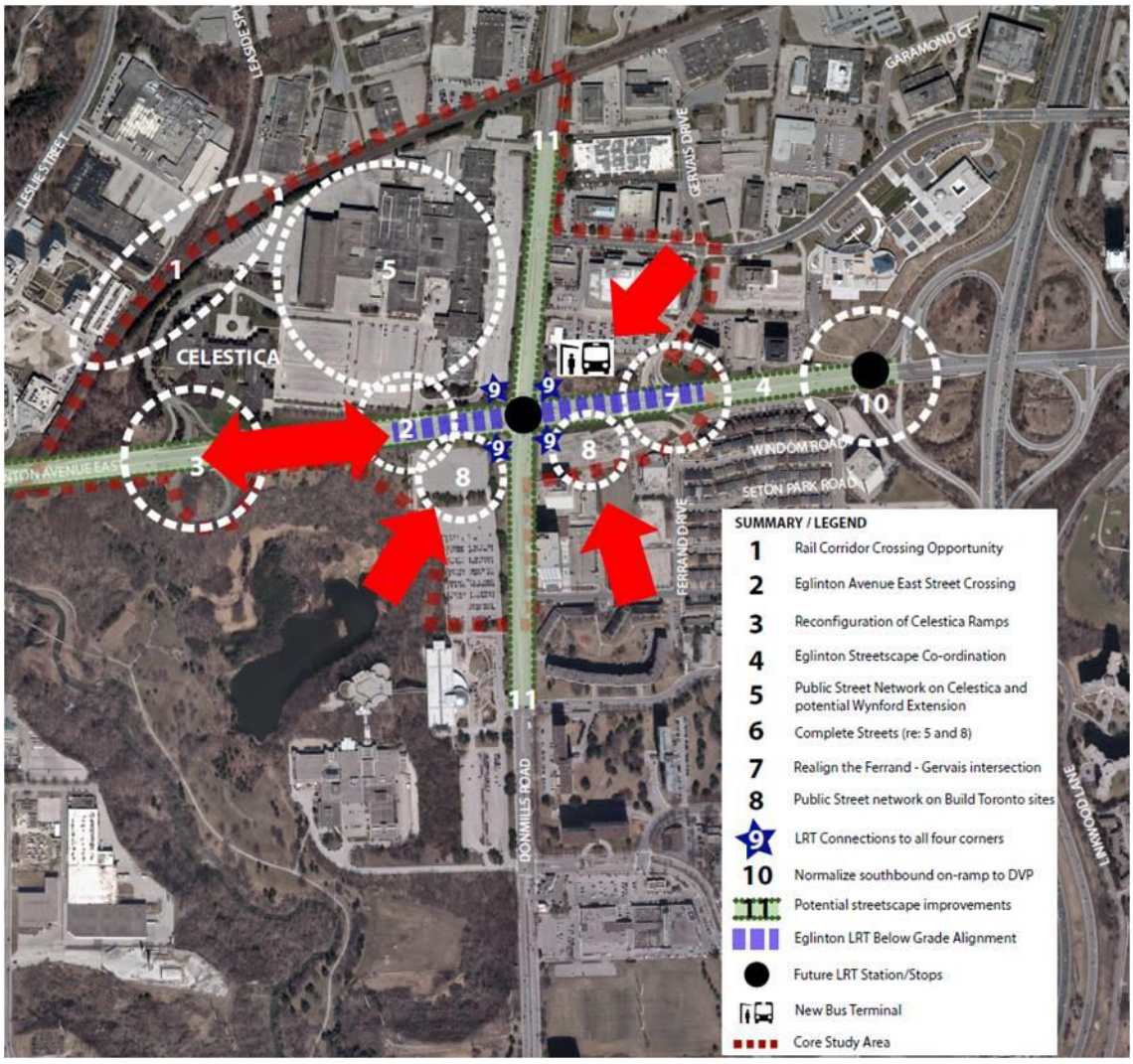


Exhibit 5-1: Existing Issues and Constraints

Within the study area, Eglinton Avenue and Don Mills Road serve as regional roads that carry significant through traffic volumes, especially due to their proximity to the Don Valley Parkway. Historically, the intersection of these two major roads has experienced some of the highest traffic

volumes and collision risks in the City of Toronto. There is currently limited transportation network connectivity, especially for active modes, due to major natural or man-made barriers including the Don Valley Parkway, Don Valley Ravine, CP Rail corridor, wide roadways, and separated development blocks. As a result, there is a lack of a coherent and integrated multi-modal transportation network.

However, the construction of the ECLRT will transform the area surrounding Don Mills Road and Eglinton Avenue, creating an opportunity to shift away from the originally planned vehicle-oriented place towards a more multi-modal and people-oriented place. A review of existing transportation conditions confirms the need for a more integrated multi-modal transportation network, internally and to the surrounding areas, that allows for:

- Walkable and connected communities;
- Cycling infrastructure within a connected network; and,
- Safe and convenient access to transit.

The arrival of new transit infrastructure will unlock the redevelopment of existing large, single use parcels of underutilized lands into a complete community with a range and mix of uses and fine-grained street network, and connectivity with higher priority to transit, walking, cycling and other sustainable shared vehicle modes or technologies.

The DMC MPS provides an opportunity to shape and manage the emerging multi-modal transportation network which includes: linkages to open spaces and the ravine system planned in conjunction with natural heritage considerations; new active transportation crossings, such as over the CP rail corridor, for a more complete and connected network; and new and safe street connections that do not significantly affect roadway operations and are based upon high quality urban design.

6 Development of Alternative Solutions

As discussed in **Chapter 5**, the DMC MPS provides an opportunity to improve multi-modal connectivity in the study area, especially as the lands around the Don Mills-Eglinton intersection are re-developed, increasing the travel needs for future residents and employees, and new transit services are implemented.

An essential component of the Municipal Class EA process is the development of alternative solutions to address the problems and opportunities in the study area. In developing alternative solutions for the Don Mills Crossing area, the following considerations, based on existing conditions, future needs and stakeholder input, are highly relevant:

- Potential Transportation Network Solutions:
  - Road network improvements (limited to the core study area street network rather than major road improvements) as intensification / re-development occurs in the four quadrants of the Don Mills-Eglinton intersection;
  - Incremental transit improvements;
  - Improvements in active transportation facilities, which although limited in their potential for accommodating future employment trips, are critical for transit access and address existing barriers to connectivity (e.g. CP rail corridor, ravine system etc.); and,
  - TDM measures, which present the potential for mode shift to transit and / or person-trip reduction.

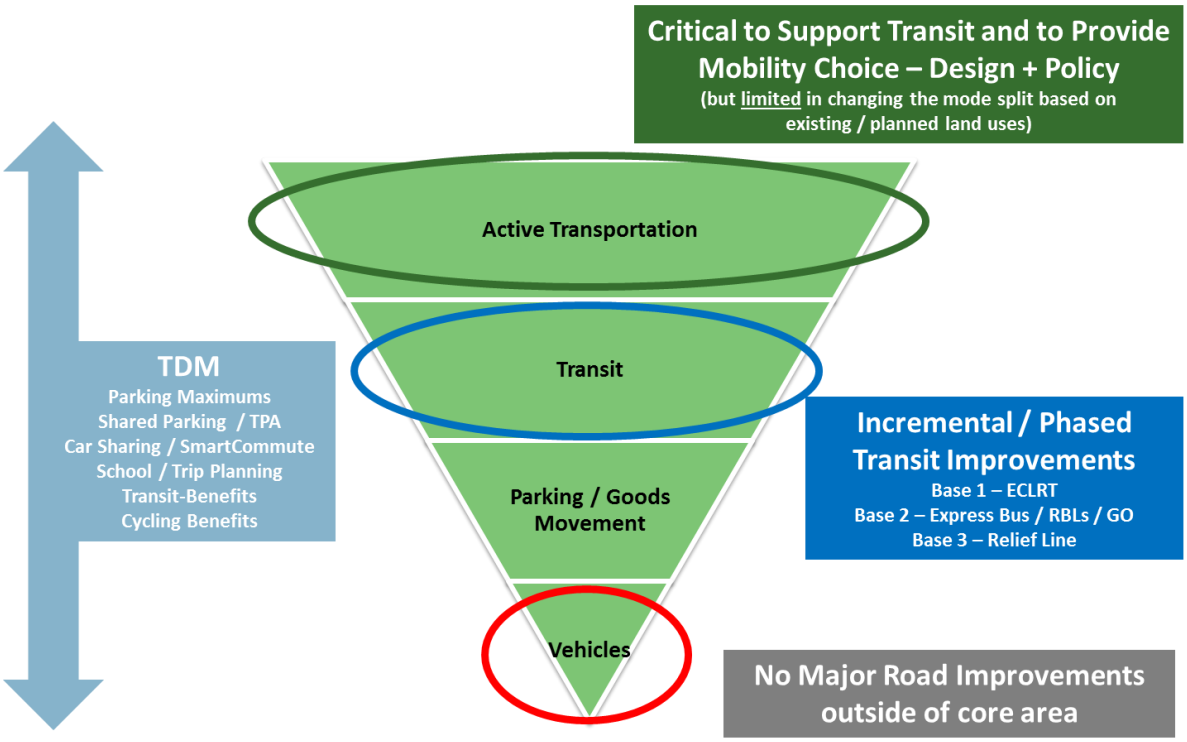


Exhibit 6-1: Potential Transportation Network Improvements

- Potential Land Use Solutions:
  - More non-residential land use than planned, to encourage: (a) more internal trips for all modes; and (b) more counter-flow transit trips;
  - More lower impact residential developments (senior, family-oriented, affordable, etc.); and,
  - Phased development with monitoring for travel demand.

In the following sub sections, the above considerations are coupled with a multi-modal transportation assessment of development levels and transportation network options to identify alternative solutions for addressing the changing needs and existing constraints in the Don Mills Crossing study area. Each scenario examines the needs for development and intensification around the Don Mills-Eglinton intersection, along with available vehicle and transit capacity in the study area transportation network.

6.1 Development Levels and Multi-modal Transportation Assessment

The multi-modal transportation analysis model (described in **Section 4.3**) was used to test the combination of development levels and mobility infrastructure / service improvements, to formulate alternative solutions. Steps 1 to 3 of the model have been described previously.

As shown in **Exhibit 6-2**, incremental transit improvements were applied through step 4. Incremental improvements included enhanced bus service on Don Mills Road (which may include additional buses / transit priority, express buses, and / or reserved bus lanes) and implementation of regional transit (Relief Line North). With these transit improvements in place, the travel

demand and transportation network capacity constraints were considered, and subsequently development levels were varied in Step 5 to identify the following alternative solutions:

- Scenario A (Baseline, also described as Base 1 in **Section 4.3**): Full Development and implementation of the ECLRT;
- Scenario B (Limit Development): Partial Development and implementation of the ECLRT;
- Scenario C (Enhanced Mobility): Significant Development, Travel Demand Management (TDM) measures, and multimodal improvements including newer operations/technologies, and implementation of the ECLRT and enhanced bus transit on Don Mills Road; and,
- Scenario D (Regional Transit): Full Development, and implementation of the ECLRT and the Relief Line North.
- Each scenario is described in **Section 6.2.**

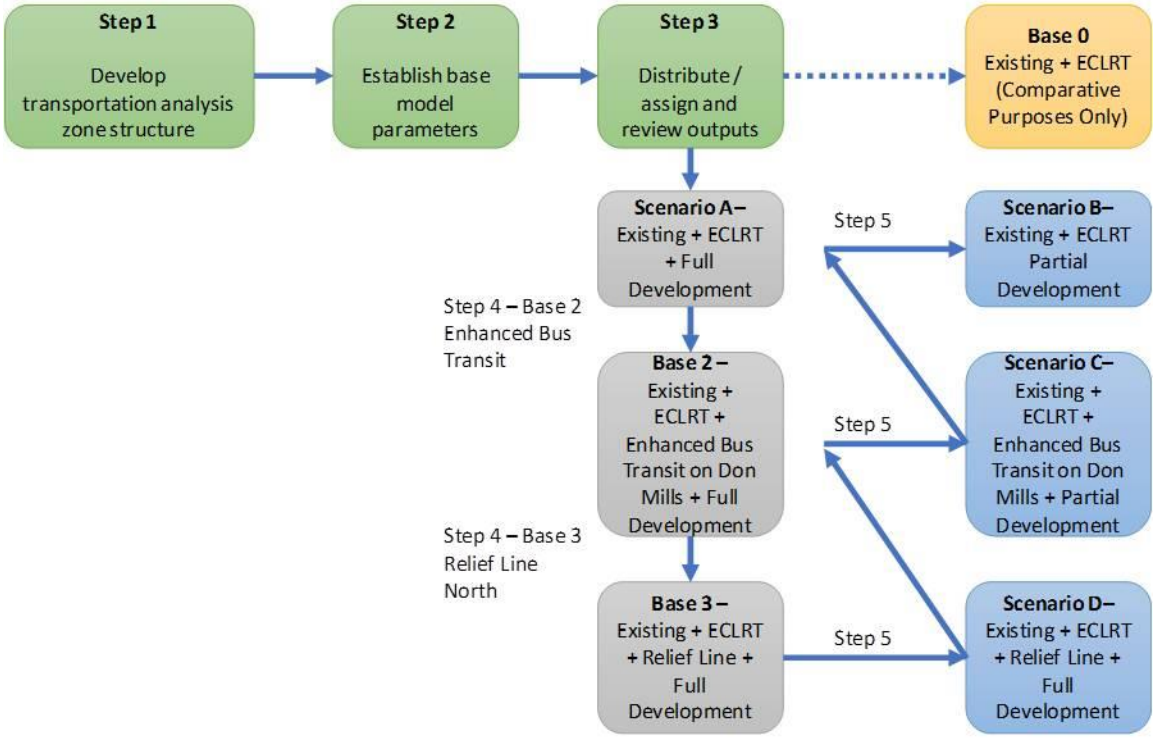
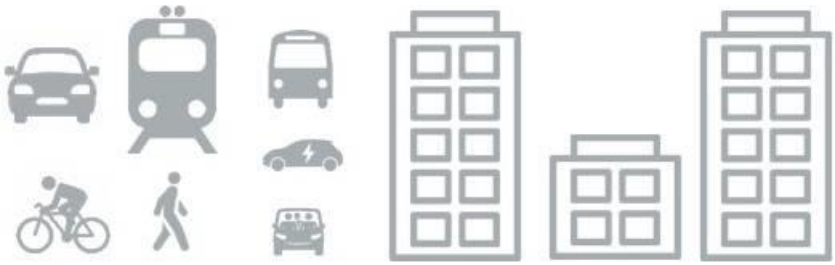


Exhibit 6-2: Multi-Modal Transportation Demand and Assessment Model

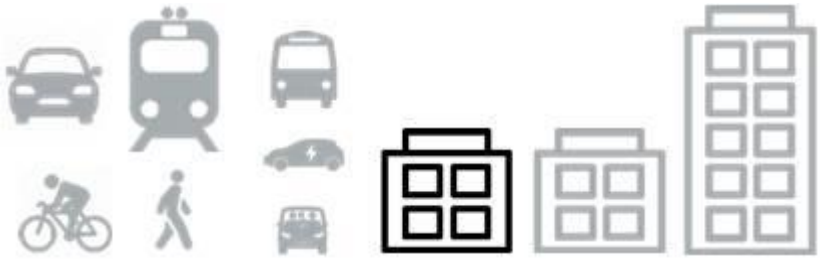
6.2 Alternative Solutions

6.2.1 Scenario A: Baseline



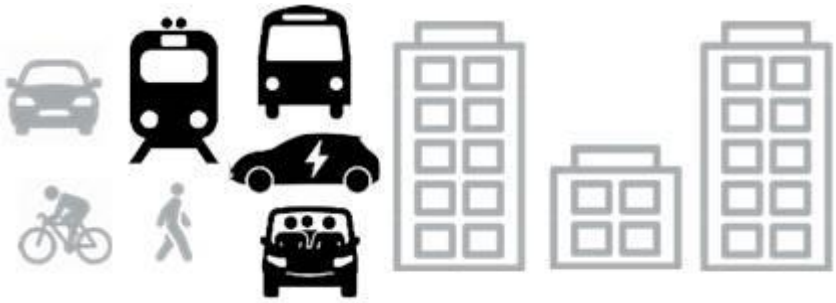
This scenario involves no changes to the Eglinton-Don Mills intersection beyond what is already proceeding, such as the ECLRT and re-development of lands in the four quadrants if approved by the City. This includes improvements directly associated with individual developments such as additions to street, cycling and walking network. Given the current state of ECLRT construction, it would be unrealistic to assume a baseline / do-nothing scenario that did not include the implementation of the ECLRT. This scenario also assumes the implementation of typical TDM policies and such as parking maximums, car sharing / Smart Commute, school / trip planning, development-related transit and / or cycling benefits.

