Transportation Services

Memorandum

TO: Committee of the Whole

FROM: Daniel Kostopoulos, P.Eng., Commissioner

DATE: March 3, 2016

RE: **2015 Transportation Fact Book**

This memo presents the 2015 Transportation Fact Book that will be made available for public distribution.

The 2015 Transportation Fact Book provides a resource to internal and external stakeholders on transportation services and programs available in York Region. This sixth edition of the Fact Book offers a snapshot of the transportation system in York Region and highlights road and transit infrastructure, transportation services and programs built and maintained by York Region or in partnership with other municipalities or agencies in the Greater Toronto Area. The information and facts presented can be used to help monitor and plan for future transportation needs in York Region.

Background

The Transportation Fact Book (Fact Book) was created to provide general information and statistics about the transportation system in York Region. It highlights road and public transit infrastructure and commuter support services and programs available in the Region that are built and maintained by York Region or in partnership with other municipalities or agencies in the Greater Toronto Area. The Fact Book is also a tool and information resource for internal and external stakeholders. It includes:

- An overview of York Region's transportation system and provides the context for monitoring the performance of system components
- Information for Regional Council, senior management, Regional staff and the public on transportation services and programs available
- An overview of policy and data collection and collection and analysis methods used by the Region

The Fact Book is updated every two years and contains information and statistics about the transportation system in the Region between 2013 and 2015. Each edition is made available on the Region's website and hard copies are distributed to all local

municipalities, local libraries, Regional Councillors, Ontario Ministry of Transportation and Provincial and Federal Members of Parliament in York Region.

The Fact Book is the result of a collaborative effort by various Branches in Transportation Services, Corporate Services and Community and Health Services. As a result, this document provides a one-window stop for facts and information on the many aspects of transportation services and functions provided by the Region.

The 2015 Transportation Fact Book

The Transportation Fact Book evolves over time with new information added as required to reflect changes to transportation services in York Region. The 2015 version includes the following new information:

- Transportation Master Plan Update progress – provides information on the previous (2002 and 2009) Transportation Master Plans and the current 2015-2016 Transportation Master Plan Update
- 2015 Transportation Asset Management – provides an introduction of the Region's Asset Management and highlights some of the Region's infrastructure assets
- 2014 MTO Travel Time Study – provides some highlights of travel speeds on arterial streets and 400-series highways in York Region based on this Study
- 2014 Walking and Cycling Attitude Survey in York Region – provides an introduction and summary of resident responses from the York Region Walking and Cycling Attitude Survey
- 2014 Bicycle Count Program – provides an overview of the Region's recent bicycle count program and statistics collected from the count stations
- 2011 Transportation Tomorrow Survey – provides highlights of travel patterns and trends in York Region based on this Survey.

The data in the 2015 Transportation Fact Book may assist local municipalities with their planning activities and enable elected officials, staff and the general public to better understand the transportation needs of their communities. The current edition of the Fact Book will be made available in hard copy and on the Region's website in April 2016

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Daniel Kostopoulos, P.Eng.

VB/SC/sb

Attachment

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The Regional Municipality of York

2015 Transportation Fact Book

York Region

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Frank Scarpitti
City of Markham

Regional Councillor
Jack Heath
City of Markham

Regional Councillor
Jim Jones
City of Markham

Regional Councillor
Joe Li
City of Markham

Regional Councillor
Nirmala Armstrong
City of Markham

Mayor
David Barrow
Town of Richmond Hill

Mayor
Maurizio Bevilacqua
City of Vaughan

Chairman & CEO
Wayne Emmerson

Regional Councillor
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City of Vaughan

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City of Vaughan

Regional Councillor
John Taylor
Town of Newmarket

A Message from York Region Chairman and CEO and Members of Regional Council

During this term of Council, York Region continues to make transportation and transit-related initiatives a key priority, and is committed to providing residents and travellers with safe and reliable ways to move across the Region.

This sixth edition of the Transportation Fact Book provides a wide range of data and statistics on local transportation systems, as well as the innovative technologies used to help enhance safety on Regional roads.

York Region's population is forecasted to grow to 1,790,000 people and 900,000 jobs by 2041. Accommodating growth and minimizing congestion are vital to continuing to provide communities with a high quality of life. The Transportation Fact Book is an important resource for planning the transportation requirements of our new and growing communities.

This publication will allow our municipal partners, stakeholders and residents to be informed about the programs, initiatives and technologies York Region has in place to continue building safe and attractive communities.

Mayor
Margaret Quirk
Town of Georgina

Regional Councillor
Danny Wheeler
Town of Georgina

Mayor
Geoffrey Dawe
Town of Aurora

Mayor
Virginia Hackson
Town of East Gwillimbury

Mayor
Steve Pellegrini
Township of King

Mayor
Justin Altmann
Town of Whitchurch-Stouffville

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Chapter One:
Introduction

Rendering of the Vaughan Metropolitan Centre

The sixth edition of the Transportation Fact Book contains general information and statistics about the transportation system in The Regional Municipality of York as of December 31, 2015. It highlights the major aspects about road and transit infrastructure, commuter support services and programs that are built and maintained by York Region or in partnership with other municipalities in the Greater Toronto Area (GTA). The ***Transportation Fact Book*** includes:

- An overview of York Region's transportation system and provides the context for monitoring the performance of the system components
- Information for Regional Council, senior management, Regional staff and the public on transportation services and programs available
- An overview of policy and data collection, and collection and analysis methods used by the Region

The ***Transportation Fact Book*** is organized into six chapters to provide readers with a series of related transportation facts and figures. Included within the chapters are:

Chapter One: Introduction - provides general overview of The Regional Municipality of York

Chapter Two: Roads and Traffic - provides information about the Region's transportation systems and various roadway characteristics

Chapter Three: Public Transit - provides information on public transit services and operations in the Region including York Region Transit, Viva and GO Transit

Chapter Four: Supporting Sustainable Transportation - provides information about non-motorized modes of transportation which include walking and cycling, as well as initiatives conducted by the Region to manage travel demand during peak periods

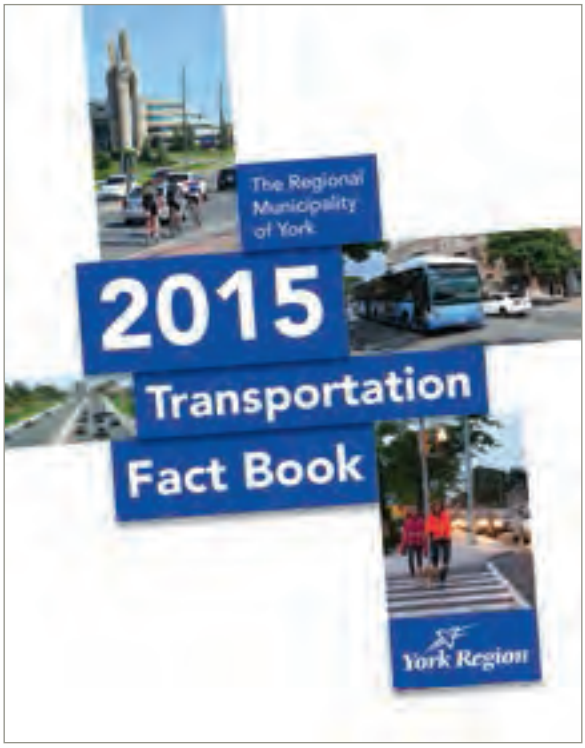
Chapter Five: Travel Demand and Trends - provides an overview of weekday travel indicators based on transportation system surveys

Chapter Six: Contact Information - provides contact information for local municipalities, transportation agencies and operators in York Region

What's new in the 2015 Transportation Fact Book

In this sixth edition, new information is included on:

- **Transportation Master Plan Update** – provides information on the previous (2002 and 2009) Transportation Master Plans and the current 2015-2016 Transportation Master Plan Update
- **2015 Transportation Asset Management** – introduces the Region's Asset Management practices and highlights some of the Region's infrastructure assets
- **2014 MTO Travel Time Study** – highlights travel speeds on arterial streets and 400 series highways in York Region
- **2014 Walking and Cycling Attitude Survey in York Region** – provides an introduction and summary of responses from the York Region Walking and Cycling Attitude Survey
- **2014 Bicycle Count Program** – provides an overview of the Region's recent bicycle count program and statistics collected from the count stations
- **2011 Transportation Tomorrow Survey** – highlights travel patterns and trends in York Region based on this Survey



York Region Administrative Centre

If you have any questions or comments or require more information on this Transportation Fact Book, please contact:

Transportation Services Department
The Regional Municipality of York
17250 Yonge Street, Box 147
Newmarket, Ontario L3Y 6Z1
Email: transportationservices@york.ca

Access York
Hours of operation: Monday to Friday: 8:30 a.m. to 4:30 p.m.
Phone: 1-877-464-9675
TTY: 1-866-512-6228 or 905-895-4293 (for deaf and hard of hearing)
Email: accessyork@york.ca

York Region at a Glance

York Region is part of the broader Greater Toronto Area (GTA). It has a two-tier municipal governance structure, with services provided by the Region and local municipal governments. As of 2015, York Region is home to over 1.166 million people within an area of 1,776 square kilometres (686 square miles), stretching from Steeles Avenue in the south to Lake Simcoe in the north. York Region also has approximately 577,500 jobs as of mid-year 2015. **Figure 1** illustrates York Region and the GTA.

York Region's diverse communities, emerging urban centres, competitive industries, diverse natural environment and strategic location in the GTA continue to attract dynamic growth. By 2041, it is anticipated that York Region will reach 1.79 million residents and 900,000 jobs.

The existing Regional road network consists of more than 4,100 lane-kilometres of urban and rural roads that carry more than six billion vehicle-kilometres of travel annually.

For the year 2015, approximately 22.1 million passengers rode York Region Transit and Viva services.

Quick Facts

- Since the creation of the Region in 1971, its population has grown dramatically. In just over 40 years, the Region's population has increased from 169,000 in 1971 to over 1,166,300 in 2015.
- 27 per cent increase in population over the past 10 years from 918,400 in 2005 to 1,166,300 in 2015
- 104,300 new residents in the past five years (average of 20,860 per year)
- Approximately 124,000 new jobs between mid-year 2005 and mid-year 2015

Growth will continue in the future with an estimated population increase of 56 per cent (645,200 people) by 2041 to 1.79 million residents.

Figure 1

York Region
and the GTA

There are nine local municipalities within York Region:

Town of Aurora

Town of East Gwillimbury

Town of Georgina

Township of King

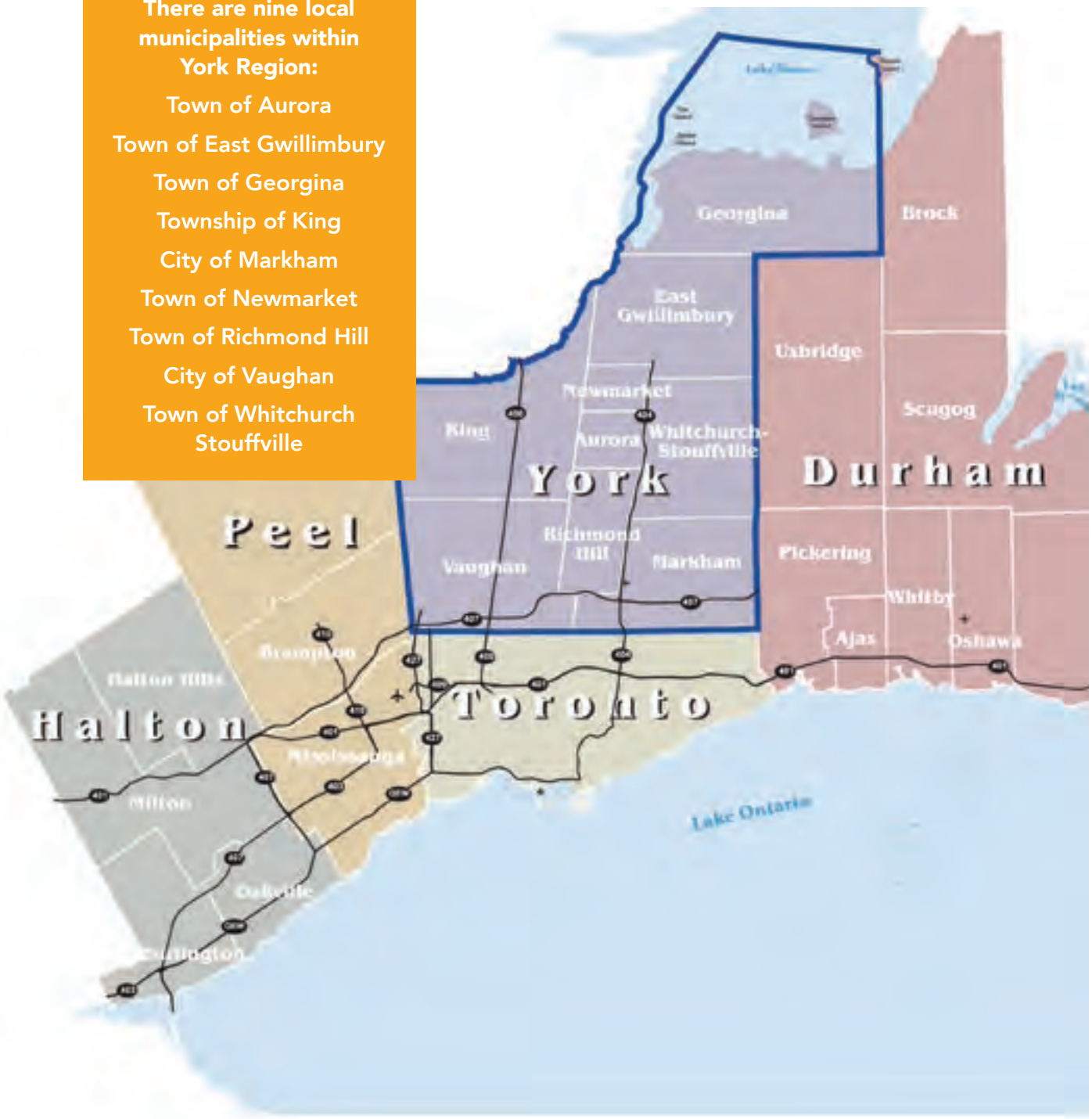
City of Markham

Town of Newmarket

Town of Richmond Hill

City of Vaughan

Town of Whitchurch Stouffville



York Region Road Systems

The road system supports the local, regional and provincial economies by carrying people, cars, cyclists, buses and commercial vehicles.

Roads are an integral part of the public transit system and are important for the goods movement network linking the rail and air transport systems.

The road system is also extremely important to land use planning. The road system in York Region is structured in the following way:

- Local municipalities own and maintain the local road network which includes residential, commercial and industrial local and collector roads.
- York Region owns and maintains the majority of the roads in the Region as well as some former Provincial highways. The alignment of the arterial roads generally follows a two kilometre concession road grid system. **Figure 2** illustrates road jurisdiction in York Region.
- The Province of Ontario owns and maintains the 400-series highways in York Region. The exception is Highway 407, which is currently leased to 407 ETR. The 407 ETR is responsible for all maintenance, construction and customer service. The Province also owns and operates some rural highways, including parts of Highways 7, 9 and 48.

York Region sets a high standard for planning and maintaining these important assets. A 10-year capital plan is used to program and prioritize major Regional road rehabilitation and improvement projects.

Ninth Line at Elgin Mills Avenue in the City of Markham

Rutherford Road/Keele Street intersection in the City of Vaughan

Quick Facts

As of 2015, within York Region there were:

- 4,150 linear kilometres of local roads
- 1,060 linear kilometres of Regional roads
- 76 linear kilometres of Provincial highways
- 237 linear kilometres of Provincial 400 series highways

Linear kilometres of roads mean the accumulative length of the road measured along a straight line, in one direction and regardless of the number of lanes. For example, if all of the roads (5,523 km) in York Region are arranged in a straight line, it would extend from the shores of New Brunswick to the shores of British Columbia.

Contact Information

To report problems on a Regional road, contact:
Roads and Traffic Dispatch
Phone: Toll-free 1-877-464-9675, ext. 75200
Email: dispatch@york.ca

Figure 2

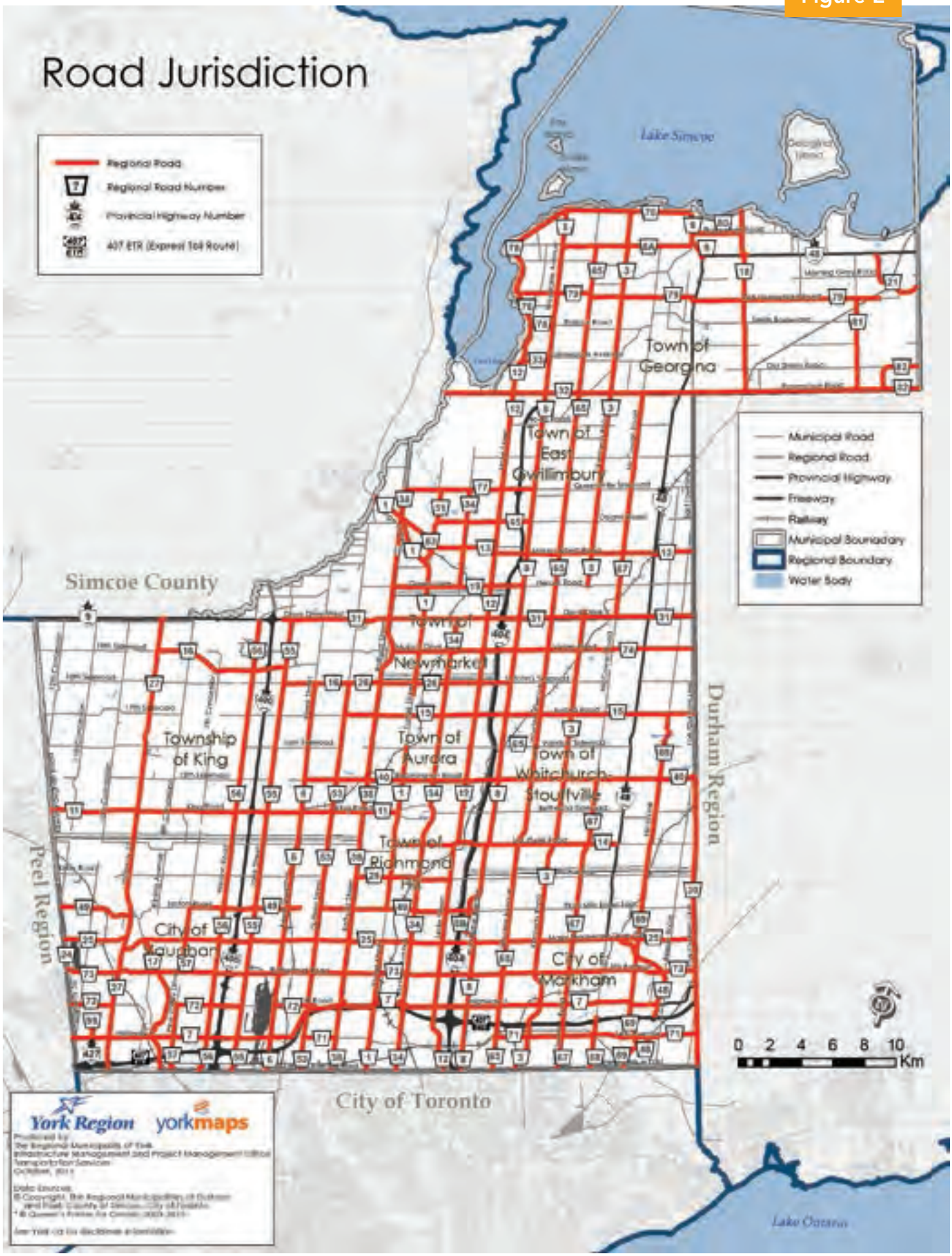


Figure 2 – Road Jurisdiction in York Region

Regional Road Network

Typically, the basic road allowance width of Regional roads is 36 metres. Right-of-way widths of 43 to 45 metres or greater are planned along a number of streets, such as Highway 7, Yonge Street, Dufferin Street (Steeles Avenue to Clark Avenue), Rutherford Road, Jane Street and former Provincial Highway 27, to support Transit/High Occupancy Vehicle (HOV) lanes, cycling facilities, rapid transit and additional transit priority measures. The Regional road system is co-ordinated with the Provincial and local municipal road systems to protect the right-of-way for future system improvements and to recognize that the required right-of-way will include pedestrian and bicycle movements, as well as above and below ground utilities. **Figure 3** illustrates the number of lanes on Regional roads.

The boundary arterial roads are generally under shared jurisdiction. Peel Region and York Region share jurisdiction of Highway 50 from Steels Avenue to the Bolton boundary. Peel Region maintains the road under contract with York Region. York Region and Durham Region share responsibilities for the boundary roads between them. York Region is responsible for maintaining York-Durham Line from Steeles Avenue to Ravenshoe Road. Durham Region is responsible for the rest of York-Durham Line and Lake Ridge Road.

Steeles Avenue at the southern edge of York Region is under the jurisdiction of the City of Toronto.

Quick Facts

York Region is responsible for most of the arterial roads in the Region, including former Provincial Highways 7, 11, 27, 47 and parts of Highways 9, 48 and 50. In total, the Region is responsible for more than 4,100 lane-kilometres of arterial roadways.

Reconstructed Warden Avenue in the City of Markham

Figure 3

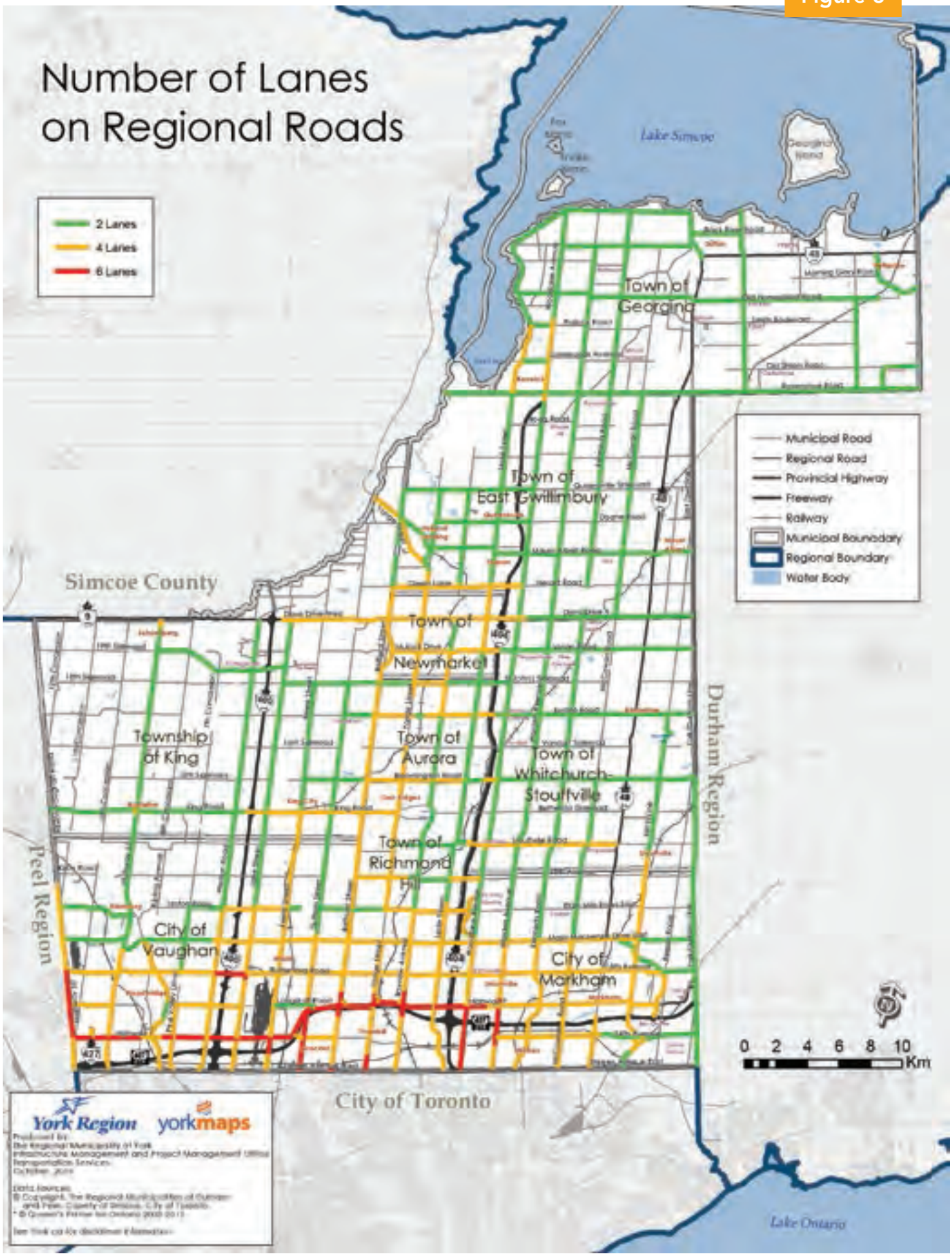


Figure 3 – Number of Lanes on Regional Roads

Bayview Avenue at Thornhill High School in the City of Markham

16th Avenue/Warden Avenue intersection in the City of Markham

Regional Transportation Master Plan

The Region's Transportation Master Plan is the blueprint and sets the guiding principles for many of the strategies and programs contained within this Transportation Fact Book.

The 2009 Transportation Master Plan Update was the first update of the Region's 2002 Transportation Master Plan. With a "transit first" approach, the focus was to address future transportation needs in a sustainable and integrated manner to address new Provincial policies and additional growth in the Region. It also refined the transportation opportunities and challenges first identified in the 2002 Transportation Master Plan.

The Transportation Master Plan is being updated again to develop financially, socially and environmentally sustainable approaches to manage the transportation issues that the Region will continue to experience as a result of ongoing growth, while further aligning it with updated Provincial directions and initiatives. The intent of the 2016 update is to provide clear policy direction on key emerging transportation issues and optimize the current transportation system while adding capacity and infrastructure where necessary to better facilitate all modes of travel. The 2016 Transportation Master Plan will integrate an update of the 2008 York Region Pedestrian and Cycling Master Plan.

Transportation Master Plan Update integration of road, transit and cycling

Contact Information

For more information on the York Region Transportation Master Plan, contact:
Infrastructure Management and Project Management Office
Phone: 1-877-464-9675 ext. 75056
Email: tmp@york.ca

2015 10-Year Roads Capital Construction Program

The Region's arterial road network consists of over 4,100 lane-kilometres of urban and rural roads, as well as related bridges, bike lanes, intersections and highway interchanges.

The approved 2015 operating costs for Roads and Traffic was $106.2 million. It is projected to increase by roughly 3 per cent a year, on average, between 2016 and 2018. Over the next four years, York Region will be spending a planned $333.2 million on roads capital, of which some 92 per cent, or $306.9 million, will be directed to growth. These investments will bring an increased need to manage construction and maintenance activities without causing major disruptions to road users.

The 10-Year Roads Capital Construction Program based on the Transportation Master Plan, guides investments in roads and traffic management. To meet the needs of growth and mitigate congestion, the Region is:

- Adding more than 200 lane-kilometres to the Regional road network, including adding capacity in urban areas. Projects currently under construction include Highway 7, Major Mackenzie Drive and 2nd Concession Road. Other planning studies underway include Environmental Assessment Studies for Teston Road, Stouffville Road, Rutherford Road and Bayview Avenue.
- Urbanizing rural roads around new community developments to provide such amenities as sidewalks and transit (2nd Concession Road, Leslie Street and St. John's Sideroad).
- Partnering with the Ministry of Transportation (Highway 427 extension), the City of Toronto (Donald Cousens Parkway at Steeles Avenue) and Peel Region (Highway 50) to deliver and integrate common infrastructure.
- Filling gaps in the road network (for example, completing the Bathurst Street missing link north of Green Lane in East Gwillimbury and carrying out planning studies for Teston Road and Langstaff Road missing links). York Region is also moving ahead on protecting for and building new collector roads crossing provincial highways at Highway 404 north of Highway 7 and Highway 404 north of 16th Avenue.

Figure 4 shows planned construction start dates for capital growth projects over the next 10 years.

Contact Information

For more information about projects in the 10 Year Capital Plan, please contact:
Capital Planning and Delivery
Phone: 1-877-464-9675 ext. 75148
Email: transportationservices@york.ca

VivaNext construction on Davis Drive in the Town of Newmarket

Reconstruction of 2nd Concession Road in the Town of East Gwillimbury

Figure 4

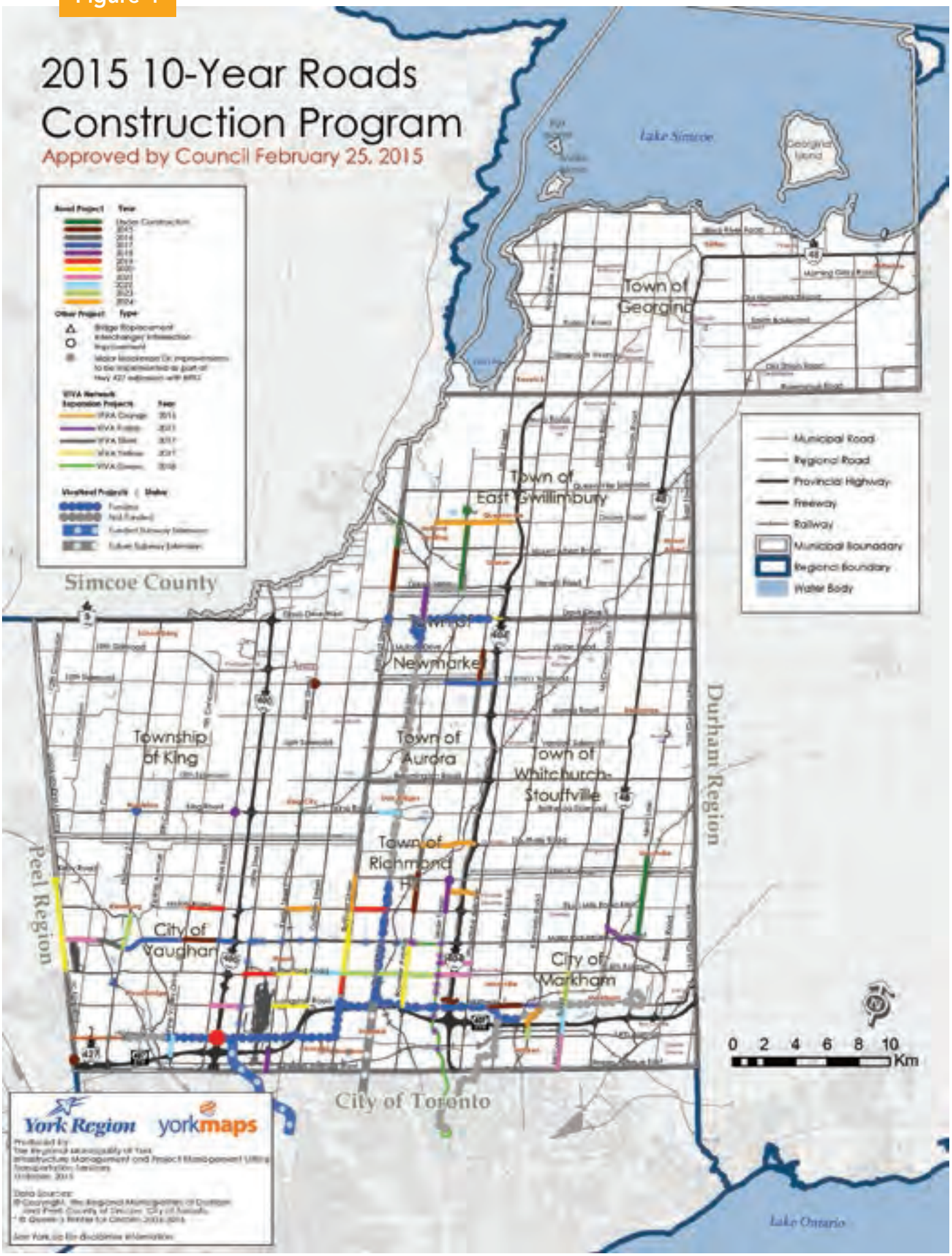
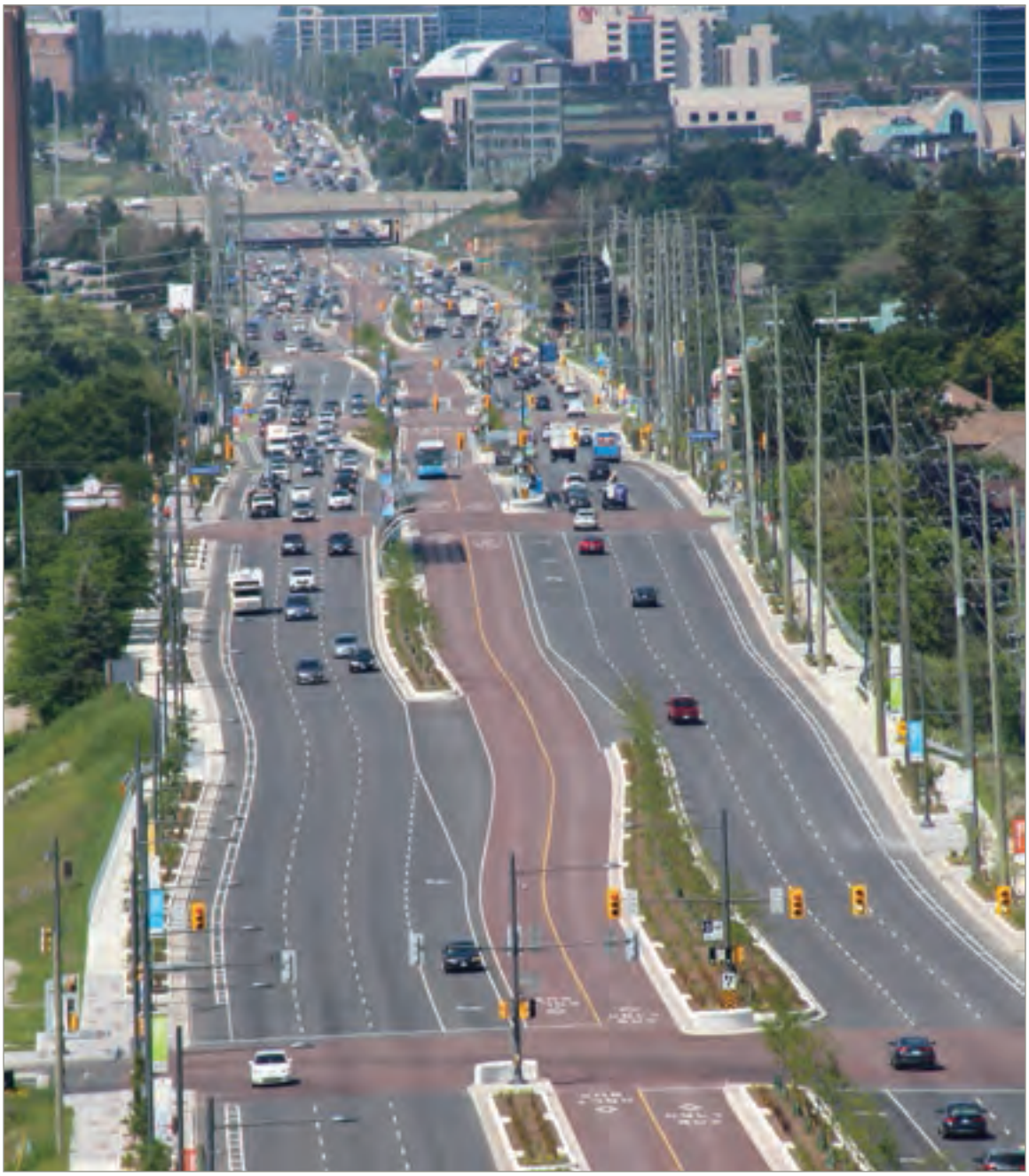


Figure 4 – 2015 10-Year Roads Construction Program

Chapter Two:
Roads and Traffic



VivaNext on Highway 7 in the City of Markham

Road Widening and Resurfacing between 2005 and 2014

York Region is committed to maintaining and improving the Regional road system through road widening and reconstruction to meet the needs of population and employment growth.

