Report

Transportation Strategies to Support Employment Growth

Discussion Paper

Region of Peel
Working for you

Prepared for the Region of Peel by IBI Group
August 14, 2017
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INTRODUCTION
1 Introduction

At the Region of Peel’s Growth Management Committee meeting on January 19th, a motion was passed directing staff to:

➢ provide research and a strategy for Local Municipalities to achieve the employment targets, through the inter-municipal work group and the development industry workgroup;

➢ work with the Local Municipalities to determine a strategy for transportation/transit to support employment growth that conforms with local municipal plans and identifies opportunities where the Region can support increased active and public transit, such as through the provision of data, and advocacy for funding, etc.;

➢ report through the inter-municipal work group on the relevant public consultations, including reviewing the achievement of intensification targets through good design in other jurisdictions; and,

➢ meet with staff of the Provincial government regarding the results of the Growth Management Strategy, the challenges of achieving the current Provincially-determined employment targets, the need for complete communities, and the need to consider these challenges when setting the next set of employment targets.

Purpose of Paper

This discussion paper provides the research, analysis and potential strategies that can help to ensure that the transportation system in Peel Region is planned in a manner that supports sustainable growth in employment, and growth overall. The paper serves to summarize key future transportation needs and highlight areas where there may be a disconnect between what is required for sustainable employment growth and what is planned. Overall, the paper serves to underscore the fact that in the coming decades, the transportation system will need to transform from one that is largely reliant focused on accommodating automobile and truck traffic to one that provides residents and employees...
with viable choices for walking, cycling and transit, in addition to vehicular travel. This transformation is not only necessary to achieve key strategic goals around healthy communities, climate change and economic prosperity, but it is reflective of the reality that it is not sustainable to expand road capacity to fully meet all future transportation demands.

**Report Organization**

The remainder of this paper is organized as follows:

- **Chapter 2** provides an overall outlook for transportation in the Region and some of the key actions that are planned and being implemented to address future needs and challenges
- **Chapter 3** focuses in on employment impacts including existing and future travel patterns and the needs by type of employment
- **Chapter 4** examines transportation needs by mode and provides commentary on the gaps that may not be addressed by current infrastructure plans
- **Chapter 5** summarizes strategic priorities including potential actions as well as major infrastructure investments
- **Chapter 6** presents a high level assessment of the investments that will be required to not only keep pace with employment growth, but also reprioritize spending to achieve a more balanced network
- **Chapter 7** identifies next steps and ways to work together.
TRANSPORTATION OUTLOOK: PEEL IN 2041
TRANSPORTATION STRATEGIES TO SUPPORT EMPLOYMENT GROWTH

TRANSPORTATION Outlook: Peel in 2041

The Region is growing.
Between now and 2041, the Region of Peel (see Exhibit 2.1) is expected to accommodate about 19% of the population growth and 21% of the employment growth in the Greater Toronto and Hamilton Area (GTHA), second only to York Region.

While Peel’s rate of growth is slowing in percentage terms, the magnitude of growth in actual terms is significant. So, too, will be the growth in travel demand: in 2041, Peel residents and employees will make 40% more trips than they did in 2011. A “business as usual” scenario for 2041, where Peel households continue to make 63% of their trips using single-occupant vehicles (SOVs), would see a 45% increase in SOV trips (or about 200,000 more cars on the road) every morning peak period.

We need to change how we travel.
Preserving Peel’s quality of life and economic competitiveness in the face of growth will require a significant change in the way people travel. The Region’s Long Range Transportation Plan has set a 50% target for travel by sustainable modes (walking, cycling, transit and car passengers) for the 2041 peak period, meaning that car drivers would make only 50% of peak period trips. This target reflects the reality that road expansion cannot continue at historic rates. It also reflects Peel’s vision for sustainable transportation: an effective, efficient, clean and balanced transportation system that will provide practical, attractive, equitable and integrated transportation choices for residents and visitors to the Region of Peel in the year 2041.

In 2041, the roles of walking, cycling and transit will be much different than they are today. Transit will need to carry more than double today’s number of passengers; similarly, at least 11% of all peak period travellers will either walk or ride a bike. Approaches like telework, to simply eliminate some portion of travel demand, will also be needed.

Travel patterns and technologies will diversify.
Travel patterns in Peel will become more diverse. Today, one in five trips in the Region is either to or from Toronto—but over the next 25 years this proportion will decrease, as local employment grows and communities become more self-contained. The planning and implementation of transit corridors will need to reflect this change in travel patterns.

See Exhibit 2.1
Rapidly changing technologies will also influence Peel’s transportation future. These include new ridesharing and other shared economy options enabled by smartphone technology, and the mainstreaming of autonomous and connected vehicles. For commuters, one benefit of new technologies will be improved options for making the “first or last mile” of a transit trip.

**Governments share a collective vision.**

The goal of a more sustainable transportation system is central to the Official Plans and supporting policy documents of the Region of Peel and the City of Mississauga, City of Brampton, and Town of Caledon. Specifically, they share a number of major themes:

- Healthy and complete communities
- Transit-supportive development
- Complete streets
- Road safety
- Reduced environmental impacts
- Climate change mitigation and adaptation
- Affordability and fiscal responsibility

The various policy documents also share a number of themes with respect to employment lands:

- Improving travel choices
- Managing travel demand
- Managing the supply and price of parking
- Planning new development to ensure a balance of population and employment

**Many actions are planned.**

The plans of the Region, Local Municipalities, Metrolinx and the Province each outline...
policies, tasks and investments to meet future transportation needs. The following is a short summary of current plans and initiatives.

REGION OF PEEL:

The Region of Peel is currently undertaking an update to its Long Range Transportation Plan (LRTP) and in parallel completing a Sustainable Transportation Strategy (STS). These plans build on the Region of Peel’s 2015-2035 Strategic Plan, which places a strong emphasis on healthy, safe and connected communities under the overall vision of “Community for Life.”

Over the past several years, the Region has made progress in several areas that help to achieve more liveable communities and economic prosperity including establishing a Goods Movement Task Force and developing the successful Walk and Roll Peel program.

CITY OF MISSISSAUGA:

The City of Mississauga is currently in the process of preparing a new comprehensive Transportation Master Plan which will serve to provide the implementation framework for a number of strategic transportation initiatives. A key priority for Mississauga is the development of a rapid transit network, anchored by the Hurontario LRT and Mississauga Transitway. In parallel, Mississauga Transit continues to advance the MiWay Five Plan, which will result in a 16% increase in transit service levels between 2016 and 2019. Other significant achievements in Mississauga include the implementation of a new Advanced Traffic Management System and significant expansion of the cycling network.
CITY OF BRAMPTON:

The City of Brampton completed a comprehensive Transportation Master Plan in 2015. Both the TMP and the Official Plan include a strong emphasis on Complete Streets and designing for all users. The TMP identifies significant increases in mode shares for walking, cycling and transit and supports these targets with major capital investments. Core to this strategy is the enhancement and expansion of the Züm network and the implementation of a north-south LRT from Brampton Gateway to Downtown Brampton. Brampton is also in the process of development an Active Transportation Master Plan, which is developing a detailed implementation plan to build a connected cycling and pedestrian network across the City.

TOWN OF CALEDON:

The Town of Caledon is in the process of developing a Transportation Master Plan (TMP) to study the existing transportation network and identify strategic actions to meet the Town’s future transportation needs. The Caledon TMP will build on existing community Transportation Master Plans to create a comprehensive strategic plan that will help guide future infrastructure investments to maintain and improve locally owned roads to keep pace with growth and development. The TMP builds on the 2015 Bolton TMP, which served to highlight the need for the GTA West Highway and Bolton GO Rail service. Recent improvements such as the Bolton Arterial Route are serving to prepare the Town for major growth.
Exhibit 2.1: The Region of Peel General Planning Policy Areas

Legend
- Designated Urban Area
- Urban Growth Centre
- Rural Service Centre
- Rural Area
- Greenbelt
- Provincial Highway
- Regional Road
- Other Major Road
- Railway
- GO Train Station
- Regional Urban Boundary
- Municipal Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information on this map, the reader is advised to obtain a precise indication of locations.

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3 UNDERSTANDING THE CHALLENGE
3 Understanding the Challenge

3.1 TRAVEL PATTERNS IN THE REGION OF PEEL

Peel is a magnet for commuters.

In the average morning peak period (6:30 AM – 9:30 AM) in 2011, about 797,000 trips were made to, from or within Peel. Of these, 517,000 (65%) started and ended in Peel, and 334,000 (42%) were commute trips from home to work. Exhibit 3.1 shows the municipalities where those commute trips started and ended. Notably, about 46% of commutes started and ended in Peel—a higher level of self-containment than York (36%) and Halton (32%), but less than Durham (50%), Hamilton (57%), and Toronto (60%).

The Exhibit shows that Peel is an attractive place to work. Almost 50,000 workers travelled to Peel from other parts of the 905 region during the morning peak period in 2011, compared to 26,000 commuters who left Peel going the other way. A major reason for this is the presence of Pearson Airport and the surrounding employment lands in Mississauga, which offered 216,000 jobs in 2016 (within the GTHA, second only to downtown Toronto’s 583,000 jobs).