6.2.2 Scenario B: Limit Development



The ECLRT will provide significant additional transit capacity, and relieve vehicle demands along the Eglinton corridor when it opens in 2021. However, given the current congestion in the area, it is likely that significant development will generate more traffic than available vehicle capacity along major arterials. An option to deal with constraints in capacity is to limit development to what the infrastructure would be able to accommodate. Under this scenario, the multi-modal transportation network and infrastructure is assumed to be the same as Scenario A, with the re-development of the lands around the Don-Mills intersection limited to available transportation capacity. Further details of the reduced development levels are provided in **Chapter 7** and **Appendix I**.

6.2.3 Scenario C: Enhanced Mobility



There are numerous localized strategies, policies, operational improvements, and/or TDM strategies that can help address some of the mobility challenges within the area. The goal of this solution is to have incremental improvements that maximize the use of the ECLRT and supplemental bus network. This in turn will lower vehicular use, and allow for increased development potential.

Under this scenario, it is its assumed that significant development of the lands in the four quadrants of the Don Mills-Eglinton intersection occurs over time. Implementation of a multi-modal transportation network as per Scenario A is also assumed and include any local road network improvements related to the planned developments around the Don Mills-Eglinton intersection. In addition, this Scenario entails enhanced TDM measures, incremental transit improvements, policy solutions, demand management initiatives, improved operations and technology as shown in the tables below. Further details of the reduced development levels are provided in **Chapter 7** and **Appendix I**.

Given the uncertainty in the exact benefit of each individual strategy, as well as the potential synergies they may have with each other, a monitoring plan is required, with select targets linked to development levels.

Table 6-1: Scenario C Policy Improvements

Proposed Solution	Implementation / Rationale
Development Subsidized Transit	• New developments supply residents with transit passes • Increase road capacity by encouraging transit ridership
Reduced Parking Maximums	• Reduce the number of parking spots included in development blocks • Fewer parking spots will result in lower auto reliance
Off-Peak Delivery	• Limit truck traffic through the intersection during peak periods • Large, slow moving vehicles disrupt traffic during peak periods
Shared Parking	• Utilization of common parking area by various groups (visitors, office, retail, etc.) • Reduction in total parking will reduce auto dependency
Carpooling & Car Share Promotion	• Reserving a small number of parking spaces for car share services

Proposed Solution	Implementation / Rationale
	• Increase road capacity by promoting carpooling and ride share services
Bike Parking Minimum Requirements	• Promote bike ridership by making safe bike parking more accessible
Parking Pricing	• Discourage excess parking through fees • Encourage other modes of transportation

Table 6-2: Scenario C Demand Management

Proposed Solution	Implementation / Rationale
Increased transit frequency	• Increase road capacity by encouraging transit ridership
Toronto Bikeshare Hotspots	• Increase road capacity by encouraging active transportation • Potential solution to the first and last mile transit problem
Transit Oriented Design	• Widen sidewalks, crosswalks & storage at Intersections • Significant pedestrian volumes to/from LRT station and local bus stops are expected

Table 6-3: Scenario C Operations and Technology Improvements

Proposed Solution	Implementation / Rationale
Transit priority at Don Mills-Eglinton intersection	• Increase transit desirability by improving travel times and reliability • Increase road capacity by encouraging transit ridership
Adaptive Signal Control	• New signalling system allows for dynamically timed traffic phases depending on current traffic configuration • Dynamic signal phasing allows for faster and more reliable flow of traffic
Advanced Traffic Management System	• Provides advance warning to drivers regarding current road conditions • Allows drivers to choose alternate routes in the case of accidents or periods of high congestion
Radar Speed Signs & Red-Light Cameras	• Promotes safer speeds and safer driving behaviour • Encourages pedestrian and cyclist movements due to increased perceived safety at the intersection
Advanced Parking Management	• Electronically monitor parking to limit circulation and price parking dynamically • Limit on street parking during peak periods along arterial roads to prevent disruptions to traffic

Table 6-4: Scenario C Transit Opportunities

Proposed Solution	Implementation / Rationale
Conversion of HOV Lane to Dedicated Bus Lane on Don Mills	• Encourage transit ridership through providing faster travel times and increased reliability
Express Transit to Downtown Core	• Current north-south bus route experiences significant crowding during peak periods • Provide temporary north-south rapid transit to downtown core while the Relief Line North moves through the EA process • Encourage transit usage and reduce auto dependency
GO Transit Bus Service Stop within core study area	• Existing buses already utilize the Don Valley Parkway • Ramp configurations allow for buses to exit and re-enter the highway without turning manoeuvres

6.2.4 Scenario D: Regional Transit

To significantly increase capacity in the area, particularly for trips out of the transportation area of influence, a significant increase to transit capacity is required. A new higher order transit line would increase transit capacity and further shift mode-share away from vehicles, thus increasing available vehicle capacity as well.

Two potential transit lines may include stations within the core study area, the Relief Line North, and/or Midtown GO Rail Line. Both these improvements are significant costs with City-wide and regional impacts, and other studies are required to determine the feasibility of these options. Under this scenario, planned re-development / intensification of by City is assumed to be constructed over time.

7 Evaluation of Alternative Solutions

A range of criteria were developed to assess the impacts of different mobility solutions on the future transportation conditions, compliance with existing policies and directions, socio-economics, natural environment, and cost.

7.1 Evaluation Criteria

7.1.1 Transportation

One of the primary objectives of this study is improving mobility within the study area. The alternative solutions provided all have different impacts on the mobility in the area for all users. The following criteria were developed to assess the effectiveness of each solution from the perspective of improved experience, access and connectivity of the transportation network.

Table 7-1: Transportation Evaluation Indicators

Sub-Criteria	Indicators
Road Capacity	• Change in automobile throughput per hour
Transit Capacity	• Ridership and anticipated capacity
Emergency Services Accessibility	• Ease of access for various emergency response services • Increase or decrease in response time after proposed changes
Pedestrian Connectivity and Amenities	• Ease of pedestrian movement through the network • Crowding on sidewalks • Crowding at bus stops and at LRT station entrances
Cyclist Connectivity and Amenities	• Ease of connection to the rest of Toronto's cycle network and bike share services • Level of separation between cyclists and traffic
Travel Times	• Change in travel times through the network for all road users

Road capacity and transit capacity are assessed quantitatively using the multi-modal transportation demand assessment model. The assessment is presented in **Section 7.2**.

7.1.2 Natural Environment

The impacts on the natural environment in the study area were considered during the evaluation of solutions through the following sub-criteria.

Table 7-2: Environmental Evaluation Indicators

Sub-Criteria	Indicators
Noise	• Noise and vibration during construction • Impacts to sensitive noise areas
Air	• Air quality impacts due to development and traffic
Green Space	• Impacts on natural landscapes, fauna, and flora
Wildlife	• Impact on local wildlife and their habitats
Natural Hazards	• Impacts on life, property, infrastructure due to slope erosion or flooding

7.1.3 Socio-Economic Environment

These criteria examine the impact of the proposed solution on the socio-economic environment of the study area. This includes impacts to sensitive heritage or archaeological locations, as well as ensuring potential for improved streetscape and accessibility for all.

Table 7-3: Socio-Economic Environment Indicators

Sub-Criteria	Indicators
Accessibility	• Easy to understand and maneuver • Ease of access to people with disabilities
Streetscape	• Aesthetics and beautification • Road and sidewalk grade
Archaeology	• Preservation of archeologically sensitive materials
Cultural Heritage	• Preservation of heritage works

7.1.4 Compliance with City and Provincial Policies

High level objectives and City and provincial policies need to be adhered to for the proposed solution. The proposed criteria help determine how well each solution aligns with existing policies.

Table 7-4: Compliance with policies

Sub-Criteria	Indicators
Complete Streets Guidelines	• Road network accommodated complete streets
Vision Zero	• Safe and effective designs that helps achieve the goals of vision zero
2017 Growth Plan for GGH	• Network supports suitable population density near LRT station (160 residents and jobs combined per hectare)

7.1.5 Cost

The cost of the solution was considered at a high level for comparative purposes in terms of the order of magnitude.

Table 7-5: Cost Evaluation

Sub-Criteria	Indicators
Cost	• Additional cost of public infrastructure, services, or strategies on top of what is required for the developments and transit stations already

7.2 Multi-Modal Transportation Assessment

Using the multi-modal transportation assessment model (described in **Section 4.3**) the effect of each proposed solution was tested for vehicular and transit network capacity, and impacts on pedestrians and cyclists. This section discusses the findings, which are used in the next section to fully evaluate each alternative solution by considering the combined effects of natural environment and socio-economic environment evaluation criteria.

Each graphical representation of the transportation network capacity in the following sections indicates the travel demands in the AM peak period. Detailed results of the multi-modal transportation assessment can be found in **Appendix I**.

7.2.1 Scenario A (Baseline)

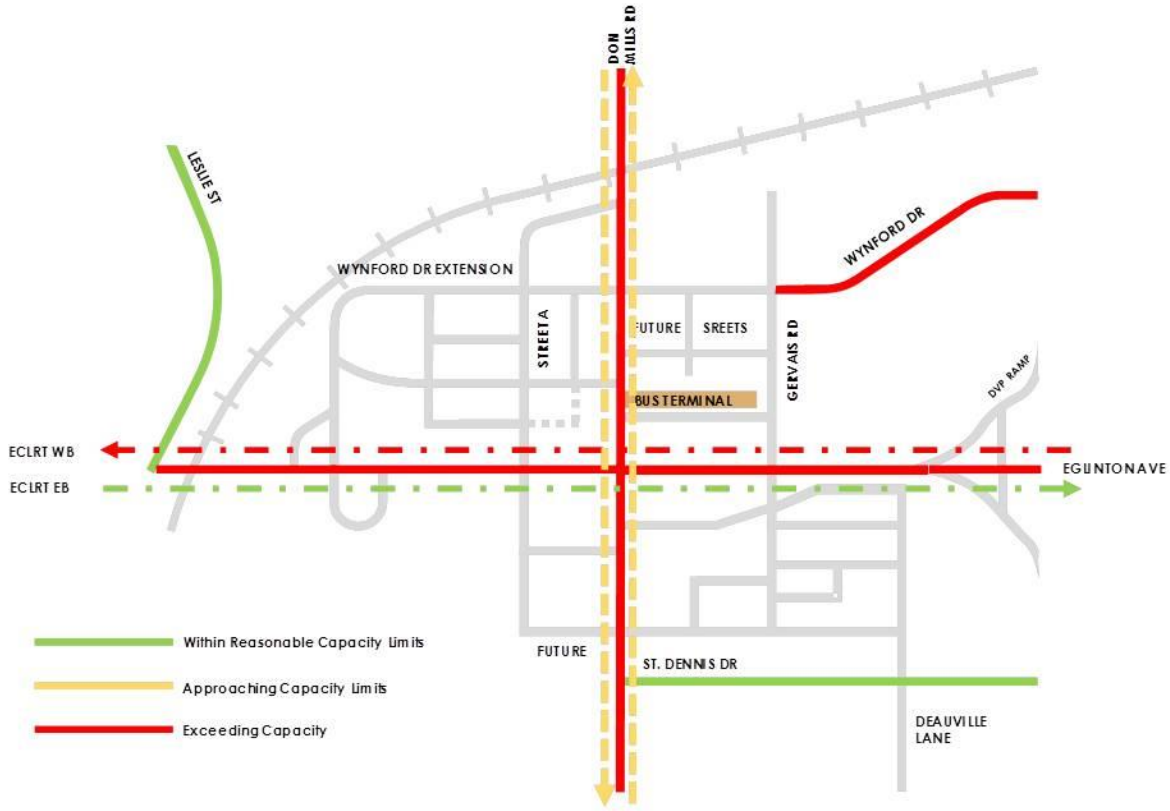


Exhibit 7-1 Scenario A Transportation Network Capacity in AM Peak Period

Road Capacity: Screen-line analysis of Scenario A, showed that all planned developments around the intersection of Don Mills Road and Eglinton Avenue cannot be adequately accommodated by the existing road network. Major arterials in and out of the study area, particularly Don Mills Road and Eglinton Avenue, are congested.

Transit Capacity: The analysis also indicated that the full development of study area exceeds previous projections and thus may have significant impacts on transit capacity, especially for the ECLRT. Furthermore, additional growth at multiple targeted locations along the ECLRT may also

contribute to capacity constraints on the ECLRT in the future. Long-term operations of the ECLRT requires consideration of additional regional scope and context; however, in the immediate study area, transit is expected to cause a major shift in travel modes, but eventually face constraints along the ECLRT.

7.2.2 Scenario B (Limit Development)

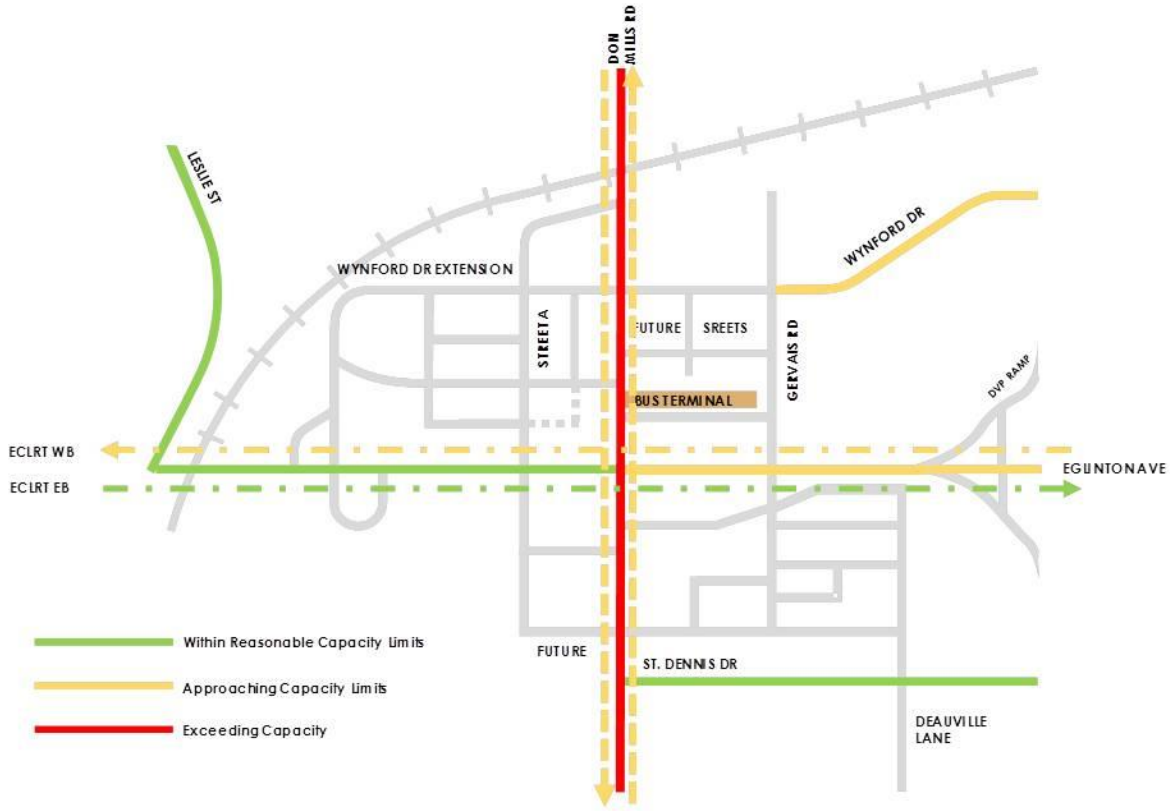


Exhibit 7-2 Scenario B Transportation Network Capacity in AM Peak Period

Road Capacity: For Scenario B, development levels were reduced based on logical removal of blocks which were projected to be longer-term opportunities, rather than immediately developable lands. However, it was found that even areas that have significant near-term development potential may require reductions. In particular, growth in the northwest quadrant, due to the density would need to be approximately halved. Existing roadway capacity may be considered sufficient for travel demands in the transportation network, and a reduction in congestion levels can be expected along Eglinton Avenue.

Transit Capacity: Under this scenario, the transit capacity can be considered sufficient to accommodate travel demands, with less congestion expected along the Don Mills corridor.

