



## REGION OF YORK CLERK'S OFFICE

September 11, 2009

FILE No. - *Trans*

## Corporate Services Department

The Regional Municipality of Peel  
Attn: J. Payne, Acting Clerk  
10 Peel Centre Drive, 5<sup>th</sup> Floor, Suite "A"  
Brampton, ON L6Y 2N9

~~Region of York~~

Attn: Denis Kelly, Regional Clerk  
Corporate Services Department  
17250 Yonge Street, 4<sup>th</sup> Floor  
Newmarket, ON L3Y 6Z1

Town of Caledon  
Attn: Ms. K. Landry, Clerk  
P.O. Box 1000, 6300 Old Church Road  
Caledon, ON L7C 1J6

City of Vaughan  
Attn: Jeffrey A. Abrams, City Clerk  
2141 Major Mackenzie Drive  
Vaughan ON L6A 1T1

Ministry of Transportation  
Central Region  
1201 Wilson Avenue, Building "D", 2<sup>nd</sup> Floor  
Downsview, ON M3M 1J8

**Re: Endorsement of the Peel-Highway 427 Extension Area Transportation Master Plan Study – Ward 10 (File T17).**

The following recommendation of the Planning, Design and Development Committee Meeting of September 2, 2009, was approved by Council on September 9, 2009:

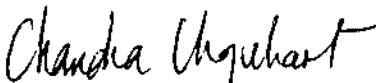
PDD207-2009

1. That the report from H. Zbogor, Manager, Long Range Transportation Planning, Planning, Design and Development, dated September 2, 2009, to the Planning, Design and Development Committee Meeting of September 2, 2009, re: **Endorsement of the Peel-Highway 427 Extension Area Transportation Master Plan Study – Ward 10 (File T17)** be received;
2. That the recommendations of the Final Report of the joint municipal study entitled Peel-Highway 427 Extension Area Transportation Master Plan dated July 2009, and that the Final Report be included as a foundation background document for the Highway 427 Industrial Secondary Plan Area (SP 47) process, in particular for the Secondary Plan Transportation Study, and that it be used to inform the public about the City's continuing involvement in the Highway 427 Extension Corridor EA be endorsed;



3. That staff be directed to initiate the City's process for a Phase 3 and 4 Class EA Study for the new arterial road (referred to as "Alignment A2") recommended in the Peel-Highway 427 Extension Area Transportation Master Plan, in consultation with the Region of Peel;
4. That staff be directed to work with the Region of Peel to take appropriate steps to implement the recommendations of the Peel Highway 427 Extension Area Transportation Master Plan, including initiation of subsequent Environmental Assessment processes for road improvements, determination of jurisdiction for the new arterial road, and inclusion of the needed road improvements in the capital planning process;
5. That the City's position that the Province expedite construction of the Highway 427 Extension and include this project to its capital program, and that MTO initiate planning to extend Highway 427 beyond the interim terminus at Major Mackenzie Drive be endorsed;
6. That staff continue to participate in the Highway 427 Extension Corridor EA, and report back to Council when the province has completed the Study;
7. That staff continue to monitor the Nashville Heights application in Vaughan, with a view to ensuring that viable options to extend Highway 427 are not precluded;
8. That this report and any Council resolution pertaining to it be forwarded to the Regions of Peel and York, the City of Vaughan, the Town of Caledon, and the Ministry of Transportation (MTO).

Yours truly,



Chandra Urquhart  
Legislative Coordinator  
City Clerk's Office  
Tel: 905-874-2116 Fax: 905-874-2119  
e-mail: chandra.urquhart@brampton.ca  
(PDD/ G3)

cc: J. Corbett, Commissioner, Planning, Design and Development  
A. Smith, Director, Planning and Land Development Services  
H. Zbogor, Manager, Long Range Transportation Planning



# Brampton

G3-1

Report

Date: September 2, 2009

PLANNING, DESIGN &amp; DEVELOPMENT COMMITTEE

Planning, Design &amp; Development Committee

File

DATE:

September 2, 2009Standing Committee of the Council  
of the Corporation of the City of Brampton

**Subject: RECOMMENDATION REPORT – Endorsement of the Peel-Highway 427 Extension Area Transportation Master Plan Study**

**Contact: Henrik Zbogor, Manager, Long Range Transportation Planning (x3553)**

## OVERVIEW

- The *Peel-Highway 427 Extension Area Transportation Master Plan (TMP)* study, led by the Region of Peel in cooperation with the City of Brampton and the Town of Caledon, has now been completed. The goals of the study were to carry out a comprehensive review of the future transportation improvement needs in Northeast Brampton and Southeast Caledon and to investigate the best ways to connect the municipal roads in the area with the potential Highway 427 extension.
- The TMP has been undertaken in accordance with the Municipal Engineers Association *Municipal Class Environmental Assessment*, and completes the first two phases of the Class EA process.
- The preferred solution identifies a combination of improvements to existing roads/services and construction of a new arterial road within Brampton to connect Mayfield Road with Major Mackenzie Drive. This new arterial road corridor would provide a strategic link to facilitate access to Highway 427 for traffic originating from or destined to Peel Region, it would provide additional road capacity required for traffic from both the east-west and the north-south directions, and would be well situated to serve the Secondary Plan 47 development in northeast Brampton.
- MTO's ongoing *427 Transportation Corridor EA* has identified Major Mackenzie Drive as the preferred terminus option for Highway 427. The analysis undertaken for the TMP shows the need for the further northerly extension of Highway 427 beyond Major Mackenzie Dr, and recommends that a study be initiated to examine this.
- MTO and their consultant are currently finalizing the preliminary design of the technically preferred route for the Highway 427 Extension to Major Mackenzie Drive. Filing of the EA report for public review is expected December 2009/January 2010.
- Staff is seeking Council's endorsement of the *Peel-Highway 427 Extension Area Transportation Master Plan*, and direction to continue working with Regional staff to implement the Study's recommendations, including initiation of the subsequent Environmental Assessment processes for road improvements, establishing the jurisdiction of the new arterial road through the Arterial Road Rationalization Review process, and inclusion of the needed road improvements in the capital planning process.

