

APPENDIX B

TDM Existing Conditions



SCARBOROUGH CENTRE TMP

TRANSPORTATION DEMAND MANAGEMENT



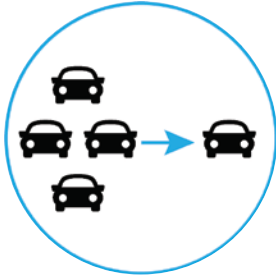
1 INTRODUCTION

Scarborough Centre has grown into a mixed-use hub for population, transportation, and employment and has the potential to welcome 40,000 residents and 23,000 jobs over the next 30 years according to the Scarborough Centre Secondary Plan. To accommodate this growth, transportation planning must be undertaken in a way that encourages the use of walking, cycling, and transit and aims to reduce automobile use in the area. The Scarborough Centre on the Move Transportation Master Plan (SCTMP) is being conducted to provide visions, policies, and initiatives that guide development in the SCTMP study area.

As part of the SCTMP study, a Transportation Demand Management (TDM) Strategy is necessary to ensure successful implementation of initiatives that act to reduce automobile use and increase the use of active and sustainable modes of transportation. This document defines TDM, provides policy context for its adoption, and outlines existing TDM opportunities in Scarborough Centre. Future TDM directions (visions, goals and objectives), assessment of TDM options, and action statements will be provided at a later stage.

1.1 What is TDM?

Transportation Demand Management (TDM) is a toolkit of strategies that facilitates a more efficient transportation network by influencing travel behaviour. Effective implementation of TDM strategies may improve the supply or reduce the demand of a transportation network resulting in reduced congestion. These strategies will reduce, re-mode, re-time, and/or re-route trips, also known as the 4 Rs of TDM. Some examples of the issues and associated strategies of the 4 Rs of TDM are as follows:



Reduce

Segregated land uses and poor network connectivity increase the distance required to make a trip. This adds pressure to the transportation network by increasing the amount of time a trip takes in the network. TDM strategies aim to reduce or eliminate trips through improved land-use integration, compressed work weeks, improved network connectivity, or tele-working.



Re-mode

Some transportation modes are inherently more efficient at moving people in a limited right-of-way than others. Applying the concept of person capacity on a corridor as opposed to vehicle capacity provides an alternative perspective to transportation within a corridor. Providing for modes which are more efficient at moving people improves the performance of a network. These modes may include walking, cycling, ridesharing, and transit.



Re-time

Travel demand during typical weekdays generally exhibits significant peaks in demand corresponding with the 9:00 a.m. to 5:00 p.m. workday. The transportation network may have residual capacity during the “shoulder” periods immediately prior to or following the peak. Thus, re-time TDM strategies aim to shift the travel demand during peak periods to shoulder periods to reduce delay and congestion during the peaks.



Re-route

A well-connected network with parallel corridors is assumed to have evenly-distributed demand, where trips are organically re-routed as drivers search for the fastest route. However, demand is not evenly distributed throughout the network and some streets experience more traffic congestion than others. Re-route TDM strategies aim to influence an individual's routing decision to make use of the residual capacity of alternative routes.

1.2 Toolkit of Strategies

Strategies in the toolkit generally fall into three categories:

Land Use and Urban Design Strategies

Utilizing the streetscape and land use development to support a more efficient transport network by prioritizing efficient modes such as walking, cycling, transit, or carpooling.

Incentive and Disincentive Strategies

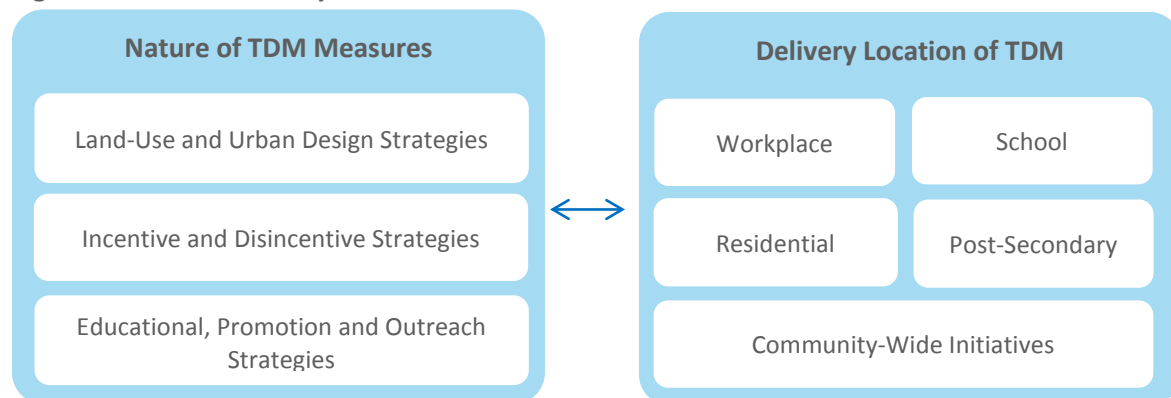
A “carrot and stick” approach to TDM that influences travel choices by making a particular mode or travel choice more attractive (incentive) and/or another mode less attractive (disincentive).