However, travel to the City of Toronto differs from Peel’s other external markets. The Region of Peel is a net exporter of commuter trips to Toronto: 67,000 commuters leave Peel for Toronto in the morning peak period, while just 38,000 come to Peel from Toronto. Peel’s goal of maximizing internal work trips and reducing commute lengths for Peel residents will depend on its ability to attract and retain the types of Major Office and Population-Related jobs typically found in downtown Toronto.

Connections to the rest of the GTHA will be essential.

Research shows that the vast majority of travel demand growth in the GTHA will occur in the 905 region outside Toronto (IBI Group, *Transit Needs and Opportunities Background Paper*, 2016). This reality is driven by the fact that 80% of GTHA population growth to 2041 will be in the 905 regions (Growth Plan). As a large, attractive employment centre, Peel will need to strengthen its road and transit connections—particularly to York and Halton—to keep pace with growth.
Commuter destinations in Peel are dispersed.

Exhibit 3.2 shows the number of trips ending in each zone in Peel in the morning peak period. The map shows that while some stronger nodes exist—such as the Pearson Airport area, Square One and Meadowvale—commuter travel tends to be fairly evenly distributed. In part, this can be attributed to the fact that major industrial areas of Peel, such as Ward 5 in Mississauga and Ward 3 in Brampton, do not typically have high densities and jobs tend to be spread out. Moreover, employment areas are usually zoned separately from residential areas—meaning that many workers must travel from neighbourhoods that are well beyond easy walking or cycling distance. Conventional fixed-route transit services also cannot serve this type of lower-density development efficiently. As Peel continues to grow, particularly in Brampton, where much greenfield development is planned, transit operators will be challenged to plan routes and service levels that can attract industrial and business park workers in employment lands, as well as office workers in the denser nodes.
### Exhibit 3.1: Volume of GTHA Home-Based Work Trips to and from the Region of Peel, 2011, AM Peak Period

<table>
<thead>
<tr>
<th>Origin</th>
<th>Brampton</th>
<th>Caledon</th>
<th>Mississauga</th>
<th>Peel</th>
<th>Durham</th>
<th>Halton</th>
<th>Hamilton</th>
<th>Toronto</th>
<th>York</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brampton</td>
<td>31,500</td>
<td>1,500</td>
<td>28,100</td>
<td>61,100</td>
<td>100</td>
<td>2,400</td>
<td>300</td>
<td>19,700</td>
<td>5,800</td>
<td>89,400</td>
</tr>
<tr>
<td>Caledon</td>
<td>2,600</td>
<td>2,500</td>
<td>2,300</td>
<td>7,400</td>
<td>-</td>
<td>300</td>
<td>-</td>
<td>2,600</td>
<td>1,800</td>
<td>12,100</td>
</tr>
<tr>
<td>Mississauga</td>
<td>9,900</td>
<td>300</td>
<td>74,300</td>
<td>84,600</td>
<td>300</td>
<td>9,700</td>
<td>900</td>
<td>45,000</td>
<td>5,000</td>
<td>145,500</td>
</tr>
<tr>
<td>Peel</td>
<td>44,000</td>
<td>4,300</td>
<td>104,700</td>
<td>153,100</td>
<td>400</td>
<td>12,300</td>
<td>1,200</td>
<td>67,300</td>
<td>12,500</td>
<td>246,800</td>
</tr>
<tr>
<td>Durham</td>
<td>400</td>
<td>-</td>
<td>1,600</td>
<td>2,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,000</td>
</tr>
<tr>
<td>Halton</td>
<td>5,000</td>
<td>200</td>
<td>23,600</td>
<td>28,700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28,700</td>
</tr>
<tr>
<td>Hamilton</td>
<td>400</td>
<td>-</td>
<td>3,400</td>
<td>3,800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,800</td>
</tr>
<tr>
<td>Toronto</td>
<td>6,500</td>
<td>600</td>
<td>30,700</td>
<td>37,800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>37,800</td>
</tr>
<tr>
<td>York</td>
<td>4,600</td>
<td>900</td>
<td>9,700</td>
<td>15,100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15,100</td>
</tr>
<tr>
<td>Total</td>
<td>60,900</td>
<td>6,000</td>
<td>173,700</td>
<td>240,500</td>
<td>400</td>
<td>12,300</td>
<td>1,200</td>
<td>67,300</td>
<td>12,500</td>
<td>334,200</td>
</tr>
</tbody>
</table>
Exhibit 3.2: Trips Ending in the Region of Peel, 2011, 6:30am – 9:30am, by Traffic Zones

Legend

Number of Trips
- Less than 250
- 251 - 1,000
- 1,001 - 2,500
- 2,501 - 5,000
- 5,001 - 7,500
- More than 7,500

Existing Transit
- GO Train Stations
- GO Train Line
- GO Bus
- Rapid Transit
- Provincial Transit
- Regional Transit
- Other Major Road
- Railway
- Regional Urban Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard

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APPENDIX II
TRANSPORTATION PLANNING
AND SERVICING GROWTH TO 2041 – INTEGRATING WITH THE GROWTH MANAGEMENT STRATEGY
3.2 EMPLOYMENT AREAS IN THE REGION OF PEEL

Why employment areas matter.
Employment areas are critical to the economic health of cities and regions. Industrial and employment land activities contribute to the following:

- More local dollars and jobs increase economic stability for the entire community, including the overall standard of living
- Having jobs in proximity to desirable residential communities creates an advantageous live-work relationship within the city, reducing travel trips and times
- Industrial/employment areas are home to many of the activities that support the local population, such as auto repair shops, household repair services, wholesale distribution, and warehousing of consumer products
- Provincial policy directives also promote the concept of a “complete community”, where residents can fulfill all or most of their daily requirements within city boundaries. Having a full range of opportunities for employment is fundamental to the “complete community” concept

Employment growth will occur across Peel.
Several areas in Peel are designated for employment land uses. They include:

- Urban Growth Centres (UGCs) – High-density focus areas for major office and population-related employment, as well as dense residential developments, designed to support major transit infrastructure and attract provincially and nationally significant employment uses.
- Intensification Areas – Dense, mixed-use corridors and nodes (e.g. major transit station areas) expected to be the focus of intensification and attract a significant portion of overall population and job growth.
- Employment Lands – Areas generally designated for industrial land uses and business parks, typically with no residential component.

1 Adapted from text by Cushman Wakefield, June 2017
The Growth Plan defines the general policies and, where applicable, density targets for these designated areas, but municipalities are left to define their boundaries. Exhibit 3.3 shows the location of these significant employment areas in Peel, as well as the committed higher-order transit network.

Exhibit 3.4 shows that between 2016 and 2041, the total number of jobs in the Region is expected to grow by 38%, from 785,000 to almost 1.1 million. While Mississauga will continue to have the highest number of jobs, Brampton will feature the greatest absolute growth (137,000 new jobs). Caledon’s employment will triple, with growth concentrated in the Bolton area and along the Brampton boundary.

Implications for transportation.

Exhibit 3.5 shows the magnitude of future employment growth by traffic zone, and Exhibit 3.6 shows 2041 employment density by traffic zone. These exhibits illuminate two key development patterns:

- Much of Brampton’s strong employment growth will occur in the City’s western and eastern parts rather than in established central areas. Lower densities in these developing areas may not warrant new rapid transit, so expansion of local transit services will be needed to provide strong linkages to major rapid and regional transit stations.

- The densest concentrations of jobs in Peel will continue to be in employment areas near Pearson Airport and in southern Brampton, along with intensification areas in Meadowvale. A grid of frequent transit services in these areas, with direct connections to the higher-order transit network, will make transit a more attractive alternative for commuters and may reduce the need for costly road widenings.

In both newly developing and established employment areas, road widenings and other targeted road modifications and improvements will be needed to serve the growth in truck movements and other traffic that will accompany an increasing number of jobs.

Another major transportation challenge will be facilitating the “first and last mile” of transit commutes. Safe and convenient routes for active transportation, and new mobility options such as shared demand-responsive transport, must be an integral part of the solution.
Exhibit 3.3: Land Designated for Employment Areas

Legend

- Employment Area
- Urban Growth Centre
- Office Park (Boundary TBD)
- Provincial Highway
- Regional Highway
- Other Major Road
- Railway
- GO Train Station
- Regional Urban Boundary
- Municipal Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard

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**Exhibit 3.4: Employment by Type and Municipality, 2016-2041 (thousands of jobs)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Office Employment (MOE)</td>
<td>107</td>
<td>156</td>
<td>48</td>
<td>14</td>
<td>48</td>
<td>34</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>122</td>
<td>207</td>
<td>85</td>
</tr>
<tr>
<td>Employment Land</td>
<td>229</td>
<td>239</td>
<td>10</td>
<td>99</td>
<td>145</td>
<td>46</td>
<td>15</td>
<td>54</td>
<td>40</td>
<td>342</td>
<td>438</td>
<td>96</td>
</tr>
<tr>
<td>Population-Related</td>
<td>118</td>
<td>145</td>
<td>27</td>
<td>77</td>
<td>115</td>
<td>39</td>
<td>7</td>
<td>16</td>
<td>9</td>
<td>202</td>
<td>276</td>
<td>74</td>
</tr>
<tr>
<td>Home-based</td>
<td>20</td>
<td>25</td>
<td>5</td>
<td>11</td>
<td>16</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>34</td>
<td>46</td>
<td>12</td>
</tr>
<tr>
<td>No-fixed Place of Employment</td>
<td>56</td>
<td>66</td>
<td>10</td>
<td>21</td>
<td>35</td>
<td>13</td>
<td>4</td>
<td>13</td>
<td>9</td>
<td>82</td>
<td>113</td>
<td>32</td>
</tr>
<tr>
<td>TOTAL</td>
<td>531</td>
<td>631</td>
<td>100</td>
<td>223</td>
<td>360</td>
<td>137</td>
<td>31</td>
<td>93</td>
<td>61</td>
<td>785</td>
<td>1,083</td>
<td>298</td>
</tr>
</tbody>
</table>

*Note: Totals may not sum due to rounding.*

*Source: Hemson Consulting*

**Definitions***:

**Major Office Employment (MOE)** – In the Growth Plan, Major Office is “generally defined as freestanding office buildings of 10,000 m² or greater, or with 500 jobs or more.”