To optimize the delivery of different Regional infrastructure, road projects are coordinated with water, wastewater, utilities, telecommunication, rapid transit, development construction and maintenance work projects wherever they coincide by location and have similar construction timing. This will reduce costs and minimize interruptions to the public.

Quick Facts

Over the past five years, York Region has:

- Widened 64 linear-kilometres of arterial roads
- Resurfaced 182 linear-kilometres of arterial roads
- Reconstructed Ninth Line, Bloomington Road, Stouffville Road, Woodbine Avenue and other Regional roads
- Reconstructed and improved Regional intersections such as the Ninth Line/ Stouffville Road intersection jog-elimination, Yonge Street/Bathurst Street intersection improvement, roundabout at York-Durham Line and other Regional intersections

Road widening helps ease congestion on York Region's heavily travelled roads, while resurfacing projects helps to ensure that the road infrastructure will continue to be in a state of good repair. **Table 1** and **Figure 5** outline the number of linear kilometres of roads that have been improved between 2005 and 2014.

A roundabout at York-Durham Line in the Town of Whitchurch-Stouffville constructed in 2013

Table 1- Construction Projects Completed Between 2005 and 2014

Year	Linear Kilometres of Regional Road Widening	Linear Kilometres of Regional Road Resurfacing & Reconstruction
2005	6	80
2006	27	38
2007	13	31
2008	10	72
2009	10	89
2010	3	32
2011	18	27
2012	11	46
2013	8	52
2014	24	25
Total	130	492

Recently re-constructed Wellington Street East in the Town of Aurora

Figure 5

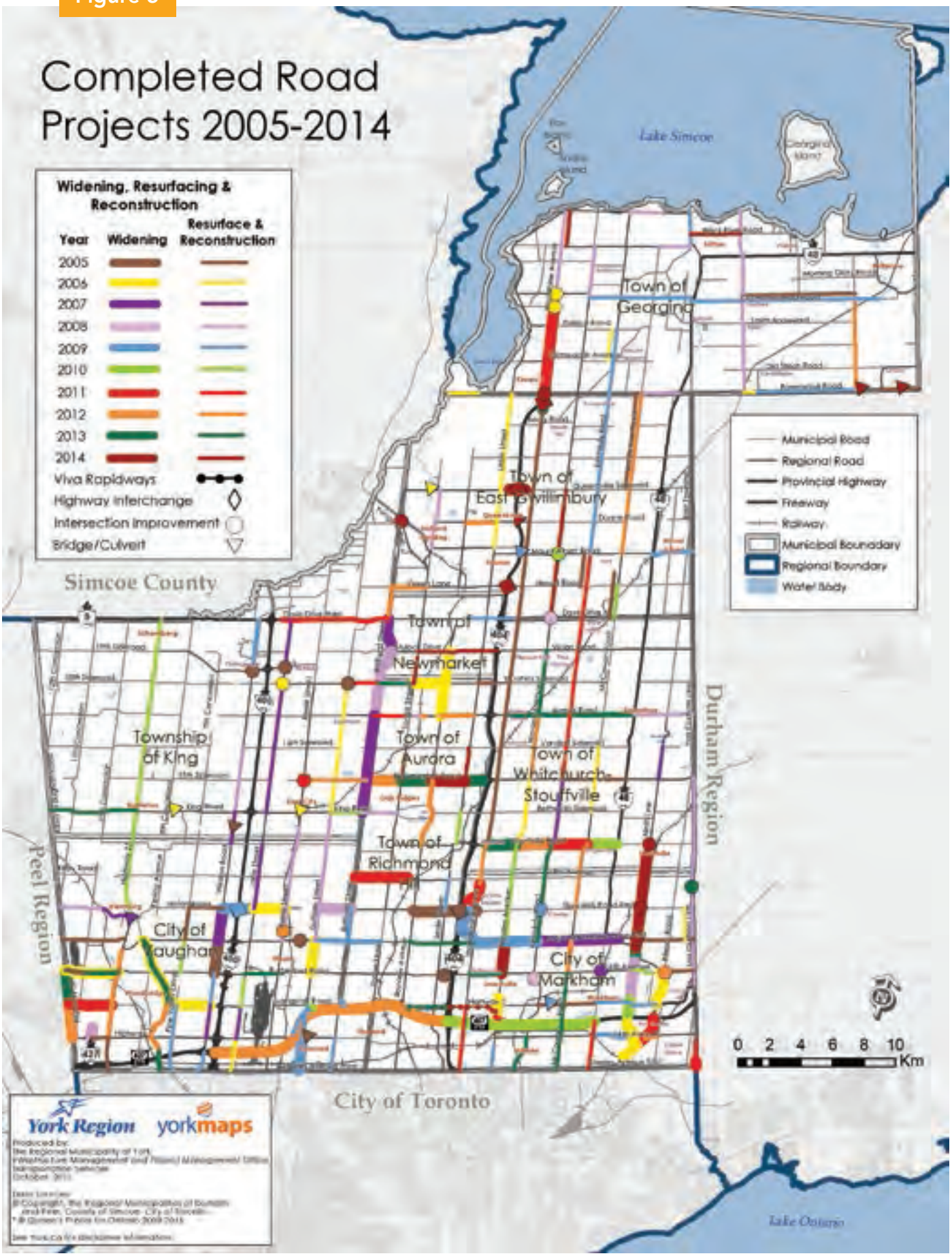


Figure 5 – Completed Road Projects between 2005 and 2014

Transportation Asset Management

Asset management planning is vital to ensuring the transportation services we enjoy today continue to provide the expected services into the future.

York Region residents and businesses rely on transportation services, that is, the roads and transit system, in their daily lives to access work, play and business. Transportation services that York Region has grown to enjoy and expect depend on safe, reliable transportation infrastructure assets that are maintained in a state of good repair. There is a need to protect transportation services through responsible asset management for the Region's growth, economy and prosperity.

Asset management is the systematic process to guide the planning, acquisition, operation, maintenance, rehabilitation and disposal of assets over their useful life. The key goal of asset management planning in York Region is to maximize asset service life at the lowest lifecycle cost while maintaining desired levels of service. Through asset management initiatives such as condition assessments and asset management plans combined with responsible, prudent fiscal policies and proactive financial planning processes, York Region strives to ensure that its investments in infrastructure assets are sustainable.

Understanding what transportation assets the Region owns, what condition they are in, how they are performing and what their remaining useful life is enables asset management planning. Transportation Services maintains a robust asset database to track inventory, condition and work history. **Figure 6** illustrates the key infrastructure asset inventory managed by York Region. **Figure 7** illustrates a distribution of age of key infrastructure assets.

Quick Facts

The Region maintains:

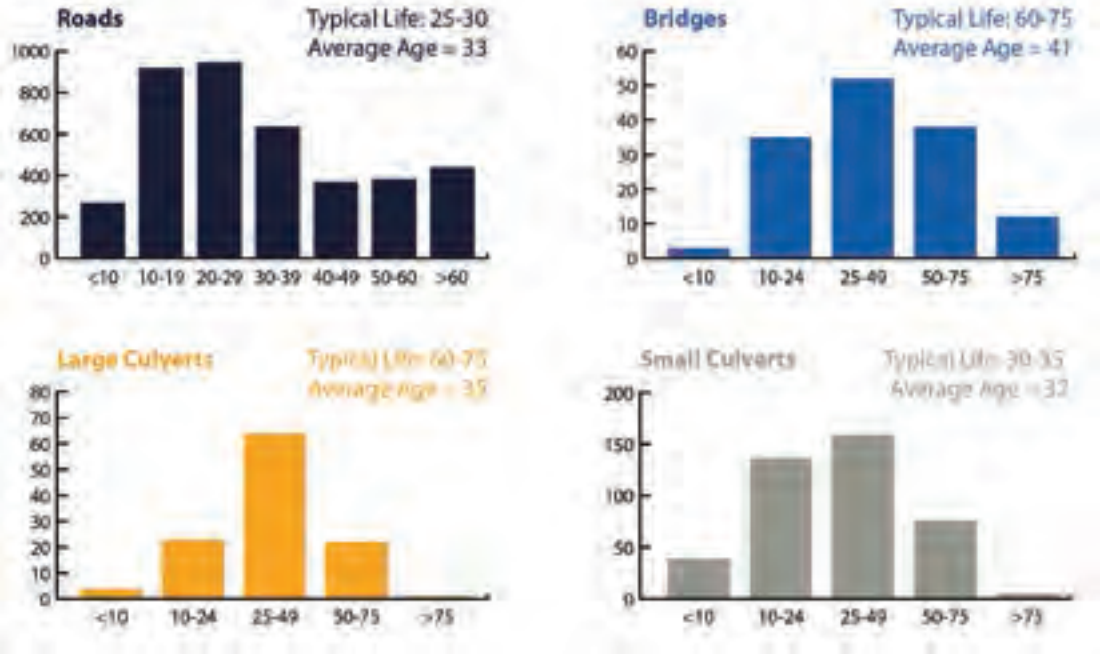
- 4,100+ lane-km of roads
- 300 structures (bridges and large culverts)
- 540 km of storm sewers
- 10,000+ catch basins
- 8,000 culverts

Contact Information

For more information please contact:
Infrastructure Management and Project Management Office
Phone: 1-877-464-9675 ext. 75285
Email: transportationservices@york.ca

Figure 6 - Illustration of the Key Infrastructure Asset Inventory Managed by York Region

Figure 7 – Illustration of a Distribution of Age of Key Infrastructure Assets



Railway Crossings in York Region

York Region is intersected by six railway corridors: CN York subdivision, CP MacTier subdivision, GO Barrie, CN Bala subdivision/GO Richmond Hill, GO Uxbridge and CP Havelock subdivision. CN York, CP MacTier and CN Bala subdivisions are major freight routes. The GO Barrie, GO Richmond Hill and GO Stouffville lines and the CN Bala subdivision are important regional urban passenger rail corridors with GO Transit rail services operating during peak periods.

In 2015, the provincial government announced the implementation of Regional Express Rail. Regional Express Rail will bring increased service to all GO corridors, with 15 minutes two-way, all day service on the Barrie and Stouffville lines by 2025.

Rail-to-rail and rail-to-road intersections are considered for grade separation as a way to improve train, goods and passenger movements and safety.

Factors such as traffic volume on both rail and road facilities, location, terrain and roadway surface will determine the type of rail crossing implemented to protect public safety.

Grade separation of existing at-grade rail crossing provides for increased traffic capacity and improved traffic safety on road and rail corridors.

Existing and forecasted traffic and train volumes are used in a formula to calculate a Rail Exposure Index. This Index is used to determine the warrant for various forms of crossing protection including the need to grade separate existing at-grade rail crossings. The warrant analysis also forms the basis for inclusion of rail-road grade separation in York Region's Roads Construction Program. **Figure 8** illustrates railway crossing locations in York Region.

Quick Facts

- There are total of 179 railway crossings in York Region
- About 83 of these railway crossings are on Regional roads
- Of the 87 level or at-grade crossings, 42 are on Regional roads
- Of the 92 grade separated crossings, 41 are on Regional roads
- There are four rail-to-rail grade separations

At-grade railway crossing in the City of Markham

Grade-separated railway crossing in the Town of Richmond Hill

Figure 8

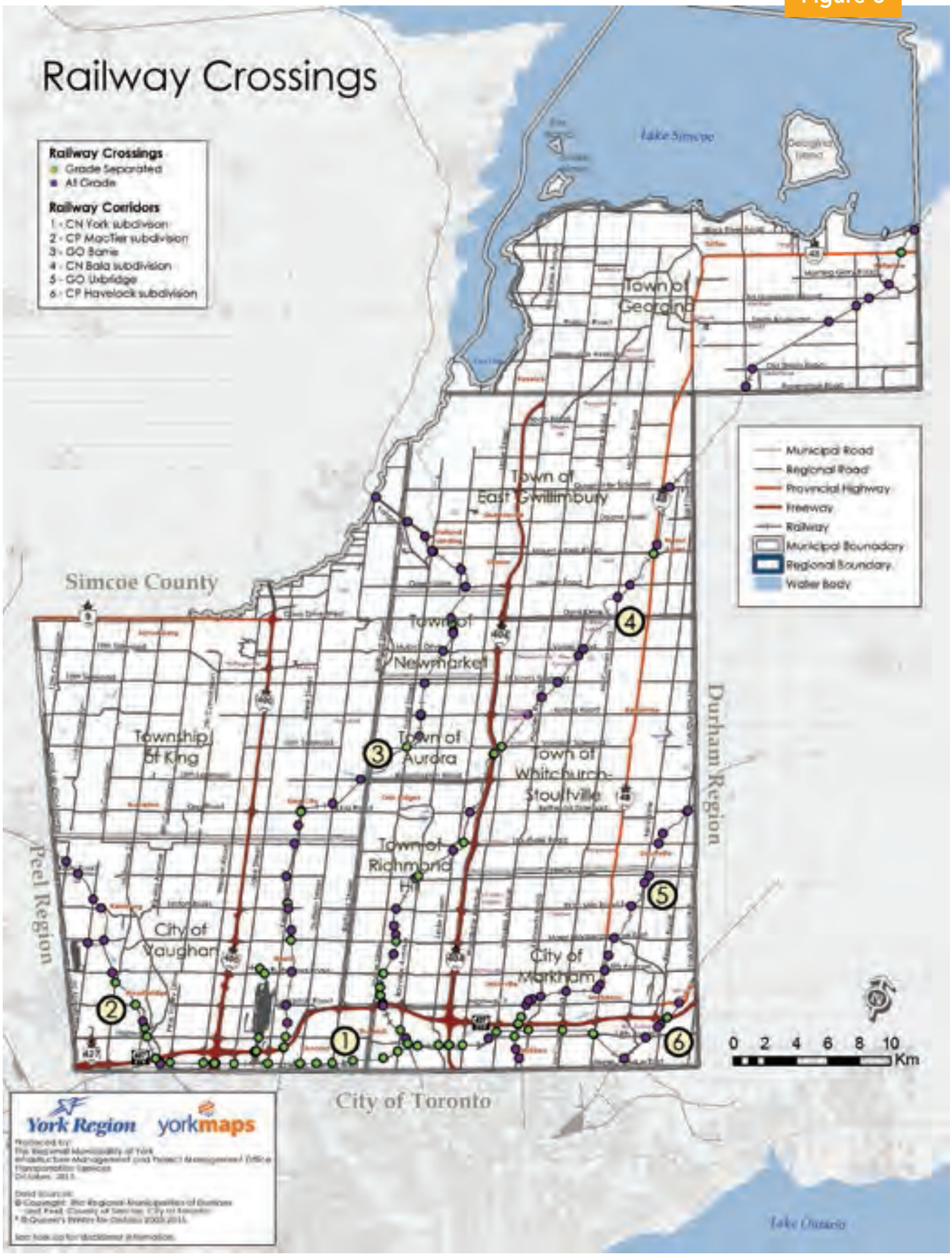


Figure 8 - Railway Crossings in York Region

Speed Limits on Regional Roads

In April 2011, York Region approved the new speed limit policy for Regional roads. This policy replaced the speed limit policy that was adopted in September 2004.

The new speed limit policy is based on three basic principles:

1. Speed limits should be set as low as reasonably possible to reduce the likelihood of serious injury or death in the event of a collision.
2. Speeds limits should ideally be self-enforcing. The design of the roadway should create conditions that encourage compliance with the posted speed limit.
3. Urban areas, towns and villages with higher volumes of pedestrians, cyclists and children playing require special attention.

These principles reflect the injury minimization approach to setting speed limits which suggests that speed limits be set according to the types of crashes that are likely to occur and the tolerance that the human body can withstand in such crashes. This practice is commonly used in Europe; however, it is a new approach for North American jurisdictions. Using an injury minimization approach to set speed limits is based on the fact that road users are safer when motor vehicles are travelling more slowly.

The mobility impacts of the new speed limit policy on road users and goods movement are expected to be minimal during peak periods when operating speeds are often less than the posted speed limit. The new policy will result in lower speed limits on Regional roads in urban areas and reduce the likelihood of serious injury or death in the event of a motor vehicle collision. The change in policy is necessary to reflect the changing nature of our road system and to reflect the needs of our most vulnerable road users.

Illustration of pedestrian fatality related to speed

The new speed limit policy recommended speed limits of 60 km/h for urban areas, towns and villages and 80 km/h for rural areas. The roadway characteristics that would justify each posted speed limit are summarized in **Table 2**. **Figure 9** illustrates the speed zones in York Region.

Table 2 – Posted Speed Limit for Types of Roadways in York Region

Posted Speed Limit (km/h)	Conditions
40	School Zones – 40km/h speed limit enabled by flashing beacons during school hours
50	Special conditions only
60	Basic speed limit for urban areas, towns and villages. * Adjusted upwards or downwards based on roadway characteristics
70	Special conditions only
80	Basic speed limit for rural areas. Adjusted downwards based on roadway characteristics

*Urban areas, towns and villages are defined as those areas identified as such on Map 5 of the Regional Official Plan

Contact Information

For more information please contact:
Roads and Traffic Operations
Phone: 1-877-464-9675 ext. 75251
Email: transportationservices@york.ca

Speed limit sign on a Regional road

Figure 9

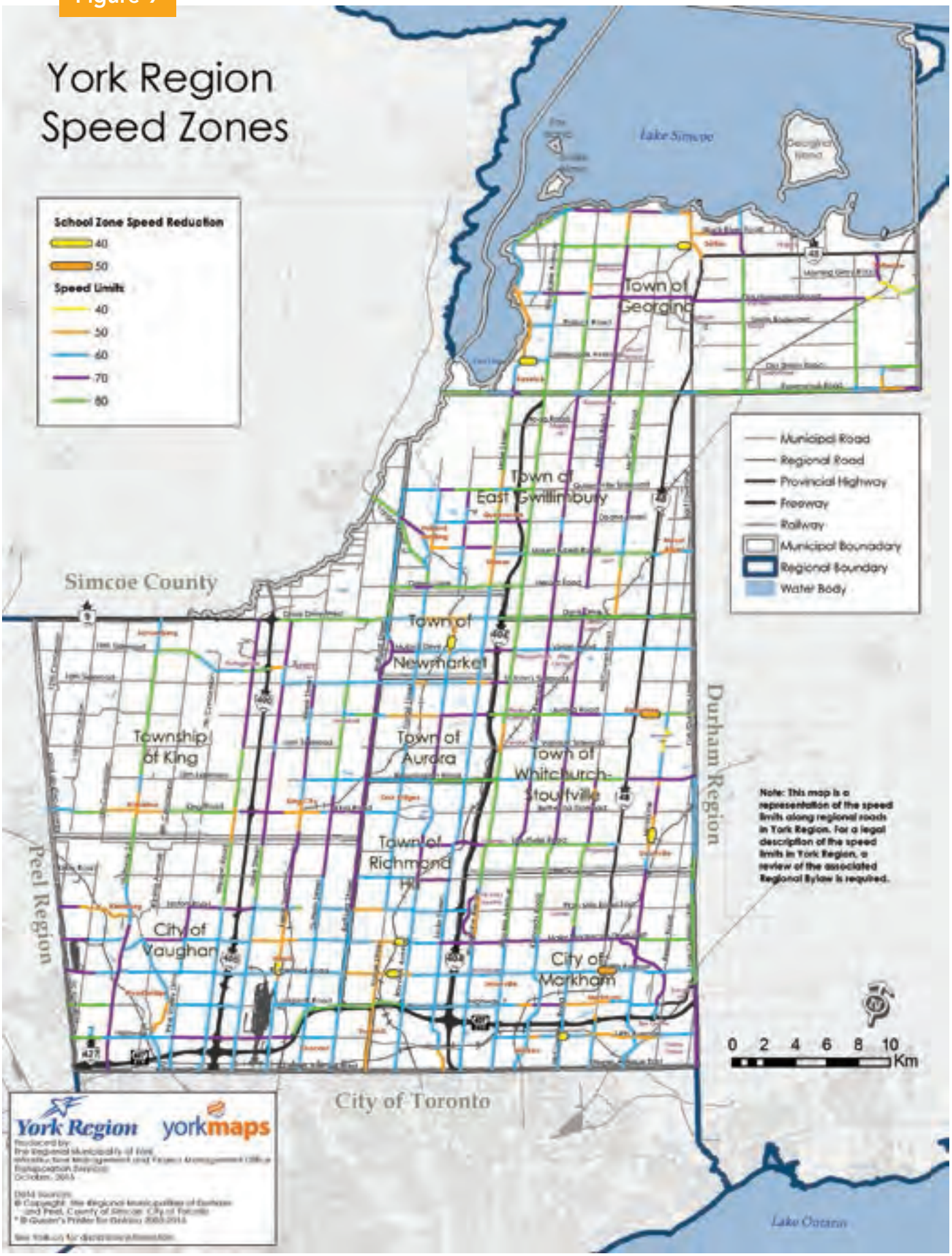


Figure 9 – York Region Speed Zones

Road Traffic Monitoring Program

York Region conducts yearly traffic monitoring programs in order to evaluate changes in traffic patterns on the Regional road system. This assists in setting the priorities for various road rehabilitation and construction projects, determining warrants for traffic signals, calibrating traffic models and assessing the impact of new development on the Regional road system. Two traffic volume measures used in traffic analysis are: annual average daily traffic (AADT) and turning movement counts (TMC). For AADT, the traffic monitoring program consists of a permanent (continuous) count program and a short duration count program. For TMC's, manual counts at intersections must be conducted. **Figure 10** illustrates various traffic count locations in York Region.

Permanent Count Stations

Permanent count station (PCS) data is needed to understand temporal (day-of-week, month and seasonal) changes in traffic volume. Seasonal factors are applied to the short duration counts to develop the Region's AADT listing. The PCS program uses permanent vehicle detectors that are embedded into the pavement of the road, collecting traffic data year round. PCS detects traffic in each direction and is capable of detecting traffic in each lane. In the Fall of 2013, York Region installed its first permanent pedestrian and bicycle counting stations. Located at six sites across the Region, these stations are important for monitoring seasonal variations, understanding impacts of investments, planning maintenance priorities and tracking walking and cycling rates over time.

Example of permanent count station for cars, trucks and buses (Leslie Street, south of Queensville Sideroad).

Example of a permanent count station for bicycles

Short Duration or Automatic Traffic Recorder Counts

The short duration count program or automatic traffic recorder is designed to provide roadway segment-specific traffic count information on an ongoing basis and forms the basic component for calculating annual average daily traffic volumes.

Example of Temporary Automatic Traffic Recorder tubes for cars, trucks and buses

Example of Temporary Automatic Traffic Recorder tubes for bicycles

Turning Movement Counts

A turning movement count (TMC) is a manual count of an intersection generally over an eight hour period and captures detailed information such as the number of vehicles entering each approach of the intersection and each manoeuvre (i.e. left, through, or right). Information on the number of crossing pedestrians and cyclists, heavy vehicles (three or more axles), vehicle occupancy and vehicle queues may also be collected as part of an intersection TMC.

Quick Facts

Currently in York Region, there are:

- 7 Permanent Counting Stations (PCS) to monitor seasonal variations in traffic
- Approximately 300 mid-block or short duration counts (ATR) are conducted annually
- Over 300 counts per year at intersections (TMC) capturing turning movements, truck percentages, and pedestrian crossings

Figure 10

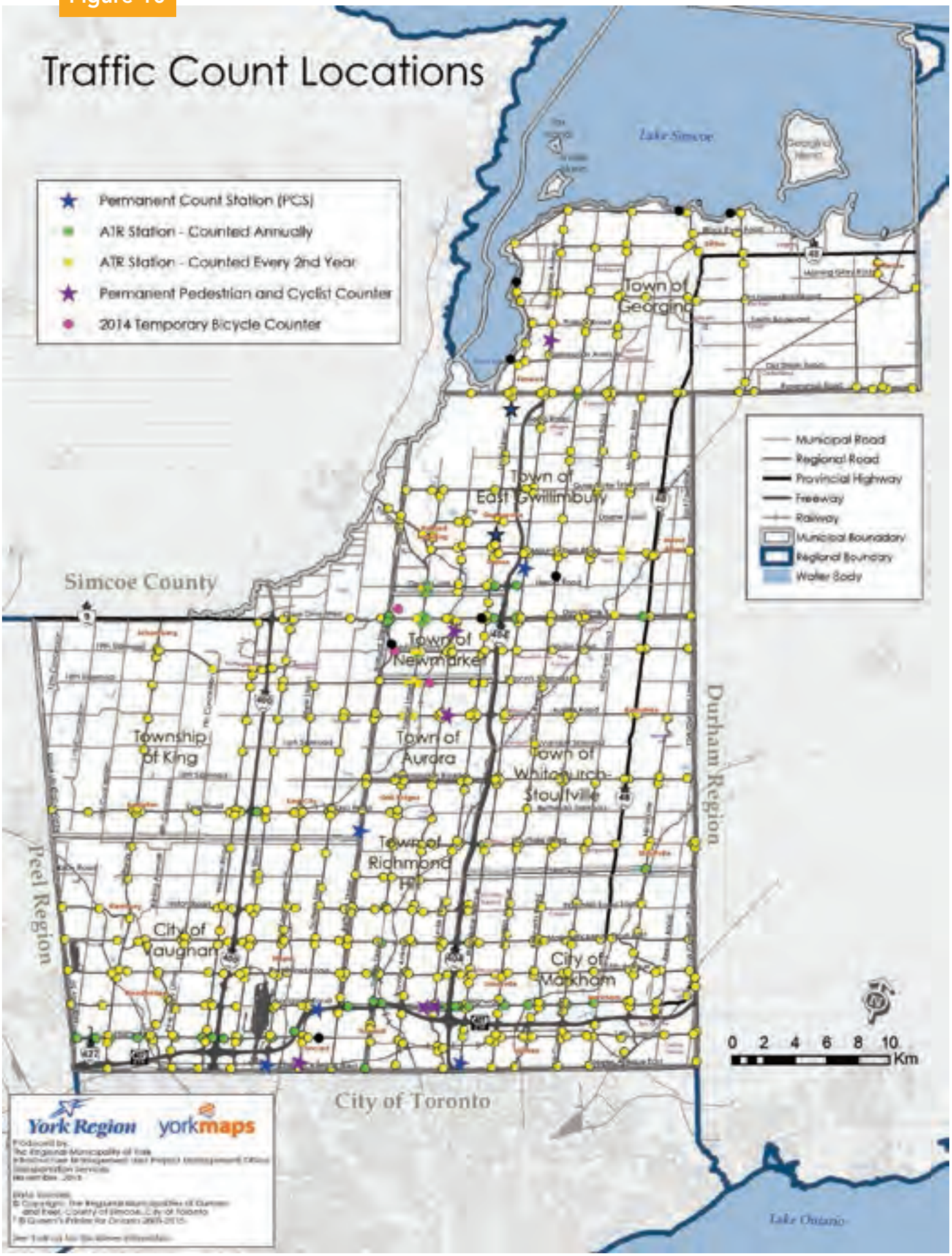


Figure 10 – Traffic Count Locations in York Region

Top 10 Highest Traffic Volume Locations

Highway 7 is York Region's most travelled roadway providing a link between Peel Region and Durham Region. Highway 7 is also a major connecting road to Highway 427, Highway 400 and Highway 404.

The volumes presented in **Table 3** are derived from an eight-hour turning movement count for all approaches and represents traffic during a typical weekday. **Figure 11** illustrates the top 10 highest traffic volume locations in York Region between 2010 and 2015.

Table 3 – Top 10 Highest Traffic Volume Locations in York Region

Rank	Description	Year Counted	Total Vehicles	Total Pedestrians	Total Bikes	Total Trucks	% Trucks
1	Highway 7 (between Weston Road and Hwy 400)	2010	56,005	1,001	58	3,647	7%
2	Highway 7 at Keele Street	2015	54,986	296	8	6,752	12%
3	Highway 7 (east of Hwy 400 to Creditstone Road)	2015	51,257	444	3	6,069	12%
4	Highway 7 between Hwy 404 and Woodbine Avenue	2011	44,308	196	0	1,766	4%
5	Highway 7 between Leslie Street and Hwy 404	2014	42,054	1,131	48	1,826	4%
6	Major Mackenzie Drive at Jane Street	2011	38,089	213	29	1,148	4%
7	Centre Street at Dufferin Street	2012	37,694	515	19	1,367	4%
8	Highway 7 at Warden Avenue	2011	37,695	336	3	981	3%
9	Rutherford Road/Carville Road at Bathurst Street	2011	37,397	712	55	1,326	4%
10	Highway 7 at Islington Avenue	2010	36,895	447	6	2,372	6%

Figure 11 – Top 10 Highest Traffic Volume Locations

Annual Average Daily Traffic

Annual Average Daily Traffic (AADT) volumes are generated through the use of two types of automated counting stations, Permanent Count Stations (PCS) and Automatic Traffic Recorders (ATR) strategically placed throughout the Region.

As each ATR count only captures traffic a few days a year (typically a consecutive seven day period), a PCS station that has similar characteristics is used as a control station. Since a full year's worth of traffic counts can be obtained from the PCS stations, factors (on a half-month basis) for each control station are calculated and subsequently used to adjust for any seasonal variation in the non-permanent stations to calculate a Week Day average and a Seven Day average (AADT).

Regional roads in the vicinity of major employment nodes are consistently among the highest volume roads in the Region. Highway 7 continues to be the Region's busiest road. **Figure 12** illustrates the 2015 AADT in York Region.

Contact Information

A full copy of the AADT Report is available through:
Roads and Traffic Operations
Phone: 1-877-464-9675 ext. 77523
Email: Traffic.data@york.ca

Highway 7 at Bayview Avenue in the Town of Richmond Hill/City of Markham

Figure 12

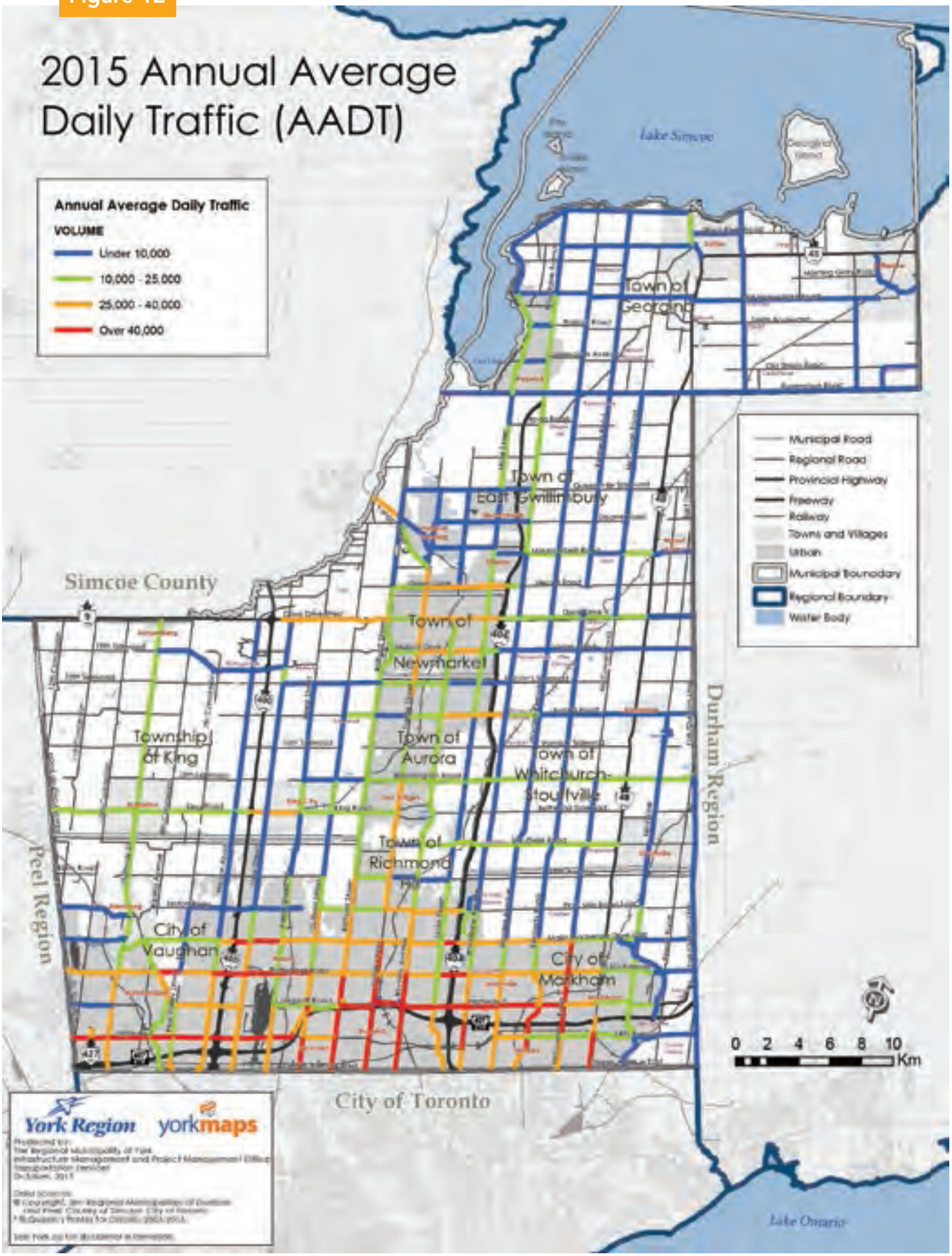


Figure 12 – 2015 Annual Average Daily Traffic (AADT)

Traffic on Bayview Avenue in the Town of Richmond Hill

Traffic on Highway 7 in the Town of Richmond Hill/City of Markham

Truck Volumes on Regional Roads

High truck volumes are related to the industrial areas and high trip generators such as in the vicinity of the CN MacMillan Yard in Concord, the CP Intermodal Yard and Sears' Distribution Centre in the City of Vaughan. Other areas within the Region that can be characterized as major truck routes are Highway 50 and Highway 7 in Vaughan, Woodbine Avenue in Markham and Bloomington Road in Whitchurch-Stouffville which serves as a major aggregate haulage route. Highway 9 serves as key access point to and from northern urban York Region via Highway 400.

In **Figure 13**, Regional roads are classified by a range of truck volumes (less than 1,000, 1,000 to 3,000 and over 3,000 trucks) during a typical 24-hour week-day. Trucks are defined as medium and heavy trucks (three or more axles).

A tractor trailer at the Woodbine Avenue/Bloomington Road intersection

Figure 13

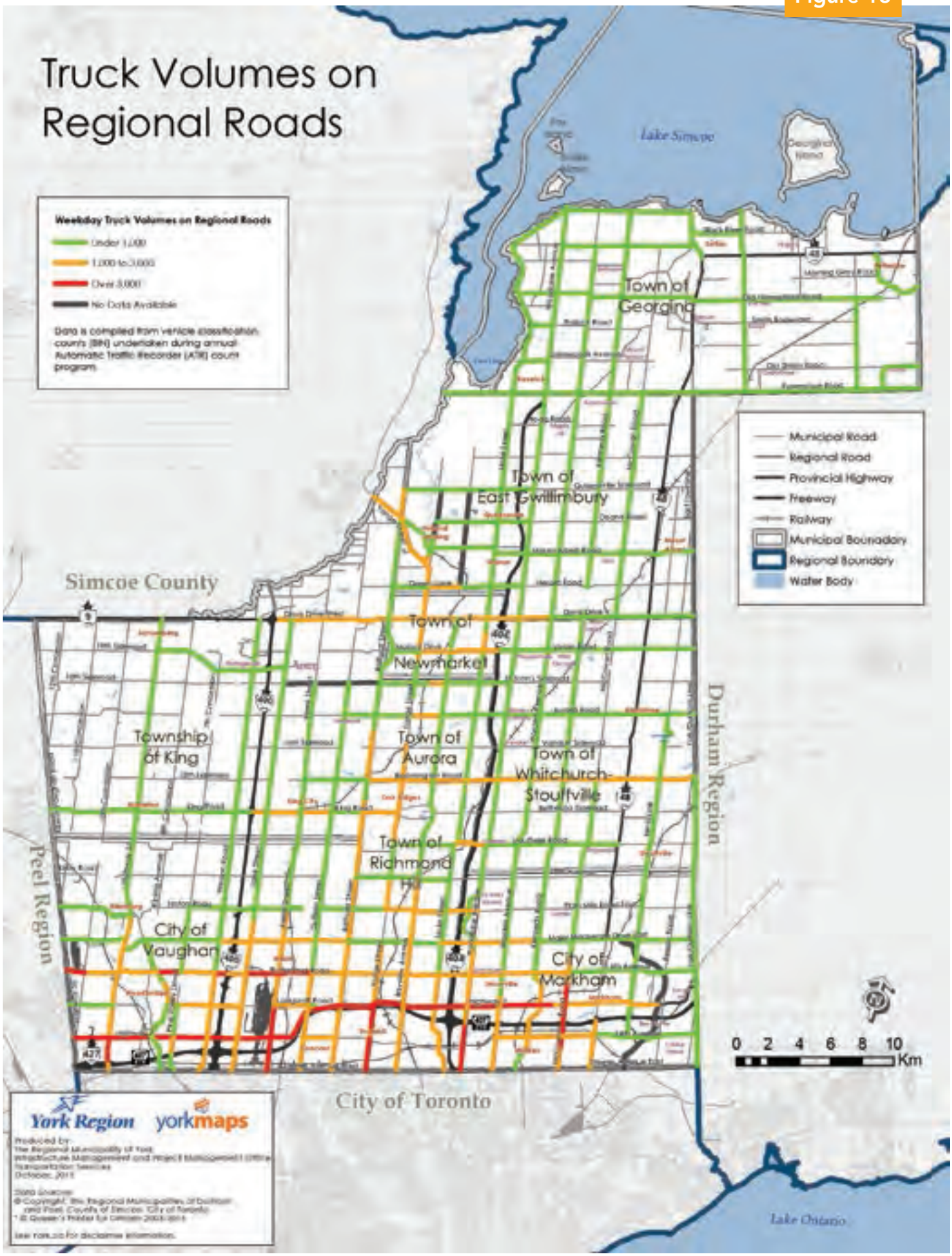


Figure 13 – Truck Volume on Regional Roads in 2014.