Educational, Promotional and Outreach Strategies

Utilizing information and events to improve understanding, raise awareness, and raise positive sentiment to sustainable travel.

The most effective TDM strategy is well planned, customized, and coordinated, utilizing a comprehensive suite of TDM strategies to target the workplace, school, post-secondary institution, household, and community centre. Providing the support to encourage buy-in at these institutions and organizations is a way to connect with a variety of individuals within a community.

Figure 1-1: TDM Summary



(Source: Transport Canada)

1.3 TDM Benefits

As previously mentioned, TDM strategies attempt to reduce, re-mode, re-time, or re-route trips. Through these goals a variety of benefits are realized. Transportation studies generally have an overall vision for their transportation network in which certain TDM benefits are prioritized and TDM strategies are selected to complement the vision to the greatest extent. Some TDM benefits are as follows:

- Congestion reduction for all users by managing travel demand with supply thus improving the experience for all modes;
- Energy/emission reduction through less or more efficient vehicle trips;
- Improving health and fitness by increasing active transportation trips and improving air quality;
- Improving equity by equalizing the priority and funding for all modes;
- Improving the area's livability by providing more attractive streetscaping, encouraging livable urban design, and increasing street animation;
- Parking management solutions that reduce the overall developable space dedicated to parking; and
- Improving safety for all users through design and prioritization of modes.

For example, a municipal government focused on reducing congestion could develop TDM strategies that include school transport management, commute shuttle services, parking pricing, and ridesharing. This example implies that TDM strategies are more effective when implemented as a suite rather than a singular implementation.

2 POLICY CONTEXT

2.1 Greater Toronto and Hamilton Area

Metrolinx's The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area

The Big Move is a regional transportation plan for the development of an integrated, multi-modal transportation network in the GTHA over the next 25 years. It sets out and prioritizes several initiatives and projects to improve mobility within the region.

The Big Move outlines priority actions in *Strategy #4: Create an Ambitious TDM Program* (Sections 4.1-4.5). These actions include:

- Priority Action 4.1: Development of a TDM policy and strategy for provincial ministries and agencies
- Priority Action 4.2: Establish guidelines to help municipalities implement TDM policies in their Official Plans
- Priority Action 4.3-4.4: Encourage private sector employers to implement or continue offering TDM programs
- Priority Action 4.5: Incorporate TDM goals into Metrolinx Investment Strategy financial tools

Smart Commute

TDM programming and implementation within the GTHA is being delivered by Smart Commute, a program of Metrolinx and municipalities within the GTHA. The mandate is to encourage those living and working in the GTHA to choose more efficient transportation options that reduce congestion and help improve the quality of life in the region.

Current TDM programming, through Smart Commute and municipalities, is delivered at the regional, municipal, and local levels within the GTHA as summarized in **Figure 2-1**.

Figure 2-1: TDM Programming within the GTHA



(Source: Metrolinx- September 2015 "Transportation Demand Management Background Paper")

2.2 City of Toronto

City of Toronto Official Plan

Based on the mandates of the Project for Public Spaces (PPS) and Growth Plan, the *City of Toronto Official Plan* provides a vision for managing growth within the City's jurisdictional boundaries. The *Official Plan* emphasizes the efficient use of road space with a focus on moving people instead of vehicles. It also provides clear objectives to reduce car dependency and encourage more transit, walking and cycling as attractive alternatives.

