



## At tonight's session, you can expect the following:

- ✓ An overview of the Region's vision and goals for the Transportation Master Plan.
- ✓ The recommended transportation system for Niagara Region.
- ✓ Supporting goals, policies, tools, strategies and key messages that will ensure successful implementation of the Transportation Master Plan.

## Background

The Transportation Master Plan (TMP) – **How We GO** – will direct how Niagara Region's transportation system will be designed, who it will accommodate, and what investments will be needed.

Niagara Region must plan to accommodate an increase of 168,000 persons and 80,000 jobs that has been forecasted by the Province by 2041.

The TMP is one of four studies under **Niagara 2041** to address growth in Niagara Region.

## Transportation Master Plan Study Stages





The transportation vision and goals were developed with input from stakeholders and the public to guide the development of this TMP.

## Vision

In 2041, Niagara Region will be supported by a transportation network that will help establish Niagara as a leader in: building, preserving and enhancing livable communities, economic development, tourism, sustainable transportation practices and the emerging shared economy.

## Goals



*Integrate transportation and land use*



*Support economic development*



*Enhance multi-modal connectivity*



*Improve options for sustainable modes of transportation*



*Maintain and improve the efficiency of the goods movement network*



*Promote the development of healthy communities*



*Develop a realistic yet innovative blueprint for implementation*



Over the course of the study, we sought input from the community in a variety of ways:

- Meeting with over **290** Niagara residents at three sets of Public Information Centres
- Two online surveys with over **3,260** responses
- Three meetings with Stakeholder Advisory Group
- Two meetings with Active Transportation Advisory Group
- Two series of meetings with representatives of the local area municipalities
- Two meetings with First Nations
- Freight Industry Survey



## What we heard....

Extend GO Train service to Niagara Region.

More coordination between transit operators within the Region (fares, scheduling, network).

Accommodate movement of farm equipment.

Better connections between north and south, including across the Escarpment.

Improve pedestrian connectivity.

Support efficient goods movement.

Better connect / expand cycling facilities.

More crossings of the QEW and Welland Canal.

Build Complete Streets with trees, street furniture, sidewalks, etc.

Escarpment that can accommodate both residents' needs and goods movement.

Need a Smithville Bypass

NGTA is good for growth in Niagara. Need the NGTA now.

NGTA is not needed and will have too many environmental impacts.

The province needs to address timing of NGTA or provide an interim solution.



# Needs and Opportunities

Needs and Opportunities	→	Key Outcomes
A person's ability to live in urban areas without having to own a car, because quality travel options exist	→	Attract a talented workforce
A transit network that brings more residents within convenient reach of jobs	→	Maintain and attract new business investment
A street network that is safe and walkable for all ages, and that does not divide neighbourhoods	→	Create more healthy and liveable communities
Transportation infrastructure planning that accounts for long-term operating and maintenance costs	→	Improve financial sustainability
A selective approach to building new or wider roads, in combination with actions to improve transportation choice and manage demand	→	Establish leadership on climate change and environmental sustainability

**Transportation as a catalyst for change**

Needs and Opportunities	→	Key Outcomes
Better transit connections to employment and social hubs	→	Retain young adults after they complete high school and post-secondary education
Age-friendly transportation infrastructure and services, and better transit connections from neighbourhoods to activity centres	→	Ensure full participation of seniors
Safe and walkable neighbourhoods with complete streets and opportunities for recreational cycling	→	Promote Niagara Region as a place for families to thrive
Less need to own a car and greater access to jobs by transit	→	Improve equity for all

**Meeting the needs of residents**



**Connecting the Region**

**Taking advantage of new technology**

Needs and Opportunities	→	Key Outcomes
Faster and more frequent transit services into/out of the region, including GO rail extensions	→	Increase economic interchange with the GTHA and other surrounding municipalities
More frequent transit services in key corridors, coupled with innovative transit services in less-dense areas	→	Strengthen economic and social connections between area municipalities
More freeway capacity and selected roadworks that improve links to key corridors and facilities	→	Boost efficiency of goods movement from local manufacturers and producers to regional, national and international markets
More compact, mixed-use development featuring fine grid networks	→	Maximize use of walking and cycling for short trips
Better access to border crossings for trucks moving to/from or through the region	→	Improve international trade
Steps to shift freight demand from road to rail, especially between GTHA and US	→	Increase effective freight capacity through region and reduce QEW congestion

