2

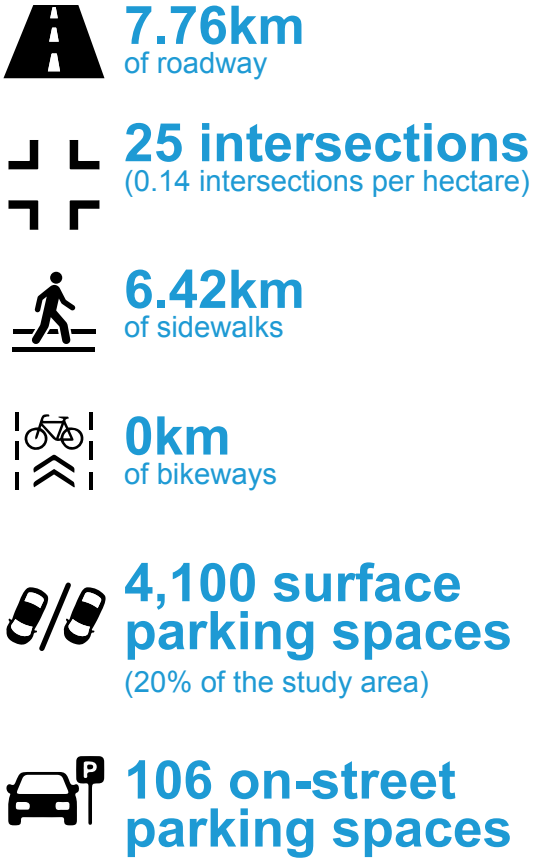
CURRENT & FUTURE CONDITIONS

2 Current & Future Conditions

This chapter presents an overview of the existing transportation network and describes future conditions and challenges facing Scarborough Centre. The review of current and future conditions resulted in the development of a problem and opportunity statement in consultation with the public. which is used to inform the transportation solutions in later chapters of the Scarborough Centre on the Move Transportation Master Plan (SCTMP). The problem and opportunity statement takes into consideration the existing natural, physical, and behavioural context in the study area to identify opportunities and constraints to developing a vibrant and multi-modal urban centre.

Also included in this chapter is a summary of existing and historical travel trends in Scarborough Centre, which helps draw connections between the physical network that is provided and the travel behaviour it supports. The strong relationship between transportation, land use, and the environment is also explored in this chapter to better understand the future conditions of the area.

Figure 2.1: SCTMP Existing Street Network Statistics



2.1 Existing Conditions & Trends

2.1.1 Transportation System Overview

Scarborough Centre is in transition as Line 3 - Scarborough is being decommissioned with the introduction of the Line 2 - Scarborough Subway extension. This transit investment will have an impact on travel behaviour within and surrounding the study area. However, understanding existing travel behaviours and transportation conditions will help identify key opportunities and constraints. The key attributes of the existing transportation network within the study area are illustrated in

Figure 2.1. Based on the amount of space allocated to on-street and surface parking lots and large intersection spacing (0.14 intersections per hectare), it is evident that the transportation network prioritizes vehicular travel. With fewer kilometres of sidewalk than roadway, and zero kilometres allocated to bicycle facilities, the active transportation network requires significant improvement to facilitate pedestrian and cyclist mobility.

Expressways

Highway 401 is a provincial expressway that runs east-west from Windsor to the Ontario-Quebec border. Within the study area, access ramps to/from the highway are located on Brimley Road, McCowan Road, Markham Road and Progress Avenue.

Major Arterial Roads

Based on the City of Toronto's Road Classification System criteria, the primary use for major arterials is for the movement of traffic. Major arterials can accommodate more than 20,000 vehicle trips per day per direction, and greater than 5,000 transit passengers per direction. The following major arterials exist in the study area: Ellesmere Road, Brimley Road, McCowan Road, Midland Avenue, and Markham Road.

Minor Arterial Roads

The Road Classification System specifies that minor arterials provide access to property, with traffic movement accommodating between 8,000 to 20,000 vehicles per day per direction. The following minor arterials exist in the study area: Progress Avenue and Bellamy Road North.

Collector Roads

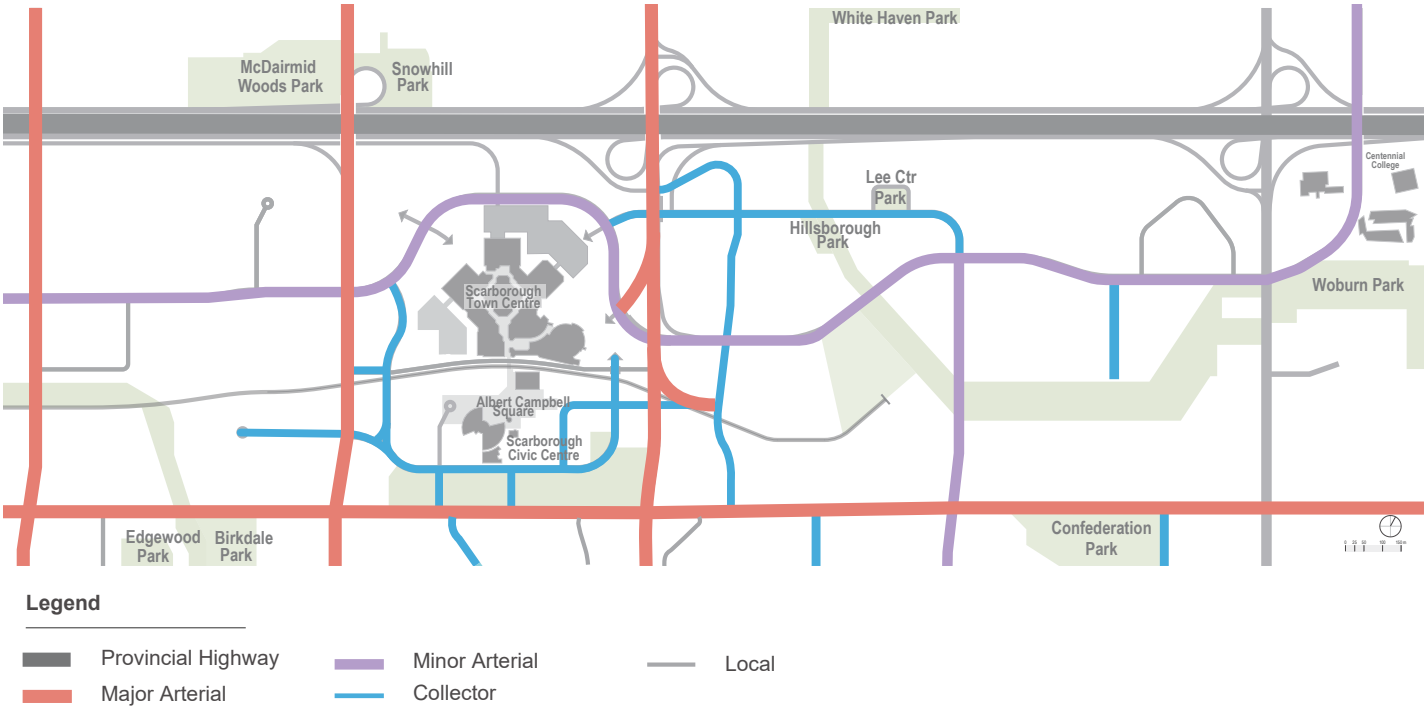
Collector roads are intended, under the Road Classification System, to provide access to property and traffic movement, and accommodate between 2,500 to 8,000 vehicles per direction and less than 1,500 bus passengers per direction. The following collector roads exist in the study area: Borough Drive, Corporate Drive, Town Centre Court, Bushby Drive, Triton Road (between Brimley Road and Borough Drive), Omni Drive, Borough Approach West, Borough Approach East, Consilium Place, Grangeway Avenue, Golden Gate Court, and Productions Drive.

Local Roads

Local roads are not intended to carry high volumes of motor vehicle traffic and should therefore have relatively low traffic volumes and speeds. Their primary role is to provide access to properties. The following local roads exist in the study area: Cosentino Drive, Schick Court, Brian Harrison Way, Lee Centre Drive, and Estate Drive.

Detailed mapping of the street classification and hierarchy within the study area is illustrated in Figure 2.2.

Figure 2.2: Street Classification for the SCTMP Study Area



Upon review of the existing street network, the following challenges and constraints were identified:

- The existing street network is not balanced for all modes of transportation, with an inconsistent active transportation network and large blocks that limit connectivity for pedestrians and cyclists.
- Highway 401 and its interchanges limit north-south connectivity for pedestrians and cyclists coming to and from the Centre.
- Most streets are not pedestrian and cyclist-friendly, including the internal street network within Scarborough Town Centre shopping mall.
- Surface parking is a constraint to the street network as it takes up 20% of the study area and discourages walking and place-making.
- The lack of minor streets and connections throughout the Centre results in large blocks that are not accessible for vehicles, pedestrians or cyclists.
- The auto-oriented, irregular intersection of Borough Approach East and Borough Approach West with Ellesmere Road is not pedestrian-friendly.
- The lack of a north south-connection to the communities to the north from the McCowan Precinct
- Numerous auto-oriented ramps throughout the Centre, particularly along McCowan Road, create a confusing driving experience and limit accessibility for pedestrians and cyclists.
- The grade separated intersection of McCowan Road and Progress Avenue, present connectivity issues for all modes of transportation.

2.1.2 Travel Trends & Behaviour

Origin-Destination Patterns

On a typical weekday in Scarborough Centre, approximately 124,000 trips are made into, out of, and within the Centre by all modes of transportation. Most trips to/from Scarborough Centre are found to be within Scarborough (60%), with the next major origin/destination for trips to/from Scarborough Centre being Toronto (14%) and Markham (7%). Figure 2.3 and Figure 2.4 summarize the origins and destinations of the inbound and outbound trips to/from Scarborough Centre.