**Employment Land Employment (ELE)** – The phrase “Employment Land Employment” refers principally to industrial-type jobs, and includes: manufacturing; research and development; warehousing and distribution; and wholesale trade.

**Population-Related Employment (PRE)** – The “Population-Related Employment” category of employment is that which exists in response to a resident population, and is not primarily located in employment areas. Predominantly population-related employment is accommodated across the non-employment lands within a municipality (in residential mixed use settings, and commercial designations, institutional sites, and various other locations).

**Home-Based Employment (HBE)** – As defined by Statistics Canada, these are “Persons whose job is located in the same building as their place of residence; persons who live and work on the same farm; building superintendents; and teleworkers who spend most of their work week working at home (also known as “work-at-home” jobs).

**No Fixed Place of Employment (NFPE)** – As defined by Statistics Canada, these are “Persons who do not go from home to the same workplace location at the beginning of each shift. Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc. (this category is also referred to as “no fixed place of work”).

* see Employment Discussion Paper for more details
Exhibit 3.5: Change in Employment, 2016-2041, based on Traffic Zones

Legend

Number of Jobs
- 100 - 500
- 501 - 1000
- 1001 - 2000
- 2001 +

Existing Transit
- GO Train Stations
- GO Train Line
- GO Bus
- Rapid Transit

Future Transit
- GO Train Station
- RER 15-Minute Service
- RER 60-Minute Service
- Committed Rapid Transit
- Provincial Highway
- Regional Road
- Other Major Road
- Railway
- Regional Urban Boundary
- Municipal Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard

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Exhibit 3.6: Projected Gross Employment Density, 2041, by Traffic Zones

Legend

Number of Jobs per ha
- Less than 10
- 11 - 30
- 31 - 50
- 51 - 100
- 101 - 200
- More than 200

Existing Transit
- GO Train Stations
- GO Train Line
- GO Bus
- Rapid Transit

Future Transit
- GO Train Station
- RER 15-Minute Service
- RER 60-Minute Service
- Committed Rapid Transit
- Provincial Highway
- Regional Highway
- Other Major Road
- Railway
- Regional Urban Boundary
- Municipal Boundary
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### 3.3 THE CHALLENGE: MEETING THE MOBILITY NEEDS OF EMPLOYMENT AREAS

The transportation needs of an employment area will vary by its location and the type of jobs found there, and can also vary over time as the area intensifies or the kinds of employers found there shift from, say, industrial to office-based businesses. Exhibit 3.7 provides a general summary of the most common transportation needs of different employment areas.

#### Exhibit 3.7: Transportation Needs by Type of Employment

<table>
<thead>
<tr>
<th>Employment area type</th>
<th>Major Office</th>
<th>Employment Land</th>
<th>Population-Related</th>
<th>Home-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Use</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Mixed-use development with nearby services and amenities*</td>
<td>* Compatible surrounding land uses*</td>
<td>* Mixed-use development with nearby services and amenities*</td>
<td>* Broad band access*</td>
</tr>
<tr>
<td></td>
<td>* Relatively high densities to support frequent transit service*</td>
<td>* Buffering from other uses*</td>
<td>* Relatively high densities to support frequent transit service*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Promotion of clusters to help focus transportation services*</td>
<td></td>
<td>* Locate hospitals and schools close to residential areas to minimize travel effort for employees*</td>
<td></td>
</tr>
<tr>
<td><strong>Transit</strong></td>
<td>* Frequent transit service*</td>
<td>* Basic transit service*</td>
<td>* Frequent transit service*</td>
<td>* Basic transit service*</td>
</tr>
<tr>
<td></td>
<td>* Access to GTHA regional transit network*</td>
<td>* Transit service that is reflective of shift times*</td>
<td>* Access to GTHA regional transit network (particularly for large institutional employers)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* First- and last-mile connections to higher order service*</td>
<td>* Extended hours of service (e.g. for hospitals)*</td>
<td></td>
</tr>
</tbody>
</table>

See Exhibit 3.7

Continued on next page.
<table>
<thead>
<tr>
<th>Category of Need</th>
<th>Major Office</th>
<th>Employment Land</th>
<th>Population-Related</th>
<th>Home-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads and Highways</td>
<td>• Nearby connections to freeway network</td>
<td>• Direct access to freeway network</td>
<td>• Nearby connections to freeway network for large institutional employers</td>
<td>• Key arterial road links nearby</td>
</tr>
<tr>
<td>Active</td>
<td>• First- and last-mile links to higher-order transit</td>
<td>• Safe walking and cycling conditions along first- and last-mile routes</td>
<td>• First- and last-mile links to higher-order transit</td>
<td>• First- and last-mile links to higher-order transit</td>
</tr>
<tr>
<td></td>
<td>• High-quality cycling and walking infrastructure</td>
<td></td>
<td>• High-quality cycling and walking infrastructure</td>
<td>• High-quality cycling and walking infrastructure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Key arterial road links nearby</td>
<td></td>
</tr>
<tr>
<td>Goods Movement</td>
<td>• Have connections to the Strategic Goods Movement Network</td>
<td>• Direct access to Strategic Goods Movement network (including rail freight network and airport)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Mobility*</td>
<td>• Access to shared mobility options</td>
<td>• Demand-responsive transit</td>
<td>• Access to shared mobility options</td>
<td>• Access to shared mobility options</td>
</tr>
<tr>
<td></td>
<td>• Demand-responsive transit in areas with lower transit service levels</td>
<td>• Access to shared mobility options</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* See Section 4.6 for definition of New Mobility
There are three additional kinds of employment areas not addressed in Exhibit 3.7 that have transportation needs:

**Airport Area:** The airport area is second only to Downtown Toronto in terms of employment and represents a regional and provincially significant node. Accordingly, the Airport Area requires transit that caters to long-distance trips from neighbouring regions. Unlike Downtown Toronto, the Airport area is currently located on the “spokes” of the rapid transit and GO Rail system as opposed to being a “hub”. The Airport Area also requires extended transit service hours and counter-peak service to better serve commuters who work off-peak hours and make counter-peak trips (e.g. shift workers) and adequate, space-efficient parking solutions for drivers that make best use of the limited employment land available.

**Suburban Knowledge Intensive Districts (SKIDs):** This is a term used to describe areas with a high proportion of “core” jobs, that is, jobs in the “tradeable” sectors that draw income into the Region and are key to innovation and competitiveness. The Airport Corporate Centre, Meadowvale and Sheridan Business Park are examples of these types of employment areas. Such areas require amenities for business travellers and non-auto transportation options given younger workforce, which may have lower auto ownership rates, and good connections with other SKIDs and Downtown areas.

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2 Pamela Blais for the Neptis Foundation, Planning For Prosperity, Globalization, Competitiveness and the Growth Plan for the Greater Golden Horseshoe, November 2015
4 MEETING THE CHALLENGE
4 Meeting the Challenge

Section 3.3 identified the transportation needs for each type of employment area in the Region of Peel. For each category of transportation need, this chapter identifies existing gaps by assessing the degree to which the related needs are met for different employment areas, and then identifies opportunities for action by discussing how those needs could be more fully met in the future to support employment growth.

4.1 LAND USE

Exhibit 4.1 shows a map of Peel’s forecast population density in 2041, by traffic zone. As expected, the Urban Growth Centres in Mississauga and Brampton are expected to be the most densely developed areas in the Region, surpassing 200 residents per hectare in 2041.

The exhibit also shows the vast area with little to no residential development that spans Mississauga Ward 5, Brampton Ward 3, and Brampton Ward 8. These are large, well-developed employment lands that include large-scale manufacturing, warehousing and logistics firms where residential land uses are generally not compatible. Employment Land jobs can continue to be concentrated in these areas without negatively impacting residential potential.