Needs and Opportunities	→	Key Outcomes
Supportive environments for shared mobility options	→	Reduced personal and business costs for transportation
Innovative transit options including dynamic transit to connect lower density areas	→	Extended coverage of transit system
Facilitate new technologies that contribute to reduced peak period travel or reduced reliance on private automobiles	→	Reduced need for road expansion
Proactive planning to ensure that benefits of autonomous vehicles and other new technologies outweigh potential negatives	→	Region seen as leader in innovative transportation solutions



The TMP will focus on seven key action areas that respond to the needs and opportunities:

- Complete Streets
- Active Transportation
- Transit
- Roads
- Goods Movement
- Travel Demand Management
- Transportation System Management

While the TMP considers expansion to the road network capacity in strategic areas, it gives priority to improving facilities and services for public transit and active transportation, and to proactively boost demand for those modes through transportation demand management.

The TMP also emphasizes approaches to make streets more efficient through transportation system management measures and approaches that capitalize on the potential of emerging technologies to improve mobility.





# Complete Streets

The purpose of a street should be more than just a route for automobiles. Streets are the defining elements of our towns and cities and showcase the character of a place.

Complete Streets is an approach to street design that **balances the needs of all users**. While design does not always provide equal accommodation, it is a context sensitive approach that considers both the transportation and placemaking function of the road.



## TMP Goals



*Integrate transportation and land use*



*Enhance multi-modal connectivity*



*Promote the development of healthy communities*



*Improve options for sustainable modes of transportation*



*Develop a realistic yet innovative blueprint for implementation*



## Street Typologies



Main Street



Urban General (Wide)



Urban General (Narrow)



Transitioning



Hamlet



Rural

## Key Recommendations

Niagara Region will:

- Plan and design Regional road projects using a Complete Streets approach
- Design roads to be universally accessible, safe and comfortable for all roads users
- Recognize roads as important public space opportunities

## Implementation Strategy

- The Complete Streets design guidelines are intended to provide guidance to local municipalities in assessing and incorporating, where reasonable, Complete Streets design principles.
- The Region will support funding for Main Streets located on Regional roads in smaller municipalities/communities, which could include cost-sharing/funding opportunities for specific fixed assets.



Niagara Region is already a cycling destination, but the TMP aims to make travel by bike a realistic option for the Region's residents and visitors alike.

## Strategy

- Address gaps and underserved areas by providing a high-quality, connected network, in areas where it will mostly likely be used, within the shorter-term horizon (10 years) as the next step to implementing the Region's **Bikeways Master Plan**.
- Consistent wayfinding signage to provide information and guide cyclists to bikeways, facilities and points of interest throughout the region.

## Key Recommendations

Niagara Region will:

- Invest in cycling facilities and supporting infrastructure to promote active lifestyles and healthy communities
- Build cycling facilities as part of planned road capital projects on Regional roads
- Prioritize infill corridors to implement the Strategic Cycling Network within 10 years as retrofit projects
- Implement wayfinding following the Region's new *Bikeway Identification and Destination Wayfinding Signage for Cyclists* guidelines