7.2.3 Scenario C (Enhanced Mobility)

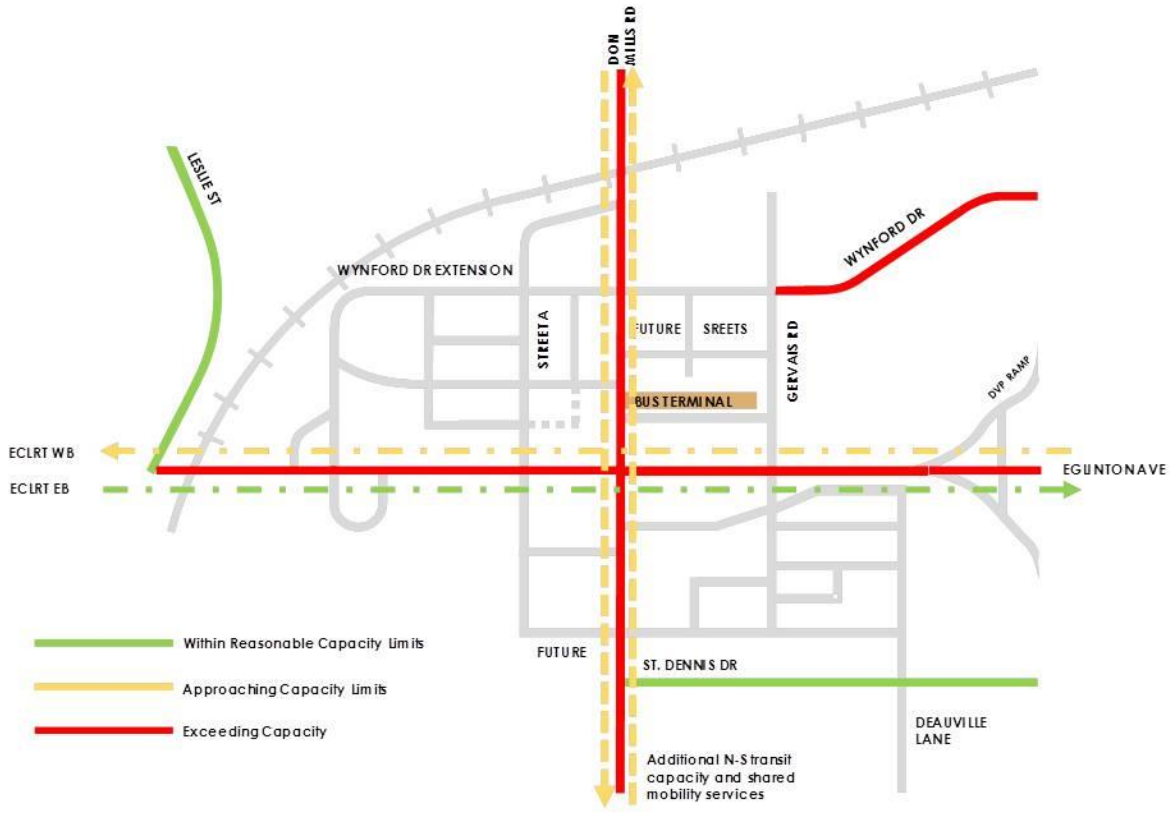


Exhibit 7-3 Scenario C Transportation Network Capacity in AM Peak Period

Road Capacity: Enhancing transit, and implementing various strategies to reduce vehicular peak hour demand could create enough spare roadway capacity to allow for additional development. Given that a large list of potential transit, policy, and travel demand management based solutions available, a monitoring program to assess the success of individual programs and their impacts is required.

Transit Capacity: Scenario C with enhanced bus services and additional north-south capacity will alleviate capacity constraints along Don Mills corridor, as well as enhance regional connectivity.

7.2.4 Scenario D (Regional Transit)

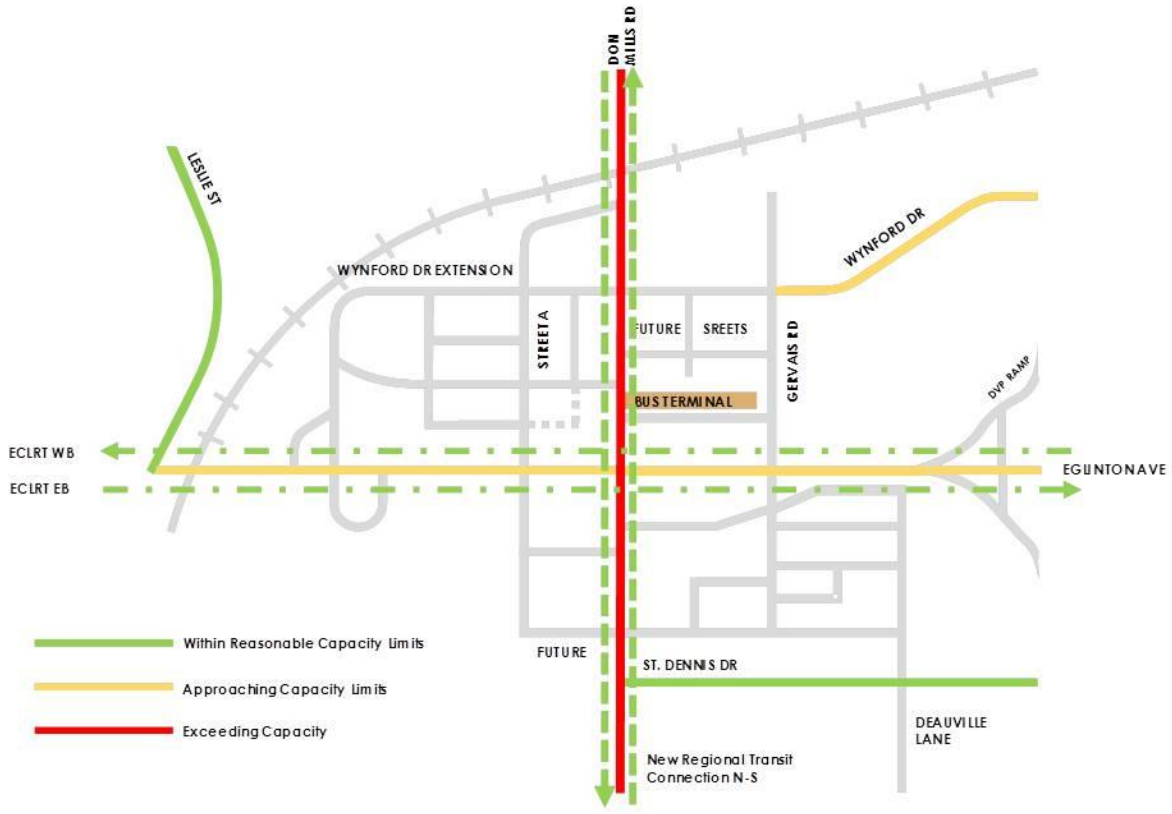


Exhibit 7-4 Scenario D Transportation Network Capacity in AM Peak Period

Road Capacity: The full potential development could be accommodated with a higher order transit line in place as enough travel demands would be diverted to alternative modes of travel, and sufficient roadway capacity would be available within the study area network.

Transit Capacity: A higher order transit line would divert significant demands to an alternative transit line. Furthermore, the additional regional connectivity would attract new ridership from existing areas, as more convenient access to new parts of the city would become available. Scenario D, with a major higher order transit service would help alleviate long-term capacity constraints along the ECLRT and enhance regional connectivity.

7.3 Alternative Solutions Evaluation

The alternative solutions were evaluated based on the criteria developed in **Section 7.1**. However, some criteria yield the same result for each solution given that they would be addressed more closely through alternative design concepts to be completed as part of future works, including Phase 3 and 4 of potential EA Studies, development reviews and associated traffic modelling and analysis.

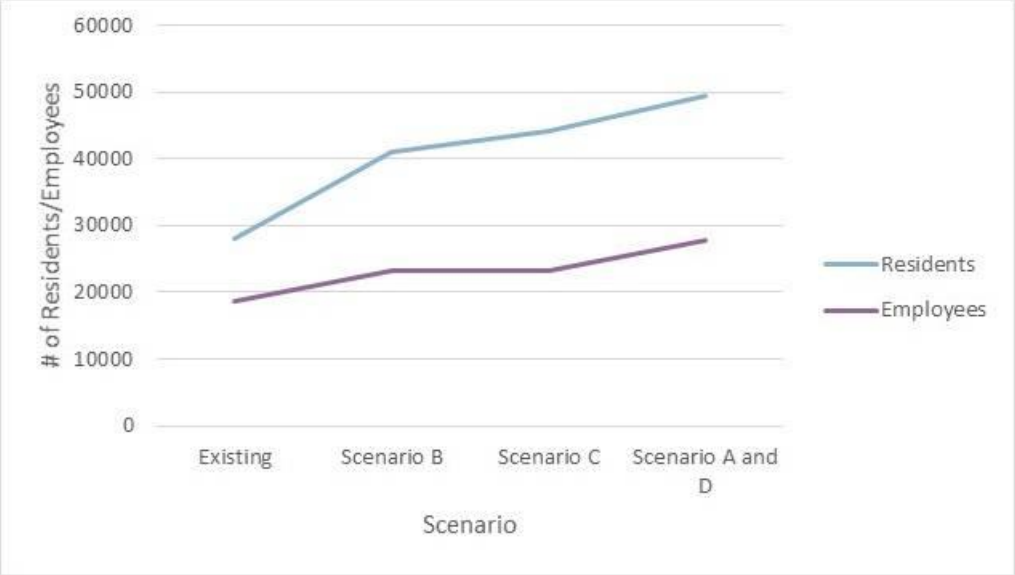


Exhibit 7-5: Proposed Residential and Employment Growth per Scenario

7.3.1 Scenario A: Baseline

With the construction of all planned developments, the provincial planning objectives are met. However, the existing and planned transit and transportation infrastructure would not have sufficient capacity to accommodate this increase in demand.

Table 7-6: Evaluation of Scenario A

Criteria	Evaluation
Socio-Economic Environment	• Minimal disruption • No archeological or heritage concerns
Natural Environment	• No construction noise, vibration, emissions or dust in additional to requirements for potential developments • No change to groundwater, wildlife or greenspace
Transportation	• Significant congestion due to limited vehicular capacity on existing arterials and physical constraints (See **Appendix I** for detailed results) • Transit capacity to be expanded by Eglinton Crosstown LRT in 2021; the Don Mills crossing area will contribute significant demand to the ECLRT, potentially surpassing demand dependant on other key growth areas along the line • Emergency Services Access will be available but quality during peak hours may erode due to congestion and limited access routes • Cyclist connectivity will be improved
Compliance with City and Provincial Standards	• Complies with density requirements in the 2017 Growth Plan for the Greater Golden Horseshoe
Cost	• No additional costs involved (outside of development associated costs)

7.3.2 Scenario B: Limit Development

The extent of development can be limited in order to ensure that capacity on existing transportation infrastructure is not exceeded. As shown by the analysis completed, a reduction in density/development size would be required to ensure function of the existing roadways and

transit infrastructure (including ECLRT). However, a reduction in proposed density would not meet existing Places to Grow Legislation, and is not suitable along a new major LRT station.

Table 7-7: Evaluation of Scenario B

Criteria	Evaluation
Socio-Economic Environment	• Minimal disruption • No archeological or heritage concern
Natural Environment	• No construction noise, vibration, emissions or dust in additional to requirements for potential developments • No change to groundwater, wildlife or greenspace
Transportation	• Limited increase in congestion due to lack of lowered development levels • Transit capacity to be expanded by Eglinton Crosstown LRT in 2021; increased demand for the ECLRT but should not cause any capacity constraints • Emergency Services Access remains unchanged • Cyclist connectivity will be improved
Compliance with City and Provincial Standards	• Does not comply with density requirements in the 2017 Growth Plan for the Greater Golden Horseshoe
Cost	• None

7.3.3 Scenario C: Enhanced Mobility

Select lower cost strategies can help increase transit capacity, and reduce vehicular demands. There are a wide range of potential options that can help with these objectives, however monitoring would be required to identify the net effectiveness. As a result, a monitoring strategy, and allowing for incremental development through phasing would allow this solution to successfully meet density requirements, but also not exceed available transportation capacity.

Table 7-8: Evaluation of Scenario C

Criteria	Evaluation
Socio-Economic Environment	• Minimal disruption • No archeological or heritage concern • Streetscape changes include wider sidewalks and pedestrian space, auto and pedestrian link under the rail corridor between Leslie and Wynford Drive, conversion of HOV lane to bus lane
Natural Environment	• Construction noise, vibration and dust due to construction of new sidewalks and road connection under rail corridor • No change to groundwater, wildlife or greenspace
Transportation	• Congestion managed through a combination of policies, operations, demand management and new technology • Transit capacity to be expanded by Eglinton Crosstown LRT in 2021 • Bus demand improved through faster travel times and more consistent reliability through new routes and/or enhanced service • Cycling demand improved through improved bikeshare infrastructure and bicycle connectivity
Compliance with City and Provincial Standards	• Complies with density requirements in the 2017 Growth Plan for the Greater Golden Horseshoe • Complies with Toronto Complete Street Guidelines

Criteria	Evaluation
Cost	• Medium, associated with costs to developments to implement various programs, additional infrastructure to improve transit/operations, and monitoring of travel demands to ensure effectiveness of policies/solutions

7.3.4 Scenario D: Major Transit Line (Relief Line North, Mid-Town GO)

A new major transit line in addition to the ECLRT would significantly increase transit capacity, and lower vehicular demand. However, the provision of a higher order transit line would be a significant cost and reflects the needs of the City, rather than just for the specific study area. As a result, although this would be an ideal long-term strategy, interim solutions are required in order to accommodate near-term growth and development within the study area.

Table 7-9: Evaluation of Scenario D

Criteria	Evaluation
Socio-Economic Environment	• Minimal disruption • No archeological or heritage concern • Streetscape changes include wider sidewalks and pedestrian space, auto and pedestrian link under the rail corridor between Leslie and Wynford Drive, conversion of HOV lane to bus lane
Natural Environment	• Construction noise, vibration and dust due to construction of new sidewalks and road connection under rail corridor • No change to groundwater, wildlife or greenspace
Transportation	• Congestion managed through a combination of policies, operations, demand management and new technology • Transit capacity to be expanded by Eglinton Crosstown LRT in 2021 and Relief Line North subway, replacing and/or augmenting local bus service • Emergency Services access improved through adaptive signal control • Cycling demand improved through improved bikeshare infrastructure and bicycle connectivity
Compliance with City and Provincial Standards	• Complies with density requirements in the 2017 Growth Plan for the Greater Golden Horseshoe • Complies with Toronto Complete Street Guidelines
Cost	• Major cost expenditure for the City, though will service other areas of the City as well and not solely associated with the Don Mills crossing area

7.4 Summary of Evaluation

A comparison of the four solutions is shown below. Scenarios A and B do not address the mobility needs and/or density requirements of the area to be supportive of the ECLRT.

Scenario D is the ideal long-term solution, although the integral higher order transit component is contingent upon other city planning initiatives.

As a result, Scenario C, improved mobility on top of existing planned improvements with monitoring of impacts to allow for further development, is the best scenario to allow for development in the short and medium term.

Table 7-10: Overall Evaluation

Criteria	Scenario A	Scenario B	Scenario C	Scenario D
Socio-Economic Environment	Acceptable (sensitive areas to be flagged)	Acceptable (sensitive areas to be flagged)	Acceptable (sensitive areas to be flagged)	Acceptable (sensitive areas to be flagged)
Natural Environment	Acceptable (sensitive areas to be flagged)	Acceptable (sensitive areas to be flagged)	Acceptable (sensitive areas to be flagged)	Acceptable (sensitive areas to be flagged)
Transportation	Failing	Acceptable	Acceptable for partial development	Acceptable
Compliance with City and Provincial Policies	Sufficient	Insufficient	Sufficient	Sufficient
Cost	Minimal	Minimal	Medium	High
Overall Summary	**Not Recommended**	**Not Recommended**	**Recommended Interim Solution** (requires monitoring to confirm effectiveness of TDM measures and diversion to transit)	**Recommended Long-Term Solution**

8 Consultation

8.1 Don Mills Crossing Study Phase 1

During Phase 1 of Don Mills Crossing Study, several public consultation events took place to gather public input. These included an open house, six Planners in public spaces (PiPS) events at different locations within the Don Mills and Eglinton area and an online engagement tool.

The key feedback received, as summarized in **Table 8-1**, supports the needs and justification for an improved mobility strategy within the Don Mills Crossing study area, as well as public consultation strategy to develop and implement solutions. The full consultation summary report is included in the Phase 1 Report of the Don Mills Crossing Transportation Study.

Table 8-1 Key Topics and Feedback from Phase 1 Public Consultation

Topic	Feedback
Cycling infrastructure and Connections	• Strong desire for better cycling facilities and a more connected network • Desire for cycling connection throughout the ravine system • Need for better cycling connection to the Flemingdon Park area • Strong preference for protected bike lanes • Concerns about future cycling infrastructure along Don Mills Road and Eglinton Avenue
Pedestrian Facilities and Accessibility	• Need for safer and better pedestrian facilities along major arterials • Concerns about accessibility for future TTC and LRT stations on Wynford Drive connecting Eglinton Avenue • Issues with pedestrian clearance times at major intersections • Need for pedestrian connections to and from future community facilities and developments
Private Vehicles	• Traffic congestion during Eglinton Crosstown construction was the most commonly raised issues • In relation to the above, the public expressed great concerns on area congestion with future developments • Strong desire for improved traffic management in the area

8.2 Public and Agency Consultations for Mobility Plan

During the course of the MPS, consultations were held to ensure that the different needs and objectives of others is adequately considered and addressed.

For technical stakeholders, including developers, transit agencies, TRCA and CP Rail, preliminary meetings were held early in the project to discuss key objectives, vision and needs. Prior to the

Public Information Centre (PIC) held on April 19th, 2018, another round of stakeholder meetings was held to discuss findings, key actions, and anticipated follow-up works/needs.