Exhibit 4.2 shows the forecast 2041 population and employment in the Region, highlighting areas of mixed-use development such as in the Urban Growth Centres, in southern Mississauga between Highway 403 and the QEW, and in central Brampton along the Main Street and Queen Street corridors. These are areas where Major Office and Population-Related Employment are best-suited, and where intensification-supportive infrastructure and policies are needed in key nodes.
Exhibit 4.1: Projected Gross Population Density, 2041, by Traffic Zones

Legend

Number of Residents per ha
- Less than 10
- 10 - 30
- 31 - 50
- 51 - 100
- 101 - 200
- Over 200

Existing Transit
- GO Train Stations
- GO Train Line
- GO Bus
- Rapid Transit

Future Transit
- GO Train Station
- RER 15-Minute Service
- RER 60-Minute Service
- Committed Rapid Transit
- Provincial Highway
- Regional Road
- Other Major Road
- Railway

Regional Urban Boundary
Municipal Boundary
Regional Boundary
Major Rural Settlement Boundary
CN and CP Intermodal Yard

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, no liability can be accepted for any errors or omissions.

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September 2017
Exhibit 4.2: Projected Distribution of Population and Employment, 2041, by Traffic Zones

Legend

Number of Residents
- Population
- Employment
- 1 Dot = 500

Existing Transit
- GO Train Stations
- GO Train Line
- GO Bus
- Rapid Transit

Future Transit
- GO Train Station
- RER 15-Minute Service
- RER 60-Minute Service
- Committed Rapid Transit
- Provincial Highway
- Regional Road
- Other Major Road
- Railway
- Regional Urban Boundary
- Municipal Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard

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Making transit an attractive option for commuters in the Region of Peel will be important to support continued employment growth. As a large developed Region with strong forecasted growth, it will be difficult to continue today’s high auto mode share in the face of government fiscal constraints, and environmental considerations.

Exhibit 4.3 shows how the number of residents that live within a 45-minute transit trip of each job varied across Peel in 2014, along with the density of employment. In essence, it shows how many potential workers each employer can access by transit. Note that this exhibit includes residents that access jobs from outside Peel—an important employment market for the Region.

The employment lands in Mississauga and Brampton, as well as the intensification areas in the Meadowvale area, stand out as job-rich neighbourhoods with poor transit access to the labour force. The Queen Street and Steeles corridors in Brampton, and the Hurontario-Main corridor in Mississauga and Brampton, also stand out as potentially job-rich areas with spotty transit accessibility. This results from several factors:

- The relatively sparse grid of frequent transit services means that trips requiring a transfer can be time-consuming.
- Peak-only GO rail services heading into Toronto, and the connecting bus routes designed for Toronto-bound commuters, are generally not attractive to commuters who work in Peel.
- The lack of strong north-south and east-west higher-order transit within Peel means that transit agencies are challenged to find strong transit corridors on which to anchor their supporting local networks.

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3 Measuring access to potential workers is based on identifying job locations, determining how far one can travel in 45 minutes using all transit services available, then calculating how many residents live within that catchment area. It is measured in the 3:30 p.m. to 6:30 p.m. peak period rather than the morning peak period to ensure that peak-only transit routes that start in employment areas would be included in the calculations.
Exhibit 4.3: Number of Residents Accessible per Job by Transit within 45 minutes, 3:30 PM – 6:30 PM, 2011

Legend
Number of Residents Accessible by Transit per Job
- Very Low
- Low
- Medium
- High
- Very High

Existing Transit
- GO Train Stations
- GO Train Line
- GO Bus
- Rapid Transit
- Provincial Highway
- Regional Road
- Other Major Road
- Railway
- Regional Urban Boundary
- Municipal Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard

Note: Accessibility categories correspond to quintiles of the observed range of number of potential workers accessible per job. For example, "Very Low" means that the number of potential workers accessible per job is in the lowest 20% of the range observed across Peel.
Exhibit 4.4 shows Peel’s forecasted urban density for 2041 (population and employment per hectare) and its committed future transit network. It shows that efforts are already underway to address some of the transit gaps. The introduction of Regional Express Rail (RER) in the Lakeshore and KitchenerGO rail corridors will provide a strong anchor for all-day, two-way frequent local transit to employment areas by MiWay and Brampton Transit. The Hurontario LRT line and the Mississauga Transitway will be high-quality transit service corridors that better connect the Region. Peel’s two Urban Growth Centres will be directly served by at least one of these committed improvements, which will support the Major Office and Population-Related Employment developments in those nodes.

However, Brampton’s Queen Street and Steeles Avenue corridors currently do not have committed funding, and with RER’s 15-minute services planned to terminate at Bramalea station, large parts of Brampton would be left without higher-order transit service if only committed improvements are implemented. Moreover, the Meadowvale intensification area and the Airport area employment lands will continue to be somewhat removed from the main transit corridors and higher-order stations.

Filling these remaining gaps will require a combination of actions:

- An extended and finer-grained grid of frequent transit services in major employment and intensification areas.
- Reorientation of some local transit routes to connect directly with planned higher-order transit stations, to offer more convenient transfers.
- Introduction of new mobility options (e.g. shared, demand-responsive transit) in the vast employment lands where conventional fixed-route transit typically does not work well.
- Expanded active transportation connections to transit hubs that allow commuters to walk or bike the first and/or last mile of their trips, particularly in conventionally auto-oriented neighbourhoods.

Exhibit 4.4 shows that areas that can support frequent transit service—typically neighbourhoods with densities having more than 50 people and jobs per hectare—are emerging in both Mississauga and Brampton. Improving transit service to support this densification will be a key goal of the Region, its Local Municipalities and transit service providers.
Exhibit 4.4: Projected Gross Combined Density of Population and Employment, 2041, and the Committed Future Transit Network, by Traffic Zones*

Legend
Number of People and Jobs per ha
- Rural (<10)
- Low Density Suburban (11 - 30)
- High Density Suburban (31 - 50)
- Low Density Urban (51 - 100)
- High Density Urban (101 - 200)
- Central Business District (>200)

Existing Transit
- GO Train Stations
- GO Train Line
- GO Bus
- Rapid Transit

Future Transit
- GO Train Station
- RER 15-Minute Service
- RER 60-Minute Service
- Committed Rapid Transit
- Provincial Highway
- Regional Road
- Other Major Road
- Railway
- Regional Urban Boundary
- Municipal Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard
4.3 ROADS AND HIGHWAYS

At present, approximately 63% of trips to/from and within Peel Region are made by single occupant vehicles. Similarly, the majority of goods movement to and from employment areas in the Peel Region is heavily reliant on roads and highways.

Exhibit 4.5 shows the existing and planned Regional Road network. Most of the Regional Roads in the south part of the Region are built-out. Plans for corridor improvement or widening in Brampton and Caledon would need to be reviewed and revisited, with the observation that the rate of road widening will likely be slower than past trends or population and employment growth. Accordingly, there will be a need to prioritize road improvements that are critical to employment lands and employment growth, while maximizing the efficiency of the existing road network.

A key question for the road network in Caledon is the future of the GTA West corridor. At present, the planning for this corridor has been put on hold indefinitely. Therefore, other solutions to service planned employment lands in Caledon and northwest Brampton may need to be considered in the shorter term.

One of the challenges in Peel Region is that expansion of the provincial highway network has not kept pace with growth in regional traffic and longer distance traffic, which has in turn placed greater pressures on regional arterials. The expansion of Highway 410, QEW widening and extension of Highway 427 will help to address this challenge.

The other major issue with respect to roads is the conflict between current regional road designs, which are intended to accommodate higher speed traffic and trucks, and the principles of complete streets. For example, channelized right turn lanes are required in high truck volume corridors, but are not conducive to good walking environments.
4.4 ACTIVE TRANSPORTATION

Walking and cycling in the Region of Peel are slowly increasing in popularity, but significant investment in infrastructure and programming is required to reach the target of 9% walking and 2% cycling trips in the AM peak period by the year 2041, as set by the Peel Region Sustainable Transportation Strategy.

Studies of cycling attitudes show that concerns about safety are the primary obstacle for most potential cyclists, and high quality facilities separated from traffic are the most preferred types of facilities by current and potential cyclists. The Region’s Transportation Safety Strategic and Operational Plan will provide a series of measures to improve safety for cyclists and pedestrians, especially at intersections, where most injuries and deaths from vehicular collisions occur.

The Region of Peel’s long-term cycling network aims to build multi-use paths on most regional roads by 2041, and these will be built as part of the road capital plan. Where there are critical sections of the pedestrian or cycling infrastructure, an accelerated project schedule is proposed in the draft Sustainable Transportation Strategy.

Cities keen to increase cycling and walking have not only increased and improved cycling and pedestrian infrastructure, but have implemented several outreach and promotions programs. The cycling mentorship program piloted in the Region of Peel in 2013 was effective in getting newcomers to adopt cycling as a mode of travel, and the active routes to school program has increased the number of children walking and cycling to school. Continuing and expanding engagement and promotions programs will be crucial in encouraging more residents to choose cycling and walking as a mode of travel.

4.6 shows the existing and proposed cycling network, employment and intensification areas in Peel, as well as areas with 25 or more cycling trip destinations in the AM peak period. Exhibit 4.7 shows sidewalk facilities and gaps, employment and intensification areas in Peel, as well as areas with 100 or more walking trip destinations in the AM peak period.