Top 10 Highest Truck Volume Locations

The top 10 highest truck volume locations are located on Highway 7 between Highway 400 and Creditstone Road, Highway 7 at Keele Street and Highway 7 between Leslie Street and Woodbine Avenue.

The volumes presented in **Table 4** below are derived from an eight-hour turning movement count for all approaches and represents traffic during a typical weekday. **Figure 14** illustrates the top 10 highest truck volume locations in York Region between 2010 and 2015.

Table 4 – Top 10 Highest Truck Volume Locations

Rank	Description	Year Counted	Total Vehicles	Total Pedestrians	Total Bikes	Total Trucks	% Trucks
1	Hwy 7 (between Keele Street and Hwy 400)	2015	54,986	296	8	6,752	12%
2	Hwy 7 at Weston Road	2010	56,005	1,001	58	3,647	7%
3	Hwy 7 at Highway 427 Ramp	2014	27,612	0	0	3,065	11%
4	Hwy 50 at Major Mackenzie Drive	2011	16,093	0	6	2,721	16%
5	Hwy 50 at Nashville Road	2013	20,623	6	6	2,536	12%
6	Keele Street at Bowes Road	2011	18,452	69	29	2,512	14%
7	Keele Street at Rutherford Road	2012	33,941	368	63	2,471	7%
8	Woodbine Avenue at Burncrest Road	2011	22,258	15	0	2,425	11%
9	Regional Road 99 at Zenway Boulevard	2014	19,040	1	0	2,407	13%
10	Keele Street at Rockview Gardens	2012	19,655	18	31	2,397	12%

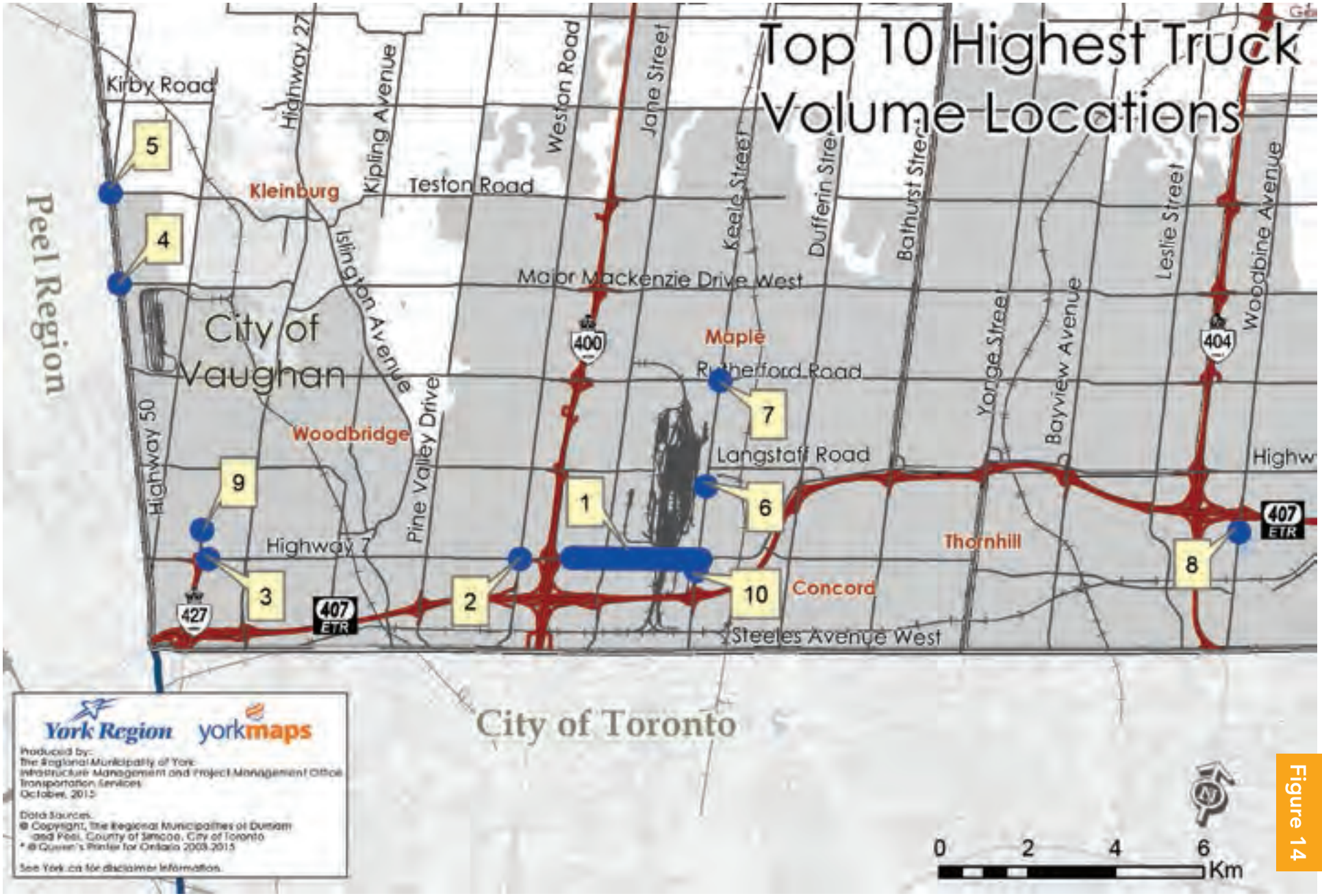


Figure 14 – Top 10 Highest Truck Volume Locations

Figure 14

Top 10 Highest Truck Percentage Locations

The top 10 highest truck percentage locations are located mostly along Bloomington Road between Warden Avenue and Highway 404 and in the vicinity of the CP Rail Intermodal Yards in Vaughan.

The volumes presented in **Table 5** below are derived from an eight-hour turning movement count for all approaches and represents traffic during a typical weekday. **Figure 15** illustrates the top 10 highest truck percentage locations in York Region between 2010 and 2015.

Table 5 – Top 10 Highest Truck Percentage Locations

Rank	Description	Year Counted	Total Vehicles	Total Pedestrians	Total Bikes	Total Trucks	% Trucks
1	Bloomington Road (between Hwy 404 and Warden Avenue)	2012	7,750	1	1	1,655	21%
2	Rutherford Road at CP Rail Intermodal Yard	2010	11,984	2	7	1,997	17%
3	Highway 27 (between 17th Sideroad and Nobelton Lakes Drive)	2013	6,305	2	4	987	17%
4	Highway 50 at Major Mackenzie Drive West	2011	16,903	0	6	2,721	16%
5	Highway 27 at Bell's Lake Road	2013	5,676	1	0	906	16%
6	Keele Street at Bowes Road	2011	18,452	69	29	2,512	14%
7	Ravenshoe Road at McCowan Road	2014	5,092	0	0	670	13%
8	Langstaff Road at Huntington Road	2011	6,696	0	4	872	13%
9	Bloomington Road at York Durham Line	2013	12,389	1	6	1,594	13%
10	Regional Road 99 at Zenway Boulevard	2014	19,040	1	0	2,407	13%

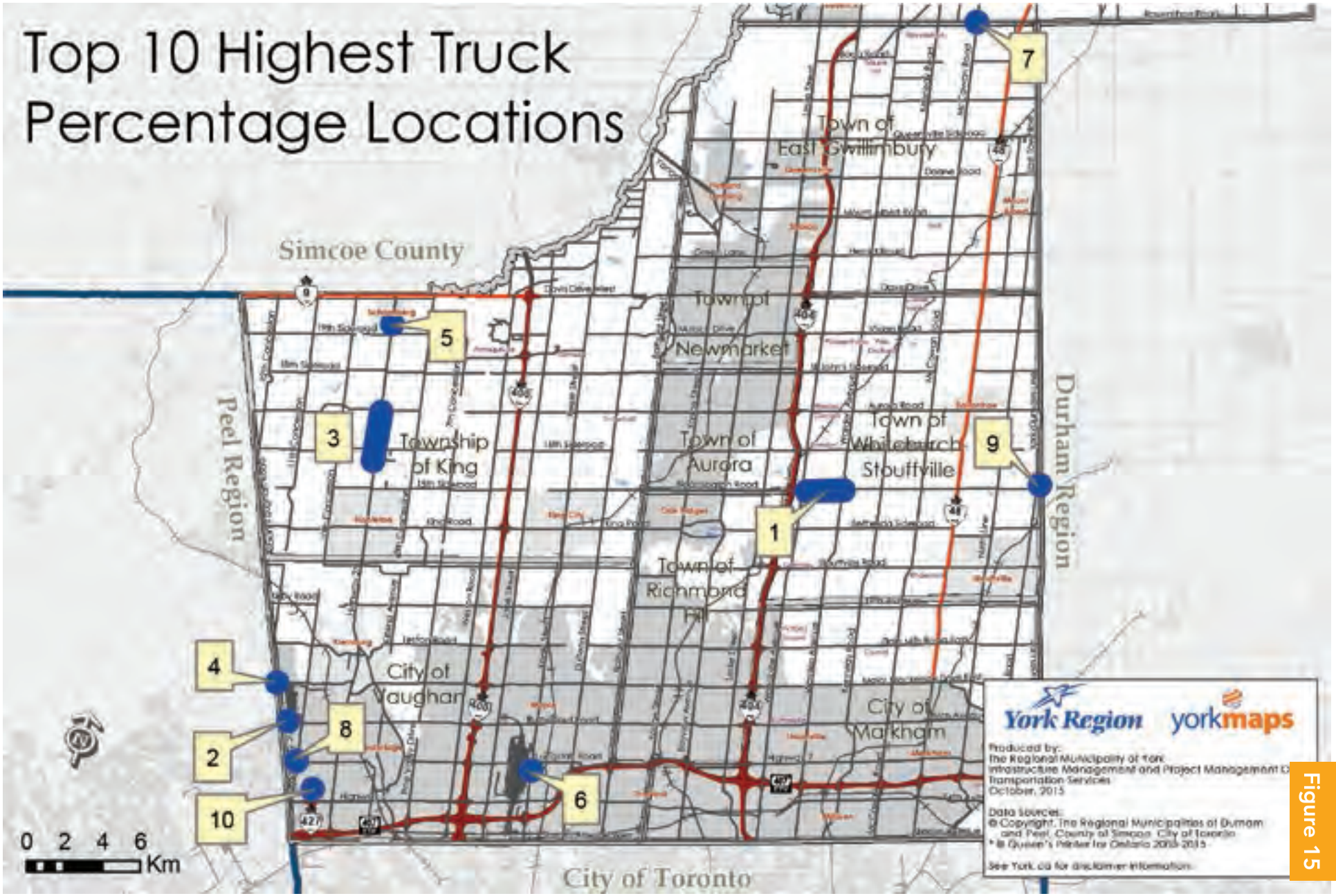


Figure 15

Figure 15 - Top 10 Highest Truck Percentage Locations

Travel Time Survey

The results of the Travel Time Study provide data to monitor roadway performance and help identify critical road sections to be considered in future road and transit improvement projects and traffic management strategies. The travel time measure is used by staff and many transportation agencies as a useful performance measure for highways and major roadways. The data also provides consistent and reliable historical data on travel speeds and delays that can be used for transportation planning, as well as traffic operational analysis in York Region to effectively manage traffic congestion under existing and future conditions.

The Ontario Ministry of Transportation (MTO) has conducted a biennial travel time survey of the major provincial highways in the Greater Toronto Area since 1996. The survey is undertaken during the weekday morning, mid-day and afternoon peak periods and for the Labour Day weekend. Data for the 2014 Travel Time Study was collected using a combination of two survey methods. The first method utilized survey vehicles equipped with Global Positioning System (GPS) technology to record travel data on selected corridors. The second method was sourcing travel time and speed data from the private data provider TomTom, which provides a database of traffic data aggregated by personal GPS devices located in passenger vehicles and individual's smartphone navigation mobile applications.

York Region participated in both the 2008 and 2010 Travel Time Studies. York Region did not participate in the 2012 Travel Time Study as some of the major corridors were under construction.

The 2014 Travel Time Study included approximately 22 arterial corridors in York Region including Yonge Street, Highway 27, Highway 7, Bloomington Road and Ravenshoe Road, covering approximately 800 km (two-way distance). **Figure 16** illustrates the 2014 Travel Time Study surveyed corridors in York Region.

The 2014 Travel Time Study also covered approximately 340 kilometres of MTO 400-series highways within York Region such as Highway 404, Highway 400, Highway 427 and Highway 407.

Figure 16

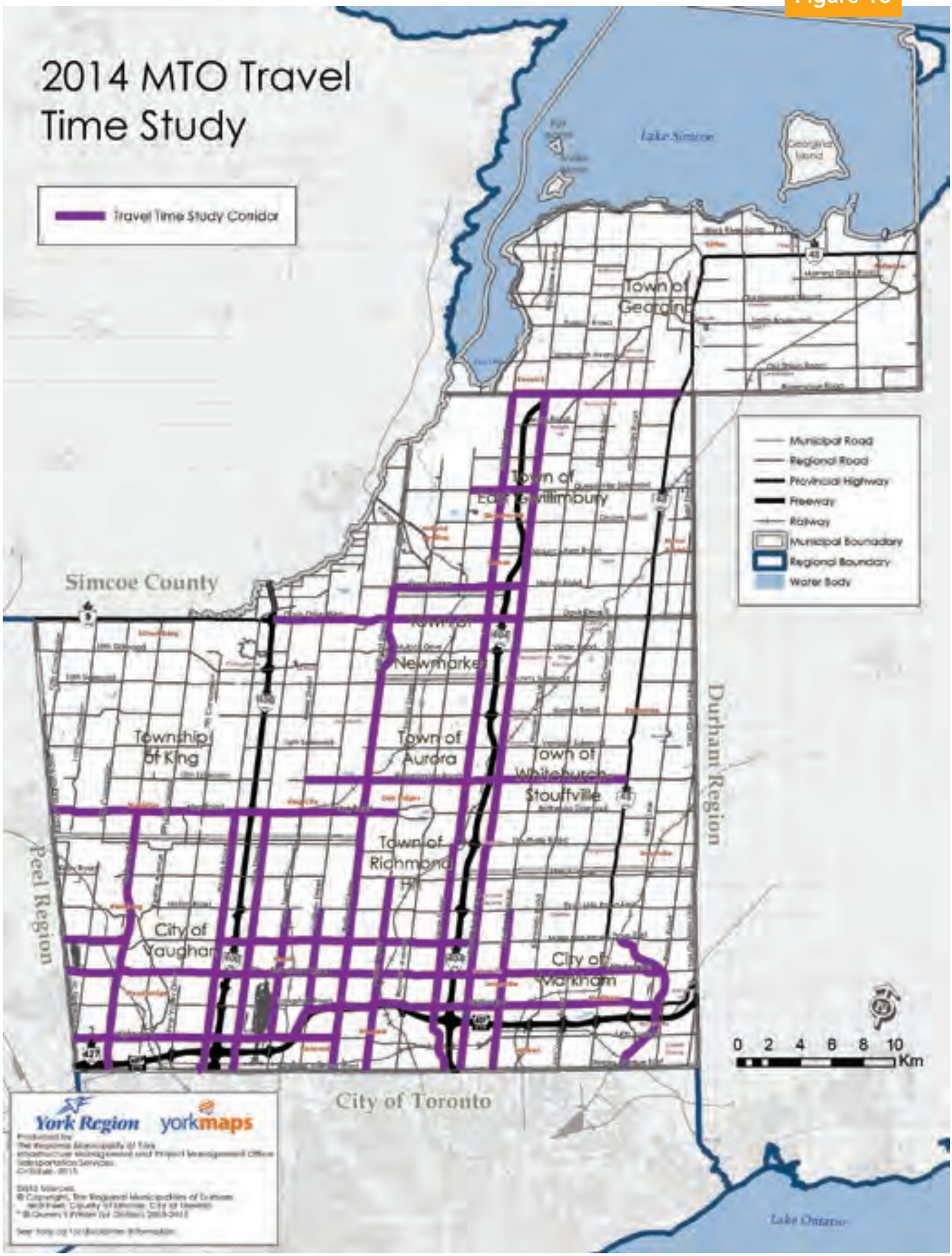


Figure 16 – 2014 Travel Time Study Surveyed Corridors in York Region

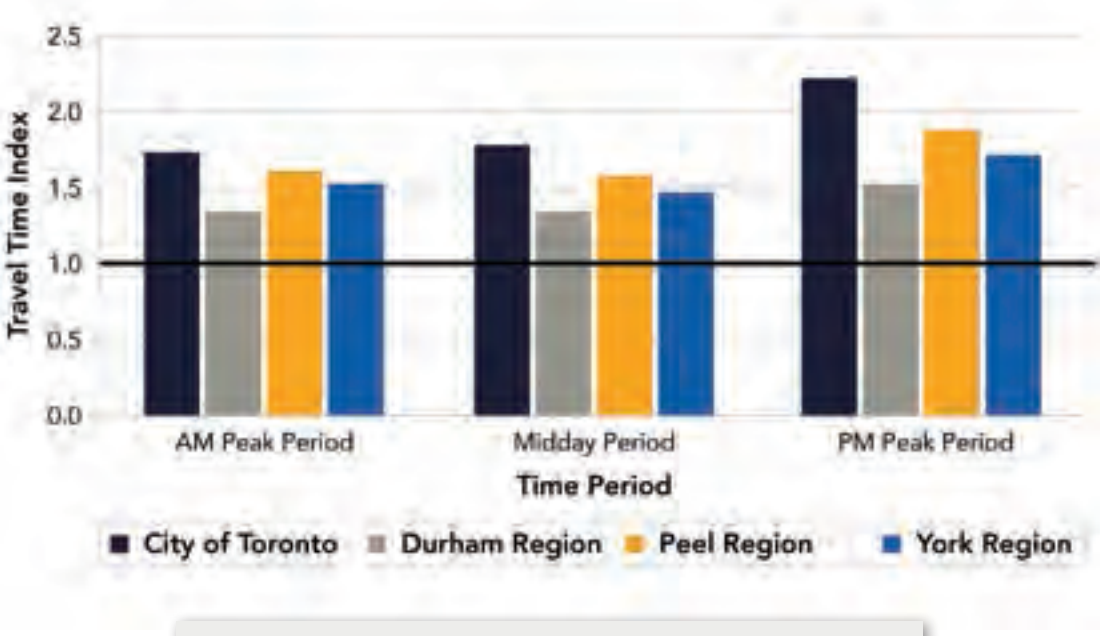
Arterial Performance Measures

Two performance measures were introduced to track the performance of 400-series highways and arterial roads. These two measures are:

- Travel Time Index (TTI) – Compares peak period and non-peak travel conditions to provide an indication of the additional time required in peak flow conditions (e.g. a TTI of 1.4 indicates a motorist's trip will take 1.4 times longer during peak periods than at non-peak period travel conditions).
- Buffer Time Index (BTI) – A measure of travel time reliability, the BTI represents the extra travel time (or buffer) that a motorist needs to consistently arrive on time with a high degree of confidence (e.g. a BTI of 24 per cent means a motorist should allow 24 per cent more time than the non-peak travel time for a trip, to arrive on-time for 19 out of 20 trips, or with a 95 per cent level of confidence).

Figure 17 illustrates the 2014 aggregate Travel Time Index (TTI) while **Figure 18** illustrates the 2014 aggregate Buffer Time Index (BTI) comparison for arterial roads in York Region with other jurisdictions in GTA.

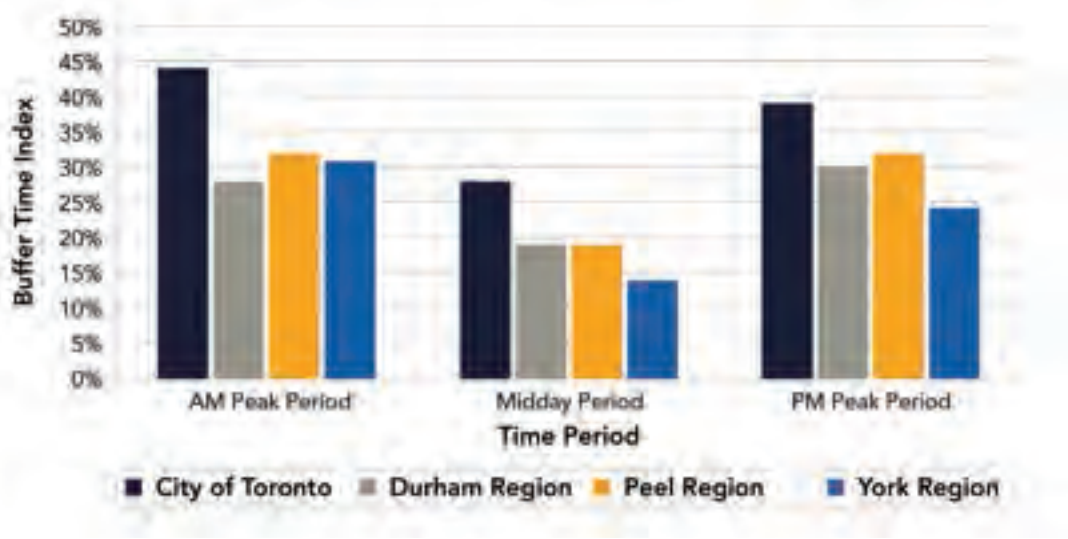
Figure 17 – 2014 Aggregate Travel Time Index (TTI) for Arterials by Jurisdiction



Quick Facts

- York Region arterials rank the second lowest by aggregate TTI in all three periods
- The TTI in the A.M. Peak and Midday period are similar, while the TTI is slightly higher in the P.M. Peak period

Figure 18 – 2014 Aggregate Buffer Time Index (BTI) for Arterials by Jurisdiction



Quick Facts

- York Region arterials rank the lowest by aggregate BTI during the Midday and P.M. peak periods, but average higher BTI values than Durham Region in the A.M. Peak period
- The BTI during the A.M. and P.M. Peak periods are noticeable higher than the Midday period

Arterial Performance Based on the Observed Speed

The 2014 Travel Time Study included approximately 22 arterial corridors in York Region including Yonge Street, Highway 27, Highway 7, Bloomington Road and Ravenshoe Road, covering approximately 800 km (two-way distance). The majority of York Region arterials surveyed fall between Class I and II of the Urban Street Class designation based on the speed range between 55 km/h and 90 km/h. **Table 6** summarizes the arterial level of service definition by Urban Street Class.

York Region arterial normal operating speed for the non-peak period is compared with the observed average operating speed during the peak periods. This baseline comparison provides an indication of the arterial performance or the "Levels of Service." For example, if the average operating speed of the Yonge Street segment between Steeles Avenue and 19th Avenue during the peak periods is 30 km/h, the level of service would be D, based on Class II level of service criteria. **Table 7** summarizes York Region's arterial roads levels of service based on observed speed.

Quick Facts

- Approximately 21 per cent of York Region road segments surveyed operated at less than ideal conditions (levels of service D or F) during the A.M. peak period
- P.M. operations were found to be worse than the other peak periods, with 35 per cent of segments operating at less than ideal level of service D or worse

Table 6 – Level of Service Definition by Urban Street Class

Urban Street Class	I	II	III	IV
Range of free-flow speeds (FFS)	90 to 70 km/h	70 to 55 km/h	55 to 50 km/h	55 to 40 km/h
Typical FFS	80 km/h	65 km/h	55 km/h	45 km/h
Level of Service	Average travel Speed (km/h)			
A	> 72	> 59	> 50	> 41
B	> 56 – 72	> 46 – 59	> 39 – 50	> 32 – 41
C	> 40 – 56	> 33 – 46	> 28 – 39	> 23 – 32
D	> 32 – 40	> 26 – 33	> 22 – 28	> 18 – 23
E	> 26 – 32	> 21 – 26	> 17 – 22	> 14 – 18
F	≤ 26	≤ 21	≤ 17	≤ 14

Table 7 – York Region Arterials Levels of Service Based on Observed Speed

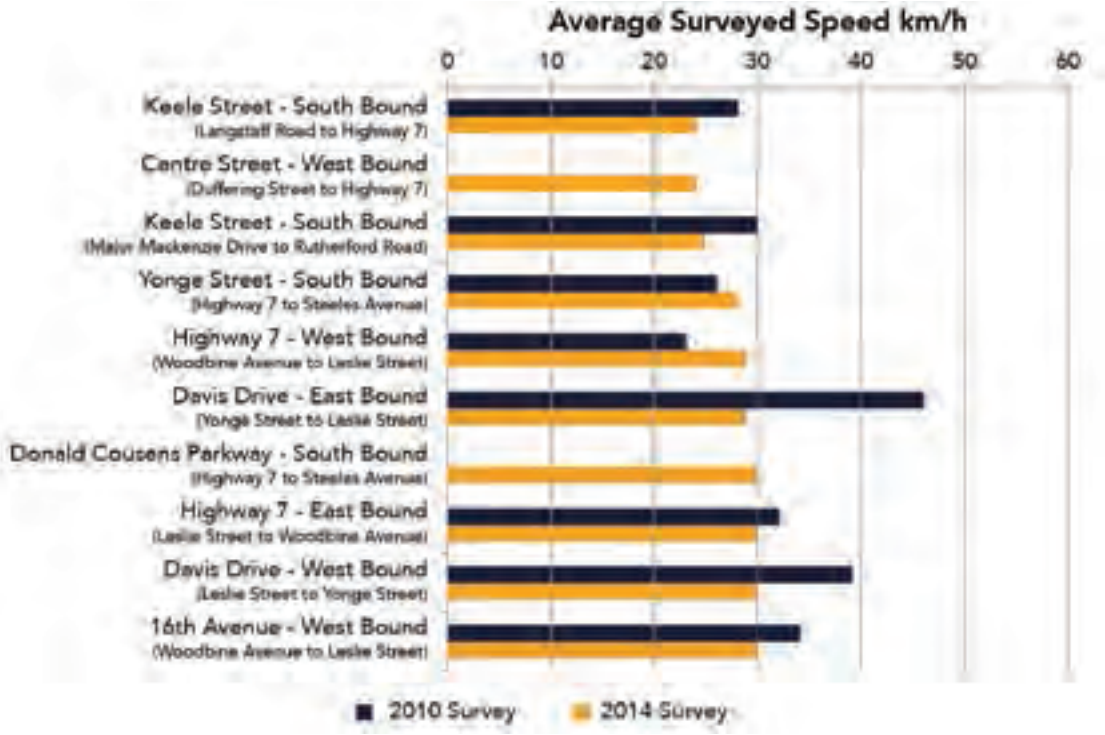
Level of Service	AM Peak Period	Midday Peak Period	PM Peak Period
A	11%	20%	13%
B	29%	27%	29%
C	39%	35%	23%
D	17%	13%	19%
E	4%	4%	9%
F	0%	1%	7%

Quick Facts

- An average York Region household owns 1.86 cars compared to 1.12 in the City of Toronto (source: 2011 Transportation Tomorrow Survey)
- About 86 percent of York Region residents drive to work during the morning peak period (source: 2011 Transportation Tomorrow Survey)
- Approximately 16 million vehicle-kilometres were traveled on York Regional roads in 2015

Figures 19 and **20** provide a comparison of the growing congestion levels in some of the Region's slowest moving corridors between 2010 and 2014 based on the travel time surveys for the A.M. and P.M. peak periods, respectively.

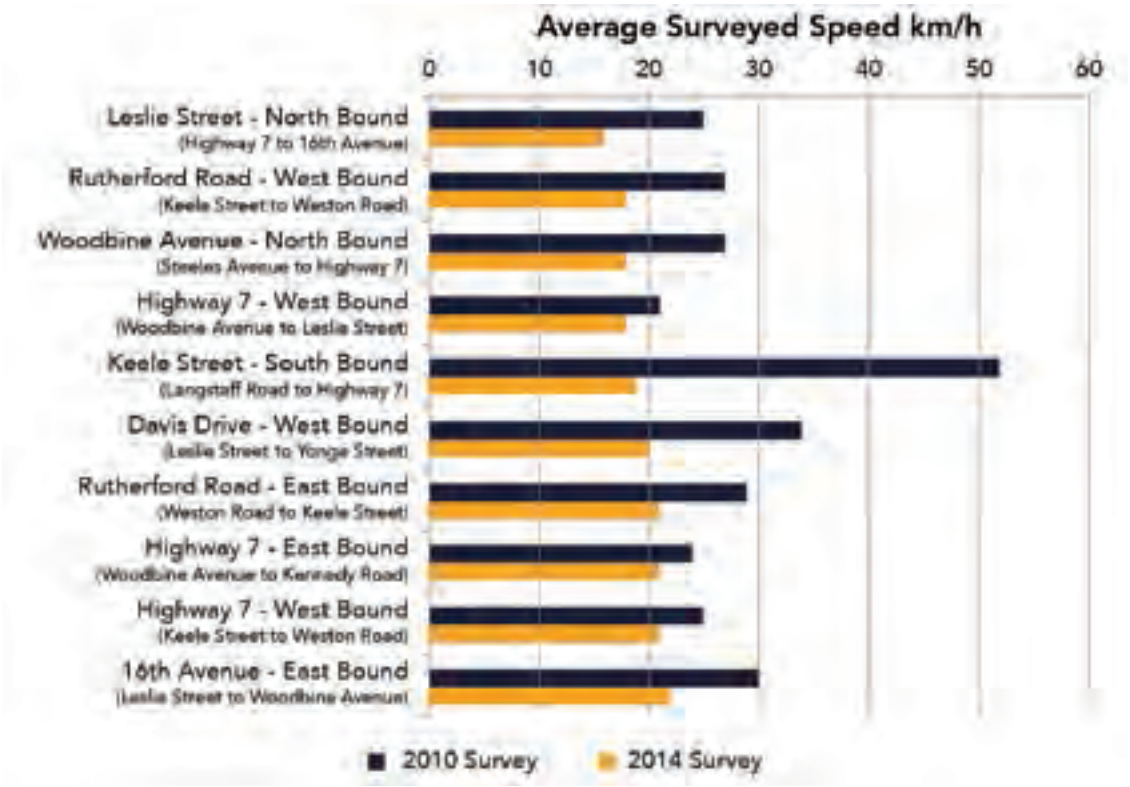
Figure 19 - Speed Comparison Between 2010 and 2014 (A.M. Peak)



Note:

- Davis Drive was under construction during the travel time survey in 2014
- Centre Street and Donald Cousens Parkway segment breakdowns were not available for the 2010 survey
- 60 km/h is the general posted speed limit for the top 10 slowest moving corridors

Figure 20 - Speed Comparison Between 2010 and 2014 (P.M. Peak)



Note:

- The intersection of Keele Street/Highway 7 was under construction in 2014
- 60 km/h is the general posted speed limit for the top 10 slowest moving corridors

Traffic Signal Operations

Intelligent Transportation Systems

York Region's Traffic Signal Operations is responsible for the operation and maintenance of Intelligent Transportation Systems that maximize our ability to move people and vehicles on the existing transportation network safely and efficiently.

Intelligent Transportation Systems include the Centralized Traffic Control System (CTCS), Advance Traffic Management System, Emergency and Transit Signal Pre-emption, Traffic Monitoring System and Real-Time Traveler Information System.

The CTCS is used to monitor and control a network of signals within the Region. The purpose of CTCS is to:

- Identify and respond to changes in traffic patterns on a real-time basis
- Synchronization of traffic signal timings along major roadways in order to minimize stops, delays and environmental impacts of traffic congestion
- Quickly identify and respond to traffic signal equipment problems

York Region's Centralized Traffic Control Centre

Transit Signal Priority is provided on specific transit routes to improve transit service reliability and reduce travel times and delays to transit vehicles at signalized intersections. Transit vehicles are equipped with automated vehicle location equipment and traffic signal interface equipment to provide enhanced service at traffic control signals for transit vehicles that are behind schedule.

Emergency Vehicle Pre-emption provides a higher level of signal priority at virtually all signalized intersections to enable the emergency vehicles to pass through the intersections more quickly to respond to emergencies.

The Traffic Monitoring System has 109 traffic cameras installed at select major intersections within the region. Video feed from these cameras enables the operators in the control room to monitor traffic conditions, verify reported incidents, check for incidents along Regional corridors, monitor construction projects and check on traffic signal operations. The operating hours of the traffic control room are 5:30 a.m. to 7:30 p.m., Monday to Friday.

Traffic cameras are used for general traffic surveillance and incident confirmation purposes. The Traffic Management Centre complies with the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA), and the cameras will not record videos and/or will not be zoomed in to identify an individual or read a vehicle license plate.

A map and snap shots from the camera feeds are displayed on York Region's website entitled Traffic Cameras.

A Signalled Intersection in the Town of Newmarket

The Traffic Management Centre has 12 Portable Variable Message Signs available for deployment. As part of the Real-Time Traveler Information System, these electronic signs are used to convey information to motorists about a multitude of road related incidents that could potentially have a negative impact on the flow of traffic. Such incidents include road closures, lane closures, parades, special events and upcoming construction. The signs are deployed strategically to provide motorists with advance notice and/or real-time traffic information so that they can make an informed decision on choosing routes.

Automated Vehicle Location systems are in place on public transit vehicles and winter maintenance vehicles.

Real-Time Traveler Information Systems provide road users with access to public transit and road condition information.

Intelligent Transportation Systems are being implemented throughout the Region for public transit as well as other road users in order to gather business intelligence that will help maximize the capacity of the existing infrastructure.

Quick Facts

York Region operates and maintains approximately 845 traffic signals:

- 712 owned by York Region
- 61 maintained for MTO
- 34 maintained for 407 ETR
- 14 maintained for the City of Markham for Viva operations
- 9 maintained for the Town of Newmarket
- 8 maintained for the Town of Aurora along Yonge Street for Viva operations
- 7 maintained for Richmond Hill along Yonge Street for Viva operations

Regional signals are managed through the Region's Centralized Traffic Control System (CTCS).

Contact Information

To report traffic problems contact:
Roads and Traffic Dispatch
Phone: 1-877-464-9675 ext. 75200
Email: traffic@york.ca

York Region Travel Alert App for Smart Phones

The York Region Travel Alert is a hands free, real time traffic reporting systems. It alerts motorists to unexpected traffic delays on their route through voice prompts and a colour-coded map.

In addition, the App will notify motorists when they are entering a Community Safety Zone, Red Light Camera Intersections and approaching speed limit reductions. It comes with a list of popular shopping destinations and tourist attractions and works throughout Ontario and the Greater Golden Horseshoe area (from Hamilton to Oshawa and from Toronto to Barrie), including 400-series highways, DVP and Gardiner Expressway. It is available for iPhone, Blackberry and Android smart phones and can be downloaded for free by visiting york.ca/travelalert. **Figure 21** illustrates the Travel Alert App coverage area.

