

ROAD SYSTEM



SECTION CONTENTS

Road System in York Region

Road Classes

Regional Road Network

2009 - 10 Year Roads Construction Program

Road Widening and Resurfacing: 1999-2008

Railway Crossings

Traffic Control Devices

Road Speed Zones

Road System in York Region

The road system is an enabler to the local, Regional and Provincial economies. People and goods move on it.

It carries people, bicycles, cars, buses, trucks, agricultural and construction equipment.

It is an integral part of the public transit system. It is also an integral part of the goods movement network both in itself and as part of a distribution network for the rail and air transport systems.

The road system is such an important part of our urban and rural infrastructure that, quite often, it is the urban structure from which land uses are planned around. 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 arterial 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.
- The Province of Ontario owns and maintains the expressways in York Region. The exception is Highway 407 ETR, which is currently owned and operated by a private consortium. 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 this important asset. A 10-year capital plan is used to program and prioritise major Regional road improvement projects.

To maintain the effectiveness of the Regional road network and the safety of its users, many railway track-road crossings are grade separated and speed zone and other traffic control devices (including intelligent transportation systems) are used to improve traffic flow.



Road Jurisdiction

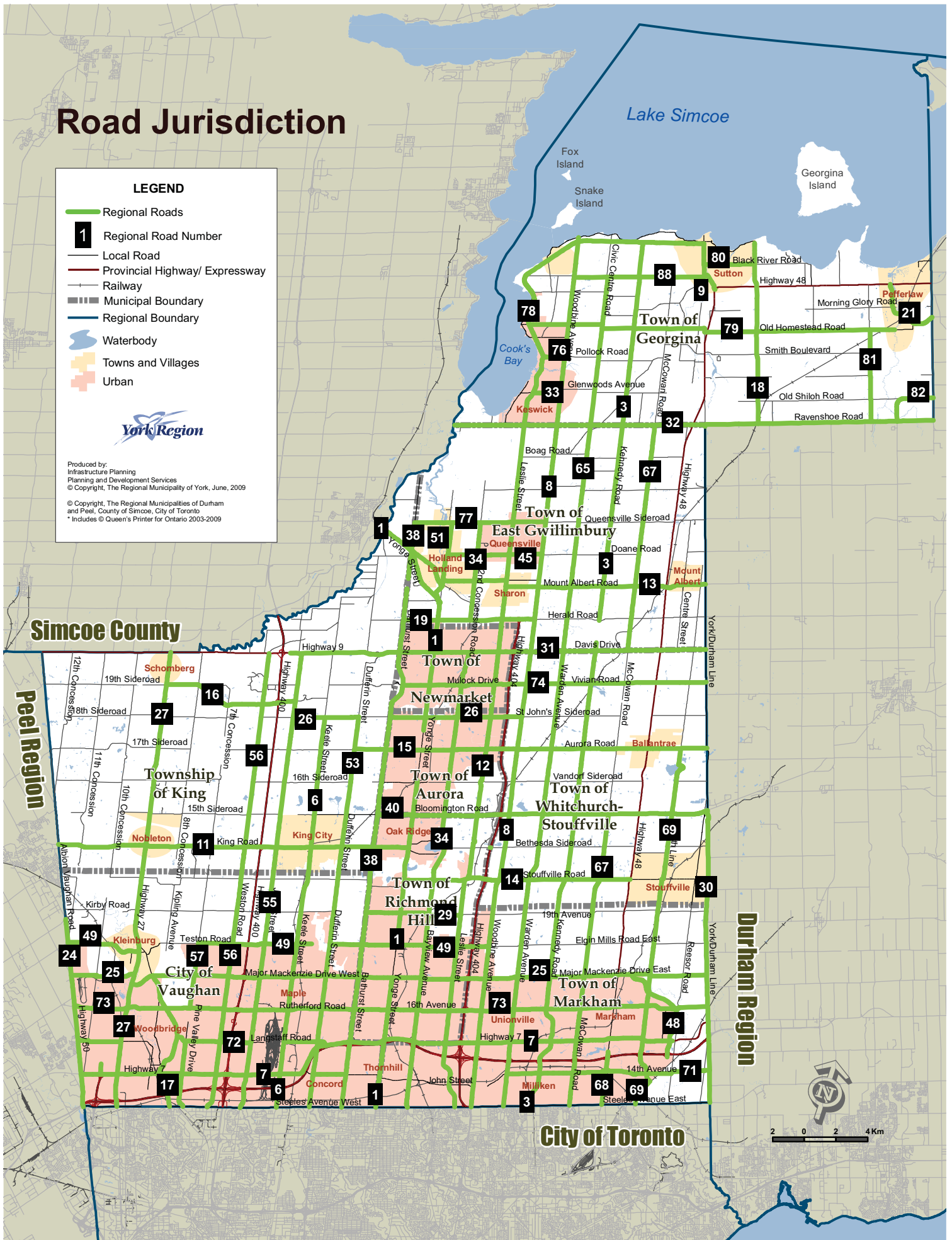
LEGEND

- Regional Roads
- 1** Regional Road Number
- Local Road
- Provincial Highway/ Expressway
- Railway
- ▬▬▬ Municipal Boundary
- Regional Boundary
- Waterbody
- Towns and Villages
- Urban



Produced by:
Infrastructure Planning
Planning and Development Services
© Copyright, The Regional Municipality of York, June, 2009

© Copyright, The Regional Municipalities of Durham
and Peel, County of Simcoe, City of Toronto
* Includes © Queen's Printer for Ontario 2003-2009



Road Classes

The road network includes a system of arterial roads and highways that crisscross the Region and are owned and operated by the local municipalities, the Region, and the Province of Ontario.