**RECOMMENDATIONS**

1. **THAT** the staff report dated September 2, 2009 entitled "**RECOMMENDATION REPORT – Endorsement of the Peel-Highway 427 Extension Area Transportation Master Plan**" and the accompanying attachment be received.
2. **THAT** Council endorse the recommendations of the Final Report of the joint municipal study entitled *Peel-Highway 427 Extension Area Transportation Master Plan* dated July 2009, and that the Final Report be included as a foundation background document for the Highway 427 Industrial Secondary Plan Area (SP 47) process, in particular for the Secondary Plan Transportation Study, and that it be used to inform the public about the City's continuing involvement in the Highway 427 Extension Corridor EA.
3. **THAT** staff be directed to initiate the City's process for a Phase 3 and 4 Class EA Study for the new arterial road (referred to as "Alignment A2") recommended in the *Peel-Highway 427 Extension Area Transportation Master Plan*, in consultation with the Region of Peel.
4. **THAT** staff be directed to work with the Region of Peel to take appropriate steps to implement the recommendations of the Peel Highway 427 Extension Area Transportation Master Plan, including initiation of subsequent Environmental Assessment processes for road improvements, determination of jurisdiction for the new arterial road, and inclusion of the needed road improvements in the capital planning process.
5. **THAT** Council endorse as the City's position that the Province expedite construction of the Highway 427 Extension and include this project to its capital program, and that MTO initiate planning to extend Highway 427 beyond the interim terminus at Major Mackenzie Drive.
6. **THAT** staff continue to participate in the Highway 427 Extension Corridor EA, and report back to Council when the province has completed the Study.
7. **THAT** staff continue to monitor the Nashville Heights application in Vaughan, with a view to ensuring that viable options to extend Highway 427 are not precluded
8. **THAT** this report and any Council resolution pertaining to it be forwarded to the Regions of Peel and York, the City of Vaughan, the Town of Caledon, and the Ministry of Transportation (MTO).

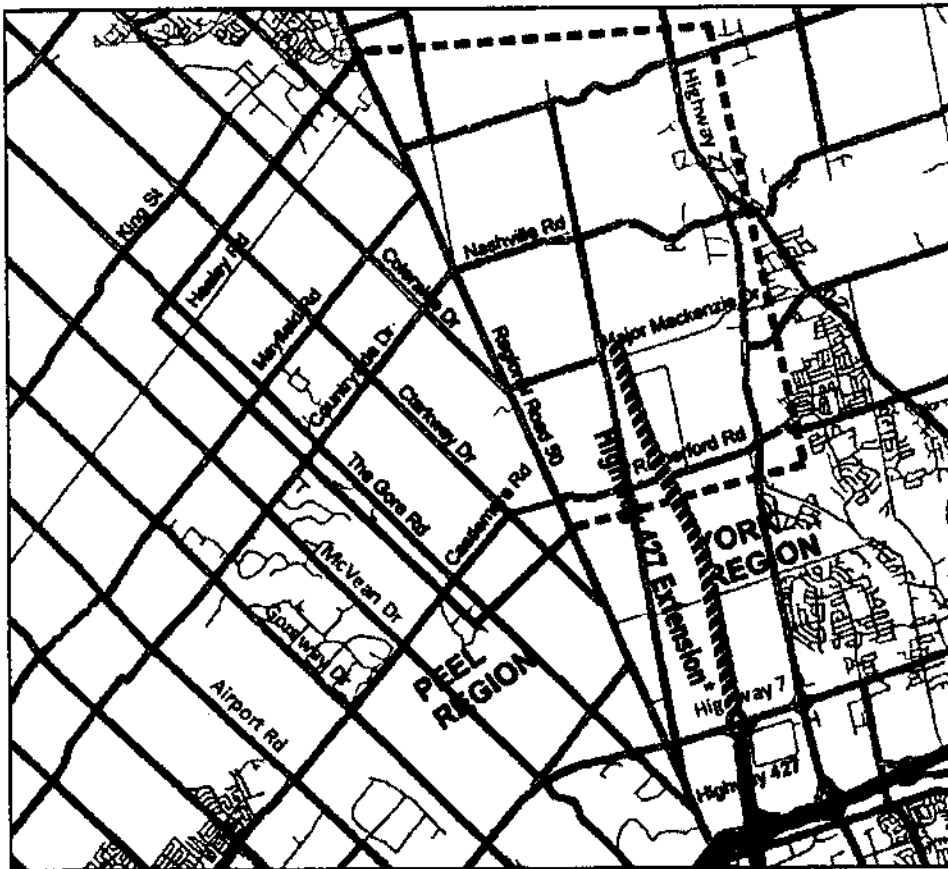
## BACKGROUND

The Ministry of Transportation of Ontario (MTO) initiated the *427 Transportation Corridor Environmental Assessment* in 2006 to determine the need for an extension of Highway 427, the location of its future terminus point, the route alignment and the number and location of interchanges with major arterial roads. MTO made no provision for formally considering new or realigned arterial road connections to Highway 427 as a part of the Highway 427 EA, except for a connecting road where the Highway 427 extension stops. Therefore, in 2007, the Region of Peel, with the participation of the City of Brampton and the Town of Caledon, undertook the *Highway 50 / Highway 427 Extension Area Arterial Network Study* to address the need for arterial road network improvements connecting to the potential Highway 427 Extension and to the municipal road network in York Region. The analysis completed for the Arterial Network Study indicated that in order to properly serve growth projected for the Northeast Brampton/ Southeast Caledon area, there is a need for Highway 427 to be extended to Major Mackenzie Drive or beyond in the short- to medium-term future. This finding was forwarded to MTO as input to the *427 Transportation Corridor Environmental Assessment*. The MTO's evaluation process maintained that the preferred terminus option is at Major Mackenzie Drive.

To address the issue of arterial connections and new roads in the context of an extended Highway 427, the Region of Peel, together with Brampton and Caledon, initiated the *Peel-Highway 427 Extension Area Transportation Master Plan* (Peel-427 TMP) in 2008. The Peel-427 TMP extended the technical work of the Arterial Network Study and included a comprehensive review of future transportation network needs and how best to connect arterial roads between the future Highway 427 extension and the municipal road system. The Peel-427 TMP examined the transportation network concepts and alternatives identified in the Arterial Network Study in detail and recommended a preferred transportation network, including a new arterial road required to accommodate the distribution of traffic to/from the Highway 427 extension.

The study area, shown in Figure 1, is bounded by Castlemore Road, Highway 50, the Gore Road, and Healy Road (north of Mayfield), but the analysis area also included the vicinity east of Highway 50, bounded by Rutherford Road, Highway 27, and Healy Road (as indicated by the dashed lines in Figure 1). This analysis area was included only for the consideration of transportation connections.

Figure 1 – Study Area



\*Alignment pending Highway 427 Transportation Corridor EA

The Peel-427 TMP Study was conducted with the cooperation of staff from the Ministry of Transportation of Ontario, the Region of York, the City of Brampton and the City of Vaughan to ensure the integration of transportation network planning in the study area. Furthermore, the Peel-427 TMP was carried out through an open public process in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment. Public Information Centres to engage with interested and affected individuals and organizations were held in April 2008 and December 2008.

The findings of the Peel-427 TMP Study are summarized in the Executive Summary Report, attached hereto in Appendix A.

As mentioned earlier, the Peel-427 TMP was undertaken to address issues arising from the ongoing Provincial EA for the Highway 427 Extension. A brief update of the Highway 427 EA, and two other studies that relate to the Peel-427 TMP – the GTA West Transportation Corridor EA and the Western Vaughan Individual Environmental Assessment (IEA) – are summarized below.