Employment lands are noticeably lacking walking and cycling trips compared to residential areas. Cycling trips are not located in busy and dense neighbourhoods, but newer neighbourhoods with quiet streets and a connected network of bike lanes and multi-use paths.
Current cycling and walking infrastructure is located in residential areas and recreational areas. Employment areas are underserved by the current pedestrian and cycling network. High quality pedestrian and cycling facilities should be built to connect residential neighbourhoods and employment and commercial areas to increase number of commuters who walk and bike.

The City of Mississauga has built cycling facilities on collector streets around the city centre. The planned cycle track on Hurontario Street will connect existing facilities and provide a crucial connecting ‘spine’ that will hopefully unlock the cycling potential of this dense and mixed-use neighbourhood and commercial centre.

Employment areas in Brampton are focused around major arterials that are currently lacking cycling facilities, and contain several sidewalk gaps, that not only make it difficult to walk to work, but also to walk the last mile from bus stops.

The cycling and pedestrian facilities proposed for rural and settlement areas in the Town of Caledon differ from the urban and sub-urban areas to the south. Paved shoulders on rural roads and sidewalks in settlement areas are preferred facility types and are proposed where feasible. Multi-use trails are proposed in Bolton and Mayfield West, where traffic volumes warrant separated facilities and available road side space allow.

Key areas of focus for employment lands, as discussed further in Chapter 5 include the following:

- Addressing gaps in pedestrian network
- Prioritizing pedestrian comfort and safety at key locations near employment areas
- Focus programming on areas with high potential for walking between residential areas and employment areas, and/or walking from transit stops
- Encouraging an all-season approach
- Expanding Smart Commute reach
- Minimizing barriers and obstacles in the cycling network
- Implementing high quality cycling infrastructure
Exhibit 4.6: Existing and Proposed Cycling Network and Cycle Trip Destinations in the 2011 AM Peak Period, by Traffic Zones

Legend

Cycling Network
- Proposed Bike Network
- Existing Bike Network

Cycling Trip Destinations
- 25.000001 - 107.000000

Land Use Designations
- Designated Urban Area
- Urban Growth Centres
- Rural Service Centre
- Rural Area
- Employment Lands
- GO Train Station
- Provincial Highway
- Regional Road
- Other Major Road
- Railway
- Regional Urban Boundary
- Municipal Boundary
- Regional Boundary
- Major Rural Settlement Boundary
- CN and CP Intermodal Yard

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied upon as being a precise indicator of locations.

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Exhibit 4.7: Existing Pedestrian Network and Walk Trip Destinations in the 2011 AM Peak Period, by Traffic Zones

Legend
- Pedestrian Network
  - Paved Shoulder
  - Sidewalk
  - Multi-Use Trail
  - Sidewalk Gap
- Walk Trip Destinations
  - 100+ Walk Trips
- Land Use Designations
  - Designated Urban Area
  - Urban Growth Centres
  - Rural Service Centre
  - Rural Area
  - Employment Area
  - GO Train Station
  - Provincial Highway
  - Regional Road
  - Other Major Road
  - Railway
  - Municipal Boundary
  - Regional Boundary
  - Major Rural Settlement Boundary
  - CN and CP Intermodal Yard

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4.5 GOODS MOVEMENT

Within Canada, the Region of Peel hosts the largest, most intense cluster of freight distribution and logistic industries, which are located within a one-day drive to more than 135 million Canadian and American consumers. Peel is home to:

- Toronto Pearson International Airport, which is Canada’s largest and busiest airport by freight and passenger volume
- Five 400-series highways, which form the most intricate and well-developed network of provincial highways in Ontario
- An intermodal rail/truck facility
- Two major railway lines (Canadian National and Canadian Pacific Railway)

Exhibit 4.8 illustrates the current Strategic Goods Movement Network (SGMN)

Peel’s central geographic location leads to a large number of goods movement trips passing through the Region annually, but continues to face strong growth-related pressures, impacting the movement of goods.

Peel Regional Council has taken an active leadership role in advancing goods movement improvements in Ontario in past years, including the establishment of a Peel Goods Movement Task Force to facilitate better planning and implementation of goods movement infrastructure and services in partnership with the private sector and other levels of government.
Exhibit 4.8: Peel Region Goods Movement Network (2013)

Note: This map reflects the current recommended SGWN. This study and map will be updated on a regular basis (approx. every 5 years) to reflect evolving land use that affect both the needs of goods movement and Municipal priorities.
A number of strategic actions are described in the Goods Movement Strategic Plan (2012-2016), which are aimed at supporting employment growth.

- Identify and implement access improvements to Toronto Pearson Airport
- Identify and implement access improvements to CN Brampton and CP Vaughan Intermodal facilities
- Prioritize improvements to at-grade rail crossings
- Research truck-only lanes and implement a pilot project
- Advocate for improvements to border crossings
- Advocate for changes to employment density targets that support the freight industry
- Advocate for improved provincial and federal goods movement planning and greater inter-regional co-operation
- Identify additional federal and provincial funding sources for the 400 series highway with 401 as a high priority corridor
- Advocate for streamlining and expediting the Environmental Assessment process
- Identify opportunities to strengthen connections between government and private-sector industry
- Develop a data sharing program between the government and industry
- Enhance traffic signals to accommodate and increase better traffic flow along goods movement corridors
- Develop and implement a backhaul freight matching program and pilot project
- Create a Peel truckers map that employs GPS and includes route and by-law references
- Develop and implement a Regional Intelligent Transportation Systems (ITS) Strategic Plan and Network
- Develop an enforcement mechanism for road construction projects
- Improve incident management
- Advance Freight Transport Management recommendations
- Develop and implement a Strategic Goods Movement Network
Transportation Strategies to Support Employment Growth

- Develop an economic case for a freight village
- Quantify economic benefits of freight to Peel’s economy
- Support the establishment of a goods movement Centre of Excellence

4.6 NEW MOBILITY

A wide range of technologies have been developed in recent years providing real-time information, new services, and more sustainable travel options. Many of these technologies could be deployed or expanded to benefit employment land and facilitate employment growth.

The main areas of influence include:

- **Ride-sharing**: Allow the use of private, for-profit ride-sharing services, such as vanpools and UberPOOL.
- **Car-share**: Work with providers to increase the number of car-share locations and services near employment lands.
- **Electric vehicles**: Encourage the development of an expanded electric vehicle charging network within the Region and surrounding municipalities.
- **Autonomous vehicles**: Prepare the Region of Peel for emerging technologies such as self-driving cars. Consider protection of corridors or policies to support initial adoption of autonomous vehicles to help maintain the Region’s status as a technological leader.
5 KEY DIRECTIONS & RECOMMENDATIONS
5 Key Directions and Recommendations

5.1 LAND USE AND TRANSPORTATION

5.1.1 ESSENTIAL SHIFTS

RECOGNIZE IMPORTANCE OF MULTI-MODAL TRANSPORTATION ACCESS TO SUPPORT EMPLOYMENT GROWTH

Employers are increasingly attracted to employment areas that offer good accessibility by a variety of modes. For the local catchment area, this means high quality and safe access by cycling and walking, while the broader areas are more dependent on higher speed transit and highway access. The more employees commuting by modes other than single occupant vehicles, the less localized congestion there is around employment areas, making it more efficient for essential transportation access including goods movement and business visitors.

PLAN NEW AND EXPANDED EMPLOYMENT LANDS TO CAPITALIZE ON MAJOR TRANSPORTATION INVESTMENTS

The Regional Official Plan Amendment provides an opportunity to strategically consider where employment lands will be designated, and how growth will be phased. Goods-intensive employment should be expanded around existing and planned transportation corridors that offer a high degree of access to regional and provincial markets. The GTA West Corridor should be taken into account when siting new or expanded employment areas, given its potential to connect existing employment nodes in Peel, York and Halton, as well as its potential to include regional transitway-type service.

ANTICIPATE IMPACTS OF RISING OFFICE EMPLOYMENT DENSITIES

Over time, there has been a trend towards reduced office space per worker, which in turn has increased overall employment densities in office employment areas. While there are some challenges created by this trend, such as increased demands on parking and local road networks, the trend is an overall positive one and should be facilitated. Advantages
of increased office densities include a greater motivation for employers to implement travel demand management programs (e.g. designated carpool spaces, vanpool programs, subsidized transit passes, etc.) and justification for increased transit service levels. In order to maximize these benefits, however, investments will be required to ensure transit services meet demands and do not lag behind increases in density. There may also be a role for the public sector to deliver parking solutions, including provision of structured public parking, which can be shared among multiple offices. Structured public parking allows offices sites to be developed at higher densities and offers a number of sustainability benefits over single use surface parking. The City of Mississauga, as an example, has recognized this and is including provisions for public parking supply in the Community Improvement Plan (CIP) for the City Centre.