## TMP Goals



*Enhance multi-modal connectivity*



*Improve options for sustainable modes of transportation*



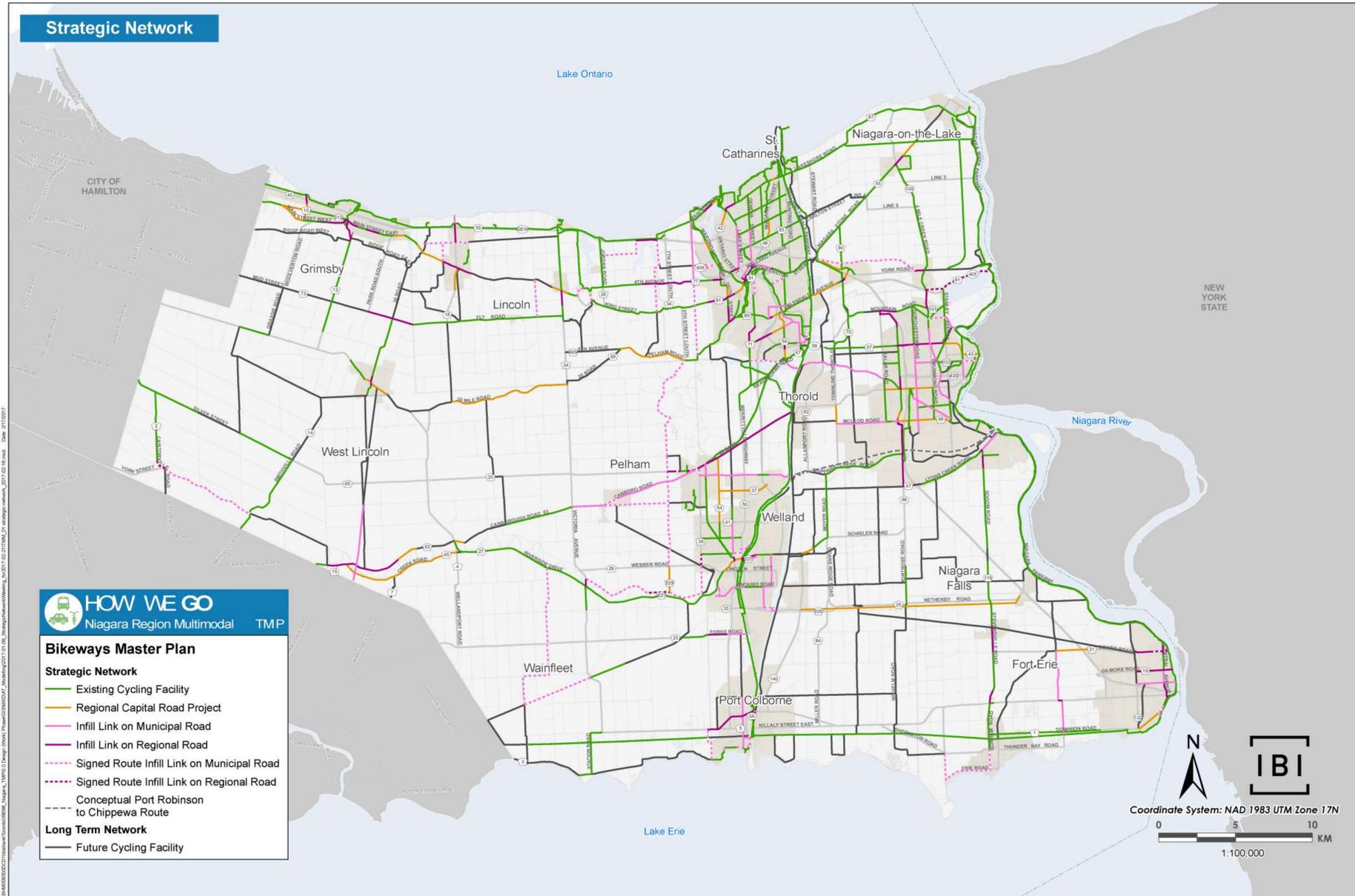
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## Strategic Cycling Network



Completing the Strategic Cycling Network will require a total investment of \$42.5 M on infill projects

- \$20.9 M of infill projects on Regional roads
- \$21.6 M of infill projects on municipal roads

### Strategic Infill Link

Component of the Strategic Cycling Network that will be advanced to enhance connectivity in areas with higher density or potential demand, or to provide access to key destinations or across major barriers.

**Facility types include:** signed routes, paved shoulders, bike lanes, and boulevard multi-use trails.

### Regional Capital Road Project

Component of the Strategic Cycling Network that will be constructed as part of the road projects in the Capital Budget.

The network of infill corridors were analyzed based on the following five criteria to identify priorities.



**Connectivity** – number of network pieces that the infill link connects to and the types of link, i.e. existing or proposed project.



**Density** – density of neighbourhoods surrounding the link. Higher density areas may increase the use of active transportation facilities.



**Potential Demand** – number of short trips (<5 km) made by non-active transportation modes in close proximity to the corridor.



**Key Destinations** – number of destinations that could be served by the corridor. Key destinations include: libraries, schools, shopping centres, major regional transit hubs, foodbanks, etc.



**Barriers** – whether the link crosses a major barrier such as a highway or a waterway



Niagara Region is positioned to be a leader in the promotion of **mobility as a service**. The aim will be to provide a more flexible transit system with improved inter-municipal transit services, improved coordination between transit providers, and implementation of new technologies and transit methodologies.

## Strategy

- Provide better connections between local municipalities to support growing demand for inter-municipal travel.
- Introduce a **Demand-responsive Transit** model to serve lower-density areas where traditional, fixed-route transit systems perform poorly. This is not a new approach to transit, but with emerging technology the cost of providing flexible, demand-responsive transit is greatly reduced.