### Highway 427 Transportation Corridor EA (RML 2008-043)

Since April 20, 2009 when a delegation from MTO provided a progress update on the Highway 427 Transportation Corridor EA to PDD Committee (PDD095-2009), staff has been advised that MTO and their consultant are currently finalizing the preliminary design of the technically preferred route for the Highway 427 extension. A Pre-Submission of the Draft EA Report for municipal and public review is expected in the Fall of this year. This will be followed by the finalization of the EA Report with the incorporation of comments from the Pre-Submission. Filing of the EA report for public review is expected December 2009 / January 2010.

At a recent meeting of municipal, regional, and provincial staff participating in the Highway 427 EA study, Region of Peel staff expressed concerns over the proposed Nashville Heights development in the City of Vaughan. The OPA was approved by Vaughan Council in June 2009, and will go before York Region Council in the Fall. In the context of the ongoing EA studies for Highway 427 Extension and GTA West Corridor, Peel has taken positions calling for Highway 427 to be extended northwards (beyond Major Mackenzie Drive), and for protection of the GTA West Corridor and its linkage to Highway 427. Peel staff's concern is that it is too early to be approving land uses in the immediate vicinity of the 427 Extension, and that development should not preclude, jeopardize, or significantly limit options for the GTA West Corridor, Highway 427 Extension or the linkage between the two. MTO staff has noted that the further extension of Highway 427 to a potential GTA West transportation facility is being looked at in the context of the GTA West Corridor study. Brampton staff will continue to participate on Municipal Advisory Groups for these projects, and will monitor the Nashville Heights situation with a view to maintaining opportunities for the northerly extension of Highway 427.

### GTA West Transportation Corridor EA

MTO is currently undertaking the assessment of an east-west transportation corridor that would intersect Peel, called the GTA West Transportation Corridor EA. This study is examining long-term transportation problems and opportunities in a preliminary study area stretching from the City of Guelph to the Highway 400 area. The study will examine the development of an integrated, multimodal transportation system that can provide better linkages between the City of Guelph and the City of Vaughan. The study is ongoing and no preliminary findings were available while the Peel-427 TMP was being completed. The analysis undertaken for the Peel-427 TMP, therefore, did not assume the existence of a future east-west corridor but maintained the flexibility to accommodate the longer term Provincial transportation, development, environmental, and sustainability objectives.

## Western Vaughan Individual Environmental Assessment (IEA)

York Region has initiated an Individual Environmental Assessment for the area in western Vaughan adjacent the Peel-427 TMP study area. The major objectives of York's EA study are to identify and evaluate long term road network solutions in the area to accommodate transportation demands, to integrate with the terminus and interchanges of the Highway 427 extension, and to recommend the best practical road network for the Western Vaughan area. Peel and York staffs have coordinated their respective EA studies to ensure that the municipal road systems at the boundary of the two regions are integrated.

### **CURRENT SITUATION**

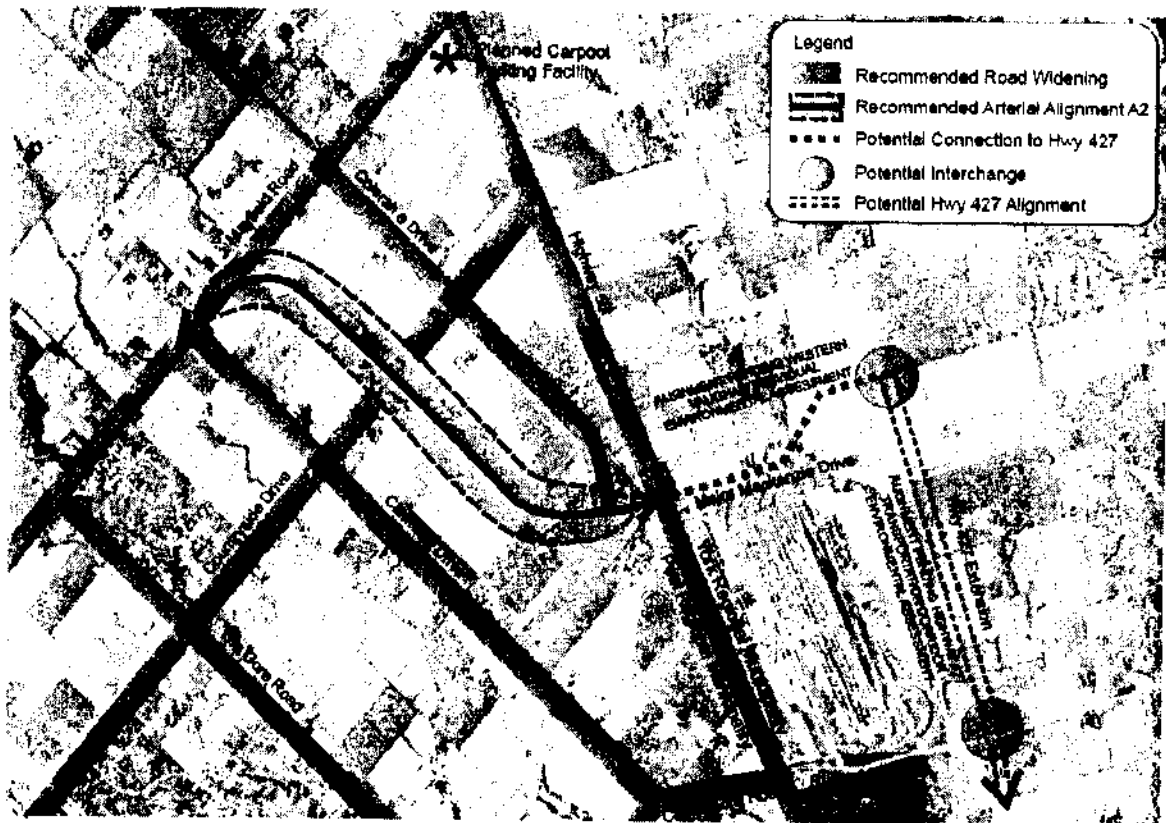
The *Peel-Highway 427 Extension Area TMP* refined the transportation route alternatives identified in the *Highway 50 / Highway 427 Extension Area Arterial Network Study*. These route alternatives, along with the "business as usual" scenario (including only currently planned/committed road improvements), were evaluated against the five criteria outlined in the conventional EA process: transportation performance, impact on the natural environment, impact on the socio-economic environment, economic impact, and cost. The evaluation rationale included increases in road capacity, enhanced accessibility between the Highway 427 extension and the arterial road network, and the provision of additional opportunities for future development.

The technical analysis showed that improving existing roads/services (i.e., road widenings, intersection/operational improvements, transit service improvements and travel demand management initiatives) will not be sufficient to address future transportation demands. A combination of the improvement of existing roads/services and the construction of a new arterial road corridor connecting Mayfield Road and Major Mackenzie Drive was identified as the preferred solution.

