



City of Pickering

Integrated Transportation Master Plan



Prepared for the City of Pickering by IBI Group
August 2021

Contents

E.S. Executive Summary	i
1.0 About This Plan.....	1
1.1 Background.....	1
1.2 Engagement and Consultation.....	2
1.3 About this Report	3
2.0 A Transportation Vision for Pickering	5
3.0 Study Context	7
3.1 Planning Foundation.....	7
3.2 Social and Economic Environment.....	10
3.3 Natural Environment	10
3.4 Emerging Transportation Technologies.....	14
3.5 Trends Affecting Transportation	14
3.6 Shaping the Transportation System	17
4.0 Roads.....	25
4.1 A Complete Streets Approach.....	25
4.2 The Future Road Network.....	28
4.3 Goods Movement	33
5.0 Active Transportation	39
5.1 Background.....	39
5.2 Connecting the Network.....	44
5.3 Building Community Support.....	46
5.4 Creating Walk- and Bike-friendly Destinations.....	48
6.0 Supporting Strategies	51
6.1 Access to Transit	51
6.2 Transportation Demand Management.....	52
6.3 Parking Management	55
6.4 Access Management.....	61
7.0 Achieving the Plan	63
7.1 Implementation and Phasing	63
7.2 Capital Costs.....	63
7.3 Monitoring and Plan Updates.....	64
Appendix A: Road Network Phasing and Cost	71
Appendix B: Maps.....	73

Exhibits

Exhibit E.1: Study Timeline and Engagement Activities	i
Exhibit E.2: Estimated Capital Costs by Phase (millions)	vii
Exhibit 3.1: Policies and Plans of Relevance to the ITMP	7
Exhibit 3.2: Key Natural Heritage Features (Official Plan Schedule III B)	12
Exhibit 3.3: Key Hydrological Features (Official Plan Schedule III C)	13
Exhibit 3.4: Change in Pickering Population Age Distribution, 2011–2016	15
Exhibit 3.5: Commuting Durations for Pickering and Durham Region Residents, 2016	15
Exhibit 3.6: Increase in Number of AM Peak Period Trips from Pickering, 2011–2031	16
Exhibit 3.7: Work Trips Destined for Pickering in the AM Peak, 2016.....	16
Exhibit 3.8: Modal Split for Elementary and Secondary School Trips Originating in Pickering, 2016.....	17
Exhibit 3.9: Mode Choice by Distance for Trips Originating in Pickering, 2016	17
Exhibit 4.1: Glenanna Road as Envisioned in the Pickering City Centre Urban Design Guidelines.....	26
Exhibit 4.2: Existing Road Network by Class.....	29
Exhibit 4.3: Existing Road Network by Jurisdiction	30
Exhibit 5.1: Summary of Existing Cycling Facilities	40
Exhibit 5.2: Existing Pedestrian Network	41
Exhibit 5.3: Existing Cycling Network	42
Exhibit 5.4: Planned Bikeways and Trails in Seaton Urban Area	43
Exhibit 5.5: Potential Improvements for Existing Cycling Facilities.....	45
Exhibit 5.6: Bicycle-Friendly Communities in Durham Region	48
Exhibit 7.1: Estimated Capital Costs by Phase (millions)	64
Exhibit 7.2: ITMP Monitoring Indicators	65

Note: Unless otherwise indicated photos are by IBI Group staff and are used with permission



Durham Region
Transit

8505

110B TRAIL WEST TO KESWICK

ROUTE 110B

C.N.A.A. #033-711-340

Orion

PARALLEL BUS



8505

Durham Region
Transit

E.S.

Executive Summary

Introduction

The Integrated Transportation Master Plan (ITMP) is Pickering’s long-term, strategic planning document that directs transportation policies, programs, and infrastructure. The ITMP is designed to help Pickering’s transportation system meet the needs of pedestrians, cyclists, transit riders, motorists, and goods movement traffic. As a long-term strategic planning document, the plan presents a package of actions that will help the City achieve its transportation vision over time. The ITMP is a dynamic document that is responsive to changing conditions and new innovations through reviews and updates on a regular basis, typically every five to ten years. The ITMP is built on a foundation of Provincial, Regional, and City policies that work together to direct growth and build complete communities.

This ITMP is Pickering’s first comprehensive transportation plan, and it comes at a pivotal time for the City’s growth. As Pickering develops and intensifies, its transportation needs will evolve. This change presents opportunities and challenges that ITMP recommendations

can help manage. Development and intensification can mean more compact and vibrant communities, greater opportunity for economic growth, and increased justification for infrastructure renewal or expansion. Uncontrolled or poorly planned development can also lead to increased traffic congestion, urban sprawl, and negative impacts on the natural environment.

A transportation system that accommodates environmentally, socially, and economically sustainable growth is instrumental to providing a high quality of life for residents. The Pickering ITMP is a key mechanism for achieving such a transportation system in Pickering.

Plan Development

The ITMP was developed in four stages, as illustrated in **Exhibit E.1**, with public and stakeholder engagement in stages one, two, and four. The Plan was prepared under the guidance of the Technical Working Group, consisting of City of Pickering staff from multiple departments including Engineering Services, City Development, Community Services, Finance, Sustainability, and Pickering Fire.

Exhibit E.1: Study Timeline and Engagement Activities

Stage 1 Establish a Vision <i>Winter 2017</i>	Stage 2 Assess Alternatives <i>Spring 2018</i>	Stage 3 Develop Supporting Strategies <i>Fall 2018</i>	Stage 4 Develop the ITMP <i>Spring 2019</i>
Public Information Centre #1	Public Information Centre #2		Public Information Centre #3



Engagement and Consultation

A range of consultation activities provided opportunities for both members of the public and stakeholders to provide feedback and help shape the ITMP.

Three rounds of Public Information Centres (PICs) were held. Attendees at the PICs were invited to submit written comments or questions using comment forms or via email and had the opportunity to discuss issues with study team members. An online community survey with over 200 responses was conducted concurrently with the first PIC to give the public an opportunity to identify transportation needs and to help shape the transportation vision for Pickering.

To support the development of the ITMP, a Stakeholder Advisory Group (SAG) was formed consisting of representatives from local municipalities, technical agencies, community groups, and industry groups. Over the course of the study, three meetings were held with the SAG to gather information, share interim findings, and present draft recommendations.

Population Growth and Transportation Trends in Pickering

The ITMP was developed to help manage Pickering's growing population and corresponding increasing demand for transportation. Pickering's population is anticipated to double from 95,000 in 2016¹ to about 190,000 by 2031, and employment is set to more than double from 34,800 in 2019² to 77,000 jobs by 2031.³ The four main growth areas in Pickering are the City Centre, Kingston Mixed Corridor Intensification Area, Brock Mixed Node Intensification Area, and Seaton in Central Pickering. Furthermore, there are more than 2,700 businesses located in Pickering in various sectors, including energy, environment and engineering (EN3), advanced manufacturing, and agriculture.

The ITMP was also developed with the goal of increasing sustainable mode use. With more people living and working in Pickering the number of trips to, from, and within the City will increase. **By 2031, travel demand in the morning peak period is anticipated to grow**

¹ 2016 Census population of 91,771 adjusted for census undercount of approximately 4%.

² 2019 Durham Business Count.

³ Durham Regional Official Plan Policy 7.3.3.

by 76%. These additional trips will increase pressure on major transportation corridors in the City, including local and Regional roads, highways, and transit lines.

Daily travel in Pickering is dominated by car use. Today **more than 75% of all trips starting in Pickering in the morning peak period are made by car.** Work trips destined to Pickering in the morning peak are also dominated by private cars (90% of trips).

In addition, **just under half of all trips originating in Pickering are ‘short trips’** (less than 2 km). Currently, most of these trips are made by car. However, short trips are excellent candidates for encouraging the shift to transit and active transportation; a shift that can contribute to significantly reducing congestion and its environmental impacts.

A Transportation Vision for Pickering

As part of Stage 1 of ITMP development, a transportation specific vision was crafted to articulate Pickering’s strategic priorities and guide decision making in subsequent stages of plan development. The vision was developed with input from a variety of groups, including the TWG, the SAG, and Pickering residents.

The vision for transportation in Pickering is:

“A safe and well-connected transportation system that offers inclusive mobility, supports complete and sustainable communities, and facilitates continued economic growth.”

Four pillars, each articulating how the ITMP and the overall transportation system support the vision, were identified:



A Safe, Well-Connected Transportation System

- Improves transit access
- Supports and encourages active transportation
- Provides efficient movement of people and goods



Inclusive Mobility

- Provides safe transportation options for all ages and abilities



Complete and Sustainable Communities

- Minimizes impacts on the environment
- Provides community health benefits
- Fits the City’s development strategies



Economic Growth

- Supports the City’s economic development strategies
- Provides efficient goods movement in and around Pickering
- Financially sustainable for the City

Recommendations

The ITMP focuses on strategies and infrastructure investment for roads, cycling and pedestrian facilities, and access to transit to meet the needs of Pickering to 2031. The ITMP leverages previously planned investments and seeks to ensure that growth contributes positively to Pickering’s neighbourhoods.

The ITMP is structured around three main action areas to achieve the City’s vision for transportation: the long-term road network, active transportation infrastructure and policies, and four supporting strategies.

Roads

The City of Pickering’s road system must respond to growing travel demand and changing travel patterns. The long-term road network aims to address congestion, improve access and connectivity between neighbourhoods, and support increased travel using transit and active modes. The road system is not just for cars but for everyone; people who walk, cycle, use mobility aids, or take transit, and people of all ages and abilities. The road system also serves goods movement, which is vital to supporting a prosperous City of Pickering that is attractive to potential investors and businesses.

Complete Streets

To balance the needs of all road users the ITMP took a Complete Streets approach. Complete Streets are streets that are designed, operated, and maintained with the needs and safety of all road users – such as cars, buses, cyclists, and pedestrians – in mind. Accommodating all road users makes travel by active modes and transit more pleasant and reduces traffic congestion. The key action identified in the ITMP with respect to complete streets is the development of a Complete Streets Policy to ingrain the Complete Streets approach in all City processes related to roads including planning, design, and operations and maintenance. This policy should apply to both new roads and existing roads that are being reconstructed and resurfaced. This will result in the gradual transformation of Pickering’s road network into one that accommodates the safety and needs of all road users on more corridors.

Network Upgrades

A set of new road connections, widenings, and other improvements are recommended that apply the Complete Streets approach. As Pickering grows, roads and intersections with peak period congestion are expected to become more challenging to manage. These include major north-south roads that connect to or across Highway 401 (e.g. Whites Road, Liverpool Road, and Brock Road), major east-west corridors (e.g. Highway 401, Kingston Road, and Bayly Street), and intersections located near major commercial centres, the GO Station, or freeway interchanges. Through an iterative process that included consideration for planned Regional and provincial network improvements, the proposed road network expansions through 2031 include:

- A new Notion Road crossing of Highway 401;
- A westerly extension of Clements Road to Sandy Beach Road;
- Widening of Church Street and the development of a new Highway 401 interchange at Church Street;⁴ and

- Planned arterials and collectors in the Seaton Urban Area as identified in completed Environmental Assessments.

The ITMP also identifies other road corridors for corridor protection in the 2031 horizon for potential future transportation needs beyond 2031. These corridors include:

- Fifth Concession to serve future growth along Taunton Road and Highway 7;
- Clements Road easterly extension across Duffins Creek to support potential growth in the Bayly Street corridor as well as the employment lands in south Pickering; and Twyn Rivers Drive to provide local connection across the Rouge River in an area with few alternative routes.

An essential function of the road network and the transportation system is to support goods movement. Through the ITMP, additional local goods movement connections in Pickering were developed, formalizing local and Regional roads that are already being used for goods movement and reflecting proposed regionally significant goods movement corridors. These connections include portions of Whites Road, Bayly Street, Brock Road, Squires Beach Road, and Sandy Beach Road.

Active Transportation

Active transportation (AT) refers to the movement of people or goods using primarily human-powered modes. Active transportation is generally focused on walking (including the use of mobility aids) and cycling but can also include other transportation modes such as roller-blading, riding a skateboard, or riding a kick scooter. Currently, cycling only represents 0.5% of all daily trips in Pickering, while walking accounts for 9% of daily trips. Increasing active transportation (and transit) use will help to alleviate pressure on Pickering’s existing transportation network. Growing the adoption of active transportation also has numerous community benefits, including benefits to health, the environment, and the economy.

⁴ The widening of Church Street and new Highway 401 interchange at Church Street are not under the City’s jurisdiction, but these projects are still recommended for long-term implementation given the Durham Live development. As this development progresses, the City will work together with MTO and the Region to review both projects and conduct further studies, including Environmental Assessments, to determine feasibility.



Developing a comprehensive plan for increasing active transportation use is an integral component of the ITMP. Planning for a long-term cycling network and identifying priorities will also allow the City to focus investments and achieve a connected, functional network sooner.

Three major objectives have been identified for active transportation in Pickering:

- Connecting, upgrading, and expanding the network;
- Building community support; and
- Creating walk- and bike-friendly destinations.

To **connect, upgrade, and expand the network**, the ITMP recommends new walking and cycling facilities be implemented as part of road reconstruction and resurfacing projects through a Complete Streets approach. Upgrades to the existing network address gaps in the pedestrian and cycling network, and many make use of space in the existing roadway with minimal reconstruction. These improvements include narrowing vehicular lane widths, re-striping bike lanes, adding signage, applying restrictions to on-street parking, or a combination of changes. Expanding the network and undertaking cycling infill projects will provide a comprehensive set of cycling facilities and off-road multi-use trails, encouraging more trips and helping serve Pickering's future transportation demands. In particular, there are many opportunities to provide low-cost, quick-win improvements within the urban

area, which have been identified as part of the network development process.

The ITMP proposes developing supportive policies and programs to **build community support** and empower residents to use active transportation more often. A key recommendation to achieve this is increasing active transportation resources by hiring a Transportation Demand Management (TDM) / AT coordinator. This individual would help implement TDM initiatives and oversee the delivery of active transportation plans as part of the development application review process. The TDM/AT coordinator would also help to improve awareness of active transportation options through public outreach and developing active-transportation focused programs and initiatives for Pickering, such as Bike to Work Week and Open Streets programs.

A well-connected and inclusive active transportation network creates opportunities for **walk- and bike-friendly destinations**. A fundamental component of this is the integration of short-distance, first and last mile active trips with longer-distance transit trips to increase the range and flexibility of using sustainable modes. Consideration for creating walk- and bike-friendly destinations also includes the provision of network amenities, bike parking, and other end-of-trip facilities. These can include benches, washrooms, and bike racks along major active transportation corridors in the city. Although the City of Pickering currently

requires all new office, retail, and residential buildings within the City Centre to provide on-site bicycle parking, the ITMP recommends that the city explore expanding this requirement to include all high-density residential, commercial and major industrial buildings within the urban area.

Supporting Strategies

Four supporting strategies work with the Roads and AT infrastructure and policy changes to further improve transportation in Pickering and support the transportation vision.

Access to Transit

Improving access to transit includes measures to improve how people get to and from Durham Region Transit (DRT) and GO services in Pickering. This helps to maximize the impacts of planned service improvements by Metrolinx and DRT. Planning policies for major transit corridors and around major transit hubs, such as the Pickering GO station, can also help achieve transit-supportive densities. The ITMP recommends prioritizing the infill of sidewalk gaps and the development of safe crossing opportunities on transit corridors to strengthen pedestrian and cycling connections to bus stops and transit hubs.

Transportation Demand Management

Transportation Demand Management (TDM) is a suite of policies, programs, services, and initiatives that aim to reduce travel by single-occupant vehicles through influencing how, how much, when, where, and why people travel. Four key TDM opportunities are identified for Pickering, to be supported by the hiring of a TDM/AT coordinator:

- Improving transit and active mode access to Pickering GO station;
- Developing TDM guidelines for new developments;
- Supporting school travel programs; and
- Supporting workplace TDM programs.

Parking

Pickering's parking supply is already abundant, and it is set to grow with forthcoming developments. Left unmanaged, this can make it more challenging to encourage the use of transit and active modes and support a multi-modal transportation system. The ITMP recommends updating parking space requirements for developments and reducing parking supply through cash in-lieu of parking or shared parking. In some locations or neighbourhoods, the ITMP also recommends implementing paid parking and setting up a residential on-street parking program.

Access Management

Access management is the process of managing the interactions of driveway entrances and side street intersections with other parts of the road network. Access management serves an important role in traffic operations and road user safety as it helps to balance the needs of moving traffic and accessing properties adjacent to the city's roadways. A consistent and predictable

distribution of access points that reflects the role and function of a roadway can help to reduce traffic friction and conflicts that contribute to delay and collisions. The ITMP recommends that the City consider developing Pickering-specific access management guidelines based on the Region's Arterial Corridor Guidelines and the TAC Geometric Design Guide, among other manuals.

Achieving the Plan

A comprehensive implementation, funding, and monitoring plan is an essential component of the ITMP to provide guidance for the City of Pickering and its partners in implementing the ITMP. The network recommendations of the ITMP build on system elements that are outside the jurisdiction of Pickering. These include continued expansion and investment by Metrolinx in the GO Transit system, by the Region in the regional road network and transit system, and by the Ministry of Transportation in Highway 401 and Highway 407 expansions. These recommendations will require coordination with outside agencies.

The actions detailed in this plan are recommended for implementation over three timeframes; short term (2021 to 2024), medium term (2025 to 2031), and long term (2031 and beyond). The timing for these capital investments will be refined through on-going monitoring of transportation system performance, land development, and the annual capital budget process.

The estimated capital investment for the recommended network to 2031 is \$142.0 million for road capacity projects and \$24.2 million for cycling network projects as summarized in **Exhibit E.2**. Combined, this reflects an average annual investment of \$15.1 million. Long-term projects beyond 2031 include \$44.3 million for roads and \$15.3 million for cycling, an additional \$59.6 million. Projects will be funded through internal sources, such as property taxes and development charges, and external sources, such as the gas tax.

The ITMP is a living document that must be regularly reviewed to ensure it continues to meet the transportation needs of Pickering. Changing community expectations, growth patterns, and development pressures can necessitate a review of the ITMP, as would changes in the expected timing of major infrastructure outside Pickering’s jurisdiction. Technology-driven changes are also influencing how people travel in ways that are challenging to predict. The Municipal Class Environmental Assessment process recommends that master plans be reviewed every five years to determine the need for a detailed formal review and/or update. In addition to the five-year review following the Environmental Assessment guidelines, the ITMP recommends supporting data collection initiatives to monitor the transportation conditions and needs for all modes and road users and considering the recommendations of the ITMP in future amendments and updates to the Official Plan.

Furthermore, the ITMP final report was in the process of being prepared and finalized during the COVID-19 pandemic and is therefore based on pre-pandemic travel data. The COVID-19 pandemic has the potential to influence travel patterns in Pickering due to potential increases in working from home, other flexible working arrangements, and other potential economic and social changes resulting from the pandemic. The City of Pickering will continue to monitor transportation trends and make any required changes to transportation policies and network recommendations during subsequent updates of the ITMP.

Exhibit E.2: Estimated Capital Costs by Phase (millions)

	Short-Term (2021-2024)	Medium-Term (2025-2031)	Total (by 2031)	Long-Term (Beyond 2031)	Total
Roads – Expansion Projects ^{a,b}	\$65.9	\$76.1	\$142.0	\$44.3	\$186.3
Cycling and Trails – Expansion Projects	\$1.8	\$5.8	\$7.6	\$15.3	\$22.9
Regional Cycling Plan Projects ^c	\$8.3	\$8.3	\$16.6	n/a	\$16.6
TOTAL	\$76.0	\$90.2	\$166.2	\$59.6	\$225.8

^a Includes cost of cycling infrastructure if identified in cycling network.

^b Includes an estimated \$23 million for the widening of Church Street and new Highway 401 interchange at Church Street in the medium term that are not under the City’s jurisdiction, but are still recommended for long-term implementation.

^c City’s share of costs for Regional Cycling Plan projects – subject to change.



1.0

About This Plan

1.1 Background

The City of Pickering is growing significantly. With growth comes both opportunities and challenges. New residential subdivisions, intensification in the City Centre, and development of commercial centres and employment areas will result in increased travel demand in many areas of Pickering. Without supporting transportation policies and infrastructure to help manage and direct traffic growth, congestion will increase. Growth will also bring about new opportunities to incorporate changes to Pickering's transportation program that will provide stronger community connections and influence how people travel.

The Integrated Transportation Master Plan (ITMP) sets out a transportation vision that complements growth in Pickering. The plan will direct infrastructure investment for roads, cycling and pedestrian facilities, and improve access to transit to meet the needs of Pickering to 2031 and beyond.

The ITMP focuses on strategies and infrastructure that leverage previously planned investments and seeks to ensure that growth contributes positively to Pickering's neighbourhoods. The ITMP will support the City's Official Plan, which provides a framework for growth and development in Pickering based on the key principles of complete communities, efficient use of infrastructure, and encouraging active and sustainable modes of travel.

What is an Integrated Transportation Master Plan?

The ITMP is the City's long-term, strategic planning document that directs policies, programs and infrastructure for Pickering's transportation system to meet the needs of pedestrians, cyclists, transit riders, motorists and goods movement.

As a long-term strategic planning document, the plan is not intended to address only site-specific or corridor-specific issues. Rather, it is intended to present a package of actions that, when implemented over time, will help the City achieve its transportation vision. The ITMP is a dynamic document that is responsive to changing conditions and new innovations through reviews and updates on a regular basis, typically every five to ten years.

Why does Pickering need an Integrated Transportation Master Plan?

This ITMP is Pickering's first comprehensive transportation plan and it comes at a time when Pickering's transportation needs are evolving. Pickering is growing and intensifying. Population is anticipated to double, from approximately 95,000 in 2016⁵ to 190,000 in 2031. At the same time, travel demand in the morning peak period will grow by 76%. This growth presents opportunities and challenges.

⁵ 2016 Census population of 91,771 adjusted for census undercount of approximately 4%.

Growth can mean more compact and vibrant communities, greater opportunity for economic development and increased justification for infrastructure renewal or expansion. Growth also means that transportation policies and infrastructure need to be in place to support the needs of a larger population to contribute to a high quality of life for Pickering residents and to help Pickering grow in a way that is environmentally, socially, and economically sustainable.

One of the key mechanisms for providing a high quality of life for residents of all ages, incomes and abilities, is a well-planned, sustainable transportation system that can accommodate growth.

A transportation master plan is an opportunity to look at the system as a whole and understand how each element is related to the others. The product of this process is a coordinated suite of infrastructure, programs and policies that work together to encourage the development of a transportation system that is able to accommodate growth by supporting all modes of travel. As a transportation master plan is forward-looking, it also considers the impacts of climate change on infrastructure needs and supports projects that are resilient and have minimal negative impacts on the environment.

How was this ITMP prepared?

The ITMP was prepared by IBI Group under the guidance of the Technical Working Group, consisting of City of Pickering staff from multiple departments, including Engineering Services, City Development, Community Services, Finance, Sustainability and Pickering Fire.

The ITMP study was initiated in the fall of 2017 and was structured around four main stages as illustrated below. All transportation construction projects are subject to Environmental Assessment (EA) legislation and processes to identify and mitigate impacts to the environment.

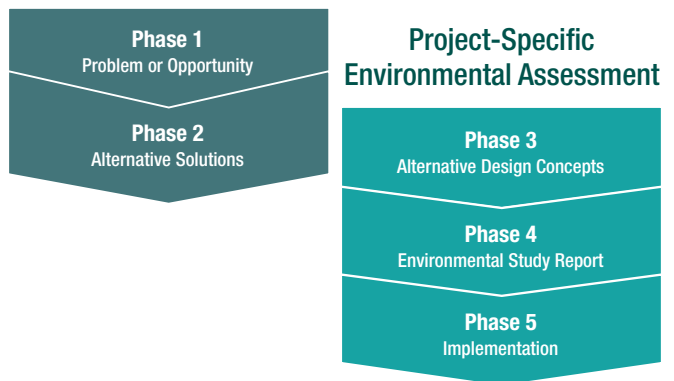
The Municipal Class EA allows municipal projects, such as road, water and wastewater, and transit infrastructure projects, to be carried out using a pre-approved process that ensures public and stakeholder participation throughout.

The ITMP study was conducted in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment process, which is an approved process under the Environmental Assessment Act.

This ITMP is coordinated with other land use plans to make sure that growth contributes positively to every neighbourhood in the City. It leverages planned investments to implement complete streets and more sustainable design approaches.

The ITMP final report was in the process of being prepared and finalized during the COVID-19 pandemic and is therefore based on pre-pandemic travel data. The COVID-19 pandemic has the potential to influence travel patterns in Pickering due to potential increases in working from home, other flexible working arrangements, and other potential economic and social changes resulting from the pandemic. The City of Pickering will continue to monitor transportation trends and make any required changes to transportation policies and network recommendations during subsequent updates of the ITMP.

Transportation Master Plan



Stage 1 Establish a Vision <i>Winter 2017</i>	Stage 2 Assess Alternatives <i>Spring 2018</i>	Stage 3 Develop Supporting Strategies <i>Fall 2018</i>	Stage 4 Develop the ITMP <i>Spring 2019</i>
Public Information Centre #1	Public Information Centre #2		Public Information Centre #3

1.2 Engagement and Consultation

A range of consultation activities provided opportunities for both stakeholders and members of the public to provide feedback and help shape the ITMP. Key activities included stakeholder advisory group meetings, a trails-related meeting with targeted stakeholders, three rounds of Public Information Centres (PICs) and an online survey. Consideration was given to all concerns and comments brought forward by stakeholders and the public.

Stakeholders

A Stakeholder Advisory Group (SAG) was formed consisting of representatives from local municipalities, technical agencies, community groups, and industry groups. Over the course of the study, three meetings were held with the SAG to gather information, present interim findings and draft recommendations.

The SAG consisted of representatives from:

- City of Pickering: Public Works, City Development, Accessibility, and Engineering Services
- Region of Durham: Planning, Public Works
- Durham Region Transit
- Region of York
- Town of Ajax
- City of Toronto
- City of Markham
- Town of Whitchurch-Stouffville
- Toronto Region Conservation Authority
- Parks Canada
- Durham Region Cycling Coalition
- 407 ETR

Public

For the general public, three rounds of PICs were held. Each PIC was promoted with advertisements in the local newspaper, notices on the City's website, and online posts through the City's social media channels. Attendees at the PICs were invited to submit written comments or questions using comment forms or via email, and had the opportunity to discuss issues with study team members.

The final report and background reports were also placed on public record for a 30-day public review period in accordance with the requirements of the Municipal Class EA process between April 22, 2021 and May 21, 2021.

Concurrent with the first PIC, an online survey was conducted to provide an opportunity for those who could not attend the public meeting in person to participate in the study and provide feedback. Over 200 respondents provided input.

Further information on the consultation process is provided in **Background Report A – Public and Stakeholder Consultation Summary**.

1.3 About this Report

The ITMP is organized in such a way as to capture the process of deriving the plan itself. The content of each chapter is intentionally kept to a high level in order to maintain the document's readability. If required, further detail is always available in the referenced documents.

The chapters are organized as follows:

Chapter 2: A Transportation Vision for Pickering sets the vision for the future transportation system.

Chapter 3: Study Context describes the present day context and factors that impact transportation.

Chapter 4: Roads presents the plan for Pickering's road network.

Chapter 5: Active Transportation presents a path forward to increase active transportation in Pickering.

Chapter 6: Supporting Strategies describes the strategies that will help achieve the goals and objectives of the plan.

Chapter 7: Achieving the Plan describes how to implement and monitor the plan.

Background Reports

Eight background reports accompany the ITMP. These reports are intended to provide a greater level of detail on specific components of the plan and provide additional potential actions that Pickering could pursue. The key themes and actions were carried forward from the background reports and form the basis for the ITMP report.