All materials and meeting records for public and stakeholder consultations are included in **Appendix J**.

8.2.1 Public Consultation

A public consultation was held on April 19th, 2018 for the overall planning study, with specific boards and presentation materials on the Mobility Plan Study component. Overall, there was support for the improvements to the mobility network in and around the core study area, including the ring road around Don Mills and Eglinton, the Wynford extension and other new streets. Participants noted that these new streets should be designed to ensure pedestrian safety, specifically for seniors.

8.2.2 Aboriginal Engagement

All public consultation engagement material was circulated to First Nations and Aboriginal communities through the broader Don Mills Crossing Study. Each group was contacted for input / feedback for Phases 1 and 2 of the DMC Study, as well as for discussions on Phase 3 and draft policy directions on the forthcoming DMC Secondary Plan. The concerns and feedback were considered in developing this Mobility Planning Study. The related communications with First Nations and Aboriginal communities are documented in **Appendix J**.

8.2.3 Stakeholder Meetings: Developers

Two rounds of consultations were held with the two major developers with existing applications in the cores study area – Wynford Green and CreateTO. Wynford Green has advanced their development plans to the design / implementation stage. In developing a preferred solution for the DMC MPS, comments regarding the Wynford Green community were discussed with the stakeholders, along with considerations for changes to the grading of the proposed Wynford Green Drive, and other items such as cycling infrastructure.

CreateTO is currently in a much more preliminary stage of development planning, although the initial application for both the southeast and southwest sites have been submitted to the City. It was noted that the southwest quadrant is bounded by TRCA lands, which limits the total development lands available. Discussions included the need to minimize, where possible, the right-of-way of the proposed new street (Street A) south of Eglinton Avenue to increase the development potential of this quadrant. On the southeast quadrant, the intersection of Eglinton Avenue and Ferrand Drive / Gervais Drive will need significant modification to allow for a new access.

8.2.4 Stakeholder Meetings: Transit Agencies

Meetings with TTC and GO Transit representatives were held to determine the potential solutions for the feeder bus network and other regional bus services that could utilize the Science Centre Station. It was noted that no fixed feeder bus routes have been determined. However, several roadways within the study area, including Ferrand Drive / Gervais Drive, Wynford Drive, and Street A are anticipated to be possible bus routes. As a result, designs should facilitate the future use of these routes as bus stops, with appropriate provisions for bus shelters/stops. Furthermore,

potential regional services to downtown Toronto, or other key destination may be provided on an as-needed basis; however, the Science Centre Bus Terminal may have some capacity limitations.

8.2.5 Stakeholder Meeting: Toronto Regional Conservation Authority

Discussions with the TRCA were held to gather input on preliminary concepts in the four quadrants of the Don Mills-Eglinton intersection, including – the Wynford Extension Multi-Use Trail (MUT) connecting to the West Don River trail, the pedestrian crossing over the CP Rail corridor, and Street A, the future north-south street connection across Eglinton Avenue through the southwest quadrant. The TRCA maintained that if the proposed MUT need not to be AODA compliant, then the trail can be a natural service trail; AODA compliance will require the MUT to have a much larger impact footprint. However, final recommendations for the MUT, as well as the CP rail corridor crossing will follow a Phase 3/4 EA process where all options can be assessed in detail.

8.2.6 Stakeholder Meeting: CP Rail

CP Rail was engaged regarding the future crossing of the Leslie Spur line from the Wynford Green development, to the west side of the tracks. CP Rail stated that their position is neutral regarding the crossing itself (bridge versus tunnel), however a bridge could potentially have lower impacts on rail operations during construction. Furthermore, CP Rail requires adherence to their standards for residential developments; however, they have already worked with the Wynford Green development application in achieving these standards.

8.2.7 Stakeholder Meeting: Toronto Parking Authority

The management of parking near the Science Centre station will help change the future mobility dynamic within the study area. There is an existing need for parking to support developments and ensure that they are feasible. However, in the longer term, the introduction of the ECLRT and other transit enhancements will lower the need for car ownership. As a result, parking rates will be reduced in the long term. The Toronto Parking Authority (TPA), and/or other parking management companies can help resolve this issue, and dedicated parking spaces for initial phases of development can be transitioned and converted to mixed uses in the future. TPA also highlighted a need for future-proofing parking facilities, ensuring that electrical conduits are in place to support future car-sharing, electric vehicle charging, and detection technologies as appropriate.

TPA systematically expands the bike sharing program as demand increases, and have identified Eglinton as a key corridor for future bikeshare expansion in anticipation of the ECLRT and cycling facilities on Eglinton Avenue.

9 Preferred Solution – Recommended Mobility Plan

The preferred solution is to permit phased development linked to integrated multi-modal transportation improvements with associated on-going transportation network monitoring. In the short- to medium term, the focus will be on providing enhanced mobility choice – walking, cycling, and transit. Subject to how successful active transportation, transit and transportation demand management (TDM) are in diverting vehicular trips, and how well transit is performing with respect to reliability and capacity, development in the longer term may depend on additional major transit investment. The proposed mode split, based on the Eglinton Connects Avenues and Mid-Rise Building Travel Survey (2012), is described in Appendix I Multi-modal Transportation Analysis.

Recognizing the benefits of an integrated multi-modal transportation system, the recommended mobility plan also reinforces low-carbon options, while addressing environmental and health benefits, and social equity in mobility planning for all users.

The overall mobility plan strategy has been developed based on the following:

- Multi-modal analysis;
- An emphasis on completing networks with connections to the wider transportation network and enhanced neighbourhood connectivity;
- Fully integrating the Eglinton Crosstown investment; and,
- Stakeholder and public consultation, including with on-going development planning initiatives.

The following subsections outline the mobility plan strategic approach, specific recommendations, and supporting rationale. The mobility plan will guide planned developments within the core study area to be significantly less car-dependent, and be predominately transit-oriented. To be noted, the mobility plan recommendations and associated details will require on-going consultation with key stakeholders, be subject to additional studies and the environmental assessment process, and the City's site plan approval process.

9.1 Pedestrian

To achieve the desirable and increased walk mode share for proposed developments and for existing neighbourhoods in the core study area, a high quality and safe pedestrian network should be implemented. Provision of a high quality and safe pedestrian network will:

- Promote shorter trips by enhancing travel choice;
- Provide access and connectivity to where people want to go (i.e. connections to transit, recreational facilities, retail / employment destinations); and,
- Improve the quality of the pedestrian experience.

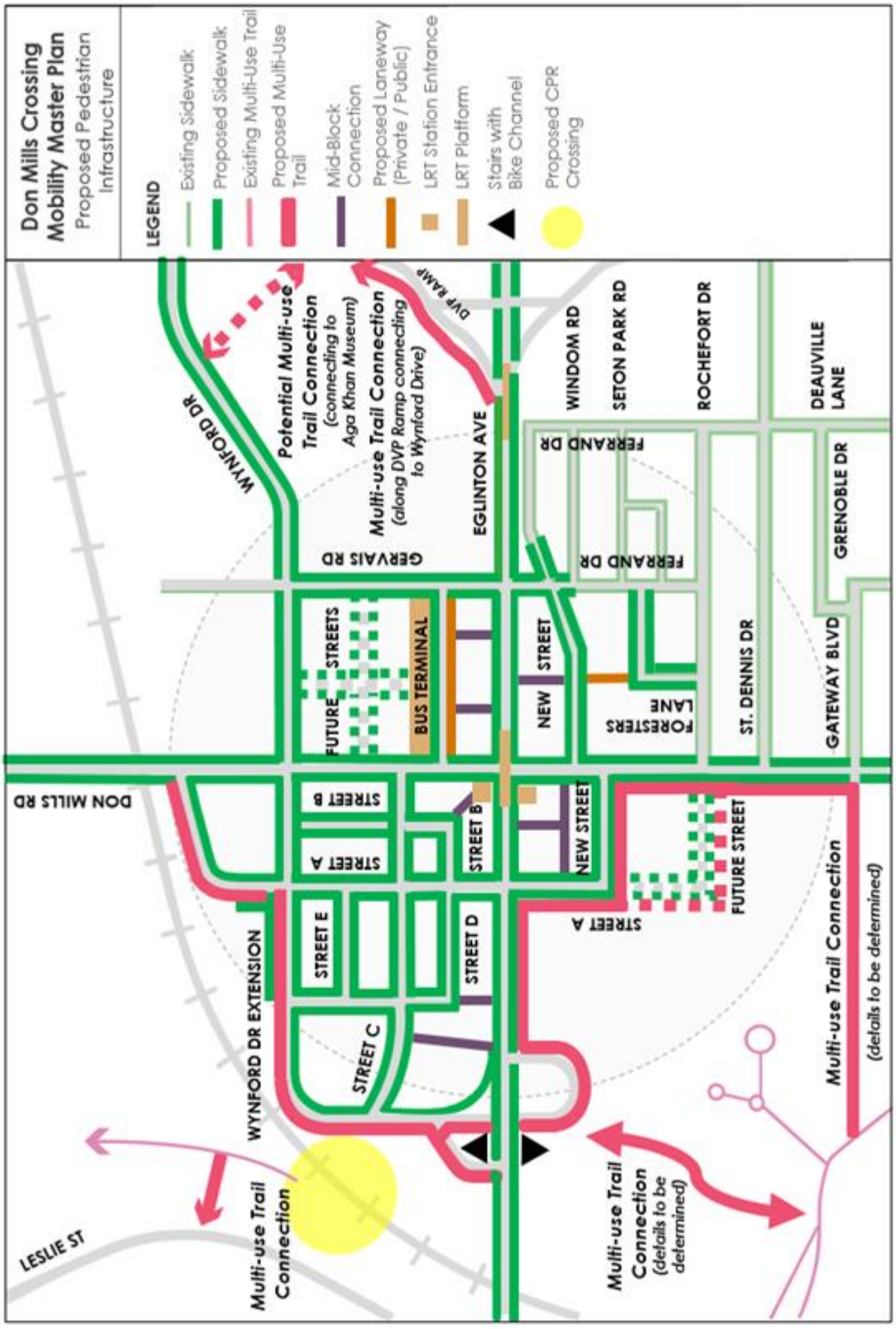


Exhibit 9-1: Recommended Pedestrian Infrastructure Plan

The overall strategy and key pedestrian-related recommendations of the mobility plan are illustrated in Exhibit 9-1 and includes:

Recommendation 1. Implement pedestrian infrastructure recommendations along Eglinton Avenue from EGLINTONconnects EA, recognizing modifications made through the planning and design of Eglinton Crosstown LRT.

Recommendation 2. Provide continuous 2.1m wide sidewalks along both sides of all roadways, including optimizing boulevard widths for streetscape greening and street furniture. Provide wider 3.6m sidewalks along Eglinton Avenue between proposed Street A and Ferrand Drive to support larger pedestrian volumes to / from the Science Centre Station.

Recommendation 3. Encourage all proposed development through the site plan approval process to implement a finer grain street network, connecting the sidewalks on both sides of new streets.

Recommendation 4. Promote additional safe and comfortable mid-block laneway connections through proposed development blocks, particularly with active grade-related uses, to improve permeability, linkages and connectivity. Coordinate efforts among owners of adjacent properties to dedicate public easements contributing to a pedestrian network of mid-block paths connecting the new public realm into the existing and planned pattern of streets and open spaces.

Exhibit 9-2: Conceptual Representation of Private Street B (Public Shared Right-of-Way)

Recommendation 5. Promote new mid-block connections through existing development blocks to provide key safe and formal connections within neighbourhoods. A key example is a potential laneway extension of Ferrand Drive between Rochefort and St. Dennis Drives, connecting retail and community facilities to the south, and transit to the north.

Recommendation 6. Phased development should not impose interim conditions that impede direct linkages and connectivity, particularly to transit and other community destinations.

Recommendation 7. Provide a CPR grade-separated crossing (refer to Appendix K) connecting the planned developments to the existing multi-use trail along the abandoned spur line. Combined with other recommendations (refer to the cycling subsection for further multi-use trail recommendations), a continuous trail system is presented from the Edwards Gardens and Lawrence Avenue in the north to downtown Toronto is the south via the existing West Don River trail system.

Recommendation 8. Address the pedestrian and cycling demand from communities north of the CPR corridor near Don Mills Road to the planned community centre, parks and trails, and transit connections to the south: in the short term provide a safe and attractive pedestrian environment under the western span of the CPR bridge over Don Mills Road; and, in the longer term consider a second CPR crossing.

Recommendation 9. Undertake the reconfiguration of the Eglinton Avenue and Gervais Drive / Ferrand Drive intersection with a focus on the pedestrian user experience (and cycling and transit considerations) to ensure safe and convenient access to/from existing and planned communities, community and retail destinations, and to the bus terminal. This intersection is critical to connecting the communities given that the Don Mills Road and Eglinton Avenue intersection will continue to experience significant regional and local traffic, characterized with many lanes and turning movements that present an undesirable pedestrian environment. A sub-area microsimulation analysis and operational study along Don Mills Road and including this intersection should be undertaken as part Class EA Phases 3 and 4 study.

Recommendation 10. Provide a pedestrian and cycling/bike share “multi-modal mobility hub”, with associated amenities and enhanced public realm in the publicly-owned lands on the south side near the entrance to the Aga Khan Station stop - adjacent to existing communities, and at the junction of pedestrian, cycling and trail facilities.

Recommendation 11. Promote that the designated Private Street B in the planned northwest quadrant development will function as a public shared right-of-way to ensure multi-modal accessibility between various users for this critical link to the Science Centre Station.

Recommendation 12. Provide direct ground level and publicly accessible connections to the mezzanine level of the Science Centre Station from all development quadrants to provide convenient and safe access to both the Eglinton Crosstown and bus terminal facility. Metrolinx approval is required for this connection, and additional discussion is provided under the transit subsection.

Recommendation 13. Implement City of Toronto’s Vision Zero road safety plan to improve safety for pedestrians. Specific measures include:

- narrowing roadway lane widths to minimize crossing walking distances;

- for key intersections, signalized or signalized, where significant pedestrian and cycling volumes are anticipated, consider additional design cues such as raised / textured intersections – potential locations include: Street A and Streets B/D intersection, Street C and Wynford Drive extension intersection, and Private Street B crossings approaching the planned community centre;
- for planned designated local roads, consider the introduction of curb extensions consisting of a narrowed roadway and a tighter radius, and a raised textured intersection profile – for pedestrians there will be an increased storage area and a shorter crossing walking distance, while vehicular traffic will require lower speeds;
- as development occurs adjacent to Don Mills Road, consider narrowing existing lanes wherever possible to increase the boulevard widths but to also reduce crossing distances;
- provide widen crosswalks (6m) at anticipated high pedestrian volume crossings (i.e. Eglinton Avenue and Don Mills Road intersection, Eglinton Avenue and Gervais Drive / Ferrand Drive intersection), including correspondingly larger pedestrian storage areas with wider boulevards and building setbacks; and
- provide continuous uninterrupted sidewalks across driveways and minor unsignalized intersections.

Additional pedestrian-related recommendations associated with the provision of multi-use trails are outlined in the cycling subsection, including the CPR corridor crossing. Functional plans have been prepared (available separately) to demonstrate some of these recommendations.

9.2 Cycling

Cycling trips should be promoted for both proposed developments and existing neighbourhoods, to optimize the potential for a desirable increased cycling mode share. The overall strategy is to enhance travel choices in the study area with a focus on short to moderate length trips, that will connect to the existing and planned cycling and multi-use trail networks outside the study area, transit, recreational / institutional facilities, and retail / employment destinations. These network improvements should also be safe and comfortable for all cycling trip purposes, and therefore appreciate the adjacent street function and traffic conditions. In addition to ensuring a quality cycling experience, the cycling facilities should be complemented with appropriate supporting amenities and programs.

The overall cycling strategy, including the multi-use trail system, builds upon the City's Cycling Network 10-Year Network Plan. The Plan within the core study area presently consists of cycle track facilities along Eglinton Avenue, on-street bike lanes in the southeast quadrant (i.e. along St. Dennis Drive), and a multi-use trail system, existing and planned, along the abandoned CPR spur line and West Don River.

A major north-south cycling facility, particularly along Don Mills Road, is presently not part of the City's Cycling Network 10-Year Network Plan. In discussions with the Toronto Parking Authority, who operate the City's bike share program, a cycling facility along Don Mills Road would be

desirable as part of a regional longer-distance cycling network, and would be the key driver for introduction of a local bike share program.

However, in the short- to medium term, the Don Mills Road right-of-way will continue to function as a major regional vehicular / truck route paralleling and connecting to the Don Valley Parkway. A proposed cycling facility would encounter significant vehicular and truck volumes, turning movements, and increasing on-street transit operations. Further, any cycling facility recommendation along Don Mills Road for this core study area would present an undesirable discontinuous cycling network. Finally, there are competing and highly desirable interest to widen the sidewalk / boulevard / public realm environment along Don Mills Road.

It is envisioned that in the longer term when the Relief Line is extended northward beyond Eglinton Avenue, that this major transit investment would significantly impact north-south vehicular movement. At that time, the existing Don Mills Road right-of-way could be re-purposed to include a regional cycling corridor.