CREATE ENVIRONMENTS WHERE THE NEXT GENERATION OF EMPLOYEES WANT TO WORK

Increasingly Peel Region is competing with amenity-rich areas such as Downtown Toronto, Liberty Village, and Yonge and Eglinton, which are attractive to younger high-tech workers. This demographic is seeking complete communities, which are areas where they can work, live and play. Defining features of these areas include complete accessibility, high-quality transit, high density development that supports restaurants and entertainment, and vibrant street environments. The concept of a “complete street” - with a focus on pedestrians and cyclists – is consistent with environments where future workers will be attracted to.
SUPPORT THE DEVELOPMENT OF MAJOR EMPLOYMENT HUBS AND MAJOR TRANSIT STATION AREAS

Within the Region of Peel there are a number of existing and emerging employment areas that are distinct in terms of their size and scale. These include the Airport Megazone, Airport Corporate Centre, Meadowvale area, Bramalea GO area, and Sheridan Business Park. Maintaining and growing these areas is critically important to maximize the benefits of major transportation investments over the longer term. Next to Downtown Toronto (464,650 jobs in 2011), the airport area (297,990 jobs in 2011) has the largest concentration of employees in the GTHA and as such should dictate the same level of transit access. These areas also act as hubs for multi-modal transportation services, including carpooling, ridesharing, and emerging new mobility alternatives.

By definition, Major Transit Station Areas (MTSAs) will also need to be given special consideration in order to achieve the density targets set out in the Provincial Growth Plan (160 residents and jobs combined per hectare for those that are served by light rail transit or bus rapid transit; or 150 residents and jobs combined per hectare for those that are served by express rail service on the GO Transit network).

EXPANDING BROADBAND SERVICES

As discussed in the Employment Strategy Discussion Paper, investment in high speed broadband service drives innovation, enables access to education and provides greater options for working from home. Overall, investing in broadband has the potential to reduce vehicle-kilometres travelled and associated impacts such as greenhouse gas emissions production.

RECOGNIZE THE NEEDS OF POPULATION-RELATED EMPLOYMENT

Approximately 25% of future employment growth in the Region of Peel is projected to be “Population-Related Employment”, employment that exists in response to a resident population, and is not primarily located in employment areas. This includes workers in hospitals, old age homes, grocery stores, etc. Often the transportation needs of these workers, such as extended transit service hours and illuminated walking and cycling paths are overlooked. Ensuring that population related employees are provided reasonable travel choices other than driving is critical to achieving sustainable transportation mode share objectives.
5.1.2 REGION OF PEEL ROLE

As an upper tier municipality, the Region of Peel has a responsibility to coordinate land use planning to ensure consistency with the Provincial Growth Plan. The Region must also ensure that land use planning, including planning for employment areas, collectively works towards the achievement of strategic transportation goals and related outcomes such as healthier communities and reduced greenhouse gas emissions. Key areas for the Region’s involvement in land use and transportation as it relates to employment are as follows:

➤ Integrating land use and transportation planning by aligning existing and new policies, building on existing or new programs, projects, and/or tools that implement the aligned policies. One such opportunity is the Region of Peel Healthy Development Index (HDI) Tool, which is an evidence-based tool to ensure neighbourhood designs promote healthy, active lifestyles.

➤ Pursuing strategic implementation and operational partnerships with Local Municipalities. This may include, for example, partnering with Local Municipalities to implement a complete street project, pursuing a joint public parking facility or undertaking an arterial road corridor visioning study. There are also opportunities to expand the reach of Smart Commute programs to better serve smaller and a more diverse range of employers.

➤ Ensuring that transportation plans and design guidelines for regional roads are consistent with the goals of creating vibrant and attractive employment areas. These plans and design guidelines are implemented through tools such as the Road Characterization Study and the Access By-law.

➤ Work with Local Municipalities to identify joint partnerships in Strategic Growth Areas, mobility hubs, and employment areas, for example, and align policies, programs, tools, and resources for implementation.
5.2 TRANSIT

**KEY DIRECTION:** Connect urban growth centres and key employment areas with fast, frequent and rapid transit

### 5.2.1 ESSENTIAL SHIFTS

**COMPLETE THE RAPID TRANSIT NETWORK**

As the Region of Peel approaches 2 million people and 1 million jobs by 2041, it will be approaching the size that Greater Vancouver is today, and will far exceed the population of cities such as Ottawa, Calgary and Edmonton. Compared to those regions and cities, the rapid transit network in Peel is far less developed. While the Region benefits from three GO Rail lines and the Mississauga Transitway, and will soon gain the benefits of the Hurontario LRT, development of a complete rapid transit network has been lagging compared to other cities and regions. Plans have been laid by Local Municipalities and Metrolinx; however, for a connected network of rapid transit lines connecting the Region’s Urban Growth Centres, major employment areas and emerging high density communities. Efforts are required to ensure the timely delivery of this network. High quality rapid transit will expand choices for commuters and other travellers, but perhaps more importantly, will help to shape the urban structure as envisioned by local and regional plans. Some of the key regional transit and rapid transit corridors that will serve to connect major employment areas and employment nodes include the following:

- **Hurontario LRT** – Planned LRT corridor connecting Port Credit, Mississauga City Centre and Brampton Gateway. Alternative corridors beyond Steeles Avenue to connect LRT to Downtown Brampton Go Station are currently being studied.

- **Dundas BRT** – BRT facility providing an east-west spine in south Peel Region, extending from the Kipling Subway Station through Mississauga and into Halton Region.

- **Lakeshore Road Rapid Transit** – potential expansion of the Streetcar/BRT service in Toronto to 70 Mississauga Road (former Imperial Oil Lands) in Port Credit including a connection to the Inspiration Lakeview lands.

- **Brampton Queen Street Rapid Transit** – east-west transit spine through Brampton that would see BRT/LRT implemented in this existing Züüm
corridor, connecting the Brampton GO Station in the west eastward to the Vaughan Metropolitan Centre/Subway.

- **Brampton Gateway** – Brampton GO LRT – north extension of the committed section of the Hurontario LRT, extending north from Steeles Avenue to the Brampton RER Station.
- **Derry Road** – east-west spine through central Peel Region.
- **Downtown Mississauga Transitway** – new transitway section that diverts from Highway 403 transitway running way to directly serve Downtown Mississauga.
- **Main Street North BRT** – north extension of the Brampton LRT (see above) from Queen Street to Mayfield West Community.
- **Highway 427 North** – Priority Bus operations in managed lanes on Highway 427, connecting and interlining with 407 Transitway services and serving Pearson Airport.
- **Bolton GO Rail** – New commuter rail service connecting Bolton to Downtown Toronto

Other ideas include:

- **GO Transit Commuter Rail Service to Bolton** – on the CPR line.
- **Completion of the Mississauga Transitway as Planned** – from Hurontario to Erin Mills.
- **Extension of the Mississauga Transitway into Halton.**
- **Extension of Mississauga Transitway to the Bloor Subway.**
- **Provision of North-South Rapid Transit on the 410/403 corridor** – connection with Mississauga Transitway.
- **Establishment of a Pearson Airport Mobility Hub.**
- **Connection of Mississauga City Centre to Cooksville GO station with a People Mover** – after RER achieved on Milton Rail Line
- **Connection of Milton RER to downtown Brampton** – using the Streetsville-Orangeville Rail Line
CONTINUE TO INVEST IN INCREASED TRANSIT SERVICE LEVELS

Between 2010 and 2015, MiWay increased its investment in transit operating levels by 13% and Brampton Transit increased its operating investments by 57%. However, on a per capita basis, the increases are 10% and 33% respectively. These increases are significant, especially compared to historical trends for more mature systems, but highlight the challenge ahead. Peel Region’s mode share targets for transit, which mirror those of these transit agencies, call for a 56% increase in transit mode share (from 10.9% to 17%). Accordingly, continued investments in transit service levels will be required, along with the associated operating costs, to achieve these targets.

Efforts are required to investigate and expand the range of funding sources that could be available for transit operations, which has traditionally been on the tax base. Options include, for example, transportation user pricing and expanded gas-tax options.

FOCUS EMPLOYMENT INTENSIFICATION ON REGIONAL EXPRESS RAIL STATIONS

Regional Express Rail (RER) will bring 15 minute two-way all day GO Rail service to several of Peel Region’s intensification areas which are targeted for office and other employment growth. This service will provide access to a broader market of workers from other parts of the GTHA. One of the key challenges; however, is that there are currently engineering and operational challenges with extending RER to Downtown Brampton and Downtown Mississauga (Cooksville), not to mention major employment nodes in Meadowvale, Erindale and Lisgar due to the fact that these lines, or segments of these lines, overlap with mainline freight services. Further effort to find solutions to these challenges is required, including the solution discussed below.

4 Based on statistics from the Canadian Urban Transit Fact Book, figures adjusted for inflation.
UNLOCK OPPORTUNITIES BY ADVANCING THE “THE MISSING LINK” RAIL CONNECTION

A potential emerging opportunity to enable enhanced GO Rail service in Peel is the “Missing Link” rail corridor. The Missing Link is a proposed new rail corridor linking the CN bypass line at Bramalea with the CP through route near the Milton-Mississauga border. Completion of this link, along with track capacity expansions on the CN York rail subdivision and development of new connections between CN and CP, would enable some or all CP rail freight to be moved off the Milton rail corridor, in turn permitting increases in passenger rail frequencies. It would also reduce or eliminate freight traffic from the CN rail line west of Bramalea Station, thereby facilitating full electrified RER service to downtown Brampton. Go train services from Peel to Midtown Toronto would be enabled.