York's multi-jurisdictional road network performs most efficiently and safely if the roads are designed and operated to serve their intended purposes. These purposes include provisions for all vehicular modes of travel and goods movement.

Local roads primarily provide access to individual properties. Consequently, traffic volumes and speeds on these roads are generally low. Collector roads provide connections for short distance trips within local neighbourhoods for both bus and car traffic.

Arterial roads and the Provincial expressway system provide major corridors for all traffic, including transit and trucks over medium to longer distance trips.

In 2009, York Region approved a budget to spend \$110M on road and bridge capital improvements and an additional \$90M on operations and maintenance of the road network.

QUICK FACTS

In 2008, within York Region there were:

- 3,880 linear kilometres of local roads
- 1,050 linear kilometres of regional roads
- 210 linear kilometres of Provincial Freeways
- 80 linear kilometres of Provincial Highways



CONTACT INFORMATION

To report problems on a Regional road contact:

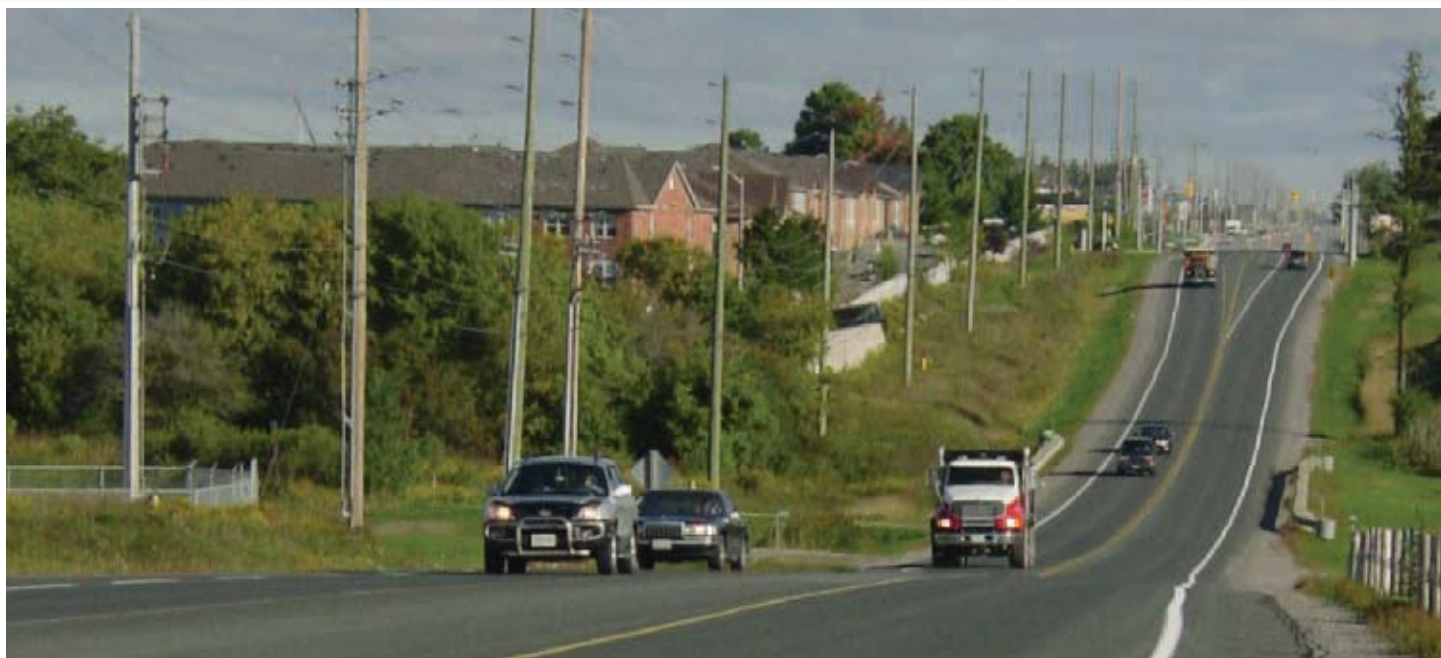
Roads Dispatch
Road Maintenance
Section
Transportation Services
Department

☎ 905-895-1200
ext. 5200

☎ 1-877-464-9675
ext. 5200

✉ dispatch@york.ca

Regional Road Network



The typical road allowance width of Regional roads is currently 36 metres, with right-of-way widths of 45 metres or greater planned along a limited number of roads such as Highway 7, Yonge Street, Dufferin Street (Steeles Avenue to Clark Avenue), and former Provincial Highway 27, to support High Occupancy Vehicle (HOV) lanes, cycling facilities, rapid transit and additional traffic lanes.

The Regional road system is coordinated with the Provincial and local municipal road systems to protect rights-of-way for future system improvements and to recognize that these rights-of-way will increasingly be shared corridors for transit, goods,

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 9, 48 and 50. In total, the Region is responsible for 3,399 lane kilometres of arterial roadways.

pedestrian and bicycle movements as well as above and below ground utilities.

The boundary arterial roads are generally under shared jurisdiction. Peel Region and York Region share jurisdiction of Highway

50 up to where it curves into Bolton. Peel maintains the road under contract with York. 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 Bloomington Road and all of Ravenshoe Road. Durham is responsible for the rest of York-Durham Line and all of Lake Ridge Road.