The high proportion of trips originating from and destined to Scarborough (including Scarborough Centre) compared to other areas is likely due to the high number of employment opportunities, institutional, and retail uses in Scarborough Centre that generate and attract local trips. The relatively low percentage of trips destined for Downtown Toronto (4%) reveals that Scarborough residents and employees are able to conduct daily activities (e.g. work, school, shopping) within Scarborough.

Figure 2.3: Typical Origins Inbound to Scarborough Centre

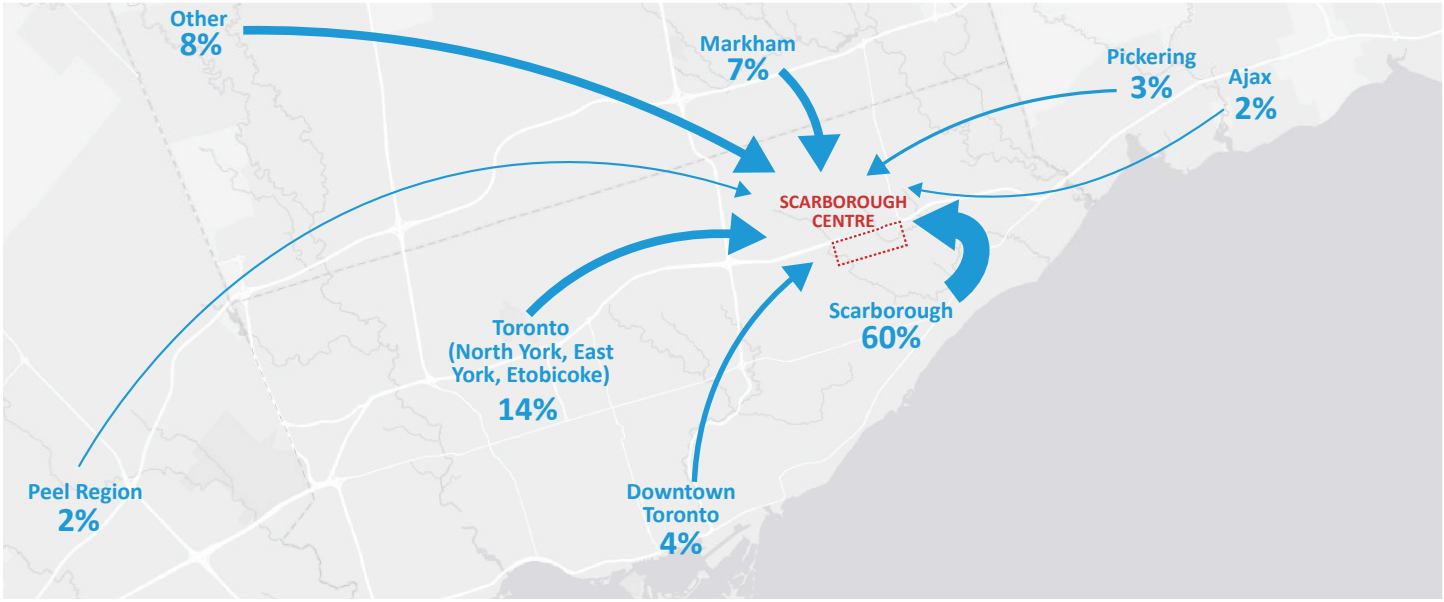
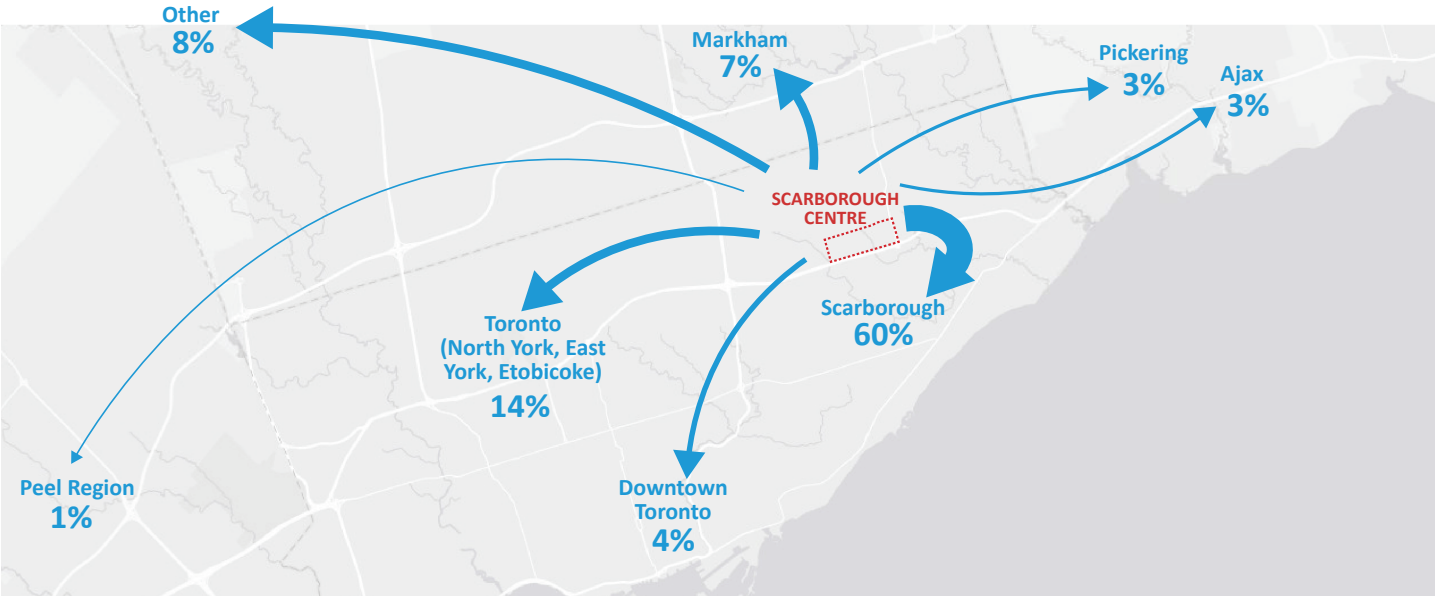


Figure 2.4: Typical Destinations Outbound from Scarborough Centre



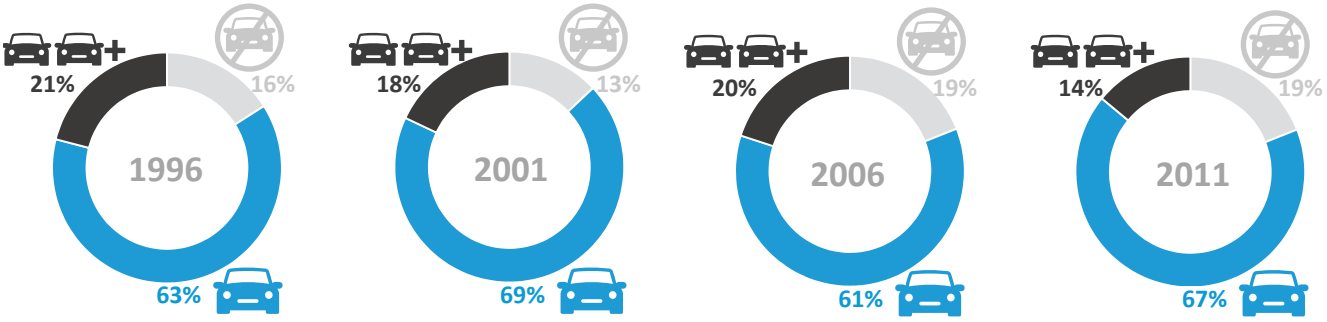
Data Source: Transportation Tomorrow Survey, 2011

Access to Personal Vehicles

Household and personal vehicle availability is a key factor in an individual's decision as to which mode of transportation to use. Typically, if a vehicle is guaranteed to be available, an individual is more likely to choose to drive. However, household vehicle ownership is also a good indicator of whether convenient transportation alternatives to the car are accessible in the area, as some households may decide that owning a vehicle is not necessary to travel.

In Scarborough Centre, the trend has been an overall reduction in the number of vehicles per household from 1996 to 2011. In 2011, households in Scarborough Centre were, on average, owning 0.95 vehicles per household, compared to 1.07 vehicles per household in 1996. Furthermore, the observed decreasing trend of auto ownership in Scarborough Centre is opposite to the trend observed across the Greater Toronto Area (GTA), which has seen an increase from an average of 1.66 vehicles owned per household in 1996, to 1.74 vehicles owned per household in 2011. Overall, there has been an increase in the proportion of single vehicle ownership per household in Scarborough Centre, alongside a decreasing ownership of two or more vehicles per household. The proportion of car-free households was increasing between 1996 and 2006, however a slight decrease was observed in 2011, as summarized in Figure 2.5.

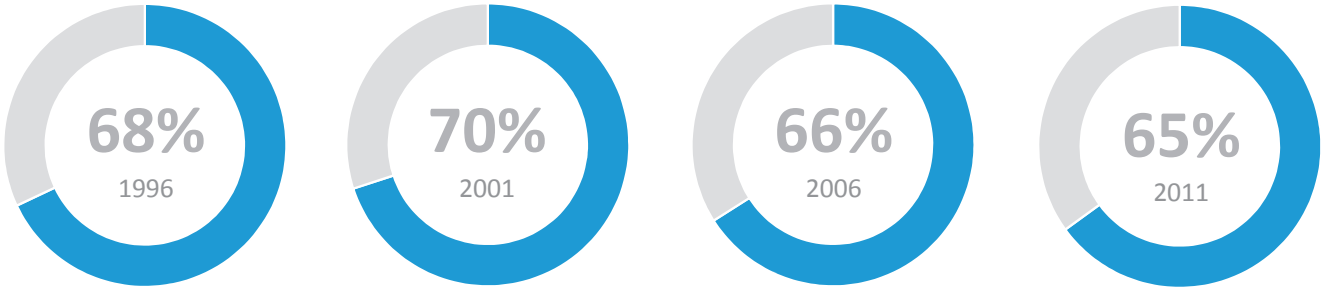
Figure 2.5: Average Number of Vehicles per Household



Data Source: Transportation Tomorrow Survey, 2011

Over time, the proportion of the population possessing a driver's license in Scarborough Centre has remained relatively constant. Figure 2.6 shows the change in the proportion of the population holding a driver's licence between 1996 and 2011. These findings reveal that there has not been an increase in the reliance on a personal vehicle in the Centre.