A – Public and Stakeholder Consultation Summary

B – Complete Streets Strategy

C – Road Network Development

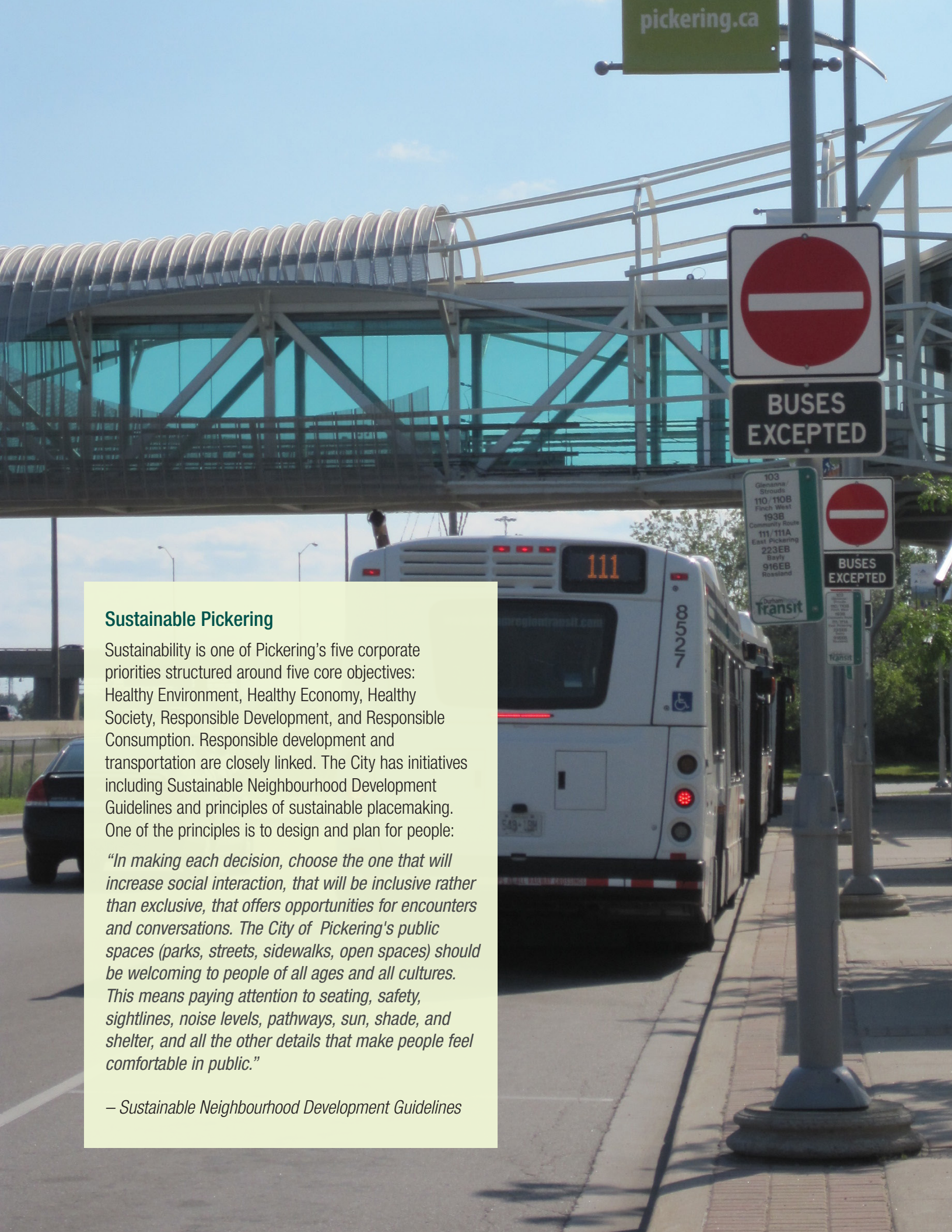
D – Goods Movement Strategy

E – Cycling Network Development

F – Transportation Demand Management Strategy

G – Parking Management Strategy

H – Access Management Strategy



Sustainable Pickering

Sustainability is one of Pickering's five corporate priorities structured around five core objectives: Healthy Environment, Healthy Economy, Healthy Society, Responsible Development, and Responsible Consumption. Responsible development and transportation are closely linked. The City has initiatives including Sustainable Neighbourhood Development Guidelines and principles of sustainable placemaking. One of the principles is to design and plan for people:

"In making each decision, choose the one that will increase social interaction, that will be inclusive rather than exclusive, that offers opportunities for encounters and conversations. The City of Pickering's public spaces (parks, streets, sidewalks, open spaces) should be welcoming to people of all ages and all cultures. This means paying attention to seating, safety, sightlines, noise levels, pathways, sun, shade, and shelter, and all the other details that make people feel comfortable in public."

– Sustainable Neighbourhood Development Guidelines

2.0

A Transportation Vision for Pickering

As part of the ITMP development, a transportation specific vision was crafted to articulate Pickering’s strategic city building priorities. The vision was developed with input from a variety of groups, including the Technical Working Group, composed of members of several City of Pickering departments; the Stakeholder Advisory Group, composed of members of organizations and agencies with an interest in the ITMP; and members of the public whose input from Public Information Centre one was used to develop the vision.

Vision

"A safe and well-connected transportation system that offers inclusive mobility, supports complete and sustainable communities and facilitates continued economic growth"

This vision has guided the development of the networks, strategies, and policies articulated throughout this document and in the background strategies.

Pillars

To support the vision four pillars were identified, each with statements articulating how the ITMP and the overall transportation system will support each pillar and in turn the vision.



A Safe, Well-Connected Transportation System

- Improves transit access
- Supports and encourages active transportation
- Provides efficient movement of people and goods



Inclusive Mobility

- Provides safe transportation options for all ages and abilities



Complete and Sustainable Communities

- Minimizes impacts on the environment
- Provides community health benefits
- Fits the City’s development strategies



Economic Growth

- Supports the City’s economic development strategies
- Provides efficient goods movement in and around Pickering
- Financially sustainable for the City



3.0

Study Context

3.1 Planning Foundation

Provincial, regional and municipal policies work together to direct growth towards safe, healthy and complete communities. **Exhibit 3.1** groups plans and policies that are relevant to the ITMP by jurisdiction and provides a brief explanation of the document and its impact on the ITMP.

Exhibit 3.1: Policies and Plans of Relevance to the ITMP

Policy or Plan	Impact on ITMP
Provincial	
<p>Provincial Policy Statement (2020)</p>	<p>The Provincial Policy Statement (PPS) provides provincial policy direction on matters of provincial interest related to land use and development, and is authorized by the Planning Act. The focus of the PPS is to manage land use to accommodate appropriate development to meet the full range of current and future needs. The PPS includes direction on: Building Strong Healthy Communities, Wise Use and Management of Resources, and Protecting Public Health and Safety. It supports land uses that promote multimodal transportation systems that are safe, efficient, and appropriate for current and projected transportation needs. The 2020 PPS includes stronger policy direction for intensification, active transportation, and transit-supportive development.</p>
<p>Growth Plan for the Greater Golden Horseshoe (2019)</p>	<p>This plan sets out the framework for growth and development in the Greater Golden Horseshoe (GGH) to support liveable and equitable communities, enhance the economy, and protect the natural environment. The Growth Plan has population and employment forecasts set out by the Province to help municipalities anticipate and plan for growth. The Growth Plan’s minimum density target for Pickering City Centre is 200 residents and jobs combined per hectare by 2031. The ITMP has been developed based on this target, as well as Growth Plan policies regarding where and how to grow, transportation infrastructure recommendations to support growth, and recommendations for protecting natural and heritage features. Like the 2020 PPS, the 2019 Growth Plan also includes stronger policy direction for intensification, particularly in Major Transit Station Areas and corridors with frequent transit, active transportation, and transit-supportive development.</p>
<p>2041 Regional Transportation Plan (2018)</p>	<p>The 2041 Metrolinx Regional Transportation Plan is a multi-modal long-range regional transportation plan for the Greater Toronto and Hamilton Area (GTHA). The Plan includes strategies, proposed policies, and a proposed long-term multi-modal transportation network to accommodate the Region’s transportation needs until 2041.</p>

Policy or Plan	Impact on ITMP
#CycleON – Ontario’s Cycling Strategy (2018)	A long term provincial strategy to promote cycling in Ontario to people of all ages and abilities, CycleON envisions a province-wide network of cycling routes which are safe, accessible and connected, and delivered in partnership with private and public stakeholders.
Oak Ridges Moraine Conservation Plan (2017)	The Oak Ridges Moraine Conservation Plan provides land use and resource management direction for all land and water within the Moraine with the goal of protecting the ecological and hydrological features of the Moraine. New transportation infrastructure is only permitted within the Moraine if there are no reasonable alternatives and all new infrastructure is subject to strict review and approval standards.
Greenbelt Plan (2017)	The Greenbelt Plan applies to the entire Greater Golden Horseshoe, including Pickering. It describes policies to protect the agricultural land base, sensitive ecological features, and a range of recreational and tourism land uses in the GGH. While these policies do not preclude new transportation infrastructure in protected areas, they strictly define the conditions under which any new development in the Greenbelt can occur to minimize impacts on the natural environment and the agricultural system.
Freight-Supportive Guidelines (2016)	Freight-Supportive Guidelines were published by the Ontario Ministry of Transportation in 2016 to help create safe and efficient freight-supportive communities. The guidelines include strategies for land use planning and design to maximize flexibility and productivity for businesses while preserving quality of life in nearby neighbourhoods. The guidelines are grouped under four main themes, namely land use and transportation planning guidelines, site design guidelines, road design and operational guidelines, and implementation strategies.
Transit-Supportive Guidelines (2012)	Transit-Supportive Guidelines were published by the Ontario Ministry of Transportation in 2012 to provide wide-scale and site-specific policies that may be applied in Ontario municipalities. The guidelines include recommendations for transit-supportive street layouts and urban forms, as well as guidance for the development of complete streets.
Transportation Plan for the Greater Golden Horseshoe (ongoing)	The Ontario Ministry of Transportation is developing a Multimodal Transportation Plan for the Greater Golden Horseshoe (GGH) with a planning horizon of 2051. Once completed, the GGH Transportation Plan will include a combination of policy and infrastructure recommendations that will guide provincial and Metrolinx transportation investments, provide guidance for municipalities, and a platform for partnership with the federal and private sector partners on transportation priorities in the region. The Plan will outline provincial transportation priorities for the region for all modes of transportation, and as such, may impact municipal official plan and transportation master plan priorities.
Regional	
Durham Regional Official Plan (2017 Office Consolidation)	The Durham Regional Official Plan (ROP) provides long-term policy direction for the growth and development of the Region. The ROP, in keeping with the provincial Growth Plan, includes overall goals to create healthy, complete, and sustainable communities. It also has population and employment forecasts to 2031, based on the Growth Plan for the GGH. The ROP also outlines goals for an integrated transportation system that is safe, efficient and reliable, and offers a variety of mobility choices for Durham residents. Since the 2017 Office Consolidation of the ROP, Amendment #171 to the ROP was adopted by Regional Council in June 2018, which implemented key transportation network recommendations from the Durham Region Transportation Master Plan. Durham Region is currently updating its Official Plan, including its transportation policies.

Policy or Plan	Impact on ITMP
<p>Durham Region Transportation Master Plan (2017)</p>	<p>The Durham Region Transportation Master Plan (RTMP) is a long-term strategic plan that defines the policies, programs and infrastructure modifications needed to manage transportation demands in Durham Region through to 2031. The plan focuses on all modes of transportation, including walking, cycling, transit, autos and goods movement. It takes the strategic approach of focusing on transportation improvements to address shorter and more localized trip patterns as per the Growth Plan's population and employment forecasts.</p>
<p>Durham Vision Zero Strategic Road Safety Action Plan (2019)</p>	<p>The Region of Durham has adopted a strategic road safety action plan based on Vision Zero principles. This plan has the goal of reducing fatal and injury collisions across the region by at least ten percent by 2023, eventually reducing the number of fatal collisions to zero. The plan identifies eight emphasis areas to focus on road safety, ranging from infrastructure to road user behaviours, and also describes countermeasures that can be implemented.</p>
<p>Municipal</p>	
<p>Official Plan (2018 Office Consolidation, 8th ed.)</p>	<p>The City of Pickering Official Plan (OP) provides the overall policy direction for growth and development for the City. It also sets out guidance for specific area development to address detailed land use mix and arrangement, scale and density, the transportation network, and community design requirements and servicing arrangements.</p> <p>The City of Pickering is currently undertaking a Comprehensive Zoning By-Law Update.</p>
<p>South Pickering Intensification Study (2019)</p>	<p>The South Pickering Intensification Study explored opportunities for growth and development in South Pickering, outside of the City Centre. Through a series of public consultation activities, the first phase of the study identified the Kingston Road Corridor as the focus for intensification. Phase two of the study – the Kingston Road Corridor and Specialty Retailing Node Intensification Study – identified a new vision and strategy for the Kingston Road Corridor and Specialty Retailing Node through the development of an Intensification Plan and draft Urban Design Guidelines. At the same time as City Council endorsed in principle the Intensification Plan and draft Urban Design Guidelines, they authorized staff to initiate an Official Plan Amendment to implement the vision and plan. The Official Plan Amendment process is underway and will include opportunities for stakeholder and community participation.</p> <p>The Official Plan amendment includes transportation related policies including, but not limited to, policies related to priority pedestrian and cycling connections, encouraging built form and streetscapes to support active transportation, higher density transit supportive development, and designing streets as complete streets. For more information please see proposed Official Plan Amendment 38.⁶</p>

⁶ Proposed Amendment 38 to the Pickering Official Plan, November 2020 (<https://corporate.pickering.ca/weblink/ElectronicFile.aspx?docid=234240&dbid=1>)

Federal Airport Lands

The Federal Airport Lands in northern Pickering have been protected by the Government of Canada since 1972. Properties on these lands are currently leased to residential, agricultural and commercial tenants. A portion of the original airport lands were transferred to the Rouge National Urban Park in 2013 with the remaining 9,600 acres reserved for the future airport and adjacent economic development.

The timing of the potential airport is uncertain. The 2011 Needs Assessment Study released by Transport Canada anticipated development between 2027 and 2037. The 2019 Aviation Sector Analysis study released by Transport Canada refined this window, noting that a new southern Ontario airport may be needed by 2036, and suggested that a Pickering airport could serve industrial aviation and specialty passenger needs. It is anticipated that the federal government will undertake additional studies to identify transportation infrastructure to support the airport and surrounding lands. The City of Pickering supports an airport in north Pickering.

3.2 Social and Economic Environment

The City of Pickering is one of the eight area municipalities under the Regional Municipality of Durham (Durham Region). Pickering is situated east of the City of Toronto and City of Markham, south of the Town of Uxbridge and west of the Town of Ajax and Town of Whitby. Pickering covers a land area of 231.6 km². However, existing built-up area is concentrated in approximately 45 km², or 20% of the City's total area, mostly within 7 km from the shore of Lake Ontario. Northern Pickering is primarily rural with several distinct settlement areas and hamlets, and the protected Federal Airport Lands, and 1,700 hectares of Rouge National Urban Park.

⁷ 2016 Census population of 91,771 adjusted for census undercount of approximately 4%.

⁸ 2019 Durham Business Count.

⁹ Policy 7.3.3 of the Durham Regional Official Plan indicates a 2031 population of 226,000 which represents an upper limit for the City of Pickering that must be considered in conjunction with Policy 7.3.11 p) and all other applicable policies of the Plan. Policy 7.3.11 p) includes consideration of lands for Urban Area expansion within the City of Pickering east of the airport lands, and outside of the Greenbelt Plan, only through a comprehensive review. These lands are not included in the analysis for 2031 in the ITMP.

The current population of Pickering is approximately 95,000⁷ with 34,800⁸ jobs. Until recently, population growth in Pickering has been fairly stable, with population growing 2% in the 10-year period between 2001 and 2011. Growth has started to increase, with population growing 3% in the 5-year period between 2011 and 2016. Growth is anticipated to increase significantly in the coming years to about 190,000⁹ by 2031.

The two main growth areas in Pickering are the City Centre, a provincially designated Urban Growth Centre with density targets for residential and employment intensification, and the new growth area known as Seaton in central Pickering. By 2031, Seaton will be home to 61,000 people and 30,500 jobs. (And, ultimately, home to 70,000 people and 35,000 jobs through long-term intensification.) In addition, growth is expected within the Kingston Road Corridor and Specialty Retailing Node (east of Brock Road, north of Highway 401), with growth targets of 22,000 people and 7,500 jobs.

Pickering's key business sectors include energy, environment and engineering (EN3), advanced manufacturing, and agriculture. Of the more than 3,000 businesses located in Pickering, Ontario Power Generation is the City's largest employer.

3.3 Natural Environment

Pickering has significant natural heritage and hydrological features and areas including Duffins Creek, Petticoat Creek, Frenchman's Bay, Rouge Valley, Oak Ridges Moraine, and numerous streams and other natural areas throughout the City. Schedules III A to III E of the City of Pickering Official Plan map various aspects of the City's natural heritage system, areas of natural and scientific interest, wildlife corridor, wetlands, watersheds, and aquifer vulnerability areas. **Exhibit 3.2** shows the key natural heritage features (OP Schedule III B) and **Exhibit 3.3** shows the key hydrologic features (OP Schedule III C) in Pickering.

In some cases, natural heritage and hydrological features are barriers to the transportation network. For example, Frenchman's Bay and West Duffins Creek limit the number of east-west connections and reduce connectivity particularly for pedestrians and cyclists as alternative crossings result in much longer routes that may not be practical. The Seaton Urban Area has been planned around the City's natural heritage and hydrological features, resulting in limited road connections across natural features and more separated neighbourhoods in some areas but supplemented with neighbourhood connecting trails and recreational trails.

The ITMP recognizes that a connected and robust and natural heritage system plays an important role for climate change mitigation and adaptation. Transportation infrastructure projects recommended in the ITMP will attempt to minimize impacts to the natural heritage system to the extent possible, and opportunities to restore and enhance Pickering's natural heritage should be considered as part of infrastructure improvements.

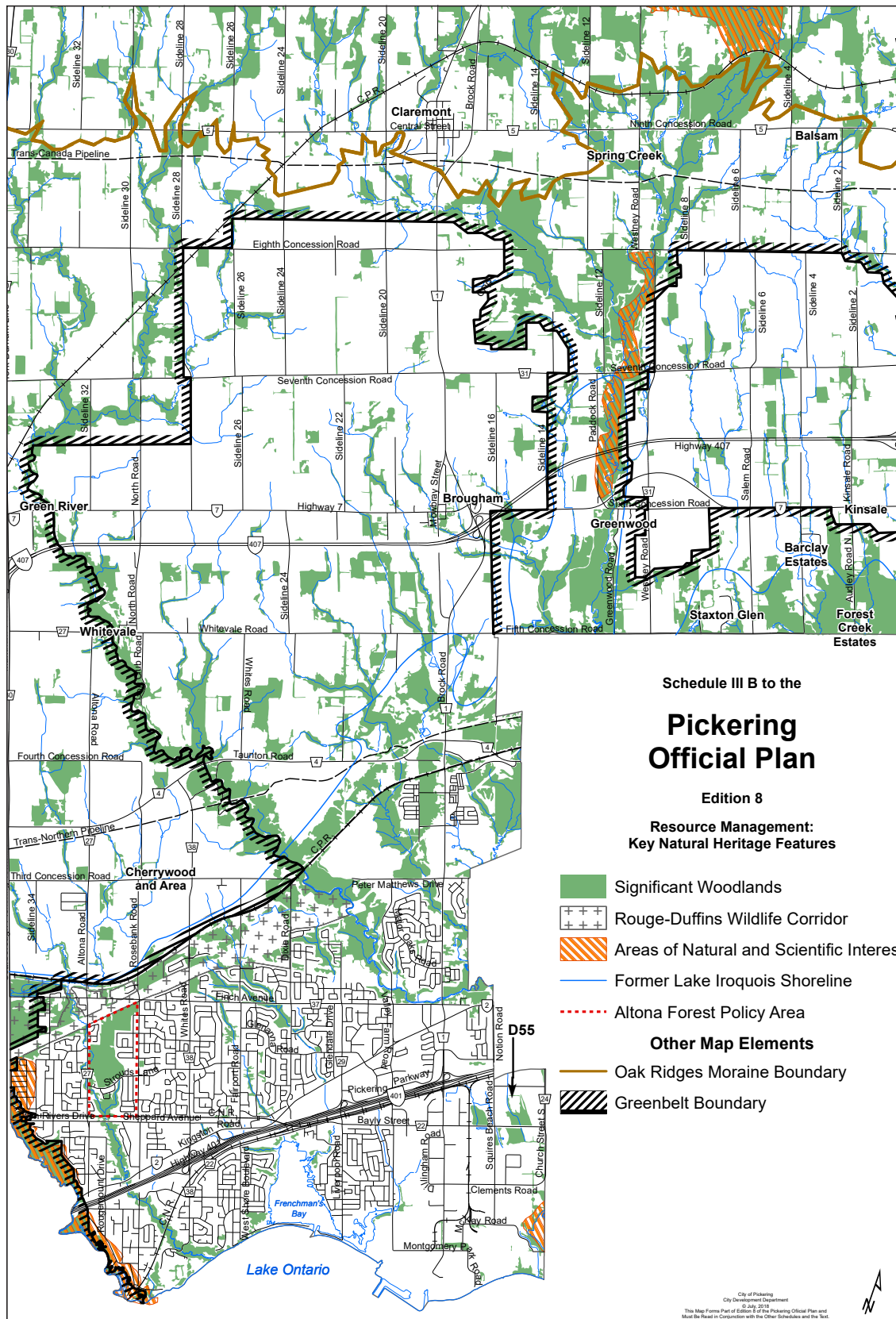
Seaton

Seaton was originally conceived in the 1970s when the Province proposed a new community northeast of Toronto in what is now central Pickering. There have been many different concepts proposed for Seaton over the years, but in 2006 an established vision for Seaton was achieved when the province completed the Central Pickering Development Plan. The plan calls for 70,000 people and 35,000 jobs in a sustainable urban community, an agricultural community, and an open space system.

In 2014, the decision of the Ontario Municipal Board to approve Amendment 22 to the Pickering Official Plan was confirmed by Order in Council which "sets in place policies for the development of urban Seaton as a walkable, transit supportive community at densities that support an attractive community and an active street life, including neighbourhood shops, social facilities and parks."

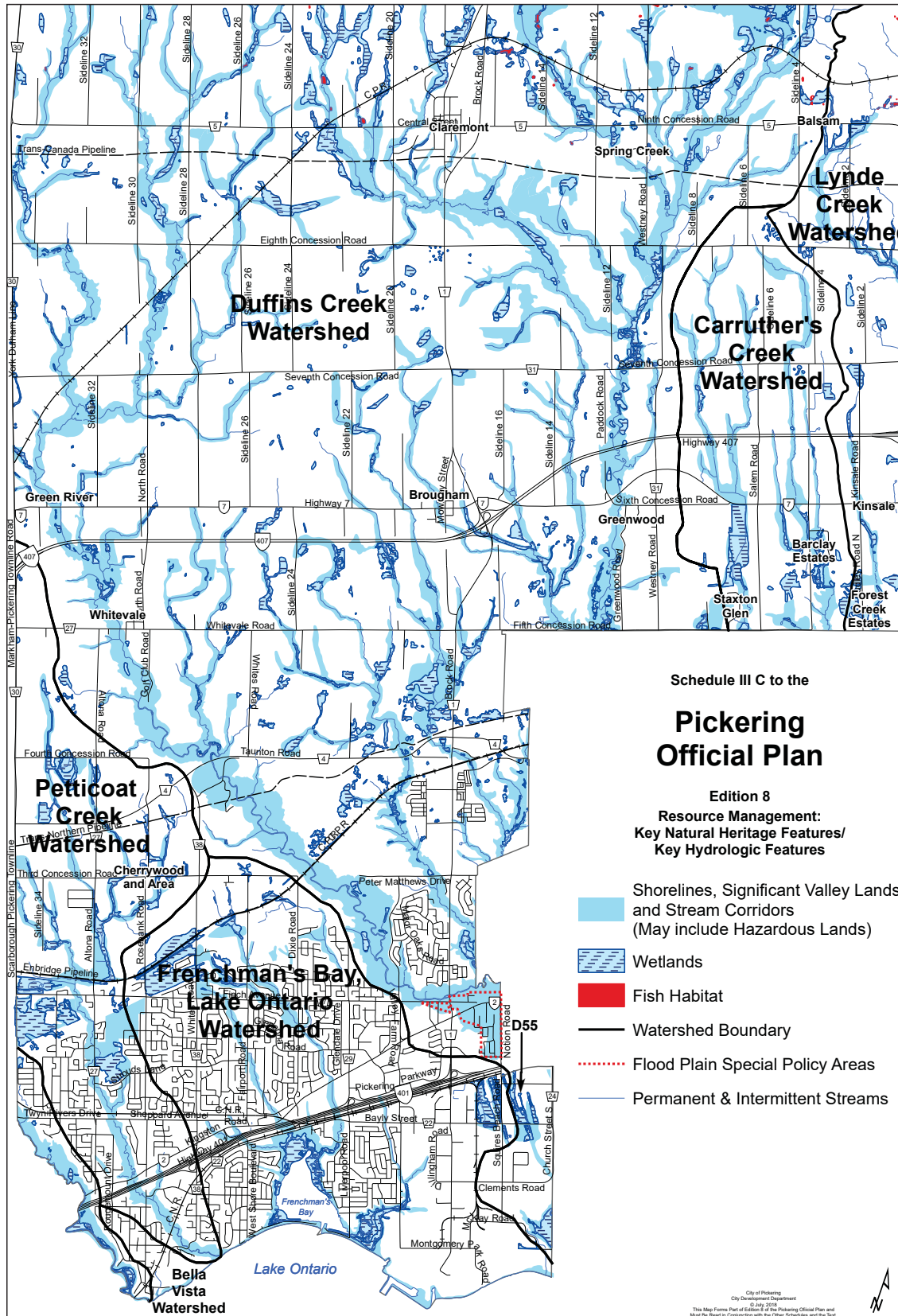


Exhibit 3.2: Key Natural Heritage Features (Official Plan Schedule III B)



Source: Pickering Official Plan, Edition 8, Schedule III B, 2018

Exhibit 3.3: Key Hydrological Features (Official Plan Schedule III C)



Source: Pickering Official Plan, Edition 8, Schedule III C, 2018

3.4 Emerging Transportation Technologies

Pickering, along with other municipalities across the country, is adapting to technology-driven changes in how people travel. These include electric vehicles, mobility as a service, and emerging connected and automated vehicle technologies.

As evidenced by the growing number of electric vehicle charging stations in the city, Pickering is adapting to serve the growing number of all-electric and hybrid-electric vehicles operating on its roads. Electric vehicles provide a more environmentally-friendly alternative to conventional gas or diesel vehicles, producing no greenhouse gases or harmful emissions. Vehicle charging infrastructure can already be found at locations in Pickering including the SmartCentres retail complex, and more chargers are expected to be introduced in the coming years.

Mobility as a service is an umbrella term that encompasses services or technologies such as car-sharing, ride-hailing, ride-sharing, bike-sharing, and micro-transit. Generally, mobility as a service enables travellers to use their smartphone to access alternative, shared modes of transportation quickly and easily. Some of these services are already in place in Pickering, such as ride-hailing, and more may emerge as regulations and demand change. While mobility as a service can help achieve the goals of the ITMP, Pickering should understand the risks and opportunities it may bring.