Figure 2 illustrates the recommended road network improvements, which are consistent with the recommendations of the 2009 TTMP Update. A wide band is shown along the recommended new arterial road corridor and is intended to allow for alternative routes that will be examined in the subsequent EA process.

Through the City's Secondary Plan process for the Highway 427 Industrial Area (SP 47), the arterial road connections recommended in the Peel-427 TMP will be enhanced by a new collector road system.

Figure 2: Highway 427 Extension Area TMP recommended network improvements



### New Arterial Road "A2"

As part of the Study, seven alternative options for a new corridor extending westerly from Major Mackenzie Drive were evaluated. "Alternative A2" has been identified as the preferred option connecting Highway 50 at Major Mackenzie Drive to Mayfield Road at Clarkway Drive. The preferred alignment is midblock between Clarkway Drive and Coleraine Drive, and a more precise route alignment will be determined in subsequent stages of the EA process.

The new arterial road will connect between major regional arterial roads in Peel (Mayfield Road) and York (Major Mackenzie Drive) to form a continuous route across both Regions, and will facilitate traffic to and from the 427 Highway Extension. Traffic volumes are expected to be as high as 2,500 vehicles per hour in the morning peak period and truck volumes could represent 10 to 20 percent of the total vehicular traffic, given the proximity to the CP Vaughan Intermodal Terminal. In addition, the new connector arterial will provide a north/south spine for the SP 47 area in Brampton, serving the employment lands in that development.

### Recommendations of the Peel-427 TMP

In order to serve the rapid growth forecast for the eastern Peel area, the following transportation strategies are recommended in the Peel- 427 TMP:

#### *Non-auto Travel Modes*

- **Interregional transit**, including Highway 427 rapid transit corridor;
- Construct the proposed **carpool/transit lot** at the southwest corner of Mayfield Road and Highway 50;
- Accommodation of **pedestrian and bicycle facilities** per municipal plans;
- Continue to promote **travel demand management** initiatives in the area.

#### *Road Infrastructure (within Peel)*

- **Construct a new arterial road** between Clarkway Drive and Coleraine Drive to connect Mayfield Road with Major Mackenzie Drive to create a continuous east-west arterial road connection between Peel and York Regions;
- **Widen existing roads**, including Mayfield Road, Countryside Drive, Castlemore Road, Highway 50, Coleraine Drive, Clarkway Drive, and The Gore Road (a more detailed description of the specific widening segments is provided in the appended Executive Summary, in Table ES.1, page ix);

#### *Other Infrastructure*

Other study findings and consultation with representatives of participating municipalities and the Ministry of Transportation have led to the following recommendations:

- The **extension of Highway 427** as a freeway is warranted to at least Major Mackenzie Drive by 2021 and beyond Major Mackenzie Drive by 2031, based on the findings of the *Highway 50/427 Extension Area Arterial Road Network Study*, October 2007. Previous studies have demonstrated the need for Highway 427 to continue north of Highway 9 (eg. The *Draft Technical Report for the Highway 427 Extension Transportation Needs Assessment*, November 2001, by McCormick Rankin showed a need by 2031 for up to 10 lanes north of Highway 89). A 400-series highway terminating at an arterial road, such as Major Mackenzie Drive, could result in traffic impacts such as congestion, noise, and safety concerns that disrupt local communities. It is recommended that planning of a further extension of Highway 427 beyond Major Mackenzie Drive be initiated.

- There is a need for a coordinated approach by Peel, York and MTO to **resolve network connections and discontinuities** in the vicinity of the York-Peel boundary area north of Castlemore Road / Rutherford Road within the short term (in time to accommodate demands associated with the opening of the Highway 427 extension). Widenings of the Rutherford Road and Major Mackenzie Drive between Highway 50 and Highway 427 should be coordinated between MTO, Peel and York for the opening of the Highway 427 extension.
- There are a number of feasible opportunities to **improve inter-regional network connectivity**. The following network alternatives are seen as appropriate to carry forward for further consideration:
  - The alignment of Countryside Drive-Nashville Road be reconfigured to improve their angle of intersection with Highway 50
  - The development of a major east-west road system including roads south of Cadetta Road (coordinated with the existing traffic signals at Fast Freight access), south of Countryside Drive, and south of Mayfield Road
  - The provision of the north-south major roads east and west of Clarkway Drive

To implement the recommendations of the Peel-427 Extension Area Transportation Master Plan, it is proposed that the Region of Peel, City of Brampton and Town of Caledon will undertake the following steps:

**1. Initiate Brampton Secondary Plan Area 47 Transportation Study –**

The City of Brampton in consultation with the Region of Peel will determine the local area network in Area 47 to complement the recommended major arterial connections. Substantive completion of Secondary Plan Area 47 component studies will provide critical input to the subsequent EA studies for the road improvements in the area, including Alternative A2.

Staff advises that the Terms of Reference for this exercise have already been issued, and the successful consultant team to lead this work will be announced imminently.

- 2. Initiate Phase 3 and 4 Class EA Study for Alternative A2 –** This EA should be undertaken in a timely manner by the appropriate municipalities. The jurisdiction for the new road would be established following the current review of road jurisdiction being conducted in the Region. At the direction of Peel Council and the Arterial Road Review Ad hoc Steering Committee (ARRASC), Peel and its area municipalities are currently initiating the Arterial Road Rationalization Review Phase 2 to investigate and assess the jurisdictional options of the major arterial roads network

identified in Phase 1. The proposed Alternative 2 arterial road should be included for consideration through this process. The Phase 2 review is expected to be completed in mid-2010.

Notwithstanding a future resolution of the jurisdiction matter, and given the significant importance of this road alignment to the development of NE Brampton and the parallel processes that are or will be underway through the Area 47 Secondary Plan exercise, Brampton staff recommends that this EA study be led by the City in consultation with the Region of Peel.

The EA study of Alternative A2 will be fully coordinated with York Region's Western Vaughan IEA, SP 47 and individual road EAs. This study will include determination of the location and configuration of intersections with Mayfield Road, Highway 50, Major Mackenzie Drive and Coleraine Drive. It will address the realignment of Coleraine Drive to intersect with the Alternative A2 connector road and protect for a future role of the Alternative A2 alignment as a major north-south road within the Secondary Plan Area 47.

The property required for the construction of the new arterial road between Clarkway Drive and Coleraine Drive needs to be protected until such time as the EA for the new road is completed. Staff advises that the City's 2006 Official Plan currently provides for this protection through the Highway 427 and Arterial Network Corridor Protection Area, outlined in Sections 4.4.2.14 and 4.13.2.3 and illustrated on Schedules A and B.