Figure 2.6: Proportion of Scarborough Centre Population Holding a Driver's Licence

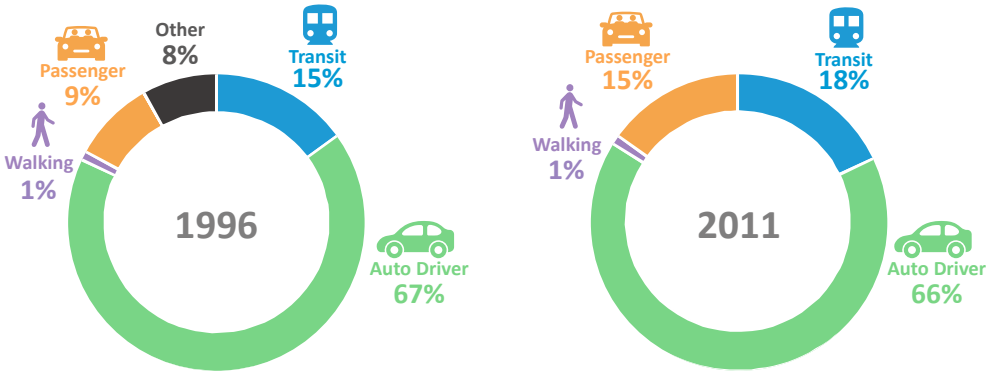


Data Source: Transportation Tomorrow Survey, 2011

Mode Choice Over Time

It is possible to make inferences about which modes of travel are seen as most convenient and/or preferred through determining the share of individuals using each mode. Figure 2.7 below summarizes the change over time in mode split of those travelling to/from Scarborough Centre throughout a typical weekday for all trip purposes.

Figure 2.7: Modal Split Historical Change (to/from Scarborough Centre)



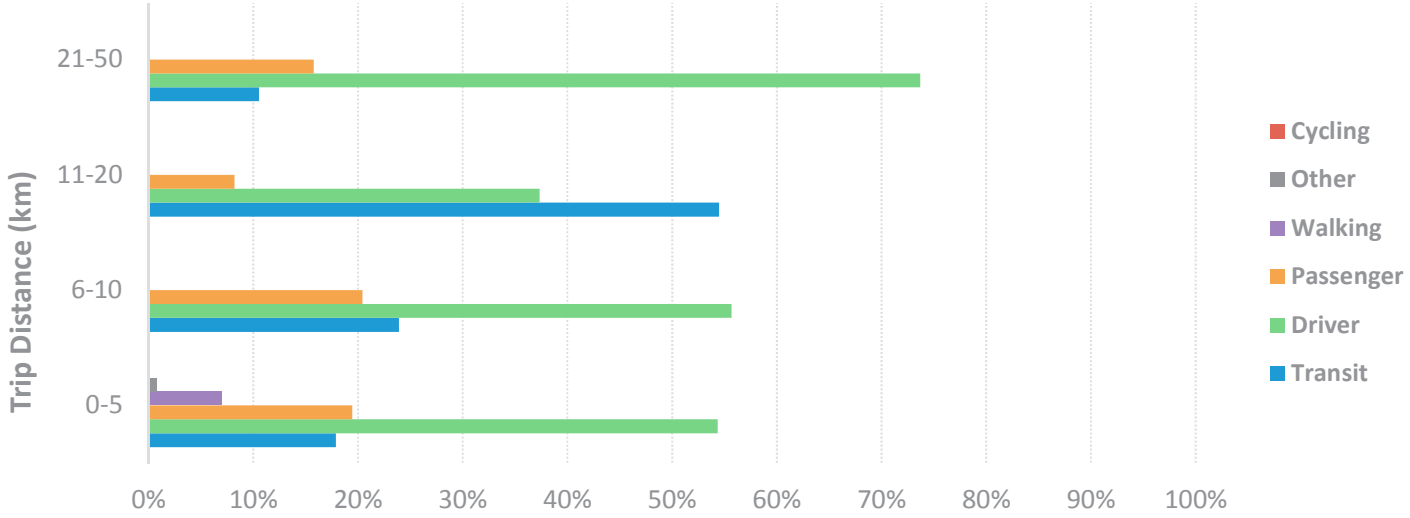
Data Source: Transportation Tomorrow Survey, 2011

The travel trends from 1996 to 2011 demonstrate that there have not been substantial changes in the transit, driver, walking, or cycling mode shares. For those driving, the mode share of Scarborough Centre is found to be comparable to the GTA in its entirety (67%), while transit usage in Scarborough Centre is higher than the overall GTA (13%). However, active modes are found to be more prominent across the GTA versus those travelling to/from Scarborough Centre (4%).

Mode Choice by Distance

It is expected that mode choices made throughout a typical weekday vary based on trip length, as certain modes of transportation (e.g. walking, cycling) become less viable as distance increases. Figure 2.8 shows the mode split in Scarborough Centre by distance intervals.

Figure 2.8: Mode Choice by Trip Distance



Data Source: Transportation Tomorrow Survey, 2011
Note: Trip distances are reported as straight-line trip distances. Travel route distances are therefore longer than the values reported.

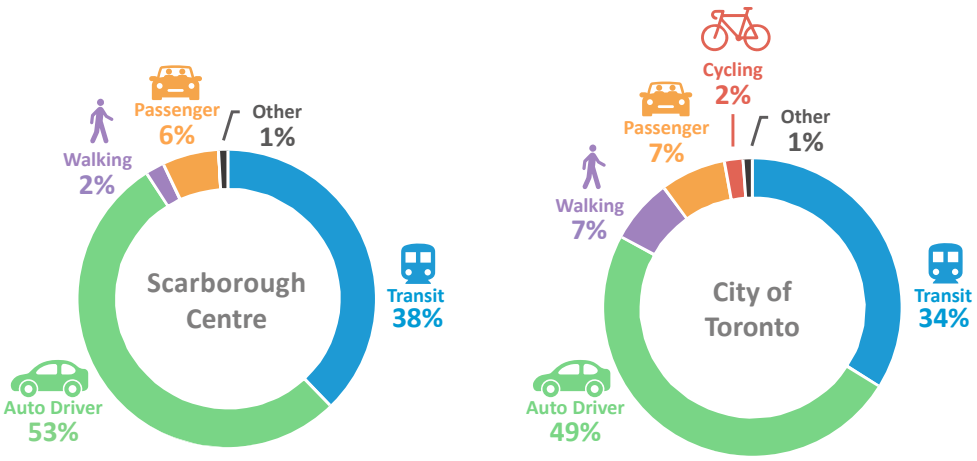
As expected, walking trips are more prevalent for trips at shortest distances (0 to 5 km), producing a walking mode share of 7% for this range. No cycling trips, however, were observed at these short distances.

Driving remains the dominant mode share for most trip lengths, aside from trips ranging from 11 to 20 km, at which point the transit mode share surpasses the automobile mode share. A total of 54% of trips at 11 to 20 km are conducted using transit, likely due to the TTC rapid transit (Line 3 – Scarborough) connection to the TTC subway (Line 2 – Bloor-Danforth) for access to Downtown Toronto. Downtown parking fees, traffic congestion, transit availability, and the walkable environment are typical explanations for the choice to take public transit over single-occupancy vehicles. Individuals travelling distances greater than 20 km are likely not destined for Downtown Toronto, and therefore have fewer alternative transportation options, resulting in a higher automobile mode share.

Commuting Mode Choice

Trips conducted for commuting to work represent typical weekday activities and therefore are representative of the majority of weekday A.M. and P.M. peak hour trips. Home-based work trips were used to determine the primary mode of transportation for the journey to work in Scarborough Centre, as shown in Figure 2.9.

Figure 2.9: Commuting Mode Share for Scarborough Centre and the City of Toronto



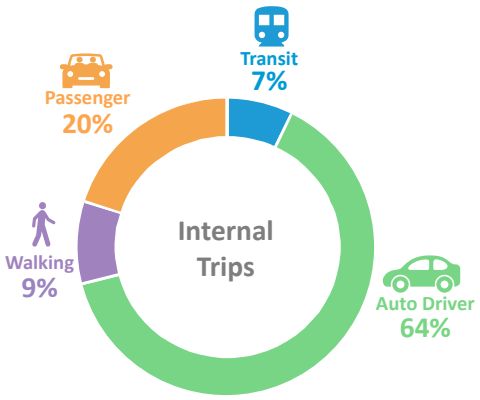
Data Source: Transportation Tomorrow Survey, 2011

Scarborough Centre residents are shown to use active modes less often than the City of Toronto as a whole. The City of Toronto walking mode share is 7% compared to 2% in Scarborough Centre, and the cycling mode share in Toronto is 2% compared to 0% in Scarborough Centre. Consequently, the driving mode share in Scarborough Centre (53%) is higher than in Toronto (49%).