Exhibit 5.1: Future Rail Lines Enabled by the Missing Link

Existing Freight Routes with GO Service

Rail lines enabled by the Missing Link

Map Source: IBI Group, The Missing Link Final Report, September 2015
LEVERAGE NEW MOBILITY OPTIONS

An opportunity that has the potential to transform transit and overall mobility in the future is the rapidly growing “sharing economy” enabled by wireless communications and mobile applications. This includes new mobility services such as dynamic transit shuttles that could be used to serve lower density and rural areas of Peel, as well as conventional car-sharing, peer-to-peer car-sharing, dynamic carpooling and paid rideshare (e.g., Uber). If leveraged appropriately, new mobility services and technologies have the potential to support and complement the Region’s network of rapid transit and frequent transit by helping to address the “last mile” needs of transit riders (i.e. providing connections between transit stations/corridors and trip origins/destinations).

ESTABLISH HIGH SPEED RAIL CONNECTION

In 2017, the Province announced plans to implement High Speed Rail (HSR) between Toronto and Windsor by 2025. While the line will pass through Brampton, current plans do not reference a stop other than Malton, to be located at Pearson Airport. Connecting the Downtown Brampton Urban Growth Centre to HSR would considerably expand the viability and marketability of office and other employment in Downtown Brampton. Achieving a connection to HSR is a priority for employment growth.

TARGETED PLANNING FOR MAJOR TRANSIT STATION AREAS AND MOBILITY HUBS

With investments in rapid transit, a number of Major Transit Station Areas (MTSAs) and intensification corridors will be created or take on a new prominence. The Growth Plan for the Greater Golden Horseshoe requires that these areas be planned and designed to provide access from various transportation modes and achieve minimum density targets (i.e. 150 persons plus jobs per hectare). Similarly there are a number of mobility hubs within Peel that have been defined by Metrolinx as strategic nodes for transit and land use. In particular, the Pearson Transit Hub is emerging as a major transit area comparable to Union Station. Planning these MTSAs and Mobility Hubs, requires an extensive amount of design, as well as community and stakeholder involvement, and as such a plan is required to ensure that resources are dedicated accordingly. Station areas that are targeted for employment growth could be prioritized.
5.2.2 REGION OF PEEL ROLE

The Region of Peel currently manages the TransHelp paratransit service while conventional transit services are operated by Mississauga Transit and Brampton Transit. Many of the key transit routes serving employment areas operate on regional roads.

Areas where the Region could help to achieve essential shifts for transit include the following:

- Work in partnership with Local Municipalities to provide Peel community specific data to support transit planning decisions and business cases that will be required to prioritize projects.
- In cooperation with local transit operators, implement a regional micro-transit service, initially as a pilot project, for lower density employment areas. This service could build off the TransHelp model and would target areas where there would be minimal overlap or competition with regular transit services. Micro-transit could include vanpool type services, or other dynamic transit alternatives.
- Explore partnership opportunities and carry-out research on the missing rail link.
- Providing subsidized transit passes for lower income residents who are seeking employment, recently employed, or are employed either through contract or shift work.
- Advocating for improved fare and service integration across the GTHA.
- Ensure that Region of Peel arterial roads are transit supportive.
- Participate in on-going planning for the Pearson Mobility Hub and Regional Transit Centre.
- Advocate for the continued funding of the Metrolinx Regional Transportation Plan.
5.3 ACTIVE TRANSPORTATION

5.3.1 ESSENTIAL SHIFTS

MAKE ROADS SAFER AND MORE COMFORTABLE FOR WALKING AND CYCLING

Up until the last decade, roads in the Region of Peel have largely been planned and designed around the goal of moving traffic. In some locations, and particularly employment areas, provisions for walking and cycling are lacking or non-existent. Wide roads, generous lane widths and geometry that facilitates higher speed movements all contribute to environments that make walking and cycling less appealing. There is a need to re-envision roads in Peel Region, while still accommodating goods movement vehicles that are critical for employment areas. Key action areas include filling in sidewalk gaps, improving safety at higher-risk intersections, reducing travel speeds and retrofitting intersections to reduce crossing distances. Adopting a “Vision-zero” target for vulnerable road users should be a priority for both the Region and Local Municipalities.

ADOPT A COMPLETE STREETS APPROACH

Local Municipalities are in the process of developing formal policies to advance complete streets – which include, among other things, priorities for active transportation. As noted previously, complete streets are an essential strategy for creating environments where the next generation of employees wants to work. Complete streets policies should address the planning, design and operation of streets and include mechanisms for addressing trade-offs, where required.

ACCELERATE THE DEVELOPMENT OF A CONNECTED NETWORK OF HIGH QUALITY CYCLING FACILITIES

The Region of Peel and all three Local Municipalities are working to expand the network of cycling facilities and each have long-term network plans to guide implementation. However, there are several challenges that have impeded progress towards a fully connected network. First, most cycling projects are timed to be implemented as part of road reconstruction or widening. While this is a cost-efficient approach, it means that some key projects are still more than a decade away. The second challenge is that
implementing cycling facilities in some corridors requires reductions in capacity for regular vehicles. Efforts are required to prioritize and fund cycling facilities that have a high potential benefit and improve access to employment areas. In most cases, cycling facilities on arterial roads linking employment areas will be required to be separated from road traffic (multi-use pathways or cycle tracks).

CONTINUE TO INFLUENCE PERSONAL TRAVEL DECISIONS

Achieving targets for sustainable transportation will require more than infrastructure investments. Continued and expanded efforts are required to engage with travellers, and offer information, incentives and assistance to help people make the choice of walking or cycling where it works for them. Smart Commute Brampton-Caledon and Smart Commute Mississauga already offer tools to employers and their employees to encourage better commuting options and offer a number of programs such as emergency ride home programs and workplace education programs. However, these organizations require continued renewal and access to a large resource pool.

In addition, ensuring that TDM-supportive features are implemented in new developments, like parking for bicycles and carpools, can enable more sustainable choices and can be fostered through planning approval processes.

5.3.2 REGION OF PEEL ROLE

The Region of Peel completed an Active Transportation Plan in 2012, which has guided the implementation of policies, plans, programs and projects related to active transportation. This Plan is being updated through the Sustainable Transportation Strategy (STS), which has an increased focus on implementation. Peel also oversees Walk + Roll Peel (a joint initiative of the Region of Peel, the Cities of Brampton and Mississauga and the Town of Caledon) to deliver programs in support of the Peel Active Transportation Plan.

In addition to delivering planned pedestrian and cycling projects on regional roads and continuing to implement programs through Walk + Roll Peel, the Region can:

- Work in partnership with Local Municipalities to support and build on existing initiatives (e.g. Cycling Master Plans)
- Identify a primary regional cycling network including inter-municipal connections and explore opportunities to implement
TRANSPORTATION STRATEGIES TO SUPPORT EMPLOYMENT GROWTH

- Update Regional Road Design Standards building on the recommendations of the Regional Road Characterization Study
- Prioritize infill of sidewalk gaps on regional roads and local roads, working with Local Municipalities to identify high priority locations
- Implement pedestrian safety counter-measures at high-need intersections
- Make early investments to accelerate the implementation of the long-term regional cycling network
- Implement data collection programs
- Continue to leverage gas tax funding to support general and infill projects

5.4 ROADS

**KEY DIRECTION:** Manage road congestion through strategic road capacity improvements in combination with measures to optimize road network operations

5.4.1 ESSENTIAL SHIFTS

**FOCUS ON PERSON-CARRYING CAPACITY**

The majority of arterial roads within the Region have largely been expanded to their ultimate capacity of six lanes. Only Mayfield Road, Mississauga Road through Brampton, parts of Airport Road, Dixie Road, Gore Road and Highway 50 remain candidates for further road widening. Modelling work through the LRTP has shown that even with all of the planned capital projects, road improvements alone won’t eliminate congestion. As a result, the only viable strategy going forward is to focus on maximizing the number of “people” that can be moved along a road corridor. In most cases, this involves dedicating space for High Occupancy Vehicles (HOVs) and transit. One lane dedicated to transit has the potential to carry well over 2,000 people compared to 1,000 persons at 1.1 persons per vehicle. Accordingly, a key strategy moving forward to focus on is evaluating alternatives that maximize overall person carrying capacity before road expansion for single-occupant vehicles.
IMPLEMENT STRATEGIC ROAD CAPACITY EXPANSION PROJECTS

As noted in the Employment Discussion Paper, access to the highway system is critical for many employment uses. Capacity improvements that improve access to the highway system, or reduce congestion on access routes, should be prioritized. In many cases, this will require working in partnership with the Ministry of Transportation and associated local municipal partner.

ADOPT A TRANSPORTATION SYSTEMS MANAGEMENT APPROACH

In many instances, roads within the Region experience high levels of congestion, but only for a few hours per day in the morning and afternoon rush hours. Transportation Systems Management (TSM) encompasses a suite of measures that focus on operational and policy changes for smoother and safer traffic movements by private vehicles, public transit and goods carriers, while also improving the utilization (occupancy) of vehicles and their throughput volumes where possible. Opportunities to enhance the effectiveness of TSM have been increased in recent years by significant technological developments (e.g. real-time data collection, traveller information, and advanced traffic control systems). In the United States, many cities have deployed these technologies to create “Smart Corridors”, which is a strategy that would be applicable for roads leading to and within major employment areas.