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

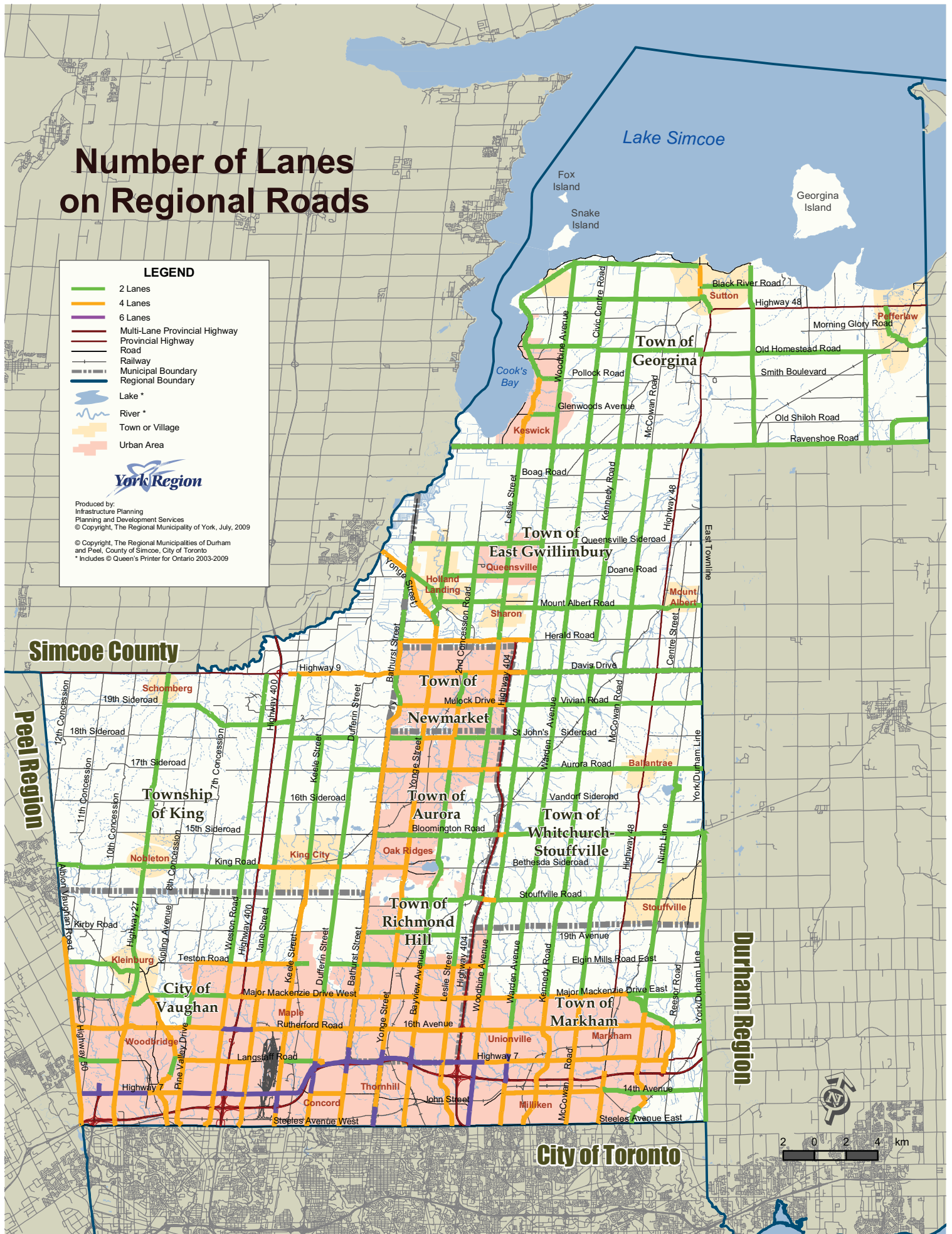
Number of Lanes on Regional Roads

LEGEND

- 2 Lanes
- 4 Lanes
- 6 Lanes
- Multi-Lane Provincial Highway
- Provincial Highway
- Road
- Railway
- Municipal Boundary
- Regional Boundary
- ~ Lake *
- ~ River *
- Town or Village
- Urban Area