To address the immediate opportunities in the short- to medium term, alternative north-south corridors within the core study area were investigated to provide connectivity to other existing and planned cycling network infrastructure, to transit, and to other destinations. Each quadrant of the core study area was examined individually, and then assembled into an overall cycling strategy, including the multi-use trail system. The following paragraphs provide a discussion and supporting rationale for cycling facility recommendations for each development quadrant.

Northwest Quadrant

The northwest quadrant of the core study area will be developed into an envisioned mixed-use transit-oriented development, including planned community facilities (i.e. parks, arena, community centre). A proposed internal road network has been established and adopted for this study, consisting of new collector and local roads. The key planned internal roads are:

- Wynford Drive extension – directly connecting to the existing Wynford Drive and Don Mills Road intersection in the east with the existing ramp connection at Eglinton Avenue (i.e. presently a private roadway entrance that is to be re-purposed into a public roadway); and,
- Street A – primarily a north-south road paralleling Don Mills Road that will connect with Eglinton Avenue in the south (and extended further south into the southwest quadrant, and discussed later), intersecting with the planned Wynford Drive extension, and then curving to the east to connect with Don Mills Road.

These roadways provide connections to the wider road network and the opportunity for direct access to the Science Centre Station. Significant opportunities to add to the cycling network are presented along these roadways. As such, key objectives for this development quadrant is to provide safe connections to:

- Existing and planned cycling network (i.e. cycle tracks along Eglinton Avenue);
- Eglinton Crosstown, specifically the Science Centre Station and associated bus terminal;
- Existing and planned community facilities and destinations (i.e. parks, community centres, shopping), within and outside the core study area; and,
- Existing extensive ravine multi-use trail system.

Along these key planned internal roads, Wynford Drive extension and Street A, cycle tracks are recommended based on:

- Significant cycling volumes are being estimated that will connect existing and planned neighbourhoods, including community facilities, to Eglinton Crosstown;
- Planned right-of-way widths that will be able to accommodate cycle tracks, in addition to an enhanced pedestrian and streetscape environment;
- These new roadways are anticipated to have higher vehicular volumes, turning movements, and posted speeds, and additional separation is warranted; and,
- Completes an internal ring cycle track network (discussed later) that connect to the planned Eglinton Avenue cycle tracks and wider planned cycling network.

In addition, there is an opportunity presented to place a multi-use trail within the quadrant, connecting the neighbourhood and the planned community facility to:

- An existing multi-use trail (i.e. Don Mills Trail) which extends from Lawrence Avenue to just north of the operational CPR corridor, including potential linkages to Leslie Street, associated new developments, and other potential connections; and,
- The existing West Don River multi-use trail system.

A multi-use trail is recommended along the north side of the Wynford Drive extension and the northern section of Street A, from Don Mills Road in the east, providing a connection to the planned community facility, and then traversing southerly, splitting to connect with both the westbound cycle track along Eglinton Avenue and to the existing ramp connection at Eglinton Avenue that will be re-purposed into a public roadway. Design will adhere to all applicable standards and best practices. To be noted, transitioning from one-way cycle tracks to a bi-directional multi-use trail (i.e. Wynford Drive extension and Street A intersection) may require special design treatments, including but not limited to: additional bike signal heads, cycle time phases, and bike storage space requirements.

The latter will continue under Eglinton Avenue and along the outside of the ramp back up to Eglinton Avenue, and then continue easterly to Street A along the south side of Eglinton Avenue (discussed under the southwest quadrant discussion). Design will be required to adhere to all applicable grade and cross-section standards. To protect all trail users, the multi-use trail continuing under Eglinton Avenue will require physical barrier measures from vehicles.

To connect the proposed multi-use trail along the west side of the Wynford Road extension and the existing trail on the north side of the CPR rail corridor, an AODA compliant grade-separated crossing is required. Crossing alternatives were evaluated, recommending a bridge over a tunnel crossing, as presented in Appendix K, but will require confirmation in a Phase 3 and 4 EA.

Northeast Quadrant

Within the northeast quadrant of the core study area, the road network is presently established supporting retail, institutional, and low to medium density commercial and office uses along Wynford Drive and Gervais Drive. Wynford Drive also provides an important parallel east-west roadway function to Eglinton Avenue, connecting to high density residential and commercial /

office uses east of the Don Valley Parkway, including the provision of direct connections to the Don Valley Parkway. Traffic is characterized with higher vehicular and truck volumes and operating speeds.

The Eglinton Crosstown Science Centre Station and associated bus terminal is accessible in this quadrant. The feeder bus network will have frequent service levels, and require several turning movements to access the bus terminal (i.e. to / from Wynford Drive, Gervais Drive, Eglinton Avenue, and Don Mills Road). Achieving safe cycling access along local roads, and linkage to the bus terminal and the Eglinton Crosstown are major considerations.

The planned growth in this quadrant is presently envisioned to be in the longer term, consisting of mixed medium to high density office development. This growth will likely be associated with the redevelopment of existing uses in the area bounded by Wynford Drive, Gervais Drive, Eglinton Avenue, and Don Mills Road, including the bus terminal.

Key objectives for this quadrant are to provide safe connections to:

- Existing and planned cycling network (i.e. cycle tracks along Eglinton Avenue);
- Eglinton Crosstown, specifically the Science Centre Station and associated bus terminal, and Aga Khan Station stop; and,
- Existing and planned community facilities and destinations (i.e. parks, community centres, retail).

Cycle tracks are recommended along Wynford Drive and Gervais Road due to the following considerations:

- Provides safe and convenient segments to encourage cycling while addressing the higher vehicular volumes and operating speeds, including buses and trucks to / from employment areas and the Don Valley Parkway connection;
- Existing rights-of-way have the potential to be widened to include cycle tracks and an enhanced pedestrian environment;
- Connects to the planned cycle track facility along Eglinton Avenue via Gervais Drive, and provides a parallel east-west facility crossing the Don Valley Parkway utilizing Wynford Drive; and,
- Provides safe and high-quality connections to transit (i.e. bus terminal and Eglinton Crosstown).

For the planned growth area envisioned in the longer term, on-street bike lanes along the new local road network are recommended connecting to cycle tracks along Wynford Drive, Gervais Drive, Eglinton Avenue, and potentially Don Mills Road in the longer term. It is anticipated that the new local roads associated with the planned growth will have lower vehicular volumes and operating speeds, with minimal truck and bus movements.

There is a multi-use trail opportunity along the west side of the Don Valley Parkway corridor, connecting Wynford Drive cycle tracks to the north and the Eglinton Avenue cycle tracks to the south. This trail linkage presents alternative connections to the high density residential and commercial / office uses east of the Don Valley Parkway to the Eglinton Crosstown (i.e. to the Aga Khan Station stop), and a potential direct connection to the Aga Khan Museum (subject to future consultation).

Southeast Quadrant

Within the southeast quadrant of the core study area, the road network is established supporting a mixture of low / medium / high density residential neighbourhoods (i.e. Flemingdon Park area) with internal retail and community facility destinations. The planned growth will generally be infill residential development.

Key objectives for this quadrant are to provide safe connections to:

- Existing and planned cycling network (to be noted, the City is presently implementing on-street bike lanes for several local streets);
- Eglinton Crosstown, specifically the Science Centre Station and associated bus terminal, and Aga Khan Station stop; and,
- Existing and planned community facilities and destinations (i.e. parks, community centres, shopping).

On-street bike lanes are recommended within this quadrant due to the following considerations:

- Existing narrow right-of-way and associated pavement widths, including mature trees in boulevards and numerous driveways, present limited opportunity to install cycle tracks;
- Lower vehicular volumes (i.e. cars, buses, trucks) and lower posted speeds (i.e. due to residential land use and roadway alignment circuity) will be encountered; and,
- Compatibility with the existing and planned on-street bike lanes and cycle tracks being implemented within the community.

Southwest Quadrant

Phased new development is being proposed in the core study area's southwest quadrant. Presently, the Eglinton Crosstown entrance building is being constructed within these lands that also includes a Science Centre parking lot. The quadrant is bounded on the west by the TRCA-regulated stable slope setback line of the West Don River ravine lands, on the south by Science Centre parking lots, on the east by Don Mills Road, and to the north by Eglinton Avenue.

Envisioned for the initial development phase are residential towers with ground-floor retail, adjacent to the LRT entrance building. In the interim, only one new roadway (i.e. Street A extension transitioning into an east-west local road connection) is being introduced in this quadrant, linking Eglinton Avenue to the north and Don Mills Road to the east. Subject to the future use of the property by the Ontario Science Centre, proposed Street A could be further extended south and connect to Don Mills Road at Rochefort Drive, or St. Dennis Drive.

Cycling opportunities being presented for this quadrant include:

- Connections to existing and planned cycling network (i.e. Eglinton Avenue cycle tracks, on-street bike lanes in the Flemingdon Park communities);
- Connections to the Eglinton Crosstown, specifically the Science Centre Station and associated bus terminal;
- Connections to surrounding existing and planned community facilities and destinations, including planned institutional land uses in subsequent development phases to the south; and,

- Providing potential linkages to a local and regional ravine multi-use trail system.

Along the proposed roadways within this quadrant, on-street bike lanes are recommended, as opposed to cycle tracks due to:

- Desire to narrow the right-of-way to optimize streetscaping opportunities (i.e. trees in boulevards) associated with planned development.
- Likelihood of encountering lower vehicular volumes and lower posted speeds; and,
- Compatible connectivity to on-street bike lanes and cycle tracks to the east in the Flemingdon Park communities.

There is an opportunity presented to place a multi-use trail within the TRCA 10m stable slope setback area. Specifically, the setback area is between the sidewalk of the proposed Street A roadway extension, which will be beyond the required 10m setback, and the designated top of stable slope as established by TRCA. TRCA would prefer that the multi-use trail be located further to the east to avoid placement within the setback area. Alternative configurations will be investigated during subsequent planning processes (i.e. Class EA, site plan review / approval including City ravine by-laws and TRCA regulations). Within the Street A right-of-way, a balanced approach will be required through planning processes and detailed design to accommodate objectives for streetscaping and mobility, recognizing potential synergies and connections between proposed multi-use trail and on-road bike lanes.

This multi-use trail segment is proposed to link to the West Don River trail system with the following:

- The proposed multi-use trail along the Wynford Drive extension to the west with a trail along the south side of Eglinton Avenue; and,
- A proposed trail linkage along the south edge of the Science Centre property with a trail along the west side of Don Mills Road.

The proposed multi-use trail along the Wynford Drive extension (as outlined under northwest quadrant discussion) will continue under Eglinton Avenue and along the outside of the ramp back up to Eglinton Avenue, and then continue easterly to Street A along the south side of Eglinton Avenue.

From the multi-use trail along the south side of the existing ramp, there is a desire to provide an accessible trail linkage to the existing West Don River multi-use trail system. This link presents natural environment and topography challenges. In general, this connection to the West Don River trail system is supported by the TRCA, subject to detailed alternatives development and evaluation as part of subsequent planning processes (i.e. Class EA, reviews / approvals in accordance with City ravine by-laws and TRCA regulations). Alternatives to be considered include, but not limited to, a direct linkage that maximizes accessibility, a direct linkage that prioritizes preservation of the natural environment, a direct linkage that maximizes accessibility at E.T. Seton Park west of Leslie Street at Wilket Creek, and combinations thereof.

The proposed multi-use trail segment along the south edge of the Science Centre property, integrated with the existing roadway access that services the Science Centre will require consultation. The connecting north-south trail segment provides a safe cycling connection to the

Eglinton Crosstown's entrance building, including connecting to the cycling facilities east of Don Mills Road at St. Dennis Drive (i.e. Flemingdon Park area).

When the above multi-use trail segments are connected, an internal recreational loop is formed providing a local safe multi-use trail route with interesting topography and vistas.

This multi-use trail linkage opportunity is highly desirable:

- Presents direct and significant linkage to the existing City's trail network, from the north near Lawrence Avenue, to the south and downtown Toronto via the West Don River trail system;
- Provides a local recreational internal multi-use trail loop with minimal road crossings that presents interesting natural heritage / topography / vistas; and
- Connects to existing / planned cycling network in the Flemingdon Park area.

The recommendation of each quadrant's individual assessment was assembled into an overall cycling infrastructure (i.e. cycling tracks, on-street bike lanes) and multi-use trail system strategy. In summary, the key cycling and multi-use trail strategic moves include:

- Build upon the Eglinton Avenue cycle tracks, and establish a cycle track ring facility around the Science Centre Station and associated bus terminal, utilizing Wynford Drive, Wynford Drive extension, Gervais Drive and the planned Street A;
- Install cycle tracks along Wynford Drive, providing an alternative parallel cycling facility to the Eglinton Avenue cycle tracks crossing the Don Valley Parkway;
- Provide on-street bike lanes on existing and planned local roads connecting to cycle track facilities for longer distance travel;
- Establish a multi-use trail network that complements the planned cycling infrastructure, but also provides access to the regional and local trail network; and,
- incorporates cross-rides, bike boxes, and other design features at intersections that link cycling facilities, and to support safer cycling conditions.

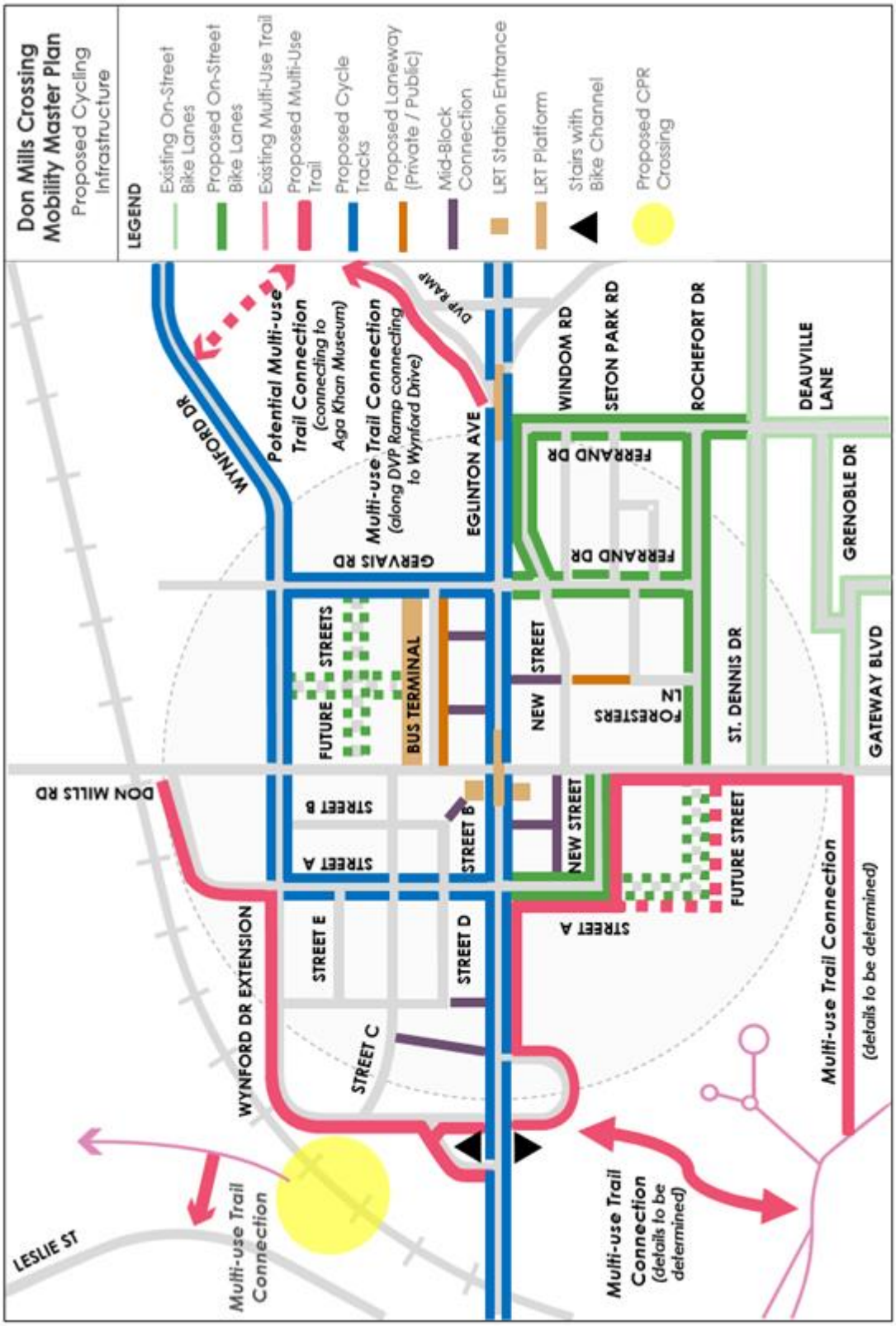


Exhibit 9-3: Recommended Cycling Infrastructure

Overall strategy and key cycling-related recommendations of the mobility plan are illustrated in Exhibit 9-3 and includes:

Recommendation 1. Implement cycle track recommendations along Eglinton Avenue from EGLINTONconnects EA, recognizing modifications made through the planning and design of Eglinton Crosstown LRT.