Connected and automated vehicles (CAVs) are another technology that has the potential to impact transportation in Pickering. CAVs are vehicles that can communicate with each other and connected infrastructure, and also have the ability to sense the road environment and make driving decisions on their own. It is expected that CAVs will eventually reduce or eliminate the need for people to drive vehicles, and this technology may also lead to increased car-sharing and reduced auto ownership. Such

changes are expected to influence how people make trips, where they travel, and how much they travel. CAVs may take the form of personal automobiles, such as cars and SUVs, but they may also take the form of commercial vehicles.

3.5 Trends Affecting Transportation

The Pickering ITMP has been developed to meet current and future transportation needs in the City, but also to influence travel trends and create a more sustainable future. The following five key trends describe how Pickering is expected to grow in the future and how this growth relates to existing travel patterns and behaviours.

3.5.1 Pickering is About to Grow Rapidly

Pickering is on the cusp of a major change with the development of the Seaton lands and intensification in south Pickering.

In contrast to Pickering's relatively stable population over the past 15 years, new developments in Seaton are expected to grow the City's population by 61,000 people between 2016 and 2031. These new residents will reside in a variety of housing types and densities, ranging from suburban detached homes to urban mixed-use developments. In addition, intensification in south Pickering will further grow the City's population through the addition of new higher density residential and mixed-use developments. Together, these changes are estimated to increase Pickering's population from approximately 95,000¹⁰ in 2016 to 190,000¹¹ to 77,000¹² in 2031, an increase of 121%.

Employment in Pickering is also expected to grow quickly with the development of the Innovation Corridor and other sites in Seaton, which will add 30,500 jobs to the City between 2016 and 2031. With 800 acres of prestige employment lands, the Innovation Corridor is expected

¹⁰ 2016 Census population of 91,771 adjusted for census undercount of approximately 4%.

¹¹ Policy 7.3.3 of the Durham Regional Official Plan indicates a 2031 population of 226,000 which represents an upper limit for the City of Pickering that must be considered in conjunction with Policy 7.3.11 p) and all other applicable policies of the Plan. Policy 7.3.11 p) includes consideration of lands for Urban Area expansion within the City of Pickering east of the airport lands, and outside of the Greenbelt Plan, only through a comprehensive review. These lands are not included in the analysis for 2031 in the ITMP.

¹² Durham Regional Official Plan Policy 7.3.3.

to feature employers in the light manufacturing, business services, and data and communications sectors, among others. Developments in south Pickering, such as the Durham Live entertainment complex, will also boost employment in the City. Together, these changes will grow Pickering’s employment from 34,800 in 2019 to 77,000 in 2031, an increase of 121%.

With more people living and working in Pickering, the number of trips to, from, and within the City are expected to increase. By 2031, an additional 60,000 trips are forecast in the AM peak period alone, representing an increase of 92%. These additional trips will increase pressure on major transportation corridors in the City, including local and Regional roads, highways, and transit lines. Finding ways to manage these new trips in a sustainable way will be essential for Pickering as it grows.

3.5.2 Demographic Trends Differ from Durham Region in Key Ways

Compared to Durham Region, the City of Pickering exhibits a number of different demographic trends that impact how transportation should be planned and provided. The following trends come from Statistics Canada Census data collected in 2011 and 2016.

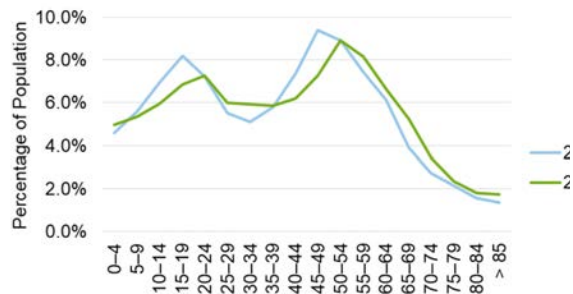
Between 2011 and 2016, Pickering’s population grew by 3.4%, while the total population of Durham Region grew by 6.2%. Over this same period, the population across Durham Region aged and the share of individuals 65 years and older grew by nearly four percentage points to about 14.5%. This trend has been observed in most municipalities across Ontario and Canada as the “baby boomer” population continues to age.

While Pickering and Durham have a similar proportion of seniors, children and young teenagers (0 to 14 years old) make up a larger share of the Region’s population (18.0%) compared to Pickering’s population (16.3%). Compared to 2011, the proportion of children and young teenagers in Pickering and in the Region has fallen by more than half a percentage point. In fact, the number of individuals in Pickering between 0 and 14 years of age fell from 15,200 to 14,900 between 2011 and 2016. These changes in Pickering’s population are shown in **Exhibit 3.4**.

Considering other demographic attributes, Pickering and Durham Region are relatively similar. The average

household size in Pickering is 2.9 individuals, compared to 2.8 individuals across the Region, while the average family size in Pickering is 3.1 individuals, compared to 3.0 individuals across the Region.

Exhibit 3.4: Change in Pickering Population Age Distribution, 2011–2016

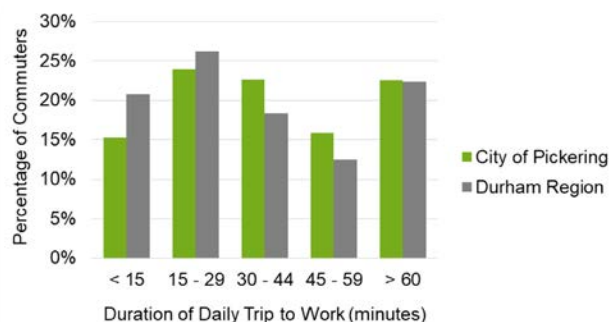


Source: Statistics Canada, 2011 and 2016

Average household incomes in Pickering are close to \$120,000, which is somewhat higher than the Regional average of \$107,000.

Commuting trends in Pickering are similar to those across the Region, but with a few key differences. The distribution of commuting modes is generally similar, with most commuters driving a car, truck or van, although a slightly higher proportion of Pickering commuters use public transit compared to the Region-wide average. Commuting durations for Pickering residents are also generally longer than those across the Region, as shown in **Exhibit 3.5**. The proportion of Pickering commuting trips lasting 30 minutes or longer is nearly eight percentage points higher than the Durham average.

Exhibit 3.5: Commuting Durations for Pickering and Durham Region Residents, 2016



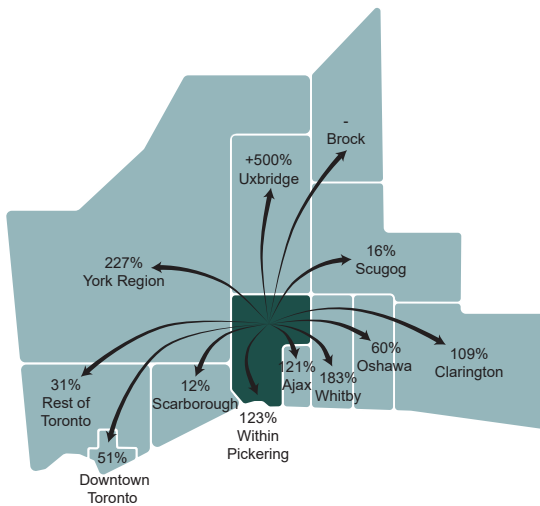
Source: Statistics Canada, 2016

3.5.3 Trip Destinations are Changing

With the addition of new residential and employment developments in Seaton, as well as intensification in south Pickering, travel patterns in the City are expected to shift by 2031. Not only will these land use changes create more trips within Pickering, but they will attract travelers from elsewhere in Durham Region and the Greater Toronto Area.

By 2031, the number of trips within Pickering will increase more than the number of trips to and from external locations. In the AM peak period (6:00 a.m.-8:59 a.m.), total trips within Pickering are expected to increase by 123% (20,000 person-trips), while trips between Pickering and other municipalities in Durham Region are expected to increase by 101% (18,000 person-trips). Over the same period, AM peak period trips between Pickering and Toronto are forecast to increase by only 36% (8,000 person-trips). These changes are shown in **Exhibit 3.6**.

Exhibit 3.6: Increase in Number of AM Peak Period Trips from Pickering, 2011–2031



Data

Source: Transportation Tomorrow Survey, 2016
Note: Trip growth to Brock is negligible

The impact of these changing destinations on transportation in the City will be twofold. With more internal trips, local roads will face additional demand and may become capacity constrained, requiring expansion or new roads to be constructed. Second, the increase in travel between Pickering and other municipalities, especially those in Durham Region, will demand

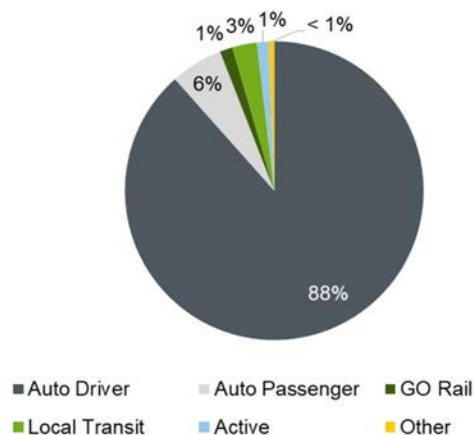
better inter-municipal connections. These impacts can be managed through proactive development, but also through implementing transportation demand management strategies.

3.5.4 Private Automobiles Still Dominate Travel

With a few notable exceptions, travel to, from, and within Pickering primarily relies on private automobiles. More than 75% of all trips starting in Pickering in the morning peak period are made by car, either as a driver or a passenger. Since trips in the morning peak period are primarily made for work or school, these trips are repeated hundreds of times each year. Making these trips by car contributes significantly to local traffic in the City, and even to more widespread traffic across the Greater Toronto and Hamilton Area (GTHA).

Work trips destined to Pickering in the AM peak period, including trips that originate in Pickering, are even more auto dominant. Auto drivers account for nearly 90% of trips while local transit trips account for only 3%, as shown in **Exhibit 3.7**. This statistic improves when only considering work trips internal to Pickering, increasing the share of transit trips to 6% while reducing the share of auto driver trips to just over 75%. These findings are not surprising given that travel from Toronto and York Region is relatively uncongested in the morning peak, inter-regional transit connections are poor, and Pickering workplaces provide free parking.

Exhibit 3.7: Work Trips Destined for Pickering in the AM Peak, 2016

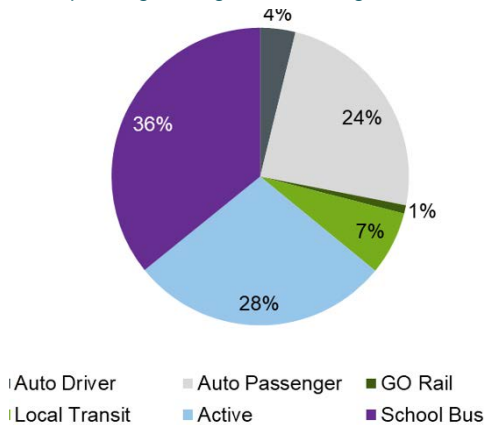


Data Source: Transportation Tomorrow Survey, 2016

There are two major exceptions to auto-dominated travel in Pickering: trips to elementary or secondary school and trips to Downtown Toronto. Less than 30% of school travel in the City is made by car, either as a driver or a passenger, while over one-third of school trips are made by school bus and over 25% of school trips are made by walking or cycling. **Exhibit 3.8** shows the modal split for school trips starting in Pickering. Trips from Pickering to Downtown Toronto in the AM peak period also do not rely heavily on cars. Instead, over 60% of these trips use GO Transit, or a combination of GO and local transit service.

While 60,000 more morning peak period trips are forecast to, from, and within Pickering between now and 2031, only 7,000 of these trips are expected to use transit. The examples of school trips and trips to Downtown Toronto show that there are opportunities to reduce auto use while increasing transit and active mode shares. Changing travel mode preferences for Pickering residents and employees will be important for managing congestion and developing sustainable travel patterns over the coming years.

Exhibit 3.8: Modal Split for Elementary and Secondary School Trips Originating in Pickering, 2016



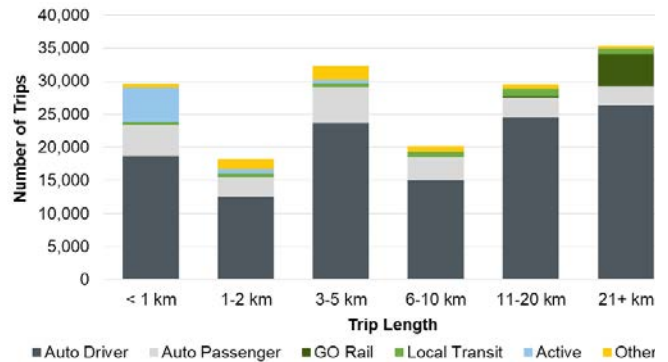
Data Source: Transportation Tomorrow Survey, 2016

3.5.5 Short Trips Provide Opportunities for Sustainable Travel

Approximately 80,000 daily trips that originate in Pickering are less than 5 km, and more than half of these trips are ‘short trips’ (less than 2 km). These trips represent just under half of all daily trips originating in Pickering, and are excellent candidates to be made using

active modes and local transit. Current mode choices for trips starting in Pickering, sorted by trip length, are shown in **Exhibit 3.9**.

Exhibit 3.9: Mode Choice by Distance for Trips Originating in Pickering, 2016



Data Source: Transportation Tomorrow Survey, 2016

While more than 10% of short trips (less than 2 km) are made using active modes, including walking and cycling, very few trips longer than 2 km in length use active modes. An even smaller share of short trips use local transit, although the share of transit trips grows as trip lengths increase. Still, auto modes dominate all trip distances, including short trips and slightly longer (3 to 5 km) trips starting in Pickering.

Together, trips less than 5 km in length represent nearly half of all daily trips starting in Pickering. Increasing the share of these trips that use active modes or transit can contribute significantly to reducing congestion on City roads and reducing the environmental impacts of transportation. Continued reliance on personal automobiles for travel, and for short trips in particular, may become infeasible as Pickering grows and intensifies.

3.6 Shaping the Transportation System

3.6.1 Needs and Opportunities

The analysis of the existing conditions and trends identified a number of transportation challenges and opportunities. As the City of Pickering grows and evolves, transportation demand will also grow and become more complex:

- The city’s population will grow substantially by 2031, through intensification of the existing urban area and new development in the Seaton Urban Area.
- The movement of people and goods between Pickering and other communities in the GTHA will continue to grow.
- Current travel in Pickering is primarily by private automobile, and much of the City’s infrastructure has developed around the automobile being the main mode for accessing employment, delivering goods and services, and travelling for social and recreational reasons.
- Almost half of the daily trips originating in Pickering are short trips less than 5 km. Many of these can be made by active modes instead of the automobile.
- In the past, accommodating growing traffic demand meant building more roads or adding lanes to existing roads. But as the road network is becoming built-out, with major arterials already having six lanes and freeways having as many as twelve lanes, continuing to add road capacity has only encouraged more traffic demand.

3.6.2 Alternative Solutions

The vision of the ITMP is to ensure that the City of Pickering’s transportation network supports the development of complete communities, promotes inclusive mobility, and creates a plan that can be implemented in a financially responsible manner.

Three alternatives were considered for shaping the future transportation system. These alternatives are intended to illustrate different approaches to transportation system development and do not by themselves represent a list of recommendations. The ITMP will develop recommendations that are in line with the preferred alternative.

1. Incremental Improvements

Encompasses a ‘business as usual’ approach, aligning improvements with planned regional projects and leveraging the regional network changes to add local connections. This scenario was developed to address constraints and gaps in the system using a programming approach. As such, it may include identifying specific deliverables in conjunction with planned capital improvements (e.g. filling in missing sidewalk links during road reconstruction).

Variable	Changes
Programs and Policies	<ul style="list-style-type: none"> • Development continues as planned – Seaton, South Pickering Intensification, etc. • Continue participation in region-wide TDM initiatives (e.g. Smart Commute Durham) • Moderate changes to transportation related policies (e.g. reductions in required parking for development)
Road Network	<ul style="list-style-type: none"> • Build planned Seaton road network per the Central Pickering Development Plan, and regionally-planned road network improvements per the Durham TMP • Carry out planned improvements to the local road network
Transit Service and Network	<ul style="list-style-type: none"> • Finish construction of BRT infrastructure for DRT PULSE 900 service on Kingston Road (as a median service) • Work with Durham Region Transit on route changes

Variable (continued)	Changes (continued)
Active Transportation Network	<ul style="list-style-type: none"> • Designate signed routes to connect with regionally-designated cycling routes • Implement new bike lanes on an opportunity basis (e.g. as part of major road construction) • Ensure new developments feature sidewalks and trail/path connections

2. Complete Communities

Integrates transportation changes with proposed land uses and policies to provide connectivity for all modes. This scenario builds on Pickering’s completed plans and studies that emphasize the importance of mixed-use developments, intensification, and multi-modality.

Variable	Changes
Programs and Policies	<ul style="list-style-type: none"> • Strengthen process for aligning transportation improvements and land use plans • Ensure plans for neighbourhood intensification consider traffic impacts • Pedestrian-friendly design standards for non-residential neighbourhood developments to support multi-modal access • Multimodal connections as a requirement for newly designated/developed employment lands • Provide support for neighbourhood-focused TDM, such as car- or bike-share • Continue reducing parking supply in new developments with adequate transit and active transportation access • Transit-oriented development policy land use changes
Road Network	<ul style="list-style-type: none"> • Build planned Seaton road network and regionally-planned roads • Retrofit roads and sidewalks in established communities to form a more connected network and improve multimodal access • Perform traffic calming by removing lanes, reducing speeds, and reducing on-street parking supply • Promote the development of a finer-grain road network through the redevelopment and intensification of the City Centre, the lands along the Kingston Road Corridor, and within the Specialty Retailing Node
Transit Service and Network	<ul style="list-style-type: none"> • Work with the Region and Metrolinx to continue planned transit network and service improvements as outlined in the DRT Service Strategy and Metrolinx RTP • Finish construction of BRT infrastructure for DRT PULSE 900 service on Kingston Road (as a median service)
Active Transportation Network	<ul style="list-style-type: none"> • Take advantage of existing pavement widths to build a more complete active transportation network • Add pedestrian connections along new and modified roads • Provide shorter pedestrian and cyclist crossings along roads that are eligible for traffic calming • Improve visibility, markings, and lighting at pedestrian and cyclist crossings • Connect local active transportation infrastructure to regional infrastructure

3. Infrastructure Focus

Considers major network changes to transform the way people and goods move through Pickering and the GTHA. This alternative’s approach is to leverage “big ticket” projects to impact travel behaviour. This is expected to have a larger impact on the GTHA trips travel market, but will also likely impact regional trips travelling through Pickering.

Variable	Changes
Programs and Policies	<ul style="list-style-type: none"> • Continue with planned land uses (employment, residential, etc.) • Establish a commuter-focused TDM program • Encourage third-party car sharing or bike sharing services to operate in Pickering by providing necessary infrastructure and resources, e.g. dedicated parking spaces at major trip generators • Establish a city parking authority to manage on-street and lot parking in the city centre and waterfront • Pilot a city-run bike share program • Allow for commercial and employment land to be developed adjacent to existing and proposed transit hubs
Road Network	<ul style="list-style-type: none"> • Build planned Seaton road network and regionally-planned roads • Advocate to MTO for new interchange ramps with Highway 401 at Liverpool Road, Church Street or Notion Road • Advocate to MTO to establish HOV/managed lanes on Highway 401 • New Whitevale by-pass (Alexander Knox Road) • Designate a local goods movement network to work within and support the regional goods movement network
Transit Service and Network	<ul style="list-style-type: none"> • Work with Metrolinx on the long-term implementation of a Seaton GO Rail service, providing multi-modal connections to the Seaton station • Work with MTO, Metrolinx, and the Region to provide access to the proposed 407 Transitway by creating park-and-ride lots and local transit access • Support the development and ongoing infrastructure improvements for the BRT infrastructure for DRT PULSE 900 service on Kingston Road • Work with the Region to establish high-frequency north-south and east-west priority bus corridors as proposed in the Metrolinx RTP along Whites Road, Brock Road, Bayly Street, Taunton Road, and Highway 7
Active Transportation Network	<ul style="list-style-type: none"> • Develop a dedicated off-road cycling network utilizing hydro corridors, parks, and boulevards • Advocate to MTO to construct more pedestrian connections over Highway 401, e.g. Fairport Road, Valley Farm Road, Rosebank Road

The first alternative, Incremental Improvements, relies heavily on planned regional network changes and does not address many of the more local transportation needs of a growing Pickering. With travel demand keeping pace with the rate of population and employment growth, planned regional road and transit improvements are not sufficient to address local needs.

The second alternative, Complete Communities, has a heavier focus on the local Pickering trips market by emphasizing connectivity between neighbourhoods and land uses. This approach ensures there are travel options within Pickering to address the disproportionate auto mode share for local trips.

The third alternative, Infrastructure Focus, may have the most influence on changing travel demands and travel patterns, but will also have significant costs and potentially negative impacts on the environment. While the alternative includes significant transit investment, it also includes significant road network expansion that does not align with supporting sustainable transportation choices, healthy communities, and development strategies.

Recommended Solution

The recommended solution is primarily **Complete Communities**, but with key infrastructure projects to address strategic growth needs. A focus on land uses and policies to support and encourage sustainable transportation modes and better connections between modes will reduce vehicular travel demand, minimizing infrastructure expansion needs.

The development of the long-term road network aims to address areas of congestions, improve access and connectivity between neighbourhoods, and support increased transit and active transportation. A larger share of future travel demand will need to be accommodated through other modes such as walking, cycling and transit to alleviate congestion pressures on the existing networks and minimize costly infrastructure expansions.

Investing in walking, cycling and transit has other benefits to the community, including:

- Reducing greenhouse gas emissions and their environmental impacts;

- Encouraging more active lifestyles, which has positive impacts on public health and preventing chronic disease;
- Promoting equity for all road users by providing options for those who do not own or drive a car; and
- Attracting young professionals, families and business investors who want to live and work in urban areas with flexible and convenient transportation options.

3.6.3 Action Areas

Providing transportation choice is a critical factor in promoting equity for all road users, and supporting the health and economic vitality of the community.

Supporting transportation choice and opportunities to access alternative modes, for all residents regardless of age or ability, is a core component of enabling a high quality of life and system efficiency.

This Plan directs the City towards a higher use of alternative travel options by investing in cycling and pedestrian facilities that provide residents with a wider range of options for getting around and meeting their daily needs. The actions identified in these areas support **sustainability**, which is one of Pickering's five corporate priorities.

The following chapters describes the future networks and supporting transportation strategies that will shape the transportation system in Pickering.

Roads

Adopting a **Complete Streets approach** will be fundamental to the successful implementation of this Plan. The complete streets approach provides a policy framework for managing roads as a public resource with multiple roles. Streets are the backbone of the transportation system where people and goods move from one place to another. The complete streets approach presented in this Plan (Section 4.1) provides a framework for making often difficult trade-offs and managing the road network for the greatest public benefit.

The City has the opportunity to focus transportation investments to create a multi-modal system that offers improved choice, maximizes connectivity, and makes Pickering more attractive to potential residents and investors. Through improvements to **roads** (Section 4.2) and **cycling infrastructure** (Section 5.2), the City can meet residents' need for flexible, convenient and affordable ways to move around.

Improving **goods movement** (Section 4.3) is vital to supporting a prosperous City of Pickering that is attractive to potential investors and businesses.

Active Transportation

Expanding the City's existing walking and cycling infrastructure (Section 5) to improve connectivity, connections to transit, and comfort will provide residents and visitors with a real alternative to the automobile. The City has been slowly adding cycling facilities as roads are reconstructed or rehabilitated. Unfortunately, this incremental approach often results in disconnected bike lanes and paths that are underused.

Developing a long-term cycling network and identifying priorities will allow the City to focus investments and achieve a connected, functional network sooner.

The recommendations are intended to align with the World Health Organization's eight dimensions of an age-friendly community, including transportation.

Pickering defines age-friendly transportation as "ensuring public transit is available and affordable, improving signage, crosswalks, sidewalks and lighting, implementing large signs, beeping crosswalks etc."

Supporting Transportation Strategies

While the ITMP considers strategic expansions to road infrastructure and expanding upon its basic active transportation infrastructure, the plan must also work to proactively boost demand for walking, cycling and public transit.

Strategies to supporting the transportation vision include:

- **Supporting access to transit** to maximize the impacts of planned service improvements by Metrolinx and Durham Region Transit by supporting land use intensification and providing pedestrian and cycling connections to bus stops and the train station (Section 6.1);
- Reducing demand for single-occupant vehicles through **transportation demand management** (Section 6.2);
- **Managing the supply of parking** to support a multi-modal transportation system (Section 6.3); and
- **Managing access spacing and locations** to balance the needs of moving traffic and access to adjacent properties on the city's roadways (Section 6.4).

Age-Friendly Community Plan

The City of Pickering has developed its first Age Friendly Community Plan. This Plan is part of Pickering's commitment to being an age friendly City which:

- Recognizes the great diversity among older persons;
- Promotes their inclusion and contribution in all areas of community life;
- Respects their decisions and lifestyle choices; and
- Anticipates and responds flexibly to aging-related needs and preferences.

The Plan identifies age friendly policies, practices, features, programs, and initiatives that support older adults.

The recommendations are intended to align with the World Health Organization's eight dimensions of an age-friendly community, including transportation. Pickering defines age-friendly transportation as "ensuring public transit is available and affordable, improving signage, crosswalks, sidewalks and lighting, implementing large signs, beeping crosswalks etc."





8777 W319

UB
DRIFT
ORE
Mart
SIVA
CK
T. W. H.

4.0

Roads

The City of Pickering's road system must respond to growing travel demand and changing travel patterns as the connections between Pickering and the neighbouring municipalities grow stronger.

The road system is not just for cars but for everyone who uses it. This includes people who walk, cycle or take transit, and people of all ages and abilities. A Complete Streets approach provides a policy framework for managing roads as a public resource with multiple roles and often requiring decisions for difficult trade-offs.

4.1 A Complete Streets Approach

4.1.1 Background

Complete Streets are streets that are thoughtfully designed, operated, and maintained with the needs and safety of all road users in mind. This means that streets consider those who walk, use mobility aids, ride bicycles, take the bus, or drive. It means that a street accommodates all of the people who use it throughout the course of a day. By improving the safety of streets for all users, it is possible to attract users to non-automobile modes and maximize the capacity of the transportation network to move people while working towards the Region's Vision Zero goals.

Streets are not only links between places, but are public spaces integrated closely with the adjacent land uses to create 'places' that build communities. A Complete Streets approach is one that recognizes this relationship between transportation and land use. It aims to balance the objective of streets to move people with that of promoting and supporting economic vitality, civic engagement, human health, and environmental sustainability. Complete streets can also incorporate "green streets" elements where appropriate, extending

the natural heritage system with the inclusion of street trees and other landscaping. In addition, the needs of wildlife can be incorporated on a case-by-case basis as needed.

The results of a complete streets approach can be different for every street, depending on its context; Pickering already has many complete streets. For example, a rural road with low vehicular volumes, no pedestrian demand, and paved shoulders accommodates both drivers and recreational cyclists quite well, just as a quiet local road can accommodate pedestrians, cyclists, and motorists with minimal infrastructure. However, Pickering also has many road that do not safely accommodate all road users. For example, a road with high traffic volumes, discontinuous sidewalks and no bike lanes is not an inviting nor safe place for pedestrians and cyclists, despite it being an excellent route for drivers.

The complete streets approach is about making streets accommodating to more road users and accommodating a variety of trip purposes. This includes simply taking a wide street and adding bike lanes or reallocating road space to give priority to transit vehicles. The specific contexts and needs of the corridor determine what needs to be done, although in some cases, certain existing rights-of-way will not be able to accommodate all desired modes and facilities. The process of converting streets to complete streets will be gradual. The more inviting the network becomes, the more likely it is that people will consider sustainable, non-automobile modes for more of their trips.