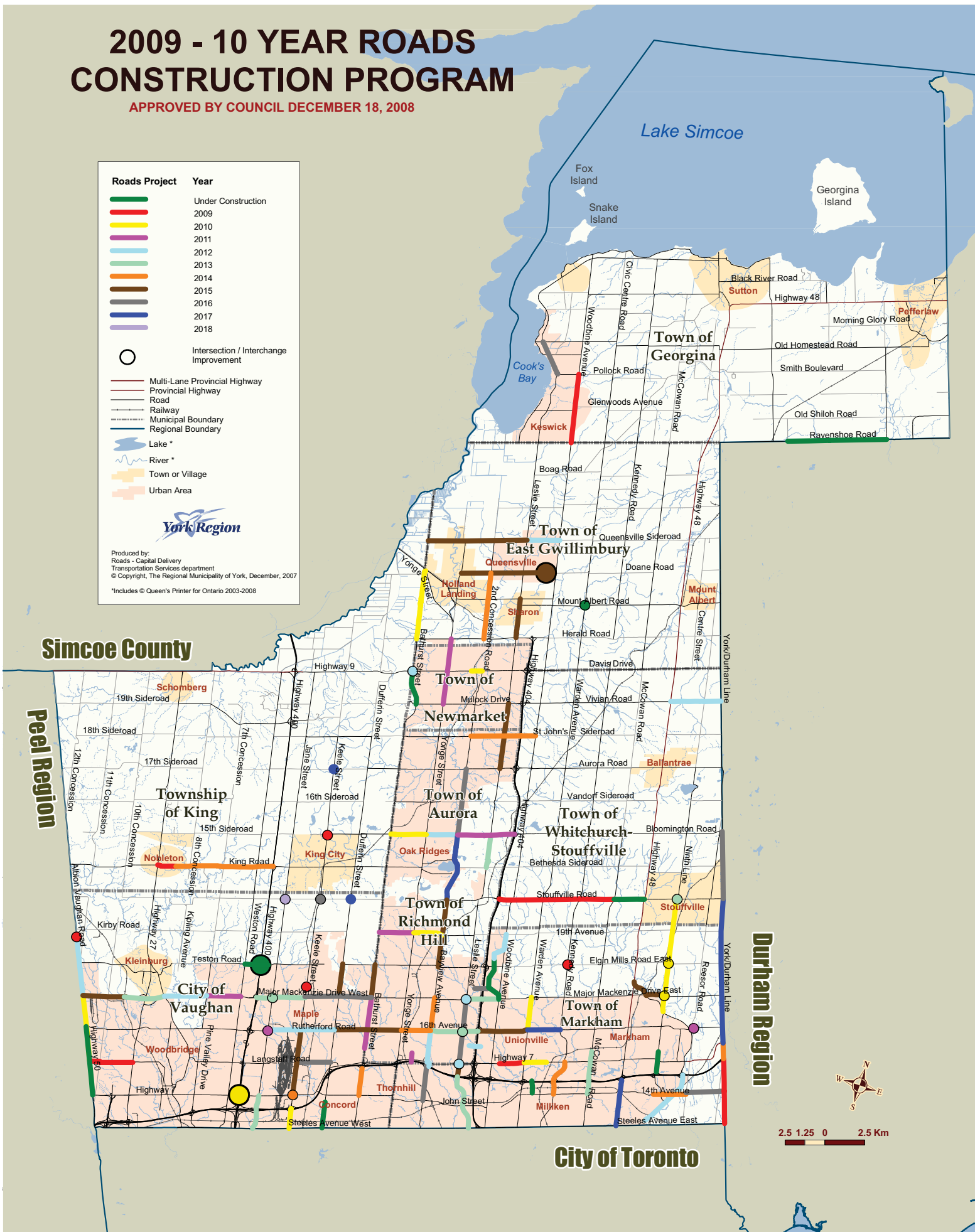
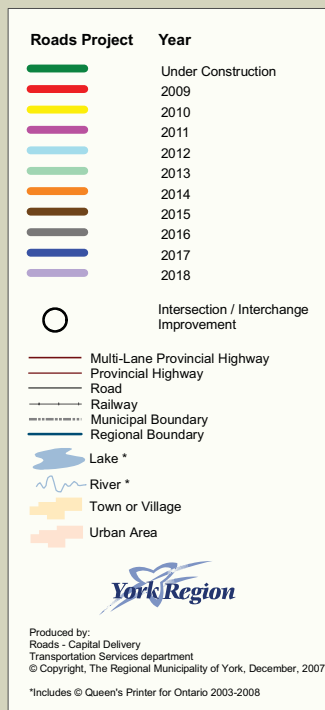


Produced by:
Infrastructure Planning
Planning and Development Services
© Copyright, The Regional Municipality of York, July, 2009
© Copyright, The Regional Municipalities of Durham
and Peel, County of Simcoe, City of Toronto
* Includes © Queen's Printer for Ontario 2003-2009



2009 - 10 YEAR ROADS CONSTRUCTION PROGRAM

APPROVED BY COUNCIL DECEMBER 18, 2008



2009 - 10 Year Roads Construction Program

The Transportation Master Plan (TMP) provides the framework for developing the current 10 year roads construction program. The TMP supports the Regional goals of sustainability, which is measured through the 3 themes of sustainable natural environment, economic vitality and healthy communities.

The Roads Construction Program, also known as the Roads Capital Plan, is a program of planned road and transit improvements to accommodate growth in population and employment in the Region and to upgrade existing roads to meet Regional design standards. It is also geared towards meeting the Region's 2026 Vision goal of providing "Infrastructure for a Growing Region" with the focus on moving people.

Major projects include road widenings, grade separations, road re-constructions, jog eliminations and major intersection improvements.

In March 2007, Regional Council approved, in principle, the design and construction of High Occupancy Vehicle (HOV) lanes for capital projects that involve a road widening from four to six lanes. The approved six-lane design standard now includes transit/HOV and on-street bicycle lanes.

QUICK FACTS

2009 10 Year Roads Construction Program will include:

- Building approximately 600 new lane-kilometres of arterial roads.
- Resurfacing approximately 750 lane-kilometres of Regional roads.
- Rehabilitating approximately 70 bridge structures.
- Improving approximately 150 intersections.
- Building 150 kilometres of bike lanes
- Building 152 lane-kilometres of Transit/HOV lanes
- Building 2 new highway interchanges.
- Building 4 new rail grade-separations.

CONTACT INFORMATION

For more information on the individual project in the 10 year program, please visit the York Region website.

 <http://www.york.ca/Services/Construction>



Road Widening and Resurfacing: 1999-2008

QUICK FACTS

- Over the past 5 years, York Region has widened 58 kilometres of arterial roads adding approximately 115 new lane-kms to the Regional road network, and
- Adding 270 new lane-kms of Regional roads to the network over the past 10 years.
- More than 600 lane-kms of arterial roads were resurfaced or reconstructed over the past 10 years.



York Region is committed to continued improvement to the Regional road system through road widening and resurfacing to meet the needs of population and employment growth. The adjacent map identifies road widening and resurfacing projects that have been completed since 1999.

To optimise the delivery of different Regional infrastructure, road projects have always been co-ordinated with water, wastewater and other utilities, rapid transit, development construction and maintenance work projects wherever they coincide physically and from a timing standpoint. This coordination of road projects reduces public cost and inconvenience to the travelling public.