Recommendation 2. Provide cycling facilities based on latest City design guidelines and in consideration of local conditions. Typical widths are 2.0m wide cycle tracks with a 0.6-1.0m wide traffic-side buffer, and 1.8m bike lanes.

Recommendation 3. Encourage all proposed development through the site plan approval process to implement a finer grain street network that present a lower speed environment that is cycling-friendly.

Recommendation 4. Promote additional safe and convenient mid-block connections through proposed development blocks to improve linkages and connectivity.

Recommendation 5. Phased development should not impose interim conditions that impede direct linkages and connectivity, particularly to transit and other community destinations.

Recommendation 6. Update the City's 10 Year Cycling Network Plan to reflect the recommended cycling infrastructure plan.

Recommendation 7. Ensure public bicycle parking spaces along the key cycling routes and at key destinations, such as transit station entrances and community facilities. Provide secure, indoor and sheltered bike parking facilities as part of new developments with direct and accessible connections to the planned cycling infrastructure.

Recommendation 8. Coordinate with the Toronto Parking Authority, TTC, Metrolinx, and developers and landowners to create a bike share network in the area. This will promote movement between key destinations, such as transit facilities, community and recreational facilities, and area businesses.

Exhibit 9-4: Representative Cycling Storage Option

Recommendation 9. Coordinate with the TTC and through the site plan approval process to provide consistent integrated cycle track treatments at bus stop locations.

Recommendation 10. Ensure implementation of the City of Toronto's Vision Zero road safety plan. In addition, adopt cycling safety best practices.

Functional plans have been prepared (available separately) to demonstrate some of these recommendations.

9.3 Transit

Improving transit service and access is a major element of the preferred mobility solution within the core study area. Based on the monitoring of the multi-modal transportation network as development progresses, it is envisaged that the transit improvement strategy will evolve over time as follows:

- **Short-term:** optimize multi-modal connections with Eglinton Crosstown LRT stations (transit, cycling, walking);
- **Short- to medium-term:** incrementally upgrade bus and Eglinton Crosstown LRT services to support increased trips generated by phased development and existing neighbourhoods; and,
- **Long-term:** subject to the effectiveness of trip diversion due to active transportation, transit and TDM initiatives, future development growth could be limited until the implementation of additional regional transit improvements.

Short-term Transit Improvements

Key transit-related recommendations for the short term will be focussed on optimizing the Eglinton Crosstown investment, as follows:

- Coordinate with the TTC to enhance the local feeder bus service to / from new developments (i.e. Wynford Green in the northwest quadrant of the core study area), and to / from existing neighbourhoods, such as the Flemingdon Park area (i.e. southeast quadrant);
- Integrate bus stops, including associated infrastructure and amenities, with the planned developments and cycling infrastructure to ensure safe and comfortable access;
- Provide direct underground connections from each development quadrant of the core study area to the Science Centre Station's mezzanine level;
- Provide direct and safe pedestrian and cycling connections, and associated amenities, to all transit stations and stops, with the Science Centre and Aga Khan Stations being particularly critical; and,
- Conduct operational studies along Don Mills Road and for a re-configured Gervais Drive / Ferrand Drive / Eglinton Avenue intersection, to ensure reliable access to / from the Science Centre's bus terminal for frequent service.

Initial discussions with the TTC have been undertaken with respect to potential new feeder bus routes, and associated bus stop locations. For instance, potential stops for a Wynford Drive extension service for the northwest development quadrant, could include, subject to TTC review, northbound / southbound stops at planned Street C, eastbound / westbound stops at planned Street A, and eastbound / westbound stops at Don Mills Road. At these and other locations, once confirmed, bus stop infrastructure should be integrated with the streetscape and cycling facilities.

At present, the Science Centre Station has the following planned underground connections:

- To / from the bus terminal located in the northeast quadrant (under construction);
- To / from the main entrance building located in the southwest quadrant (under construction); and
- To / from the northwest quadrant (knock-out panel provision).

Recognizing that the Don Mills Road and Eglinton Avenue intersection will continue to provide a major regional vehicular role in the short- to medium term, the surface-active transportation environment will remain undesirable. Direct and safe connections are required to provide quality mobility choices for future development, and to avoid this problematic intersection. Initial discussions have been undertaken to:

- Connect the northwest development quadrant to the tunnel connection being constructed between the bus terminal and the Science Centre Station mezzanine level, presenting a convenient connection to the bus network that service other destinations beyond the Eglinton Crosstown corridor;
- Connect the southwest development quadrant seamlessly to the secondary entrance building, either directly or highly integrated to optimize the user experience;
- Connect the southeast development quadrant directly to the Science Centre Station mezzanine level; and,
- Incorporate the bus terminal and associated underground connections into any northeast development, when and if it occurs, or include a connection to the pedestrian tunnel between the bus terminal and the Science Centre Station.

Consultation and negotiations will be required with Metrolinx and the public-private Eglinton Crosstown developer to make these critical improvements that will optimize this major investment.

The overall mobility plan is focussed on connecting to transit and the Eglinton Crosstown, for all ages and abilities. However, the planned developments for each quadrant in the core transportation study area as presently envisioned, does not provide a convenient and safe location and access for Wheel-Trans, and for minimal pick-up / drop-off layby space for taxis.

Based on the envisioned developments and their associated timelines, the east-west leg of Street B of the northwest development quadrant presents a safe and potentially accessible location that is not located along Eglinton Avenue or within the bus terminal area. Presently, Street B is being designated as a private roadway. As discussed elsewhere, consideration should be given to making this a public roadway given its importance as a multi-modal connection to transit, in addition being a potential safe and accessible Wheel-Trans / layby location. Further consultation with multiple stakeholders are required during future planning phases.

In addition, to achieve the desired transit mode splits for each planned development, the user experience should be enhanced with suitable space for pedestrian and cycling amenities (i.e. parking / storage, public realm) being provided at all access points to the Eglinton Crosstown.

The planned developments within the core transportation study area will likely occur over several years, all with planned lower vehicular mode splits. Nevertheless, there will be additional vehicular trips along Don Mills Road and Eglinton Avenue generated by growth within the study area. The grade-separated Eglinton Crosstown will function and continue to provide frequent and reliable service. However, there will be direct impacts to bus service along Don Mills Road and to / from the Science Centre Station bus terminal. A sub-area microsimulation analysis and operational study along Don Mills Road and for a re-configured Gervais Drive / Ferrand Drive / Eglinton Avenue intersection should be undertaken during the Class EA process to ensure reliable bus service, and identifying potential phasing constraints.

Medium-term Transit Improvements

In the medium-term, incremental transit improvements will be required linked with the planned developments occurring over several years. Potential incremental improvements include:

- More frequent bus service with transit priority along Don Mills Road;
- Express bus service (TTC, GO Transit) along the Don Valley Parkway (bus by-pass lanes / shoulders) and along Don Mills Road;
- Reserved bus lanes (RBL) along Don Mills Road; and,
- Eglinton Crosstown operational improvements to increase capacity.

These incremental transit improvements will be competing for roadway space and priority, with the previously mentioned additional vehicular trips along Don Mills Road and Eglinton Avenue, which are key regional roads. The sub-area microsimulation analysis and operational study is critical to guide future developments and to identify key triggers for incremental transit improvements.

Long-term Transit Improvements

In the longer-term, subject to development phasing and on-going monitoring of the transportation system, major transit investments may be required for additional development to proceed. On-going transportation system monitoring should focus on how successful active transportation, transit and transportation demand management (TDM) are diverting vehicular trips, including how well transit is performing with respect to reliability and capacity. Potential major transit investments could include a northerly Relief Line extension, and / or a Midtown GO Rail service along the CPR corridor.

Transit-related recommendations of the mobility plan are:

Recommendation 1. Coordinate with the Toronto Transit Commission regarding potential new routes and associated bus stop locations within the core transportation study area. Identify design requirements, including potential operational considerations (i.e. routing, timed layover locations, vehicle type / length) that may influence the stop design. Shelters will be provided at all bus stop locations.

Recommendation 2. To improve the passenger experience and comfort, in addition to shelters at all bus stop locations, other amenities such as additional shelters, street furniture / seating, shade, lighting, and bike parking, should be included, particularly at anticipated high passenger volume locations.

Recommendation 3. Adopt consistent integrated bus stop treatments with the planned cycle tracks. Maintaining the cycle track facility separate and in front of the bus stop waiting area / shelter is preferred.

Recommendation 4. Ensure a safe and convenient Wheel-Trans layby location adjacent to a fully accessible Science Centre Station entrance. Similarly, minimal pick-up / drop-off layby space for taxis should be considered.

Recommendation 5. Provide direct underground connections from each development quadrant of the core study area to the Science Centre Station's mezzanine level. Direct connections will provide safe and convenient access to both the Eglinton Crosstown and the bus terminal, providing a pedestrian crossing alternative to the Don Mills Road and Eglinton Avenue intersection, subject to Metrolinx approval.

Exhibit 9-5: Science Centre Station's Platform Level

Recommendation 6. Promote the integration of transit station infrastructure with planned developments, either directly or seamlessly to optimize the transit user experience.

Recommendation 7. Conduct a sub-area microsimulation analysis and operational study along Don Mills Road and for a re-configured Gervais Drive / Ferrand Drive / Eglinton Avenue intersection. The study should identify requirements to ensure reliable bus service and potential phasing constraints. This will guide future developments and identify key triggers for incremental transit improvements.

Recommendation 8. Establish an on-going transportation system monitoring program with support from the developers acquired through the development process. The monitoring program should focus on how successful active transportation, transit and transportation demand management (TDM) are diverting vehicular trips, including how well transit is performing with respect to reliability and capacity.

Recommendation 9. Provide direct and safe active transportation connections to and from transit stations / stops by establishing a finer grain street network and mid-block linkages through the development process. Include associated wider crosswalks at anticipated high pedestrian / passenger volume locations.

Recommendation 10. Design the street network to optimize bus movement on key transit routes, including appropriate design features and provision of transit signals priority, with a focus on routes near the Science Centre Station bus terminal.

Recommendation 11. Encourage transit usage through the development process by encouraging the provision of development-related transit benefits, such as pre-loaded transit passes, real-time arrival display boards, and direct connections to the station.

9.4 Parking

The provision of parking should be planned to manage vehicular traffic growth and limit unnecessary car travel, thereby encouraging transit and active transportation modes. It is recognized that each planned development within the core transportation study area will require parking.

Development in the study area will adopt the lowest maximum parking rates given the proximity to transit, population density and enhanced mobility options being introduced. Site-specific lower parking rates which exceeds the lowest maximum parking rate are encouraged, and will require a Zoning By-law Amendment accompanied with TDM and innovative mobility measures.

Further to reduce the overall parking demand and to permit enhanced sharing of parking uses, it is recommended that non-residential parking be shared among the developments. The benefits include:

- Ability to fully utilize parking spaces throughout the day by unlocking synergies between multiple uses (office, retail, community facilities);
- Flexibility to adjust pricing strategies to improve mode-share changes within the study area;
- Flexibility to incorporate and adjust to future technologies and car-share arrangements; and,
- Improved ability to change parking supply as mixed developments are phased in.

An overall parking strategy has been developed to support other mobility choices, with the following related recommendations:

Recommendation 1. Promote lower parking rates than City guidelines for new developments in concert with transportation demand management (TDM) strategies and associated developer contributions. Given the proximity to transit availability, population density and enhanced mobility options being introduced, lower parking rates will limit the supply of parking spaces and encourage non-auto trips.

Recommendation 2. On-street parking will not be permitted along existing or planned arterial roadways, and along existing or planned collector roadways with planned cycle track facilities or bus routes.

Recommendation 3. Existing neighbourhood roadways with planned on-street bike lanes will require on-street parking prohibitions.

Recommendation 4. Parking associated with new developments, including new community facilities, will be underground or rear property that will be accessed from the local streets, or along collector streets with no planned cycle track facilities or bus routes.

Recommendation 5. Promote shared and future innovative parking strategies through the development approval process with associated developer contributions (i.e. provision of car share, rideshare, electric charging bays).

Recommendation 6. Pursue a publicly-accessible private parking facility or a Toronto Parking Authority (TPA) parking operation integrated with a future development adjacent to the Science Centre Station, including provisions for electric charging and car sharing bays. Ideally, the parking facility would be

integrated with retail and office use buildings in an early phase of development.

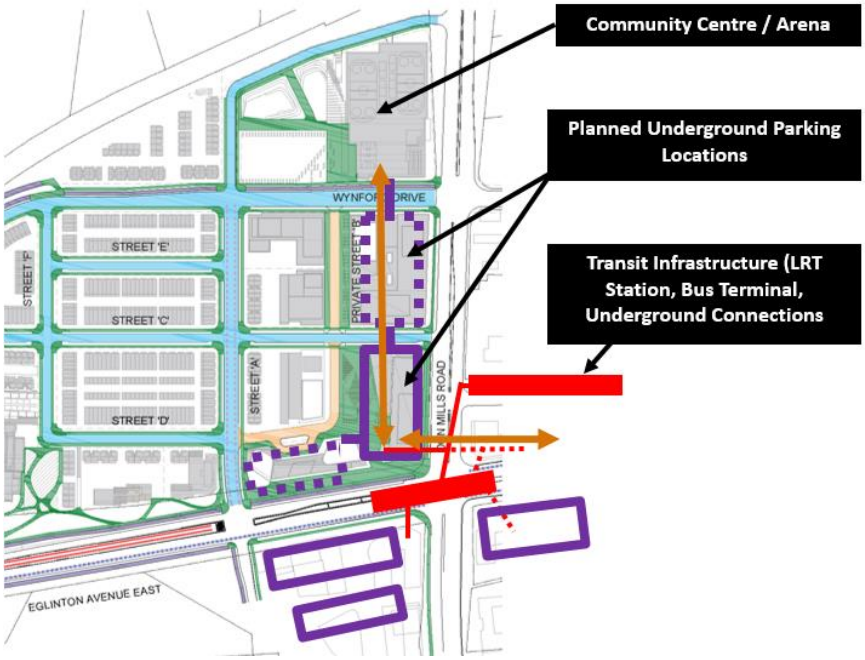


Exhibit 9-6: Potential Underground Parking Facility Connections

Recommendation 7. Promote the linkages of underground parking facilities near the Science Centre Station to provide convenient and direct connections (Exhibit 9-6 presents indicative underground connections to be considered). Provide wider aisles and / or designated walkways (minimum 1.8m width) to ensure a safe and intuitive pedestrian experience within connected underground parking facilities.

Exhibit 9-7: Potential Walkways Connecting Underground Parking Facilities

Recommendation 8. On-street short-term parking could be provided along new mid-block streets that will support planned ground-level retail uses, and drop-off / pick-off functions near a transit station entrance. Safe and convenient Wheel-Trans provisions should be provided adjacent to the Science Centre Station.

9.5 Goods Movement / Servicing

Supporting goods movement is vital to an economically sustainable city. As noted, Don Mills Road, Eglinton Avenue and Wynford Drive will continue to function as major regional vehicular and truck routes connecting to the Don Valley Parkway.

Within the core transportation study area, goods movement and servicing requirements will be specific to each planned development land use. The recommended mobility plan addresses these requirements, while promoting active transportation modes and ensuring the safe enjoyment for people to work, live and play locally. Related recommendations include:

Recommendation 1. Access for goods servicing for new developments will not be permitted along existing or planned arterial roadways, and along existing or planned collector roadways with planned cycle track facilities or bus routes.

Recommendation 2. Development access for goods movement / servicing will be from internal local roadways, preferably to underground facilities and / or to screened locations.

Recommendation 3. Identify key truck and goods movement routes and intersections within each development, and apply Vision Zero principles and adopt appropriate City of Toronto design standards. These routes, intersections and building access points should be located away from pedestrian and cycling desire travel paths and provide appropriate sightlines to all vehicular traffic.

9.6 Shared and Innovative Mobility Strategies

Proactive Transportation Demand Management (TDM) and shared and innovative mobility strategies will be required to be successful to achieve the planned development growth within the core transportation study area. These strategies promote travel demand measures and technological advances that support alternatives to single occupant vehicular travel, adding capacity to the network without requiring its expansion and additional major investment.

Overall shared and innovative mobility strategies and key TDM-related recommendations include:

Recommendation 1. Through the development review / approval process, each developer is required to develop, implement, maintain and monitor a comprehensive TDM plan, including appropriate funding contributions. Monitoring should be continued throughout all development phases to ensure the desired trip diversion is being achieved. Proactive travel plans developed earlier in the planning process have been proven to be more likely to be funded and to succeed.

Recommendation 2. Each developer is encouraged to incorporate trip planning techniques with the onset of their development marketing, such as: identifying a TDM coordinator; working with Metrolinx Smart Commute to promote, educate and implement; and coordinating with local school boards and school trip planning programs to incorporate new development requirements. As local schools are presently outside the core study area, TDM measures will assist in providing safe trips.