Internal Mode Choice

During a typical weekday, approximately 69,000 trips originate from within Scarborough Centre. Of these trips, approximately 4,400 trips are made to destinations within the Centre (6%). This is an increase from approximately 2% of trips in Scarborough Centre being made internally throughout a typical weekday in 1996. The mode of transportation used for internal trips (i.e. trip origin and destination in Scarborough Centre) is displayed in Figure 2.10.

Figure 2.10: Internal Trip Mode Split



Data Source: Transportation Tomorrow Survey, 2011

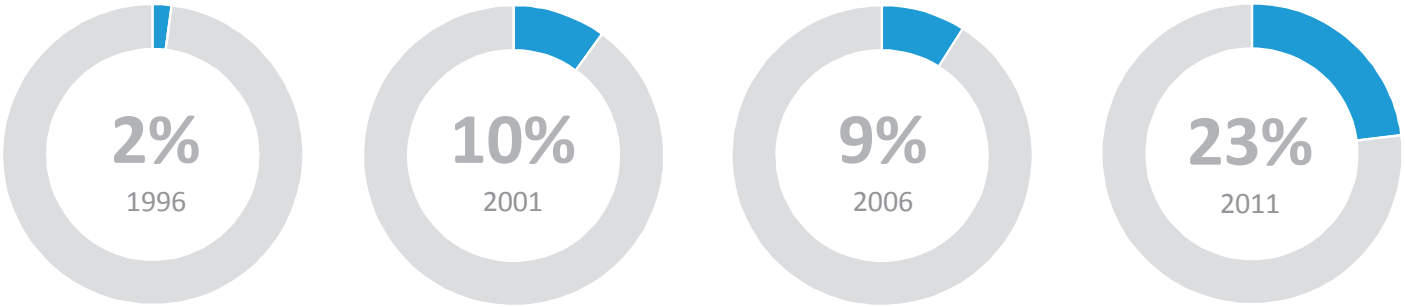
The driver mode share (64%) and passenger mode share (20%) show that automobile travel is the preferred option for travelling within the Centre, similar to the mode share for individuals travelling to and from the Centre. These results indicate that even within the Centre, where trip lengths are primarily shorter than trips to and from the Centre, the majority of people choose to drive instead of using active modes of transportation.

Transit Use

The study area for the SCTMP includes three Toronto Transit Commission (TTC) rapid transit stations (Line 3 – Scarborough), Midland Station, Scarborough Centre Station, and McCowan Station. Further, Triton Road, which is reserved for buses and delivery vehicles between Borough Drive and McCowan Road, provides a means for buses to connect to Scarborough Centre Station and provide service to the local area and regional destinations.

For those living in Scarborough Centre, roughly 23% possess a transit pass. Of these transit passes, the large majority are TTC Metro Passes (82%), followed by GO Transit Passes (11%). The possession of transit passes suggests that 23% of the population living in Scarborough Centre use transit regularly, with the demand being primarily for TTC services. The possession of transit passes by those living in Scarborough Centre has also increased considerably since 1996, when only 2% of the Scarborough Centre population possessed a transit pass. Figure 2.11 below displays the progression of transit pass possession over time.

Figure 2.11: Transit Pass Possession of those Living in Scarborough Centre



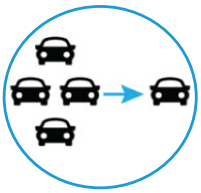
Data Source: Transportation Tomorrow Survey, 2011

2.1.3 Transportation Demand Management (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 R's of TDM. Some examples of the issues and associated strategies of the 4 R's of TDM are shown in Figure 2.12.

Figure 2.12: The Four R's of Transportation Demand Management (TDM)

Reduce



Strategies that aim to reduce or eliminate trips through improved land-use integration, compressed work weeks, improved network connectivity, or tele-working.

Re-Mode

Strategies that aim to move people rather than vehicles to help improve the performance of the transportation network.

Re-Time

Strategies that aim to shift the travel demand during peak periods to shoulder periods to reduce delay and congestion during the peaks.

Re-Route

Strategies that aim to influence an individual's routing decision to avoid traffic congestion and make use of the residual capacity of alternative routes.

Currently, Scarborough Centre is primarily made up of large-scale land uses with tracts of surface parking and fast-moving wide arterial streets 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, such as:

Car Share (reduce)

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.

Parking Fees

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 coworkers. 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 the 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.

Bicycle Parking Facilities (re-mode)

Individuals are more likely to cycle if there are options to securely park their bicycle near their destination. Post and ring bicycle parking is located outside of Scarborough Civic Centre Library, Scarborough Town Centre Shopping Mall, McCowan Station and Midland Station. Bicycle lockers can also be found at Scarborough Civic Centre / Albert Campbell Square. Secure bicycle parking and bicycle storage is also provided within new condominium developments.

Smart Commute Workplaces – Smart Commute Scarborough

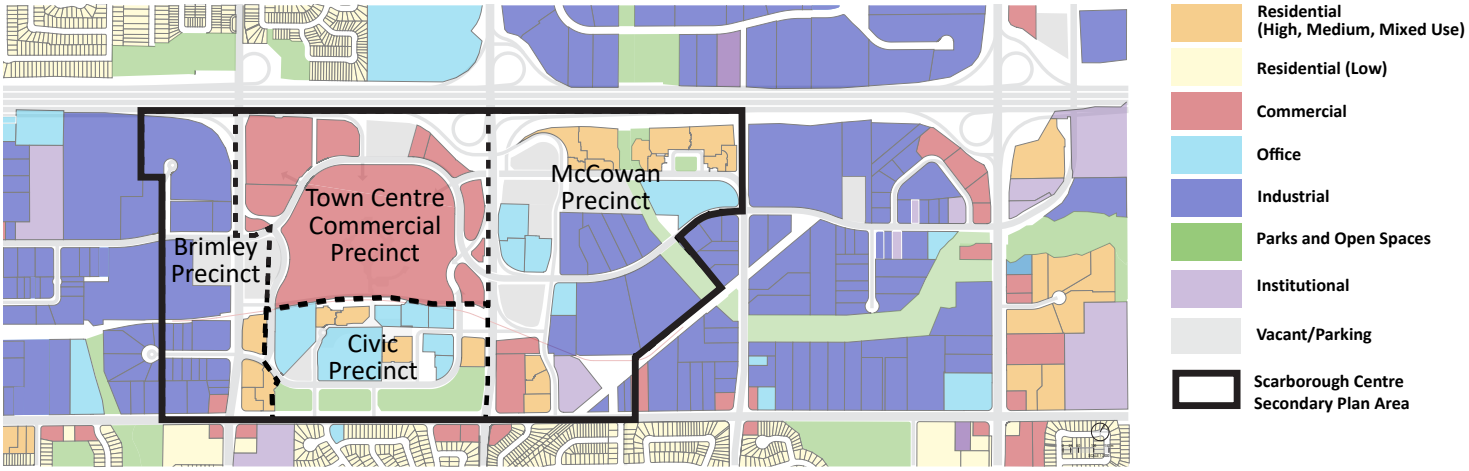
Smart Commute Workplaces provide options for employees to travel to work in sustainable ways, reducing their company's impact on congestion and the environment. Participating workplaces in the study area are the City of Toronto, Toronto District School Board (both located in Scarborough Civic Centre – 150 Borough Drive) and TELUS (200 & 300 Consilium Place).

Further details of the existing policy context and strategies related to TDM can be found in Appendix B.

2.1.4 Land Uses

The existing land uses in the SCTMP study area and Secondary Plan area are illustrated in Figure 2.13.

Figure 2.13: Existing Land Uses



The Secondary Plan divides Scarborough Centre into four precincts to plan for the intensification and evolution of Scarborough Centre:

- The Town Centre Commercial Precinct is centered on the existing mall (Scarborough Town Centre), which acts as a regional destination with over 1,000,000 square feet of shopping, services, and entertainment. The Town Centre Commercial Precinct is intended to retain its commercial function as it intensifies over time.
- The Civic Precinct contains a variety of government, institutional, community, and residential uses and activities. Additional land uses include woodlots and parks. The Precinct is centered on the Scarborough Civic Centre and is intended to enhance its civic function and retain a focus on institutional and recreational uses as it redevelops.
- Today, the McCowan Precinct has a strong employment identity with the Consilium Place office complex and large amounts of industrial uses. The McCowan Precinct (for which a Precinct Plan was approved in 2014) has considerable opportunity to promote a vision for creating a vibrant, mixed-use community with urban characteristics in the future.
- The Brimley Precinct is currently characterized by employment uses, with primarily industrial lands. This Precinct is envisioned as a mixed-use district that will accommodate new residential and employment development, with supporting retail amenities and community facilities.