Road widening help to ease congestion on York Region's heavily travelled roads while resurfacing projects help to ensure that infrastructure will continue to be in a state of good repair. The chart below outlines the number of linear kilometres of road widened, resurfaced and reconstructed for each year from 1999 to 2008.

Year	Linear Kilometres of Regional Road Widening	Linear Kilometres of Regional Roads Resurfacing & Reconstruction
1999	6	27
2000	8	14
2001	21	7
2002	29	9
2003	13	12
2004	9	25
2005	6	Not available
2006	25	Not available
2007	9	31
2008	9	72

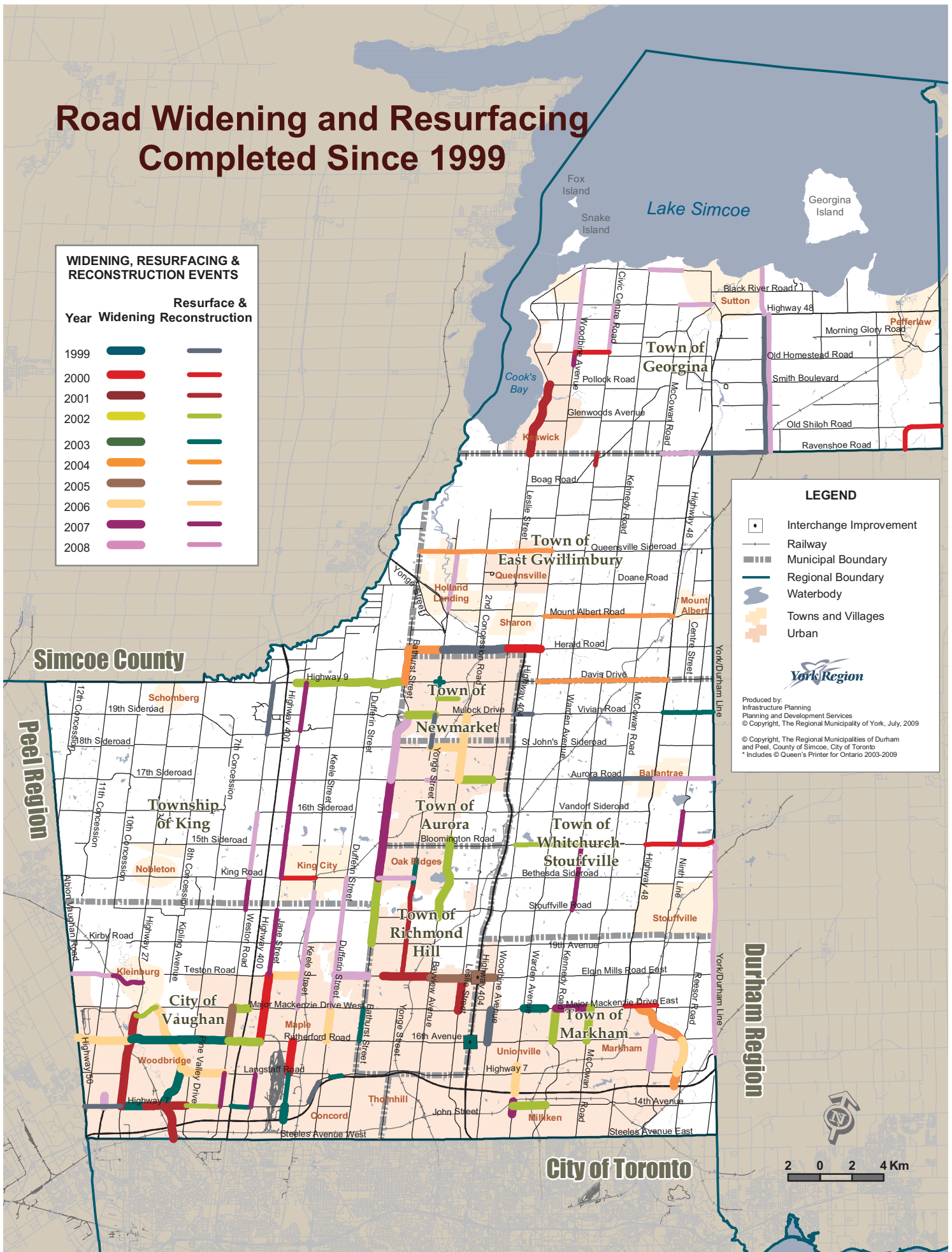


Road Widening and Resurfacing Completed Since 1999

WIDENING, RESURFACING & RECONSTRUCTION EVENTS

Resurface &
Year Widening Reconstruction

1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008		



LEGEND

- Interchange Improvement
- Railway
- Municipal Boundary
- Regional Boundary
- Waterbody
- Towns and Villages
- Urban

York Region

Produced by:
Infrastructure Planning
Planning and Development Services
© Copyright, The Regional Municipality of York, July, 2009
© Copyright, The Regional Municipalities of Durham
and Peel, County of Simcoe, City of Toronto
* Includes © Queen's Printer for Ontario 2003-2009