3. **Initiate Road Widening Class EA Studies** – The Municipalities will proceed with Phase 3 and 4 Environmental Assessment Studies for the road widening corridors. The EA studies will reflect the time horizons identified through this study and other on-going initiatives including: the Region of Peel Development Charges background analysis, City of Brampton Transportation & Transit Master Plan (TTMP), Brampton Secondary Plan Area 47 Transportation Study, and the Caledon Transportation Needs Study Update.
4. **Monitor and Participate in the West Vaughan IEA Study** – The Region of Peel, City of Brampton and Town of Caledon will provide input as a stakeholder and commenting agency to the West Vaughan IEA. This participation will specifically include input to the future alignment of Major Mackenzie Drive and the location and configuration of its intersection with Highway 50, the timing of the widening of Major Mackenzie, and efforts to minimize impacts of the alignment of Major Mackenzie Drive on land uses in Peel and the operation of the transportation network in Peel.

## CONCLUSION

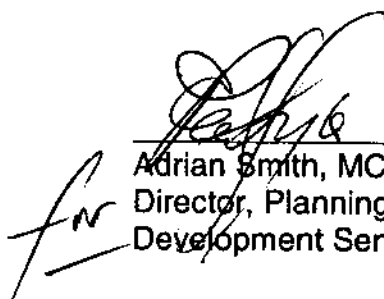
The *Peel-Highway 427 Extension Area Transportation Master Plan Study* builds on the findings of the earlier Arterial Road Network Study, and is fundamentally driven by the need to identify transportation network solutions for accommodating demands and providing logical connections to a future Highway 427 from Peel.

High levels of travel demand from northeast Brampton and southeast Caledon to Toronto and Vaughan are anticipated in the future (approximately 10,000 trips in the morning peak hour). Results from the Peel-427 *TMP* indicate that an improved transportation network and improved transportation services are needed to accommodate this high volume of traffic, including a new arterial road within Brampton that will provide a continuous link between Peel and York regions. As well, an integrated transportation network is essential to ensure the effective and efficient connection of the proposed Highway 427 extension and the municipal road systems in Peel and York.

Furthermore, the *TMP* identifies that a study needs to be initiated for the further northerly extension of Highway 427 beyond Major Mackenzie Drive in the long term.

The *Peel-Highway 427 Extension Area Transportation Master Plan Study* has been a joint effort between Peel, Brampton and Caledon, and approval by the respective Councils is needed before the recommendations can be acted upon.

Respectfully submitted,

  
Adrian Smith, MCIP, RPP  
Director, Planning and Land  
Development Services

  
John Corbett, MCIP, RPP  
Commissioner, Planning Design and  
Development

*Authored by: Henrik Zbogar, Manager Long Range Transportation Planning*

**Appendix A: Peel-Highway 427 Extension Area Transportation Master Plan  
Executive Summary, July 2009, iTRANS Consulting**

G3-12



**Region of Peel, City of Brampton, and  
Town of Caledon**

**Peel-Highway 427 Extension Area  
Transportation Master Plan  
Executive Summary**

**York - Peel Boundary**

**July 2009**

63-13

## **iTRANS Project Team**

|                                    |                                                      |
|------------------------------------|------------------------------------------------------|
| <b>Principal / Project Manager</b> | Ray Bacquie, P.Eng, AVS                              |
| <b>Senior Engineer</b>             | Suzette Shiu, P.Eng                                  |
| <b>Technical Support</b>           | Nathalie Baudais, P.Eng.<br>Matthew McCumber, E.I.T. |

## **EXECUTIVE SUMMARY**

### **A. Introduction**

The Ministry of Transportation initiated the Environmental Assessment (EA) of the 427 Transportation Corridors in the fall of 2006. The EA study terms of reference (TOR) provides for the possibility of extending Highway 427 to a point somewhere south of the Green Belt and Oak Ridges Moraine.

This Study is intended to clarify roadway requirements to serve the future needs within the Region of Peel in proximity to the future extension of Highway 427. It will identify any appropriate new road links required to accommodate distribution of traffic to/from the Highway 427 extension and planned development in the adjacent area, while maintaining flexibility to accommodate longer term Provincial transportation, development, environmental, and sustainability objectives.

The study area will focus on the area bounded by Castlemore Road, Highway 50, The Gore Road, and Healey Road (north of Mayfield Road) but the analysis area also includes the area east of Highway 50, bounded by Rutherford Road, Highway 27, and Healey Road.

The main objective of this study is to identify and evaluate inter-municipal long-term road network solutions in terms of the accommodation of transportation demands and logical connections to Highway 427 from the Region of Peel.

### **B. Existing Conditions**

#### **Transportation Conditions**

Both the Region of Peel and York Region road networks reflect a grid of arterial roads. The City of Brampton, Town of Caledon, and City of Vaughan also have collector or rural concession roads that contribute to the road grid. The orientation of the road grid is not consistent between the two regions. As a result, east-west arterials are *not well aligned* between the two regions. The spacing of the east-west arterial and collector roads along the boundary reflect historical concession spacing and are not sufficient to accommodate transportation servicing of future urban development.

The primary inter-regional transit service in the study area is a GO Transit bus route that includes service to Bolton, Nobleton, Kleinberg, and Malton GO train Station via Highway 50, King Road West, and Highway 27. There is limited existing regional transit service in the study area.

#### **Natural Environment**

The Toronto and Region Conservation Authority (TRCA) has responsibility for the assessment and management of environmental impacts within the study area.

TRCA has the following Areas of Interest within the study area: Regulated Areas (regulation limit, crest of slope, meander belt, regulatory flood plain, regulated wetlands and watercourses), TRCA Program and Policy Areas (aquatic species and habitat, aquifers and hydrogeological features, terrestrial natural heritage strategy and terrestrial species and habitat), and Provincial and Federal Program Areas (areas of natural and scientific interest and greenbelt).

In order to investigate these issues, an inventory of natural heritage features was initiated. The analysis of the existing natural environment is based on a review of secondary information available from the Ministry of Natural Resources (MNR), the Toronto and Region Conservation Authority (TRCA), the Regional Municipality of York, the Regional Municipality of Peel, the City of Vaughan, the City of Brampton and the Ontario Ministry of Transportation.

*While information was collected within the broader study area, the focus of the assessment is within the primary study area, within Peel Region (Highway 50 to The Gore Road and Castlemore Road to Healey Road), as this is the area where transportation solutions are being contemplated.*

The study area lies primarily within the Humber River watershed. Watercourses located within the study area that directly support warmwater (primarily small riverine warmwater) fish habitat.

There are no designated natural areas (Environmentally Significant Areas, Areas of Natural and Scientific Interest, or Evaluated Wetlands) located within the primary study area (area where improvements are being considered). Greenbelt Designations exist within the northwest portion of the study area extending south from Healey Road to Mayfield Road immediately east of The Gore Road.