2.1.5 Phase 1 Environmental Site Assessment (ESA)

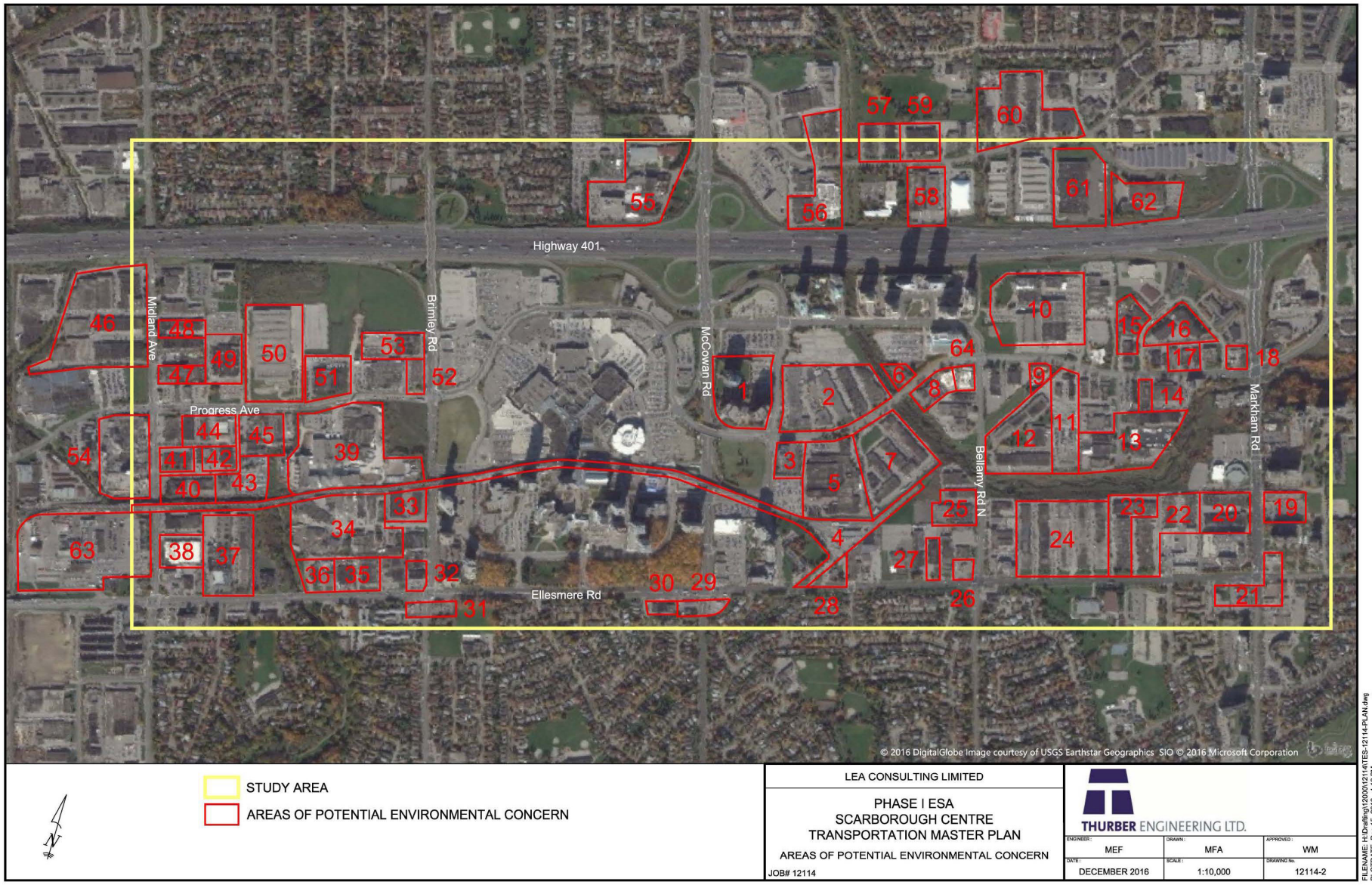
A Phase 1 Environmental Site Assessment (ESA) was conducted to assess the presence of existing or potential environmental concerns within the study area that may have resulted from previous and/or current land uses. The key findings of the Phase 1 ESA are summarized below:

- The land usage within the study area prior to approximately 1960 was primarily farmland and open fields with a railway crossing. Development in the study area began around 1960 with the construction of Highway 401, with considerable industrial and commercial development occurring in the mid-1960s. Additional development occurred throughout the 1970s and 1980s, including construction of the Scarborough Civic Centre, Scarborough Town Centre shopping mall and the Scarborough Rapid Transit (SRT) line. Since the early 1990s, the land usage in the area has not changed and additional development has been relatively low.
- The current land usage in the study area is predominantly industrial and commercial, and contains 3 large factories, 7 gas stations, a city works yard, a rapid transit (RT) rail corridor with 3 stations and a rail yard, and many properties with potentially contaminating activities including dry cleaning, automotive repair, automobile wrecking, metal working, chemical usage and various types of manufacturing.
- The record search of the Ecolog Environmental Risk Services Ltd. report database confirmed the current or former existence of underground gasoline storage tanks, fuel oil tanks, and other fuel facilities, various waste generators and receivers, chemical and pesticide usage or storage sites, PCB usage or storage sites, and spills or other incidents.
- The properties that are identified as Areas of Potential Environmental Concern (APECs) that may have an impact on the SCTMP are shown in Figure 2.14. These properties are identified due to land usage, previous spills, or incidents that may have caused soil or groundwater contamination within the study area.

Further study in the form of a Phase II ESA is recommended on any APEC properties that are to be acquired for proposed transportation facilities or other works that may be designed as part of the SCTMP.

The complete Phase 1 ESA can be found in Appendix C.

Figure 2.14: Areas of Potential Environmental Concern (APECs) in the Study Area



2.1.6 Stage 1 Archaeological Assessment (AA)

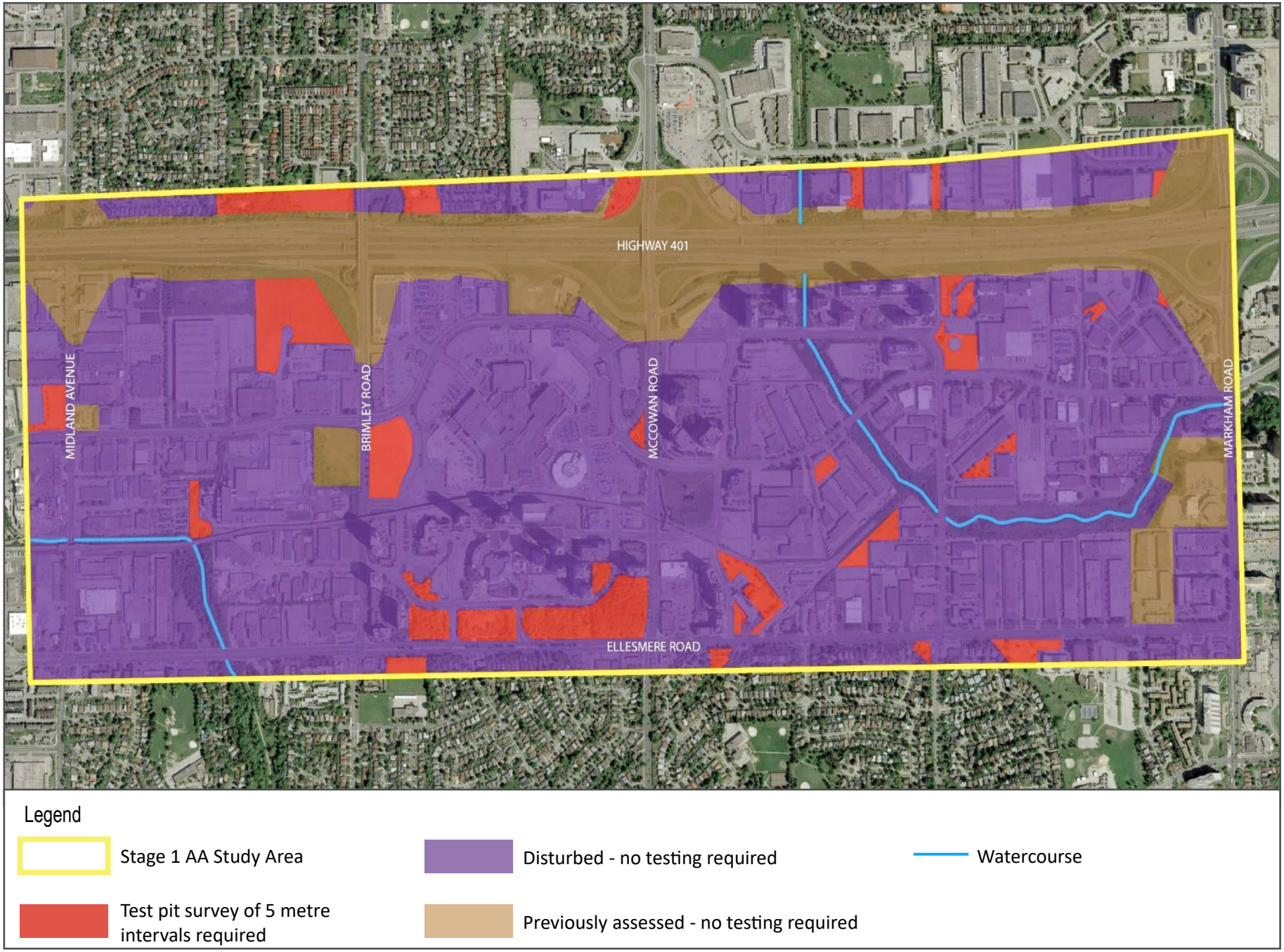
A Stage 1 Archaeological Assessment (AA) was completed to support the SCTMP. Background research identified increased potential for the recovery of archaeologically significant materials within the study area. Archaeological potential was determined by the City of Toronto's archaeological management plan, and the close proximity (within 300 metres) of: historic structures, historic transportation routes, a commemorative plaque, previously registered archaeological sites, and two secondary hydrological resources.

An inspection was conducted within the study area that documented disturbances, including paved roadways/parking areas, gravel roadways, roadside ditches/embankments, the rechannelling of the East and West branches of Highland Creek, utilities, extensive landscaping, and grading. Additionally, physiographic features with no or low archaeological potential were identified, consisting of permanently wet areas associated with the East Highland Creek and the West Highland Creek.

The remaining balance of the study area was identified as retaining archaeological potential, and thus, require a Stage 2 AA. Areas requiring a Stage 2 AA include (but are not limited to) manicured and treed/overgrown grassed areas. Areas of archaeological potential are identified in red in Figure 2.15.

The complete Stage 1 AA report can be found in Appendix D.