## TMP Goals



*Integrate transportation and land use*



*Enhance multi-modal connectivity*



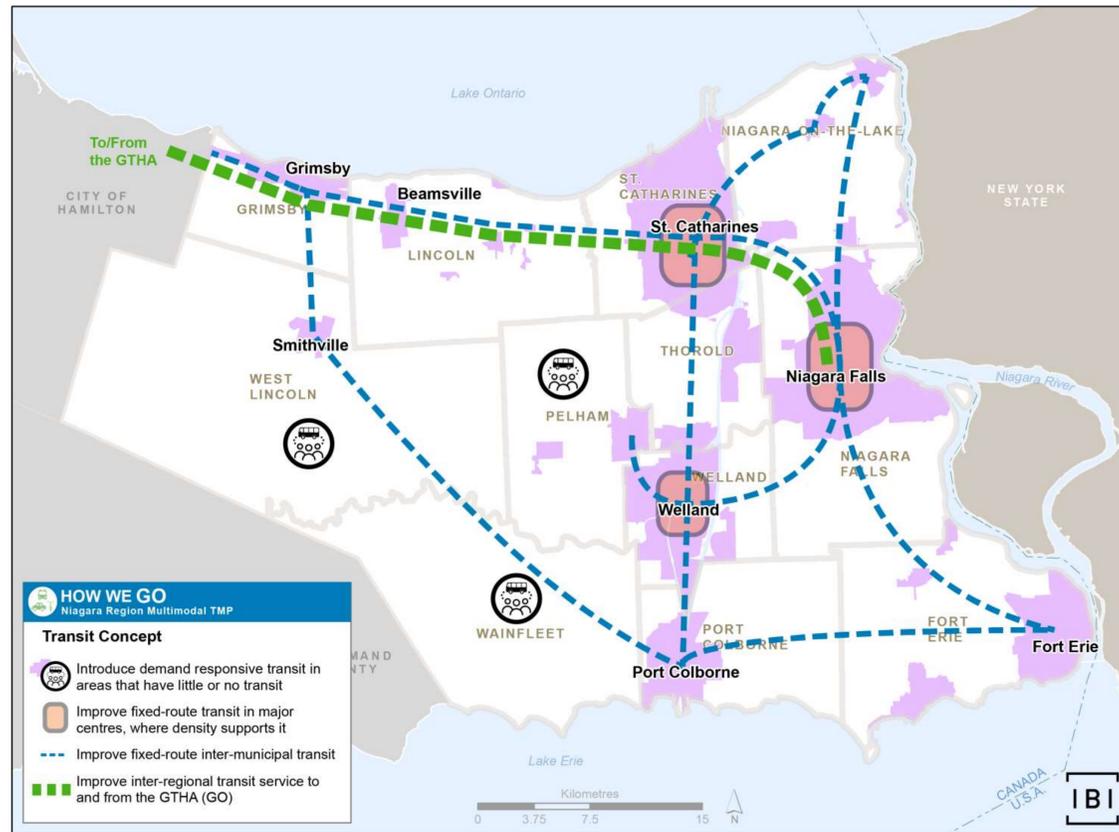
*Improve options for sustainable modes of transportation*



*Promote the development of healthy communities*



## Transit Concept



## Key Recommendations

Niagara Region will:

- Coordinate, support and fund opportunities for improved **inter-municipal transit** to all of Niagara’s municipalities through a combination of fixed-route and flexible transit.
- Initiate and fund a pilot project to connect riders to Niagara Region Transit via flexible transit.
- Take an active role in **service co-ordination** between local agencies and Niagara Region Transit so that inter-municipal trips are seamless.
- Work with Metrolinx to implement two-way, all-day **GO Train** connections between Niagara and GTHA.
- Ensure regular, reliable and coordinated transit connections to future GO Transit Hub in St. Catharines and GO Transit stations in Grimsby, Beamsville and Niagara Falls, along with supporting pedestrian and cycling infrastructure.
- Introduce subsidized “co-fares” between Niagara Region Transit and GO Transit, and encourage local transit systems to do the same.
- Enact **land use policies** that attract high-density residential and employment uses within walking distance of GO stations.



Niagara Region needs to ensure that it maintains **accessibility** and **connectivity** within the Region and to the Greater Toronto and Hamilton Area (GTHA) through the provision of upgrades / improvements to key links and corridors to support a flourishing economy and connected population.