## **Economic Environment**

The greater part of the study area is undeveloped but designated for urban development in the Growth Plan. The area currently consists of agricultural land, estate residential, and pockets of industrial development. Other notable features include hydro corridors, a TransCanada Pipeline corridor, zone estate areas (south Bolton to Brampton), golf courses, and the CP Intermodal Terminal. The CP Intermodal Terminal has impacted the feasible alignments of a Highway 427 extension and will limit modifications to the alignment of Major Mackenzie Drive.

The village of Bolton is the most populated community in the Town of Caledon. The urban expansion of south Bolton lies in part within the northern portion of the study area. Recent industrial development has occurred in south Bolton adjacent to existing farmland.

The Brampton Secondary Plan Area 47 is approximately bounded by Mayfield Road to the north, Highway 50 to the east, The Gore Road to the west and Castlemore Road to the south.

The City of Brampton is initiating the planning process for future development in this area. However, individual development applications have come forward in advance of the secondary plan process. Currently the proposed JAIN development is located at the southwest quadrant of Mayfield Road and Clarkway Drive. Within south Bolton, industrial development is continuing to proceed. Town of Caledon Council has introduced growth management strategies for residential development in south Bolton.

### **Social / Cultural Heritage Environment**

The study area comprises parts of former Township of Toronto Gore and the Township of Albion. The Villages of Castlemore, Coleraine, Wildfield, and Tormore within the Township of Gore, now City of Brampton, had settlements beginning in the 1820's to 1860's. Each community had a post office and local businesses.

Designated sites within the primary study area include:

- Kennedy-O'Reilly Farm (7905 Mayfield Road) – Designated (pending).
- St. Patrick's Roman Catholic Church and Cemetery (11873 The Gore Road) – Designated (pending).
- Philip Eagon Farmhouse (11873 The Gore Road) – Designated (pending).

A number of sites within the study area have been listed as having heritage value or interest, but have not been designated. There is a concentration of heritage sites in the Wildfield community in the vicinity of the Mayfield Road and The Gore Road.

As documented in the Highway 427 Transportation Corridor EA TOR, the Humber River is designated a Canadian Heritage River. The Humber watershed has provided a home for Aboriginal peoples and European settlers during the past 12,000 years.

## **C. Needs Assessment**

### **Projected Travel Demand**

The Places to Grow Plan identifies land use growth targets for Central Ontario. In order to assess the implications of provincial policy, traffic forecasts were generated using the model developed for the York-Peel Boundary Area Transportation Study, updated to reflect the Places to Grow growth targets and planned network improvements. The findings confirmed that there is sufficient demand in the Highway 427 corridor to justify an extension of Highway 427 to Major Mackenzie Drive and beyond by 2021.

The orientation of travel within and through the study area reflects the commuter patterns of the region. Predominant flows are from the northwest to the southeast in the morning with the reverse movements in the evening. This reflects the prominence of residential uses in the north and west of the study area generating morning trips destined to the employment areas in Toronto, the Airport area in Mississauga and industry in southern York Region.

The demands indicate high volumes from both North Brampton and from Bolton and communities to the north.

### **Modal Objectives**

It is acknowledged that all jurisdictions within the analysis area favour a multimodal approach to transportation planning. Transit, walking, cycling, ridesharing, and telecommuting are part of the transportation strategies of York and Peel Regions and the area municipalities in the study area. Opportunities include connections to transit within the 427 corridor and connections to planned transit initiatives including Acceleride and Viva, and can build on the concepts developed in the 2003 BATS report.

These modes alone will not address the capacity and accessibility needs for the developing areas of Brampton, Caledon and Vaughan within the study area. Municipal road network improvements within Peel will be required. However, future network configurations can take advantage of opportunities to encourage transit and alternative modes of travel and support travel demands necessary for growth. This would include efficient east-west connections to an extended Highway 427 and a network grid to allow efficient transit operations.

### **Problem and Opportunity Statement**

Recognizing the changing nature of land uses and the road infrastructure within the study area, there is a need to identify the opportunities to improve the transportation road network, as well as to integrate the improvement plans from Peel, Brampton and Caledon with the planning process for the Highway 427 extension. The study is intended to integrate Peel Municipal Infrastructure with the proposed improvements in York Region for Seamless inter-regional travel.

The improvements will provide for the following principles endorsed by the councils of the Region of Peel, City of Brampton and Town of Caledon:

- The transportation network will accommodate travel demand serving commuter traffic and goods movement, and more generally by being efficiently oriented in relation to primary origin-destination flows.
- The transportation network will minimize impacts on the natural, socio-economic and cultural environment.
- The transportation network will support the intended role and function of the roads and provide logical links to the provincial highway network.
- The transportation network will be efficient and allow for safe operations including the development of desirable intersection spacing and configurations.
- The transportation network will support future development in a logical manner.
- The transportation network will allow for logical and efficient staging of implementation.
- The transportation network will be cost effective.

## **D. Recommendations**

### **Recommendations for Non-auto Travel Modes**

Future inter-regional transit in the study area may include a new GO Rail service between Bolton and Union Station as proposed in the *Region of Peel Official Plan (2005)* and as project #15 in the regional rapid transit program, *MoveOntario 2020 (June 2007)*. This project is proposed in the Regional Transportation Plan produced by Metrolinx.

An important future inter-regional transit connection is to the Highway 427 rapid transit corridor. The ongoing 427 Transportation Corridor EA includes the identification and protection of a 60 metre transit right-of-way and transit stations to be located along the west side of the proposed freeway extension. Expansion of regional transit service should be considered for any newly widened corridor and new or realigned road links in the study area, including: a Bus Rapid Transit corridor on Castlemore Road and primary transit corridors on Mayfield Road, The Gore Road and Highway 50.

Construction is expected for a new carpool and transit parking lot complete with a bus transit terminal at the southwest corner of the Highway 50 and Mayfield Road intersection. The parking lot will serve carpoolers and transit riders with planned transit service by GO Transit and potentially by municipal and regional transit in the future.

As part of the transportation strategy, the implementation of the transportation system will include pedestrian and bicycle accommodation as defined by the *Brampton Pathways Routing Plan (2006)* and the *Vaughan Bicycle and Pedestrian Master Plan Study (2007)*. These plans proposed networks of on and off-road cycling facilities and multi-use trails as well as recommended route and facility planning and design guidelines.

### **Recommended Road Infrastructure in Peel**

Based on the technical analysis and evaluation, it is recommended that road network improvements include a combination of road widenings and the provision of a new arterial road connection from Highway 50 at Major Mackenzie Drive to Mayfield Road as shown in **Exhibit ES.1**. These recommended improvements are consistent with the recommendations of Brampton's Draft Transportation and Transit Master Plan Update. Additionally, through the City's Secondary Plan process, the recommended arterial connections will be complemented by a new collector road system.