Benefits of Complete Streets

The benefits of increasing travel by sustainable modes are substantial. Active transportation has health benefits for individual users and for the community as a whole as

active transportation produces no air pollution. Transit riders also benefit from a complete streets approach to planning; adequate and accessible pedestrian infrastructure to bus stops makes it easier for people to access transit. Streets that better accommodate transit – through transit lanes and/or signal priority measures – make transit faster, more reliable and more attractive. When more people choose to travel by active modes and transit instead of a car, traffic congestion is reduced and streets are more pleasant for all users.

Complete streets also have economic benefits. Complete streets that reduce auto traffic with traffic calming measures have been found to increase property values. Complete streets can benefit local businesses—research cited by Transport Canada notes that safe and convenient pedestrian amenities boost foot traffic, which can increase retail sales.¹³

Complete streets with additional protections for vulnerable road users support the Region’s Vision Zero plan. Overall, complete streets support the development of complete communities, which are a central component of the ITMP and Pickering’s Official Plan.

What does Pickering do now?

The Official Plan identifies strategies for Pickering to become a Complete Community – one that recognizes the interconnectedness of the urban, rural and ecological systems. The role of the transportation network in a Complete Community is to facilitate mobility for residents.

The Downtown Pickering (2013) study identified opportunities to implement complete streets in the City Centre, with policy recommendations to enhance pedestrian and cycling connectivity, and rebalance road space allocation to accommodate all users. Example cross-sections for streets in the City Centre were illustrated to show the potential for various street types including pedestrian streets.

The Kingston Road Corridor and Specialty Retailing Node Intensification Plan (2019) proposed a number of street cross-sections for Kingston Road and others in the study area. These cross-sections aim to provide dedicated space for pedestrians and cyclists through dedicated sidewalks, multi-use paths, and bicycle lanes, in addition to auto lanes. This plan also identifies how streets in the

city, such as Kingston Road, have multiple priorities that must be balanced when providing space for various road users. Further, this plan proposed five new controlled intersections within Pickering to improve safety and connectivity for all road users. Three intersections are proposed within the Brock Precinct, near Brock Road and Pickering Parkway, while two are proposed along Kingston Road near Rosebank Road. Exact locations of these proposed controlled intersections will be established in collaboration with the Region. An additional signalized intersection is also planned for Denmark Road and Kingston Road.

The Seaton Sustainable Place-Making Guidelines (2011) and the Pickering City Centre Urban Design Guidelines (2017) address some aspects of making streets more complete. **Exhibit 4.1** shows an example cross-section of a complete street in the Pickering City Centre from the Pickering City Centre Urban Design Guidelines.

Exhibit 4.1: Glenanna Road as Envisioned in the Pickering City Centre Urban Design Guidelines



Data Source: Pickering City Centre Urban Design Guidelines, 2017

4.1.2 Guiding Principles

The complete streets approach is supported by guiding planning principles. Given Pickering’s wide range of land use contexts, the ITMP recommends that the City adopt an **area-wide approach** to address different land use contexts in the: 1) South Pickering Urban Area; 2) Seaton Urban Area; and 3) Rural area. This will ensure that policies reflect the unique needs and opportunities of each area.

While all streets should safely accommodate all users, many streets in Pickering will have a distinct modal

¹³ Transport Canada, Complete Streets: Making Canada’s roads safer for all (2009).

hierarchy in that the needs of certain users should be prioritized over others. A **street typology** provides guidance on how to focus improvements on the needs of certain users. Street types that have a distinct modal priority include:

- **Transit streets** are typically arterial roads that prioritize transit to accommodate higher-order transit routes, high-frequency routes, or a high volume of transit services;
- **Primary cycling corridors** are designated cycling routes in the ITMP plus the primary cycling network identified in the Durham Region Transportation Master Plan (Durham TMP). These can be on arterial, collector, or local roads and include a wide range of cycling facilities;
- **Pedestrian streets** are typically local or collector roads that prioritize pedestrian movement. Pedestrian streets can also be arterial roads that function as main streets in the city centre, or pedestrian-oriented commercial/retail areas;
- **Goods movement corridors** are arterial roads that make up the truck route network; and
- **Freeways** are under provincial jurisdiction, prioritize the through movement of vehicles and prohibit cycling and walking.

Evaluating how streets meet the needs of different users is a central part of the complete streets approach. **Multi-modal level of service** indicators help measure and plan for the needs of all road users. This means that the focus is shifted away from solely measuring vehicular flow to measures that include how well all users are able to travel through a corridor.

4.1.3 Implementation Strategies

The success of Pickering's complete streets approach depends on making it applicable to all city process related to roads. As such, implementation will be ongoing, and should be applied to planning, design, operations and maintenance projects, activities and processes.¹⁴

The ITMP recommends that the City adopt the following implementation strategies as part of the development of a complete streets policy. These strategies do not constitute an exhaustive list and the complete streets policy should consider these strategies among others.

Planning

- Encourage pedestrian connections between streets, shorter block lengths, and pedestrian facilities in new growth areas to improve neighbourhood connectivity and access to transit;
- Encourage street-oriented development in intensification areas to create a sense of place; and
- Accommodate on-street parking in intensification areas, where feasible, accounting for transit and maintenance needs.

Design

- Accommodate all road users as needed on all streets and provide enhanced features for primary users on priority networks wherever possible and appropriate;
- Include roundabouts as a complete streets solution for intersections based on their safety benefits;
- Improve wayfinding signage for pedestrians and cyclists to major destinations and transit stops/stations; and
- Apply best practices for designing transportation infrastructure to be more resilient in response to climate change, extreme weather conditions, and managing stormwater run-off.

Operation and Maintenance

- Develop a priority winter maintenance network for active transportation, recognizing that many of Pickering's established trails cannot accommodate snow ploughing equipment;
- Review traffic operational study policies and procedures to ensure that they explicitly consider the safety of all users;

¹⁴ While these processes are intended for public streets, complete streets principles can apply to private streets.

- Review pavement marking and signage guidelines to enhance safety of vulnerable users (high visibility crosswalks, cycling facility intersection markings, etc.), where warranted; and
- Consider restricting on-street parking where road width does not allow for comfortable passing of cyclists.

To retrofit complete streets in established areas requires an opportunistic approach. The concept of complete streets needs to be embedded in all projects and procedures related to streets – from projects as large as road reconstructions, resurfacing and rehabilitation to procedures as routine as traffic signal operations, maintenance activities, etc. The incremental cost of considering all modes upfront is less than the cost later to rebuild or upgrade for specific modes. More information is provided in **Background Report B – Complete Streets Framework**.

Recommended Actions	
1.	Develop a Complete Streets Policy for Council approval following the guiding principles and the identified planning, design and operations and maintenance recommendations.
2.	Identify internal stakeholders representing the City Development, Engineering Services, and Public Works departments to champion the complete streets approach and incorporate it into respective policies, processes and procedures.
3.	Routinely incorporate the needs of all road users, including pedestrians, cyclists, transit, drivers and goods movement as part of the planning, design, operations and maintenance of road infrastructure.

4.2 The Future Road Network

The development of the proposed road projects for the future network, including strategically widening sections of existing roads and constructing new road connections, are described below.

4.2.1 Background

Existing Network

The City of Pickering has a well-developed grid of arterial, collector and roads, anchored by Provincial freeways and Regional arterial roads. **Exhibit 4.2** illustrates the road network in Pickering by class, and **Exhibit 4.3** illustrates the road network by jurisdiction (municipal, Regional, or Provincial).

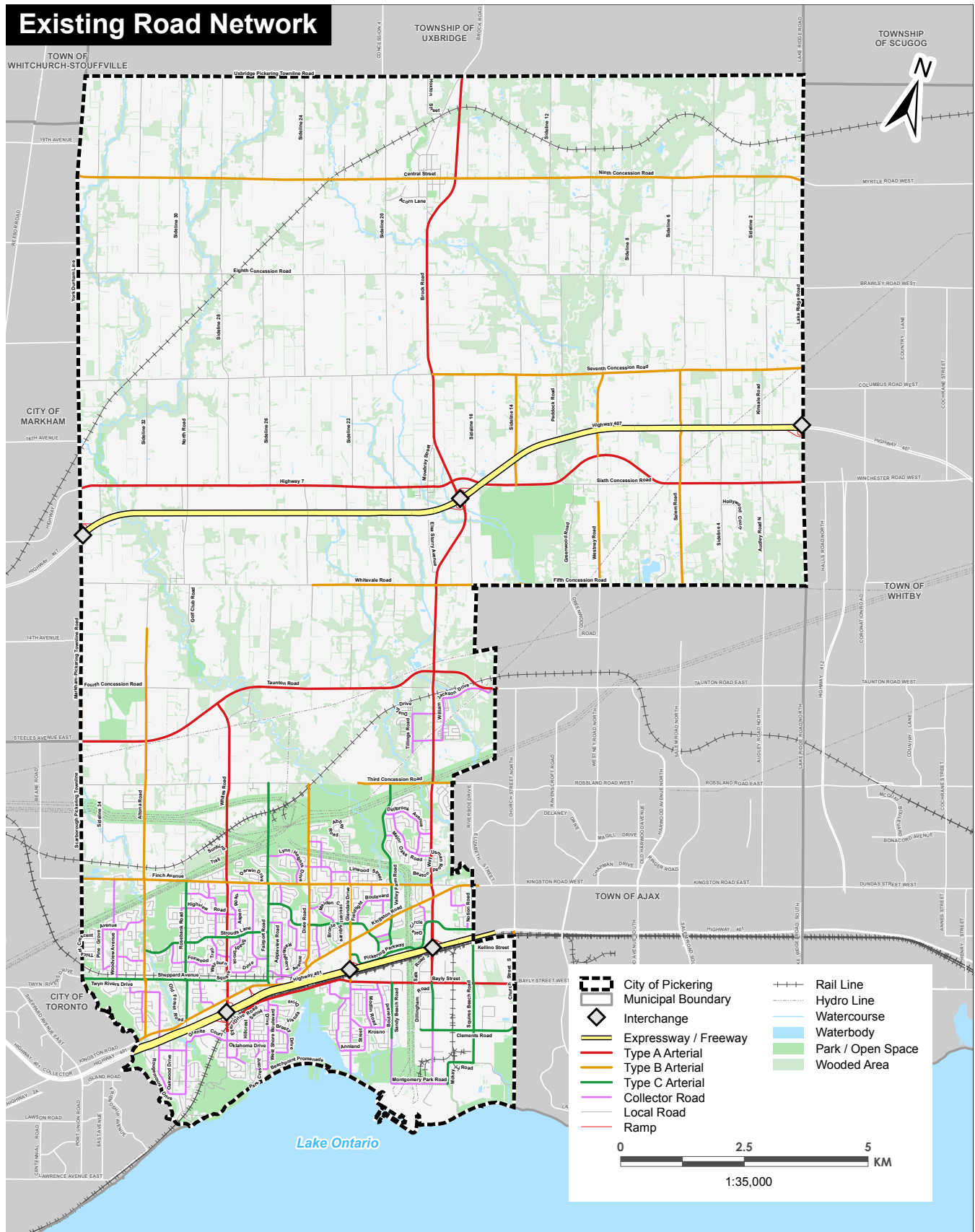
Freeways in Pickering (Highways 401, Highway 407, and 407ETR) run east-west and predominantly serve longer-distance travel. Highway 401 has three interchanges in Pickering – two full interchanges at Whites Road and at Brock Road, and one partial westbound interchange at Liverpool Road. Highway 407 has three full interchanges at York-Durham Line, Brock Road, and Lake Ridge Road. A new 407ETR interchange is under construction at the future Whites Road extension. Highway 7 also provides east-west connectivity in parallel with Highway 407/407ETR.

Regional roads form a large grid of arterial roads across Pickering. The north-south Regional road corridors are: Altona Road, Whites Roads, Liverpool Road, Brock Road, Westney Road and Lake Ridge Road. The east-west Regional roads are: Regional Road 5, Taunton Road, Finch Avenue, Kingston Road (Highway 2) and Bayly Street.

Existing Network Performance

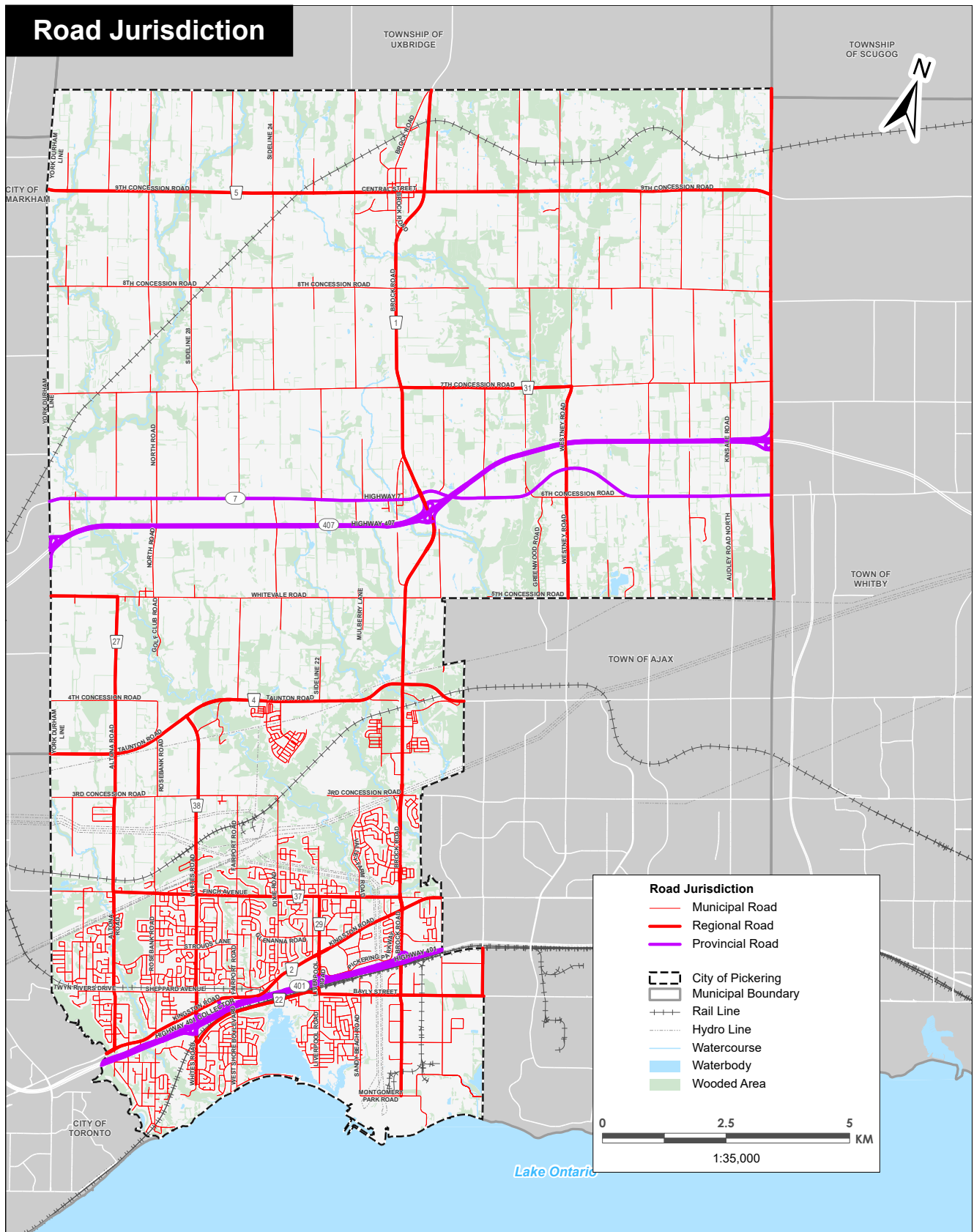
The predominant flow of traffic in Pickering is westbound in the morning peak towards Toronto and York Region and eastbound in the afternoon peak towards Pickering and other municipalities in Durham Region. Overall, the road network in Pickering operates reasonably well, with peak period congestion challenges on the major north-south corridors that connect to or across Highway 401 and the major east-west corridors of Highway 401, Kingston Road, and Bayly Street exceed capacity. Spread throughout the City are a number of “hotspot” intersections that experience congestion during peak periods. These are primarily located near major commercial centres, the GO Station or freeway access.

Exhibit 4.2: Existing Road Network by Class



Data Source: City of Pickering, 2020

Exhibit 4.3: Existing Road Network by Jurisdiction



Data Source: City of Pickering, 2020

What does Pickering do now?

The City of Pickering addresses road infrastructure needs through its regular Road Needs Study (last completed 2016). The Road Needs Study assesses pavement conditions, other road deficiencies, and opportunities to coordinate with other capital improvement projects (such as watermains, sewers, etc.) to prioritize road works to be included in the capital budget. Most of the City's current road capital projects are for reconstruction, rehabilitation or resurfacing of existing roadways, with very few road expansion projects not directly related to a specific development.

4.2.2 Network Development

The Durham Region Transportation Planning Model (DRTPM) was used to forecast traffic demand for 2031 and assess and compare road network alternatives. The DRTPM is a four stage multimodal transportation demand model first developed in 2008-2009. An update was performed in 2014 to calibrate the model to 2011/2012 using the 2011

Transportation Tomorrow Survey (TTS) data and 2012 road and transit networks. The Durham Model is described at length in two reports – DRTPM 2011/2012 Update and Recalibration (HDR, September 2014) and DRTPM Model Users' Guide V2 (HDR, October 2015).

The starting point, or Base Case, for the road network assessment was the future road network as identified in the Durham Region Transportation Master Plan (Durham TMP). The Regional road widening projects in Pickering include:

- Widening of Altona Road between Strouds Lane and Finch Avenue;
- Widening and extension of Whites Road between Kingston Road and Highway 7;
- Westerly extension of Rossland Road (as Peter Matthews Drive) between Brock Road and to Highway 7;
- Widening of Liverpool Road between Kingston Road and Bayly Street;

- Widening of Brock Road between Finch Avenue and Highway 7;
- Widening of Fifth Concession Road/Whitevale Road between Sideline 16 and Peter Matthews Drive, and westerly realignment to York Durham Line (as Alexander Knox Drive);
- Widening of Taunton Road across Pickering;
- Widening of Finch Avenue between Altona Road and Brock Road;
- Widening of Bayly Street east of Liverpool Road; and
- Realignment of Westney Road south of Highway 7 (Greenwood Bypass).

The travel demand forecasts for the Base Case indicate that the Highway 401 and Highway 407 corridors carry a significant volume of east-west traffic, and sections of the freeways will continue to be congested even with planned improvements. Beyond the freeways, the Regional road corridors carry much of the peak period traffic volumes, with volumes approaching or exceeding capacity near Highway 401 interchanges and crossings.

A long list of potential road expansions were considered based on corridors that are experiencing or anticipated to experience congestion, future road corridors identified in the Official Plan, and new or widened roads identified in other studies.

Several network alternatives were modelled to test the effectiveness of potential road expansions to address demand while considering the vision and intent of the ITMP.

4.2.3 Recommended Long-term Road Network

The Long-term road network was developed with consideration for planned Regional and Provincial network improvements while incorporating proposed network expansions that align with the vision of the City of Pickering and development of complete communities. Through an iterative process that involved input from the Technical Working Group and Stakeholder Working Group, the following road network expansions are recommended:

- A new Notion Road crossing of Highway 401;
- A new City Centre crossing of Highway 401;
- Widening of Church Street from Highway 401 to Bayly Street;
- A new Highway 401 interchange at Church Street;
- A westerly extension of Clements Road to Sandy Beach Road;
- Planned arterials and collectors in the Seaton Urban Area as identified in completed Environmental Assessments; and
- Other arterials and collectors to support growth areas, including:
 - East-west arterial (Walnut Lane) connection west of Liverpool Road;
 - East-west collector (Plummer Street) connection in City Centre; and
 - Northeasterly extension of Valley Farm Road from Third Concession to Brock Road.

While the widening of Church Street and new Highway 401 interchange at Church Street are not under the City’s jurisdiction, these projects are still recommended for long-term implementation. Together, the projects will support the Durham Live development by providing more direct connections between Highway 401 and the Durham Live site. As this development progresses, the City will work together with MTO and the Region to review both projects and conduct further studies, including Environmental Assessments, to determine feasibility.

Other road corridors were identified for corridor protection in the 2031 horizon for potential future transportation needs beyond 2031. These corridors include:

- **Fifth Concession:** The need for the extension of Fifth Concession from Sideline 4 to Lake Ridge Road was not identified for 2031. Beyond 2031, future growth along Taunton Road and Highway 7 may increase traffic to the point where the additional east-west capacity is needed and Fifth Concession could serve as an alternative parallel route;

- **Clements Road easterly extension across Duffins Creek:** A significant bridge structure (approximately 300m in length) would be required to cross Duffins Creek, associated wetlands and designated area of natural and scientific interest. The need for this connection was not been identified for 2031. As with the Durham Region TMP, there is merit in protecting this corridor for longer-term needs and supporting potential growth in the Bayly Street corridor as well as the employment lands in south Pickering; and
- **Twyn Rivers Drive:** An existing road connecting Sheppard Avenue in Pickering across the Rouge River to Sheppard Avenue in Toronto is one of only four roads that connect Pickering and the City of Toronto. Although a low-volume road, Twyn Rivers Drive serves as a valuable local connection across the Rouge River in an area with few alternative routes and should be protected as a road connection.

Recommended Actions	
4.	Construct and maintain the Long-term Road network, protecting future corridors for implementation with corresponding growth.
5.	Work with City of Toronto and Parks Canada to maintain the Twyn Rivers Drive connection between City of Pickering and City of Toronto.
6.	Work with the Ministry of Transportation, Durham Region, Town of Ajax and Pickering Developments (Durham Live developer) to explore opportunities for Highway 401 interchange at Church Street and the widening of Church Street from Highway 401 to Bayly Street.

Map 1 illustrates the recommended Long-term Road Network.

It should also be noted that the Kingston Road Corridor and Speciality Retailing Node Plan and the corresponding proposed Official Plan Amendment 38 include additional conceptual local road links in the Kingston Road corridor.



Further information on the identification of the recommended road network and future corridors can be found in **Background Report C – Road Network Development**.

4.3 Goods Movement

4.3.1 Background

An essential function of the transportation system, particularly the road network, is to support the movement of goods. Safe and efficient goods movement plays a major role in Pickering's economic success and to the success of complete and sustainable communities.

Goods movement includes all shipments and services that move on the transportation network. These shipments can include the delivery of products to homes and businesses, the shipping of materials to and from a manufacturing facility, shipping commodities to and from the national and international marketplace, and service workers moving between work locations. In Pickering, goods movement primarily takes place through trucks travelling between Highway 401 and the logistics, warehousing, manufacturing, retail, and other industries located throughout the city.

What does Pickering do now?

The City's Official Plan identified the need to "examine a signed network of truck routes to facilitate the efficient movement of goods and services within and across the City." For the City Centre, a set of urban design guidelines were prepared that include six specific recommendations supporting freight movements. These relate to the provision and signage of loading/unloading areas and truck accesses, the provision of short-term drop-off spaces for couriers, and improvements to freight facilities. For Seaton, the OP states that the City should "enable the year-round movement of people, goods and services within the Seaton Urban Area in a manner that is safe, convenient, reliable, and efficient goods movement."

Through the Durham TMP, Highway 7, Taunton Road, Lake Ridge Road and sections of Brock Road and Bayly Street are designated strategic goods movement arterial corridors.

Existing Conditions

In Pickering, goods are primarily moved by trucks, which are defined by the Ontario Highway Traffic Act as a vehicle, other than a bus, that has an actual or registered gross weight of more than 4,500 kg.¹⁵ There are over 3,000 medium and heavy truck movements every day to and from the logistics, warehousing, manufacturing, retail, and other industries located in Pickering.

¹⁵ The City of Pickering Traffic and Parking by-law further defines a "heavy vehicle" as: "a vehicle, object or contrivance for moving loads, having a gross weight, including vehicle, object or contrivance and load, in excess of 4,500 kilograms but does not include emergency vehicles, school purpose vehicles or any vehicle operated by or on behalf of the City, regardless of weight, while on City business."

There are also more than 10,000 light vans and light trucks that serve Pickering's residential, commercial and industrial neighbourhoods with parcel and mail delivery service. A high volume of through truck traffic – over 20,000 trucks per day – travels through Pickering on Highway 401.

Goods also move through Pickering on four railway corridors owned by Canadian National Railway (CNR) and Canadian Pacific Railway (CPR). While almost all of the rail traffic is through traffic, there is a spur connection south from CNR's Kingston subdivision to several Pickering industrial sites in the southeast which carries up to two trains per day.

Large volumes of oil, gas, and petroleum products flow through Pickering every day in three pipelines. These include:

- TransCanada Canadian Mainline runs near Ninth Concession, carrying natural gas east from Western Canada;
- Trans-Northern Ontario-Quebec runs near Taunton road, carrying refined petroleum products (gasoline, diesel fuel, aviation fuel, and heating fuel) west from Montreal; and
- Enbridge Line 9B runs near Finch Avenue and Taunton Road, carrying light, medium, and heavy crude oil east from Western Canada.

Airports also serve an important role in goods movement networks. Should an airport be built in north Pickering, goods movement will be an important consideration when developing transportation connections to the site.

As with other airports serving both cargo and passengers, it will be important to provide separate road and/or rail connections for goods movement and passengers.

These connections can be tailored to support the needs of each group of users while avoiding conflicts between goods movement and passenger vehicles. Beyond the airport site, improvements to road infrastructure may be necessary to support the increased volume of goods movement vehicles travelling to and from the airport.

Issues

While some goods movement issues are unique to Pickering, many freight issues are nearly universal.

Traffic congestion is among the most often cited concerns of the goods movement industry. Congestion slows shipments and sporadic congestion in off-peak hours decreases travel time reliability, forcing drivers to add a buffer to travel times to ensure on-time delivery.

Spring Load Restrictions limit vehicle weights to 5,000 kg per axle in April and March on roads that are more vulnerable to spring thaw damage. This can have a significant impact on shippers that rely on routes that have load restrictions.

Community liveability and the needs of the goods movement industry are also often at odds; pedestrian-friendly streets and freight movement are often not easy partners. Trucks create noise, vibrations, emissions, and are often an imposing presence on roads. Trucks also have wider turning radii which has implications on desired urban street designs.

As the Pickering City Centre intensifies, challenges will include conflicts over curbside space when parked delivery vehicles compete with other uses, increased traffic congestion that impedes goods movement vehicles, increased night time noise from delivery vehicles, and land use compatibility when residential intensification occurs close to existing industrial uses or high-volume goods movement corridors.

Future Conditions

As Pickering's population grows and intensifies, developing more detailed goods movement policies will be critical in balancing the needs of goods movement with the needs of residents.

Significant employment growth is expected in the southeast Pickering industrial area and in central Pickering along the Pickering Innovation Corridor. The Innovation Corridor is approximately 800 acres of land located in the north part of the Seaton Urban Area from south of Highway 407 north to Highway 7, and stretching

from approximately West Duffins Creek in the west to Brock Road in the east. The lands are planned to accommodate 35,000 jobs in the long term, as per the Official Plan, and are designated as a mix of prestige employment, community node, mixed corridor, and mixed use. Dedicated employment lands in Seaton are designated as prestige employment.

Airports also serve an important role in goods movement networks. Should an airport be built in north Pickering, goods movement will be an important consideration when developing transportation connections to the site.

Major trends that will continue to affect goods movement include changes to consumer behaviour as consumers are making more and more purchases through online retailers, resulting in more delivery trucks on the road, especially at seasonal and peak times. New delivery and logistics services, such as just-in-time delivery, mobile inventories, and logistics-as-a-service, can also change how and where goods movement networks and infrastructure are needed.