2 0 2 4 Km

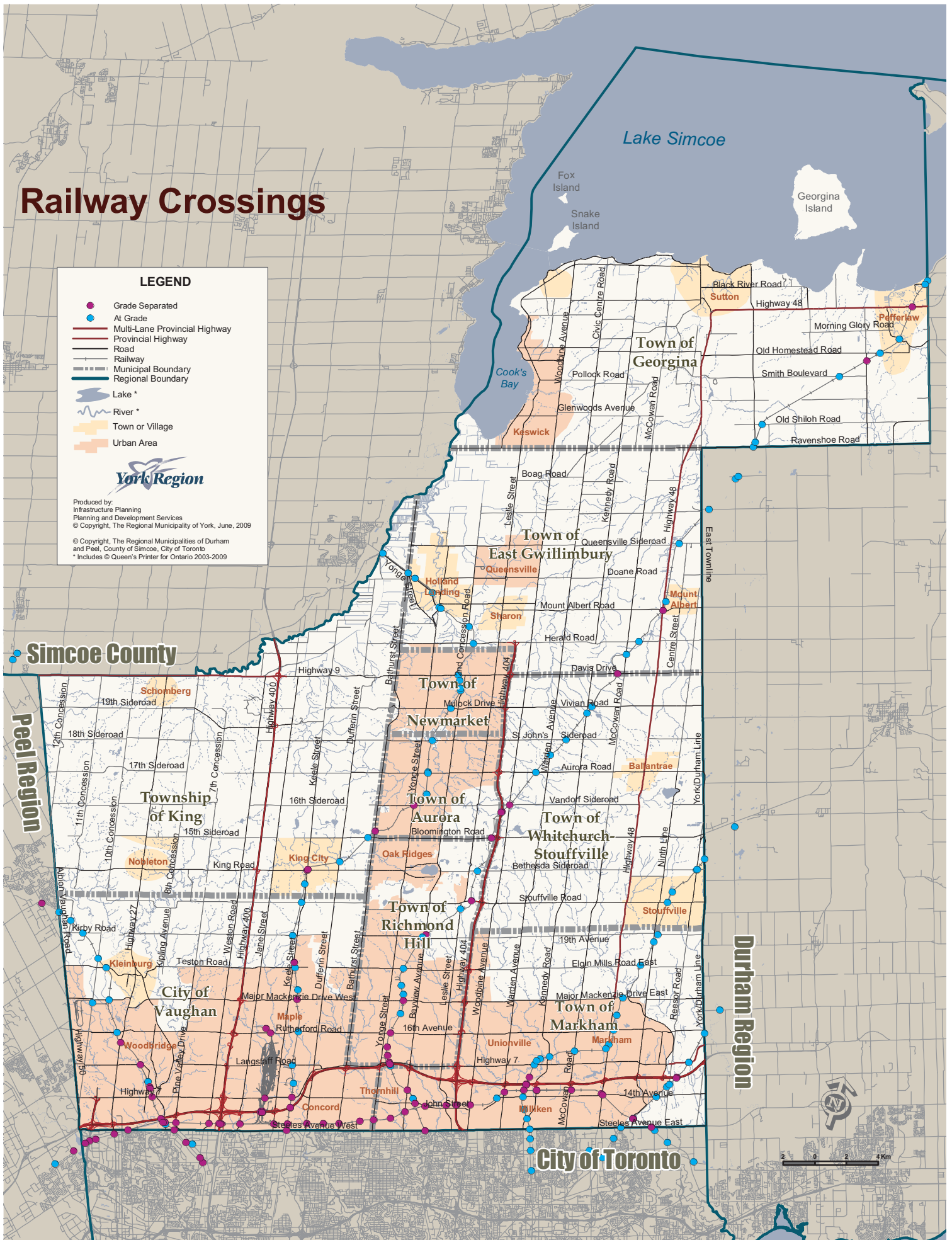
Railway Crossings

LEGEND

- Grade Separated
- At Grade
- Multi-Lane Provincial Highway
- Provincial Highway
- Road
- Railway
- Municipal Boundary
- Regional Boundary
- Lake *
- ~ River *
- Town or Village
- Urban Area



Produced by:
Infrastructure Planning
Planning and Development Services
© Copyright, The Regional Municipality of York, June, 2009
© Copyright, The Regional Municipalities of Durham
and Peel, County of Simcoe, City of Toronto
* Includes © Queen's Printer for Ontario 2003-2009



Railway Crossings



QUICK FACTS

- 179 railway crossings in York Region.
- 81 of these railway crossings are on Regional roads.
- Of the 95 level or at-grade crossings, 43 are on Regional roads.
- 79 grade separated crossings, 39 are on Regional roads
- There are four rail-to-rail grade separations.

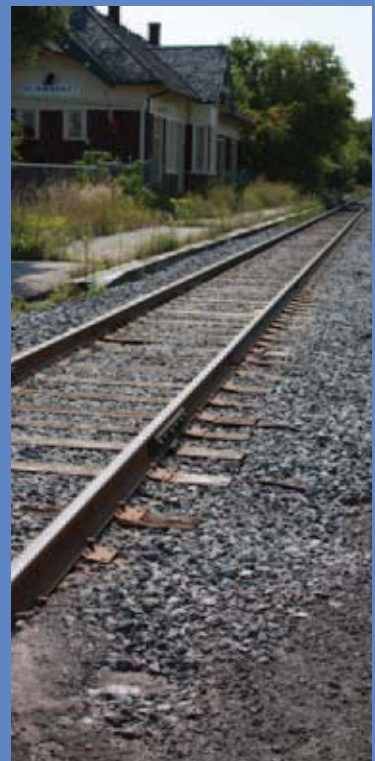
York Region is criss-crossed by 6 railway corridors: CN York subdivision, CP MacTier subdivision, GO Barrie, CN Bala subdivision, GO Uxbridge and CP Havelock subdivision. Three of these are major freight routes. They are the CN York, CP MacTier and CN Bala subdivisions. The GO Barrie and GO Uxbridge lines and the CN Bala subdivision are important regional urban passenger rail corridors with GO Transit rail services operating during peak periods.