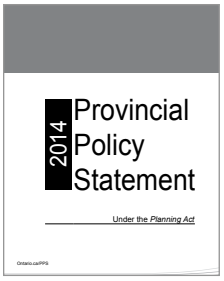
Figure 2.15: Areas of Archaeological Potential in the Study Area



2.2 Current Policy Framework

The existing planning and policy context for Scarborough Centre is aimed at transforming and evolving the Centre into a pedestrian-oriented, desirable place where a mix of land uses are connected by an efficient, safe, and balanced transportation network. These goals and objectives have been made apparent in the Scarborough Centre Secondary Plan, the Scarborough Centre Public Space and Streetscape Master Plan, the Scarborough Centre Civic Precinct Implementation Plan, and the McCowan Precinct Plan and its Urban Design Guidelines. The key policy documents that have relevance to the SCTMP are summarized below.

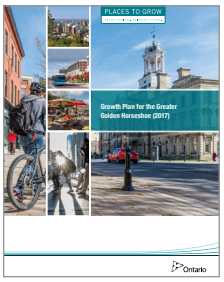
Provincial Policy Statement (2014)



The Provincial Policy Statement (PPS) is the strategic vision for regulating land use and development within the province, with an emphasis on healthy communities, active modes of transportation, clean environment and a strong economy. The transportation infrastructure system should be sustainable, multi-modal, and linked with land use considerations.

The PPS outlines policies that encourage the safe and efficient movement of people and goods, facilitated via a multi-modal transportation system that aims to increase the use of active transportation and transit over other transportation modes.

Growth Plan for the Greater Golden Horseshoe (2017)



The Plan guides decisions on a wide range of issues (land use, urban form, housing, environment, resource protection, transportation, and infrastructure) in the interest of economic prosperity. The plan encourages intensification of development via transit-supportive growth, multi-modal transportation systems, and creation of mixed-use communities that feature commercial centres and surrounding communities.

The Growth Plan designates Scarborough Centre as an “Urban Growth Centre” and focal area for significant high-density employment and population growth, which will require major transit infrastructure to connect with major regional and cross-jurisdictional destinations. The Growth Plan also identifies Scarborough Centre as a “Major Transit Station” and part of a “Priority Transit Corridor”.

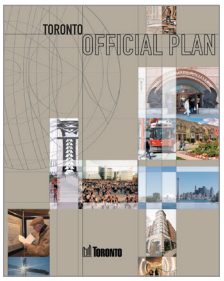
The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area (2008)

The Big Move is the regional transportation plan intended to guide transportation and associated land-use decisions for the next 25 years. It sets out policies and priority projects that aim to achieve an integrated, multi-modal transportation system. The plan further recognizes that the transportation system should be developed to enhance equity and social cohesion in the region by improving mobility options for people in "vulnerable and disadvantaged communities".

Scarborough Centre has been identified as an Anchor Hub, with strategic importance due to the strong relationship with other urban growth centres and international gateways, such as Pearson Airport and Union Station.

The update to the Big Move, the 2041 Regional Transportation Plan (RTP), was being undertaken concurrently with the SCTMP. The RTP was approved by the Metrolinx Board in March 2018. Its recommendations will be considered during the preparation of the Secondary Plan update for the Scarborough Centre.

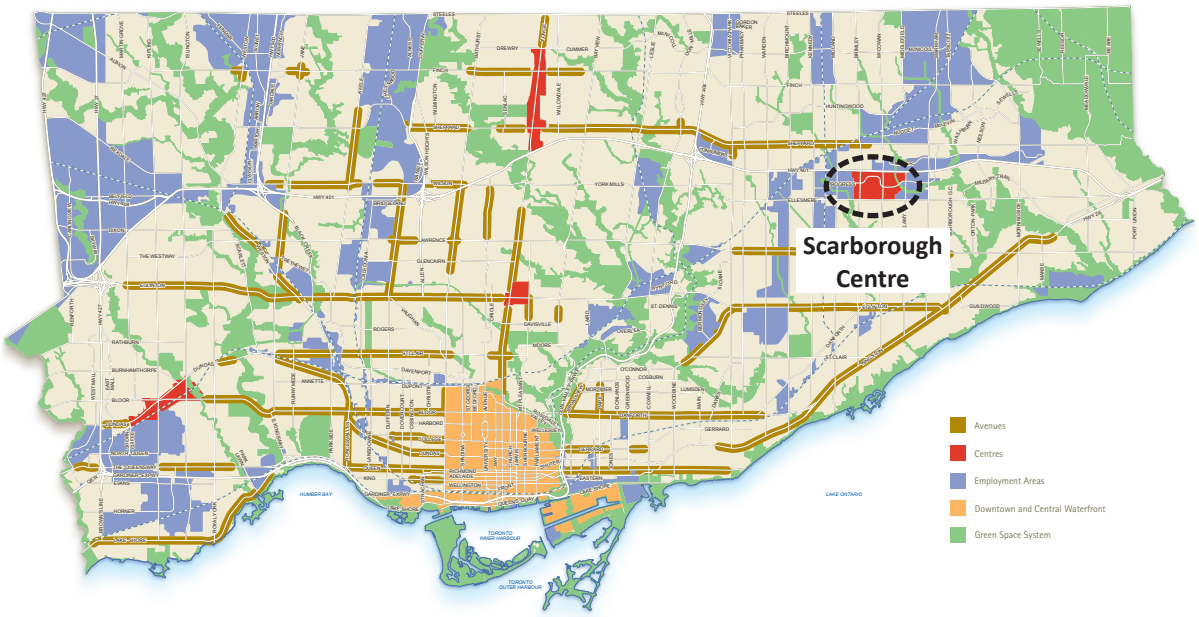
Official Plan (2015)



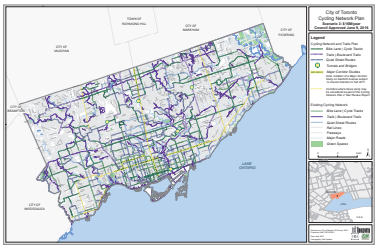
The recently updated City of Toronto Official Plan provides a vision for managing growth within the City's jurisdictional boundaries. The Official Plan emphasizes the efficient use of street space with a focus on moving people instead of vehicles. It also provides clear objectives to reduce car dependency and encourage more transit, walking and cycling as attractive alternatives. To achieve its comprehensive goals, the Official Plan encourages transit-oriented development in intensive, mixed-use, targeted growth areas, such as Scarborough Centre.

The Official Plan designates Scarborough Centre as one of four centres that will play a significant role in managing growth in the City (Figure 2.16). The Official Plan, in section 2.2.2 (p.2-14), also identifies Scarborough Centre as the main transit hub for communities in the eastern part of the city.

Figure 2.16: Map 2 of the Official Plan

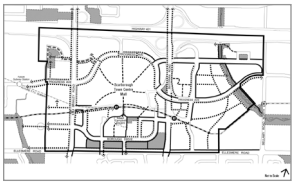


Cycling Network Ten-Year Plan



The Cycling Network Ten-Year Plan will serve as a comprehensive roadmap and workplan, outlining the City's planned investments in cycling infrastructure over 2016-2025. It includes recommendations for cycle tracks or bike lanes on fast, busy streets and recommendations for traffic calmed routes with cycling wayfinding on quiet streets. The Cycling Network Plan also includes recommendations for new boulevard trails, and identifies areas where tunnels or bridges may be beneficial to cross major barriers.

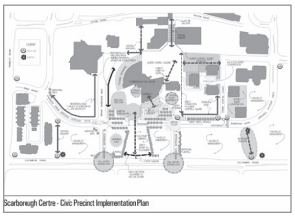
Within the study area, the plan identifies cycling facilities on Progress Avenue, Borough Drive, Bellamy Road North, and portions of Ellesmere Avenue. Midland Avenue has also been identified as a corridor where future study may be considered as part of the Cycling Network Plan 2-year review report.



Scarborough Centre Secondary Plan (2009)

The Scarborough Centre Secondary Plan envisions that the Centre will accommodate upwards of 40,000 residents and 23,000 jobs. The plan also provides the detailed vision for achieving the above targets, with a vibrant mix of land uses, supported by effective transit facilities, a high quality public realm, and active transportation infrastructure.

The Civic Precinct Implementation Plan (2009)



The Civic Precinct Implementation Plan (2009) identifies a number of improvements, including City-led developments such as the new library, intersection improvements at Ellesmere Road, and public realm initiatives.

Some projects in this Plan have been completed or are currently underway, including the Scarborough Civic Centre Library and the Albert Campbell Square Expansion. Scarborough Civic Centre Library opened on May 20, 2015, which established a greater sense of place in the Centre. The library's unique architectural design (Figure 2.17) and surrounding green and open spaces help enhance the Civic Precinct as a community destination.

Figure 2.17: Scarborough Civic Centre Library

The Albert Campbell Square Expansion began construction in September 2017, and will include a dog-friendly area, a playground, pedestrian walkways, and green areas, as shown in Figure 2.18.

Figure 2.18: Conceptual Drawing of Albert Campbell Square Expansion

Source: City of Toronto

Scarborough Centre Public Space and Streetscape Master Plan (2012)

The Scarborough Centre Public Space and Streetscape Master Plan (2012) focuses on making the Civic and Commercial Precincts more pedestrian-friendly through the introduction of a permeable block pattern and street network, new public spaces, and a pedestrian-oriented built form (e.g. a consistent and active street wall with appropriately-scaled podiums).

The proposed street network reinforces the importance of Progress Avenue and Borough Drive, which create a ring road and are identified as "Main Streets". The proposed street network also includes new local streets, lanes and walkways through existing parking lots.

McCowan Precinct Plan (2014)

The McCowan Precinct Plan promotes a vision for creating a "vibrant, mixed-use community with urban characteristics". The Precinct is planned to include both high-rise residential and office uses, along with a full suite of community and retail uses, constituting a complete community.

In anticipation of redevelopment, the Conceptual Master Plan identifies new connections, potential blocks/properties for redevelopment, as well as potential locations for new parks, urban spaces and public art.