Connected and automated commercial vehicles, broadly defined here as vehicles that can operate with an advanced level of autonomy, including driverless operation, have the potential to significantly change goods movement. In the long term, this technology has the potential to offer cost savings to operators, improve road safety, reduce congestion and emissions, and increase the capacity of existing road infrastructure by enabling closer spacing of vehicles. Automated goods movement, like automated vehicles in general, will have social and economic impacts that are difficult to predict. One such issue is presence or lack of a driver will have an impact on loading and unloading operations.

4.3.2 Local Goods Movement Connections

Truck routes serve the purpose of facilitating the safe and efficient movement of truck traffic between goods movement generators and the regional/provincial transportation network. They do this by connecting major industrial areas, commercial areas, and regional road network/provincial highway facilities using continuous and direct routes, where possible.

Trucks can either be encouraged to use certain routes through signage and promotion or prohibited from using certain roads through local traffic by-laws and accompanying signage and enforcement. It should be noted, however, that on the final leg of a truck's route, drivers may use any road to reach the final destination (e.g. if the final destination is on a restricted residential street, drivers are permitted to use the restricted street to reach the final destination).

In Pickering, trucks may use any Regional road (subject to height and weight restrictions) but are encouraged to use roads included within the Region's Strategic Goods Movement Network. This network connects major truck generation areas across the Region's boundaries to highways and intermodal facilities.

Additional local goods movement connections in Pickering were developed in collaboration with the Technical Working Group, formalizing local and Regional roads that are already being used for goods movement. Some new routes also reflect proposed goods movement corridors in the 2041 Metrolinx RTP.¹⁶

The following corridors are proposed as local Pickering goods movement connections:

- Whites Road from Taunton Road south to Bayly Street and the future extension north from south of Taunton Road to Highway 7. This corridor would provide an alternate route to Brock Road from the Seaton Urban Area south to Highway 401, and would provide a closer connection to many prestige employment lands in Seaton;
- Bayly Street from Whites Road west to Brock Road. Extending the Strategic Network on Bayly Street would provide connectivity with the proposed White Road designation. Bayly Street is currently used by trucks and the route will likely become more important with the planned Highway 401 Liverpool Road interchange upgrade. This corridor is identified as a freight cluster connector in the 2041 Metrolinx RTP;

¹⁶ Metrolinx 2041 Regional Transportation Plan, Map 8 (p. 85), 2018.

- Brock Road from Bayly Street south to Montgomery Park Road. This extension would acknowledge that trucks are the predominant users of this segment of Brock Road south of Bayly. This corridor is also identified as a freight cluster connector in the 2041 Metrolinx RTP;
- Squires Beach Road south from Pickering Parkway to McKay Road.¹⁷ This road would provide an alternative crossing of Highway 401 between Pickering Parkway and Bayly Street and would acknowledge that trucks are the predominant users of Squires Beach Road south of Bayly Street; and
- Sandy Beach Road from Bayly Street south to Montgomery Park Road. This would provide an alternate to Brock Road south of Bayly Street and would acknowledge that trucks are a major user of Sandy Beach Road.

Both corridors provide direct connections to businesses in Pickering’s southeast industrial area. These corridors provide access to the major southeast industrial area in the City and new connections to the employment lands in Seaton. As the employment lands around Highway 407 develop, the City may wish to consider adding additional local goods movement connections. The development of an airport in north Pickering would also justify an expansion of the goods movement connection network.

The proposed local goods movement connections are shown in **Map 2**.

4.3.3 Managing Goods Movement

The following are industry best practices that Pickering should consider to help manage freight needs while maintaining the liveability of dense mixed-use urban areas:

Provide off-street loading: Ideally new developments should be designed with off-street loading facilities able to accommodate the types of vehicles that typically serve that type of development.

Provide on-street loading bays: On-street loading bays can be used in areas where property size do not allow for off-street loading facilities. The on-street facilities may be time restricted to avoid peak periods.

Provide nearby delivery areas: Nearby delivery areas are becoming increasingly popular in dense urban areas. Nearby deliveries are on- or off-street spaces designated for vehicles making deliveries to nearby residents and businesses. Goods are moved between the delivery location and the truck by trolley, bike, electric vehicle, etc. In some cities these delivery areas are staffed. Delivery areas have the benefit of freeing up curbside space on nearby streets for other uses and can be situated to avoid active transportation infrastructure.

Support night time deliveries: Night time deliveries allow delivery companies to make deliveries to non-residential locations in the overnight hours, operating in less congested road conditions. Delivering overnight allows for shorter and more reliable travel times and the potential to make deliveries using fewer vehicles, which can bring supply chain costs down. Of course, in mixed-use areas with residential development noise can be an issue. However, regulation and noise mitigation techniques can reduce concerns and impacts.

Recommended Actions	
7.	<p>Add the following roads as local goods movement connections in Pickering:</p> <ul style="list-style-type: none"> • Whites Road (Taunton Road to Bayly Street); • Future Whites Road (Highway 7 to Taunton Road); • Bayly Street (Whites Road to Brock Road); • Brock Road (Bayly Street to Montgomery Park Road); • Squires Beach Road (Pickering Parkway to McKay Road); and • Sandy Beach Road (Bayly Street to Montgomery Park Road).

¹⁷ The Highway 401 Road Crossing from Notion Road to Squires Beach Road is currently undergoing a Schedule ‘C’ Municipal Class Environmental Assessment.

Support a shift in personal driving trips to other modes: Policy and infrastructure that support more sustainable transportation choices have numerous benefits, including reducing traffic congestion for commercial vehicles, contributing to shorter and more reliable travel times. As Pickering grows, it will be essential to continue to encourage active transportation and transit.

Work with residential developers: When the City approves higher-density residential development along high volume goods movement corridors, the City should encourage developers to adopt noise, vibration, and traffic mitigation measures. These can include designing buildings with floor plans that minimize noise intrusion, especially into bedrooms, incorporating noise and vibration control into building design, and where possible, having vehicle access on a side street.

Enhance partnerships, communication, and advocacy: Collaboration with government and industry partners will help the City develop better goods movement practices and policies, and a stronger goods

movement network. Advocating to government bodies including Durham Region and MTO can help improve Regional and inter-regional goods movement network planning in Pickering. Strengthening connections between government and private sector groups, potentially establishing a data sharing program, can also ensure that local goods movement issues are identified and resolved.

Reduce environmental impacts of goods movement: Best practices from the Region of Peel and the MTO Freight Supportive Guidelines should be adopted to help reduce emissions, including GHGs, and other environmental impacts of goods movement in Pickering. The City can promote innovation and green technologies for reducing fuel consumption and vehicle emissions, leveraging existing relationships with local businesses. Further, the City should recognize businesses that are making positive changes to reduce climate change impacts.

For more information, see **Background Report D – Goods Movement Strategy**.



5.0

Active Transportation

5.1 Background

Active transportation refers to the movement of people or goods using primarily human-powered modes. Active transportation is generally focused on walking (including the use of mobility aids) and cycling, but can also include other transportation modes such as roller-blading or riding a skateboard or kick scooter. Growing the adoption of active transportation has numerous community benefits, including:

- **Health Benefits** – Incorporating active transportation into a daily routine of increased physical activity helps to reduce the risk of diseases related to sedentary lifestyles and has numerous public health benefits. Safety improvements for active transportation can reduce the number or severity of collisions, improving the overall safety of the road network and supporting the Region's Vision Zero plan.
- **Environmental Benefits** – Walking and cycling produce less greenhouse emissions, pollution and energy consumption than other modes. A reduction in emissions improves air quality, impacting both the overall environment and health of residents.
- **Economic Benefits** – Where walking and cycling trips can replace vehicle trips, they can help reduce demand on the existing road network and delay or eliminate the need for road projects which are costly to construct. They also offer affordable choices for those without access to a motor vehicle for work, school or other trips. Cyclist and pedestrians are also more likely to spend money at local businesses than motorists.¹⁸

This section outlines the City of Pickering's current active transportation network and presents strategies for the City to develop a well-connected, inclusive network and to increase mode shares for walking and cycling.

What does Pickering do now?

The City's Official Plan identifies policies to enhance pedestrian and cyclist safety in order to encourage walking and cycling, including traffic calming measures and accessible design. The Region's Vision Zero plan also identifies policies and infrastructure improvements to enhance safety for all road users, especially vulnerable road users such as pedestrians and cyclists.

The existing pedestrian network is comprehensive within the urban part of Pickering, with sidewalks provided along most streets in residential areas. In the developing area of Seaton, sidewalks are planned or under construction. The northern, rural part of Pickering is less pedestrian-friendly and contains very few sidewalks. The City is working towards improving the pedestrian network to meet accessibility standards, including tactile warning plates and curb cuts at intersections, as well as building and upgrading multi-use paths.

Pickering also contains an extensive network of trails suitable for both walking and cycling. The Pickering Waterfront Trail provides east-west connections to Toronto and Ajax and is a part of the larger Waterfront Trail which stretches along the shore of Lake Ontario. Another popular trail is The Great Trail (previously known as the Trans-Canada Trail). It is a part of a nation-wide trail network, and follows the Waterfront Trail across Pickering from the west, then turning north in Ajax before re-entering Pickering at Fifth Concession Road and heading on towards Uxbridge.

¹⁸ Clifton, Kelly, "Consumer Behavior and Travel Choices: A Focus on Cyclists and Pedestrians" (2012) https://nacto.org/docs/usdg/consumer_behavior_and_travel_choices_clifton.pdf.

The existing cycling network consists of over 25 km of bike lanes, boulevard multi-use paths, edgelines, paved shoulders and shared use lanes. A breakdown of the facility types and lengths is provided in **Exhibit 5.1**.

Exhibit 5.1: Summary of Existing Cycling Facilities

Facility	Length (km)
Bike Lanes	6.4
Boulevard Multi-Use Path	5.1
Edgelines	5.7
Paved Shoulder	6.8
Shared-Use Lane	1.3

Source: City of Pickering mapping data, 2019

The existing cycling network has mainly been constructed as roadwork opportunities arose, rather than through an overarching cycling network plan. As a result, the existing network has many gaps. This lack of a cohesive network limits opportunities for cyclists in Pickering.

Much of the currently cycling network consists of shared on-road facilities. Shared facilities may be a deterrent for many cyclists where they are located on roads with high vehicular speeds and volumes. Cycling facilities separated from traffic are generally preferred by a wider cross-section of cyclists, and also promote cycling for people of all ages and abilities.

The existing pedestrian and cycling networks are shown in **Exhibit 5.2** and **Exhibit 5.3**.

In the Seaton Urban Area, planning for bikeways, neighbourhood trails and recreational trails was completed as part of the secondary plan for the community.

Exhibit 5.4 shows the planned cycling facilities that are interwoven into the future cycling network for the city as a whole.

5.1.1 Objectives and Opportunities

Developing a comprehensive plan for increasing the use of active transportation is an integral component of achieving the City’s ITMP. Three major objectives have been identified for active transportation in Pickering:

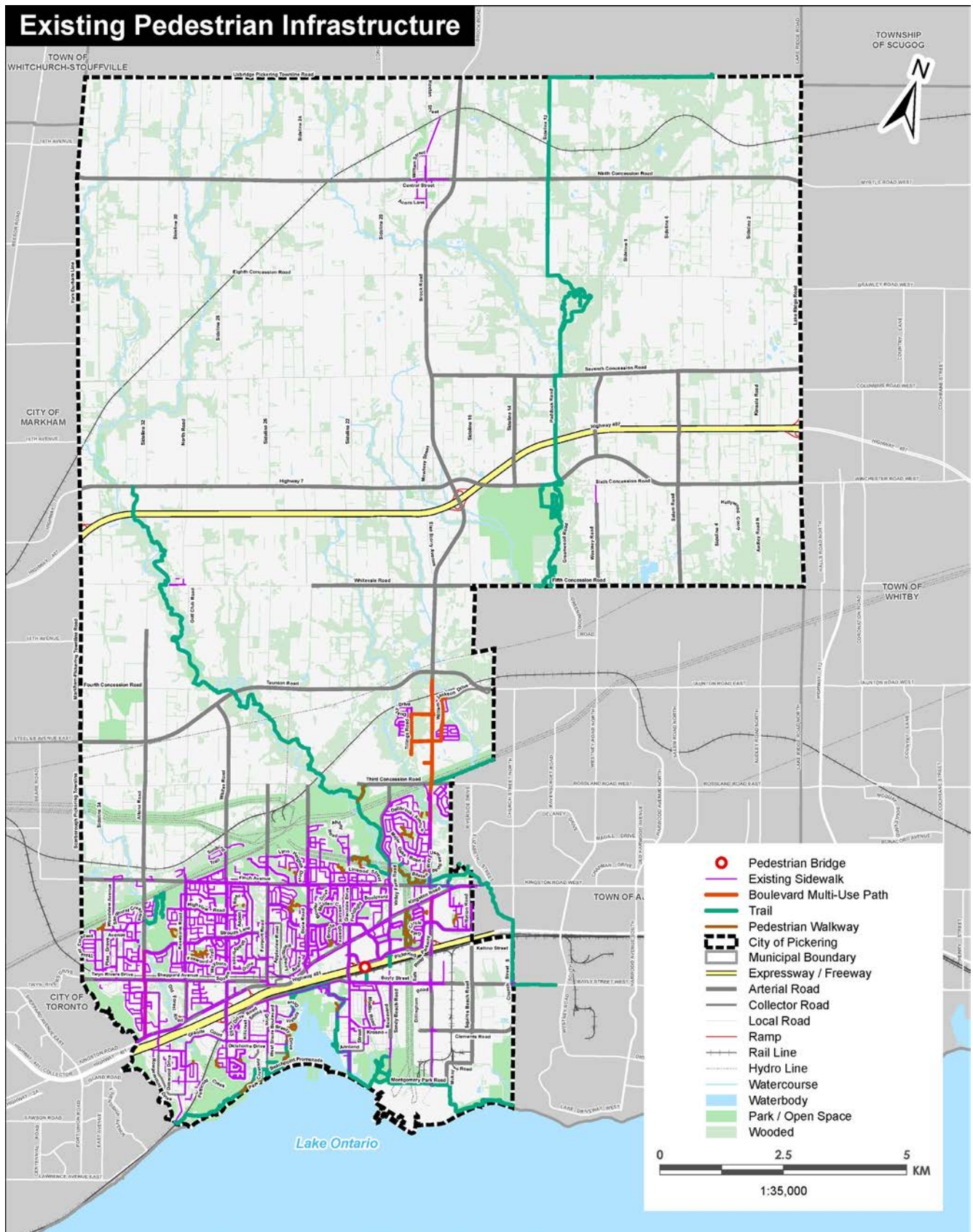
- Connecting the network;
- Building community support; and
- Creating walk and bike-friendly destinations.

These three themes were identified with consultation from the public and from key stakeholders and they draw from and build upon the overall ITMP vision.

Cycling is not currently a widely-used transportation mode within Pickering, representing only 0.5% of all daily trips. Walking is a more commonly used mode, accounting for 9% of daily trips. Active transportation is most prevalent among youth, with people over 20 years of age rarely use active transportation.

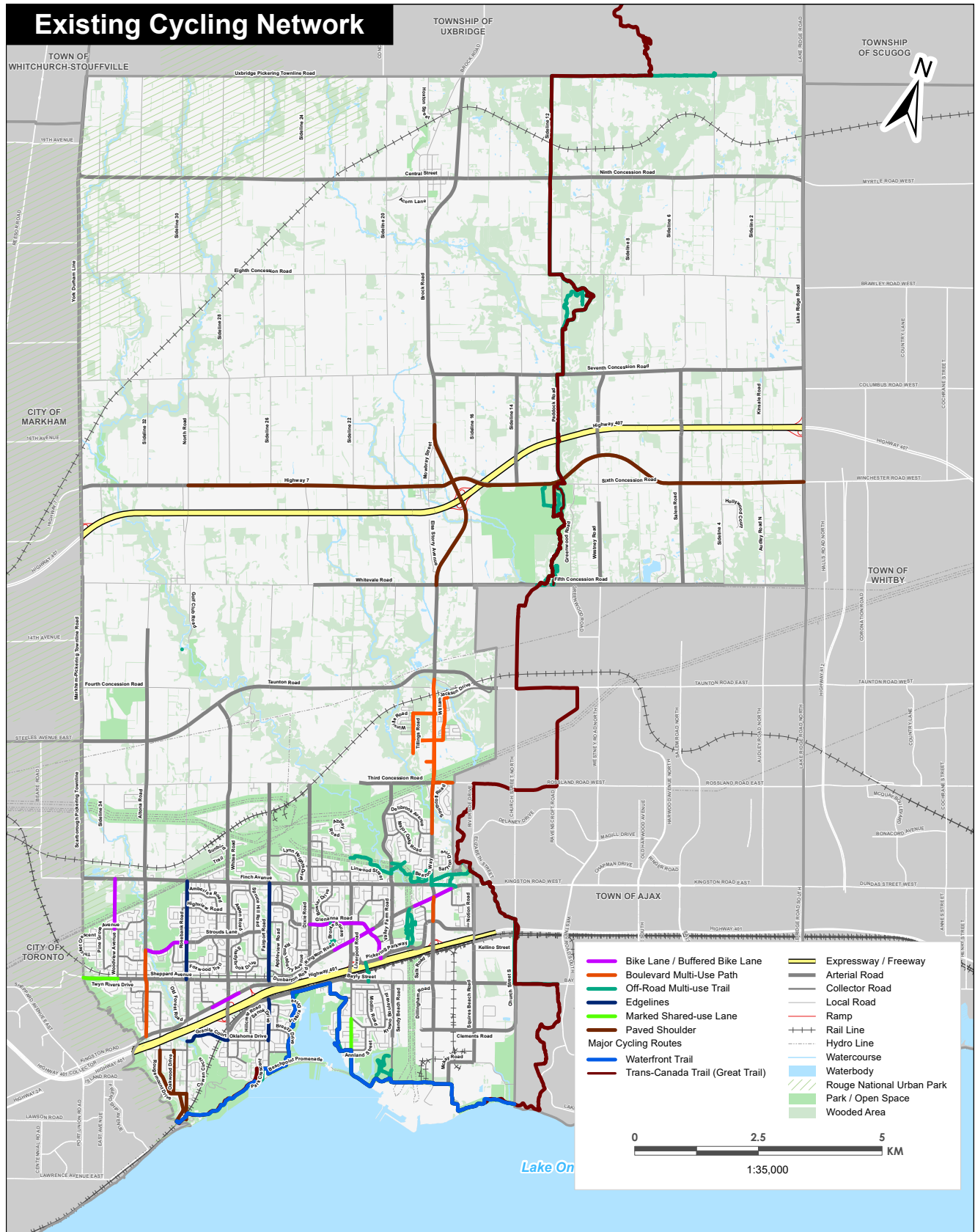
Each day in Pickering over 38,000 short trips, defined as trips of 2 km or less, are made. This represents over 52% of all internal trips within Pickering. These trips are suited towards cycling and walking, but 80% of these trips are currently made via automobile. This indicates that there is great potential for growth with respect to active transportation in Pickering.

Exhibit 5.2: Existing Pedestrian Network



Data Source: City of Pickering, 2020

Exhibit 5.3: Existing Cycling Network

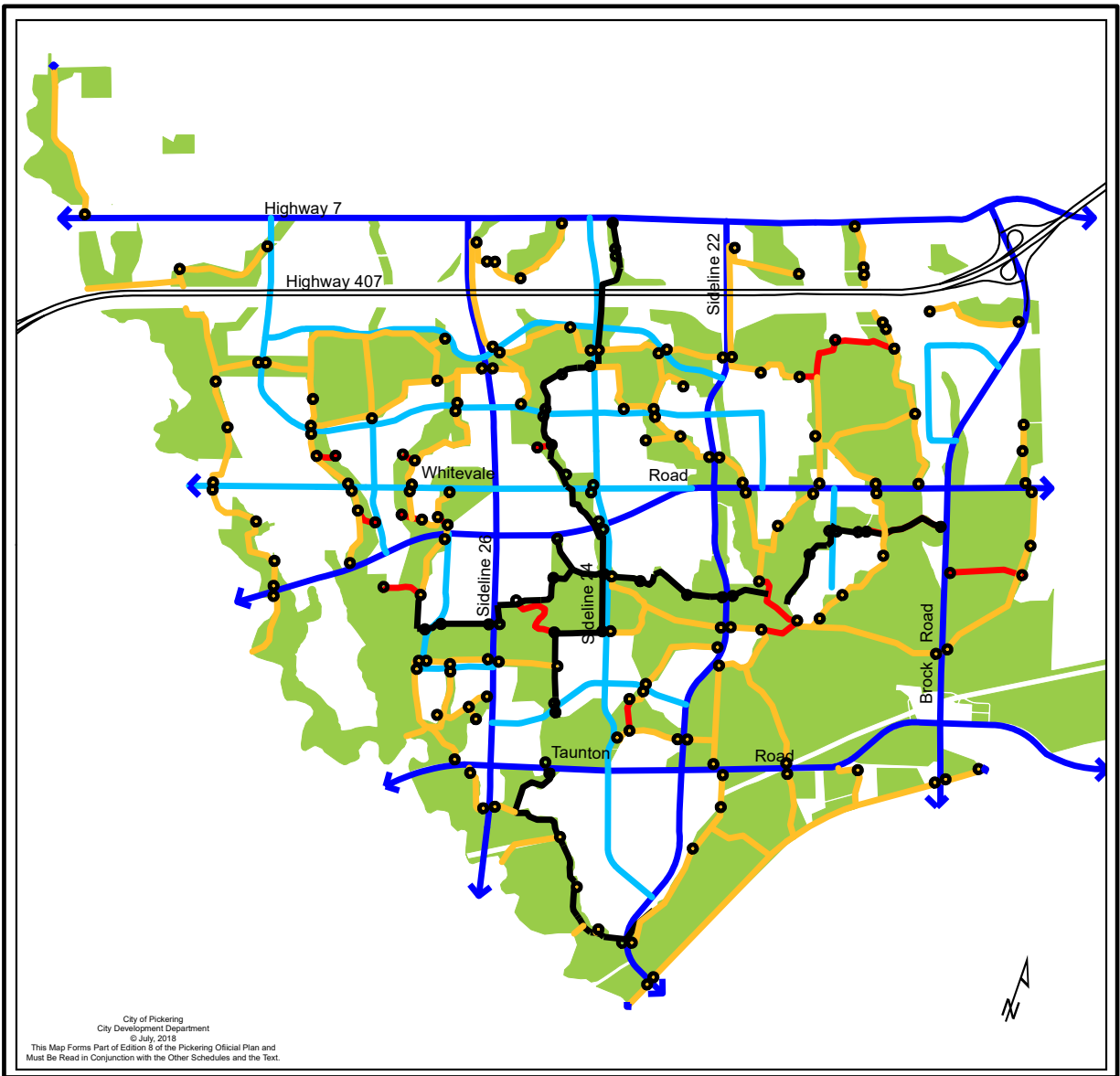


Data Source: City of Pickering, 2020

Exhibit 5.4: Planned Bikeways and Trails in Seaton Urban Area

**SCHEDULE VII TO THE
PICKERING OFFICIAL PLAN
EDITION 8**

SEATON URBAN AREA TRAILS



City of Pickering
City Development Department
© July, 2018
This Map Forms Part of Edition 8 of the Pickering Official Plan and
Must Be Read in Conjunction with the Other Schedules and the Text.

Legend

- Seaton Natural Heritage System (NHS)
- Primary Bikeway
- Secondary Bikeway
- Primary Neighbourhood Connecting Trails
- Primary Recreational Trails
- Secondary Recreational Trails
- Trailheads

Data Source: Pickering Official Plan, Edition 8, Schedule VII, 2018

5.2 Connecting the Network

One of the most common pieces of input received from the public and stakeholders throughout the development of the ITMP was the need to create a better-connected walking and cycling network that serves key destinations. In order to create a connected network, several parallel streams of actions are needed:

- Routinely accommodating walking and cycling infrastructure as part of road capital projects, in keeping with the complete streets philosophy;
- Upgrading the existing network to provide high-quality infrastructure that reflects best practices in design; and
- Expanding the network through a series of infill cycling projects (including both short and long-term interventions) to accelerate the connections between facilities. This work includes the application of high-quality linear infrastructure as well as intersection treatments and upgrades.

Routinely Accommodating Walking and Cycling

As part of the complete streets policy, new walking and cycling facilities should be implemented as part of road reconstruction and resurfacing projects when feasible. A more detailed discussion on complete streets is provided in Section 4.1.

This includes new road corridors and improvements identified through the ITMP, including major barrier crossings such as the Notion Road crossing of Highway 401, the proposed north-south City Centre road crossing of Highway 401, widening of Church Street, and extension of Clements Road.

Upgrading the Existing Network

Consultation feedback indicated a need for upgrades to the existing cycling network to address small gaps, lack of signage, faded pavement markings or facilities that do not meet current guidance for cycling facility design.

A preliminary summary of potential improvements to existing on-road cycling facilities located along City of Pickering roads is provided in **Exhibit 5.5**²⁰. The potential improvements make use of the existing roadway width with minimal, if any, reconstruction. The potential improvements may require narrowing vehicular lane widths, re-striping bike lanes, adding signage and/or applying restrictions to on-street parking.

The Ontario Traffic Manual Book 18: Cycling Facilities (2013)²⁰ provides design guidance on selecting the appropriate facilities based on the traffic volume and speed of the roadway; minimum and desired widths for shared routes, bike lanes, buffers, cycle tracks and paved shoulders; and signage and pavement markings. Book 18 provides design guidance for both urban and rural contexts.

In addition to the existing on-road cycling network, a multi-use trail design and safety audit is recommended to identify recommended upgrades to existing multi-use trails accommodating cyclists and pedestrians in the City's network. The audit should consider: pavement markings and signage, geometrics (including the width of trail and street buffers, horizontal and vertical curves) and intersection upgrades (including crossrides at road intersections with multi-use paths to allow cyclists to cycle across the intersection).

¹⁹ This review provides high-level guidance on the types of interventions needed, however, these upgrades should be confirmed through subsequent corridor review/design stages.

²⁰ A revised Ontario Traffic Manual Book 18: Cycling Facilities is expected in 2020.

Exhibit 5.5: Potential Improvements for Existing Cycling Facilities

Location	Facility Type	Potential improvements
Dyson Road from Waterfront Trail to Rougemont Drive	Paved Shoulder / Edgelines	<ul style="list-style-type: none"> Restrict parking on shoulder Repaint edgelines Provide bike route signage and consider the use of wayfinding sharrows
Fairport Road from Sheppard Avenue to Finch Avenue	Edgelines	<ul style="list-style-type: none"> Upgrade edgelines to designated bike lanes with signage and pavement markings, apply parking restrictions Extend bike lanes up to intersections
Glenanna Road from Pickering Parkway to Dixie Road	Bike Lanes	<ul style="list-style-type: none"> Fill cycling network gap between The Esplanade and Kingston Road by adding bike lanes through lane narrowing / lane reconfiguration Add designated bike lane signage Extend bike lanes to intersections Add conflict zone markings through intersections Consider bike boxes at signalized intersections to aid cyclists in making left turns
Granite Court from Rosebank Road to Whites Road South	Edgelines	<ul style="list-style-type: none"> Repaint edgelines Extend edgelines to intersections Provide bike route signage and consider the use of wayfinding sharrows
Oakwood Drive from Rougemont Drive to Toynevale Road	Paved Shoulder / Edgelines	<ul style="list-style-type: none"> Restrict parking on shoulder Provide bike route signage and consider the use of wayfinding sharrows
Rosebank Road from Rodd Avenue to Rougemont Drive	Paved Shoulder / Edgelines	<ul style="list-style-type: none"> Restrict parking on shoulder Repaint edgelines Provide bike route signage and consider the use of wayfinding sharrows
Rosebank Road from Sheppard Avenue to Finch Avenue	Edgelines	<ul style="list-style-type: none"> Upgrade edgelines to designated bike lanes with signage and pavement markings, parking restrictions Extend bike lanes up to intersections
Rougemont Drive from Rosebank Road to Toynevale Road	Paved Shoulder	<ul style="list-style-type: none"> Restrict parking on shoulder Repaint edgelines Provide bike route signage and consider the use of wayfinding sharrows
Strouds Lane from Altona Road to Rosebank Road	Bike Lanes	<ul style="list-style-type: none"> Add designated bike lane signage and reserved bicycle lane pavement markings Extend bike lanes to intersections
West Shore Boulevard from Oklahoma Drive to Bayly Street	Edgelines	<ul style="list-style-type: none"> Upgrade edgelines to designated bike lanes with signage and pavement markings, parking restrictions Extend bike lanes up to intersections
Woodview Avenue from Pine Grove Avenue to Finch Avenue	Bike Lanes	<ul style="list-style-type: none"> Add designated bike lane signage

Expanding the Network

Developing a connected cycling network is essential to increase cycling mode share and maximize the value of existing infrastructure. The current network is not well-connected, with many gaps, and therefore fails to provide an adequate alternative to automobile usage. A proposed long-term cycling network has been developed for the City, with input from City staff, Parks Canada, Toronto Region Conservation Authority, Durham Region Cycling Coalition (a cycling advocacy group), and other stakeholders. More information on the development of the proposed cycling network is provided in **Background Report E – Cycling Network Development**.