## Strategy

- Accommodate the significant growth in travel by motorized vehicles through strategic network capacity increases.
- Address operational improvements at specific hotspots, bottlenecks at Canal crossings, impeded truck movements across the Niagara Escarpment and seasonal tourist-related congestion.

## TMP Goals



*Enhance multi-modal connectivity*



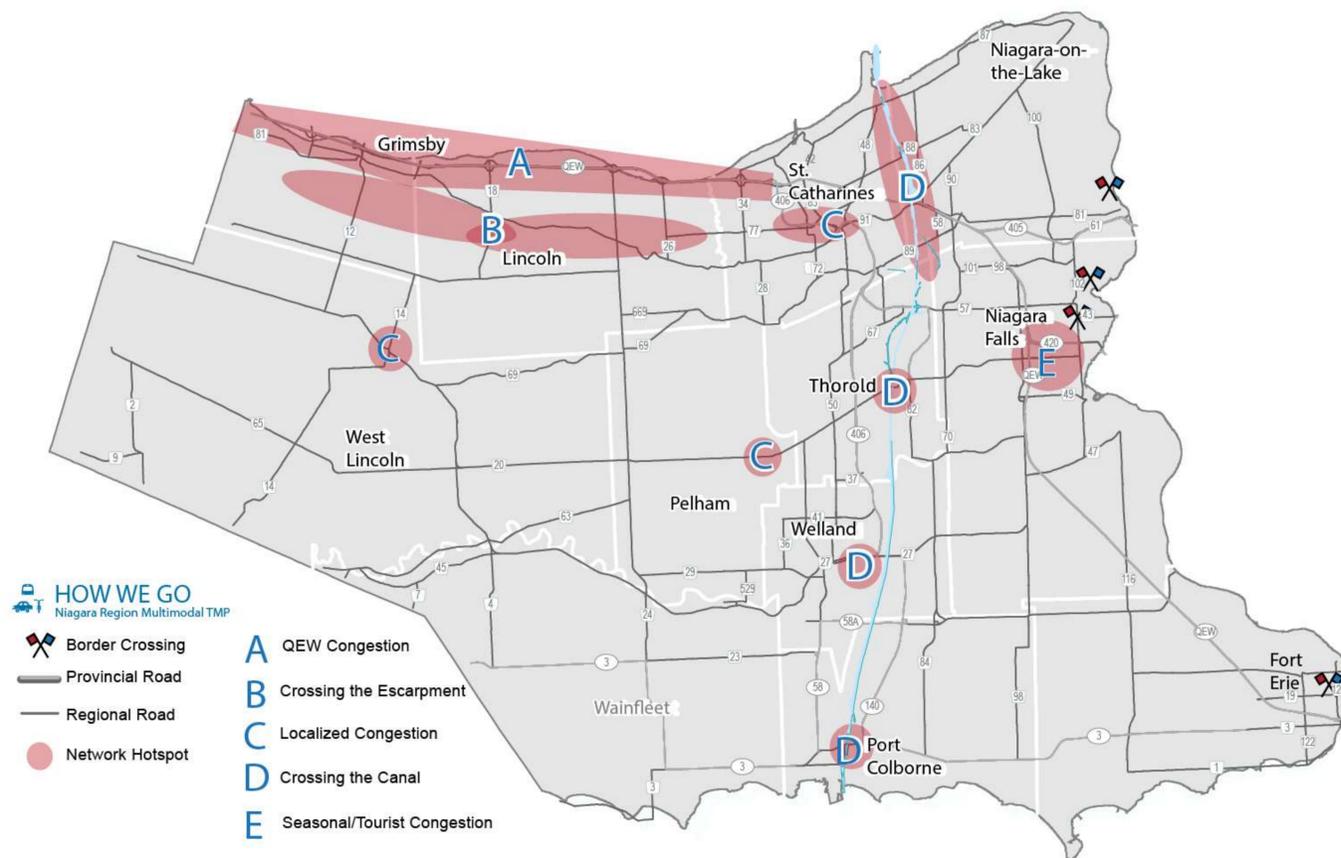
*Support economic development*



*Maintain and improve the efficiency of the goods movement network*



*Develop a realistic yet innovative blueprint for implementation*





## Key Recommendations

Niagara Region will:

- Work with MTO to progress the **QEW widening**, **NGTA Corridor** and **NGTA East Corridor** to provide for the efficient movement of people and goods connecting Niagara Region to the GTHA and USA. To expedite the NGTA East corridor planning process, the Region will propose to MTO to lead a joint MTO/Region EA Study.
- Actively work with MTO to identify a short-term solution to provide network redundancy through an **alternate Provincial route** parallel to the QEW that can accommodate longer-distance, inter-regional travel and goods movement, including a Role and Function Study of Regional Road 20 and a study to address the Smithville Bypass.
- Undertake Phases 3 and 4 of the Environmental Assessment (Schedule C) for the preferred alignment and preliminary design of the **Niagara Escarpment Crossing** (Bartlett Avenue extension) extending to Regional Road 20.
- Undertake or complete Environmental Assessment studies for:
  - Concession 6 / Hwy 405 interchange / Mewburn Road corridor
  - Hwy 406 / Third Avenue interchange
  - South Niagara East-West Transportation Corridor
- Protect non-Regional transportation corridors that provide local benefits and network connectivity including:
  - Morrison Street crossing of QEW (Niagara Falls)
  - Crossing of Twelve Mile Creek (St. Catharines)
  - Crossing of Chippawa Creek (Welland River) (Niagara Falls)



## 2041 Road Network



Completing the proposed Road Network will require a total investment of approximately \$750 M

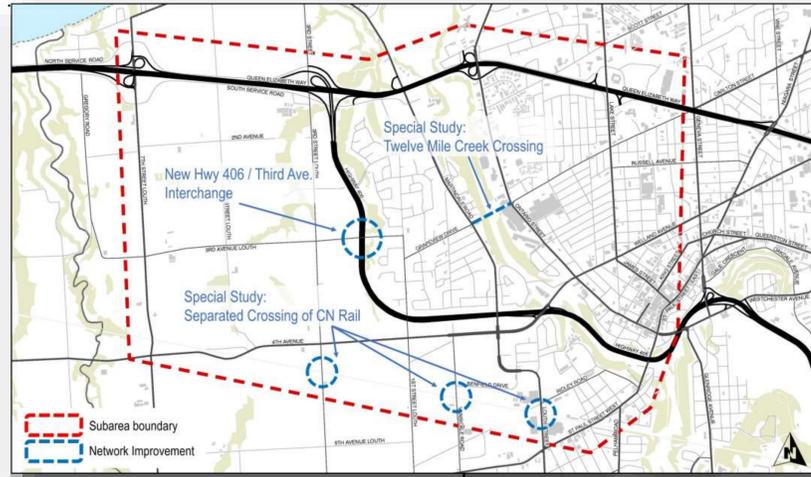
Timing	Total Capital Cost
Short Term (2017–2021)	\$ 140 M
Medium Term (2022–2031)	\$ 410 M
Long Term (2032–2041)	\$ 200 M
<b>Total</b>	<b>\$ 750 M</b>

Cost estimates exclude MTO freeway projects, but include contribution to proposed freeway interchanges and regionally-significant municipal projects.



# Roads – Subarea Analysis

## West St. Catharines



### Recommended Improvements:

- New Hwy 406-Third Ave Louth interchange and connection to new hospital
- Special Study: Grade separation at Third Street Louth or Vansickle Road or Louth Street (GO Hubs and Transit Stations Study)
- Special Study: Twelve Mile Creek capacity requirements between QEW and Fourth Avenue (St. Catharines TMP)