Figure 21 - Travel Alert App Coverage Map

Traffic Safety in York Region

Auto drivers made more than 3,260,000 daily vehicle trips on more than 4,100 lane-kilometres of Regional road, through 2,000 intersections of which 800 are signalized. York Region experienced an average of 9,380 motor vehicle collisions per year between 2005 and 2014. A general overview of collision statistics on Regional roads between 2012 and 2014 confirms that collisions most frequently occurred on Fridays during the months of October to January and during the evening rush hour. The most common collisions are rear-end collisions at signalized intersections. Most collisions are as a result of someone's improper driving or driving inattentively. As expected, the majority of high collision intersections are situated on high volume roads, such as Highway 7, Rutherford Road, Major Mackenzie Drive and Yonge Street.

Collisions are a result of numerous factors which are often interconnected and unique to specific events. That said, safety programs are beneficial to influence safety performance data even though the benefits are difficult to quantify.

York Region is committed to making road safety a priority. In partnership with York Regional Police, York Region has many ongoing safety initiatives to influence driver behaviours and reduce collisions. These initiatives include the following:

- **Creating pedestrian accessible intersections:** Increasing pedestrian crossing times, installing pedestrian countdown signals and implementing zebra crosswalks
- **Enhancing opportunities for cyclists:** Designing and constructing new cycling facilities, implementing safe cycling campaigns and safe cycling educational courses
- **Increasing awareness for distracted driving:** Launching a pedestrian safety campaign, in partnership with York Regional Police, to enhance awareness on distracted driving and pedestrians
- **Implementing road safety reviews:** Undertaking road safety audits to identify safety issues and develop location specific solutions
- **Improving winter driving conditions:** Using new state of the art snow plows to ensure timely winter maintenance response to changing road conditions
- **Implementing Red Light Camera program:** Operating red light cameras at 20 Regional intersections to mitigate red light running
- **Promoting awareness for impaired driving:** Implementing Mothers Against Drunk Driving campaign, in partnership with York Regional Police, to stop impaired driving
- **Reducing operating speeds:** Introducing Community Safety Zones, installing radar speed boards and applying speed limit revisions

Red light cameras at a Regional intersection

Red Light Cameras York Region

Regional Council approved the installation of red light cameras at 20 intersections throughout the Region, an initiative to help save lives and prevent injuries by modifying driver behaviour at intersections.

Side collisions are among the leading causes of motor vehicle deaths and bodily injuries. The presence of red light cameras in municipalities, including the City of Toronto, has resulted in fewer side-impact collisions from drivers going through red lights. **Figure 22** illustrates the locations of red light cameras in York Region.

Quick Facts

It is a violation that occurs when a driver enters an intersection after the signal light has turned red. The registered license plate holder receives the ticket, regardless of who was driving the vehicle.

Figure 22

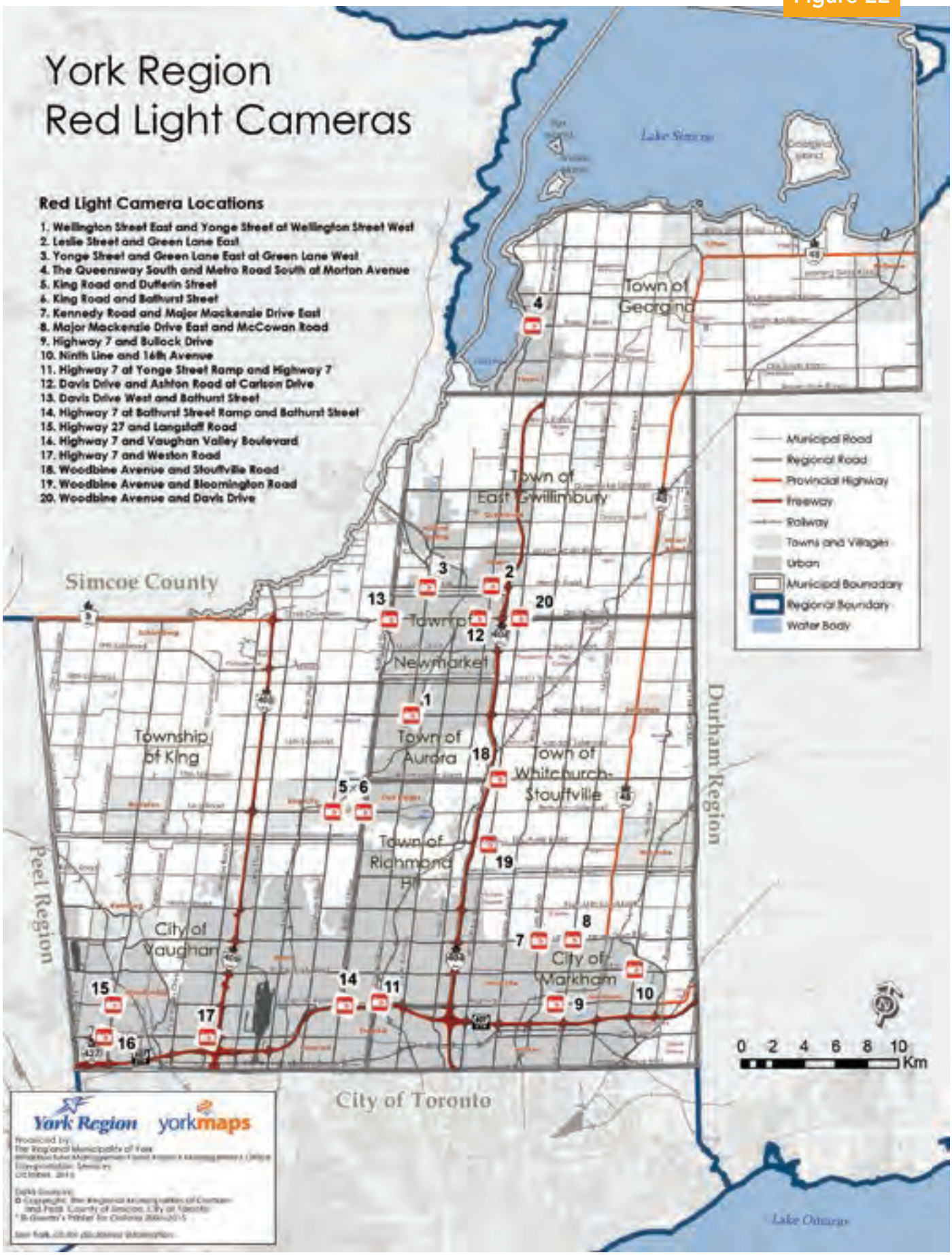
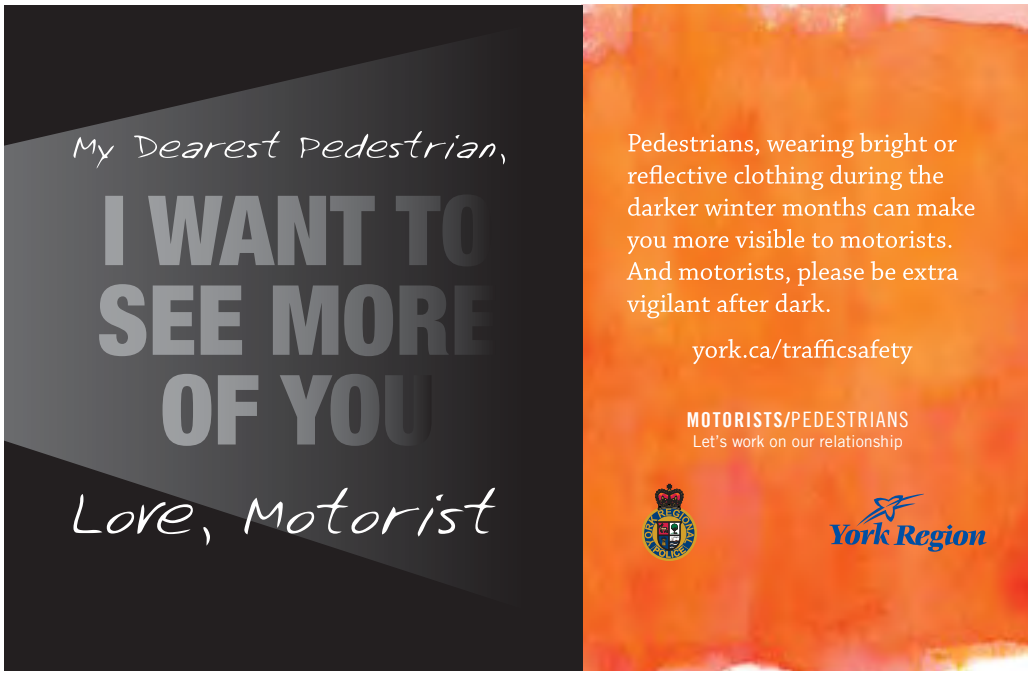


Figure 22 – Red Light Camera Locations in York Region

The Pedestrian Safety Campaign

The Road Safety Campaign is part of the York Region and York Regional Police Pedestrian Safety Campaign advocating respect between motorists and pedestrians to help reduce the number of collisions, injuries and fatalities on Regional roads. The campaign theme, "Motorists and Pedestrians … Let's work on our Relationship", focuses on creating awareness around safety issues affecting motorists and pedestrians year round. Visit york.ca/pedestriansafety for more information.

York Region has revised speed limits at 15 road locations across the Region to ensure better safety and consistency. A list of these revisions is available at york.ca/trafficsafety.



Example of Pedestrain Safety Campaign promotional material

Road Watch

Road Watch is a community-based program that gives residents an opportunity to report aggressive driving, including speeding, following too closely, unsafe lane changes, unsafe passing and disobeying traffic signs and signals.

Residents who observe acts of aggressive driving in their community are encouraged to complete a Road Watch Report, available at yrp.ca (select Online Services). To complete a Road Watch Report, the licence plate number and a brief description of the vehicle is required.

Collision Statistics in York Region

Between 2006 and 2009, statistics show a relatively consistent trend in the total number of collisions, increasing by approximately three per cent annually. This is consistent with the annual population growth of three per cent.

Since 2010, the total number of collisions has decreased despite the fact that volume of traffic continues to increase each year. The 2014 statistics show the total number of collisions decreased by approximately 13 per cent as compared to 2013.

Figures 23 illustrates collision statistics between 2005 and 2014 in York Region.

Figure 23 – Collision Statistics Between 2005 and 2014

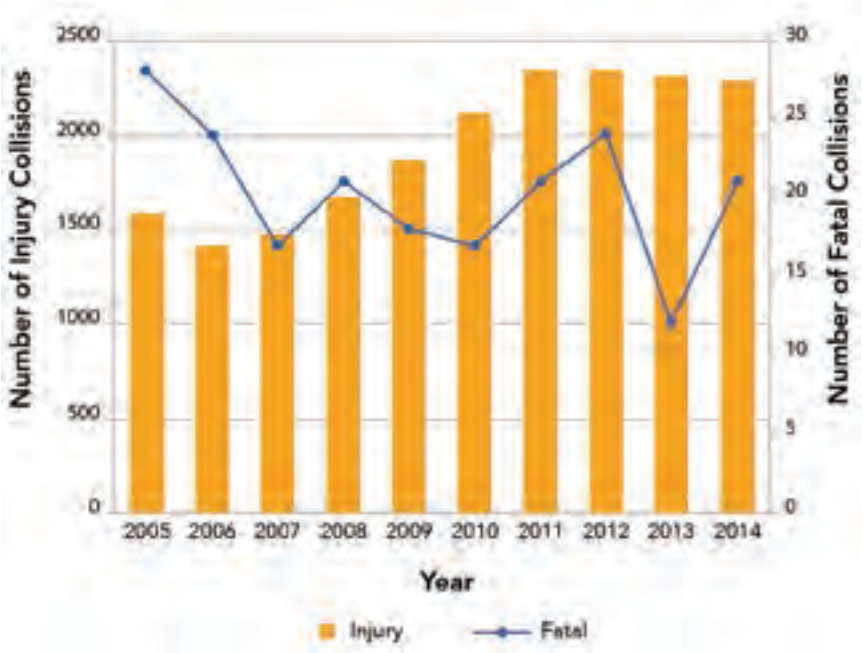
Note: The reduction in collisions in 2006 and 2007 are in part attributed to a change in accident reporting requirements and collection methodologies.

Quick Facts

- Between 2012 and 2014, York Region population grew by two per cent annually
- The Region's collision statistics show a 10-year low in vehicle collisions in 2014
- Between 2012 and 2014, collisions have decreased by 12 per cent and injury collisions decreased by five per cent
- Property damage only collisions account for 75 per cent of all collisions while injury and fatal collisions account for 25 per cent of all collisions

The Region experienced a 10-year low in fatal collisions in 2013, with a total of 12 fatalities. There were 21 fatalities in 2014, which is comparable with pre-2013 data. Between 2005 and 2014, injury collisions have increased by approximately 40 per cent, while fatal collisions have fluctuated. **Figure 24** illustrates the collision statistics involving injuries between 2005 and 2014.

Figure 24 – Collision Statistics Involving Injuries Between 2005 and 2014

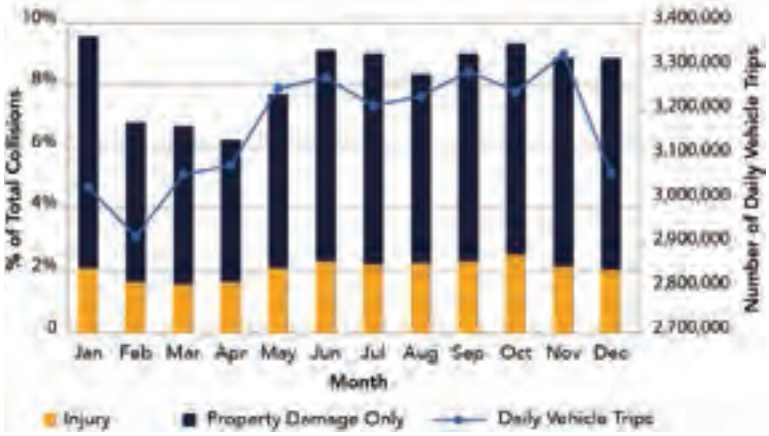


Quick Facts

- York Region experienced a 10-year low in fatal collisions in 2013, with a total of 12 fatalities
- The number of fatal collisions has fluctuated over the past decade
- Of the 21 fatalities in 2014, four fatal collisions involved pedestrians and one involved a cyclist

Collisions generally increase as traffic volumes increase. However, during December, January and February, collisions are higher relative to daily vehicle trips. This is likely a result of the challenges associated with winter driving. **Figure 25** illustrates collision frequency by month (three-year average between 2012 and 2014).

Figure 25 – Collision Frequency by Month (average between 2012 and 2014)

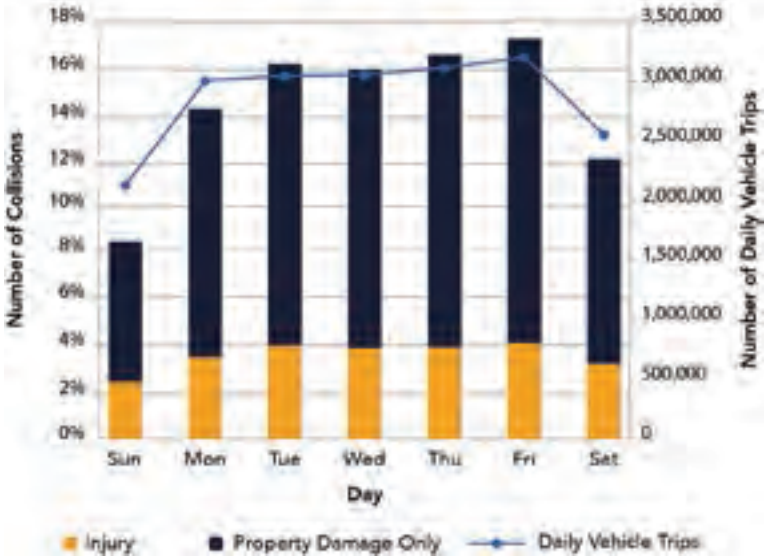


Quick Facts

- The month of January reported highest number of collisions between 2012 and 2014
- Injury collisions are relatively constant throughout the year

The day-of-week collision pattern correlates closely with typical day-of-week traffic volume patterns – with the highest number of collisions occurring on Fridays. **Figure 26** illustrates collision frequency by day of the week (three-year average between 2012 and 2014).

Figure 26 – Collision Frequency by Day of the Week (average between 2012 and 2014)

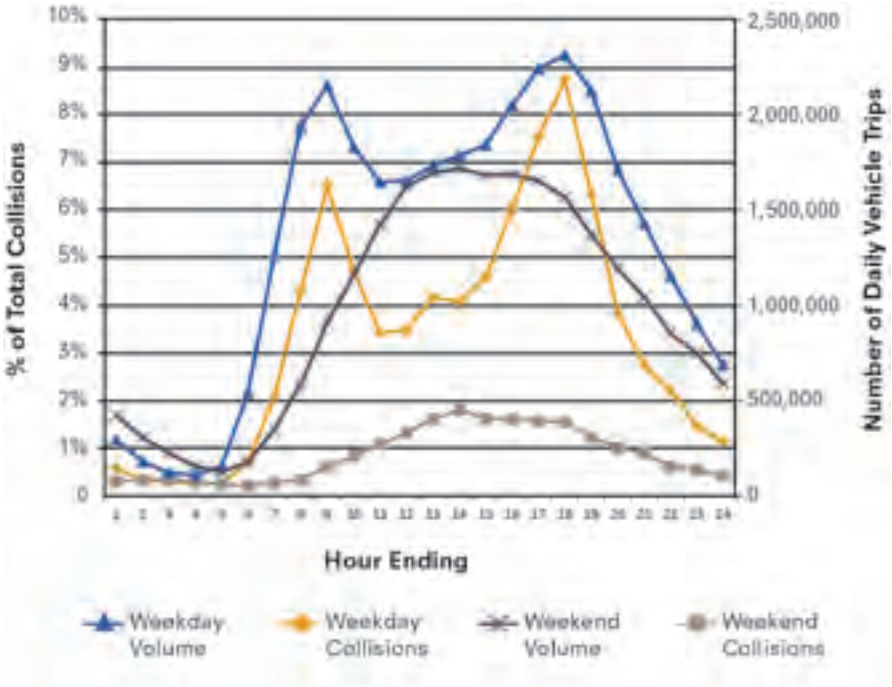


Quick Facts

The day-of-week collision pattern correlates closely with typical day-of-week traffic volume

The time-of-day collision trend also correlates closely with typical daily traffic volume patterns (i.e. high numbers of collisions occur during highest traffic volume times). The highest number of collisions occurred on weekdays, between 8 a.m. and 10 a.m. and 3 p.m. and 7 p.m. Collisions were higher during the afternoon on weekends, consistent with the increasing number of daily vehicle trips. **Figure 27** illustrates collision frequency by time of day (three-year average between 2012 and 2014).

Figure 27 – Collision Frequency by Time of Day (average between 2012 and 2014)

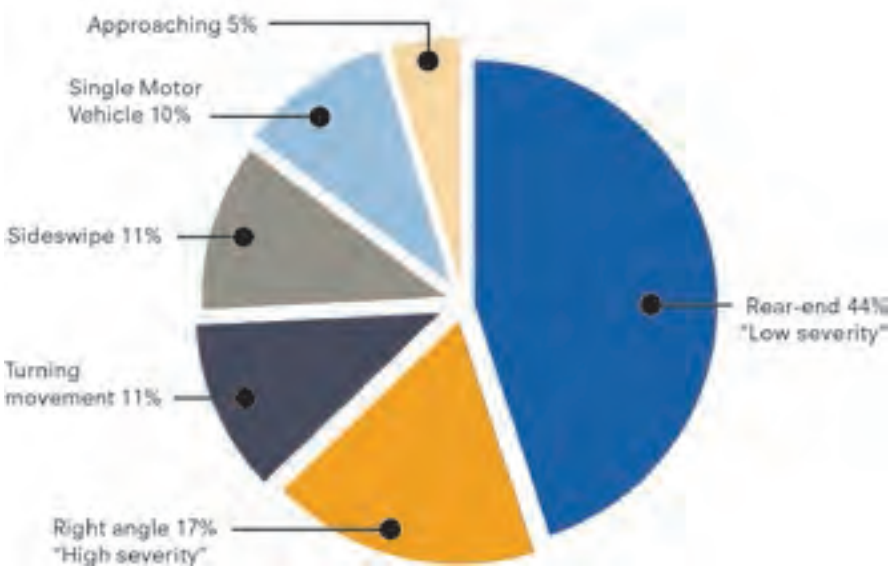


Quick Facts

- Weekday peak periods accounted for 40 per cent of all collisions
- Between 2012 and 2014, the highest number of collisions occurred on Fridays in January between 5 p.m. and 6 p.m.

The most common collision type was rear-end collisions at signalized intersections. Rear-end collisions can occur as a result of driver inattention or distraction, tailgating or acts of aggressive driving. Rear-end collisions are considered "low severity" as they have a lower injury rate compared to right angle or turning movement collisions. Right angle collisions at intersections are considered "high severity" as they are generally the most severe and are more likely to result in serious injury to vehicle occupants. Two per cent of all collisions were recorded as "other" and were excluded from the below chart. **Figure 28** illustrates the collision involvement by impact type (three-year average between 2012 and 2014).

Figure 28 – Collision Involvement by Impact Type (average between 2012 and 2014)



Quick Facts

Rear-end collisions represented 44 per cent of all collisions, while right angle collisions represented 17 per cent of all collisions

As traffic continues to increase across the Region, there are increasing resident requests to consider new traffic and pedestrian signals to facilitate access to local communities, balance movements on the major corridors, manage congestion and improve safety.

While the benefits of traffic signals are understood, there are trade-offs that need to be considered prior to installation. Traffic signals increase delays to traffic on the major street, causing driver frustration and encouraging drivers to short-cut through residential

neighbourhoods. Traffic signals also increase the number of rear-end collisions. In fact, the majority (53 per cent) of all collisions occurred at signalized intersections between 2012 and 2014.

It is important that new signals only be installed after thorough analysis and careful consideration of all the trade-offs using engineering tools and judgement. **Figure 29** illustrates collision involvement by control type (three-year average between 2012 and 2014).

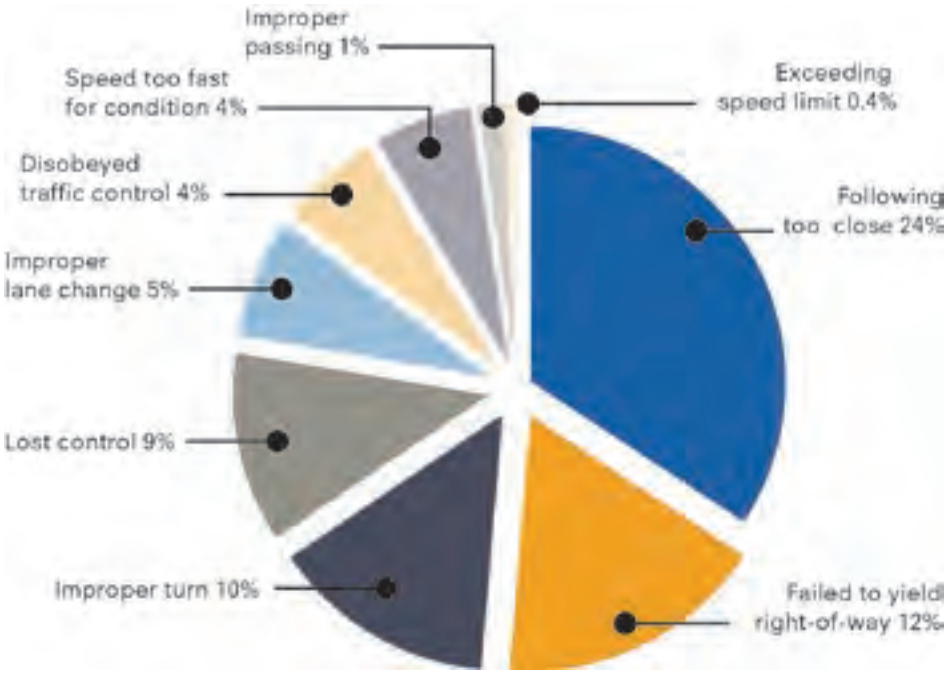
Figure 29 – Collision Related to Control Type (average between 2012 and 2014)

Quick Facts

53 per cent of all collisions occurred at signalized intersections

Collisions are typically a direct result of driver error. Leading causes are "following too close" and "failed to yield". **Figure 30** illustrates collisions by driver action (three-year average between 2012 and 2014).

Figure 30 – Collisions by Driver Action (average between 2012 and 2014)

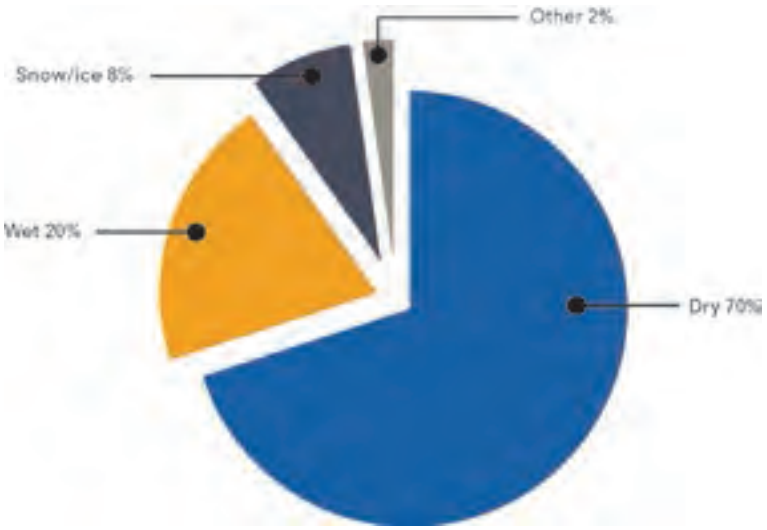


Quick Facts

- 76 per cent of all collisions were a direct cause of someone's improper driving
- Acts of aggressive driving accounted for 36 per cent of all collisions

The majority (70 per cent) of all collisions occurred during dry road surface conditions, 20 per cent occurred during wet road surface conditions and eight per cent of collisions occurred during snow/ice road surface conditions. "Other" road surface conditions include oil, mud and gravel. **Figure 31** illustrates pavement conditions as a factor in collisions (three-year average between 2012 and 2014).

Figure 31 – Pavement Conditions as a Factor in Collisions (average between 2012 and 2014)



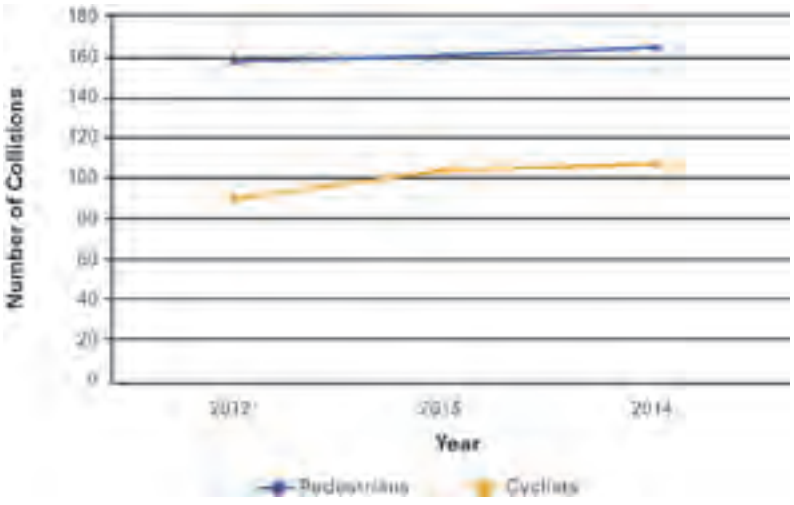
Quick Facts

- 70 per cent of all collisions occurred during dry road surface conditions
- Between 2012 and 2014, the Region experienced an average of 25 collisions per day
- All 10 high frequency collision days experienced an adverse weather event (rain or snow) of some kind

***Other:** Gravel pavement, mud, spilled liquid and other pavement conditions not listed above.

A vulnerable road user is a pedestrian or cyclist. Between 2012 and 2014, the number of pedestrian-involved collisions have remained relatively unchanged, with approximately 160 pedestrian-involved collisions each year. During the same time period, the number of cyclist-involved collisions increased by 18 per cent to 107 cyclist-involved collisions in 2014. **Figure 32** illustrates collisions involving pedestrians and cyclists (three-year average between 2012 and 2014).

Figure 32 – Collisions Involving Pedestrians/Cyclists (average between 2012 and 2014)



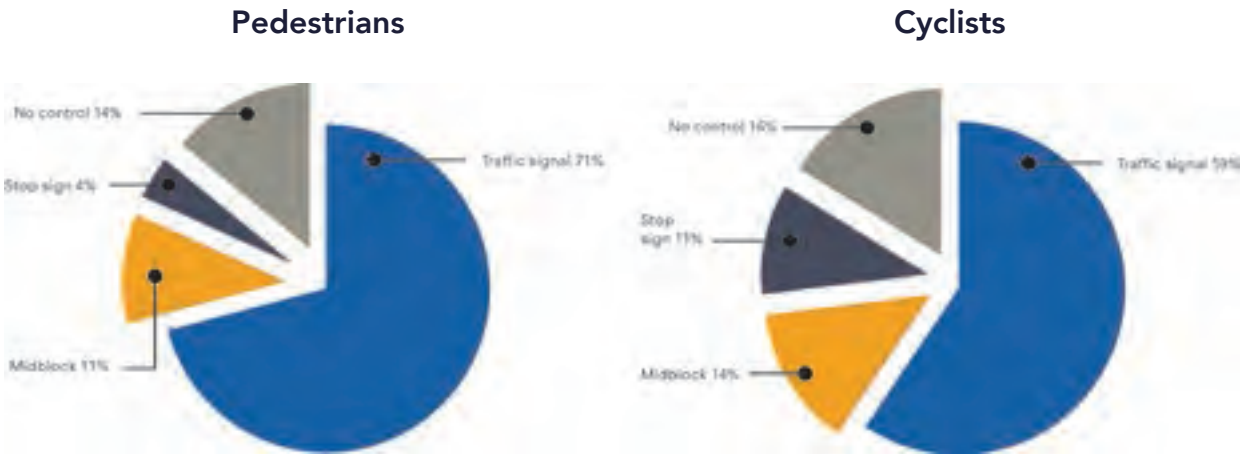
Quick Facts

- Collisions involving pedestrians have remained consistent over the last three year
- Collisions involving cyclists have increased by 18 per cent over the last three years

Ninety-one per cent of pedestrian-involved collisions resulted in injury. As York Region continues to urbanize, more trips are being made on foot. Growing transit usage also means more people walking on our streets since transit riders become pedestrians or cyclists for part of their trip. This increased interaction between pedestrians and vehicles increases the likelihood of collisions. The majority of pedestrian-involved collisions occur at signalized intersections.

Eighty-six per cent of cyclist-involved collisions resulted in injury collisions. The majority of cyclist-involved collisions occurred at signalized intersections and involved a turning vehicle. **Figure 33** illustrates collisions involving pedestrians and cyclists related to control type (three-year average between 2012 and 2014).

Figure 33 – Collisions Involving Pedestrians/Cyclists Related to Control Type (average between 2012 and 2014)



Quick Facts

- 91 per cent of pedestrian-involved collisions resulted in injury
- 71 per cent of pedestrian-involved collisions occurred at signalized intersections
- 86 per cent of cyclist-involved collisions resulted in injury collisions
- 59 per cent of cyclist-involved collisions occurred at signalized intersections

Pedestrian safety measures in York Region

Walk to school campaign poster

Chapter Three:
Public Transit

Platform #1 at Finch GO bus terminal

Public Transit System in York Region

York Region is focused on a more sustainable and balanced transportation planning approach to accommodate population and employment growth. The balance between road and transit infrastructure was reflected in the 2009 Transportation Master Plan Update which placed a greater emphasis on transit.

Some of the transit services include:

- Base, local and express services operated by York Region Transit (YRT/Viva), Brampton Transit (Züm) and the Toronto Transit Commission (TTC)
- Viva bus rapid transit service operated by York Region Transit (YRT/Viva)
- Inter-regional rail and bus services provided by GO Transit
- Specialized transit services for people with disabilities operated as YRT/Viva Mobility Plus

The fast pace of growth projected in York Region between now and 2041 must be complemented by a transportation system that provides more reliable travel demand for residents and businesses, while preserving the environment, enhancing the Region's economic viability and seamlessly integrating with new and existing developments.

The policies and the transportation network plans being developed as part of the 2016 Transportation Master Plan Update will address future transportation needs using a variety of transportation modes, including local and rapid transit service. It will address and anticipate future Provincial directions and initiatives on sustainable transportation and put the Region in a position to react in a timely manner.

vivastation

Today, the Region's sustainable transportation system includes:

- Rapid transit corridors that move more people faster and more efficiently from place to place
- Local transit services that feed into and complement rapid transit services in order to serve more communities within the Region
- Innovative technologies, such as transit signal priority and Smartcards (PRESTO), that improve the speed and reliability of transit operations
- A road system that supports existing and future public transit and cycling, through queue jump lanes, bicycle lanes, exclusive transit lanes and HOV lanes
- Efficient use of the road network by reducing the number of single-occupant-vehicle trips through Transportation Demand Management programs, such as promotion of transit use, cycling and carpooling

2015 YRT/Viva Annual Service Plan

In September 2014, the 2015 YRT/Viva Annual Service Plan was approved by Regional Council, supporting the goals and objectives of the YRT/Viva 2012–2016 Five-Year Service Plan and building on the successes of the 2014 Annual Service Plan.

The YRT/Viva 2012–2016 Five-Year Service Plan focused on a plan to mitigate the impacts of vivaNext construction (rapidways and Spadina Subway extension) on residents, businesses and communities, in an effort to maintain existing YRT/Viva service levels and ridership. A key component of the Plan is to ensure rapid transit-readiness upon completion of the rapidways in 2018 and the Spadina Subway extension in 2017.

Objectives of the 2015 YRT/Viva Annual Service Plan include:

1. **Strengthening the Grid Network:** Simplifying routes by travelling on arterial roads or mid-block collector roads.
2. **Restructuring Routes:** Reducing one-way loops, connecting key destinations.
3. **Matching Service Levels to Meet Demand:** Adjusting service along underutilized areas of the route or improving frequency for high performing routes.
4. **Improving Service Reliability:** Continuing to monitor on-time performance and updating schedules to reflect actual travel times.
5. **Mitigating vivaNext Construction Impacts:** Making schedule and operational adjustments in construction corridors.
6. **Managing Ridership:** Implementing additional service along high demand corridors.
7. **Preparing the Rapid Transit Network Expansion Plan:** Enhancing the existing rapid transit service by optimizing existing Viva service for operation on vivaNext rapidways and implementing new Viva services to expand and integrate the rapid transit network.

YRT/Viva

In 2015 York Region Transit (YRT/Viva) operated a total of 128 routes. This includes five Bus Rapid Transit (Viva) routes, 25 base services, 29 local routes, 10 GO Shuttle services, six express services, five community services, 10 contracted TTC routes and 37 school specials and one seasonal route throughout nine local municipalities.

YRT/Viva has a fleet of 382 conventional transit buses and 123 Viva rapid transit buses, which are maintained and operated by three different private contractors. YRT/Viva also contracts services from the Toronto Transit Commission (TTC) to extend 10 of its routes into York Region.

YRT/Viva operates into the following terminals: Promenade Mall, Vaughan Mills Mall, York University, Richmond Hill Centre Terminal, Bernard Terminal, Finch GO Bus Terminal and Newmarket GO Bus Terminal. **Figure 34** illustrates the public transit service in York Region.