Chapter Two of the *Official Plan* includes specific policies related to TDM strategies (2.4.2, 2.4.3 and 2.4.9):

- Policy 2.4.2 indicates that new developments may be required to provide a TDM strategy as part of a Transportation Impact Study (TIS).
- Policy 2.4.3 supports workplace TDM measures including Smart Commute programs, promoting compressed work weeks, flexible hours and telecommuting to reduce traffic congestion during peak periods.
- Policy 2.4.4 states the need to include measures to reduce auto dependency when planning new developments.

Feeling Congested? (Transportation Policies – Official Plan Review)

Official Plan transportation policy amendments were adopted based on the *Feeling Congested?* study. Amendments were made to Chapter 2.4 of the *Official Plan* to include TDM policies mentioned above.

Complete Streets Guidelines

The City of Toronto recently finalized *Complete Streets Guidelines* to assist in implementing the vision for Toronto's streets set out in the City's *Official Plan* and integrate adopted City policies, standards and bylaws as they relate to street design and construction projects. The complete streets approach supports the safe and effective movement of pedestrians, cyclists, transit users, and motorists of all ages and abilities across the network. The guidelines prioritize the provision of active and public transportation options to promote sustainable, complete communities.

- *Section 2.3.11: Employment Street* sets guidelines for industrial and commercial areas that are typically located outside Downtown Toronto. The TDM objective identified in this

section is to encourage participation of TDM programs by employers that promote ridesharing, increased transit pass utilization, flexible work hours and provision of bicycle parking, lockers and showers.

2.3 Scarborough Centre

Scarborough Centre Secondary Plan

The Scarborough Centre Secondary Plan identifies the study area as a focal point for growth, as more than 40,000 residents and 23,000 jobs are expected to be accommodated. It is the City's intent that Scarborough Centre becomes a mixed-use urban focal point for eastern Toronto where jobs, homes, services, cultural and recreational amenities and transit are concentrated.

- Section 5.19 of the Scarborough Centre Secondary Plan proposes adoption of car share and TDM programs to encourage transit use and reduce auto dependency. In cases where TDM programs form a large component of a development project, a reduction in parking supply should be considered.

3 EXISTING TDM MEASURES IN SCARBOROUGH CENTRE

To appropriately assess TDM strategies for the SCTMP, an understanding of the current transportation situation is required. Currently, the Scarborough Centre area is primarily made up of large-scale land uses with tracts of surface parking and fast-moving wide arterial roads catering to motorists. While the area is largely auto-dependent, some efforts have been made to promote the use of alternative modes of transportation and provide an opportunity to increase active transportation and public transit mode shares in the area.

3.1 Carshare/Bikeshare

Car share programs have been shown reduce single-occupant vehicle travel and increase the use of sustainable transportation in areas where it is feasible to take transit, walk, or cycle for the majority of trips. Car sharing provides users with the convenience of car access without the financial and maintenance responsibilities of owning a vehicle. The existing car share operators in the Centre are *Zipcar* and *Enterprise CarShare*. The *Zipcar* location within the study area boundary is at the corner of Triton Road and Borough Drive and the *Enterprise CarShare* is located at 50 Town Centre Court.

Bike sharing also offers a way to expand the City's transportation options and alleviate traffic at relatively low cost. It enables a person to bike short trips in the area or travel to and from transit, which helps gain greater value from existing transit. The environmental and public health benefits of bike sharing are equally attractive. Currently, there are no bike share programs operating in the SCTMP area.

3.2 Bicycle Parking Facilities

Individuals are more likely to cycle if there are options to securely park their bicycle near their destination. The City of Toronto Bike Ring Program supplies post and ring bicycle parking on a by-request basis. Community members can request bike ring locations that are near frequent cycling destinations.

Existing cycling rings are located outside Scarborough Civic Centre Library, Scarborough Town Centre, McCowan Station and Midland Station.



3.3 Parking Fees

Parking TDM strategies include reducing the available supply of parking and increasing the cost of parking. Parking fees are a disincentive TDM strategy implemented to discourage the use of single occupancy vehicles in the area. Limiting the amount of free parking may encourage individuals to take transit, walk, cycle, or carpool with friends or co-workers.

The presence of hourly parking pricing also reduces dwell time and encourages faster turnover of vehicles, which increases the capacity for vehicles to enter and exit Scarborough Centre.