## QEW - Glendale - Hwy 405



### Recommended Improvements

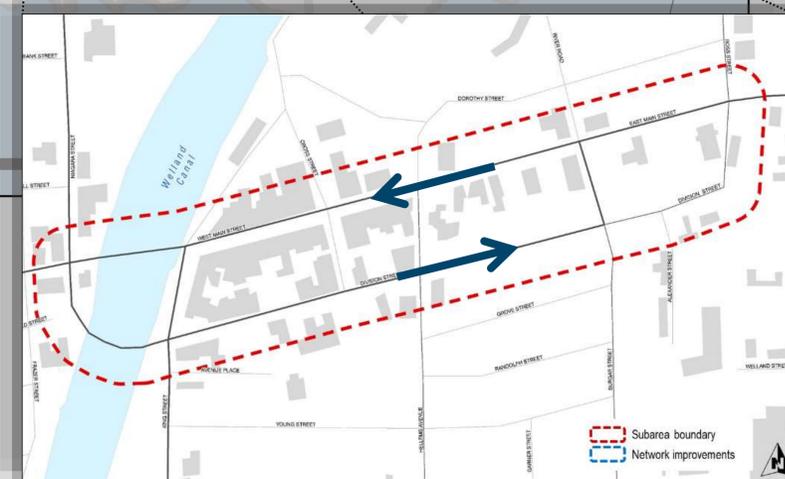
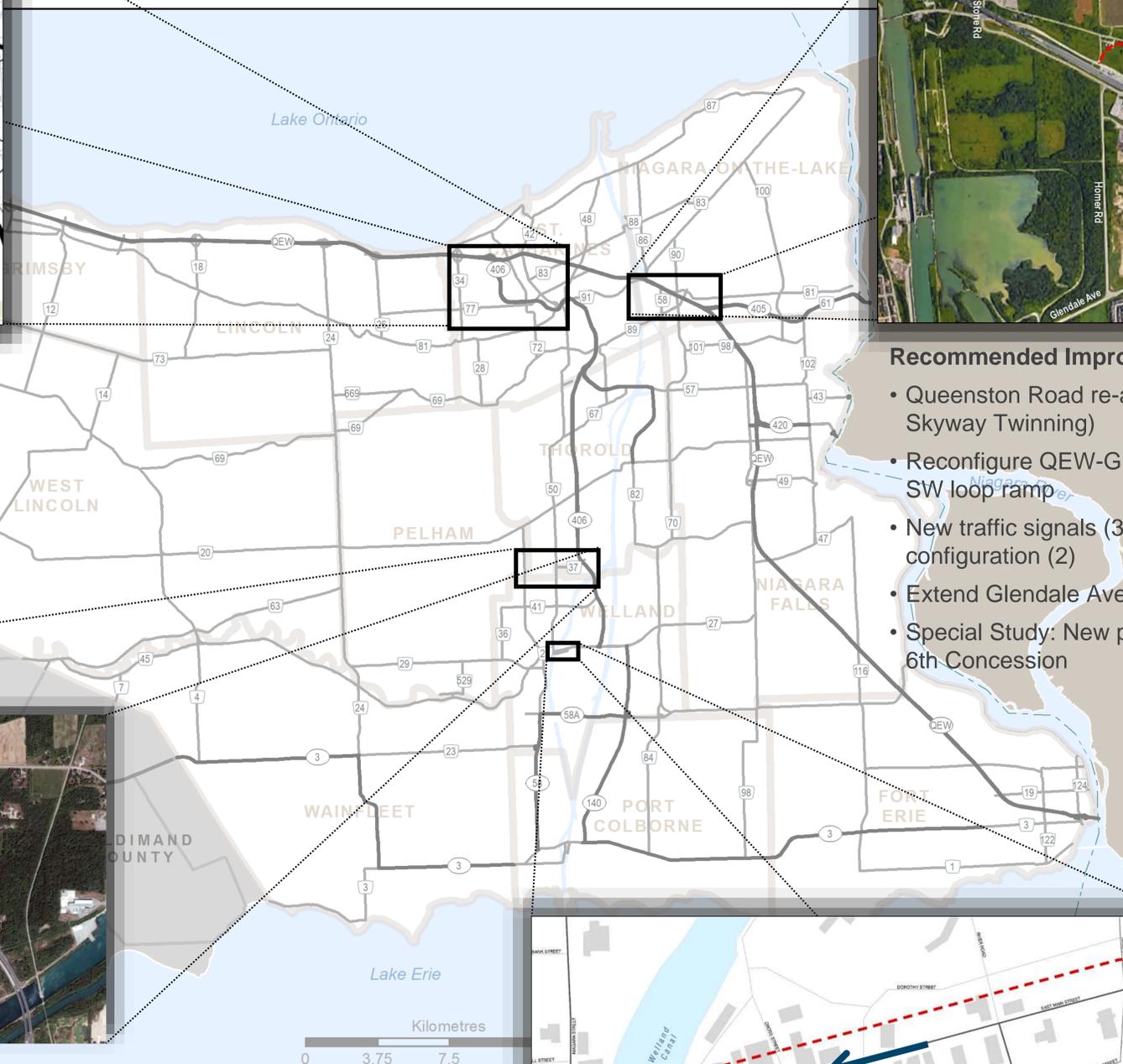
- Queenston Road re-alignment (subject to QEW Garden City Skyway Twinning)
- Reconfigure QEW-Glendale Avenue interchange with a new SW loop ramp
- New traffic signals (3) and improved traffic signals/intersection configuration (2)
- Extend Glendale Avenue (2 lanes) north to Queenston Road
- Special Study: New partial interchange on Hwy 405 at 6th Concession