A YRT bus on a Regional road

Quick Facts

- In September 2015, average weekday revenue boardings on YRT/Viva was approximately 80,600.
- Also in September 2015, Mobility Plus carried approximately 32,200 customers
- Terminals owned/maintained by YRT/Viva: Richmond Hill Centre Terminal, Bernard Terminal and Promenade Terminal

Quick Facts

In 2015, YRT/Viva consisted of:

- 6 Viva bus rapid transit (BRT) routes
- 25 base routes operating along major arterial corridors
- 29 local routes operating in local neighbourhoods
- 37 high school specials providing direct service to high schools
- 10 GO shuttles providing direct service to GO stations
- 6 express services providing direct service to subway stations or employment areas
- 5 community bus routes providing service to local neighbourhoods
- 10 TTC contracted routes operating in York Region
- 1 seasonal route providing direct service to key destinations such as recreational facilities, shopping malls, and/or amusement parks
- 110 curbside vivastations
- 12 rapidway vivastations
- 5,159 YRT bus stops
- 95 stops equipped with bike racks
- 166 solar shelters

A Viva bus on a Regional road

Figure 34

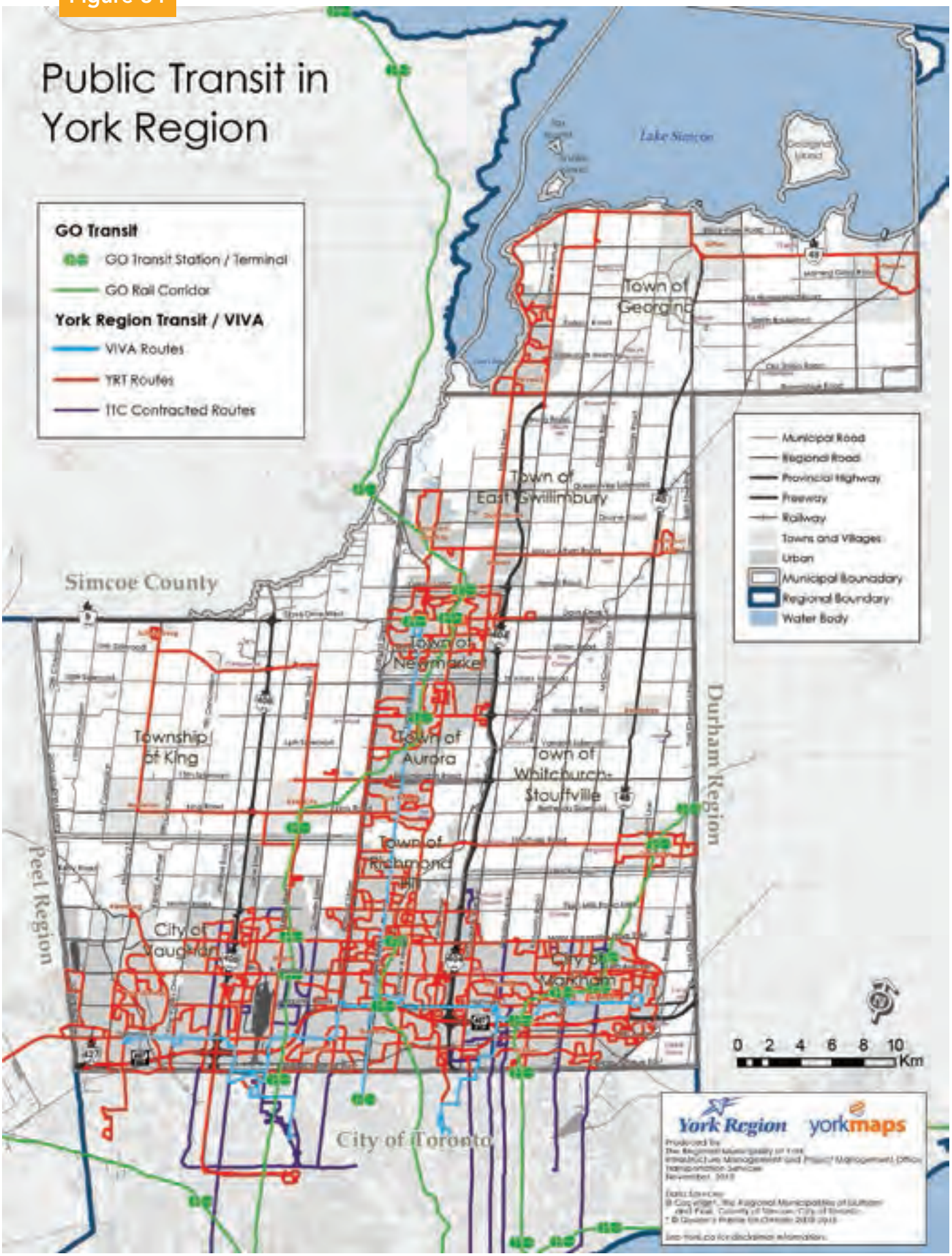


Figure 34 – Public Transit in York Region

GO Transit in York Region

GO Transit is an inter-regional public transit system, linking the City of Toronto with the surrounding regions of the Greater Toronto and Hamilton Area (GTHA) and beyond. In 2014, GO Transit carried 68 million passengers in an extensive network of train and bus services. GO Transit operated 250 weekday train trips and 2,338 weekday bus trips, carrying about 272,000 passengers on a typical weekday – 213,000 by train and 59,000 by bus.

Since it began operating in May 1967, more than a billion customers have taken the GO train or bus. Now part of Metrolinx, the Provincial agency charged with planning and coordinating transit services in the GTHA, GO Transit provides safe, convenient and efficient transportation to the communities of the GTHA and beyond.

GO Transit operates three rail lines in York Region (Barrie, Richmond Hill and Stouffville) serving 14 GO Train stations. In addition, various GO bus service three bus terminals (Finch GO Bus Terminal, Richmond Hill Centre Terminal and Newmarket GO Bus Terminal). The Highway 404 corridor also provides access to inter-regional bus service to a large area of the Region via the Ravenshoe Road and Highway 404 carpool lot.

A GO bus operating on Regional roads

On April 16, 2015, the Provincial Government announced *The Trillium Trust* and *Moving Ontario Forward*. *The Trillium Trust* unlocks certain Provincial public assets and uses the net proceeds to fund infrastructure projects that will create jobs and strengthen the economy through Moving Ontario Forward.

Moving Ontario Forward is a $31.5 billion commitment over the next 10 years. To ensure every region across the province benefits fairly from *Moving Ontario Forward*, the government is allocating funds to the Greater Toronto and Hamilton Area (GTHA) while allocations outside the GTHA will be based on an area's relative share of the population using census data from Statistics Canada.

In the GTHA, these dedicated funds will allow the province to accelerate service enhancements to the GO Transit network, including implementation of Regional Express Rail. In York Region, the Regional Express Rail will bring increased service to all GO corridors, with 15 minutes two-way all day service on the Barrie and Stouffville lines by 2025.

GO Train in Richmond Hill

Toronto Transit Commission and Toronto-York Spadina Subway Extension

The Toronto-York Spadina Subway Extension Project will provide a critical extension for the existing Toronto Transit Commission subway system across the municipal boundary between the City of Toronto and The Regional Municipality of York (York Region).

This will be the first Toronto Transit Commission rapid transit line to cross the City of Toronto boundary. Subway service is expected to begin at the end of 2017.

Quick Facts

- Length of Subway Extension: 8.6 km
- 6.2 km from Sheppard West Station (currently known as Downsview Station) to Pioneer Village Station (in Toronto)
- 2.4 km from Pioneer Village Station to Vaughan Metropolitan Centre Station (in York Region)
- Planned Level of Service: Trains every 4 minutes
- Six stations will be built along the extension:
  - Downsview Park - on Parc Downsview Park lands, adjacent to the Barrie GO Transit Line
  - Finch West - at the corner of Keele Street and Finch Avenue
  - York University - near the common of York University
  - Pioneer Village - at North West Gate and Steeles Avenue, east of Jane Street
  - Highway 407 - adjacent to Highway 407 and Jane Street
  - Vaughan Metropolitan Centre - near Highway 7 west of Jane Street
- Commuter Parking:
  - Finch West Station - 400 spaces
  - Pioneer Village Station - 1,900 spaces
  - Highway 407 Station - 600 spaces

Transit Service Guidelines

York Region Transit (YRT/Viva) has developed minimum guidelines that are considered in developing a multi-modal transportation system. Throughout the YRT/Viva system, certain routes and services are designated as Base Services to ensure a basic level of access throughout the service area.

YRT/Viva Transit Service Guidelines apply to the YRT/Viva Family of Services to ensure its decisions, vision and mission are applied consistently across the Region. The guidelines help to make transit services convenient and easy to use for customers and to ensure that services are efficient, safe and reliable.

YRT/Viva Service Guidelines address route coverage, service levels and span of service and the requirement for introducing new service.

Quick Facts

Send an email to RideNow@york.ca with your four-digit bus stop number as the subject line. Real-time info for the next few buses due at your stop will be emailed back to you.

Bike 'n' Bus

Customers can use bicycle racks on the front of all YRT and Viva buses. It should be noted each rack holds up to two bikes and is designed for easy loading and unloading. Customers can bring their bicycles with them on YRT/Viva routes and use bicycle racks on front of the buses, pay a regular fare while their bikes ride for free. Experience the ease and convenience of travelling with a bicycle on York Region Transit (YRT/Viva).

The bike racks are part of YRT/Viva Bike 'n' Bus program and is part of the Metrolinx BikeLinx program for the Greater Toronto and Hamilton Area (GTHA), in partnership with Smart Commute.

Customer loading his bicycle on bus bicycle rack

Richmond Hill Centre Terminal Pedestrian Bridge to Langstaff GO Station

The Richmond Hill Centre Terminal's pedestrian bridge was built to facilitate barrier-free customer movement between Richmond Hill Centre Terminal and Langstaff GO Station. Elevators at the pedestrian access bridge at Richmond Hill Centre provide a convenient connection between YRT/Viva and Langstaff GO Station services. In addition to the elevators, there are staircases on both sides of the bridge.

Pedestrian Bridge at the Richmond Hill Centre

Contact Information

York Region Transit
Call Centre Hours of Operation:
7 a.m. to 7 p.m. (Monday-Friday)
8:30 a.m. to 4:30 p.m. (Saturday, Sunday and Holidays)
Phone: 905-762-2100 or 1-866-move-YRT (668-3978)
Website: yrt.ca

Family of Services

Family of Services refers to the type of transit services YRT/Viva is currently offering to its customers. YRT/Viva currently provides nine types of services in York Region, using four different types of vehicles.

Four different types of vehicles YRT/Viva currently uses

Bus Rapid Transit – Viva Service

Viva bus rapid transit (BRT) service operates along Highway 7 and Yonge Street with connections to TTC's Don Mills, Finch and Downsview subway stations. It is designed to provide frequent, limited-stop service using distinct vehicles, intelligent technology systems, off-board payment, upgraded stations and queue-jump lanes. This service is integrated with YRT/Viva conventional service.

Base Service

Throughout the YRT/Viva system, certain routes are designated as Base Services. In urban areas, these services form a grid network of fixed routes, connecting major destinations. Base Services operate seven days a week. Base Services are designated in the major east-west and north-south travel corridors on York Region's main arterial roads.

Local Service

Local Services are feeders to the Base Services. They operate within the various communities connecting major local activity centres or corridors to the arterial grid network for transfers between routes. Local Services operate on minor arterial roads and collector roads to serve local transit destinations (e.g. Bernard Terminal) or a main activity centre (e.g. Beaver Creek employment area) and operate on local roads when required for operational needs (e.g. turn-around) or to serve major passenger destinations.

Express Service

YRT/Viva operates premium Express Bus services on the 400 series highways. The Express Cash Supplement is used to board an Express service with a non-express ticket or pass.

GO Shuttle Service

GO Shuttle Services provide local service to GO Stations and are designed to be short and direct to maximize customer convenience. They are designed to connect with GO Train times.

School Specials

School Specials provide easier access to secondary schools when there is limited availability of existing transit routes or capacity. They focus on servicing secondary schools for the morning and/or afternoon bell times only.

Community Bus Service

Community Bus Services are fully accessible conventional transit services typically designed for seniors and people with disabilities. Rather than following conventional routing patterns, they are designed to provide better access to facilities oriented to these riders such as senior's residences, medical facilities, community centres and shopping areas.

Dial-A-Ride

Dial-a-Ride is an on-request service for certain routes during select hours. Dial-a-Ride hours are different for each route and only apply during specific periods. Regular routing and schedules will continue to operate outside of Dial-a-Ride hours. Dial-a-Ride is operated by Care Accessible, who will pick customers up at a bus stop in a YRT-marked accessible van.

Customers can request to be picked up and dropped off at any bus stop usually serviced by that route. Dial-a-Ride is not a door-to-door service; as such customers cannot be picked up or dropped off at their homes or anywhere outside of the route's service area. It should be noted that regular YRT/Viva fares apply and PRESTO cards are not accepted. The Dial-a-Ride vehicle operator will issue YRT/Viva transfers upon request. For more information about this service, please visit yrt.ca.

Mobility Plus

Mobility Plus is York Region's door-to-door shared ride accessible public transit service for people with physical or functional disabilities who may be unable to use YRT/Viva conventional or bus rapid transit services. The goal of Mobility Plus is to provide a transit service for individuals who, even when YRT/Viva service in their area is fully accessible, are not able to use the service because of their disability. The integration of conventional services and specialized transit promotes independence, inclusion, integration and self-sufficiency in the customer. At time of booking, Mobility Plus call centre staff will plan a requested trip to determine if the customer can use YRT/Viva Family of Services. This would be a trip that has a conventional YRT, Viva Bus Rapid Transit, community bus, Dial-a-Ride or shuttle travelling that same direction and would reduce the duplication of transit services in York Region.

Contact Information

For more information on YRT/Viva Mobility Plus please contact:
York Region Mobility Plus
50 High Tech Road, 5th floor
Richmond Hill, ON L4B 4N7
Phone: 905-762-2112 or Toll-free 1-866-744-1119
Website: yrt.ca

Transit Service Performance

The high rate of transit ridership growth can be attributed to increased population and employment growth, increases in service levels, a heightened awareness of environmental stewardship and extensive marketing activities.

Figure 35 illustrates the Year End conventional and rapid transit Revenue Ridership summary from 2001 to 2014.

Figure 35 – YRT/Viva Year End Revenue Ridership between 2001 and 2014

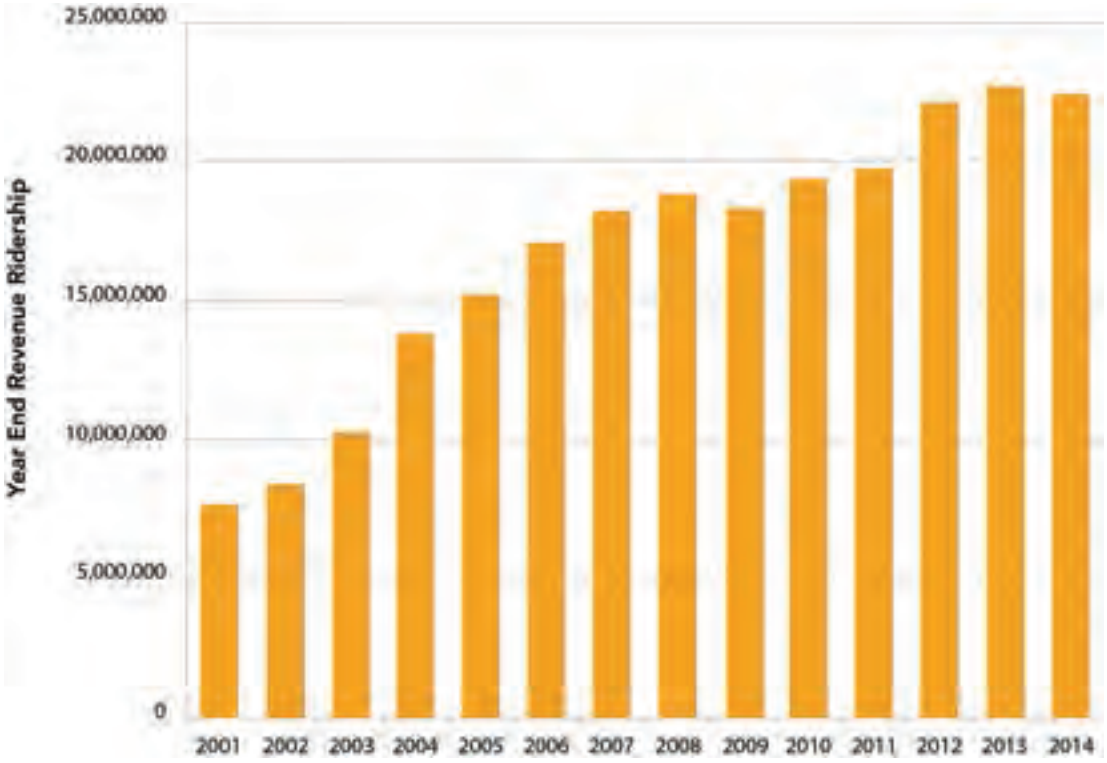


Figure 36 illustrates on-time performance for Viva routes and conventional routes trip start between 2010 and 2014.

Figure 36 – On-Time Performance for Viva (Rapid Transit Routes) and Conventional Routes Trip Start Time

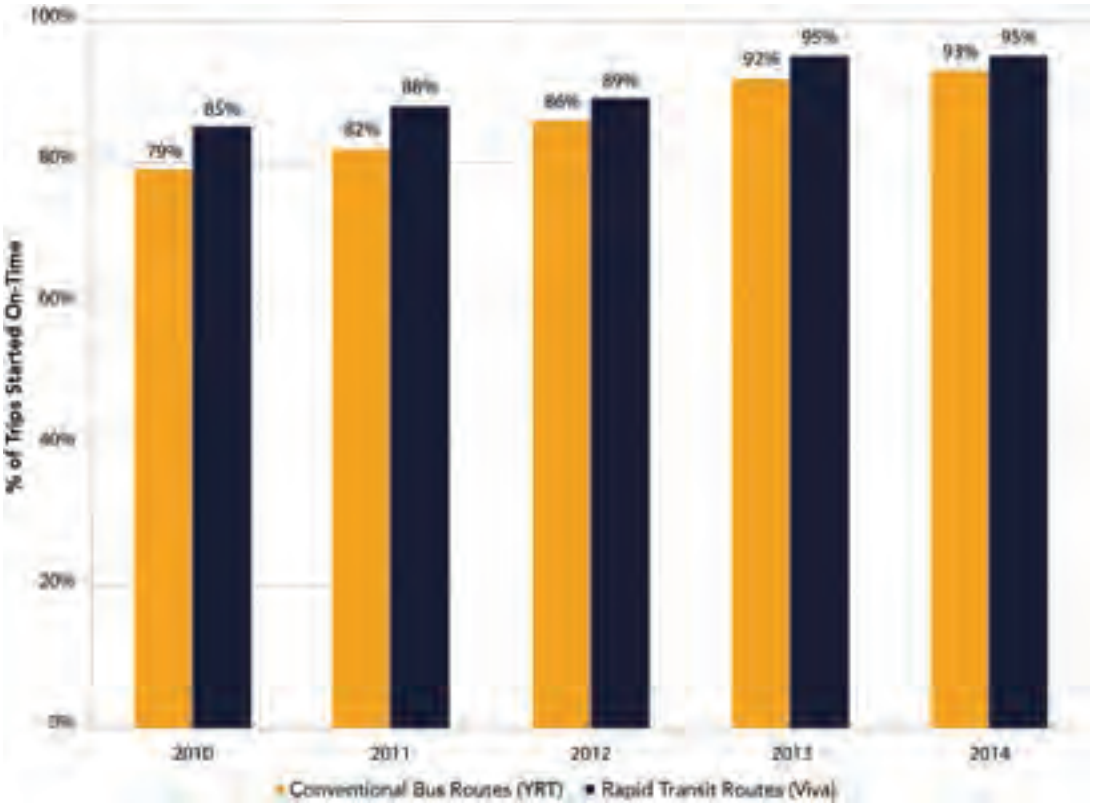
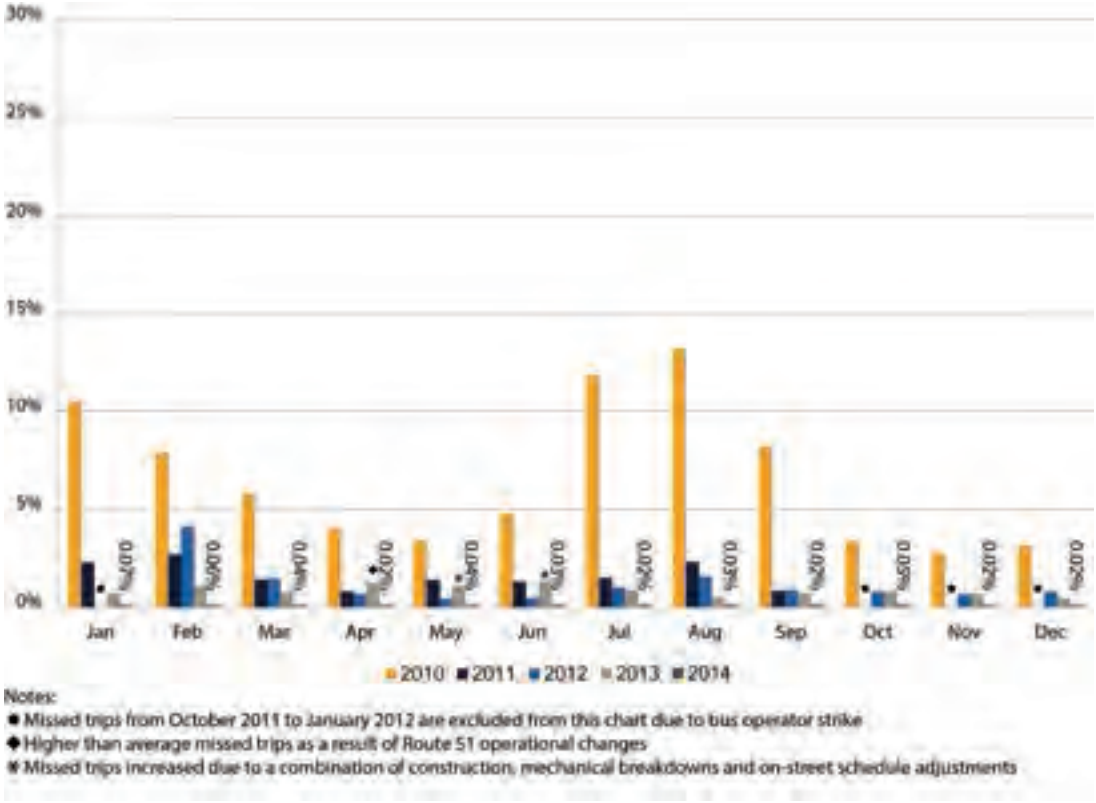


Figure 36 shows the percentage of trips starting on-time (departing from the first stop of the trip) for all the trips for conventional and Viva routes. On-time means departing no later than five minutes after the scheduled departure time.

The reliability of the transit system is critical in attracting and retaining riders. On-time performance and service reliability has improved by updating schedules to reflect actual travel times. **Figure 37** illustrates the YRT/Viva percentage of missed trips (or trips not operated) by month from 2010 to 2014.

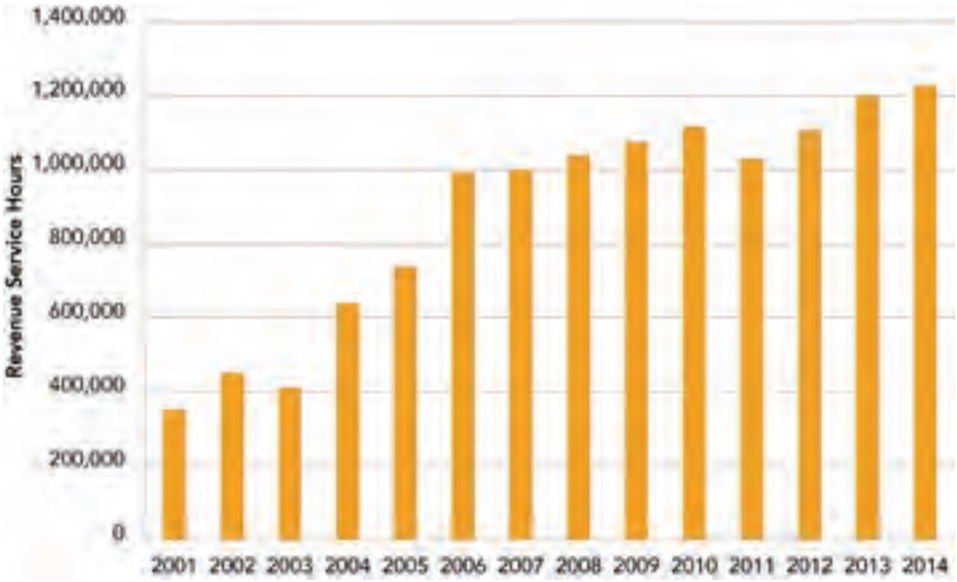
Figure 37 – YRT/Viva Percentage of Missed Trips by Month from 2010 to 2014



Transit Service Hours

On January 1, 2001, The Regional Municipality of York assumed responsibility for the funding and operation of public conventional and specialized transit services throughout York Region. As illustrated in **Figure 38**, between January 2001 and 2014, annual service hours have increased from 354,000 hours to 1,230,000 hours, or by more than three times. During the same period, revenue boardings were estimated to grow from 7.7 million to 22.4 million.

Figure 38 – Annual Revenue Hours between 2001 and 2014



Transit Life Cycle

York Region Transit (YRT/Viva) is in the midst of a realignment phase and is approaching another phase of rapid growth as seen in **Figure 39**. The realignment phase focuses on effective ridership management, matching levels of service to meet demand and improving on-time performance.

Figure 39 – Transit Life Cycle

Transit Ridership

Figure 40 illustrates YRT/Viva routes average daily ridership for September, 2014.

Figure 40

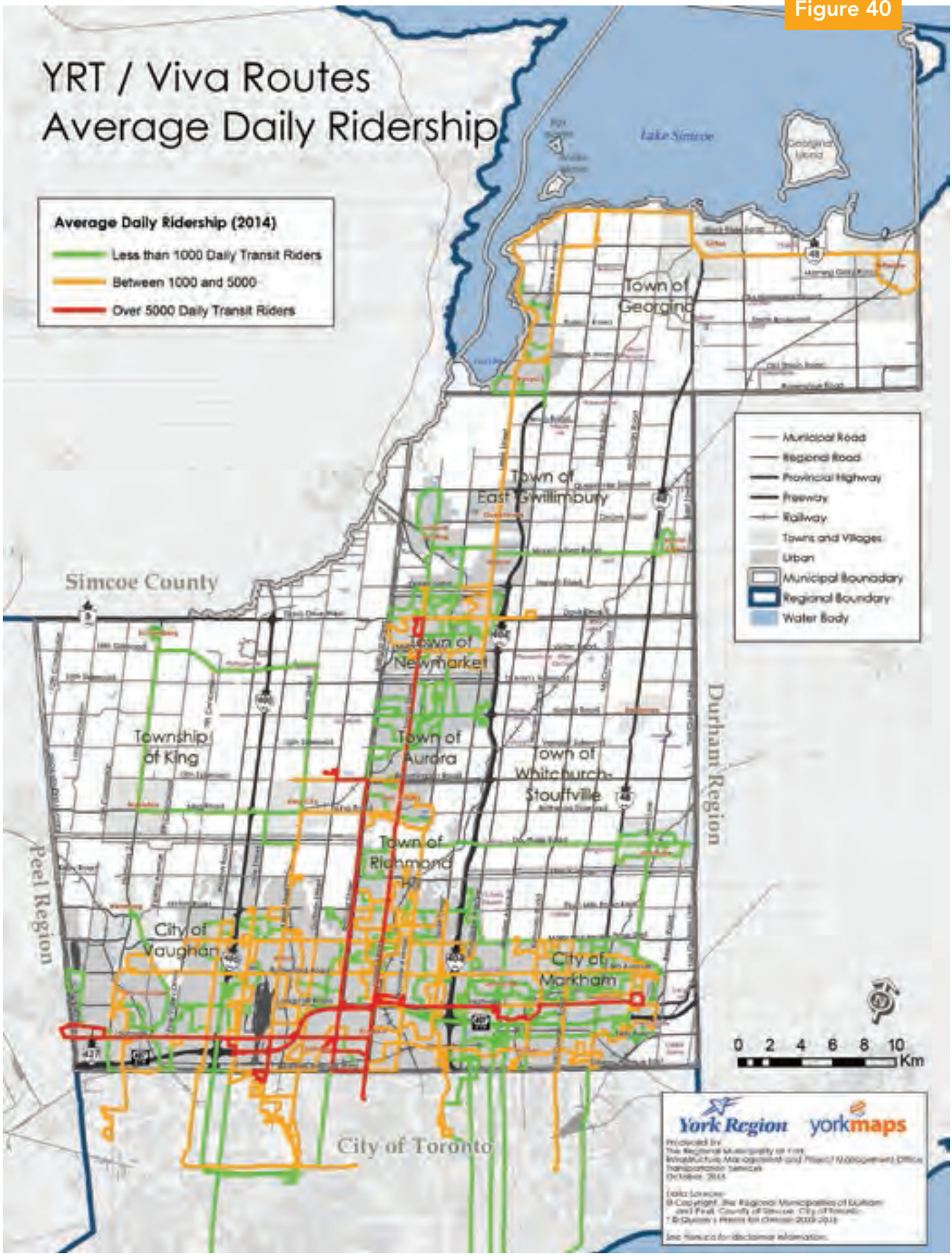


Figure 40 – YRT\Viva Routes Average Daily Ridership for September 2014

Customer using PRESTO Card on YRT Bus

Top 10 Highest Transit Passenger Loading Locations

The Yonge Street Corridor is the highest transit passenger corridor in York Region with six of the highest loading points being on Yonge Street. Not surprisingly, five of the 10 highest loading points are at YRT/Viva terminals. The Richmond Hill Centre Terminal at Yonge Street and Highway 7 is becoming the "Union Station" of York Region as the major transfer point for north-south and east-west transit travel. **Table 8** and **Figure 41** illustrate the top 10 highest transit passenger loading locations in York Region.

Table 8 – Top Highest Transit Passenger Loading Locations

Rank	Locations	Average Weekday Boardings (Sept 2014)	Average Weekday Alightings (Sept 2014)
1	Finch GO Bus Terminal	219,261	201,546
2	Richmond Hill Centre Terminal	132,205	129,005
3	York University	90,911	76,440
4	Newmarket GO Bus Terminal	59,970	55,817
5	Yonge St at 16th Ave/Carville Rd	51,405	55,730
6	Promenade Terminal	49,429	44,897
7	Yonge St at Major Mackenzie Dr	48,473	48,511
8	Yonge St at Steeles Ave	42,206	40,984
9	Vaughan Mills Terminal	35,816	34,611
10	Yonge St at Clark Ave	27,694	23,582

Viva bus in Downtown Aurora

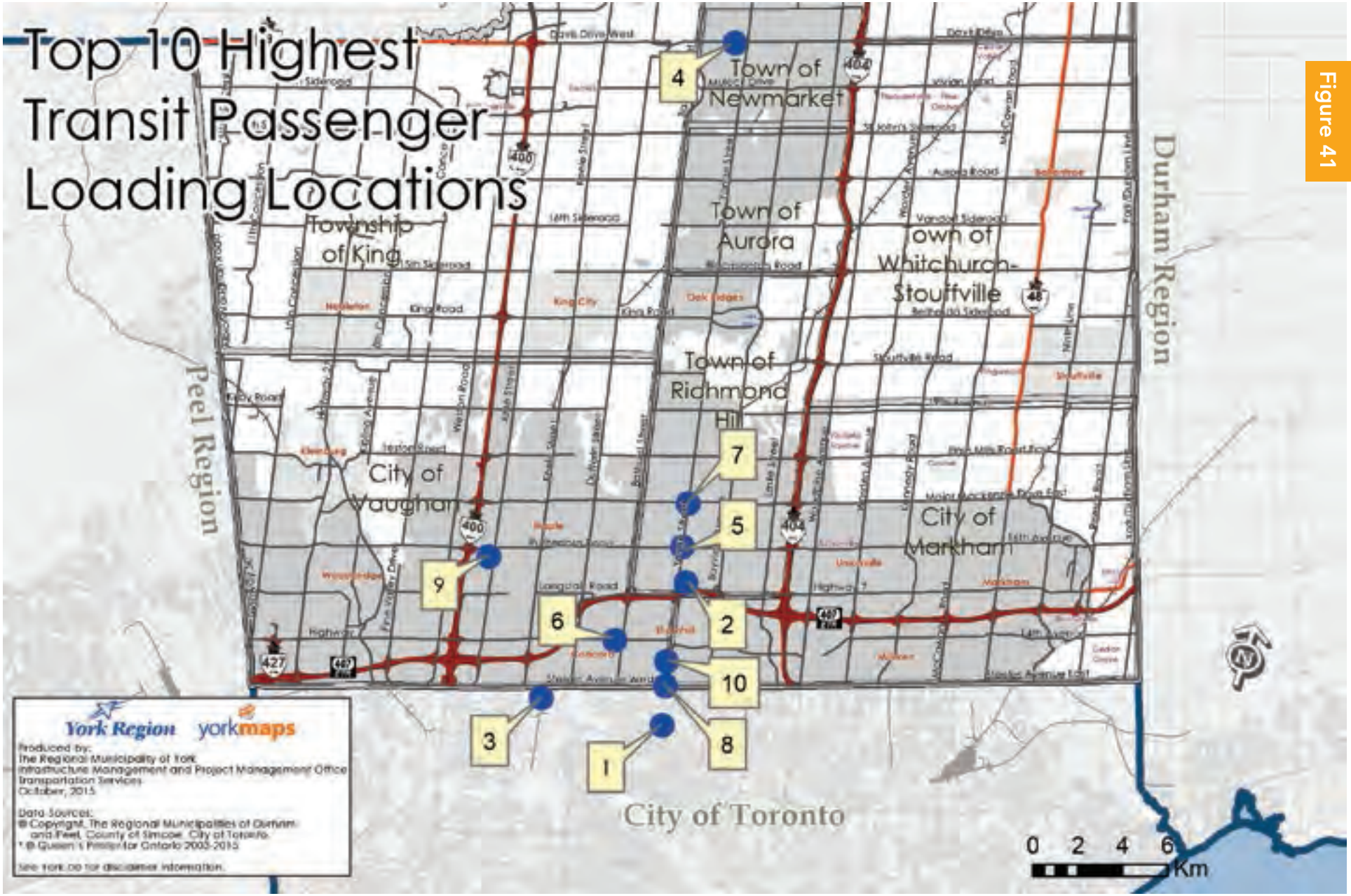


Figure 41 – Top 10 Highest Transit Passenger Loading Locations

Viva

Viva, York Region's bus rapid transit system provides specially marked state-of-the-art buses, operates up to 20 hours a day and runs every 5 to 23 minutes during the morning and evening rush hours. Dedicated bus lanes, queue jump lanes (exclusive lanes at signalized intersections) and traffic signal priority assist buses travelling through congested intersections. **Figure 42** illustrates the 2015 Viva service routes.

Quick Facts

- Effective August 18, 2013, Viva purple and Viva pink began operating on the Highway 7 rapidway between Bayview Avenue and East Beaver Creek in the Town of Richmond Hill and City of Markham.
- Effective December, 2015, Viva Yellow began operating on the Davis Drive rapidway between Yonge Street and Roxborough Road in the Town of Newmarket

Viva currently operates six transit routes:

Viva Blue
Yonge Street from Newmarket GO Bus Terminal (Eagle Street/Davis Drive) to the Finch GO Bus Terminal in north Toronto with additional rush hour services between Finch GO Bus Terminal and Bernard Terminal.

Viva Purple
Highway 7 from York University to the Markham Stouffville Hospital. This route serves York University, Promenade Mall, Richmond Hill Centre Terminal (Yonge Street and Highway 7), Markham Centre (Warden Avenue and Highway 7 area) and Markham Stouffville Hospital.

Viva Orange
Provides service between west Vaughan at Martin Grove and TTC's Downsview Subway Station, via York University. It only provides direct service to Downsview Subway Station during weekday rush hour periods.

Viva Green
Provides a connection between McCowan Road/Highway 7 and TTC's Don Mills Subway Station, servicing Unionville during weekday rush hour.