The new arterial connector road, identified as Alternative A2, is the recommended connection between Mayfield Road at Clarkway Drive and Highway 50 at Major Mackenzie Drive. The preferred alignment Alternative A2 is midblock between Clarkway Drive and Coleraine Drive. A more precise alignment of this route will be determined in subsequent stages of the EA process.

The new arterial road will connect between major regional arterial roads in Peel (Mayfield Road) and York (Major Mackenzie Drive) to form a continuous route across both Regions. It will handle Provincial traffic to and from the 427 Highway Extension. Traffic volumes are expected to be as high as 2,500 vehicles per hour in the morning peak period and truck volumes could represent 10 to 20 percent of the total vehicular traffic, given the proximity to the CP Vaughan Intermodal Terminal. In addition, the new connector arterial will provide a north-south spine for the Secondary Plan Area 47 in Brampton, serving the employment lands in that development.

It is recognized that the long term objective the Region of Peel, City of Brampton, and Town of Caledon is for a further extension of the Highway 427, given the need demonstrated in previous analyses. The new arterial corridor A2 will serve as a major east-west major arterial road for the inter-regional traffic commuting between Peel and York. With any future extension of Highway 427 beyond Major Mackenzie Drive, the new arterial corridor A2 will also serve as a north-south link accommodating growth in south Bolton and serving as part of the major road grid for Brampton Secondary Plan Area 47. The Brampton Secondary Plan Area 47 is part of the City's urban boundary and accommodates growth required to meet the provincial Growth Plan targets.

Phase 3 and 4 EA studies will be required for each corridor identified in order to develop the preferred design (alignment, profile, cross-section, structure requirements) and mitigation. For corridors identified as widenings, it is possible that the Phase 3 and 4 EA studies may identify realignments of the road to address site specific environmental impacts.

The alignment and design of each corridor will incorporate design features that recognize and minimize impact to Regulated Areas (regulation limit, crest of slope, meander belt, regulatory flood plain, regulated wetlands, watercourses), TRCA Program and Policy Areas (aquatic species and habitat, aquifers and hydrogeological features, the Terrestrial Natural Heritage Strategy, and terrestrial species and habitat) and the Greenbelt. The alignment and design of each corridor will have regard for and mitigate impacts to economic (existing land uses, businesses, residences, institutional uses) and social / cultural heritage features.

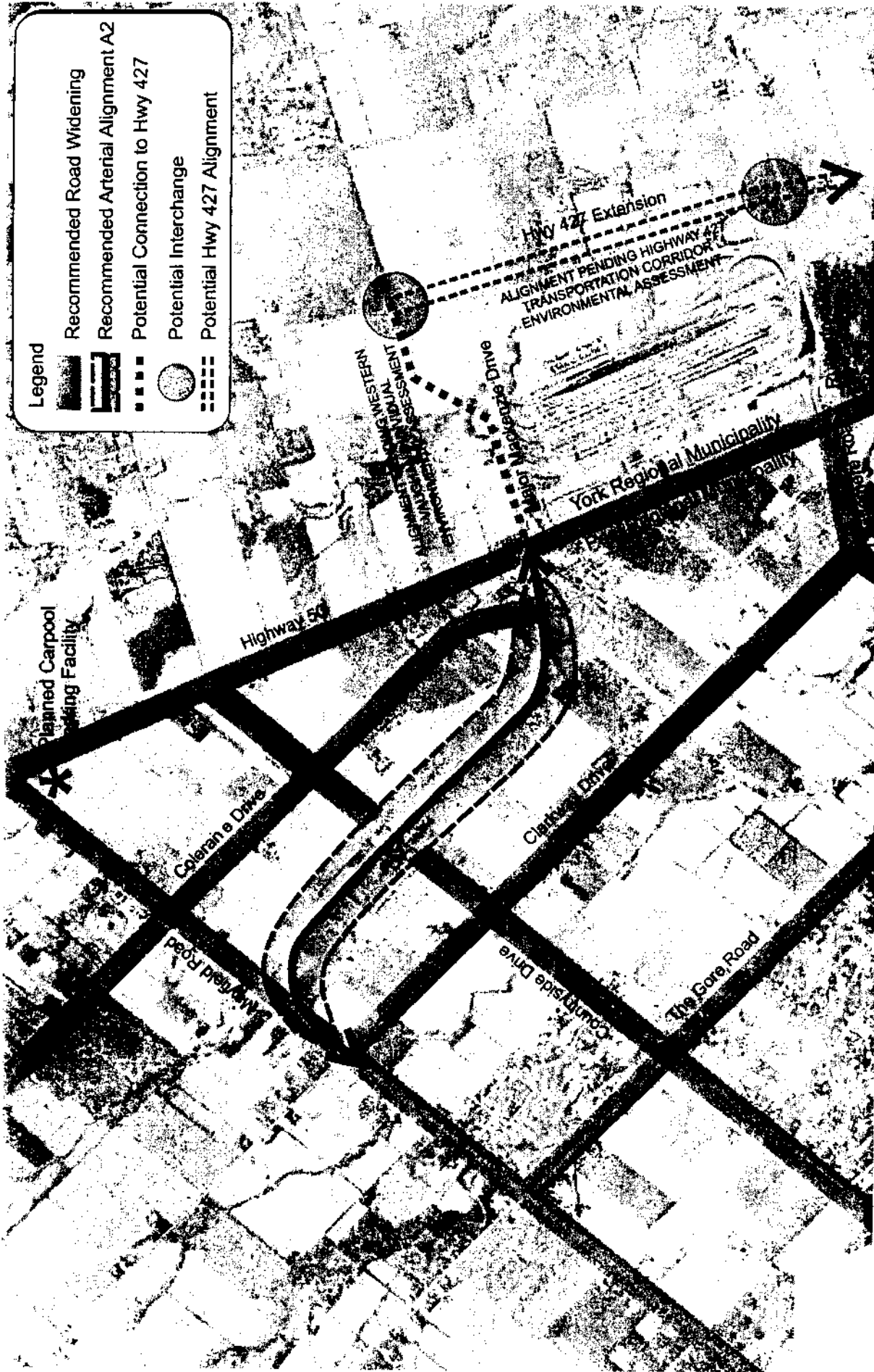
The timing of the proposed improvements within the study area is summarized in Table ES.1

## Recommendations for Other Infrastructure

Other study findings and consultation with representatives of participating municipalities and the Ministry of Transportation have led to the following recommendations:

- The extension of Highway 427 as a freeway is warranted to at least Major Mackenzie Drive by 2021 and beyond Major Mackenzie Drive by 2031 based on the findings of the *Highway 50/427 Extension Area Arterial Road Network Study, October 2007*. It is acknowledged that previous studies showed that further extensions of Highway 427 demonstrated the need for Highway 427 to north of Highway 9. ***It is recommended that planning of a further extension of Highway 427 beyond Major Mackenzie Drive be initiated.***

- There is a need for a coordinated approach by Peel, York and MTO to resolve network connections and discontinuities in the vicinity of the York-Peel boundary area north of Castlemore Road / Rutherford Road within the short term (in time to accommodate demands associated with the opening of the Highway 427 extension). ***Widenings of the Rutherford Road and Major Mackenzie Drive between Highway 50 and Highway 427 should be coordinated between MTO, Peel and York for the opening of the Highway 427 extension.***
- There are a number of feasible opportunities to improve inter-regional network connectivity. The following network alternatives are seen as appropriate to carry forward for further consideration:
  - The alignment of Countryside Drive-Nashville Road be reconfigured to improve their angle of intersection with Highway 50
  - The development of a major east-west road system including roads south of Cadetta Road (coordinated with the existing traffic signals at Fast Freight access), south of Countryside Drive, and south of Mayfield road
  - The provision of the north-south major roads east and west of Clarkway Drive



Note: Through the City's Secondary Plan process, the recommended arterial connections will be complemented by a new collector road system.