## East Fonthill/Port Robinson Area

### Recommended Improvements:

- Rehabilitation of Merritt Road between Niagara Street and Cataract Road
- Future widening of Merritt Road between Hwy 406 and Cataract Road
- New road construction to connect the unopened road allowance on Merritt Road between Cataract Road and Rice Road
- Capacity improvements on Rice Road (RR20 to Thorold Road)



## Welland East Main and Division One-way Couplet

### Recommendation:

- One-way street operation to remain



# Moving Goods

Roads leading to the Canada-U.S. border are major routes for goods movement. Minimizing impedance from commuters and tourists improves efficiency—reducing business costs and increasing the value of operating in the Niagara Region. Goods move through Niagara Region primarily by road, but air, water and rail also play a large role in moving goods.

## Key Recommendations

Niagara Region will continue to support the policy that Regional roads provide for truck movements and establish policies and directives for a **Goods Movement Study** to address the following:

- A goods movement network that addresses movements by road, rail, air and water.
- NGTA and NGTA East Corridors to provide efficient goods movement routes that connect Niagara Region to the GTHA and USA.
- Infrastructure initiatives that provide efficient connections to the Provincial highway system, international border crossings, Foreign Trade Zone Point, Gateway Zone employment areas and other truck activity centres in Niagara Region, while ensuring the accommodation of aggregate trucks and mobile farm equipment.
- Opportunities for innovative goods movement that respond to changing delivery methods and technology such as electric vehicles, autonomous vehicles and drones.
- Industrial compatible land uses around marine ports and rail facilities.

## TMP Goals



*Support economic development*



*Maintain and improve the efficiency of the goods movement network*



Travel Demand Management (TDM) provides a means to protect the Region's investments by **ensuring that transportation facilities are used efficiently** and by tapping into currently underutilized capacity. TDM measures cost a fraction of the capital costs for expanding roadway and transit infrastructure.

## Strategy

- Adopt and lead TDM initiatives through a TDM program that is funded and staffed, allowing the Region to become focused on sustainability, efficiency and safety for its transportation system.

## Key Recommendations

To encourage the reduction of travel by single-occupant vehicles, Niagara Region will undertake a TDM Strategy study that will address the following:

- Engaging with workplaces to develop programs (i.e. SmartCommute) aimed at decreasing congestion at peak hours and increasing employee use of active transportation, public transit, carpooling and teleworking.
- Implementing new technologies that have potential to change travel behaviour, improve transportation options, or increase awareness of TDM options.
- Collaborating with local municipalities to apply guidelines that maximize the TDM supportiveness of new developments across Niagara Region, including parking strategies.
- Expanding carpool program and park and ride facilities in Niagara Region.

## TMP Goals



*Integrate transportation and land use*



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Transportation Systems Management (TSM) is used to **maximize capacity** of existing roads and make travel by all modes safer and more efficient.

## Strategy

- Maximize the efficiency and capacity of the Region’s existing transportation infrastructure resulting in a more cost-effective transportation system for the Region to maintain and operate.
- Provide travellers with up-to-date travel information to enable informed travel choices.

## Key Recommendations

To improve the efficiency of its network, Niagara Region will:

- Embrace new mobility services and technologies.
- Upgrade traffic signal system including hardware, signal timing and integration.
- System deployment including centralized emergency management/coordination, event management, public reporting, and portable variable message signs.
- Develop data analytics and business intelligence tools to support decision making, provide greater capability for predicting traffic patterns and support continuous improvement.
- Integrate Corridor Management to support seamless end-to-end journeys by collectively managing the highway corridor, parallel arterial routes and transit.

## TMP Goals



*Improve options for sustainable modes of transportation*



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## After this PIC, we will:

- 1 Refine goals, policies, and recommendations based on public feedback
- 2 Present the Draft TMP to Regional Council and provide for public review
- 3 Finalize the Transportation Master Plan
- 4 Provide the TMP to municipalities as an overarching document to support local TMP studies
- 5 Assist in the development of updated and new transportation policies for the Regional Official Plan

## *We want to hear from you!*

If you have questions, comments or ideas, please submit a comment form or contact the project manager:

Jack Thompson  
905-980-6000 or 1-800-263-7215, ext. 3482  
Jack.Thompson@niagararegion.ca

Please provide all comments by March 20, 2017.

This material is available on Niagara Region's website (in accessible format)  
at [niagararegion.ca/2041](http://niagararegion.ca/2041)