Recommendation 3. Encourage developers to embrace the adjacent existing communities for potential car sharing and Smart Commute opportunities, as data indicates a latent demand (i.e. approximately 10% of 2011 trips are presently vehicle passengers without any formal programs in place).

Recommendation 4. Promote development-related benefits, including but not limited to: provision of a TDM coordinator, access to trip planning services, and / or site-specific digital app; provision of transit passes; provision of bikes, cycling equipment, and local bike repair / maintenance services; and, educational programs (trip planning, cycling-related, walking to school, etc.).

Recommendation 5. Integrate publicly accessible parking infrastructure (i.e. Toronto Parking Authority or privately owned) near the transit station and the proposed community centre, control the overall new development parking supply, and implement other innovative mobility plan elements such as car-share and shared-bike facilities.

Recommendation 6. Promote integrated innovative multi-modal strategies with each planned development, including securing funding through the development review and approval process. Identified innovation strategy measures, include but not limited to: electric vehicle charging infrastructure, bike share, car share, and other Toronto Green Standards requirements to reduce the number of vehicle trips.

Exhibit 9-8: Typical Electric Charging Station

With respect to the last recommendation, the preferred mobility plan solution integrates new technologies and mobility modes based on a "multi-modal ecosystem" concept (refer to **Exhibit 9-9**), which incorporates innovative mobility options in a holistic manner.

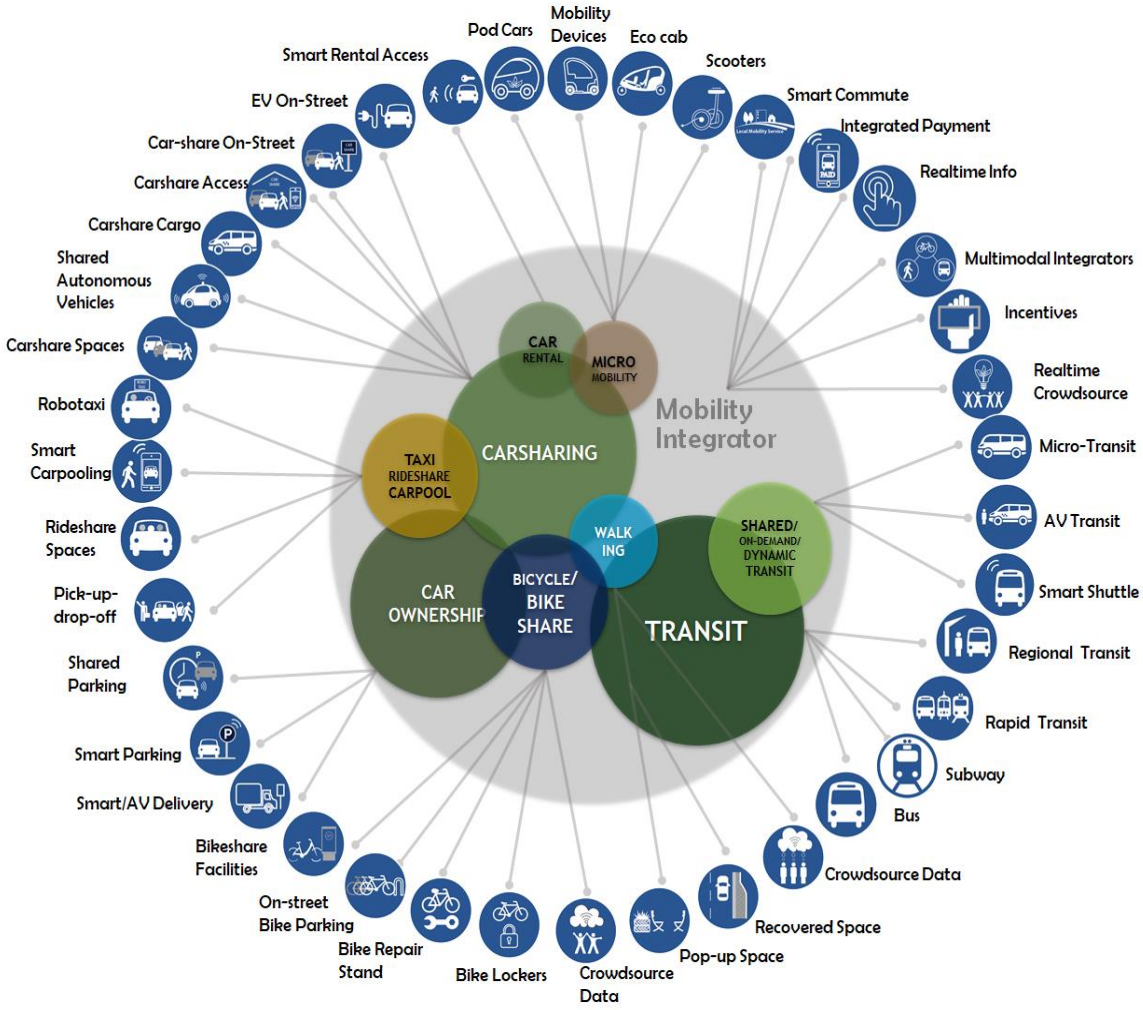


Exhibit 9-9 Multi-modal Ecosystem Concept of Shared and Innovative Mobility Modes

(Image Credit: Dewan Karim)

The introduction of new shared and innovative mobility modes (e.g. bike share, car share) in the last few years and anticipated technology changes will create new modes or a paradigm shift in the current primary modes of transportation. These emerging modes include the potential introduction of shared or micro-transit, and micro-mobility modes such as shared scooters, personal mobility devices. The impact of new technology, such as mobility-as-a-service (one-stop mobility service for booking, payment, and planning in a single system), and the impact of automation technology for vehicles and transit are expected to further shift the current automobile-oriented paradigm towards shared multi-modal options in the Don Mills Crossing area.

An overall strategy has been developed for the core study area adopting this multi-modal ecosystem concept, consisting of the following components: bike share stations; car share locations; electric charging stations; and ride share spaces (i.e. public and private parking laybys). These elements have been combined considering planned land uses / destinations and cycling and

transit infrastructure to create the recommended Multi-modal Mobility hubs with two general scales: large and small. These are potential locations where a variety of shared and innovative transportation can be accessed.

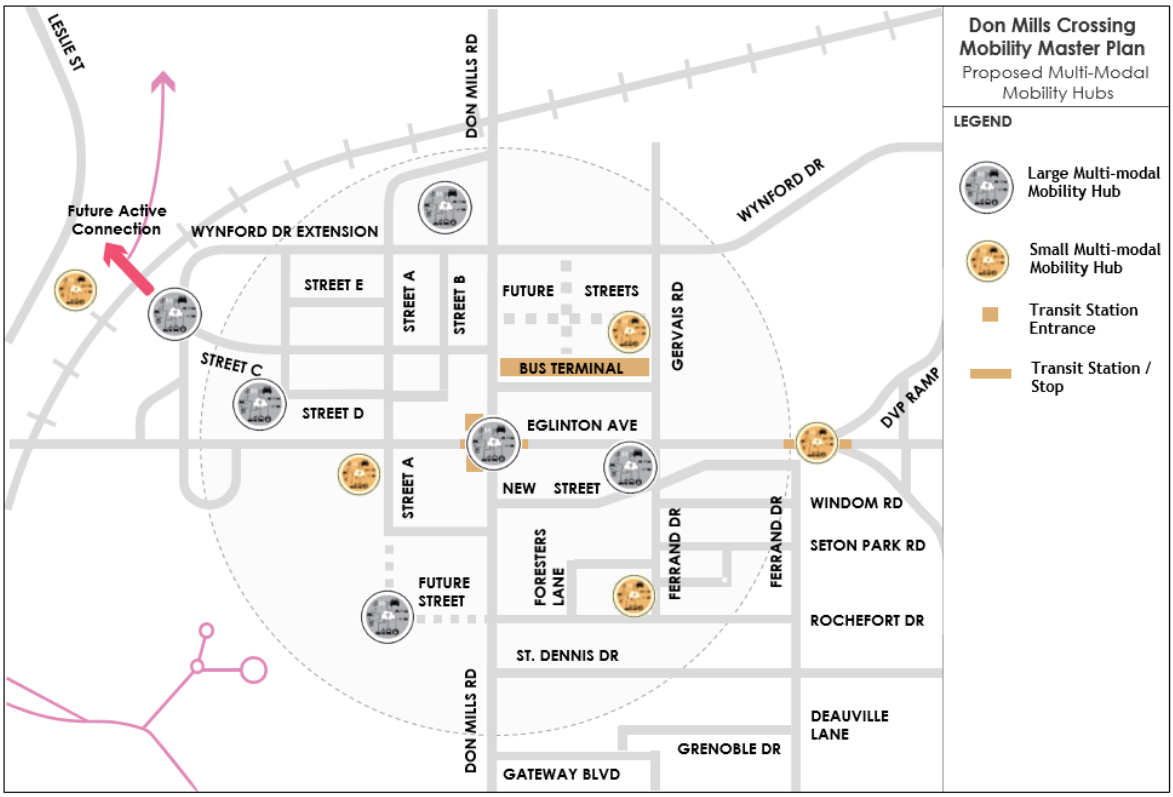


Exhibit 9-10: Recommended Multi-modal Hub Locations

Exhibit 9-10 presents the overall plan for the recommended multi-modal mobility hubs, with Exhibit 9-11 showing how they might look when implemented. Supporting multi-modal transportation analysis and discussion is provided in Appendix L.

Exhibit 9-11: Typical Multi-modal Mobility Hubs

9.7 Vehicular Traffic

The Don Mills Road and Eglinton Avenue corridors will continue to function as major regional vehicular and truck routes and connecting to the Don Valley Parkway in the short- to medium term. As development growth occurs there will be additional vehicular trips on these key roads that will be competing for roadway space and priority with potential incremental transit improvements. A sub-area microsimulation analysis and operational study should be undertaken during the Class EA process to ensure transit service reliability and capacity, and to identify any potential phasing constraints.

Within each emerging development quadrant, a finer grain street network should be implemented that improves access and connectivity, while facilitating a modal shift to active transportation and transit. The emerging development internal road network should be connected to the surrounding road network to efficiently distribute vehicular trips within the study area, in addition to providing continuous bus routing choices. The following are road network related recommendations:

Recommendation 1. Undertake a sub-area microsimulation analysis and operations study during the Class EA process.

Recommendation 2. Emerging developments will implement a finer grain street network that will provide alternative routing choices that connect to the surrounding street network, thereby distributing vehicular trips within the study area.

Recommendation 3. Development proponents must demonstrate to the City's satisfaction that the street network will function appropriately, and ensure capacity and access is available for the proposed development, including for all development phases. Ensure that developers contribute to monitoring provisions that will assess TDM effectiveness and the actual diversion to non-auto modes.

Recommendation 4. All roadways will adopt "Complete Street" principles. The intent is to balance the vehicle-focussed functions with appropriate multi-modal uses, as outlined in this mobility plan.

Recommendation 5. Implement City of Toronto's Vision Zero road safety plan.

9.8 Right-of-Way Widths

Right-of-way widths within the core transportation study area have been recommended (refer to

Exhibit **9-12**), considering the dimensional requirements to include various features of the recommended mobility plan and public realm plan, as well as internal road network that have

been established. Corresponding functional plans have been developed and are available separately.

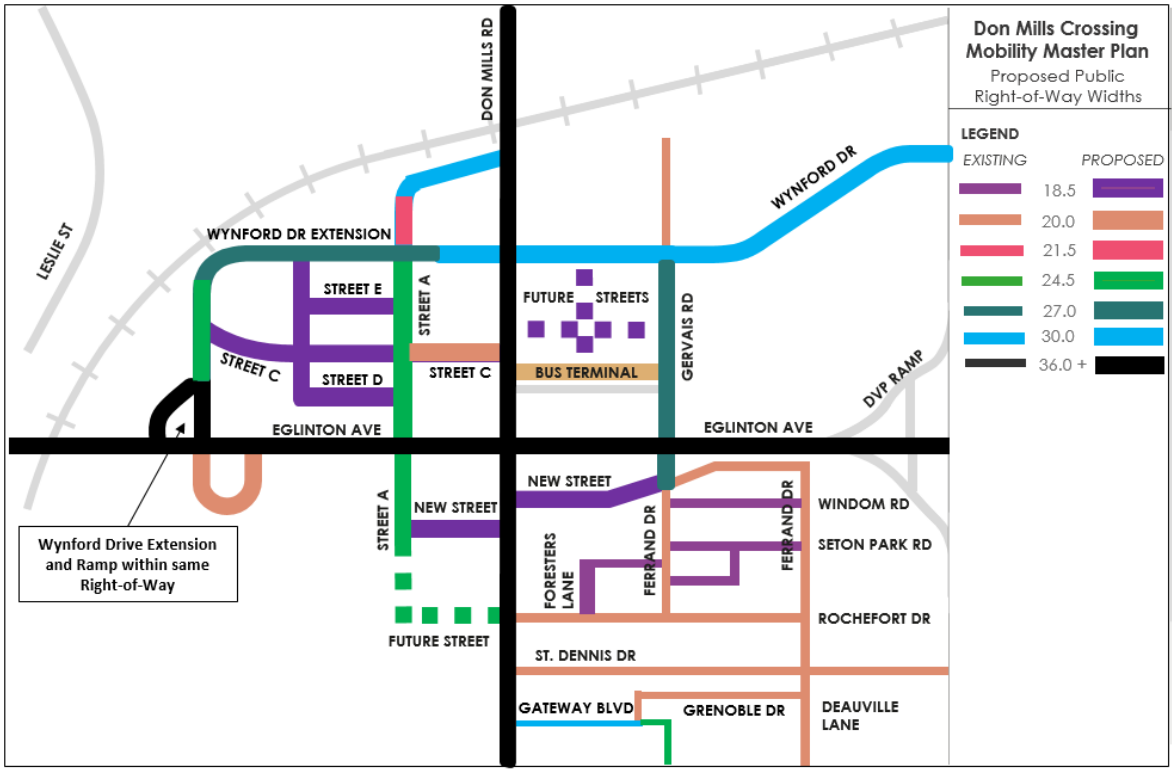


Exhibit 9-12: Recommended Right-of-Way Widths

The following sections present an overview of recommendations for key right-of-ways, including highlighting any longer-term considerations that may differ with current development proposals.

9.8.1 Don Mills Road

Don Mills Road will continue to function as a major regional vehicular corridor. With additional development-related vehicular trips and the need for reliable and increased transit service, in the short- and medium term, the Don Mills Road right-of-way will encounter competition for roadway space and priority. A sub-area microsimulation analysis and operational study completed during the Class EA process is critical to guide these future developments and to ensure transit service reliability and capacity.

As such, no major Don Mills Road re-configuration (i.e. lane removal and / or re-purposing) is proposed until the microsimulation analysis and operational study is completed.

For the purposes of this study, the focus was on improving the pedestrian and streetscape environment as the planned development occurs. Presently, Don Mills Road has a variable right-of-way width, generally 36m with localized widening. Specifically, the following initiatives should be considered:

- Along the west side of Don Mills Road, between Eglinton Avenue and the CPR corridor:

    - Safe and attractive pedestrian environment under the western span of the CPR bridge over Don Mills Road, linking communities to the north to the planned community centre, parks and trails, and transit connections to the south; and,
    - Maximize boulevard width and separate the sidewalk from the travelled roadway edge to improve the landscape zone width and the pedestrian environment – potential solutions include widening the right-of-way width through the planning approval process, and / or narrowing existing lane widths recognizing the potential for frequent curbside transit service.

- Along the east side of Don Mills Road, between Eglinton Avenue and the CPR corridor:
    - Ideally, the boulevard area would be widened for an enhanced landscape zone and pedestrian environment between Eglinton Avenue and Wynford Drive, with Eglinton Avenue to the bus terminal being the priority; and,
    - An increased east side boulevard width may be secured from future developments.
- Along the west side of Don Mills Road, between Gateway Boulevard to Eglinton Avenue:
    - A multi-use trail has been recommended to connect Street A cycling facilities and the planned network in the north, with the Flemingdon Park neighbourhood to the east (including planned cycling facilities and linkages to community destinations), and to a potential east-west connection to the West Don River trail system;
    - Existing boulevard width is insufficient to install a multi-use trail, but given that this entire section is along the Science Centre property / parking lot frontage, an encroachment agreement may be feasible to improve pedestrian and cycling facilities between transit, Science Centre, and existing / planned community parks and destinations; and,
    - Adopted for this study, is that streetscape and active transportation elements within the boulevard treatment between Street A to Eglinton Avenue and to the secondary transit entrance building, is being secured through the development review process.
- Along the east side of Don Mills Road, between Gateway Boulevard to Eglinton Avenue:
    - Adopted for this study, is that the boulevard treatment between the new east-west street to Eglinton Avenue (i.e. southeast development quadrant), is securing the streetscape and active transportation elements through the development review process; and,
    - The remaining length presents a poor pedestrian environment (i.e. narrow sidewalks) with a minimal effective boulevard width (i.e. grade differential behind the sidewalk), and any future opportunity for improvements should be investigated.