Viva Pink
Provides weekday rush hour service between Unionville GO Station and Finch GO Bus Terminal via Richmond Hill Centre Terminal.

Viva Yellow
Effective December, 2015, Viva Yellow began operating on the Davis Drive rapidway between Yonge Street and Roxborough Road in the Town of Newmarket.

Quick Facts

You can ride Viva orange between Downsview Station and York University with your TTC pass or transfer as proof-of-payment.

- Northbound: Board at Downsview Station or Dufferin-Finch
- Southbound: Board at York University or Murray Ross

Rapidway and vivaNext Station at Highway 7 and Town Centre Boulevard

Figure 42 – 2015 Viva Service Route

Viva Network Expansion Plan

The Viva Network Expansion Plan (VNEP) is a document identifying rapid transit services and infrastructure elements planned for implementation from 2015 through 2020. The VNEP has two objectives: to enhance rapid transit service by utilizing vivaNext rapidways and to expand York Region's rapid transit network by implementing new services in corridors currently not serviced by rapid transit. **Figure 43** illustrates the expansion routes.

A vivastation on Highway 7 in Richmond Hill/Markham

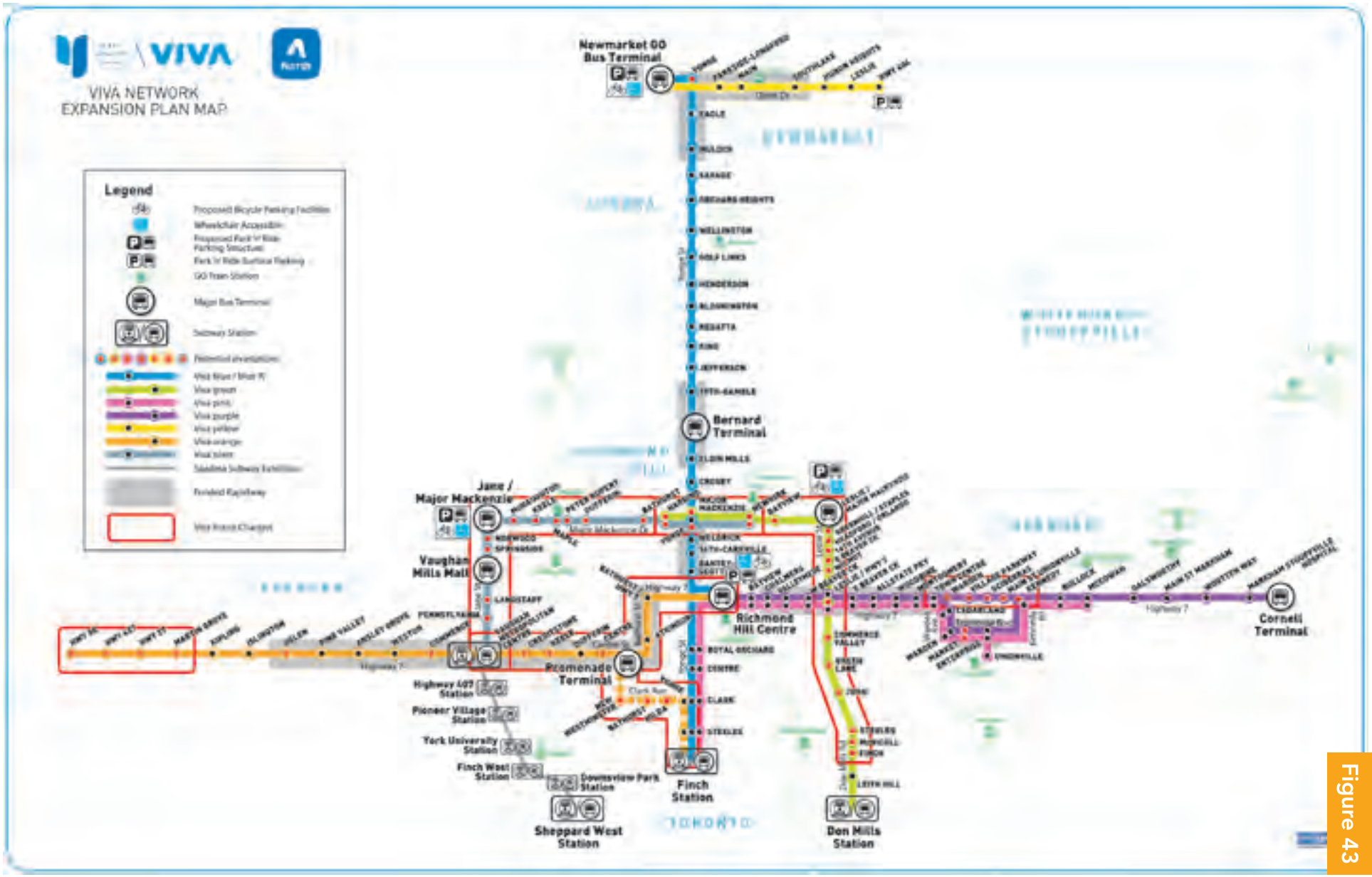


Figure 43 – Viva Network Expansion Plan Map

Figure 43

vivaNext

York Region Rapid Transit Corporation (YRRTC) is responsible for planning, designing and constructing the vivaNext rapid transit network and related infrastructure to deliver the transit priorities set out in the York Region Transportation Master Plan. VivaNext is a vital part of the Region's plan for the next generation of rapid transit and ensures that we have a quality transit network in place, benefiting all of York Region.

YRRTC delivered the first phase of Viva, which involved the planning, designing and implementation of the rapid transit network running in mixed-traffic, the purchase of new buses and the provision of off-board payment equipment. This phase was launched in 2005, with a steady overall increase to 9.6 million Viva passenger boardings, and more than 30.6 million total boardings in 2014 for the entire transit system.

The YRRTC project represents $1.8 billion in Provincial transit investment, and is an example of The Big Move in action – Metrolinx's 25-year plan to implement a common vision for transportation in the Greater Toronto and Hamilton Area (GTHA). The project is being implemented by Metrolinx, an agency of the Province of Ontario.

VivaNext is the second phase of rapid transit implementation and involves the design and construction of 34 kilometres of segregated centre-lane rapidways along much of the current Viva network. The Viva system is integrated with the planned extension of the Yonge subway line north to Richmond Hill Centre and the Toronto-York Spadina Subway Extension under construction north to Vaughan Metropolitan Centre to ensure seamless connections in the GTHA.

The vivaNext plan is being implemented in multiple phases and along several corridors:

- Davis Drive in the Town of Newmarket (2011-2015)
- Highway 7 West in the City of Vaughan (phase one 2012-2016; phase two 2016-2019)
- Highway 7 East in the Town of Richmond Hill and the City of Markham (open for service)
- Yonge Street in the Towns of Richmond Hill and Newmarket (2014-2018)

The first rapidway in the Highway 7 East corridor, in the Town of Richmond Hill and the City of Markham, is now open from Bayview Avenue to Town Centre Boulevard. This stretch of rapidway had a ten per cent increase in Viva ridership in the first year of service. The entire vivaNext program will be delivered in its entirety by the end of 2021. **Figure 44** illustrates the vivaNext Rapidway System.

The third phase of the vivaNext program is awaiting funding commitments and includes the following:

- The Yonge North Subway Extension, providing a critical link for passengers transferring between Viva and TTC
- Completion of the Yonge Street rapidway from 19th Avenue, in the Town of Richmond Hill, to south of Mulock Drive in the Town of Newmarket

vivaNext rapidway on Highway 7, Richmond Hill

Contact Information

For more information on vivaNext projects, please contact:
York Region Rapid Transit Corporation
Phone: 905-886-6767
Website: vivanext.com

Figure 44

Figure 44 – The vivaNext Projects

Chapter Four:
Supporting Sustainable Transportation

Cyclist and pedestrians crossing a Regional intersection

Active and Sustainable Transportation in York Region

As York Region continues to be one of the fastest growing municipalities in the Greater Toronto and Hamilton Area, there is a need to manage congestion to accommodate growth and provide residents and businesses with an efficient transportation system. The Transportation Master Plan outlined the long term plan for achieving the necessary transportation system to meet growth demands. This update identified Transportation Demand Management as a key component of the transportation system that should be enhanced in addition to roads and transit. Transportation Demand Management provides options strategies, programs and investments that create choice in our transportation system and facilitate more transit, cycling, walking, ridesharing and teleworking for daily travelling needs. The 2016 Transportation Master Plan Update will build on the Transportation Demand Management Plan and focus on its role in increasing travel choice in the Region.

Sustainable transportation has been supported in the following Region's published documents:

1. New Community Guidelines (2013)
2. Transportation Demand Management Implementation Strategy (2013)
3. Best Practices for Planning Centres and Corridors (2013)
4. Regional Official Plan (2010)
5. Transportation Master Plan Update (2009)
6. Pedestrian and Cycling Master Plan (2008)
7. Transit Oriented Development Guidelines (2006)

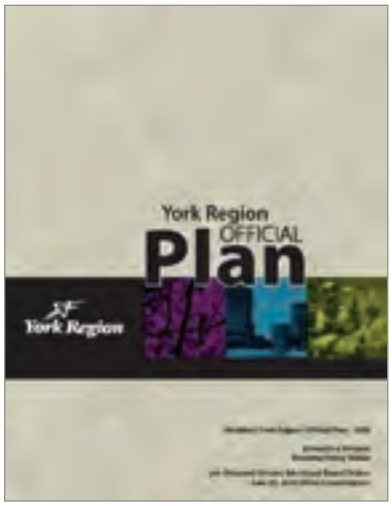
Cyclist using dedicated bicycle lane on Highway 7

York Region's approach to transportation planning is focused on making efficient use of existing and future transportation infrastructure to move people and goods. At the forefront of this approach are requirements for infrastructure and programs to increase walking, cycling and transit mode share. This requirement is included in the Regional Official Plan, which requires that communities are designed to provide an enhanced mobility system using a "people and transit first approach." This connects land use and transportation planning by balancing pedestrians, cyclists, transit and automobile users, through the sustainability initiatives in the Transportation Master Plan.

Regional Official Plan (2010)

Section 7.1 of the Regional Official Plan includes policies related to reducing single-occupant-vehicle trips and Section 7.2 includes policies related to active transportation. Regional staff co-ordinate with local municipalities and stakeholders to develop consistent Transportation Demand Management conditions for development applications and planning studies based on the policies in the Regional Official Plan. The objectives are to expand the Transportation Demand Management practice to:

- reduce single-occupant-vehicle trips
- maximize rapid transit investment
- support seamless non-single-occupant-vehicle travel across the Region
- support sustainable development of the Regional Centres and Corridors
- implement traffic congestion management initiatives



Regional Official Plan (2010) and Pedestrian and Cycling Master Plan (2008) Covers

To achieve the objectives above, it is a policy of Regional Council to require that appropriate infrastructure and strategies to increase walking, cycling and transit mode share to reduce single occupancy automobile trips are identified in transportation studies supporting development applications. As a result, the Regional Official Plan contains strong policies emphasizing the goals of sustainability and alternative modes of transportation.

The Pedestrian and Cycling Master Plan

The Pedestrian and Cycling Master Plan, which is being integrated in the 2016 Transportation Master Plan Update, provides guidance in connecting and integrating pedestrian and cycling facilities between local and surrounding municipalities to help create a seamless and comprehensive pedestrian and cycling network.

The Pedestrian and Cycling Master Plan, endorsed by Regional Council in April 2008, is intended to guide the Region as it works with local municipalities to:

- Implement and operate a Region-wide pedestrian and cycling network
- Work toward walk-friendly and bicycle-friendly communities through the 5 E's
  - **Engineering** - Physical infrastructure and hardware to support walking and cycling
  - **Education** - Programs that ensure the safety, comfort and convenience of pedestrians, cyclists and fellow road users
  - **Encouragement** - Incentives, promotions and opportunities that inspire people and enable them to walk and ride
  - **Enforcement** - Equitable laws and programs that ensure pedestrians, cyclists and motorists are held accountable
  - **Evaluation** - Processes that demonstrate a commitment to measuring results and planning for the future

Some of the actions of the Pedestrian and Cycling Master Plan include the following:

- Create a connected network of cycling facilities and sidewalks on Regional and local roads
- Provide funding through the Municipal Partnership Program to help accelerate the implementation of local municipal and stakeholder pedestrian and cycling infrastructure
- Implement active transportation facilities as part of the Region's Capital Road Projects, where appropriate
- Create a cycling route and walking trail connecting Lake Simcoe to Lake Ontario called the Lake to Lake Route
- Outreach to educate and encourage walking and cycling as feasible, safe and desirable alternatives for short distance trips

Active Transportation in York Region

Through policies and programs in the Regional Official Plan and Transportation Master Plan, York Region is supporting and encouraging a change in personal travel choices and providing a range of transportation options. The Region recognizes many benefits of alternative modes of transportation, including improved health to residents, improved air quality, a more efficient transportation network and reduced dependence on the automobile. The promotion of alternative travel modes such as walking, cycling, transit and carpooling will help York Region reach its sustainable transportation objectives to reduce single-occupant-vehicle trips.

Through road capital projects in the Ten-Year Road Construction Program or Minor Road Improvements Program, as well as the Municipal Partnership Program, development applications and standalone projects, cycling facilities are being implemented with guidance by the Pedestrian and Cycling Master Plan. A variety of on and off bicycle facilities are considered for urban cross-sections while wider paved shoulders are considered for rural road cross-sections.

Quick Facts

In 2015 the Regional network included:

- Bike lanes: 74 kilometres
- Shared Paths (in boulevard): 74 kilometres
- Off-Road Multi Use Trails: 185 kilometres
- Paved Shoulders: 233 kilometres
- Signed Routes: 428 kilometres

These facilities are owned and maintained by either York Region or local municipalities or conservation authorities.

A family cycling along the Nokiidaa Trail

Promoting Alternative Modes of Transportation

Since 2004, York Region has implemented numerous initiatives, measures and policies to increase public transit use, carpooling, walking and cycling.

Transportation Demand Management, or transportation options, is simply a way to promote alternative modes of transportation and use our existing road capacity more efficiently. It can be defined as policies, programs and investments aimed at reducing single-occupant-vehicle trips and providing transportation options, as well as trip elimination through telecommuting. Managing demand can be a cost-effective alternative to increasing capacity and also has the potential to reduce environmental impacts, create healthy built environments, stronger communities and more prosperous and livable cities.

Transportation Demand Management initiatives involve providing the physical infrastructure and supporting it through public education and social marketing. York Region has implemented a number of Transportation Demand Management initiatives. Some have become established programs, while others have been piloted to assess their potential for broader implementation.

Cyclist using a multi-use path in Newmarket

Some examples of the Region's transportation options initiatives include:

- Improving the Regional Cycling Network
- Improving the Regional Sidewalk Network
- Pedestrian and Cycling Municipal Partnership Program
- Streetscaping Program
- Lake to Lake Cycling Route & Walking Trail
- Promotional campaigns like Bike Month
- High-Occupancy-Vehicle lanes
- School Travel Planning
- Public Health Injury Prevention
- Integrating Transportation Demand Management into New Developments
- Smart Commute Workplace Program
- Carpool and Commuter Parking Lots
- Personalized Travel Planning

More details on these initiatives are provided below.

York Region Cycling

The Regional cycling network builds upon and connects local municipal cycling routes and major trail systems and links urban and rural centres as well as key attractions in the Region to facilitate cycling for both commuting to work and recreational purposes. Since the adoption of the Pedestrian and Cycling Master Plan, York Region has started and supported building a comprehensive cycling network through various opportunities such as capital roads program, new developments and through municipal partnership programs (Streetscaping and Pedestrian and Cycling Partnership Programs). To date, the cycling network in York Region consists of more than 1000 km of cycling facilities, including:

1. Signed Routes – A signed route is a shared roadway with no physical changes made to the roadway and are usually found on residential streets with lower traffic volumes. Signage helps cyclists navigate bicycle-friendly routes.

Example of a signed route

2. Bike Lanes – Bike lanes are dedicated space for cyclists located in the roadway for one-way cyclist traffic where motorists are not allowed to park, stand or drive. Bike lanes are typically located on urban streets. Protected bike lanes, or cycle tracks, are currently in design or construction at several locations in the Region. These provide a physical barrier between cyclists and motor vehicles.

Example of a bicycle lane

3. Shared Active Transportation Path (in boulevard) – A shared path in the boulevard, or multi-use path, is separated from the travelled portion of a road, in the right-of-way. Boulevard paths are designed to support pedestrians and cyclists of all skill levels. In-line skating and skateboarding are also possible in locations where the trail surface permits these activities.

Example of a boulevard trail

4. Off-road Multi-use Trails – An off-road multi-use trail is a facility completely outside of the road right-of-way and often passing through parks or other green spaces. Multi-use trails are designed for pedestrians, cyclists, in-line skaters and skateboarders in locations where the path surface permits these activities.

Example of a multi-use path

5. Paved Shoulders – Paved shoulders are located next to the travelled portion of the roadway and used to accommodate cyclists on rural roads.

Example of a wide paved shoulder

In 2015, the Regional Municipality of York released the third version of the Regional cycling map. This cycling map is a resource for residents and visitors of York Region to plan routes to work, school, shopping or to explore the Region. This map shows a network of existing bicycle lanes, bicycle routes, trails and paved road shoulders, including those maintained by local municipalities. It is intended to encourage commuter and recreational cyclists to take up bicycling, as well as educate cyclists on their rights and responsibilities. An electronic copy of this map can be downloaded at york.ca/cycling. It is also available as a smartphone-friendly interactive map at yorkmaps.ca.

York Region has also released a Cycling Handbook. This handbook gives tips for getting started, minimizing cyclist's risk while riding and makes cycling more enjoyable. Bicycling for transportation, recreation and fitness has seen enormous growth in recent years. People everywhere are discovering the joy of cycling. An electronic copy of the handbook can be downloaded at: york.ca/cycling

Innovation in Bicycle Infrastructure

York Region uses creative solutions to provide safe and attractive facilities for pedestrians and cyclists. These innovations include:

- The first in-boulevard left turn bike boxes opened in spring 2014 (York Region is the first in North America with this innovation and now has 11 intersections with this treatment)
- Bike lanes with green colour treatment added in fall 2014 across the ramp conflict areas at the Highway 404 and Highway 7 interchange, one of only a few interchange crossing examples in Ontario
- Green treatment through intersections along Ninth Line in Markham and Whitchurch-Stouffville to provide guidance to cyclists about off-set bike lane and increase awareness of turning conflicts with motorists
- First bicycle traffic signals installed in York Region at two locations on Highway 7
- Raised bike lanes (cycle tracks) on future segments of the transit priority and rapid transit corridors (segments under design in 2015 include Highway 7 from Town Centre Boulevard to Sciberras Road in Markham, Highway 7 from Pine Valley Drive to Edgeley Boulevard in Vaughan, Yonge Street from Mulock Drive to Davis Drive in Newmarket and Yonge Street from Elgin Mills Road to 19th Avenue/Gamble Road in Richmond Hill), as well as currently under construction on 2nd Concession in East Gwillimbury
- Plans for a centre-median multi-use path at the Highway 400 and Highway 7 interchange, which will be the first of its kind in Canada
- New cycle tracks on Highway 7 between Town Centre Boulevard and Sciberras Road in the City of Markham

Left turn bike box instruction

In-boulevard green colour treatment left turn bike box on Highway 7

Bicycle Count Program

The locations of the bicycle permanent count stations and short duration bicycle count programs are illustrated in **Figure 10** (refer to page 32).

Table 9 summarizes the bicycle count results at the six permanent count stations.

Table 9 - 2014 Permanent Bicycle and Pedestrian Counting Station Results

Counter Site	Location	Annual Number of Cyclists (2014)	Peak Day (# of cyclists)	Annual Number of Pedestrians (2014)	Average Number of Pedestrians per Day
1	Georgina - Woodbine & Riverglen	2,224	42	n/a	n/a
2	Aurora - St. John's Sideroad east of Yonge	17,209	261	15,487	42
3	Richmond Hill - Hwy 7 WB lanes near Valleymede (one side)	16,000	142	126,290	346
4	Markham - Hwy 7 WB lanes near East Beaver Creek (one side)	3,392	33	22,995	63
5	Newmarket - Tom Taylor Trail South of Queen Street	82,215	1,037	110,000	301
6	Vaughan - Dufferin Street north of Glen Shields	16,576	152	n/a	n/a

Starting in 2014, the Region has undertaken a short duration bicycle count program to supplement the permanent count data. From June to September 2014, a series of one-week bicycle counts were conducted at twelve locations using rubber tubes across the road, bike lanes, path or sidewalk, designed to detect cyclists. More than 8,000 cyclists were counted at the twelve sites, with an average of 95 cyclists per day at each location. **Table 10** summarizes the short duration bike count results.

Table 10 - 2014 Short Duration Bike Count Results

Counter Site	Location	Month	Weekly Total (# of cyclists)
1	Warden Ave north of Herald Rd (East Gwillimbury)	June	504
2	Davis Dr west of Leslie St (Newmarket)	June	889
3	Woodspring Ave east of Crowthers Dr (Newmarket)	June	280
4	Mulock Dr east of Bathurst St (Newmarket)	July	378
5	Centre St east of Vaughan Blvd (Newmarket)	July	280
6	Hedge Rd west of Park Rd (Georgina)	July	448
7	Lake Dr west of Jackson's Point (Georgina)	July	1,190
8	Lake Dr north of High Gwillim Dr (Georgina)	July	910
9	Lake Dr north of Glenwoods Ave (Georgina)	July	1,015
10	St. John's Sideroad east of Yonge St (Aurora)	August	1,484
11	Wellington St between Bayview Ave and Leslie St (Aurora)	August	455
12	Bathurst St north of Mulock Dr (Newmarket)	Sept	371

Dedicated bicycle lane on Woodbine Avenue in the Town of Georgina

Contact Information

For more information related to York Region Active Transportation please contact:
Infrastructure Management and Project Management Office
Phone: 1-877-464-9675 ext. 75051
Email: cycling@york.ca

York Region Sidewalks

Sidewalks are essential to encourage public transit use since walking is typically required at the start and end of every trip. In addition, sidewalks must also be designed to support people of all different physical abilities, including those who use mobility devices. Walking also provides a health improvement benefit to people of all ages. Sidewalks on Regional roads are currently owned and maintained by each local area municipality.

There are many other benefits of a comprehensive sidewalk network, including:

- Increasing pedestrian safety
- Providing transit access
- Helping reduce reliance on cars
- Complementing the urban design of communities
- Providing mobility for elderly and people with disabilities
- Helping improve air quality
- Enhancing quality of life

Examples of sidewalk treatments on Regional roads

Example of zebra crosswalk treatment at a Regional intersection

Improving conditions for walking is more than just creating a network of connecting pedestrian facilities such as sidewalks and pathways. Although these facilities are important, the essential element is to create a system that makes pedestrians feel comfortable, rather than a system that treats them as an after-thought. Improvements for walking in York Region will be incorporated into the pedestrian network system and include:

- Enhanced connections between neighbourhoods
- Better access to a wider range of destinations
- Added street trees and landscaping
- Enhanced accessibility features for people of all abilities
- Added or widened trails in open spaces

The planned network consists primarily of sidewalks on Regional roads. Locations where sidewalk links are missing have been identified. In some areas, the network includes linear off-road multi-use trails.

In urban areas, sidewalks are provided on both sides of arterial and collector roads. In rural areas, sidewalks are typically integrated with multi-use paths on one side or both sides of arterial and collector roads or wider paved shoulders where appropriate.

Figure 45 illustrates sidewalks along Regional roads.

Quick Facts

- There are more than 620 linear kilometres of sidewalks on Regional roads
- 62% of Regional roads within urban areas, town and villages have sidewalks on at least on side of the road
- 65% of Regional corridors have sidewalks on both sides of the road

Pedestrians crossing a Regional intersection

Figure 45

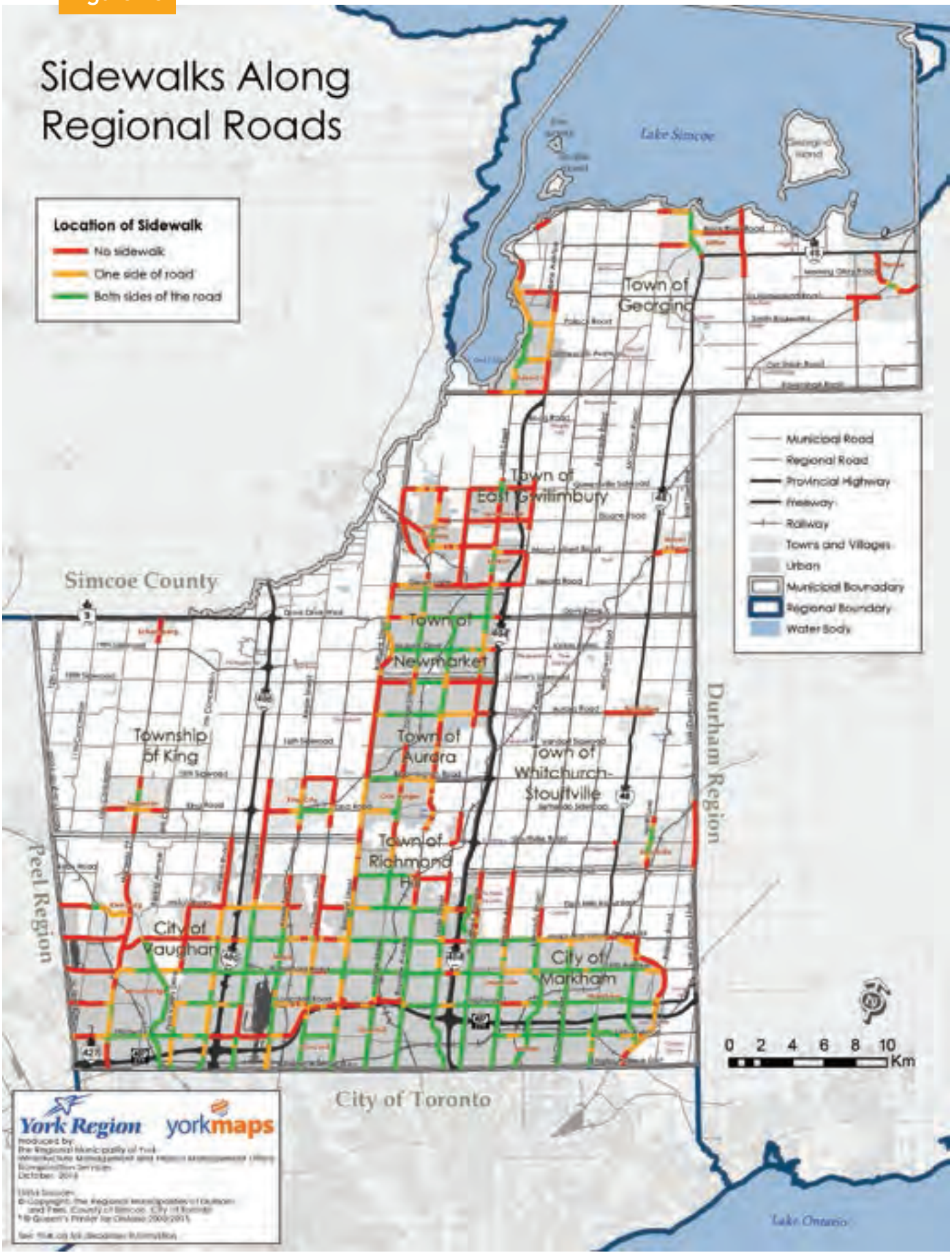


Figure 45 – Sidewalks along Regional Roads

Top 10 Highest Pedestrian Volume at Regional Intersections

The pedestrian volume data are derived from an eight-hour turning movement count of intersections and represent pedestrian crossings during a typical weekday. The intersections identified are within the proximity of large pedestrian generators such as schools, shopping centres and/or transit facilities. **Table 11** and **Figure 46** illustrate the top 10 highest pedestrian volume intersections in York Region between 2010 and 2014.

Table 11 – Top 10 Highest Pedestrian Volume at Regional Intersections

Rank	Description	Year Counted	Total Vehicles	Total Truck	Total Pedestrians	Total Bikes
1	Bathurst Street at Townsgate Drive	2013	25,825	527	2,001	157
2	McCowan Road at Carlton Road/ Raymerville Drive	2010	24,770	723	1,975	0
3	Major Mackenzie Drive at Bayview Avenue	2013	33,684	1,134	1,555	94
4	Yonge Street & Carrville Road / 16th Avenue	2014	35,888	1,381	1,491	65
5	Highway 7 & East Valhalla Drive / Allstate Parkway	2011	37,169	1,629	1,292	0
6	Bathurst Street & Atkinson Avenue / New Westminster Drive	2010	29,532	661	1,248	32
7	Highway 7 at Leslie Street	2014	42,054	1,826	1,131	48
8	Wellington Street West at Murray Drive / Donald Drive	2013	8,992	305	1,062	7
9	Weston Road at Ashberry Boulevard / Davos Road	2013	16,174	380	1,008	5
10	Leslie Street & Commerce Valley Drive West/Commerce Valley Drive East	2013	26,631	1,109	1,006	91

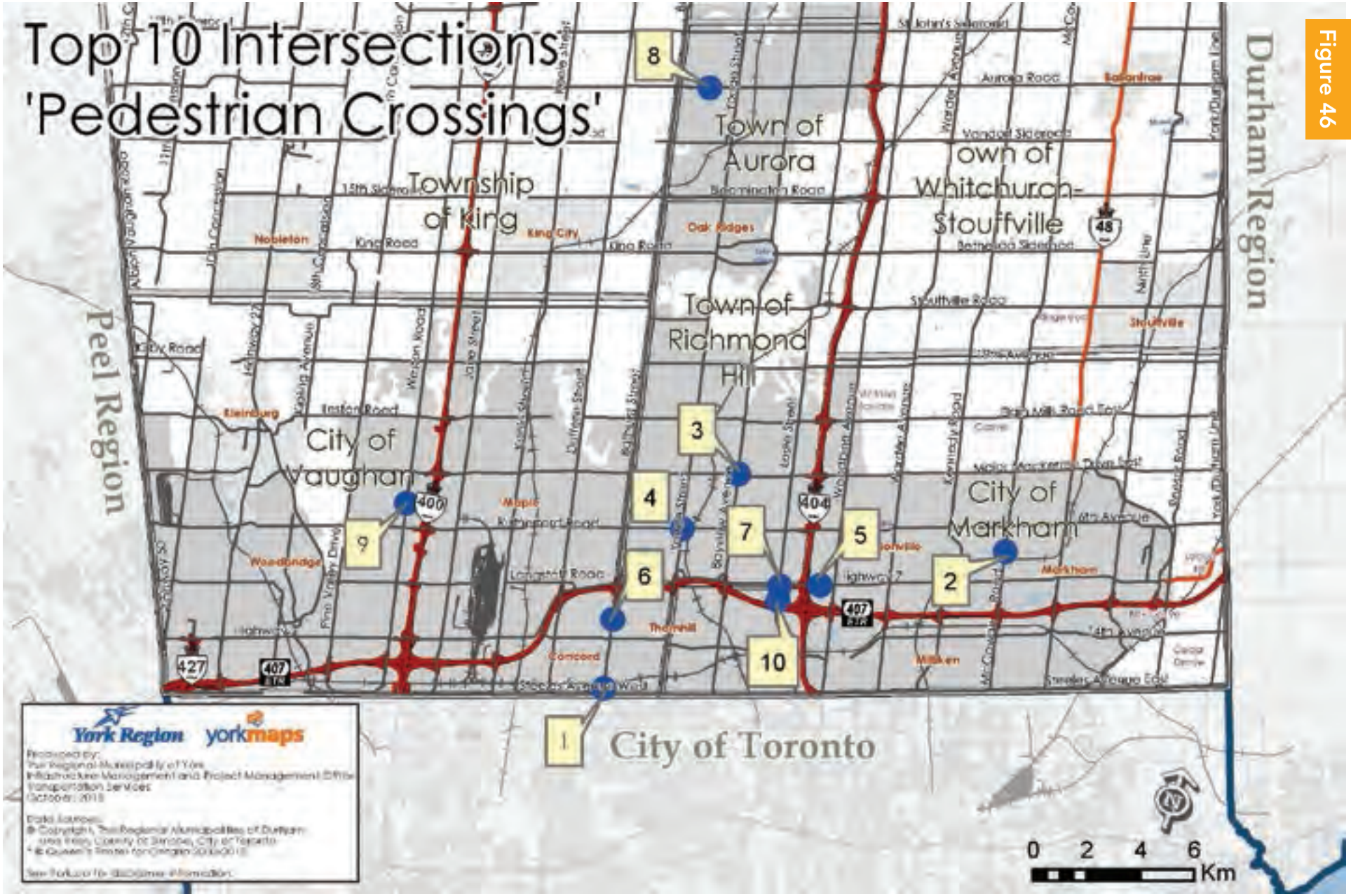


Figure 46 – Top 10 Intersections 'Pedestrian Crossings'

Pedestrian and Cycling Municipal Partnership Program

Regional Council endorsed the Pedestrian and Cycling Municipal Partnership Program in June 2007. The adopted policy allows York Region to share up to 50 per cent of the eligible construction costs for qualifying local municipal and agency pedestrian and cycling projects that serve a regional context. The Pedestrian and Cycling Municipal Partnership Program does not deal with cycling lanes on Regional roads, funding of municipal sidewalks within the Regional road allowance and is not intended to fund recreational trails. The Pedestrian and Cycling Municipal Partnership Program has an annual capital budget of $500,000.

Pedestrian and cycling facilities are being added through projects including road construction, road resurfacing and vivaNext rapid transit projects. It is also being implemented through the Municipal Partnership Program and development approvals. **Table 12** summarizes the cycling facilities added on Regional roads in 2014 as part of the various projects and programs, while **Figure 47** illustrates the locations of these projects.