The proposed network draws heavily on the following key resources:

- Durham Region’s Regional Cycling Plan and Primary Cycling Network, including updates from the 2017 Transportation Master Plan;
- Trails and Bikeway Master Plan developed for the City in 1996;
- Desirable cycling and trails connections proposed by the Durham Region Cycling Coalition;
- Network plans of surrounding gateway municipalities; and
- TRCA Trail Strategy and Parks Canada Trails Planning work through the Rouge National Urban Park, including the Rouge National Urban Park Management Plan (2019).

The proposed cycling network is intended to be an overarching, long-term vision for the City of Pickering to pursue. It consists of a comprehensive network of cycling facilities and off-road multi-use trails which provide the City with a connected system to attract new users and help meet the transportation demands of a rapidly-growing community. Moreover, the City should endeavour to undertake cycling infill projects, prioritizing locations located in the urban core, within a five-year horizon to provide a core connected network. There are many opportunities to provide low-cost, quick-win improvements within the urban area. These corridors have been identified as part of the network development process.

An overall map of the network is provided in **Map 3**. Additional maps showing the proposed facility types for the entire City, and for the urban core are shown in **Map 4** and **Map 5**.

As the City continues to evolve, a formal review of the network every five years is recommended, in keeping with industry standard practice. The network review should account for other on-going studies and plans, such as the update of the Durham Regional Cycling Plan, which will encourage actions and initiatives to improve and expand the cycling network.

Recommended Actions	
8.	Routinely incorporate active transportation infrastructure into capital projects.
9.	Upgrade the existing network, including upgrading existing cycling facilities to meet current standards and undertaking a safety and design review of existing multi-use trails.
10.	Adopt the Long-term Cycling Network as the guiding vision for developing a connected cycling network in Pickering, working collaboratively with major partners and stakeholders. Develop a program to infill higher-priority network gaps in the short to medium term.

5.3 Building Community Support

In addition to developing appropriate active transportation infrastructure, it is also important to build community support and encourage participation in walking and cycling. Implementing supportive policies and programs will help ensure that residents are empowered to use active transportation modes more often.

Resourcing Active Transportation and TDM

The City should explore hiring a Transportation Demand Management (TDM) / Active Transportation coordinator to implement TDM initiatives (refer to Section 6.2) and oversee the delivery of active transportation plans as part of the development application review process. In addition to ensuring pedestrian and cycling infrastructure is incorporated in new developments, the TDM/AT

coordinator would also promote initiatives to reduce car usage and promote sustainable modes of transportation such as walking and cycling. It is also recommended that the TDM/AT coordinator work with the Region’s new Transit Oriented Development office. Examples of potential AT-focused TDM initiatives the City may support or undertake include:

- Bike to Work Week;
- Open Streets Program; and
- City Leadership Program.

TDM strategies are discussed in more detail in Section 6.2.

Improving Awareness

For walking and cycling to compete with other travel modes, the public needs to be reminded that these options available to them and have access to information on how to use these modes (i.e. trail maps, cycling “rules of the roads”, safety tips, etc.).

Providing the public with resources and information regarding locations of active transportation facilities builds awareness. These resources can be provided through maps or wayfinding signs. Public feedback indicated a desire for increased signage along principal cycling routes. The Waterfront Trail in particular was noted for having poor wayfinding where signs are missing or have fallen under disrepair. Wayfinding includes signage, maps, and other visuals informing users of directional and locational information. Wayfinding highlights walking and cycling locations, thereby increasing the visibility of the active transportation network. Cycling tourism is a growing industry which can provide economic benefits to Pickering. Cycling visitors generally spend more per trip than other visitors, with cycling tourists spending \$255 per trip compared to just \$171 per trip for all visitors.²¹ The proximity of the Rouge National Urban Park presents opportunities to strengthen cycle tourism by improving cycling connections between Pickering to the Rouge Valley and Rouge National Urban Park. An active transportation wayfinding study and pilot project, focused on key trail and cycling corridors, would be a meaningful way to highlight the City’s network investments.

²¹ Ontario's Cycling Tourism Plan (2018).

To further promote active transportation for both tourists and residents, the City should produce a Cycling Routes and Trails pocket map. The map would be an informative resource for cyclists and pedestrians to plan potential routes. The City may partner with neighbouring municipalities or Durham Region in the delivery of the Pickering cycling map.

The City should also explore pursuing official walk-friendly and bicycle-friendly community designations. The Walk Friendly Ontario recognition program is a project of Canada Walks. Currently, no municipalities within Durham Region have a walk-friendly status. The Bicycle Friendly Community designations are an initiative organized by Share The Road, an Ontario cycling advocacy organization. To achieve a bicycle-friendly designation, communities must submit a thorough application and are judged on their achievements as they relate to the five ‘E’s: Engineering, Education, Enforcement, Encouragement, and Evaluation and Planning. Communities deemed to be bicycle-friendly are awarded either a Bronze, Silver, Gold, Platinum, or Diamond level designation. A summary of bicycle-friendly communities in Durham Region is provided in **Exhibit 5.6**.

Exhibit 5.6: Bicycle-Friendly Communities in Durham Region

Municipality	Bicycle-Friendly Status
City of Oshawa	Bronze
Town of Ajax	Silver
Town of Whitby	Bronze

Source: Share The Road, 2018

As part of the application process, the municipality receives a check-list and technical assistance on steps to improve bicycle-friendliness. This would be a useful resource for the City of Pickering to identify best practices in other jurisdictions to apply in Pickering.

Recommended Actions	
11.	Hire a Transportation Demand Management/Active Transportation (TDM/AT) Coordinator to oversee the delivery of the active transportation network, including the cycling network, and supporting programs.

Recommended Actions	
12.	Under the direction of the TDM/AT Coordinator, undertake an active transportation wayfinding study and pilot project, focused on key trails and cycling corridors.

5.4 Creating Walk- and Bike-friendly Destinations

The ability to walk or cycle to major destinations is a fundamental component of building a well-connected and inclusive active transportation network.

“First and Last Mile” Integration

Integrating short-distance, first and last mile cycling trips and longer-distance transit trips provides a high level of sustainable mobility. Methods to encourage residents to combine transit and cycling include providing secure bike storage at transit stops, and ensuring walking and cycling connections in and out of major transit nodes. As cyclists can travel much faster than pedestrians, providing cycling connections and bike parking at major transit stops can increase the catchment area of the transit stop about ten-fold.²² Additional information on recommendations for active transportation integration at Pickering GO Station is provided in the Transportation Demand Management Strategy (Section 6.2).

Network Amenities, Bike Parking and End-of-Trip Facilities

Providing amenities such as benches, washrooms, bike racks, air pumps and drinking fountains along major active transportation routes increases the ease of access for pedestrians and cyclists. It is recommended the City undertake a cycling and trails amenities plan to identify existing locations and prepare a plan for future locations within the public right-of-way of major trail corridors.

As noted in the Parking Management Strategy, the City of Pickering currently requires all new office, retail and residential buildings within their City Centre area to provide on-site bicycle parking. The City should explore expanding this requirement to include all high-density

residential, commercial and major industrial buildings within their urban area. Moreover, the requirements for end-of-trip facilities such as showers and change rooms enable employees and commuters to travel longer distances via walking and cycling.

As noted in the TDM Strategy (refer to Section 6.2), the introduction of new TDM guidelines and/or checklist to encourage implementation of TDM measures in all new development projects could incorporate and include comprehensive end of trip facilities.

Bike ‘N’ Fly

If a new airport in north Pickering goes forward, the City should work with the federal government, Durham Region and other key stakeholders to help ensure that the airport is accessible to both pedestrians and cyclists. The airport would provide an opportunity to create a new active transportation hub, with connections west to Toronto and south towards Pickering’s urban centre.

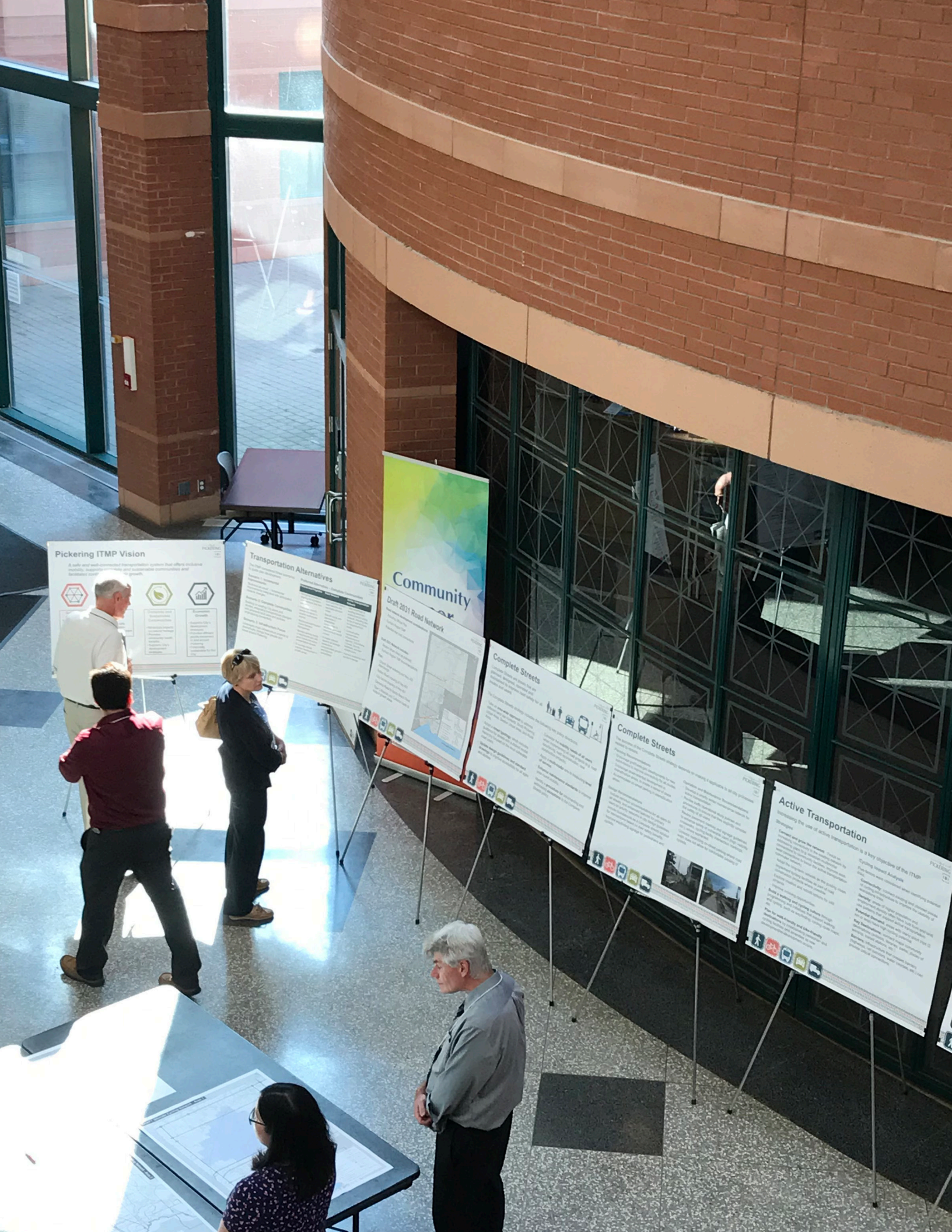
See also recommended actions under Transportation Demand Management and Parking Management for additional actions that are relevant to active transportation, such as:

- Providing active transportation connections to bus stops and the Pickering GO station;
- Exploring expanding bicycle parking requirements to include all high density residential, commercial and major industrial buildings within the urban area; and
- Creating TDM guidelines and/or checklist to encourage implementation of TDM measures in all new development projects.

Recommended Actions	
13.	Under the direction of the TDM/AT Coordinator, undertake a cycling and trails amenities plan to identify existing and future locations for amenities within the public right-of-way along major active transportation corridors.
14.	Work with the federal government, Durham Region and other key stakeholders to ensure any new airport in Pickering is accessible to pedestrians and cyclists, including cycling-tourism supportive connections.

²² Victoria Transport Policy Institute, “Bike/Transit Integration” (2018).





Pickering ITMP Vision

A safe and well-connected transportation system that offers inclusive mobility, environmental and sustainable communities and growth.

- Safe and well-connected
- Inclusive mobility
- Environmental
- Sustainable communities and growth

Transportation Alternatives

Considered alternatives to the Draft 2031 Road Network. These alternatives are designed to provide a more complete and integrated transportation system that supports the ITMP Vision.

Alternative 1: Complete Streets

Alternative 2: Active Transportation

Alternative 3: Transit

Community

Draft 2031 Road Network

The Draft 2031 Road Network is a proposed network of roads that will provide a more complete and integrated transportation system that supports the ITMP Vision.

Key Features:

- Improved connectivity
- Enhanced safety
- Increased capacity
- Better integration with other modes of transport

Complete Streets

Complete Streets are roads that are designed and built to safely accommodate all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

Key Features:

- Safe and well-connected
- Inclusive mobility
- Environmental
- Sustainable communities and growth

Complete Streets

Complete Streets are roads that are designed and built to safely accommodate all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

Key Features:

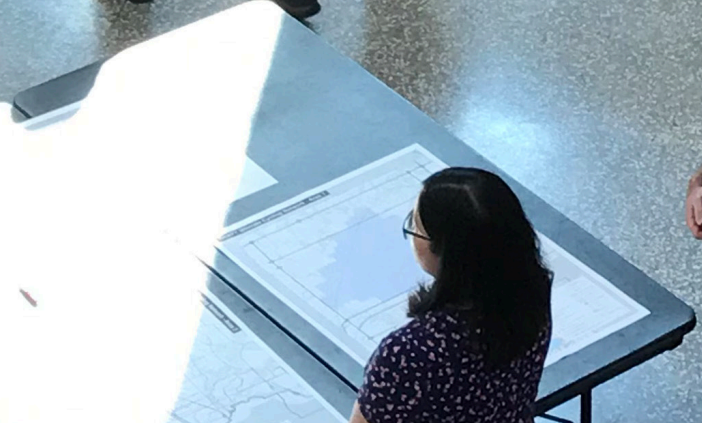
- Safe and well-connected
- Inclusive mobility
- Environmental
- Sustainable communities and growth

Active Transportation

Encouraging the use of active transportation is a key objective of the ITMP. Active transportation includes walking, cycling, and using public transit.

Key Features:

- Safe and well-connected
- Inclusive mobility
- Environmental
- Sustainable communities and growth



6.0

Supporting Strategies

6.1 Access to Transit

Transit plays a vital role in the overall transportation system. Transit services in Pickering are provided by two operators: Durham Region Transit (DRT) and Metrolinx (GO Transit).

DRT was founded in 2006 when the local transit systems of Ajax/Pickering, Whitby, Oshawa and Clarington were transferred to the Region. DRT now operates over 50 bus routes serving all eight area municipalities in Durham. DRT is moving towards a grid network of higher-frequency transit routes including, in Pickering, rapid transit on Highway 2 (Kingston Road) and frequent routes on Whites Road, Brock Road, Bayly Street and Taunton Road. DRT reviews routes on a continual basis to respond to changing transit demands.

GO Transit, a division of Metrolinx, operates the inter-regional rail and bus network that connects Pickering to the Greater Toronto and Hamilton Area (GTHA) and beyond. Metrolinx is currently undertaking business case work, in partnership with local authorities, to expand the DRT PULSE 900 service along Kingston Road to a full-scale bus rapid transit (BRT) system with dedicated bus lanes that connect Scarborough Centre to downtown Oshawa. Another major initiative is the GO Expansion and electrification on the Lakeshore East line that will provide Pickering with 15-minute, two-way all-day rail service. In addition, the Metrolinx RTP identifies several priority bus corridors in Pickering.

The City should support Metrolinx in the implementation of the GO Expansion and electrification program. The City should also advocate to Metrolinx and the Province to continue to protect and consider the long-term extension of GO Rail service to Seaton, and the provision of passenger rail service along the CPR Havelock subdivision. Additionally, the City should work with Durham Region to implement transit priority measures, including signal priority, queue jump lanes, and all-door boarding on Regional roads with planned Priority Bus service as the service is introduced. A high-quality connection and transfer between the Kingston Road Bus Rapid Transit and the Pickering GO station is also important for transit connectivity.

To accommodate the anticipated demand resulting from the GO Expansion, a concerted effort should be made to increase the use of active modes to access the Pickering GO station, consistent with the recommendations of the *Metrolinx GO Rail Station Access Plan*. These efforts should include improving walk and cycle access to the Pickering GO station, and may also include collaboration with Metrolinx and other developers on the implementation of secure bicycle parking at the station and other major transit hubs. Currently, 63% of GO station patrons drive to and park at the station, and if current trends continue, parking demand will exceed available parking capacity.²³ Together with increasing the use of active modes to access the Pickering GO station, land use and parking management plans should be prepared for the area around the station. Further discussion on transportation demand management opportunities at the Pickering GO station is provided in Section 6.2.

Pickering can also support transit through planning for transit-supportive density and land uses along major transit corridors, in the City Centre, around the Pickering GO Station, and in the *Kingston Road Corridor and Specialty Retailing Node Intensification Plan* area, reducing ‘last mile’ distances for transit riders. Accessible sidewalk connections to transit stops and safe crossing opportunities are also important components of the transit network. Prioritizing the infill of sidewalk gaps on transit corridors further removes barriers to accessing transit.

Recommended Actions	
15.	Plan for higher-density and transit-supportive land uses within the City Centre, Kingston Road Corridor and Specialty Retailing Node, around the Pickering GO station, and in other areas well-served by transit.
16.	Prioritize infill of sidewalk gaps and safe crossing opportunities on transit corridors.

6.2 Transportation Demand Management

6.2.1 Background

Transportation Demand Management (TDM) is a suite of policies, programs, services and initiatives that aim to reduce travel demand by single-occupant vehicles by influencing how, how much, when, where, and why people travel. TDM is an effective tool to defer capital investments in new infrastructure by maximizing the use of existing transportation facilities and services. TDM can also reduce greenhouse gas emissions and encourage active lifestyles by promoting sustainable transportation modes.

Collectively, TDM aims to influence travel by:

- Providing travel choices and options;
- Providing incentives to take transit, cycle, walk, or carpool to commute to work or school;

- Providing information to educate commuters on their travel options (e.g., wayfinding, maps, real time information);
- Providing regulations aimed at limiting single-occupant car trips (e.g., parking regulations, land use policies, congestion pricing);
- Eliminating the need to make some trips (e.g., telecommuting, virtual meetings); and
- Providing active or transit-based alternatives to single-occupant car trips.

TDM initiatives have many economic, social, environmental, and health benefits that can benefit both the City of Pickering and residents. TDM allows the City to make more efficient use of its transportation infrastructure when trips are distributed among different modes, spread out outside of the peak periods or, in some cases, not made at all. Residents benefit by saving money on vehicle operating costs and those who use active modes can realise health benefits that cannot be achieved on an auto commute.

The recommended TDM policies and programs in Pickering will complement the policies and programs already in place at the Regional level. The 2017 Durham Region Transportation Master Plan included various strategies that apply to the entire region, including strategies aimed at improving travel choices and integrating land use and transportation. For more information see the *Transportation Demand Management Background Paper*.

What does Pickering do now?

Through the Official Plan, the City of Pickering has identified the need to manage travel demand and optimize existing infrastructure by promoting and supporting initiatives like ride share, bus priority and HOV lanes.

The City of Pickering also takes part as one of the employers in the Smart Commute Durham program providing opportunities for City employees to participate in workplace TDM initiatives.

Transportation Demand Management

Transport Canada's Transportation Demand Management for Canadian Communities describes three key dimensions of sustainability that municipalities pursue when implementing TDM policies and programs:

- **Quality of Life:** *Sustainable transportation systems reduce travel delays that affect families and increase costs to business. They increase physical activity levels and reduce the health impacts of air pollution. They improve safety by shifting travel from cars to transit, reducing travellers' risk of being involved in a collision. They increase opportunities for all people to participate in educational, recreational and social activities without the need to use a car.*
- **Environmental Health:** *Sustainable transportation systems have lower emissions of greenhouse gases and smog-causing air pollutants, and help reduce intrusion into natural areas by urban development.*
- **Economic Growth:** *Sustainable transportation systems have lower long-term costs, including the costs of transportation infrastructure (e.g. new and wider roads), transportation operations (e.g. vehicle fuel, repair, insurance) and their health impacts (e.g. hospital care for collision victims and asthma patients). Car travel is expensive both for citizens and governments. Shifting travel demand from cars to more sustainable modes frees up public and private resources to invest in other priorities.*

6.2.2 TDM Initiatives for Pickering

The recommended TDM strategy aims to build a robust program for the City of Pickering and capitalize on opportunities to reduce single-occupant vehicular travel in the city. Further information and the TDM opportunities and initiatives for Pickering are provided in **Background Report F – Transportation Demand Management**.

The four key TDM opportunities for Pickering are:

Pickering GO Station Access

The Pickering GO Station attracts approximately 4,000 trips every weekday and is forecasted to increase to over 8,000 daily trips by 2031 with the planned GO Expansion. With 3,560 vehicular parking spaces and no plans for further parking expansion,²⁴ an increase the non-auto mode share to the GO station will be essential. Currently, over 63% of GO train patrons drive and park at Pickering GO station, but this will not be sustainable with growing GO transit ridership.

A well-developed cycling network in and around the Pickering GO station area is key to supporting the “first and last mile” for transit riders within a short trip from the station. Secure bike parking, air pumps, drinking fountains are practical amenities that can be added to the station area increase the appeal of walking or cycling to access the train.

Promotion of available transit connections and the co-fare discount will raise awareness of the ease of access and potential cost-savings of taking transit to the station.

At this time parking at the GO station is free, but Metrolinx has acknowledged that continuing to build free parking to accommodate demand is not financially or environmentally sustainable in the long term. Paid parking at the GO station is an option to manage demand and encourage alternative access to the station. However, this must be done in a manner that does not shift demand away from transit entirely nor result in an overflow of parking on residential streets or parking lots for other businesses in the area.

TDM Guidelines for New Developments

City of Pickering Transportation staff currently review development applications but do not provide any comments from a TDM perspective. As Pickering intensifies, new development present an excellent opportunity to incorporate TDM measures at the planning and design stage of new communities that encourage the use of active transportation, transit, and carpooling. Potential TDM measures in new developments include incorporating design features such as bicycle parking, shared and/or reduced vehicular parking, and active transportation connections to and from the site, as well as incentives to encourage transit and active transportation.



With increasing population density anticipated for the City Centre and *Kingston Road Corridor and Specialty Retailing Node Intensification Plan* areas in particular, TDM can play an important part in supporting high active and sustainable mode shares.

Building upon the direction of the City's OP (policy 11.25) that "City Council shall require, in support of draft plans of subdivision, an assessment of intersection and road capacity/level of service which shall be undertaken for the neighbourhood within which the draft plan is situated and which shall address travel demand sensitivity and demonstrate that the capacity of the transportation network and community design objectives of this Plan will be achieved", the City of Pickering should establish a development review process that integrates TDM requirements into development approvals.

A TDM guideline and/or checklist should be developed to provide guidance on TDM measures that should be considered at all new development projects along with incentives, such as reduced parking requirements, to encourage implementation. The TDM guidelines can be incorporated into the City's draft plan of subdivision or site plan application process. Once developed, a new policy to make the use of the guidelines mandatory can be adopted in the Official Plan.

School Travel Programs

School trips are an important target for TDM initiatives. School trips represent nearly 20% of all morning peak trips in Pickering and many are short trips that are well suited to active modes: 55% of all school trips are 2 km or less. Although more than 30% of school trips are made by school bus and 20% are made by walking or cycling, about one in three school trips is made by car. Not only do school trips represent a substantial share of morning peak period trips, schools are located throughout the city and high automobile mode shares (including drop-offs and pick-ups) impact many city streets.

Durham Region, in partnership with Green Communities Canada, supports and promotes school travel planning services through the Ontario Active School Travel program. School travel planning is an action planning process enabling school communities to identify barriers students face when travelling by active modes. School travel planning means collaborating with the school boards, public health officials, parents, educators, children, municipal staff, and elected officials, to increase the number of students using active transportation modes to and from school.

Educating elementary, high school, and post-secondary students on the benefits of active travel is a strategy that can create lasting behavioural change. By encouraging students to choose a sustainable mode to get to school, congestion in school zones is reduced, making it safer for all students. School travel programs are an opportunity to engage with students, as well as parents, teachers, and staff.

Workplace Programs

Workplace TDM programs encourage employees at participating organizations to walk, cycle, take transit, and carpool to and from work. Currently, workplace TDM programs in Durham Region are managed by Smart Commute Durham, part of the Smart Commute program. As of July 2019, Metrolinx is no longer funding the Smart Commute program and there is some uncertainty during this transition period. Durham Region has expressed their commitment to TDM programming and funding of workplace initiatives.

With forecasted employment growth in Pickering, there is an opportunity to increase the reach of workplace TDM programming. The City of Pickering can support workplace TDM programs by identifying and encouraging organizations in Pickering, primarily along the DRT PULSE 900 (Kingston Road) route and in proximity to the GO station to participate.

The City of Pickering itself is a “Gold” Smart Commute organization and won the Employer of the Year award in 2012. The City can lead by example and continue to showcase its efforts to other organizations in Pickering, demonstrate the value of investing resources into a TDM workplace program, and show how to successfully implement a workplace program. A marketing campaign amongst City staff to encourage active and sustainable modes of travel to/from work and for business travel can highlight preferred transit routes to access City Hall and other Pickering facilities, availability of bike parking and end-of-trip facilities (e.g. showers, lockers, etc.), and preferred carpool parking spaces.

Recommended Actions	
-	Action #11 identified hiring a Transportation Demand Management/Active Transportation Coordinator to oversee the TDM programs and policies as well as the delivery of the cycling network.
17.	Work with Metrolinx and Durham Region to promote sustainable access modes to Pickering GO station by improving active transportation connections and amenities, and promoting transit services.
18.	Work with Durham Region, Durham District School Board, and Durham Catholic District School Board to launch school travel planning at more schools in Pickering to promote active travel and transit modes to school.

6.3 Parking Management

6.3.1 Background

The provision and management of off-street parking and on-street parking through policies, bylaws and enforcement can define the urban landscape of a city and influence the travel behaviour of its residents.

Parking is abundant across Pickering including the City Centre. Parking supply is primarily provided by private development through on-site surface parking areas for individual uses, be it an office building, a commercial site, or a single-family residence. The City provides public parking at only a few locations in Pickering – at all City-owned facilities (i.e. community centres, City Hall), marked on-street parking spaces on a few streets, and at one municipally-owned, standalone parking lot.