2.3 Future Conditions

2.3.1 Future Growth

The City of Toronto Official Plan identifies areas that are expected to accommodate a significant portion of Toronto's planned growth, including Downtown Toronto and four centres. These four centres, including Scarborough Centre, have excellent transit accessibility and are well-positioned to accommodate residential and employment growth, resulting in communities where people can live close to work. Figure 2.19 shows the Urban Structure Map (Map 2) from Toronto's Official Plan, highlighting areas where growth is encouraged.

Figure 2.19: Map 2 of the Official Plan

Source: City of Toronto Official Plan

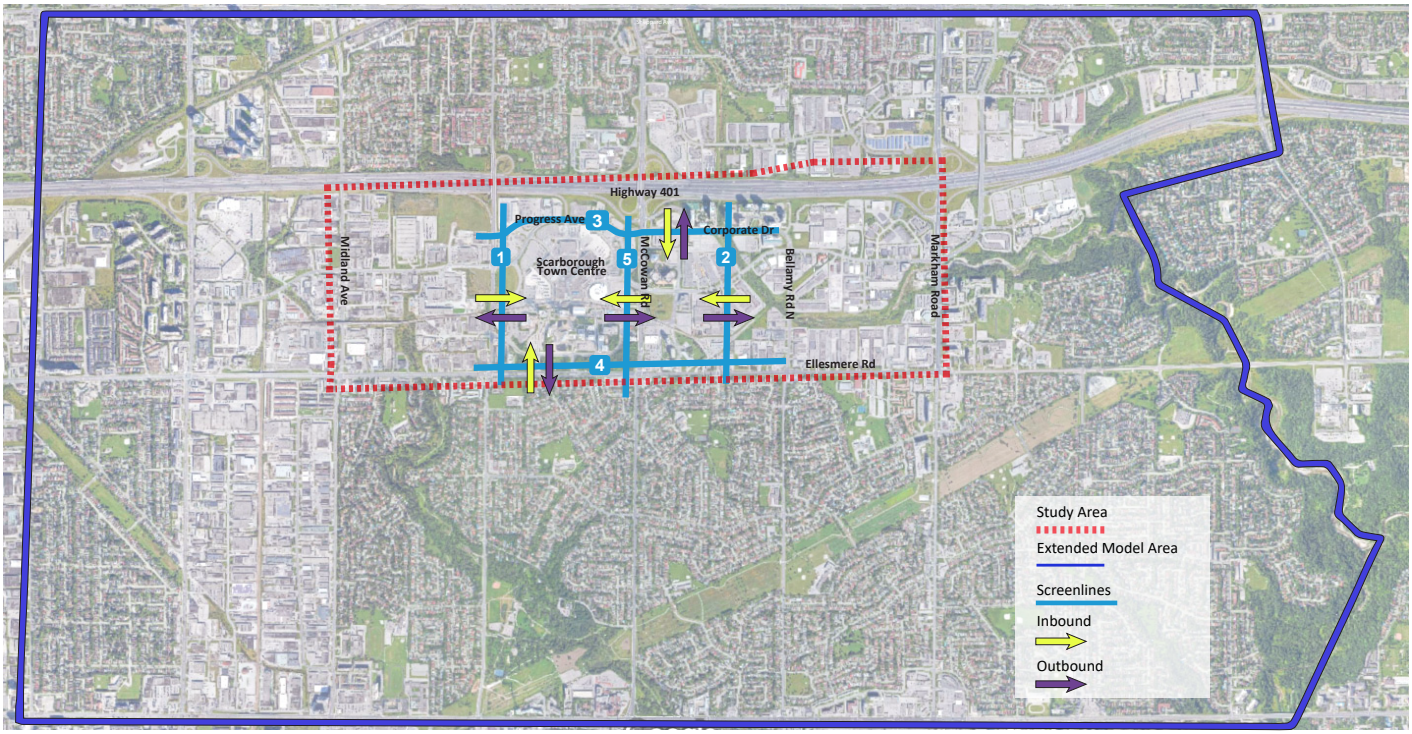
The Official Plan identifies Scarborough Centre as a focal point for growth in the east of the city, with Scarborough Town Centre, employment uses, and government services attracting visitors, residents, and employees alike. Future growth in the Centre is expected to result in a total of 40,000 residents and 23,000 jobs in the next 30 years, which is equivalent to a density of 350 people and jobs per hectare. This density target is double the existing density of 14,250 residents and 16,400 employees currently living and working in the Centre (170.3 people and jobs per hectare).

The identified growth and density targets are largely based on Scarborough Centre acting as the Greater Toronto Area's eastern transit hub. The Big Move identifies Scarborough Centre as one of the Anchor Hubs, which are major transit station areas related to urban growth centres (identified in the Growth Plan for the Greater Golden Horseshoe). As an Anchor Hub, Scarborough Centre will be a key component within the regional transportation system.

2.3.2 Transportation Demand (2041)

Travel demand forecasts for the year 2041 were obtained through the City of Toronto's EMME model. This model provided automobile volume forecasts for the year 2041 under the condition that no changes are made to the transportation network infrastructure or capacity, also referred to as the "Do Nothing" scenario. Existing (2011) and "Do Nothing" (2041) traffic conditions were assessed at key boundaries (or "screenlines") to identify existing and future capacity constraints. The screenlines used for this assessment are presented in Figure 2.20, along with the extended model area and SCTMP study area. The selected screenlines focus on vehicular traffic internal to the study area.

Figure 2.20: Study Area and Screenlines



The volume to capacity ratios for 2011 and 2041 for the weekday PM peak hour are presented in Table 2.1 and 2.2, respectively.

Table 2.1: Screenline volume to capacity ratios for inbound and outbound automobile trips, 2011

Screenline	Volume	Capacity	V/C	Volume	Capacity	V/C
	Inbound			Outbound		
	2011					
1. Western	3357	6200	0.54	2260	6200	0.36
2. Eastern	1707	4400	0.39	3173	4400	0.72
3. Northern	4212	8000	0.53	5419	6600	0.82
4. Southern	4046	7700	0.53	4026	7700	0.52
5. West of McCowan Road	2229	6200	0.36	4262	5400	0.79

Table 2.2: Screenline volume to capacity ratios for inbound and outbound automobile trips, 2041

Screenline	Volume	Capacity	V/C	Volume	Capacity	V/C
	Inbound			Outbound		
	2041 "Do Nothing" Scenario					
1. Western	3796	6200	0.61	2424	6200	0.39
2. Eastern	1464	4400	0.33	3351	4400	0.76
3. Northern	4778	8000	0.60	7165	6600	1.09
4. Southern	5110	7700	0.66	4314	7700	0.56
5. West of McCowan Road	1884	6200	0.30	4948	5400	0.92

Results of the screenline analysis reveals that northern screenline traffic volumes will exceed capacity (V/C of 1.09) and traffic west of McCowan Road will almost reach capacity (V/C of 0.92) for outbound trips.

Automobile growth values for the study area were also calculated by comparing 2011 trips to 2041 forecasted trips, as follows:

- 27% increase in trips during the weekday AM peak hour
- 37% increase in trips during the weekday PM peak hour

Given the above, significant increases in travel demand are expected by 2041 due to the projected residential and employment growth in the Centre, particularly during the weekday PM peak hour.

Assuming no changes are made to the transportation network in Scarborough Centre, the 2041 future mode split is shown in Table 2.3, where it is compared to the existing (2011) mode share for the weekday AM and PM peak hour.

Table 2.3: Existing and Future (2041) Modal Split for Weekday AM and PM Peak Hour

Mode of Travel	Total Trips	Trips within Centre	Total Trips	Trips within Centre	Total Trips	Trips within Centre	Total Trips	Trips within Centre
	Existing Scenario (2011)				Future "Do Nothing" Scenario (2041)			
	Weekday AM Peak		Weekday PM Peak		Weekday AM Peak		Weekday PM Peak	
Transit	19%	5%	17%	3%	36%	11%	21%	10%
Driver	69%	58%	63%	69%	53%	52%	59%	62%
Passenger	9%	14%	18%	19%	8%	14%	18%	19%
Walk	2%	23%	1%	6%	2%	23%	1%	6%
Cycle	0%	0%	0%	0%	0%	0%	0%	0%
Other	1%	0%	1%	3%	1%	0%	1%	3%

The percentage of trips conducted as an automobile driver is expected to decrease within the Centre by 2041 due to changes in travel behaviour. As population growth leads to increases in traffic volumes and congestion greater issues, it is anticipated that some people will switch to transit as a more viable option. However, without significant changes to the transportation network, only a slight reduction in the driver mode share can be expected in Scarborough Centre: a reduction from 58% to 52% in the weekday AM peak hour and from 69% to 62% in the weekday PM peak hour.

2.3.3 Planned Changes/Transit Plans

Scarborough Subway Extension (SSE)

To accommodate the future growth and travel demand in Scarborough Centre, changes to the transportation network are already underway. Namely, an extension of the Bloor-Danforth Subway (Line 2) from Kennedy Station to Scarborough Centre was recently approved to replace the existing, and aging, rapid transit infrastructure (Line 3 –Scarborough) and to improve transit service and capacity in the context of a growing population.