Table 12 - Cycling Facilities Added on Regional Roads in 2014

No.	Project	Limits	Type of Facility	Length of Facility (km)
1	Black River Road	Dalton Road to Park Road	Paved shoulders (rural segment)	2.5
2	Bloomington Road	Bathurst Street to Yonge Street	Bike lanes and bike path	4.0
3	Bloomington Road	Yonge Street to Bayview Avenue	Bike lanes	2.0
4	Bloomington Road	Bayview Avenue to Highway 404	Paved shoulders	3.0
5	Highway 27	Highway 7 to Milani Boulevard	Multi-use path	1.2
6	Highway 7	East Beaver Creek to Town Centre Boulevard	Bike lanes	3.3
7	Ninth Line	Major Mackenzie Drive to Hoover Park Drive	Paved shoulders and bike lanes	5.6
8	Ninth Line	Hoover Park Drive to Rupert Avenue	Bike lanes and sharrows	0.9
9	Warden Avenue	16th Avenue to Major Mackenzie Drive	Multi-use path	2.0
10	Woodbine Avenue	Baseline Road to Metro Road North	Paved shoulders	2.1
11	Yonge Street	St. John's Sideroad to Savage Road	Paved shoulders	1.0
	Total			27.6

Quick Facts

- Between 2007 and 2014, York Region approved 29 projects and allocated approximately $4.5 million to local municipalities for the implementation of pedestrian and cycling facilities through the Pedestrian and Cycling Municipal Partnership Program.
- More than 27 kilometres of cycling facilities added to the Region's cycling network

A cyclist using the Nokiidaa Trail Bridge in Newmarket

Cyclists and pedestrian using Tom Taylor Trail in Newmarket

Figure 47

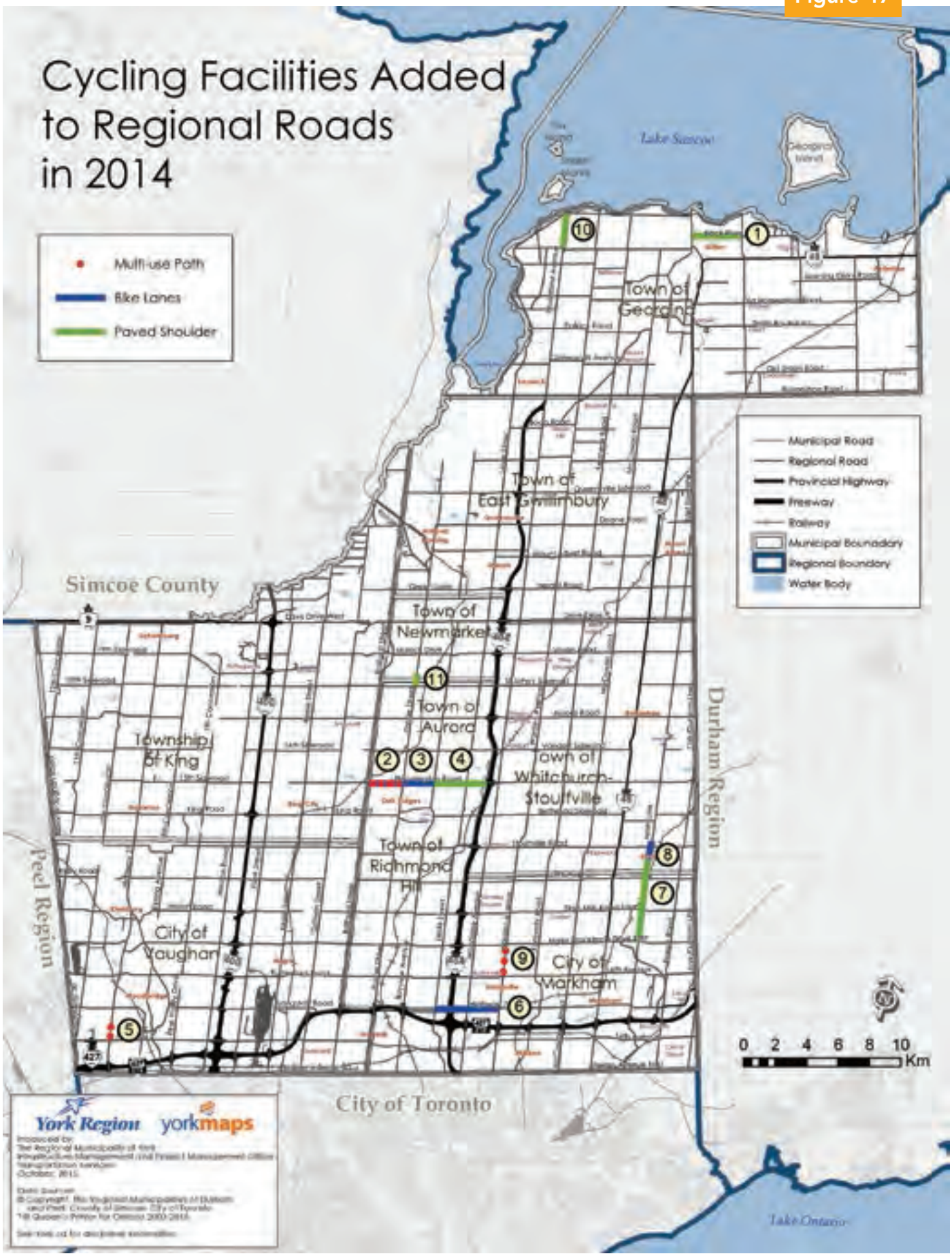


Figure 47 – Cycling Facilities Added to Regional Roads in 2014

Streetscaping Program

The Regional road system provides people with linkages to the places they want to go, as well as facilitates different modes of transportation to get there. A person's experience of a destination is connected to the appearance and 'feel', or character of a street. York Region recognizes the role that Regional roads have in contributing to sustainable, vibrant and attractive communities. Streetscape design is a key component to integrating streets with the local community creating a distinct sense of place. The value of this culminates in overall environmental, economic and social well-being of York Region.

Streetscape design balances the form and function of multiple components within the roadway in order to accommodate pedestrians, cyclists, transit users and motorists. The key objectives of streetscape design in York Region include:

- Clearly defining sidewalks, bicycle lanes and traffic lanes to support multiple modes of transportation and to minimize conflict between the users
- Prioritizing universal accessibility and focusing on pedestrian/cyclist comfort and safety to create a vibrant and engaging street
- Applying low maintenance design principles to create sustainable streets throughout York Region
- Optimizing design for long-term tree health to improve air quality and reduce energy use by providing shade and shelter

Streetscape design also creates a sense of place by integrating distinctive design features such as custom signage, textured and colored paving patterns, plantings with seasonal interest and public art. York Region's Streetscape Program develops and implements streetscape and related policies within projects across departments including: Transportation Services, Environmental Services and York Region Rapid Transit Corporation (YRRTC). In addition, York Region collaborates with our nine local municipalities to implement streetscape design on Regional roads.

Policies and Programs that support streetscape design in York Region include:

- Municipal Streetscape Partnership Program
- Regional Streetscape Policy Towards Great Regional Streets
- Context Sensitive Solutions

In October 2006, Regional Council approved the adoption of the Municipal Streetscape Partnership Program (MSPP). This cost share policy sets out criteria for Regional funding contributions towards locally-initiated streetscape design enhancements on Regional roads. This program provides funding for up to 50 per cent of the project cost. As York Region urbanizes, the importance of streetscape design has been increasing which is reflected in a steady climb in the uptake of the program. In 2013, more than $1.5 million in Regional contributions were approved, which is the highest level of funding in the history of the program.

Quick Facts

Investment in streetscape design since 2006:

- MSPP Region's contributions: **$7.7 M**
- MSPP value of streetscape investment in partnership with local municipalities: **$18.4 M**
- Total number of MSPP projects: **32**

Contact Information

For more information related to Streetscaping Program please contact:
Infrastructure Management and Project Management Office
Phone: 1-877-464-9675 ext. 75272
Email: transportationservices@york.ca

Example of streetscape project in Vaughan

Example of streetscape project on Highway 7 in Richmond Hill/Markham

Lake to Lake Cycling Route & Walking Trail

During the development phase of the York Region Pedestrian and Cycling Master Plan (2008), members of the public and the study team suggested the pedestrian and cycling route network should include an on and off-road connection from Lake Simcoe at the northern edge of York Region through the City of Toronto to Lake Ontario in the south.

The Pedestrian and Cycling Master Plan uses existing and proposed off-road trails and on-road facilities to complete the Lake to Lake Cycling Route and Walking Trail (the Route). On-road segments of this route will include signed-only routes, bike lanes in urban areas and paved shoulders.

To make the Route a reality, York Region has completed a comprehensive design feasibility study that has finalized the Route alignment and helped to define the design and implementation strategy. The study also addressed objectives including linking the Route to transit facilities, providing connections between the Route and points of interest within the Region and establishing a recreational cycling route and walking trail that will allow people to experience the beautiful, natural and cultural heritage in York Region. **Figure 48** illustrates the preferred alignment of the Route. For more Information please go to: york.ca

Example of potential future Lake to Lake Cycling Route and Walking Trail

Example of potential future Lake to Lake Cycling Route and Walking Trail

Figure 48

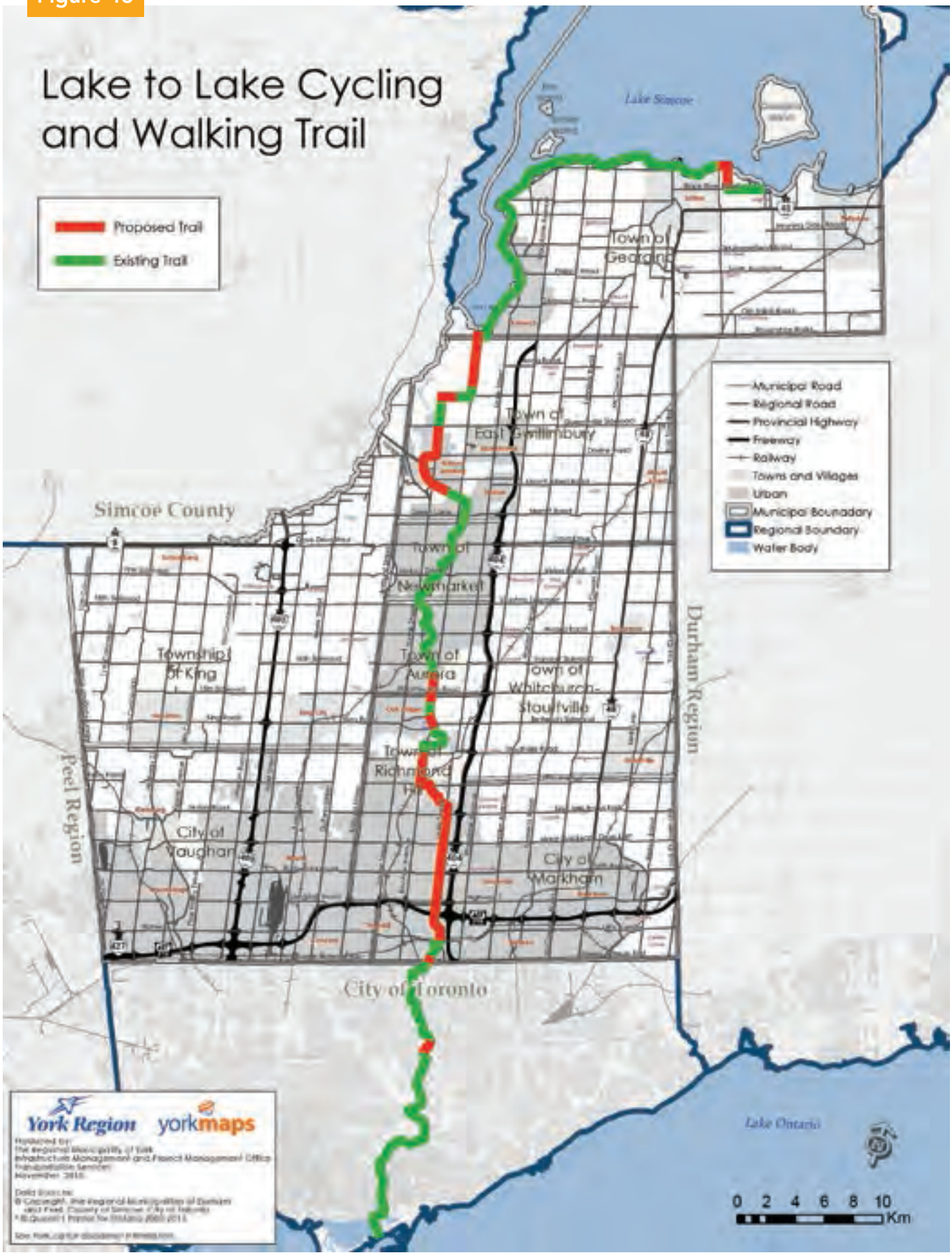


Figure 48 – Lake to Lake Cycling Route and Walking Trail

Bike Month

York Region is a local supporter of Bike Month, led by Metrolinx and Cycle Toronto. Bike Month is a community-driven program that encourages and celebrates cycling, and kicked-off with Bike to Work Day on May 26, 2014. In York Region, there were 294 entries to ride or participate in a Bike to Work Day event through the website bikemonth.ca, up 10 per cent from 2013. There were 41 Bike Month events posted to the bikemonth.ca calendar ranging from rides, socials, festivals, art shows and races, up 20 per cent from 2013.

York Region 2015 Bike Month

In 2015, York Region launched an educational campaign in partnership with York Regional Police (YRP) and the Canadian Automobile Association (CAA) to promote cycling safety and respect for all road users. On Tuesday, June 2, 2015, the Province passed the Making Ontario's Roads Safer Act, which includes increased fines for offenses like dooring a cyclist and introduces a one metre safe passing law.

Safe Cycling Campaign Postcard

2014 York Region Bike Summit

On November 19, 2014, The Regional Municipality of York hosted the first York Region Bike Summit. The Summit featured inspiring speakers and panel discussions on municipal experiences, promoting active lifestyles, infrastructure, education, community engagement, tourism and complete streets. The focus of the event was building partnerships for a more bike-friendly region.

As a result of the strengthening partnerships between government, residents, businesses and non-profit organizations and discussions at the York Region Bike Summit, several initiatives and projects have begun moving forward, including:

- York Region, York Regional Police and Canadian Automobile Association worked together on a spring 2015 Safe Cycling Campaign which included a media event held on May 14, 2015 in the Town of Richmond Hill and a children's bike rodeo at Family Fun Day on May 23, 2015
- The City of Vaughan is establishing a Pedestrian and Cycling Task Force
- The Province has passed Bill 31 which benefits cyclists by requiring motorists to leave one metre of space when passing. A need to educate cyclists about this new legislation was identified and York Region and York Regional Police partnered to include this information in a new Cycling Handbook
- Community bike rides during Bike Month June 2015
- The City of Markham held a Markham Cycling Day on September 27, with a similar concept to the Tour de Mississauga
- Ontario By Bike, York Region and others are working with York Scene and Central Counties Tourism to grow cycling tourism in York Region. The presentations are available online at healthyork.ca

High-Occupancy-Vehicle lanes

High-occupancy-vehicle lanes were first introduced on Dufferin Street between Steeles and Glen Shields Boulevard/Draper Boulevard in the City of Vaughan. Along with the landscaped median and sidewalks on both sides of Dufferin Street, this was the first application of *Towards Great Regional Streets* road design in York Region.

Example of HOV lanes on Dufferin Street

School Travel Planning

Public Health began working in the area of School Travel Planning (STP) in 2010 and since then we have worked closely with 36 schools, including 12 in 2014 from the York Region District and York Catholic District School Boards. Components of the STP approach include family and classroom surveys, school walkabouts, advocating for infrastructure changes around or on school sites, supporting municipal STP policy development and active promotion of walking and cycling in schools.

According to the York Region Active Transportation to School and Physical Activity Survey (Active Healthy Communities, York Region), in 2014 46% (±4) of York Region families with an elementary aged child (6 to 14 years) allow their child to walk or bike to school, 27% (±4) drive their child to school and 27% (±4) of children are bussed. A 2014 Metrolinx report titled *The Costs and Benefits of STP Projects in Ontario, Canada* identified the STP model as a relatively cost-effective intervention that, when effectively co-ordinated and implemented, can result in positive school travel behaviour change and ultimately provide substantial economic, environmental and physical activity benefits.

Example of school children who participated in "I WALK to School" event

Public Health Injury Prevention

The Bicycle and Helmet Safety program is one of York Region Public Health's initiatives aimed to reduce the number of injuries and fatalities related to cycling.

A variety of strategies to increase awareness, knowledge and skills are delivered to school aged children, youth, adults, residents and employees of York Region through school workshops, community displays and the Public Health Building at the Community Safety Village.

More than 3,400 elementary school aged children received cycling safety workshops in 2014.

Quick Facts

In 2015, students and teachers across the Greater Toronto and Hamilton Area celebrated the first-ever joint Bike to School Week from May 25-29. York Region provided bike racks as prizes to the winning York Region schools. More than 1,240 students in York Region participated in a variety of cycling activities.

Example of a school child wearing a safety helmet

Integrating Transportation Demand Management into New Developments

York Region is working with land developers to integrate Transportation Demand Management initiatives and measures into new developments, to ensure that new residents and employees are aware of the full range of transportation options available to them when they are moving into these developments. The specific Transportation Demand Management measures included in new developments varies depending on the characteristics of the development, such as land use, density and transit service.

York Region is conducting a pilot project to deliver Transportation Demand Management programs to 1,000 households in six new communities in the Region. The project was initiated in June 2015 and will be completed in April 2017. The program, called MyTrip York, is designed to help residents make informed decisions about their travel choices through individualized travel planning.

Example of transit oriented and sustainable developments in the Region

The pilot program focuses on the following six communities:

- Minto WaterGarden (south-west corner of the Yonge Street/Arnold Street intersection), City of Vaughan
- Xpression Condos (south-east corner of the Yonge Street/Baif Boulevard intersection), Town of Richmond Hill
- Patterson Maple (Blocks 11, 12 and 18), City of Vaughan
- West Gormley (east of Bayview Avenue, south of Bethesda Sideroad), Town of Richmond Hill
- Nashville Heights (north of Major Mackenzie Drive, east of Huntington Road), City of Vaughan
- Upper Unionville (east of Kennedy Road, north of 16th Avenue), City of Markham

For more information, visit york.ca/mytrip

Contact Information

For more information, please contact:
Infrastructure Management and Project Management Office
Phone: 1-877-464-9675 ext. 75051
Email: transportationservices@york.ca

Example of transit oriented and sustainable developments in the Region

Smart Commute

Smart Commute was created in 2004 through the initiative of York Region along with the Regions of Durham, Halton and Peel and the Cities of Hamilton and Toronto. York Region was the initial corporate home of the program until it was acquired by Metrolinx in 2008.

Smart Commute offers a variety of programs to member businesses including, ride-matching, Emergency Ride Home and personalized travel planning. Smart Commute conducts a site assessment and survey of staff commuting habits before recommending a customized strategy for each work site to increase use of sustainable modes of travel. The program also conducts a follow-up survey of employees every two to three years to assess results.

Smart Commute assists employers in making decisions about investments and incentives that lead to behaviour change, such as preferential carpool parking, discounted transit passes, alternate work arrangement policies, employee bike shares and end-of-trip facilities like showers and lockers. Smart Commute also offers a workplace designation program which recognizes employers for their dedicated efforts and commitment in providing sustainable travel options.

Smart Commute provides Transportation Demand Management solutions for employers across the Greater Toronto and Hamilton Area including York Region. Transportation Demand Management measures can motivate people to:

- Shift modes - walk, cycle, take transit or rideshare instead of driving
- Make fewer trips - telework, teleconference, videoconference, compressed work week
- Drive more efficiently - shop locally, do several things on each trip and avoid peak traffic periods and congested routes

In 2014, York Region provided $185,187 in funding to Smart Commute. The Towns of Newmarket and Richmond Hill and Cities of Markham and Vaughan also provide funding, and Metrolinx provides matching funding.

Smart Commute Transportation Management Associations communicate continuously with staff at member businesses through on-site outreach and presentations. As part of these efforts, Smart Commute supports York Region's efforts to provide services and information to its residents including:

- Updating businesses and their employees about York Region Transit (YRT/Viva) services and improvements and the construction of vivaNext Rapidways
- Distributing active transportation-related information such as the York Region Cycling Map
- Facilitating York Region's Public Health efforts to reach out to workplaces to increase active transportation and improve health
- Promoting York Region events, hosted by various departments, which support sustainable transportation

A cyclist using bicyle lanes on Highway 7

Quick Facts

Smart Commute Workplace Program, GTHA wide:

- 2.4 million annual car trips off the road
- 40 million Vehicle Kilometres Travelled reduced annually
- 2.9 million additional walking and cycling trips annually
- (Source: Smart Commute Workplace Program Impact Report, 2015)

Contributing municipal partners of Smart Commute include:

- Metrolinx
- York Region
- City of Toronto
- City of Vaughan
- City of Markham
- Town of Newmarket
- Town of Richmond Hill

Table 13 summarizes the Smart Commute Transportation Management Associations (TMA) and **Figure 49** illustrates the TMAs in the GTA.

Table 13 – Smart Commute Transportation Management Associations

Smart Commute North Toronto, Vaughan	Smart Commute Markham, Richmond Hill	Smart Commute Central York
Previously known as the Black Creek Transportation Management Association, this was the first TMA in the Greater Toronto Area. North Toronto, Vaughan works with major employers, including Powerstream, Direct Energy, Humber River Regional Hospital, Vaughan Mills Mall and Seneca College.	Partnered with the Markham Board of Trade and Richmond Hill Chamber of Commerce, Markham Richmond Hill works with several major employers as IBM, Staples, WSP, CAA, Honda Canada, Markham Stouffville Hospital and Mackenzie Health RH, as well as both the Town of Richmond Hill and City of Markham.	Operating out of the Newmarket Chamber of Commerce, Smart Commute Central York serves Aurora, East Gwillimbury, Georgina and Whitchurch. Its major employers include Southlake Regional Hospital, State Farm Insurance, the Town of Newmarket and the Region's offices in Newmarket.
www.smartcommute.ca/north-toronto-vaughan	www.smartcommute.ca/markham-richmond	www.sccy.ca

Figure 49

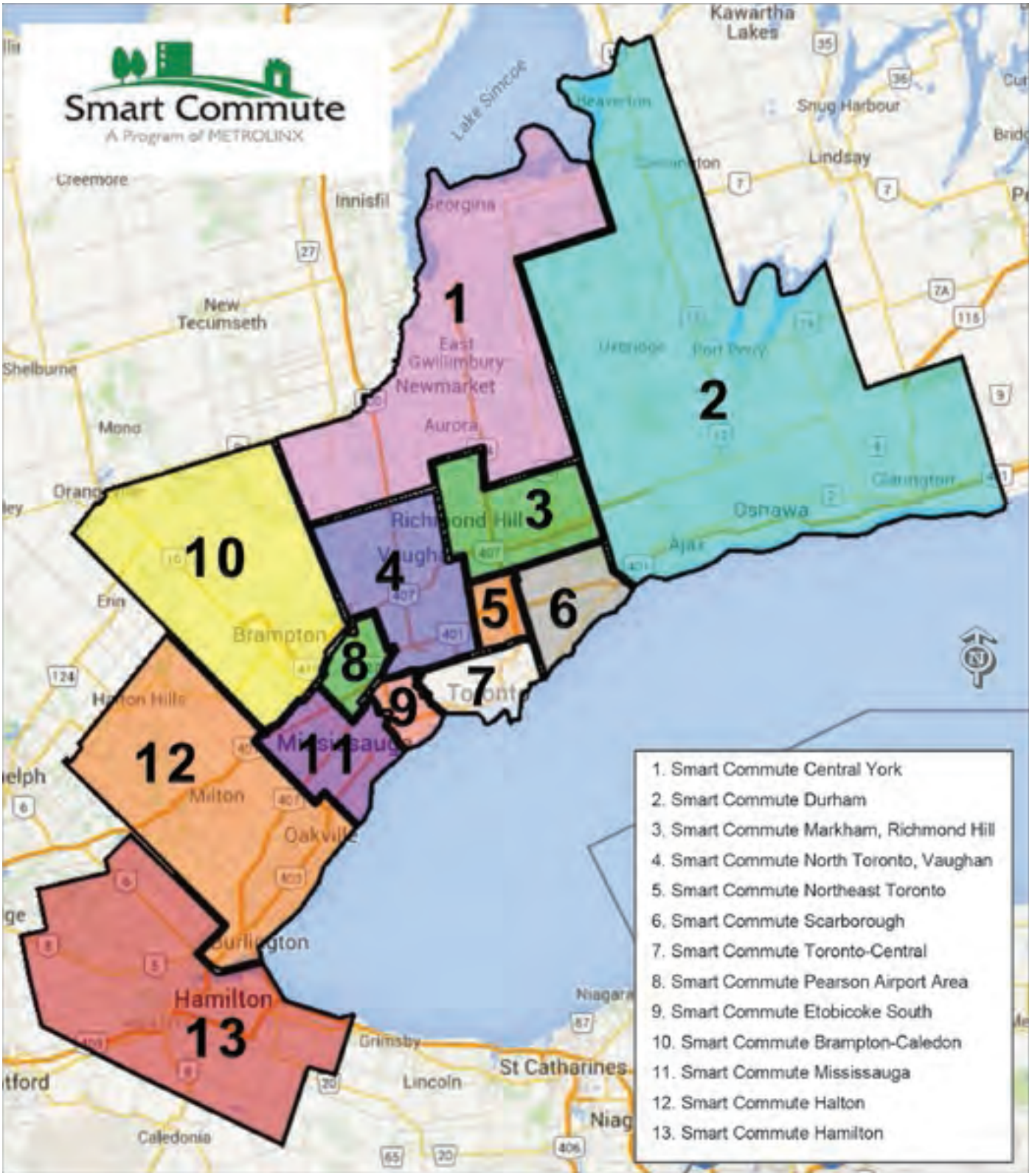


Figure 49 – Smart Commute Transportation Management Associations

Carpool and Commuter Parking Lots

Commuter parking lots are used to facilitate carpooling and transit. Carpool lots are typically located at highway interchanges and provide convenient access to and from 400-series highways. Some of these sites also serve as transit stops. Park 'N' Ride and GO Transit stations provide commuters with convenient locations to access YRT/Viva or GO services. Many of the YRT/Viva Park 'N' Ride lots are located at convenient trip ends, such as shopping malls or recreational centres. **Figure 50** illustrates the carpool and commuter parking lots in the Region.

Carpool Lots

- Highway 400 and Highway 7
- Highway 400 and Highway 9
- Highway 400 and Major Mackenzie Drive
- Highway 400 and King Road
- Highway 404 and Aurora Road
- Highway 404 and Davis Drive
- Highway 404 and Green Lane
- Highway 404 and Queensville Sideroad
- Highway 404 and Woodbine Road

MTO carpool parking lot at Davis Drive and Highway 404 in Newmarket

YRT/Viva Park 'N' Ride Lots

- Aurora Community Centre – Aurora Heights Drive, one block north of Wellington Street
- South Keswick Commuter Parking – southwest corner of Woodbine Avenue and Glenwoods Avenue
- Denison Square – Highway 48 and Denison Street
- First Markham Place – Highway 7 and Fairburn Drive (Bay – Home Outfitters Parking Lot)
- Fortino's Super Mall – Kennedy Road and Denison Street
- Markham Village Community Centre – Highway 48 and Highway 7
- Markville Mall – Highway 7 and McCowan Road
- Thornhill Community Centre – Bayview Avenue and John Street
- Al Palladini Community Centre – 9201 Islington Avenue
- Maple Community Centre – 10190 Keele Street

GO Transit Park 'N' Ride Lots

- Aurora Road and Highway 404 (Carpool)
- Aurora (Wellington Street)
- Markham Centennial (Community Centre, McCowan)
- East Gwillimbury (Green Lane and 2nd Concession)
- Finch GO Bus Terminal (Yonge Street and Bishop, North York)
- King (Station Road)
- Highway 9 and Highway 400 (Carpool Lot)
- Langstaff (Highway 7)
- Lincolnville (Bethesda Sideroad and 10th Line)
- Maple (Major Mackenzie)
- Major Mackenzie Drive and Highway 400 (Carpool Lot)
- Markham (Main Street)
- Milliken (Steeles Avenue)
- Mt. Joy (Highway 48)
- Newmarket GO Rail (Davis Drive)
- Newmarket Bus Terminal (Highway 9 / Eagle Street)
- Stouffville (Main Street)
- Richmond Hill (Major Mackenzie)
- Rutherford (Maple)
- Unionville (Kennedy Road)

Unionville GO Train Station parking lot and bicycle parking in the City of Markham

New vivastation at Davis Drive/Highway 404 carpool lot in the Town of Newmarket

Figure 50

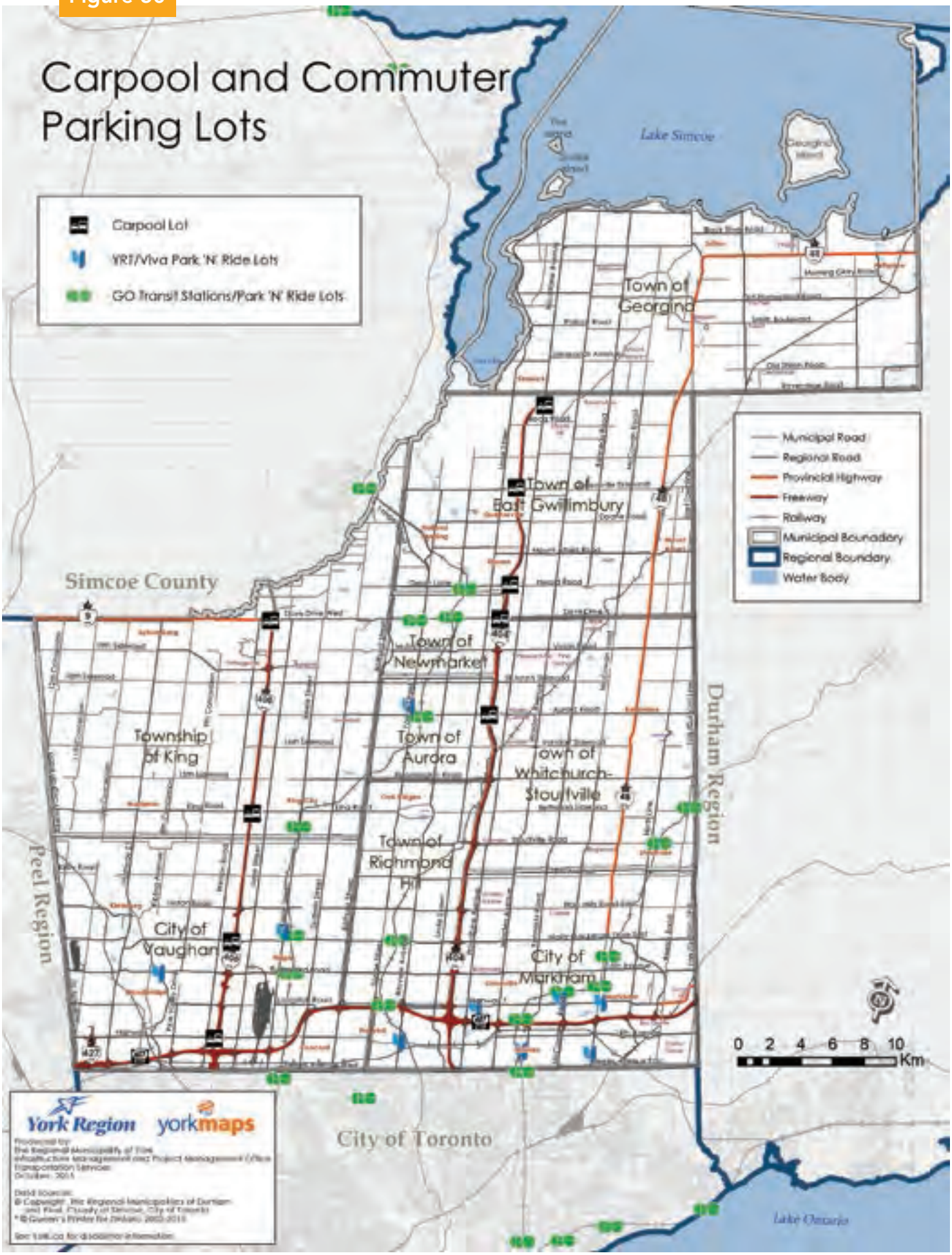


Figure 50 – Carpool and Commuter Parking Lots

Chapter Five:
Travel Demand and Trends

Rendering of the future Yonge Street in Richmond Hill

Why Does York Region Monitor Travel Demand?

The main purpose for collecting travel behaviour information from household travel surveys is to understand the travel habits of residents and provide base data for long range planning such as policy and program development and the development of travel demand models. Travel Demand Forecasting Models cannot be developed solely on the basis of traffic and transit counts. These models simulate all components of travel behaviour: auto ownership, trip frequency (trip generation) and the distribution of trips between origins and destinations by travel mode. Travel surveys answer basic questions such as: where do people travel to and from, are they making more trips per person, are their modes of travel changing?

Appropriate policies and programs can be developed to focus on specific travel behaviour, such as improving and promoting transit use, carpooling, cycling and walking. York Region, along with other municipalities in the Greater Toronto and Hamilton Area (GTHA) conduct two primary travel surveys, the Transportation Tomorrow Survey (TTS) and the Cordon Count Program to assist in understanding the travel behaviours of its residents and traffic patterns. In addition, York Region also undertook the resident telephone survey to understand attitudes and behaviours of the residents around walking and cycling in the Region.

The Transportation Tomorrow Survey (TTS) is a travel survey that summarizes how, why and where residents of the Greater Golden Horseshoe (GGH) travel. It is completed every five years to correspond with the national census commencing in 1986.

In 2015, York Region undertook a resident telephone survey to understand attitudes and behaviours around active transportation such as walking and cycling. This telephone survey included a total of 100 residents aged 18 and over in each of the Region's nine local municipalities between August 28, 2015 and September 11, 2015.

Transportation Tomorrow Survey

The Transportation Tomorrow Survey (TTS) is a travel demand survey conducted on behalf of 21 single-tier, Regional, Provincial and public transit agencies in southern Ontario including York Region. **Figure 51** illustrates the 2011 Transportation Tomorrow Survey participating regions. Overall, 159,157 households from across the Greater Golden Horseshoe (GGH) were surveyed in the Study. In York Region, 16,580 households (representing 4.9 per cent of all York Region households), completed a telephone interview or online survey between the fall 2011 and fall 2012.

York Region is one of 23 government organizations across the GGH area that contributed to funding the 2011 study. Other organizations include the Ministry of Transportation of Ontario (MTO), Metrolinx/GO Transit, the Toronto Transit Commission (TTC) and 20 municipalities across the GGH area.

A commuter using a combined mode of transportation

Figure 51 – 2011 TTS Participating Regions

Quick Facts

The 2011 TTS involved about 16,580 households in York Region, representing approximately five per cent sample size

Contact Information

For more information on the Transportation Tomorrow Survey please contact:
Data Management Group, University of Toronto
35 St. George Street, Room 305, Toronto, ON M5S 1A4
Phone: 416-978-7282
Website: transportationtomorrow.on.ca

Since 1996, York Region residents using conventional and rapid transit (local transit) as their primary mode of travel during the morning peak period (6 a.m. to 9 a.m.) has nearly doubled from about 20,000 trips (6.8 per cent of all trips) to 39,400 trips (7.2 per cent of all trips) between 1996 and 2011 (see **Table 14**). Similarly, trips on GO Rail have increased from approximately 3,800 trips (1.3 per cent of all trips) to more than 22,500 trips (4.1 per cent of all trips) or an increase of nearly six-fold during the same time period. In comparison, York Region's population increased by 82 per cent, indicating that transit use is increasing faster than population growth.

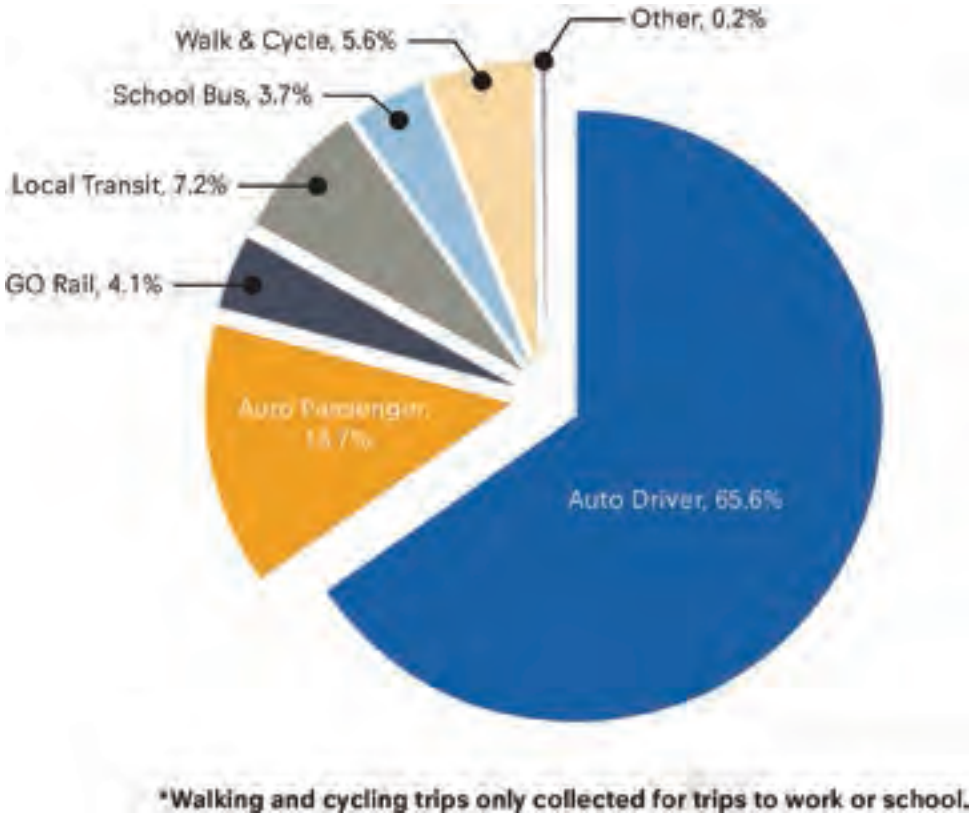
Table 14 - Primary Mode for Trips by York Region Residents during the Morning Peak Period

Mode Choice	1996	2001	2006	2011	% Increase 1996 to 2011
Car Driver	191,652	262,362	303,184	359,932	88%
Car Passenger	38,990	52,336	64,453	74,958	92%
GO Rail	3,768	8,139	12,489	22,543	498%
Local Transit	19,945	22,953	31,110	39,413	98%
School Bus	17,855	23,359	23,579	20,134	13%
Walk & Cycle and Other	20,447	22,653	25,398	30,572	40%
Total Trips	294,863	394,547	465,387	548,665	86%

As indicated in Table 14, the increase in local transit and GO Rail trips between 1996 and 2011 is mainly attributed to a higher rate of growth in transit trips than auto trips and a very low annual increase in school bus trips.