As Pickering evolves, the parking management strategy must evolve along with it. The ITMP’s proposed parking management strategy accommodates current and anticipated parking demands while supporting Pickering’s city-building objectives, encompassing on-street and off-street public parking, paid parking, parking requirements in new developments, and parking policies.

What does Pickering do now?

The Official Plan identifies the need for a comprehensive parking strategy that considers reduced parking requirements where transit options are available. Official Plan policy 12.10I for City Centre Parking further states that that consideration shall be given to reducing the number of parking spaces required where bicycle parking facilities or other transportation demand management measures are provided.

The Downtown Pickering study recommended policies to limit surface parking and locate parking in a manner that promotes pedestrian-oriented design in the City Centre.

Existing Parking Supply

On-street parking within the road right-of-way can be divided into two distinct types. First, there are several areas with marked parking spaces that are generally intended to support adjacent commercial area or other land uses. Second, on-street parking is permitted on all municipal roads where not prohibited by signage. This typically fulfills a short-term parking function for adjacent land uses.

Marked on-street parking can be found at the following locations:

- Liverpool Road south of Commerce Street (landscaped parking bays south of Wharf Street);
- St. Martins Drive south of Bayly Street (parking bay in front of live-work units);
- Pickering Parkway west of Glenanna Road (painted parking spaces on the north side); and
- Glenanna Road between Pickering Parkway and The Esplanade South (painted parking spaces on both sides).

The City also owns parking lots that serve municipal facilities such as community centres, recreation centres, public libraries and civic complex. Generally, these lots are intended for use by visitors to the adjacent site rather than general public parking for the greater area.

The single City of Pickering parking lot that is open to general public parking is located at 505 Liverpool Road and serves visitors to the waterfront parks, Millennium

Square, businesses along Liverpool Road, and the marina. All municipally-owned parking lots are free.

Metrolinx provides over 3,560 parking spaces at Pickering GO Station in two parking structures and two surface parking lots. Additionally, a 339-space park-and-ride/carpool lot is located at Brock Road south of the Highway 407 interchange for GO bus users and general carpool parking.

The vast majority of the parking supply in Pickering is on-site surface parking on private property. As development has occurred, each development site was required through the applicable zoning by-law to provide off-street parking to accommodate the users of the site (e.g. residents, visitors, employees, customers, etc.). The number of parking spaces required is dependent on the type of land use and size of development. Large off-street parking lots have been built to support the retail commercial areas along Kingston Road and the major office buildings in various business parks. Similarly, single family homes and townhomes are typically built with garages and/or driveways to supply parking for residents/tenants.

Future Parking Supply

With the development of Highway 407 through Pickering, and the forthcoming 407 Transitway, the city's parking supply is expected to grow. In addition to the existing Brock Road park-and-ride/carpool lot at Highway 407 and Brock Road, similar lots are planned along Highway 407 at Whites Road, Westney Road, and Salem Road. These facilities may be phased in prior to the completion of the 407 Transitway, serving commuters carpooling via Highway 407. When the 407 Transitway is completed and service is introduced, the facilities will also support park-and-ride. An additional park-and-ride facility is expected at the planned Seaton GO station, to be located near Brock Road and Taunton Road. This facility would serve commuters in the Seaton and Duffin Heights areas.

As further parking supply is added in Pickering, it will be important to consider how parking facilities are structured and what additional amenities are provided. The majority of existing parking facilities in Pickering are in the form of surface lots and above-ground parking structures. Future parking facilities may come in these forms, but they may also take the form of underground lots/structures.

Further, with the growing prevalence of electric vehicles (EVs), the provision of vehicle charging infrastructure will become increasingly important. While some EV charging stations are already provided in Pickering (such as Tesla Superchargers in the Pickering SmartCentres retail complex), they are predominantly located in privately-owned parking facilities.

Future Parking Demand/Planning Context

As the City of Pickering continues to grow so too will the demand for parking. The targets of the Provincial Growth Plan for Pickering, and particularly the City Centre, will significantly increase population and employment density. While parking demand will increase with growth, a successful ITMP will mean that parking demand increases at a slower rate as walking, cycling and transit become real, viable options as alternatives to driving.

The following findings are anticipated to have impacts on future parking demand:

- As population and employment increases, parking demand is also projected to increase concurrently. Population is projected to grow from approximately 95,000 in 2016 to 190,000 by 2031. Additionally, employment is projected to grow from 34,800 to 77,000 within the same period;²⁵
- Personal vehicle ownership has increased at a faster rate than population between 1996 and 2016. However, the use of active modes such as walking and cycling is on the rise by those under the age of 30. In other words, the rate at which personal vehicle ownership has historically increased is anticipated to decline in the future. With a decrease in vehicle ownership, parking demand is anticipated to be managed; and
- Personal vehicles has remained the mode of choice for the majority of trips originating from Pickering. However, transit has gained popularity between 1996 and 2016. Given the focus on alternative modes of transportation in Pickering planning documents, the use of alternative modes is anticipated to increase while use of personal vehicles is anticipated to decrease. As personal vehicle mode share decreases, parking demand is also anticipated to be managed.

How parking supply is provided and managed will influence how developable lands are used and the intensity of uses. Seaton Urban Area and the City Centre have relatively recent zoning by-laws that outline the parking space requirements that reflect the intensity of new development and vision for a multi-modal transportation system.

6.3.2 Recommendations

The parking management strategy aims to address issues related to public parking, both on-street and off-street, in a cohesive program that is aligned with the City's vision. The parking management recommendations of the ITMP focus on actions to manage parking supply. Further information and the TDM opportunities and initiatives for Pickering are provided in **Background Report G – Parking Management Strategy**. Actions to influence behaviours and manage parking demand are presented under transportation demand management in Section 6.2. The City of Pickering is also currently undertaking a Comprehensive Zoning By-law Review that will include a review of the City's zoning related parking policies.²⁶

Update Parking Space Requirements

The City's Zoning By-laws set minimum requirements for parking spaces that must be provided for new development or redevelopment. The minimum number of spaces required varies with the type of use (i.e. residential, retail, etc.) There are six general zoning by-laws that apply to different areas of Pickering.

Four of the City's general zoning by-laws were set in the 1960s and 1970s and two zoning by-laws are more recent – one for the Seaton Urban Area (in 2014) and one for the Pickering City Centre (in 2017). The newer zoning by-laws generally require less parking, reflecting the City's vision for urban development that is less automobile-oriented. The City Centre zoning by-law is the only one that includes bicycle parking space requirements for residential (apartment dwelling, stacked dwelling, long-term care facility and retirement home) and non-residential uses.

²⁵ See Section 3.5.1 for more information regarding future population and employment for City of Pickering.

²⁶ More information on the Comprehensive Zoning By-law Review is available here: <https://www.pickering.ca/en/city-hall/comprehensive-zoning-by-law-review.aspx>

From a parking requirement perspective, the existing by-laws are not consistent in recognizing the differences in parking need for single-family units versus apartment units or for eating establishments versus general commercial uses. The current by-laws also state parking requirements by a mix of area measurements (floor area, gross floor area or gross leasable floor area). Parking requirements from parking demand surveys, current practice in Pickering through approved by-law amendments and examples from other municipalities are a starting point in updating the parking space requirements to address current needs in parking demand, new land uses and vehicle ownership models, and to have more consistent requirements across Pickering.²⁷

Additional considerations for updated parking space requirements include:

- Parking requirement reductions for developments that provide carshare vehicles as part of the on-site parking supply;
- Parking requirement reductions for developments that provide long-term bicycling parking; and
- Parking requirement reductions for large office employment developments that install showers and change facilities.

Pickering’s off-street accessible parking requirements are consistent with the Accessibility for Ontarians with Disabilities Act (AODA). For on-street parking, the AODA does not specify accessible parking requirements. Section 80.39 of the Act suggests municipalities consult with their Accessibility Advisory Committee to establish the number and locations of on-street accessible spaces.

Recommended Actions	
19.	Update parking space requirements to identify a reduced parking rate for developments in proximity to higher-order transit and requiring minimum bike parking standards.

Reduce Parking Supply

Strategies that could help reduce parking requirements and the oversupply of parking in not just the City Centre but across Pickering are presented below. These strategies are not anticipated to require significant additional staffing resources as most of these factors are intended to be considered during the development application process (which City of Pickering staff already perform).

Cash-in-lieu of parking

Currently, all private developments are required to provide sufficient parking supply on-site to meet expected parking demand. However, as density increases with projected growth, developers in certain parts of the City, such as the City Centre where land is anticipated to become less available and more expensive, may experience difficulty in meeting the zoning by-law parking requirements. A municipal parking system operating as a shared resource serving multiple City Centre developments could be one approach to meet the area’s parking needs.

The availability of funds necessary to operate, maintain, and improve the existing parking system is a key challenge faced by many municipalities. One strategy for generating funds to support public parking is cash-in-lieu of parking. Cash-in-lieu of parking allows developers to pay cash as an alternative to providing the minimum number of parking spaces required by the Zoning By-law. The collected funds are placed in the parking reserve fund, which are normally used for the acquisition, improvement, and construction of municipally owned parking facilities. The City Centre could be ideal for a cash-in-lieu policy.

The City of Pickering should consider using cash-in-lieu to develop a municipal parking system in the City Centre to support the parking needs of future development. If a policy is adopted, the City should set the cash-in-lieu of parking rate equal to 50% of the cost required to construct parking based on local factors.

²⁷ The Comprehensive Zoning By-Law Review includes a Discussion Paper on parking, active transportation, and loading related by-law considerations, including parking space requirements. It is available here: <https://www.pickering.ca/en/city-hall/comprehensive-zoning-by-law-review.aspx>



Shared Parking

Shared parking involves the use of one parking facility by a mix of land uses, taking advantage of different parking demands by time of day or day of week to reduce the total number of parking spaces required. Shared parking ensures that parking spaces are not designated for any particular use, but operate as a pooled parking resource. This strategy can be considered on a “micro” scale within a single development, or on a “macro” scale between several developments.

The biggest benefits are realized with mixed-use developments, where uses have different peak demand times. For example, a restaurant with peak parking demands in the evening and an office with peak parking demands in the midday can share a parking facility with fewer total parking spaces than would otherwise be required for two separate parking facilities to accommodate the individual peak parking demands. Shared parking encourages more efficient use of the parking supply.

Pickering currently has a shared parking formula for the City Centre, but shared parking can be beneficial in all areas of Pickering wherever there is potential for a mix of land uses within close proximity.

TDM Initiatives

As discussed in Section 6.2, TDM initiatives are used by municipalities to influence travel behaviour. This improves transportation system efficiency and helps manage

parking demand by decreasing the volume of single-occupancy vehicles on roads and in parking lots. These initiatives take many forms, including policies, programs, services, and products to influence why, when, where, and how people travel.

Recommended Actions

- | | |
|-----|--|
| 20. | Consider a cash-in-lieu of parking program in the City Centre to generate funds to provide off-street public parking in the City Centre. |
| 21. | Expand shared parking concept city-wide wherever an appropriate mix of land uses can share parking resources. |

Paid Parking

Many municipalities provide and manage public parking to support businesses in their downtowns or other defined areas. For municipalities similar in size to City of Pickering, public parking is typically managed by municipal staff rather than a parking authority.

There is a mix of free or paid parking practice in other municipalities similar to Pickering. Municipalities that choose to charge fees for public parking typically have defined downtown areas with lively ‘main streets’ that include shopping, restaurants, and other destinations such as civic buildings but limited space for private off-street parking.

In Pickering, the two areas with the greatest potential for paid parking are the City Centre and Liverpool Road waterfront areas. In the City Centre, the current land uses and availability of free parking make it difficult to implement paid parking on-street and at municipal lots. However, as redevelopment occurs, the City should look for opportunities to consolidate off-street parking supply and, as retail uses develop at street-level, charge fees for on-street parking.

In the Liverpool Road waterfront area, there is a high demand for public parking, both on-street and in the municipal lot for visitors to the waterfront, parks and commercial establishments. However, implementing paid parking could divert parking to the surrounding residential streets and is not recommended at this time.

Recommended Actions

- 22. As the City Centre develops and intensifies, explore opportunities to consolidate off-street parking supply and, as retail uses develop at street-level, charge fees for on-street parking and at municipal lots.

Residential On-Street Parking Program

In denser residential neighbourhoods where on-site parking is limited but car ownership remains high, such as Duffin Heights or other established neighbourhoods, a residential on-street parking permit program can help meet the parking needs of local residents. This program would allow residents within an approved zone to purchase on-street parking permits which grants them exemptions to certain parking by-laws allowing them to parking their vehicles on-street for extended periods of time or overnight.

For Pickering, a residential on-street parking program can supplement and support the City’s goal of reduce reliance on the automobile. As discussed, reducing parking requirements in the zoning by-laws is one mechanism to discourage vehicle use and lower parking demand. However, while new developments with lower parking supply are being built now, the supporting transit service and pedestrian and cycling networks may not yet provide a practical service level for households to forego owning multiple vehicles.

A residential on-street parking program would allow the City to manage a “flexible” supply of on-street parking. In the short to medium term, a number of parking permits can be issued as residents transition to becoming less reliant on driving and car ownership. In the longer-term, when frequent transit or rapid transit services are in place and the active transportation network is connected and continuous, then fewer permits can be issued.

An on-street parking program will require coordination with the City’s road operations and maintenance requirements, particularly during winter maintenance activities. Other municipalities with residential on-street parking programs manage this in various ways – having designated snow routes or notifications of temporary permit restrictions – to allow for necessary maintenance activities. On-street parking should also be planned into future developments with winter maintenance needs in mind. An on-street program will also require policies and procedures relating to visitor or temporary on-street parking needs.



Recommended Actions	
23.	Explore a paid on-street residential parking program to manage parking demand in the shorter-term while working towards the goal of reducing overall parking supply and encouraging more sustainable modes of travel in the longer-term.

6.4 Access Management

6.4.1 Background

Access management is the process of managing the interactions of driveway entrances and side street intersections in the road network, primarily the arterial road network. Access management serves an important role in traffic operations and road user safety. A consistent and predictable distribution of access points that reflects the role and function of a roadway can help to reduce traffic friction and conflicts that contribute to delay and collisions.

Access management is related to road classification, where the level of access helps define the role and function of a particular roadway. Higher-order roads such as major arterials have access restrictions, whereas lower-order roads such as collectors or local roads are intended to provide access to individual properties.

What does Pickering do now?

The City’s Official Plan identifies, at a high level, the intended level of access for each road category but without specific minimum guidelines.

The Pickering City Centre Urban Design Guidelines speak to a desire for a finer-grained road network in the City Centre to balance the road functions of moving traffic and providing access to urban developments. The guidelines also encourage driveways to individual businesses be consolidated or relocated to rear lanes. The Kingston Road Corridor and Specialty Retailing Node Intensification Plan & Draft Urban Design Guidelines also advocate for these changes to access management in the city.

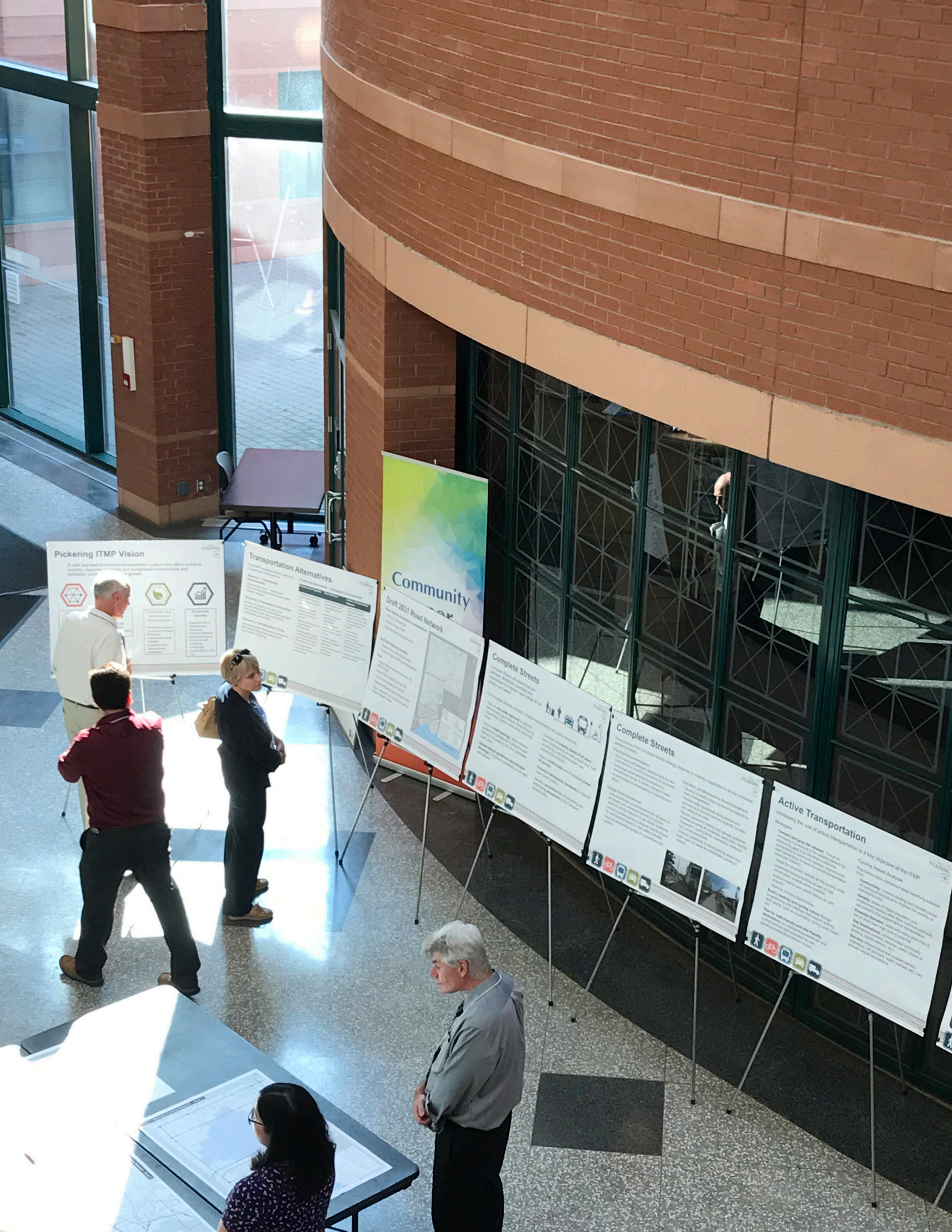
6.4.2 Recommendations

The City of Pickering practice for access management on arterial roads follows the guidance provided in the Region’s Arterial Corridor Guidelines which applies to both urban and rural contexts. Where new development proposes a new access on a Regional arterial road, approval from the Region is required. For plans of subdivision, the City of Pickering is the approval authority. Where proposed roads intersect Regional roads, Durham Region provides approval to the City to ensure consistency with Regional goals and policies. Where proposed roads cross provincial highways or freeways, or where new intersections or interchanges with provincial highways or freeways are proposed, MTO approval is required.

Without a formal access management guideline for intersection spacing and driveway spacing, the City’s practice for access management is to follow the guidance provided in the Region’s Arterial Corridor Guidelines for Regional roads and other design manuals for City roads, including the Transportation Association of Canada’s Geometric Design Guide, on a case-by-case basis.

The ITMP recommends developing a formalized, Pickering-specific set of access management guidelines that can serve to improve the consistency of managing property access through the City. These guidelines should apply to not only arterial roads, but also to collector roads and local roads. These guidelines would help to rationalize the number and location of access connections in a way that is consistent with the Region’s policy on arterial roads, but also provide further guidance for application on Pickering road types that are not specifically covered by the Region’s guidelines.

These proposed guidelines are detailed in **Background Report H – Access Management**.



Pickering ITMP Vision

A safe, smart, well-connected transportation system that offers inclusive mobility, sustainable communities and sustainable communities and growth.

- Safe
- Smart
- Well-connected
- Inclusive
- Sustainable

Transportation Alternatives

The following table provides a summary of the transportation alternatives considered in the ITMP process.

Alternative	Description	Key Features
Alternative 1
Alternative 2
Alternative 3

Community

Draft 2021 Road Network

Complete Streets

Complete Streets are designed and operated to enable safe and efficient travel for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

Complete Streets

Complete Streets are designed and operated to enable safe and efficient travel for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

Active Transportation

Encouraging the use of active transportation is a key objective of the ITMP.

Key Objectives:

- Increase the number of people walking and cycling.
- Improve the safety and comfort of walking and cycling.
- Promote the use of active transportation for all ages and abilities.

7.0

Achieving the Plan

A comprehensive implementation, funding, and monitoring plan is an essential component of the ITMP to provide guidance for the City of Pickering and its partners in implementing the ITMP.

7.1 Implementation and Phasing

To implement the ITMP, the implementation plan must reflect the vision of the ITMP and address opportunities to meet the transportation needs of Pickering’s residents today and in the future. Consistent with the Durham Region TMP, implications for service level standards, operating and maintenance practices, and life cycle costs are considered when planning for and implementing these infrastructure investments.

The network recommendations of the ITMP build upon system elements that are outside the jurisdiction of Pickering. These include continued expansion and investment by Metrolinx in the GO Transit system, by the Region in the regional road network and transit system, and by the Ministry of Transportation in Highway 401 and Highway 407 expansions.

The recommended timeframe for actions to be undertaken has been organized into three timeframes: short term (2021 to 2024); medium term (2025 to 2031); and long term (2031 and beyond). The recommended ITMP road capital projects by phase are presented in **Appendix A**.

7.2 Capital Costs

7.2.1 Capital Investment

The estimated capital investment for the recommended network to 2031 is \$142.0 million for road capacity projects and \$24.2 million for cycling network projects as summarized in **Exhibit 7.1**. Combined, this reflects an average annual investment of \$15.1 million. In addition, the City will need to fund on-going road operations and maintenance work to renew and maintain the existing and proposed transportation network.

The timing for these capital investments will be refined through on-going monitoring of transportation system performance, land development and the annual capital budget process.

Recommended Actions	
24.	Subject to the City of Pickering’s annual capital budget process, invest in the recommended transportation infrastructure projects to accommodate travel demand growth.

7.2.2 Funding Sources

Internal funding sources for the City’s road capital program include property taxes and development charges. External funding sources include provincial and federal grants and transfers.

Exhibit 7.1: Estimated Capital Costs by Phase (millions)

	Short-Term (2021-2024)	Medium-Term (2025-2031)	Total (by 2031)	Long-Term (Beyond 2031)	Total
Roads – Expansion Projects ^{a,b}	\$65.9	\$76.1	\$142.0	\$44.3	186.3
Cycling and Trails – Expansion Projects	\$1.8	\$5.8	\$7.6	\$15.3	\$22.9
Regional Cycling Plan Projects ^c	\$8.3	\$8.3	\$16.6	n/a	\$16.6
TOTAL	\$76.0	\$90.2	\$166.2	\$59.6	\$225.8

- a. Includes cost of cycling infrastructure if identified in cycling network.
- b. Includes an estimated \$23 million for the widening of Church Street and new Highway 401 interchange at Church Street in the medium term that are not under the City’s jurisdiction, but are still recommended for long-term implementation.
- c. City’s share of costs for Regional Cycling Plan projects – subject to change.

Internal Funding Sources

Property taxes are the City of Pickering’s main source of revenue to fund day-to-day services and programs such as fire services, recreation programs, parks, libraries, road maintenance, and stormwater management.

Development charges are fees charged to new development to fund new capital infrastructure required as a result of growth. Development charges are governed by the *Development Charges Act*, 1997. In June 2019, the Province proposed changes to the *Development Charges Act* and *Planning Act* that will have implications on the municipal services that can be funded through development charges and how and when these charges are to be collected. Transportation-related services continue to be eligible for development charge funding.

External Funding Sources

The Province distributes a portion of the Ontario Gas Tax revenue to municipalities primarily to support public transit investments. In Pickering, Durham Region operates public transit and gas tax revenue are typically paid to the Region. Other opportunities for a share of provincial gas tax revenues or grants should be continually explored.

Recommended Actions	
25.	Explore provincial and federal government grant funding opportunities to obtain sustainable, dedicated funding sources for financing transportation infrastructure and services.

The Federal Government administers a similar Gas Tax Fund that can be used by municipalities to fund 18 categories of infrastructure projects, including projects under the following categories: public transit, local roads and bridges (including active transportation infrastructure), and highways.

The involvement of other levels of government in the funding of municipal transportation projects is crucial to the City of Pickering.

7.3 Monitoring and Plan Updates

The ITMP is a living document that must be regularly reviewed to ensure it continues to meet the transportation needs of Pickering. Changing community expectations, growth patterns, and development pressures can necessitate a review of the ITMP, as would changes in the expected timing of major infrastructure outside Pickering’s jurisdiction. The Municipal Class Environmental

Assessment process recommends that master plans be reviewed every five years to determine the need for a detailed formal review and/or update.

Monitoring the progress of the ITMP will guide continued implementation and future updates by determining what projects have been completed, where and how the City has grown and how travel behaviour has changed.

Exhibit 7.2 presents a range of indicators to measure the effectiveness of the ITMP.

The monitoring process will rely on observed data measured against performance indicators set for the ITMP. Monitoring of some indicators may be done annually or timed with Census and travel survey updates. Data sources include the City’s annual capital program, traffic count program, the Transportation Tomorrow Survey and Census.

The following actions are recommended to support monitoring and tracking the performance of the ITMP:

Exhibit 7.2: ITMP Monitoring Indicators

Indicator	Data Source	Schedule
Long-term Road Network – percent Complete	Capital Program	Annual
Long-term Cycling Network – Percent Complete	Capital Program	Annual
Number of Accessible Intersections	Capital Program	Annual
Reduction in Sidewalk Gaps	Capital Program	Annual
Transit Ridership	DRT, GO Transit	Annual
Cyclist and Pedestrian Volumes at Key Network Locations	Count program	Annual
Sustainable Mode Share for Trips to Work	Transportation Tomorrow Survey / Census Journey to Work data	Every 5 years
Sustainable Mode Share for Trips to School	Transportation Tomorrow Survey	Every 5 years
Sustainable Mode Share for Short Trips (<2 km)	Transportation Tomorrow Survey	Every 5 years
Sustainable Mode Share for Key Growth Areas (e.g., City Centre and Kingston Road corridor)	Transportation Tomorrow Survey	Every 5 years

Recommended Actions	
26.	Support data collection initiatives that assist in the monitoring of transportation conditions and needs, including traffic counts, cyclist counts, pedestrian counts, ridership counts and travel surveys.
27.	Review the Integrated Transportation Master Plan every five years following Environmental Assessment guidelines, or as needed, to determine the need for a detailed review and update.
28.	Implement the Integrated Transportation Master Plan through future amendments or updates to the Official Plan.

Action Summary

The following is a summary of the recommended actions of the ITMP. The phasing indicates when the action should be started.