## Exhibit ES.1

## Recommended Road Network

**Table ES.1: Recommended Network Improvements**

| Corridor                             | Road Section                   | Current Configuration | Needs by 2014 (assumed Hwy 427 opening) | Needs by 2021 | Needs by 2031 |
|--------------------------------------|--------------------------------|-----------------------|-----------------------------------------|---------------|---------------|
| <b>North-South Roads</b>             |                                |                       |                                         |               |               |
| The Gore Road                        | Healey to Mayfield             | 2                     | 2                                       | 2             | 2**           |
|                                      | Mayfield to Countryside        | 2                     | 4*                                      | 4*            | 4*            |
|                                      | Countryside to Castlemore      | 2                     | 4                                       | 4             | 6             |
| Clarkway Drive - Humber Station Road | Healey to Mayfield             | 2                     | 2                                       | 2             | 2             |
|                                      | Mayfield to Countryside        | 2                     | 4 (SP47)                                | 4 (SP47)      | 4 (SP47)      |
|                                      | Countryside to Castlemore      | 2                     | 4 (SP47)                                | 4 (SP47)      | 4 (SP47)      |
| Coleraine Drive                      | Healey to Mayfield             | 2                     | 4                                       | 4             | 4             |
|                                      | Mayfield to Countryside        | 2                     | 4                                       | 4             | 4             |
|                                      | Countryside to Major Mackenzie | 2                     | 4                                       | 4             | 4             |
| Highway 50                           | Healey to Mayfield             | 4                     | 4                                       | 4             | 4             |
|                                      | Mayfield to Countryside        | 4                     | 6                                       | 6             | 6             |
|                                      | Countryside to Major Mackenzie | 4                     | 6                                       | 6             | 6             |
|                                      | Major Mackenzie to Castlemore  | 4                     | 6                                       | 6             | 6             |
| Albion-Vaughan Road                  | Queens Gate to Mayfield        | 2                     | 2                                       | 4             | 4             |
| <b>East-West Roads</b>               |                                |                       |                                         |               |               |
| Mayfield – Major Mac Link            | Highway 50 to Coleraine        | 0                     | 4                                       | 6             | 6             |
|                                      | Coleraine to Countryside       | 0                     | 4                                       | 4             | 4             |
|                                      | Countryside to Mayfield        | 0                     | 4                                       | 4             | 4             |
| Castlemore Road                      | The Gore to Clarkway           | 4                     | 6                                       | 6             | 6             |
|                                      | Clarkway to Highway 50         | 4                     | 6                                       | 6             | 6             |
| Countryside Drive                    | The Gore to Clarkway           | 2                     | 4*                                      | 4*            | 4*            |
|                                      | Clarkway to Coleraine          | 2                     | 4*                                      | 4*            | 4*            |
|                                      | Coleraine to Highway 50        | 2                     | 4*                                      | 4*            | 4*            |
| Mayfield Road                        | The Gore to Clarkway           | 2                     | 4                                       | 4             | 6             |
|                                      | Clarkway to New Link           | 2                     | 4                                       | 4             | 6             |
|                                      | New Link to Highway 50         | 2                     | 4*                                      | 4*            | 4*            |
| Healey Road                          | The Gore to Clarkway           | 2                     | 2                                       | 2             | 2             |
|                                      | Clarkway to Coleraine          | 2                     | 2                                       | 2             | 2             |
|                                      | Coleraine to Highway 50        | 2                     | 2                                       | 2             | 2             |

\* - This section was identified as needed prior to 2014 in ESR (Without Mayfield – Major Mackenzie Link)

\*\* - Widening was identified as needed prior to 2031 in ESR (Without Mayfield – Major Mackenzie Link)

(SP 47) – The timing to be confirmed through the planning for Brampton Secondary Plan Area 47

## Next Steps

To implement the recommendations of this study, the Region of Peel, City of Brampton and Town of Caledon will undertake the following steps:

1. **Initiate Brampton Secondary Plan Area 47 Transportation Study** – The City of Brampton in consultation with the Region of Peel will determine the local area network in Area 47 to complement the recommended major arterial connections. Substantive completion of Secondary Plan Area 47 component studies will provide critical input to the subsequent EA studies for the road improvements in the area, including Alternative A2.
2. **Initiate Phase 3 and 4 Class EA Study for Alternative A2** – This EA should be undertaken in a timely manner by the appropriate municipalities. The jurisdiction for the new road would be established following the current review of road jurisdiction being conducted in the Region. The EA study of Alternative A2 will be fully coordinated with York Region's Western Vaughan IEA, SP 47 and individual road EAs. This study will include determination of the location and configuration of intersections with Mayfield Road, Highway 50, Major Mackenzie Drive and Coleraine Drive. It will address the realignment of Coleraine Drive to intersect with the Alternative A2 connector road and protect for a future role of the Alternative A2 alignment as a major north-south road within the Secondary Plan Area 47.
3. **Initiate Road Widening Class EA Studies** – The Municipalities will proceed with Phase 3 and 4 Environmental Assessment Studies for the road widening corridors. Two Regional EAs are already in progress: Mayfield Road from Airport Road to Coleraine Drive and Highway 50 from Castlemore Road to Mayfield Road. The EA studies will reflect the time horizons identified through this study and other on-going initiatives including: the Region of Peel Development Charges background analysis, City of Brampton Transportation and Transit Master Plan (TTMP), Brampton Secondary Plan Area 47 Transportation Study, and the Caledon Transportation Needs Study Update.
4. **Monitor and Participate in the West Vaughan IEA Study** – The Region of Peel, City of Brampton and Town of Caledon will provide input as a stakeholder and commenting agency to the West Vaughan IEA. This participation will specifically include input to the future alignment of Major Mackenzie Drive and the location and configuration of its intersection with Highway 50, the timing of the widening of Major Mackenzie, and efforts to minimize impacts of the alignment of Major Mackenzie Drive on land uses in Peel and the operation of the transportation network in Peel.