Rail-rail and rail-road intersections are considered for grade separation as a way to improve train movements, goods and passenger movements. Grade separations improve service reliability and train 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 crossings in York Region is an important aspect of the Region's 10 Year Roads Construction Program. It provides for, on both the road and rail corridors, increased traffic capacity and improved traffic safety.

Existing and forecast traffic and train volumes are used in a hazard formula to calculate a Rail Exposure Index. This exposure index is used to rank the priority for various forms of crossing protection including the need to grade separate existing at-grade rail crossings. It is this priority ranking that forms the basis for inclusion in York Region's Roads Construction Program.



Traffic Control Devices



DID YOU KNOW?

York Region operates and maintains close to 740 traffic signals. Local municipalities in York maintain approximately 115 additional traffic signals. Regional signals are managed through the Region's Centralized Traffic Control System (CTCS).



To report traffic problems contact:

Roads Dispatch

Road Maintenance
Section
Transportation Services
Department



905-895-1200
ext. 5200



1-877-464-9675
ext. 5200



dispatch@york.ca

Intelligent Transportation Systems

York Region Transportation Services is responsible for the operation and maintenance of Intelligent Transportation Systems used to 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), Transit Management Systems, Automated Vehicle Location Systems and Real-Time Traveller Information Systems.

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

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

- Quickly identify and respond to traffic signal equipment problems.

Transit Signal Priority is provided on specific transit routes to improve service reliability, 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 vehicles are provided a higher level of traffic signal priority at all signalized intersections.

Automated Vehicle Location systems are in place on public transit vehicles and winter maintenance equipment. Real-Time Traveller 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 maximize the capacity of the existing infrastructure.



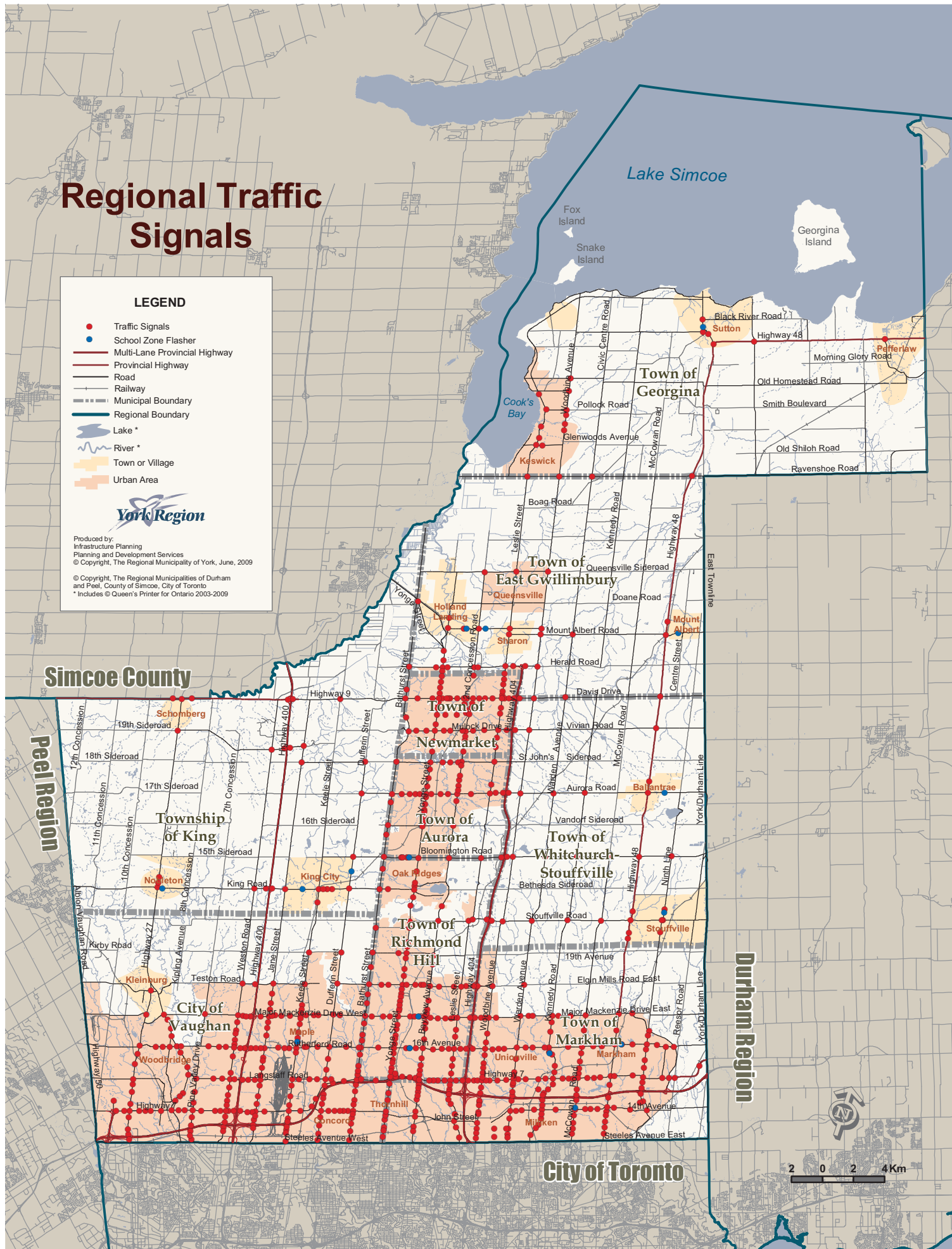
Regional Traffic Signals

LEGEND

- Traffic Signals
- School Zone Flasher
- Multi-Lane Provincial Highway
- Provincial Highway
- Road
- Railway
- Municipal Boundary
- Regional Boundary
- ~ Lake *
- ~ River *
- Town or Village
- Urban Area