Recommended Actions	Phasing		
	Short-Term (2021-2024)	Medium-Term (2025-2031)	Long-Term (Beyond 2031)
Roads			
A Complete Streets Approach			
1. Develop a Complete Streets Policy for Council approval following the guiding principles and the identified planning, design and operations and maintenance recommendations.	✓		
2. Identify internal stakeholders representing the City Development, Engineering Services, and Public Works departments to champion the complete streets approach and incorporate it into respective policies, processes and procedures.	✓		
3. Routinely incorporate the needs of all road users, including pedestrians, cyclists, transit, drivers and goods movement as part of the planning, design, operations and maintenance of road infrastructure.	✓	✓	✓
Long-Term Road Network			
4. Construct and maintain the Long-term Road network, protecting future corridors for implementation with corresponding growth.	✓	✓	✓
5. Work with City of Toronto and Parks Canada to maintain the Twyn Rivers Drive connection between City of Pickering and City of Toronto.	✓	✓	✓
6. Work with the Ministry of Transportation, Durham Region, Town of Ajax and Pickering Developments (Durham Live developer) to explore opportunities for Highway 401 interchange at Church Street and the widening of Church Street from Highway 401 to Bayly Street.	✓		

Recommended Actions (continued)		Phasing (continued)		
		Short-Term (2021-2024)	Medium-Term (2025-2031)	Long-Term (Beyond 2031)
Goods Movement				
7.	<p>Add the following roads as local goods movement connections in Pickering:</p> <ul style="list-style-type: none"> Whites Road (Taunton Road to Bayly Street); Future Whites Road (Highway 7 to Taunton Road); Bayly Street (Whites Road to Brock Road); Brock Road (Bayly Street to Montgomery Park Road); Squires Beach Road (Pickering Parkway to McKay Road); and Sandy Beach Road (Bayly Street to Montgomery Park Road). 	✓	✓	
Active Transportation				
Long-Term Road Network				
8.	Routinely incorporate active transportation infrastructure into capital projects.	✓	✓	✓
9.	Upgrade the existing network, including upgrading existing cycling facilities to meet current standards and undertaking a safety and design review of existing multi-use trails.	✓	✓	
10.	Adopt the Long-term Cycling Network as the guiding vision for developing a connected cycling network in Pickering, working collaboratively with major partners and stakeholders. Develop a program to infill higher-priority network gaps in the short to medium term.	✓	✓	✓
Building Community Support				
11.	Hire a Transportation Demand Management/Active Transportation (TDM/AT) Coordinator to oversee the delivery of the active transportation network, including the cycling network, and supporting programs.	✓		
12.	Under the direction of the TDM/AT Coordinator, undertake an active transportation wayfinding study and pilot project, focused on key trails and cycling corridors.	✓	✓	
Creating Walk- and Bike-Friendly Destinations				
13.	Under the direction of the TDM/AT Coordinator, undertake a cycling and trails amenities plan to identify existing and future locations for amenities within the public right-of-way along major active transportation corridors.	✓	✓	

Recommended Actions (continued)		Phasing (continued)		
		Short-Term (2021-2024)	Medium-Term (2025-2031)	Long-Term (Beyond 2031)
14.	Work with the federal government, Durham Region and other key stakeholders to ensure any new airport in Pickering is accessible to pedestrians and cyclists, including cycling-tourism supportive connections.		✓	✓
Supporting Transportation Strategies				
Access to Transit				
15.	Plan for higher-density and transit-supportive land uses within the City Centre, Kingston Road Corridor and Specialty Retailing Node, around the Pickering GO station, and in other areas well-served by transit.	✓	✓	✓
16.	Prioritize infill of sidewalk gaps and safe crossing opportunities on transit corridors.	✓	✓	✓
Travel Demand Management				
17.	Work with Metrolinx and Durham Region to promote sustainable access modes to Pickering GO station by improving active transportation connections and amenities, and promoting transit services.	✓	✓	✓
18.	Work with Durham Region, Durham District School Board, and Durham Catholic District School Board to launch school travel planning at more schools in Pickering to promote active travel and transit modes to school.	✓	✓	✓
Parking Management				
19.	Update parking space requirements to identify a reduced parking rate for developments in proximity to higher-order transit and requiring minimum bike parking standards.	✓		
20.	Consider a cash-in-lieu of parking program in the City Centre to generate funds to provide off-street public parking in the City Centre.	✓	✓	
21.	Expand shared parking concept city-wide wherever an appropriate mix of land uses can share parking resources.	✓	✓	✓
22.	As the City Centre develops and intensifies, explore opportunities to consolidate off-street parking supply and, as retail uses develop at street-level, charge fees for on-street parking and at municipal lots.	✓	✓	✓
23.	Explore a paid on-street residential parking program to manage parking demand in the shorter-term while working towards the goal of reducing overall parking supply and encouraging more sustainable modes of travel in the longer-term.		✓	

Recommended Actions (continued)		Phasing (continued)		
		Short-Term (2021-2024)	Medium-Term (2025-2031)	Long-Term (Beyond 2031)
Achieving the Plan				
24.	Subject to the City of Pickering's annual capital budget process, invest in the recommended transportation infrastructure projects to accommodate travel demand growth.	✓	✓	✓
25.	Explore provincial and federal government grant funding opportunities to obtain sustainable, dedicated funding sources for financing transportation infrastructure and services.	✓	✓	✓
26.	Support data collection initiatives that assist in the monitoring of transportation conditions and needs, including traffic counts, cyclist counts, pedestrian counts, ridership counts and travel surveys.	✓	✓	✓
27.	Review the Integrated Transportation Master Plan, every five years following Environmental Assessment guidelines, or as needed, to determine the need for a detailed review and update.		✓	✓
28.	Implement the Integrated Transportation Master Plan through future amendments or updates to the Official Plan.	✓	✓	

Glossary

Acronym	Definition
AODA	Accessibility for Ontarian with Disabilities Act
AT	Active Transportation
BRT	Bus Rapid Transit
CAV	Connected and Autonomous Vehicles
DRT	Durham Region Transit
DRTPM	Durham Region Transportation Planning Model
EA	Environmental Assessment
GTHA	Greater Toronto and Hamilton Area
HOV	High-Occupancy Vehicle
ITMP	Integrated Transportation Master Plan
LOS	Level of Service
OP	Official Plan
PIC	Public Information Centre
TDM	Transportation Demand Management
TTS	Transportation Tomorrow Survey

A

Road Network Phasing and Cost



Road Network Phasing and Costs

ID	Corridor	Limits	Project	Length	Timing	ITMP Cost Estimate	Remarks
1	City Centre N-S Type C arterial	Kingston Road to Bayly Street	New 2-lane Type C arterial with 4-lane crossing of Highway 401	1.50	2025-2031	\$ 34,260,000	
2	City Centre E-W Collector (Plummer)	Plummer Street to Alliance Road	New 2-lane collector road	0.38	2021-2024	\$ 1,310,000	
3	Notion Road-Squires Beach, new 401 crossing	Kingston Road to Bayly Street	New 2-lane Type C arterial with 4-lane crossing of Highway 401	2.00	2021-2024	\$ 54,610,000	Draft construction cost for overpass and roadwork. This project will be subject to developer cost sharing.
4	Clements Road extension	Dillingham Road to Sandy Beach Road	New 2-lane Type C arterial	0.60	2021-2024	\$ 4,540,000	
5	Church Street partial interchange	Highway 401	New partial interchange	—	2025-2031	\$ 20,000,000	Estimate. Not under the City's jurisdiction
6	Church Street	Highway 401 to Bayly Street	Widening 2 to 4 lanes	1.00	2025-2031	\$ 3,010,000	Not under the City's jurisdiction
7	Valley Farm Road extension	Concession 3 to Brock Road	New 2-lane Type C arterial	1.20	2025-2031	\$ 18,800,000	
8	New arterial (Walnut Lane)	Kingston Road to Liverpool Road	New 2-lane Type C arterial	0.55	2021-2024	\$ 5,470,000	
9	New arterial and collector roads	Seaton Urban Area	New arterials and collector roads	—	2021-2031	—	Transportation services attributable to Seaton are funded directly by the landowners
10	Fifth Concession extension	Sideline 4 to Lake Ridge Road	Corridor Protection (New 2-lane rural road)	1.70	2031+	\$ 5,110,000	
11	Clements Road extension across Duffins Creek	Clements Road to Clements Road West	Corridor Protection (New 2-lane urban and bridge structure)	0.80	2031+	\$ 39,140,000	
TOTAL — Road Capacity Projects						\$ 186,250,000	

Phasing	Cost by Phasing
2021-2024	\$ 65,930,000
2025-2031	\$ 76,070,000
2031+	\$ 44,250,000
	\$ 186,250,000

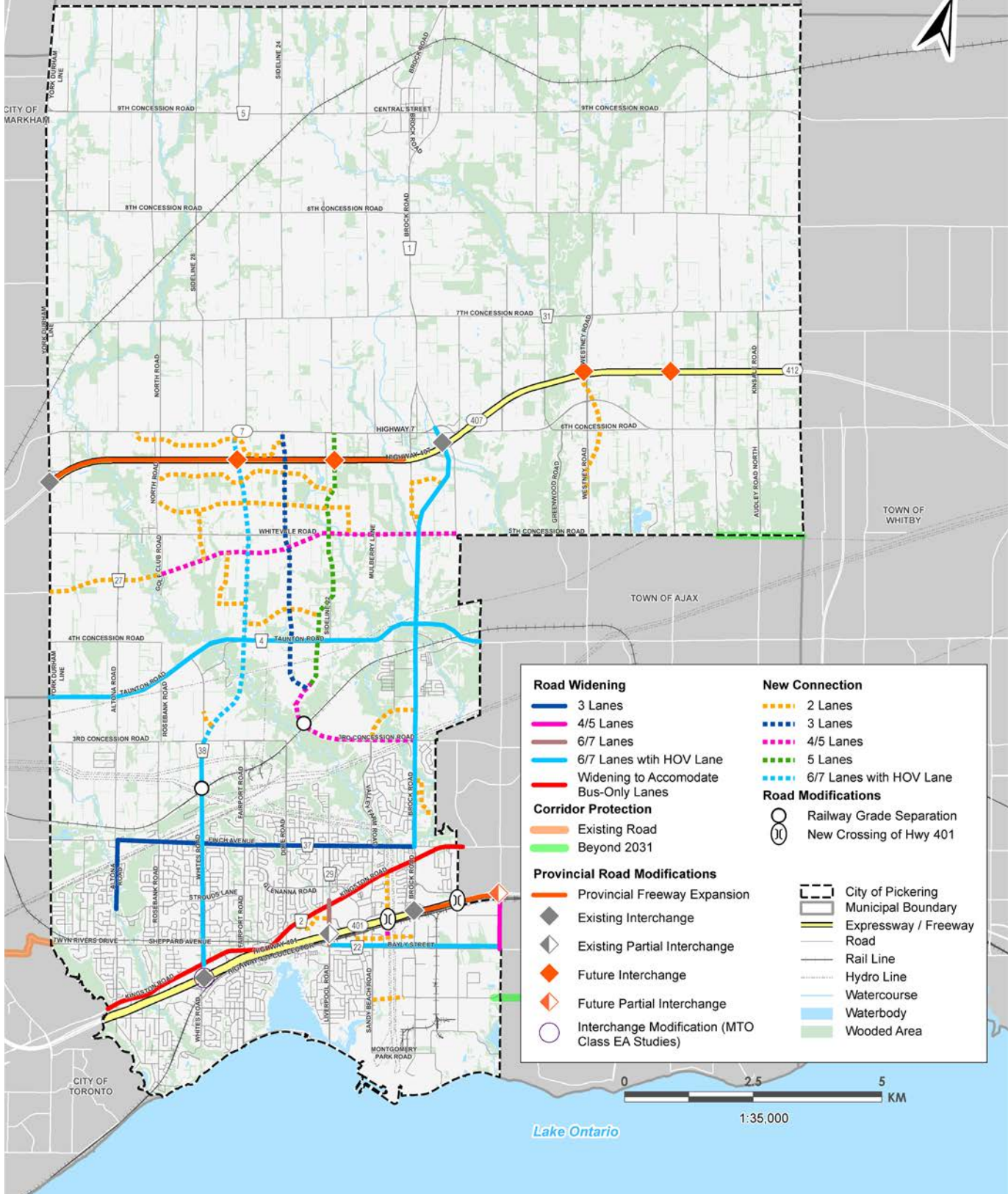
B

Maps



Map 1: Long-Term Road Network

TOWNSHIP OF SCUGOG



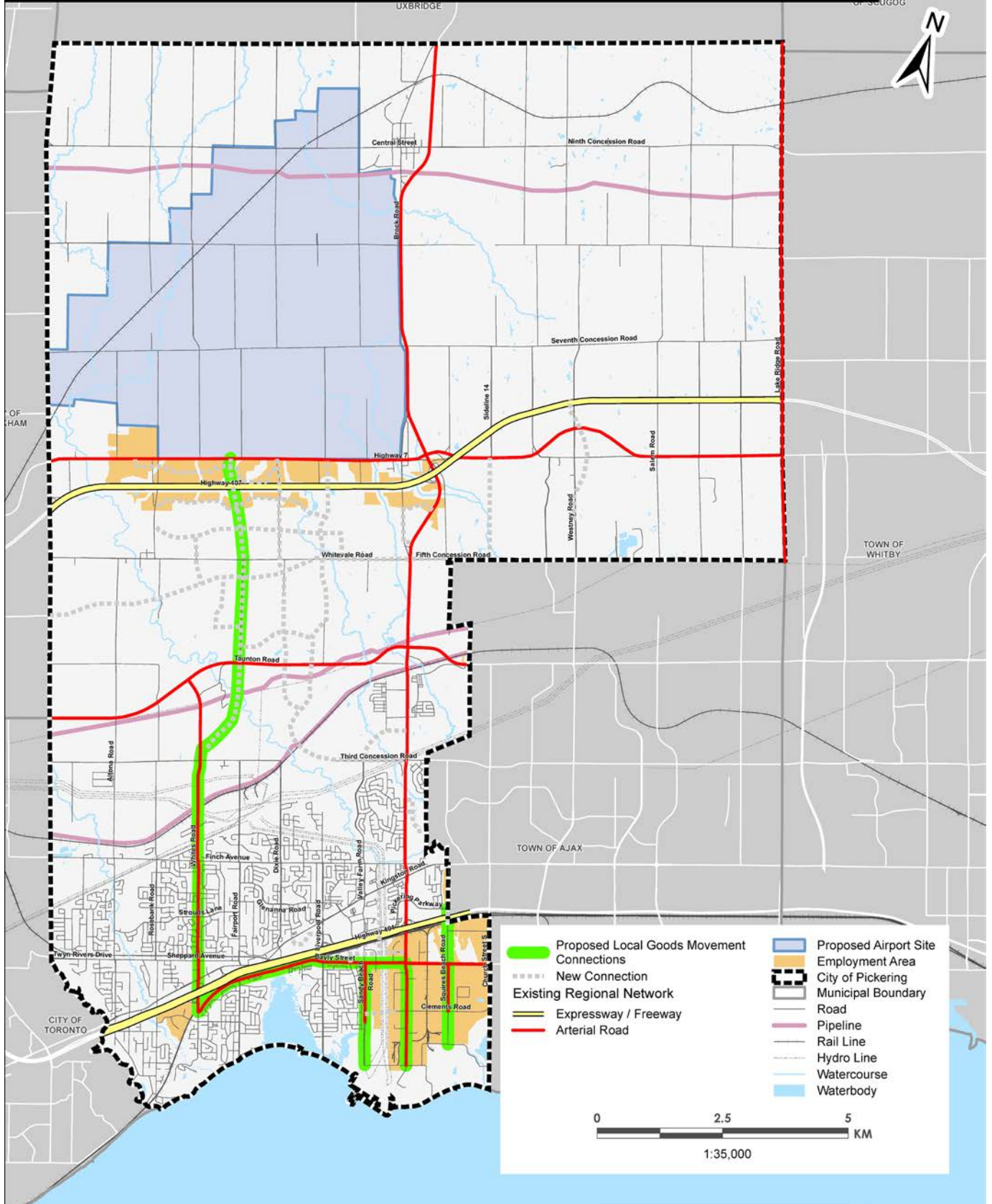
Road Widening		New Connection	
	3 Lanes		2 Lanes
	4/5 Lanes		3 Lanes
	6/7 Lanes		4/5 Lanes
	6/7 Lanes with HOV Lane		5 Lanes
	Widening to Accommodate Bus-Only Lanes		6/7 Lanes with HOV Lane
Corridor Protection		Road Modifications	
	Existing Road		Railway Grade Separation
	Beyond 2031		New Crossing of Hwy 401
Provincial Road Modifications			
	Provincial Freeway Expansion	City of Pickering	
	Existing Interchange		Municipal Boundary
	Existing Partial Interchange		Expressway / Freeway
	Future Interchange		Road
	Future Partial Interchange		Rail Line
	Interchange Modification (MTO Class EA Studies)		Hydro Line
			Watercourse
			Waterbody
			Wooded Area



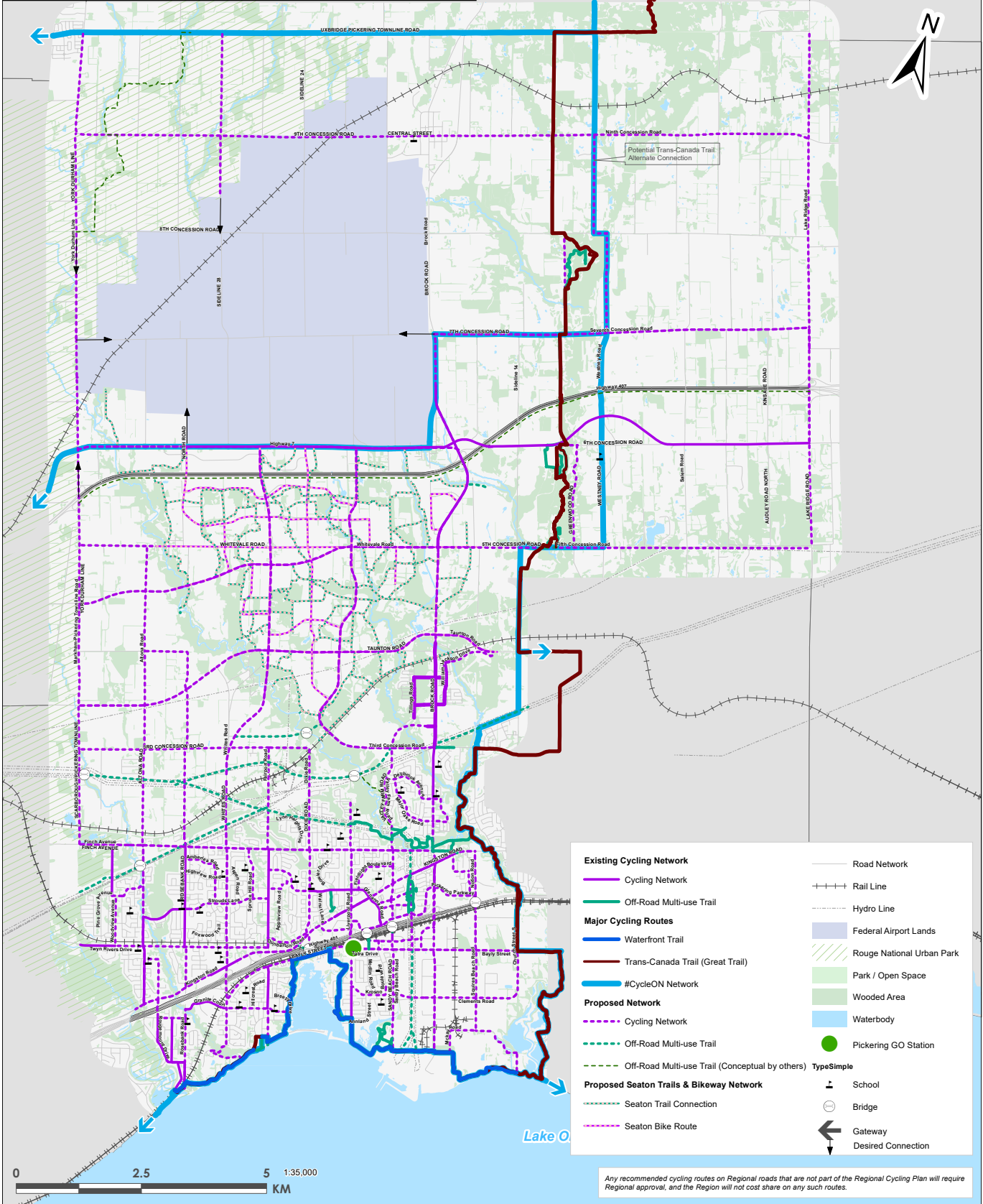
1:35,000

Lake Ontario

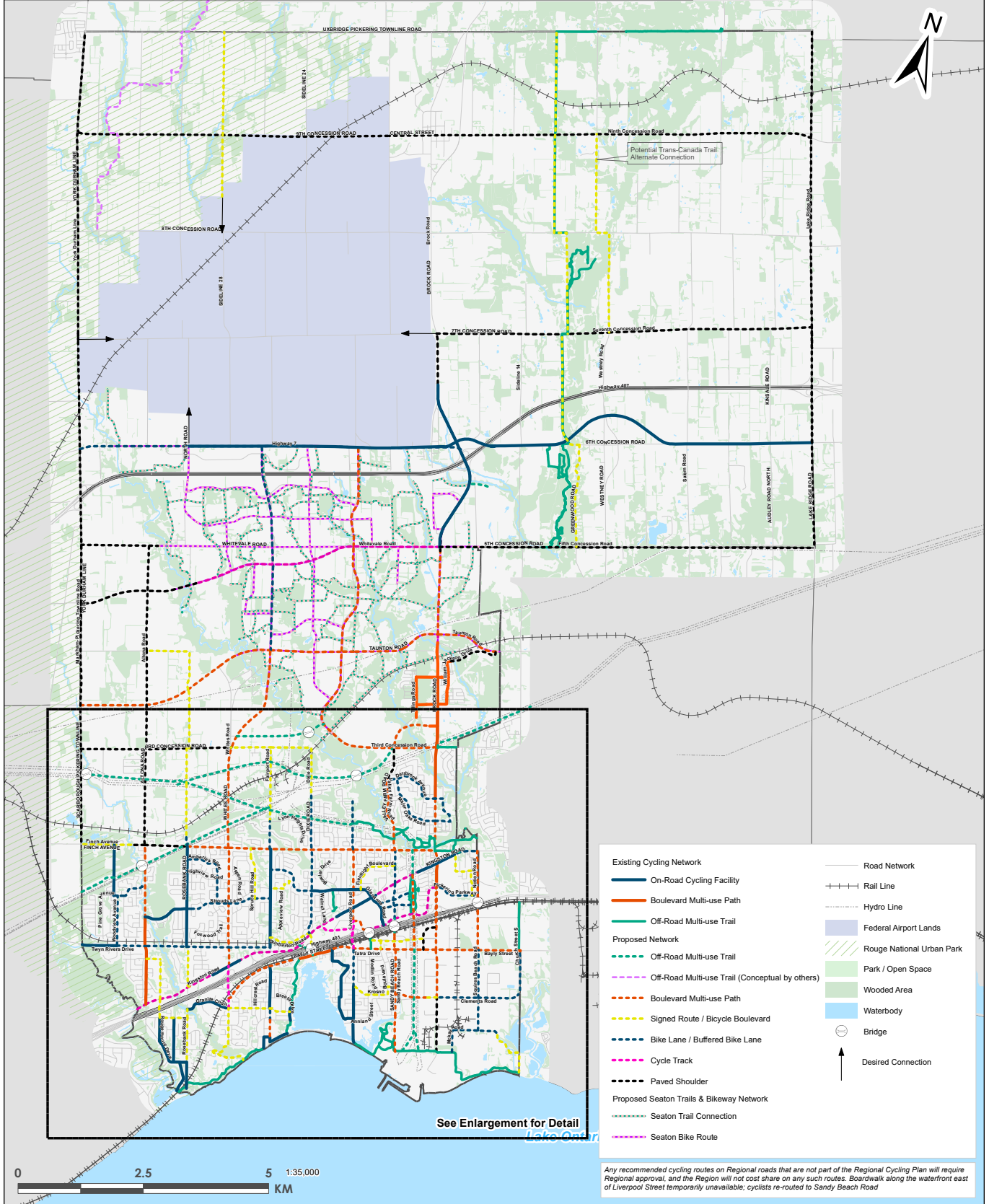
Map 2: Proposed Local Goods Movement Connections in Pickering



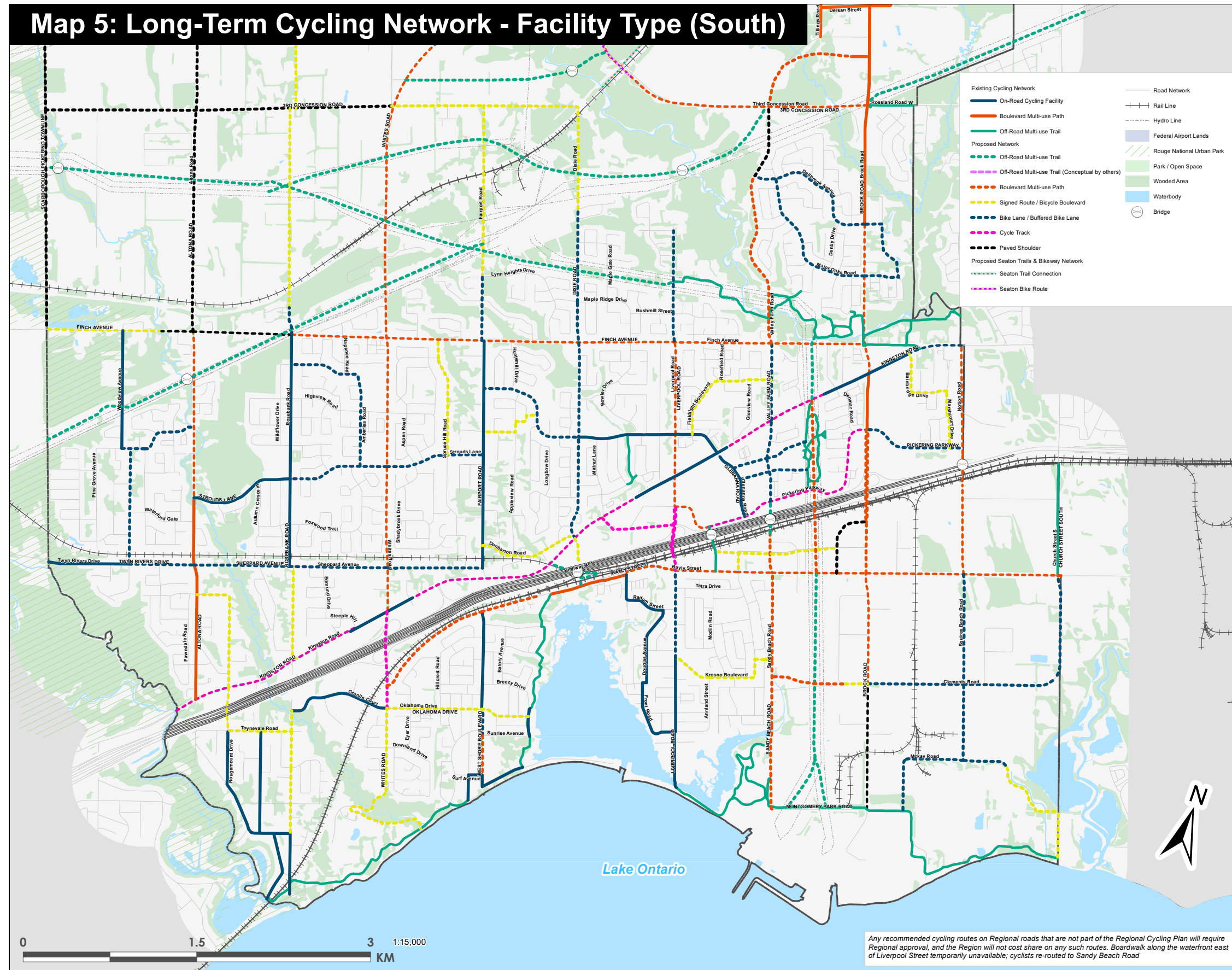
Map 3: Long-Term Cycling Network



Map 4: Long-Term Cycling Network - Facility Type



Map 5: Long-Term Cycling Network - Facility Type (South)





Defining the cities of tomorrow
www.ibigroup.com

IBI Group

55 St. Clair Avenue West
7th Floor
Toronto ON M4V 2Y7

Tel 416 596 1930
Fax 416 596 0644

ibigroup.com