The extension of TTC Line 2 to Scarborough Centre will improve transit service and alter the way the entire transportation network is planned and developed. Currently, the Line 3 – Scarborough stations in the study area are difficult to access using active modes of transportation (e.g. walking, cycling), as the overall walkability

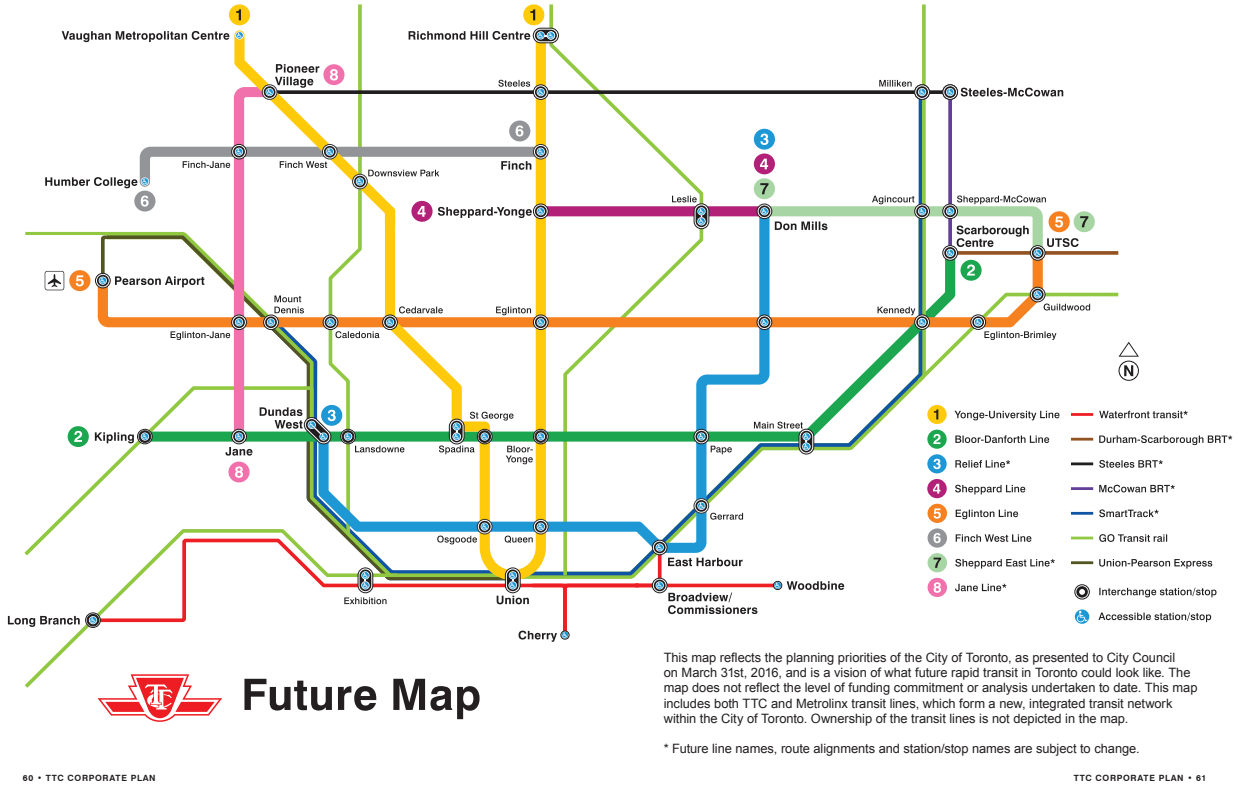
of the area is limited by the coarse auto-oriented street pattern. More information about the Scarborough Subway Extension Environmental Project Report (EPR) is available on the study website.

With this change in mind, the SCTMP seeks to encourage active modes of transportation, improve north-south and east-west connections and crossing opportunities, by developing a network of cycling facilities, and encouraging transit-oriented development. Creating active connections to the proposed Scarborough Centre subway station and bus terminal, and integrating transportation and land use, will be integral to creating a mobility hub in Scarborough Centre.

Other Transit Investment

Ongoing transit investment across the City of Toronto aims to integrate services and create regional connections within and between communities and major destinations. In addition to the SSE, a number of high-order transit routes have been recommended that would improve the connectivity of Scarborough Centre to surrounding communities. The Toronto Transit Commission released the TTC 2018-2022 Corporate Plan in January 2018, which identified transit projects that will help achieve the TTC's vision 'to be a transit system that makes Toronto proud.' The future transit plan is shown in Figure 2.21.

Figure 2.21: Future Transit Plan for the City of Toronto



Source: TTC Corporate Plan 2018-2022

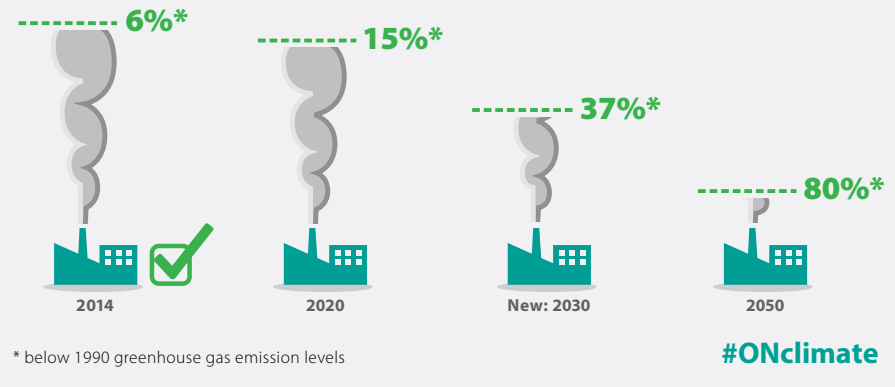
The SmartTrack plan, which intends to provide six SmartTrack stations and two new GO stations, intends to link Scarborough to Etobicoke though Downtown Toronto. Goals of this plan are to integrate new stations with existing and planned transit, provide all-day service, and integrate fares within the existing fare structure. The SmartTrack cost analysis will be presented to Council in the Spring of 2018.

Funding has also been committed to the Eglinton Crosstown Light Rail Transit (LRT) and Sheppard East LRT, which are proposed to extend to Kennedy Station and Morningside Avenue, respectively. Extension of the Eglinton Crosstown to the University of Toronto Scarborough (UTSC) campus is also being considered as part of the Scarborough Transit Network. Finally, additional projects including the Durham-Scarborough Bus Rapid Transit and McCowan Rapid Transit are planned to improve the transit connectivity to/from the Centre.

2.3.4 Sustainability

One of the greatest transportation challenges facing the City of Toronto, and province as a whole, is the high level of traffic congestion and the associated greenhouse gas emissions. Ontario's Climate Change Strategy commits to a reduction in greenhouse gas emission levels of 37% below 1990 levels by 2030 and 80% below 1990 levels by 2050, as shown in Figure 2.22.

Figure 2.22: Ontario's Greenhouse Gas Reduction Targets



Source: Ontario's Climate Change Strategy

It is important to plan compact and complete communities that contribute to a reduction in greenhouse gas emissions and create 'net zero communities.' The Growth Plan for the Greater Golden Horseshoe identifies urban growth centres, such as Scarborough Centre, where intensification should be concentrated. It focuses attention on investing into transit as a first priority, as well as into providing non-motorized and shared transportation options to support climate change mitigation.

The four pillars of the Scarborough Centre on the Move Transportation Master Plan seek to reduce traffic-related air pollution, and subsequently help reach the goal of a low-emission future. Encouraging active

modes of transportation, supporting investment into transit and innovative mobility solutions, reducing single-occupant vehicle use, and integrating land use and transportation planning will all contribute to creating complete communities around a strategic growth area (Scarborough Centre).

2.4 Problem & Opportunity Statement

Based on the review of existing conditions, current policy context, and public feedback, opportunities and constraints were identified for the study area as they relate to the vision for Scarborough Centre.

Constraints

The following constraints in the transportation network act as barriers to producing a vibrant multi-modal urban centre:

- Coarse street network with large blocks and single-use buildings
- Lack of connections throughout the Centre, particularly with respect to the active transportation environment
- Lack of attractive public realm and sense of place in the Centre
- Harsh, unpleasant, and fragmented pedestrian environment with disconnected sidewalks and unsafe crossing conditions
- Auto-oriented and irregular intersections with ramps, channelized turning lanes, and grade separations
- Barriers to pedestrians and cyclists at Highway 401 interchanges

Opportunities

The following list identifies opportunities to improve the transportation network in Scarborough Centre are:

- Provide a vibrant and attractive public realm that creates a unique character for Scarborough Centre
- Create a safer and more comfortable pedestrian environment
- Accommodate and encourage transit-oriented development
- Leverage other public and private initiatives, particularly ongoing investment into transit infrastructure
- Provide user-friendly wayfinding and signage to enhance connections to key origins and destinations

Problem & Opportunity Statement

As one of Toronto's four 'Centres', Scarborough Centre is a key location within the city that combines jobs, housing and services in a dynamic mixed-use setting supported by excellent transit accessibility. Located at the heart of Scarborough, the area is expected to be a magnet for future growth over the coming decades.

Currently, Scarborough Centre is less than the sum of its parts:

- *The existing transportation network is designed to favour vehicular movement as is defined by big blocks that result in longer travel distances;*
- *Bridges, ramps and grade-separations are barriers to walking and cycling;*
- *Dedicated infrastructure for cyclists is lacking;*
- *Crosswalks are distantly spaced, sidewalks are often too narrow, missing or located in a way that does not support a vibrant and walkable public realm; and*
- *Development parcels are large and not serviced in a manner that supports a finer grain in the urban fabric.*

Given significant public and private investments planned for the area, an opportunity exists to evolve the transportation network in a manner that better supports the policies outlined in the Scarborough Centre Secondary Plan. Key opportunities include developing a fine-grained street network that is safe, accommodates all users and reduces travel distances. Giving priority to infrastructure required to enhance walking, cycling and transit will help build connections throughout the centre as well as to the surrounding community and beyond. Improved transportation facilities, complemented by better wayfinding, land use diversity and an inviting public realm, will provide greater accessibility to the area's many amenities. The Transportation Master Plan will help guide growth and ensure the emergence of a vibrant, walkable and connected Scarborough Centre.