As shown in **Figure 52**, automobile use (as a driver or a passenger) remains the primary mode of travel for York Region residents making up 79 per cent of all trip purposes during the morning peak period (6 a.m. to 9 a.m.). The auto modal split has stayed relatively constant since 1996 at 78 to 79 per cent. The corresponding car driver and car passenger modal splits have remained static at about 65 per cent and 13.5 per cent, respectively, since 1996. On the other hand, transit modal split combining local transit and GO Rail for York Region residents during the morning peak period increased from 8.1 per cent to 11.3 per cent from 1996 to 2011.

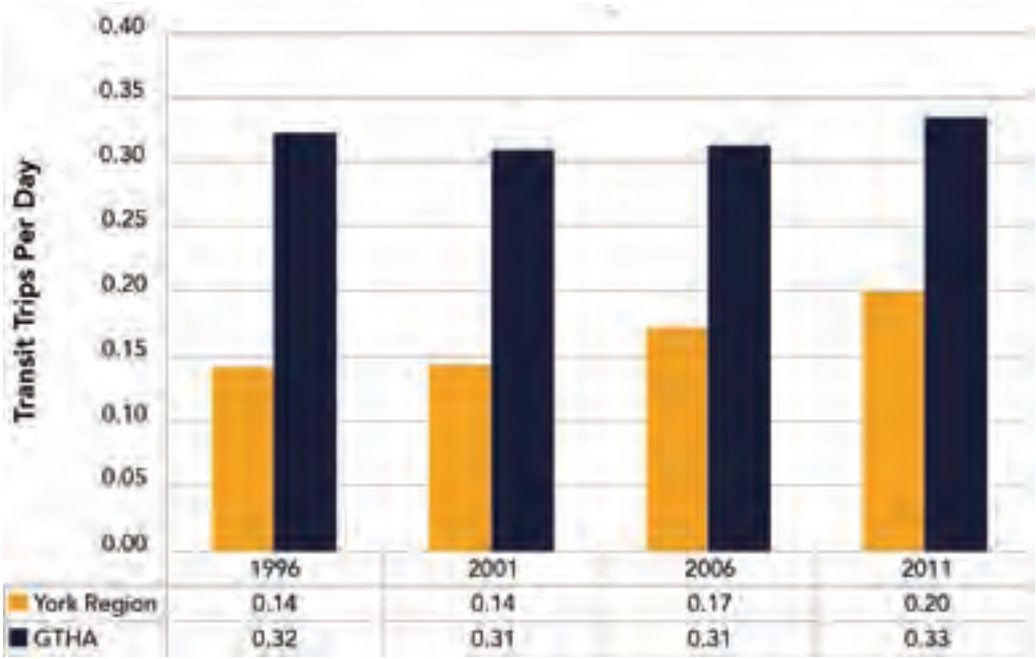
Figure 52 - 2011 Mode of Travel during Morning Peak Period (All Trip Purposes)



*Walking and cycling trips only collected for trips to work or school.

While transit trips per person (**Figure 53**) have remained static across the GTHA at approximately 0.32 to 0.33 transit trips per person, York Region's transit trips per resident has increased from 0.14 transit trips per person in 1996 to 0.20 transit trips per person, an increase of 41 per cent. During the same horizon, the total number of transit trips (local transit and GO Rail) per day by York Region residents has increased by 267 per cent, while the GTHA has increased by 144 per cent. Both of these trends are consistent with the improvement in transit modal split observed in York Region.

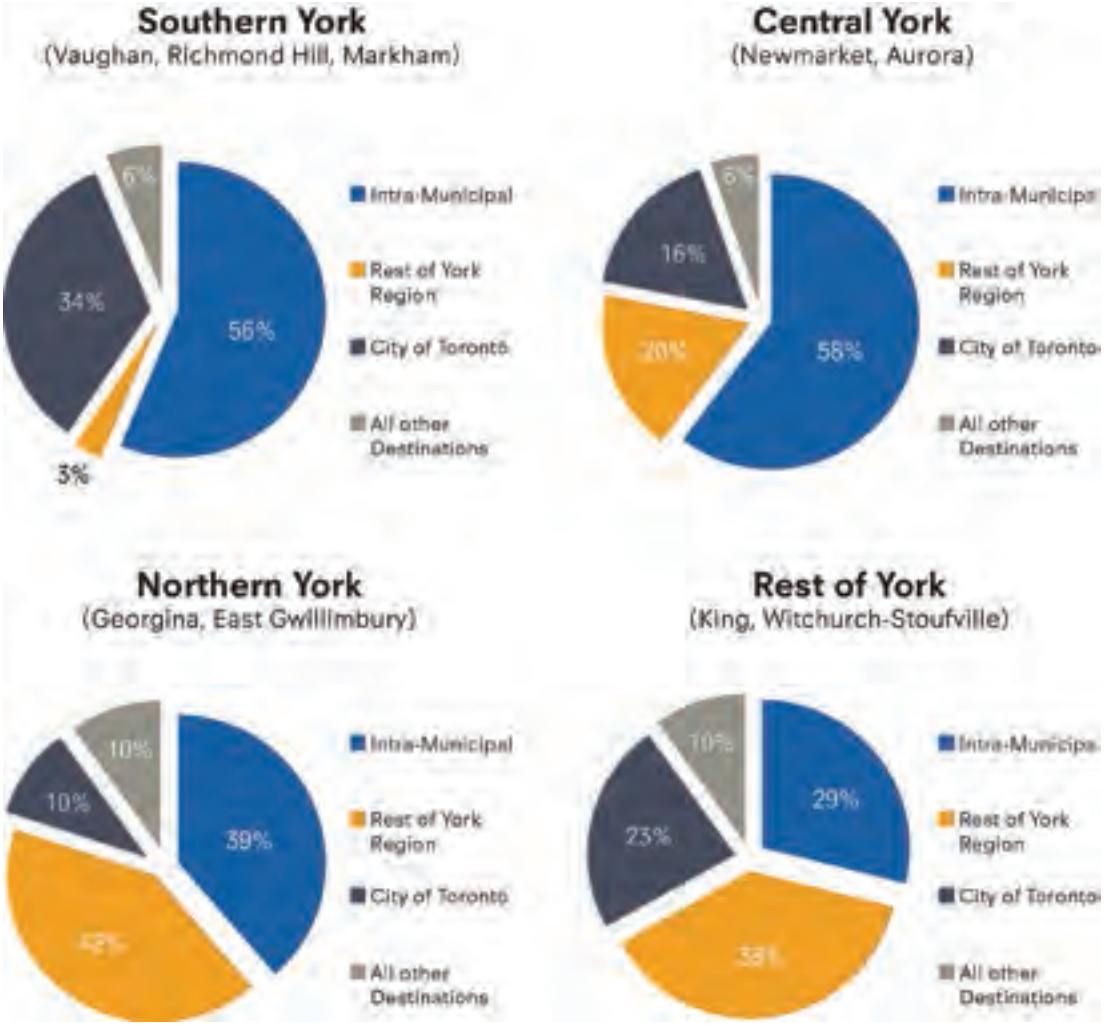
Figure 53 - Transit Trips per Resident 11 Years of Age and Older



Although York Region has shown improvements in transit trips over the past 10 to 15 years, continued focus on community design, with emphasis on live work relationships and access to transit will be critical in continuing this modal shift to support the development of sustainable transportation choices.

Within southern York Region (City of Markham, City of Vaughan and the Town of Richmond Hill), intra-municipal trips (trips originating and ending in the sub-area of York Region) have increased during the morning peak period from 53 per cent to 56 per cent between 1996 and 2011 (**Figure 54** – Southern York). During the same 15-year period, trips originating from southern York Region destined to the City of Toronto have decreased from 40 per cent to 34 per cent of total trips.

Figure 54 - 2011 Intra-Regional Travel across York Region During the Morning Peak Period.



This trend is consistent across the Region. For example, trips from northern York Region (Towns of Georgina and East Gwillimbury) to the City of Toronto have decreased from 14 per cent to 10 per cent. These trends continue to suggest that York Region is becoming a more complete community where more and more residents live and work.

Work trip length by York Region residents is staying fairly constant at 21.0 km in 1996 and 20.9 km in 2011. However, more York Region residents have a place of employment within the Region. For residents that work inside and outside of their homes, **Table 15** indicates that the proportion of York Region residents working in York Region grew from about 49 per cent in 1996 to about 52 per cent in 2011.

Table 15 - Where Do York Region Residents Work?

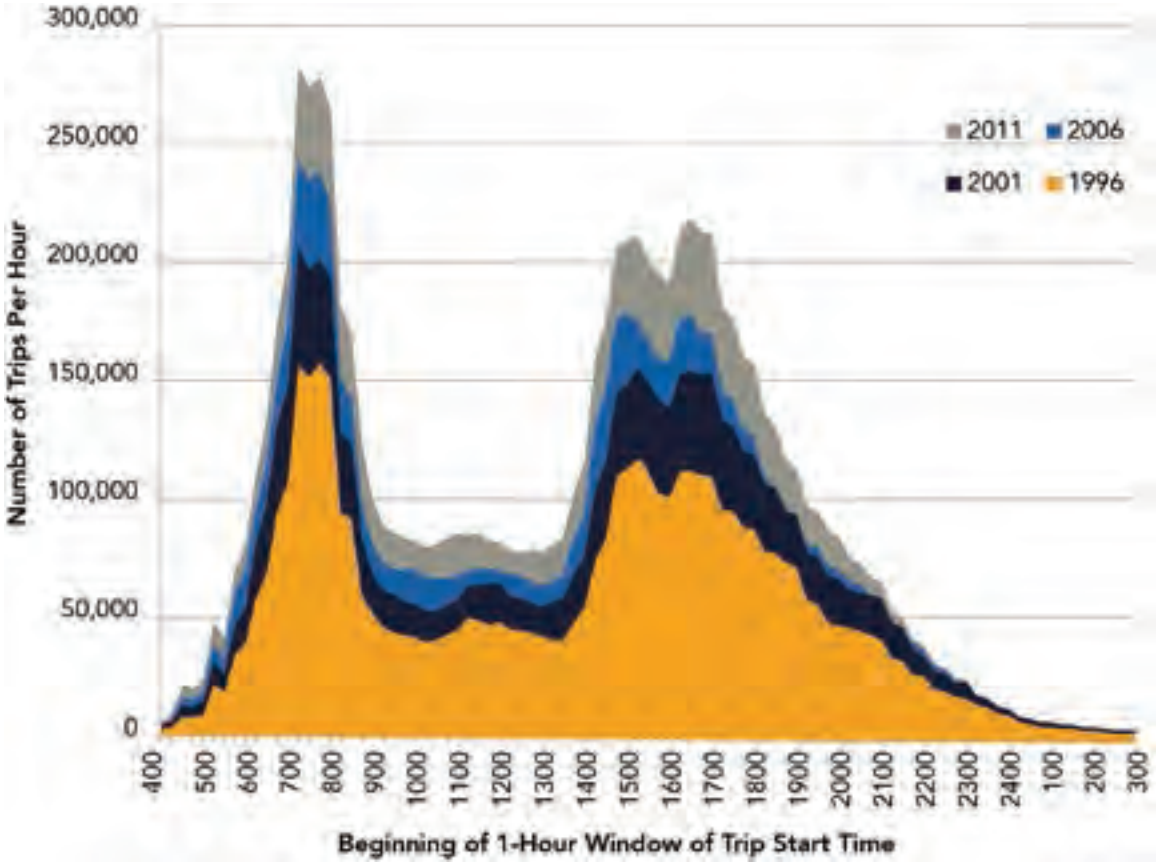
Usual Place of Work	1996	2001	2006	2011
City of Toronto	41%	38%	36%	34%
Durham Region	1%	1%	1%	1%
York Region	49%	50%	53%	52%
Peel Region	4%	5%	6%	6%
Halton Region	0%	0%	0%	0%
Hamilton Region	0%	0%	0%	0%
Outside GTHA	1%	1%	1%	1%
No Usual Place of Work	3%	5%	4%	6%

The data from the Transportation Tomorrow Survey correlates well with the data from Statistics Canada's National Household Survey regarding usual place of work. As reported in January 2014 on the 2011 National Household Survey, approximately 60 per cent of York Region residents work in York Region (inside and outside their homes) or have no usual place of work. Based on this definition, the Transportation Tomorrow Survey estimate is 58 per cent. The difference in estimates is due to differences in the survey methodology. For instance, the Transportation Tomorrow Survey is a controlled random sample survey while the National Household Survey is a voluntary self-administered sample survey.

As the data from **Figure 54** and **Table 15** indicate, a decreasing proportion of York Region residents have jobs in the City of Toronto. This is the result of a number of changes in the economy across the Greater Toronto Area but it indicates a very positive trend for York Region resulting from the strategic planning and infrastructure policies of York Region Council.

As illustrated in **Figure 55**, morning and afternoon trip start times for all modes and purposes have been spreading over the last decade and peak periods are slowly converging. This suggests that commuters are adjusting trip start times to account for longer delays and higher levels of traffic congestion.

Figure 55 - Start Time of Trip by York Region Residents



Cordon Count Program

The Cordon Count Program is a vehicle and person survey conducted in York Region on a regular basis since 1983. Collecting consistent and accurate classified vehicle information is an important element of transportation planning. It provides a time series data of traffic flow across a set of screenlines to monitor changes to the travel pattern and characteristics. The Cordon Count Program is coordinated with the City of Toronto, the Regions of Durham, Peel and Halton, as well as GO Transit, TTC and the Ministry of Transportation.

The Cordon Count Program involves vehicle and vehicle occupancy counts at more than 250 counting stations across the Region. Counting stations are established at key travel locations throughout the GTA. A series of stations are used to form a screenline. A screenline is a pre-determined imaginary line spanning a major road, municipal boundary, a man-made boundary (such a railway) or a natural boundary (such as a river).

The Cordon Count Program collects information on trips made by persons and vehicles in addition to various modes of transportation, such as cars, buses, taxis, GO Trains, subways, streetcars and bikes. Specific details on vehicle type and number of occupants per vehicle are gathered in order to capture a complete set of data regarding person and vehicular movements across a screenline.

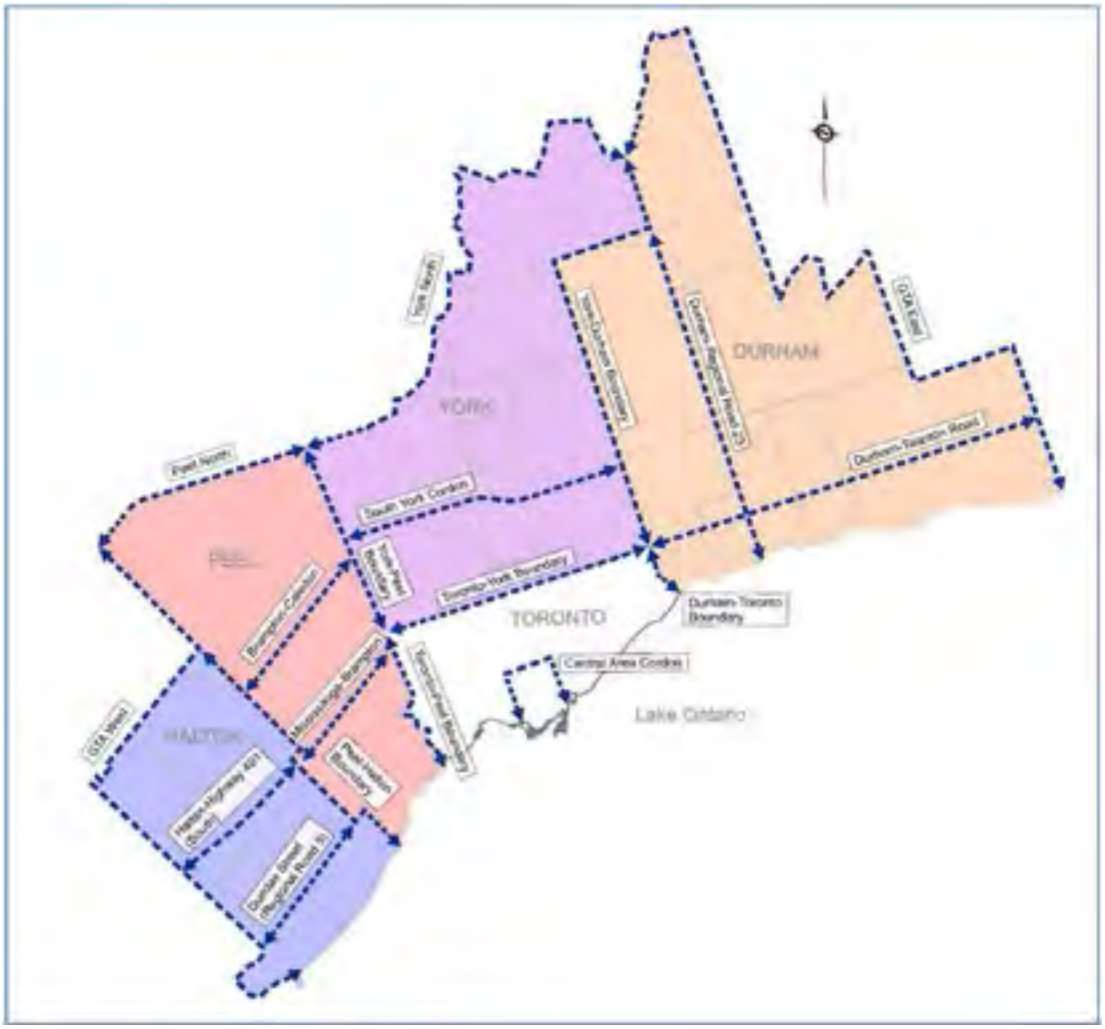
One-day counts are taken, at each station during the months of April, May and June (prior to the end of school). The surveys are undertaken on weekdays, except Fridays over a total of 14 hours (6:00 a.m. to 8:00 p.m.) to provide a snapshot of traffic passing a specific point.

Records of the vehicle types and vehicle occupancy numbers are taken at 15-minute intervals. The following vehicle types are recorded:

- Passenger cars, taxis and light trucks with one, two, three, four or more occupants
- Medium and heavy trucks
- YRT/Viva buses, Brampton Transit, TTC, GO Transit, school buses and others
- Bicycles

The full cordon count is conducted every five years and interim counts on select screenlines and stations are undertaken in between full cordon counts. The last full cordon count was conducted in 2011. **Figure 56** illustrates the 2014 interim cordon count major screenlines in the GTA, while **Figure 57** illustrates the traffic volume change in A.M. peak period flow between 2011 and 2014 in York Region.

Figure 56 – 2014 Cordon Count Major Screenlines



Quick Facts

The Cordon Count Program collects information on trips made by persons and vehicles, in addition to various modes of transportation, such as cars, buses, taxis, GO Trains, subways, streetcars, and bikes. Specific details on vehicle type and number of occupants per vehicle are gathered in order to capture a complete set of data regarding person and vehicular movements across a screenline.

Figure 57

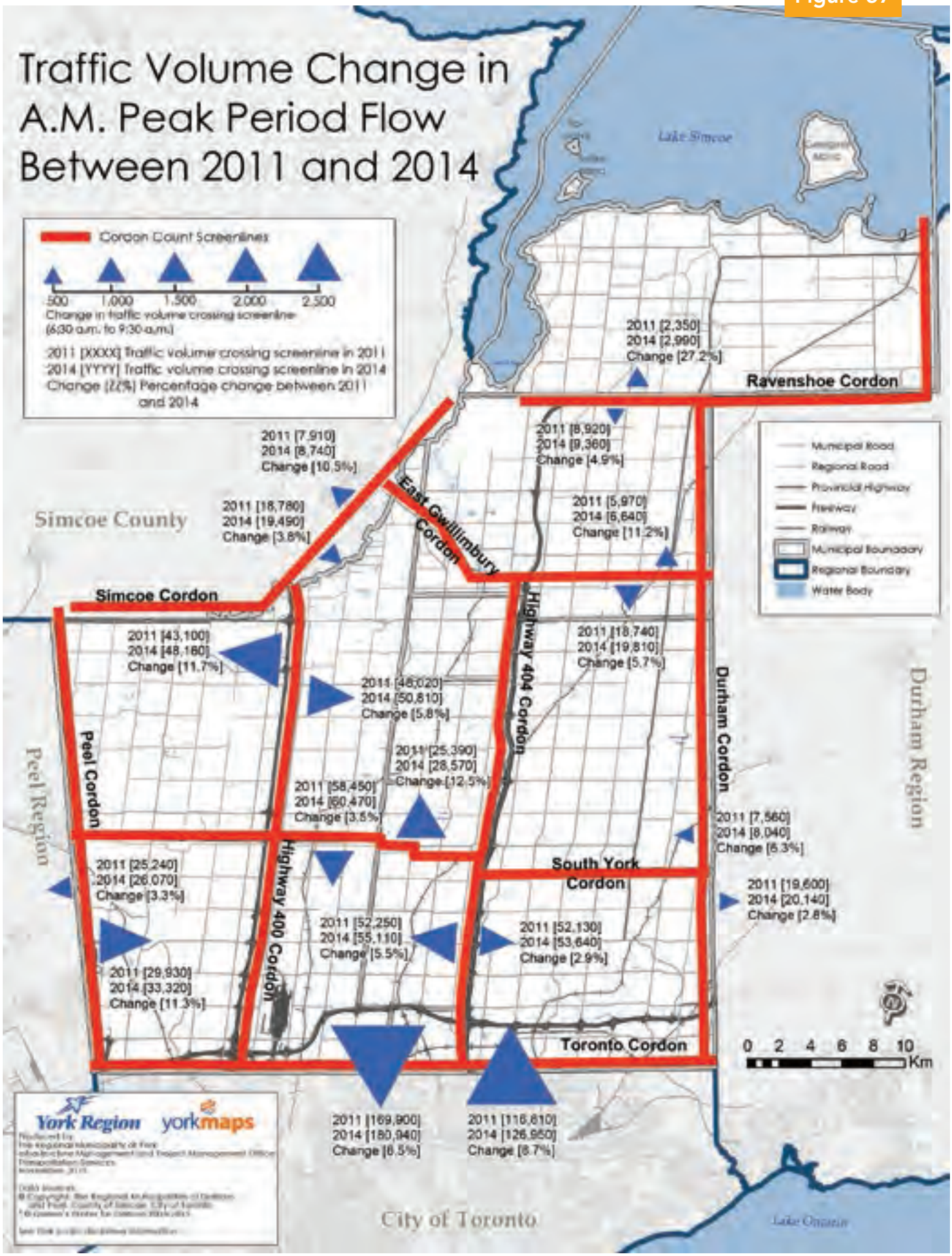


Figure 57 - Traffic Volume Change in A.M. Peak Period Traffic Flow Between 2011 and 2014

Highlights of the 2014 Interim Cordon Count Program:

The 400-series highways in York Region (400, 427 and 404) carry 39 per cent of the traffic crossing Steeles Avenue during the all-day 12-hour period. In the three year period between 2011 and 2014, traffic increased by 5.7 per cent or 61,660 two-way vehicular trips during the 12-hour period, with a growth of nine per cent in the northbound direction and six per cent in the southbound during the A.M. peak period. Total daily person trips have increased by 9.3 per cent, which is generally a result of the increase in population and employment during the same period.

Quick Facts

Screenlines that experienced the highest growth in total person trips between 2011 and 2014 are:

- Toronto – York Boundary: 122,713
- Peel screenline: 11,972
- Simcoe screenline: 8,066
- South York screenline: 5,691

The 2014 data shows that in the morning peak period, 59 per cent of the total traffic crossing the Steeles Avenue screenline traveled south while 41 per cent traveled north. This has not changed significantly since the 2001 and 2006 surveys when 58 per cent of the total traffic crossing the Steeles Avenue screenline traveled south and 42 per cent traveled north. Earlier cordon count results had shown a more balanced north-south trend across the Steeles Avenue screenline, with 53 per cent southbound and 47 per cent northbound vehicles crossing Steeles Avenue during the morning peak period in 1998.

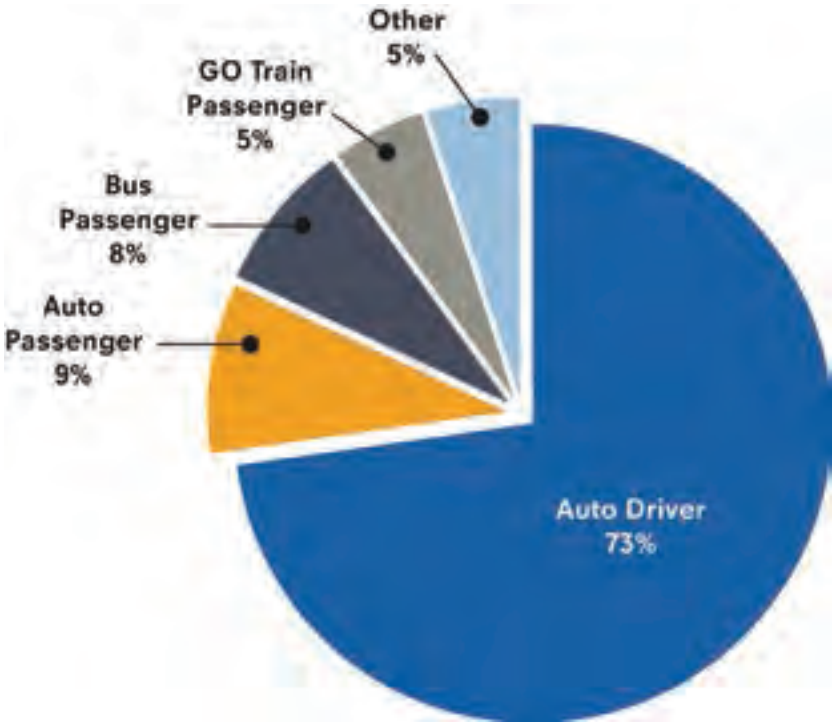
Quick Facts

Auto occupancy levels are monitored very closely as minor changes in the average level of car occupancy can have a significant affect on total traffic volume and congestion levels. Below are the ranking of the screenlines with highest auto occupancy during the A.M. Peak periods in 2014:

- Ravenshoe screenline: 1.19
- Toronto screenline: 1.13
- Durham screenline: 1.10
- Highway 404 screenline: 1.10

The York-Toronto Cordon Screenline shows that eight per cent of person trips crossing York-Toronto boundary are made by bus, five per cent by GO Train, nine per cent by carpooling and seventy three per cent by driving (**Figure 58**).

Figure 58 – Toronto Cordon (2014 Person Trips)



The South York Cordon count was conducted to monitor changes to north-south traffic within York Region. A growth of seven per cent in total vehicles in a 12-hour day between the years 2011 and 2014 was observed. Total person trips increased by almost two per cent while there was a decline of two per cent in transit usage in the 12-hour period. There was an increase of two per cent in the truck usage over the same period.

For more detailed information on the Cordon Count Program, visit york.ca to download the 2014 Cordon Count Bulletin.

Contact Information

For more information on the Cordon Count Program or to obtain a copy of the Cordon Count Bulletin please contact:
Infrastructure Management and Project Management Office
Phone: 1-877-464-9675 ext. 75080
Email: transportationservices@york.ca

Walking and Cycling Behaviours and Attitudes

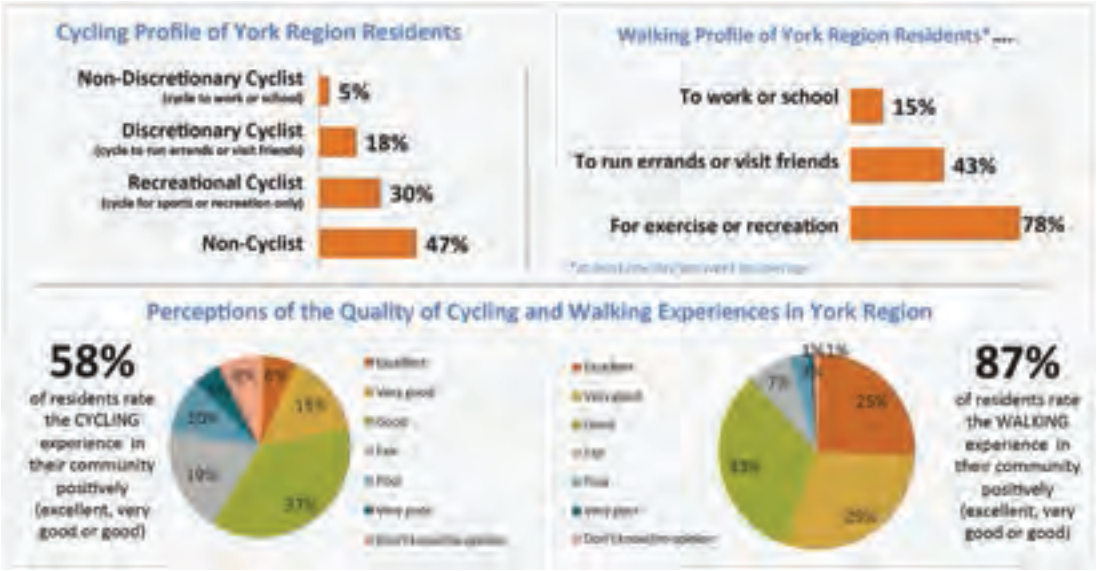
In 2015, York Region undertook a resident telephone survey to understand attitudes and behaviours around walking and cycling in the Region. This telephone survey included a total of 100 residents aged 18 and over in each of the Region's nine local municipalities between August 28, 2015 and September 11, 2015.

The objectives of the survey included:

- What is the current proportion of residents who cycle for non-discretionary, discretionary and recreational purposes?
- What proportion of residents could cycle or walk for non-discretionary purposes, but currently do not?
- Do residents think York Region is doing a good job providing infrastructure/ opportunity for cycling and walking?
- If not, what can be done to increase cycling and walking?

Figure 59 illustrates the active transportation (walking and cycling) snapshot in York Region based on the resident telephone survey.

Figure 59 – Active Transportation Snapshot in York Region



Quick Facts

- 58 per cent of York Region residents rate the cycling experience in their community positively (excellent, very good, good)
- 87 per cent of York Region residents rate the Walking experience in their community positively (excellent, very good, good)

The surveyed data indicates that:

- Cycling to work or school is feasible for up to 44 per cent of those who currently work or attend school, but do not cycle for their commute
- 73 per cent of residents think that York Region should invest in more cycling infrastructure and 67 per cent think York Region should invest in more walking infrastructure
- Six in 10 residents report that investing in making the community more cycling-friendly would make them likely to cycle more often
- Average number of bikes per household is 2.2, and the average number of motor vehicles per household is 2.3
- Walking for transportation is more common in York Region than cycling. Fifteen per cent of residents say that they walk to work or school at least one day per week, four in 10 (43 per cent) walk at least one day per week to run errands or visit friends and 78 per cent say that they walk at least one day a week for exercise or recreation. In fact, 37 per cent of residents say that they walk at least four or more days per week for exercise or recreation

A bike rack at a highschool in York Region

Quick Facts

- Profile of York Region Cyclists – 53 per cent consider themselves cyclists, 47 per cent non-cyclists
- 5 per cent – Cycle to work or school (more common in Newmarket - 10 per cent)
- 18 per cent – Cycle to run errands or visit friends (more common in King - 27 per cent)
- 30 per cent – Cycle for recreational purposes only (more common in Aurora - 41 per cent)
- 47 per cent Non-Cyclist (higher proportion in Richmond Hill (57 per cent) and Georgina (51 per cent)

Figure 60 summarizes the attitudes of the residents toward cycling and walking in York Region.

Figure 60 – Cycling and Walking in York Region

Pavement treatment projects to enhance walking experience

Bicycle lane and pavement treatment projects to enhance cycling and walking experience

Chapter Six:
Contact Information

Cars, bus, GO Train and pedestrians in York Region

Contact Information

The Regional Municipality of York
Transportation Services Department
17250 Yonge Street
Newmarket, ON L3Y 6Z1
Roads and Traffic Dispatch
Phone: 905-895-1200 ext. 75200 or 1-877-464-9675 ext. 75200
Website: york.ca

Town of Aurora
Infrastructure & Environmental Department
P.O. Box 1000
100 John West Way
Aurora, ON L4G 6J1
Phone: 905-727-3123
Website: aurora.ca

Town of East Gwillimbury
Community Programs & Infrastructure
19000 Leslie Street
Sharon, ON L0G 1V0
Phone: 905-478-4282
Website: eastgwillimbury.ca

Town of Georgina
Operations & Engineering
26557 Civic Centre Road, R.R. 2
Keswick, ON L4P 3G1
Phone: 905-722-6889
Website: georgina.ca

Township of King
Engineering & Public Work's
2075 King Road
King City, ON L7B 1A1
Phone: 905-833-5321
Website: king.ca

City of Markham
Roads Department
101 Town Centre Boulevard
Markham, ON L3R 9W3
Phone: 905-475-4866
Website: markham.ca

Town of Newmarket
Public Works Services
395 Mulock Drive, P.O. Box 328
Newmarket, ON L3Y 4X7
Phone: 905-895-5193
Website: newmarket.ca

Town of Richmond Hill
Operations Centre
1200 Elgin Mills Road E
Richmond Hill, ON L4S 1M4
Phone: 905-884-8013
Website: richmondhill.ca

City of Vaughan
Engineering & Public Works
Joint Operation Centre
2800 Rutherford Road
Vaughan, ON L4K 2N9
Phone: 905-832-2281
Website: vaughan.ca

Town of Whitchurch-Stouffville
Public Works Department
111 Sandiford Drive
Stouffville, ON L4A 0Z8
Phone: 905-640-1910
Website: whitchurch-stouffville.ca

407 ETR
General Information
6300 Steeles Ave. West
Woodbridge, ON L4H 1J1
Phone: 1-888-407-0407
Website: 407etr.com

City of Toronto
City Services Information Hotline
Phone: 416-392-2489
Website: toronto.ca

Ministry of Transportation
MTO Info, General Information Line
Phone: 1-800-268-4686
Website: mto.gov.on.ca

York Region Transit (YRT)
50 High Tech Road, 5th Floor
Richmond Hill, ON L4B 4N7
Phone: 905-762-2100 or 1-866-MOVE YRT (668-3978)
Website: yrt.ca

York Region Mobility Plus
50 High Tech Road, 5th Floor
Richmond Hill, ON L4B 4N7
Phone: 905-762-2112 or 1-866-744-1119
Website: mobilityplus.yrt.ca

York Region Rapid Transit Corporation
3601 Highway 7, 12th Floor
Markham, ON L3R 0M3
Phone: 905-886-6767
Website: vivanext.com

GO Transit
20 Bay Street, Suite 600
Toronto, ON M5J 2W3
Phone: 1-888-GET ON GO (438-6646)
Website: gotransit.com

Metrolinx
97 Front Street West
Toronto, ON M5J 1E6
Phone: 416-874-5900
Website: metrolinx.com

Toronto Transit Commission (TTC)
1900 Yonge Street
Toronto, ON M4S 1Z2
Wheel-Trans Reservations: 416-393-4222
Phone: 416-393-INFO (4636)
Website: ttc.ca

Region of Peel
10 Peel Centre Drive, Suite A and B
Brampton, ON L6T 4B9
Phone: 905-791-7800
Toll-free: 1-888-919-7800
Website: peel.ca

Region of Durham
605 Rossland Road East
Whitby, ON L1N 6A3
Phone: 905-668-7711
Toll-free: 1-800-372-1102
Website: durham.ca

Simcoe County
1110 Highway 26
Midhurst, Ontario L0L 1X0
Phone: 705-726-9300
Toll-free: 1-866-893-9300
Website: simcoe.ca


York Region