FUTURE PROOF ROADS FOR CONNECTED AND AUTONOMOUS VEHICLES

The prospect of Connected and Autonomous Vehicles (CAVs) represents a transformation in the way the world moves. CAVs present a need and opportunity to review established practices across multiple industries. Predictions suggest that autonomous vehicles will move from the pilot stage to full implementation sometime between 2025 and 2030. CAVs hold high potential for improving access to employment areas, which tend to be lower density and more difficult to service by transit. AV’s could provide a link between major transit spline and employment areas. Key steps to becoming CAV ready include early consideration of legislation and policy to maximize benefits and minimize negative impacts, designing roads to accommodate new technologies and ensuring that parking policies acknowledge the potential for reduced auto ownership.
5.4.2 REGION OF PEEL ROLE

The Region of Peel operates 26 Regional roads with over 1,600 lane kilometres. The LRTP identifies a relatively modest program of road expansion, largely consisting of road expansion to serve new growth areas. Over the next 2 decades, the Region will need to redouble efforts to maximize existing road capacity and provide for multi-modal travel, and focus on person-carrying capacity. Efforts will need to focus on the full planning cycle for roads from policy to design to operation. Specific actions that the Region can take include:

- Review how multi-modal level of service approaches for the planning, design and operation of arterial road corridors could be implemented in the Peel Region context.
- Assess the feasibility of bus/HOV lanes on Regional Roads, taking into account the goods movement context around employment lands
- Advocate for the implementation of HOV lanes on provincial highways
- Update and align policy and implementation tools such as the Road Characterization Study, Regional road design standards to enhance measures for safety and update access management policies to reflect regional and local municipal planning objectives
- Working with the Municipal Alliance for Connected and Autonomous Vehicles in Ontario (MACAVO) and potential private sector partners, identify one or more corridors or districts with employment lands where AV testing could take place. Key areas would include employment areas abutting Highway 410 and Highway 10.
5.5 GOODS MOVEMENT

KEY DIRECTION: Continue to provide for and maintain an efficient and connected goods movement network focused on major employment areas.

5.5.1 ESSENTIAL SHIFTS

PROVIDE A GOODS MOVEMENT NETWORK THAT SUPPORTS EMPLOYMENT LANDS, EMPLOYMENT GROWTH AND THE OVERALL ECONOMY

Peel Region is situated at the junction of some of North America’s most important trade routes. In combination with reasonably priced and appropriately zoned lands and proximity to major markets, this has led to strong growth in manufacturing, warehousing and goods movement-related businesses locating in the Region. Continued efforts are required to protect, preserve, and strategically locate employment lands in order to promote the efficient movement of goods and delivery of services along freight-supportive corridors and within freight-supportive areas.

CONTINUE TO PROMOTE ALTERNATIVES TO SOV TRAVEL IN ORDER TO MAINTAIN ROAD CAPACITY FOR THE EFFICIENT AND SAFE MOVEMENT OF GOODS AND SERVICES

It is estimated that goods movement industries (e.g. manufacturing, transportation and warehousing) in the Region of Peel contribute approximately $49 billion worth of gross domestic project (GDP) to the regional, provincial and national economy. Goods movement industries have also contributed 48% of all industrial and commercial taxes in Peel Region. If transportation costs for these businesses increase significantly, there is a risk that some will move elsewhere. Recognizing there are few opportunities for expanding road capacity, one of the key strategies for mitigating the impacts of congestion on goods movement is to shift single occupant vehicle trips to other modes, or to other times of the day. Travel Demand Management (TDM) strategies will increasingly need to focus on understanding the market characteristics for trips along key congested corridors and target efforts to these users.

ADVANCING PLANNING FOR AN EAST-WEST HIGHER-ORDER TRANSPORTATION CONNECTION IN NORTH PEEL

Various plans have identified the need for a new east-west 400 series highway connecting Highway 400 in York Region and Highway 401 in west GTHA. Up until 2016, an Environmental Assessment Study had been proceeding to define a corridor. Although the EA has been suspended, there remains a need to identify an east-west corridor that can provide necessary access to employment lands in north Brampton and south Caledon. This could include the GTA West corridor or a combination of upgraded arterials in the interim.

FOSTER EMERGING TECHNOLOGIES

Just as technology is changing options for passenger travel, so too is technology changing goods movement. As one of the largest hubs for goods movement in the country, Peel must be seen as an incubator for new technologies and strategies that can facilitate more efficient and environmentally friendly goods movement. Autonomous vehicles offer the potential to move goods during the night time using different types of vehicles (e.g. smaller electric trucks). Testing this potential through a pilot project is an action that was identified in the Peel Region Goods Movement Strategic Plan. Expanded efforts on collecting data on goods movement can also lead to innovation and increased intermodal integration.

5.5.2 REGION OF PEEL ROLE

The Region of Peel plays a critical role in coordinating planning for goods movement with a focus on ensuring the integrity the network. This includes defining a Strategic Goods Movement Network (SGMN) and associated policies through the Regional Official Plan. Specific actions to facilitate employment growth include the following:

- Work with Local Municipalities on initiatives which protect, preserve, and strategically locate employment lands which are freight-supportive (e.g. Peel Enterprise Zone as a form of a Freight Village), and include designating prime employment lands.
- Continue to work with Local Municipalities to coordinate truck restrictions to ensure efficient access to employment lands.
- Work with the Province and other partners to advance planning for an east-west highway connection in north Peel Region, or alternatives to connect emerging employment lands in north Brampton and south Caledon.
6 MAKING IT HAPPEN
6 Making it Happen

Achieving planned employment growth targets in Peel Region will require sustained and predictable funding and strong partnerships. Continued monitoring of investments and transportation performance will also be required to ensure that funding is targeted to the areas of highest need and benefit.

6.1 REQUIRED INVESTMENTS

The main sources of funding for transportation capital in the Region of Peel includes development charges and project specific funding from senior levels of government, while transportation operations are largely funded through property taxes and, to a lesser extent, provincial gas taxes.

The following examples illustrate the order of magnitude of funding that will be required to achieve committed and planned transportation improvements.

TRANSIT:

- Brampton’s Transportation Master Plan estimated that the capital cost for the proposed network, including rapid transit, would be between $2.6 billion and $3.3 billion over the 2014 – 2041 period. On an annualized basis, the capital requirements would need to increase from an average of $37 million today to $127 and $158 million by 2022.6

- Mississauga’s MiWay Five plan projected the Net Municipal Operating Investment for transit will be $97,372,695 by 2020. This compares to the 2015 net operating cost of $86.4 million and does not include operating costs for planned rapid transit projects such as Hurontario LRT.

ACTIVE TRANSPORTATION:

- The Region of Peel Sustainable Transportation Strategy has estimated that the capital cost for planned cycling improvements on regional roads only is between $85 million and $120 million for the ultimate 2041 network.

Mississauga’s 2010 Cycling Master Plan projected that $203 million would be required to build the planned network envisioned at that time (20 year network). This plan and the costs are currently being updated.

ROADS:

Gross capital requirements for the planned regional road capital program are $1.38 billion over the 2015-2031 period.\(^7\)

Overall, it can be concluded that there will be a need for well over $5 billion in capital investments to build the road, transit and active transportation network to serve growth to 2041. It is safe to say that current funding streams will not provide sufficient resources to achieve what is required to accommodate a 38% growth in the number of jobs in Peel Region by 2041. New and stable revenue sources must be developed that reflect the value created by employment growth.

In addition, there will need to be an increase and rebalancing of operating costs with significant emphasis on providing steady increases in transit operating investments over time, not only to meet growth, but to reflect the projected increases in transit mode shares.

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\(^7\) 2015 Region of Peel Development Charges Background Study, May 13, 2015
While these costs are significant, the cost of continuing on a trends scenario is more daunting. Work for the Peel Sustainable Transportation Strategy has estimated that the savings achieved by meeting planned mode share targets is in the order of $2-3 billion. These savings result from reduced emissions, health costs, auto operating costs and travel time savings from reduced congestion, among other savings.

It is also important to emphasise that investments are required to ensure that employment targets are realized, and that the Region and its constituent municipalities receive the benefits of this employment growth.

### 6.2 WORKING TOGETHER

Achieving growth targets for the Region of Peel requires that transportation and land use planning decisions are closely integrated. In turn, this means that all stakeholders including municipal, regional, provincial, federal and private sector partners must work together closely and effectively. Decisions must support the collective goal of maximizing opportunities for public transit, walking and cycling, in addition to vehicular travel.

Looking to the future, provincial and federal partners will be critical for realizing the planned higher order transit networks and provincial highway connections. Metrolinx has already started by committing to deliver the Hurontario LRT and will soon release an updated Regional Transportation Plan (RTP) detailing further rapid transit and transportation plans. Similarly, Transport Canada continues to be a partner in the delivery of programs and initiatives to support goods movement and regional trade corridors.

The needs and opportunities are clear, but the success is contingent on all stakeholders working together in a coordinated and determined manner.
APPENDIX II
TRANSPORTATION PLANNING
AND SERVICING GROWTH TO 2041 – INTEGRATING
WITH THE GROWTH MANAGEMENT STRATEGY

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