Metred parking (Green P Parking) is offered on-street along Borough Drive, Corporate Drive and Town Centre Court and in surface lots at 100 Grangeway Avenue (214 spaces) and 101 Grangeway Avenue (261 spaces) at a rate of \$1.00 per half hour. In addition, parking fees are imposed in parking lots at 100 Consilium Place, 200 Town Centre Court, and 100 Borough Drive.



3.4 CYCLING PROGRAMS

Cycling programs provide access to cycling tools, and knowledge to engage communities and promote cycling. Specifically, a cycling program in Scarborough would promote cycling in a suburban context as well as teach the community the benefits of improving cycling infrastructure. These programs also aim to create a welcoming atmosphere for new cyclists, and provide them with a resource to learn.

The Toronto Centre for Active Transportation (TCAT) leads Scarborough's only cycling program Scarborough Cycles. The program runs in collaboration with the Clean Air Partnership, Culturelink Settlement and Community Services, Toronto Cycling Think & Do Tank and Cycle Toronto. Scarborough Cycles runs two community bike hubs at: 3079 Danforth Avenue and 93 Birchmount Road. The bike hubs offer community engagement opportunities (workshops and group rides for the and a bike mentorship program for newcomers. Each hub features access to bicycles and tools, and do-it-yourself repair clinics and workshops for cyclists. This program aims to engage the community in cycling as well as cycling infrastructure and creating community engagement.

3.5 Transit Signal Priority

Transit signal priorities are used to improve transit travel time by lengthening the duration of a green signal or shortening the length of a red signal for transit vehicles. Transit signal priority offers a way to increase the efficiency of transit operations and subsequently attract more riders to the system.

Transit signal priorities are implemented throughout the SCTMP study area and improve the reliability of existing transit routes. This acts as a TDM measure because it ensures transit riders have priority over automobile drivers to move efficiently through the network.

3.6 Smart Commute Workplaces

Businesses and organizations can become designated as a Smart Commute Workplace by participating in the Smart Commute program. Participating workplaces provide options for employees to travel to work in sustainable ways, reducing their company's impact on congestion and the environment. Participating workplaces in the SCTMP area are Scarborough Civic Centre and TELUS (200 & 300 Consilium Place).



TELUS operates a "Work Styles" program that encourages employee teleworking, with a goal to have at least half of its workforce teleworking at least part of the time. Not only has this teleworking program reduced office costs, but it has increased productivity by approximately 20%,¹ and over 90% of surveyed employees identified Work Styles as a significant factor in remaining an employee at TELUS.² Integrating Smart Commute programs into the workplace is a TDM strategy that provides benefits to the community through reduced environmental and economic impact (i.e. financial cost of work time lost to long commutes), as well as to the employer through employee satisfaction and productivity.

¹ "Telus." Smart Commute. <http://smartcommute.ca/more-options/telus/> (Accessed February 2017).

² "Supporting Employees: Work Styles." Telus Sustainability Report 2015. <https://sustainability.telus.com/en/supporting-employees/employee-experience/work-styles/> (Accessed February 2017).

3.7 Signage/Wayfinding

Wayfinding and signage are installed to tell users where they are in the network and the location of major destinations. Signage is used to support efficient navigation, particularly for pedestrians and cyclists, and can help generate active transportation trips. Signage can combine with streetscaping, public art, and open spaces to improve the pedestrian and cyclist experience. In the SCTMP study area, these features are concentrated along Borough Drive, McCowan Road, and around Scarborough Town Centre and Scarborough Civic Centre. Existing signage and open spaces are illustrated in **Figure 2-1**.



Figure 2-1: Existing wayfinding signage and open spaces in the SCTMP study area



4 CONCLUSIONS AND NEXT STEPS

4.1 TDM Vision

The Vision statement for the SCTMP study established overall direction and evolution of Scarborough Centre and is used to guide the development of the TDM goals. Based upon consultations with the City, Technical Advisory Committee (TAC), Local Advisory Committee (LAC), key stakeholders, and the public, the following Vision Statement was developed:

The Scarborough Centre transportation network will develop in a way that supports the creation of a diverse, attractive and safe mixed-use community which is easily accessible by all modes of transportation. This will be achieved by creating a simple and fine-grained street network which provides infrastructure and amenities for all street users. This transportation network will be fully integrated into the regional transportation system, including the transit, pedestrian and cycling networks, and provide clear and easy connections to the surrounding communities.