Produced by:
Infrastructure Planning
Planning and Development Services
© Copyright, The Regional Municipality of York, June, 2009
© Copyright, The Regional Municipality of Durham
and Peel, County of Simcoe, City of Toronto
* Includes © Queen's Printer for Ontario 2003-2009



2 0 2 4Km

Speed Zones on York Region Roads

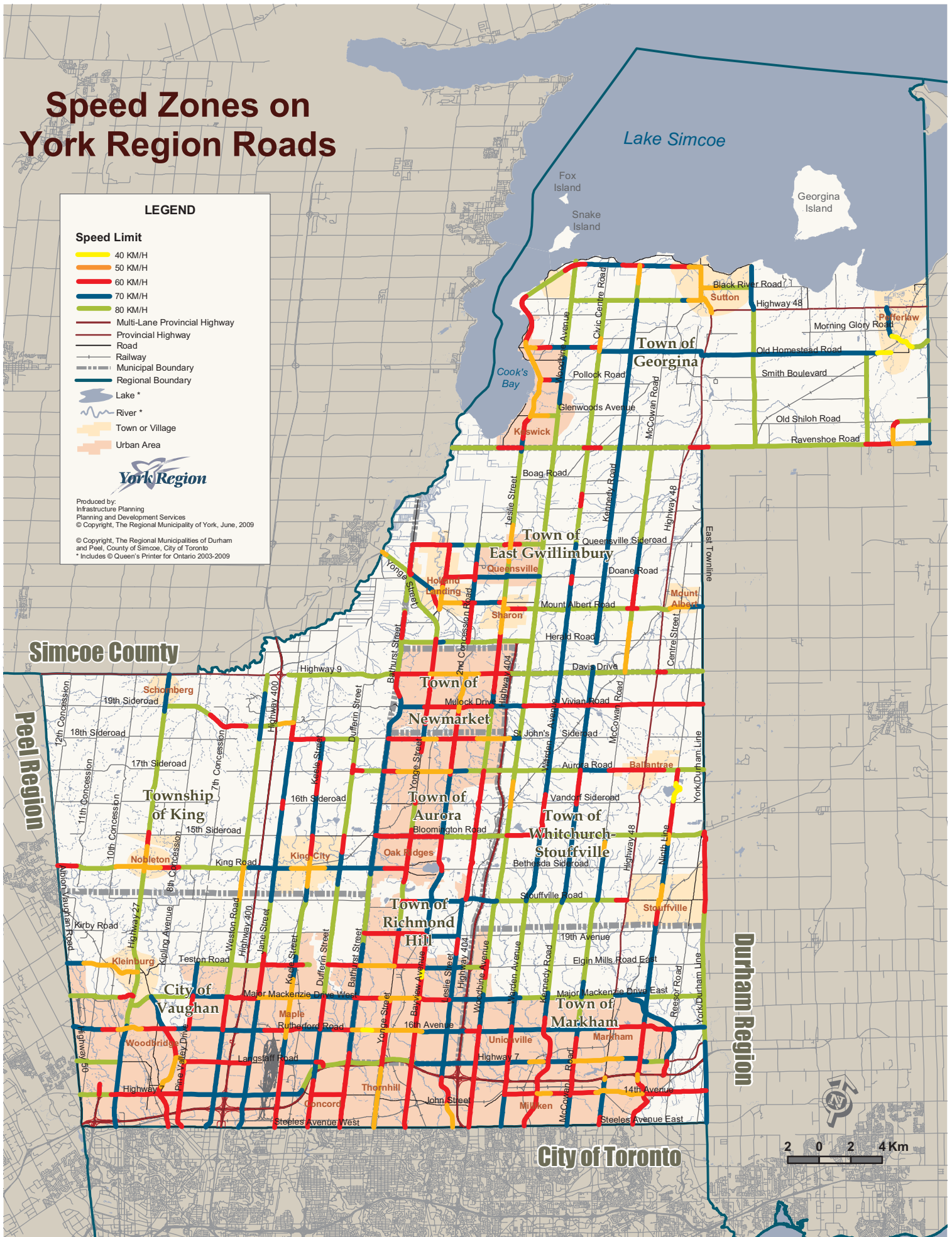
LEGEND

Speed Limit

- 40 KM/H
- 50 KM/H
- 60 KM/H
- 70 KM/H
- 80 KM/H
- Multi-Lane Provincial Highway
- Provincial Highway
- Road
- Railway
- Municipal Boundary
- Regional Boundary
- Lake *
- River *
- Town or Village
- Urban Area

York Region

Produced by:
Infrastructure Planning
Planning and Development Services
© Copyright, The Regional Municipality of York, June, 2009
© Copyright, The Regional Municipalities of Durham
and Peel, County of Simcoe, City of Toronto
* Includes © Queen's Printer for Ontario 2003-2009



Road Speed Zones

Speed limits are determined based partially on the comfort level of drivers and the design constraints of the roadway and environment. The goal is to set realistic speed limits to allow traffic to flow at a uniform rate of speed. This is key to increasing safety on our roadways and reducing collisions.

Each year, the Region undertakes studies and reviews all Regional roads to confirm or adjust speed limits for optimum road safety. This process involves a number of considerations including: on-street measurements of speeds, a review of collisions, the physical features of the road, and the effects of the transition of speed limits from one zone to the next.

These studies are required to establish optimum speed limits that reduce collisions, and driver frustration, while maintaining compliance with traffic laws.