It is anticipated that in the longer term, a regional cycling facility along Don Mills Road would be included with future higher-order transit investment in the corridor. Ultimately, Don Mills Road should be reconfigured to have a consistent and reasoned long-term cross-section.

Exhibit 9-13: Artist's Rendering of Eglinton Avenue Looking West Towards Don Mills

9.8.2 Eglinton Avenue

Eglinton Avenue will continue to function as a major regional vehicular corridor, connecting to the Don Valley Parkway. However, its role as part of the surface bus network connecting to the Science Centre Station's bus terminal will become increasingly important to ensure reliable and increased transit service. The recommended sub-area microsimulation analysis and operational study is critical to ensure transit service reliability and capacity, and guide the key design initiatives including the Gervais Drive / Ferrand Drive and Eglinton Avenue intersection.

Adopting the approved EGLINTONconnects recommendations, no major Eglinton Avenue roadway functional changes are proposed until the microsimulation analysis and operational study is completed. However, the extension of cycle tracks along Eglinton Avenue in the study area, consistent with the City's 10 Year Cycling Network Plan, is recommended.

For the purposes of this study, the focus was on improving the pedestrian and streetscape environment as the planned development occurs. Eglinton Avenue has a variable right-of-way width, generally a minimum 45m with localized widening.

Exhibit 9-14: Artist Rendering Looking South Across Eglinton Avenue at Street A

9.8.3 Street A

This planned public roadway generally parallels Don Mills Road to the west within the northwest and southwest development quadrants. Street A will provide a major collector function, distributing vehicular traffic to the broader road network, while providing key core study area active transportation routes. No local bus service routes have been identified along Street A.

For discussion purposes, the Street A corridor has been divided into 3 sections, although infrastructure consistency and continuity should be maintained:

- Northern section: between Wynford Drive extension and Don Mills Road;
- Centre section: between Eglinton Avenue and Wynford Drive extension; and,
- Southern section: between Don Mills Road and Eglinton Avenue, ultimately connecting to Rochefort Drive or St. Dennis Drive to the south.

Northern Section

Based on the multi-modal analysis, this Street A section should play a major active transportation role, connecting communities from north of the CPR corridor with the planned community centre and park facility, to planned commercial / retail destinations, and to the Science Centre Station. In the longer-term, the recommended mobility plan promotes cycle tracks and 2.1m sidewalks on both sides, within a minimum 24.5m right-of-way, which is consistent with the proposed Street A centre and southern sections, and thereby completing longer term pedestrian and cycling networks (note that the railway safety berm would need to be re-designed).

Following on-going stakeholder consultation, undertaken as part of the development approval process, short- to medium-term solutions were investigated, with the following recommendations:

- Provision of a 2.1m sidewalk along the east / south side from the Wynford Drive extension to Don Mills Road, that will directly access the future community facility and the designated park area;
- Provision of a 2.1m sidewalk along the west side only, that will directly access the proposed Block 11 development;

- Extending the proposed Wynford Drive extension multi-use trail along the west / north side of Street A, connecting to Don Mills Road; and,
- Provision of a variable right-of-way width, 21.5m for Street A's southern leg (i.e. to permit the inclusion of a left turn lane), transitioning to an effective 18.5m right-of-way width for Street A's east-west leg (to be noted, this leg is a designated 30m right-of-way but currently includes a railway crash berm, which could be re-purposed in the future).

Centre Section

This Street A section between the Wynford Drive extension and Eglinton Avenue will provide cycle tracks, 2.1m sidewalks and a wide landscape zone on both sides, within a 24.5m right-of-way. Building accesses and driveways will be discouraged along this section.

Southern Section

Street A between Eglinton Avenue and Don Mills Road is envisioned to ultimately extend from the proposed signalized Street A intersection at Eglinton Avenue in the north, to a proposed signalized intersection along Don Mills Road at either Rochefort Drive or Gateway Drive in the south. Stakeholder consultation with the Science Centre is required to address and protect for this ultimate alignment.

A major consideration for the ultimate Street A right-of-way for this section is respecting the TRCA's 10m setback from the established top of stable slope line. The southern section of Street A is recommended to be a 24.5m public right-of-way, consistent with the section to the north, including provisions for 2.1m sidewalks and on-street bike lanes on both sides. Presently, a multi-use trail along the west side of this designated right-of-way is proposed, but within the TRCA 10m stable slope setback area. However, TRCA have identified concerns with this configuration, and alternatives will be investigated during subsequent development approval and Class EA processes to determine the ultimate location of the multi-use trail and right-of-way requirement.

9.8.4 New East-West Street (Southwest Quadrant)

In the interim, Street A would connect into a new local east-west roadway that is required to provide access to underground parking areas and servicing bays for the initial planned southwest quadrant development to the north, while connecting to Don Mills Road. Ultimately, this new local east-west roadway will also provide access to future development to the south, potentially community or institutional uses with details to be determined once Street A is extended further south.

Along this east-west roadway, it is desirable to provide on-street bike lanes and 2.1m sidewalks on both sides, consistent with Street A, but within a designated 18.5m right-of-way. In the interim, until Street A is extended further south, a multi-use trail along the south side, likely within an easement is recommended to complete the proposed internal loop trail network concept. A balanced approach will be required through planning processes and detailed design to accommodate objectives for streetscaping and mobility, particularly in the 18.5m right-of-way section, recognizing potential synergies and connections between proposed multi-use trail and on-road bike lanes.

Access to this development quadrant is constrained:

- To / from Don Mills Road will be restricted to right-ins / right-outs;
- To / from Eglinton Avenue at the Street A intersection; and,
- Ultimately, to / from a signalized intersection along Don Mills Road at either Rochefort Drive or St. Dennis Drive.

9.8.5 Street B (Private Right-of-Way)

This local roadway between Street A and Street C within the planned northwest development quadrant is presently designated as a private right-of-way to provide movement for all travel modes and direct access to underground parking areas and servicing bays.

Although the City and the developer have worked closely to ensure significant public access / facilities (i.e. sidewalks, cycling), this roadway given its access proximity to the Science Centre Station will need to address significant pedestrian and cycling volumes to achieve the desired mode splits, in addition to providing safe and convenient Wheel-Trans and passenger drop-off/pick-up laybys, and emergency services access. On-going consultation during the development approval process is encouraged to ensure safe and direct movement for all travel modes always is being provided.

9.8.6 New East-West Street (Southeast Quadrant)

This local roadway between Don Mills Road and a reconfigured Ferrand Drive intersection in the planned southeast development quadrant will provide access to underground parking areas and servicing bays.

It is desirable in the longer-term to provide on-street bike lanes and 2.1m sidewalks on both sides to provide local safe and attractive active transportation choices to connect to transit and community facilities. In the short- to medium-term and for the purposes of this study, this East-West Street is assumed to be a public roadway with an 18.5m right-of-way with a 2.1m sidewalk on both sides.

Access to this development quadrant is constrained:

- To / from Don Mills Road will be restricted to right-ins / right-outs;
- To/from Eglinton Avenue is discouraged given the proximity to the Don Mills Road and Gervais Drive / Ferrand Drive intersections; and,
- To / from Ferrand Drive will be challenged by its proximity to Eglinton Avenue; and
- To / from Foresters Lane (a private laneway to the south) that is narrowed by underground parking vent shafts).

This study has outlined that the Eglinton Avenue and Gervais Drive / Ferrand Drive as a critical intersection for the overall mobility plan. Future work is required to resolve access issues, specifically a sub-area microsimulation analysis and operational study as part of the Class EA process.

Exhibit 9-15: Artist Rendering Looking North towards Ferrand Drive with Eglinton Avenue

9.8.7 Future Streets (Northeast Quadrant – North of Bus Terminal)

A new east-west public roadway and a north-south roadway (private or public) are recommended to support potential additional development of this quadrant, based on the continuation of the existing employment land use designation. The requirement for a north-south public street and additional connections should be reviewed if a change to the land use designation is proposed.

10 Next Steps

The recommended mobility plan supports planned intensification and redevelopment of lands surrounding the Don Mills-Eglinton area and align with the broad city-building initiatives. The recommended plan assessed and identified transportation infrastructure requirements necessary to support current and future growth, in accordance with the master planning process requirements of Phases 1 and 2 of the Municipal Class EA process.

An implementation plan for the recommended mobility plan has been developed that outlines the requirements for:

- Policy Directions;
- Environmental Assessment (EA) Requirements;
- Development Phasing; and,
- Monitoring and Additional Studies.

The following sections outline the key components of the implementation plan.

10.1 Policy Directions

This Mobility Plan is intended to inform the policy framework for the future Secondary Plan for the Don Mills Crossing Core Study Area, which will advance the planning for a complete community within the area. As a result, the findings of the plan will ultimately guide the Official Plan Amendment and any associated rezoning applications.

With the above considerations, the MPS develops a full range of mobility options for the public realm, including improved pedestrian and cycling infrastructure, and connectivity and integration with new transit facilities. The identified policy directions to implement the recommended mobility plan are discussed below.

- **Official Plan Amendments (OPA):** Official Plan Amendments are required to secure all planned public streets in *Schedule 1* and *Schedule 2* of the City's Official Plan. The plan recommends that transportation network improvements and monitoring be phased with development of the lands in the core study area. As development occurs, additional east-west roadway capacity will potentially be required along with improved north-south connectivity (refer to **Section 9.7**), requiring existing roadway re-classification and right-of-way widenings. OPA will be required as new public streets in the study area get approved through the City's site plan approval as agreed upon between the City and the developer.
- **Cycling Network Plan Amendment:** The Mobility Plan proposes an overall cycling strategy that provides connectivity and integration with the existing cycling network and multi-use trails system, and adds new cycle tracks, on-street bike lanes and laneway connections to the study area. To implement the proposed cycling network in the core study area, the City of Toronto Cycling Network Plan will need to be refined to include proposed facilities such as cycle tracks

on Wynford Drive and Gervais Dive, on-street bike lanes on Ferrand Drive and Rochefort Drive and multi-use trail connections to the south of Eglinton Avenue to the Don Valley ravine (refer to **Section 9.2**)

- **Zoning By-Law 569-2013 Amendment:** The City of Toronto Zoning By-Law 569-2013 guides the provision of parking for new developments. The Don Mill Crossing core study area does not have a specific Policy Area defined, and as such falls under Policy Area 4, which is the highest parking rate (i.e. Policy Area 1 is the lowest parking rate, and generally restricted to downtown sites adjacent to subway infrastructure). The Wynford Green Master Plan in the northwest quadrant of the Don Mills-Eglinton intersection proposed the use of Policy Area 3 parking standards to reflect the future higher order transit being provided along Eglinton Avenue, and to maintain consistency with the overall transportation context and precedents along the corridor.
- As identified in the recommended Mobility Plan, lower maximum parking rates are desirable to discourage a higher vehicle modal split. Therefore, a Zoning By-Law 569-2013 amendment is recommended to include Policy Area 2 designations for developments within 500m of a transit station, and a Policy Area 3 designation elsewhere. Further site-specific parking space rate reductions should be considered when accompanied with additional TDM and innovative mobility measures that will contribute to additional person trip reduction.

10.2 Environmental Assessment (EA) Requirements

The MPS followed a master planning process to satisfy the requirements of Phase 1 and 2 of the Municipal Class Environmental Assessment. Certain recommended infrastructure in the Mobility Plan warrant detailed assessments which are envisioned to be undertaken adhering to Phases 3, 4 and 5 of the Municipal Class EA process. These are listed below and illustrated in Exhibit 10-1**:**

1. Right-of-way widening along Wynford Drive and Gervais Drive to include cycle tracks, enhanced pedestrian environment including associated public realm, and surface bus operational improvements to ensure transit reliability and capacity. The reconfiguration of the Eglinton Avenue / Gervais Drive / Ferrand Drive intersection is critical to support surface transit improvements, to provide enhanced active transportation connections to the wider neighbourhood, and to facilitate access to the planned development in the southeast quadrant.
2. Wynford Drive extension, and multi-use trail (MUT) with connection to the existing Don Mills Trail north of the CP rail corridor and a grade-separated CPR corridor crossing; and to the south of Eglinton Avenue to the West Don River ravine. The preferred CPR corridor crossing solution is an elevated (pedestrian bridge) rail crossing, to be confirmed in Phases 3 and 4.

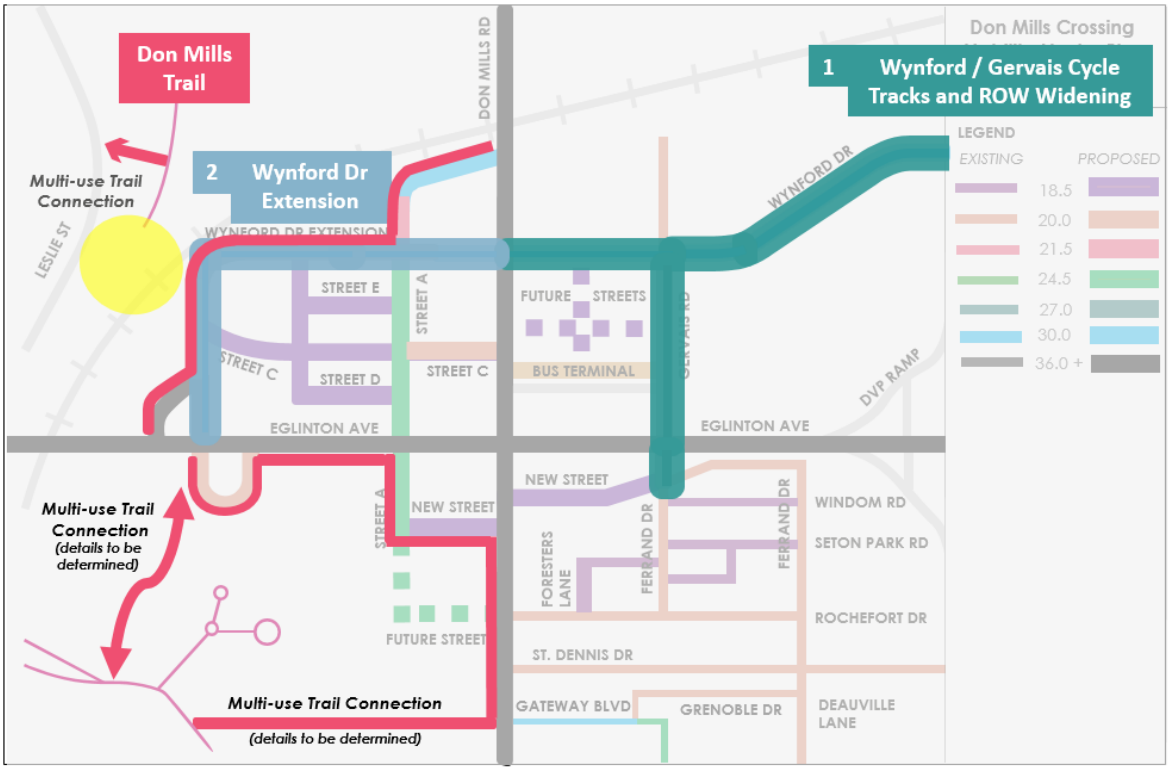


Exhibit 10-1: Potential EA Requirements

10.3 Development Phasing

The implementation of the Mobility Plan should be based upon development levels and activity in the study area and should identify need, priority and timing of various transportation projects and improvements for the transportation study area including, potential incremental improvements (more frequent buses / transit priority along Don Mills, express buses along DVP, reserved bus lanes along Don Mills etc.).

Phased development should not impose interim conditions that impede direct linkages and connectivity, particularly to transit and other community destinations. For example, as development occurs, it is highly desirable to integrate bus stops into the planned developments to ensure safe and comfortable access and amenities integrated with development and cycling infrastructure.

10.4 Monitoring and Additional Studies

In addition to infrastructure improvements, the recommended mobility plan includes shared and innovative mobility strategies and TDM measures. A comprehensive on-going monitoring plan is required and should focus on how successful active transportation, transit, shared and innovative strategies and transportation demand management measures are in diverting trips away from vehicles, including adoption of non-auto modes and how well transit is performing with respect to reliability and capacity. The proposed mode split, based on the Eglinton Connects Avenues and

Mid-Rise Building Travel Survey (2012), is described in Appendix I Multi-modal Transportation Analysis.

Also recommended as part of the Class EA process, is the completion of a sub-area microsimulation analysis and operational study to ensure reliable bus service, and identifying potential phasing constraints. In addition, this study is critical to guide future developments and to identify key triggers for incremental transit improvements.

Appendices

A Background Planning Policies, Guidelines and Studies

B Existing Transportation Conditions Review

C Natural Heritage

D Noise and Vibration

E Air Quality

F Contaminant Screening

G Cultural Heritage

H Archaeology

I Multi-Modal Transportation Analysis

J Public and Stakeholder Engagement Summary

K CPR Crossing Assessment

L Innovative and Shared Mobility Strategy