City of Hamilton
Hamilton Public Works

ROPA9 Transportation Master Plan Review
Addendum to 2006 Phase 1 and 2 Report

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EXECUTIVE SUMMARY

In 2006, City of Hamilton Council endorsed Phases 1 and 2 of the Rymal Road Planning Area (ROPA9) Class Environmental Assessment (EA) Master Plan Study. The study addressed the infrastructure improvements required to service the “ROPA9” lands and Special Policy Area ‘C’. The purpose of the EA was to address the short and long term transportation infrastructure needs to allow development of the “ROPA9” lands for urban land uses. The Master Plan Study recommended a number of Schedules A, B, and C transportation projects, including proposed measures to address traffic concerns in the Trinity Neighbourhood.

The scope of this Transportation Master Plan Review was to review the ROPA9 TMP (2006) findings and update the TMP based on the changes in land use, development plans and infeasibility of constructing the earlier proposed Trinity Neighbourhood Collector Road since the previous study was completed.

The results presented in this ROPA9 Transportation Master Plan Review Addendum to 2006 Phase 1 and 2 Report have been adopted by the Public Works Committee on April 22, 2013 (Public Works Report 13-005, staff report # PW 13032) with certain amendments. The report to the Council was approved by the Council on April 24, 2013.

This Class EA Master Plan fulfills all Phases 1 and 2 requirements for each project schedule. The Class EA Master Plan Addendum is placed on public record for a minimum of 30-calendar days for review by the public and interested agencies/groups.

Since this TMP review study has identified only Schedule A and A+ projects, these projects are considered approved under the Class EA process and hence there is no opportunity for the public or stakeholders to appeal the study recommendations.

The ROPA9 TMP (2006) recommended several transportation facilities; however, many of these have yet to be implemented. Developments in and around the ROPA9 area continue to proceed and traffic volumes continue to grow and infrastructure improvements are not keeping up with development.

The Trinity Church Arterial Corridor is a crucial element to the study area road network. Without it, the area roads are subjected to very high traffic volumes. These roads are not suited to accommodate such volumes, particularly Upper Mount Albion Road.
Problem and Opportunity Statement
Transportation solutions are needed to:
- Ensure adequate road capacity in the study area to support existing and planned development and promote pedestrian, cycling and transit usage.
- Enhance safety and manage traffic impact on neighbourhood roads.

Upper Mount Albion Road Alternative Solutions
Several alternative solutions were developed and considered for Upper Mount Albion Road:

1. **Do-Nothing**
2. **Close Upper Mount Albion Road in the form of a cul-de-sac, just north of Rymal Road** (as approved under previous studies) and:
   a) Install temporary traffic signal at Pritchard / Rymal until Trinity Church Arterial Corridor is constructed
3. **Keep Upper Mount Albion Road open and any one of the following:**
   a) Install temporary traffic signal at Pritchard/Rymal and ban turns onto Upper Mount Albion Road from Rymal Road and Stone Church Road during peak periods only (this would have to be initially enforced with a police presence)
   b) Put a temporary halt to development in the area until the Trinity Church Arterial Corridor is complete and Rymal Road is widened
   c) Convert Upper Mount Albion Road to one-lane of traffic and a striped pathway for pedestrians and cyclists
   d) Provide temporary traffic calming

The Upper Mount Albion Road alternatives were evaluated based on the ability of the alternative to address the problem statement, including impacts to transportation, anticipated property impacts, and environmental impacts and the list of criteria established.

Preferred Upper Mount Albion Road Alternative (2a)
The existing conditions of Upper Mount Albion Road are not consistent with the collector road classification.

Closure of Upper Mount Albion Road would significantly improve the safety of vulnerable road users by restricting vehicular traffic to local access.

A temporary traffic signal will be installed at the intersection of Pritchard Road and Rymal Road until Trinity Church Arterial Corridor is constructed, at which time the traffic signal will be removed. This traffic signal will facilitate the operations at this intersection and would encourage drivers to use this route rather than local residential roads in the study area.
Pavement conditions on some sections of Pritchard Road are not be suitable for the additional traffic being diverted, therefore asphalt padding will be provided on the entire section of Pritchard Road between Rymal Road and Highland Road to ensure that the pavement structure is maintained while the route is being used as a detour. This was one of the amendments at the Public Works Committee Meeting, 

A wide paved shoulder will be constructed along the west side of Pritchard Road between the multi-purpose path (south of Harloue Road) and Stone Church Road. 

Due to the traffic diversion created by a closure of Upper Mount Albion Road, it is recommended that traffic volumes on neighbouring roads (including Second Road West, Gatestone Drive and Highland Road) be monitored until Trinity Church Arterial Corridor is constructed. 

**Second Road West Alternative Solutions** 
Several alternative solutions were developed and considered for Second Road West: 

1. **Do-nothing**  
2. **Close Second Road West, and any one of the following:** 
   a) Close north of Gatestone Drive 
   b) Close north of Rymal Road 
   c) Close north of Gatestone Drive and extend Gatestone Drive southwards through the west portion of White Deer Park to intersect with Rymal Road. 
   d) Close south of Fairhaven and provide parking lot at Karst trail head 
3. **Keep Second Road West open** 
   a) Put a temporary halt to development in the area until the Trinity Church Arterial Corridor is complete and Rymal Road is widened 
   b) Provide traffic calming feature(s) 

The Second Road West alternatives were evaluated based on the ability of the alternative to address the problem statement, including impacts to transportation, anticipated property impacts, and environmental impacts and the list of criteria established. 

**Preferred Second Road West Alternative Solutions (3b)** 
Since an alternate north-south link within the Trinity East Neighbourhood is no longer feasible due to the Open Space and Karst, Second Road West must remain open to provide a north-south link within the transportation grid. However, due to the closure of Upper Mount Albion, some measure(s) will be taken to ensure that excessive traffic volumes aren’t diverted to Second Road West. 

One speed cushion located between Gatestone Drive and Fairhaven Drive would help ensure that excessive traffic volumes aren’t diverted to Second Road West.
Due to the large number of driveways along the road, the placement of the speed cushion is severely restricted. To provide a speed cushion, parking would need to be prohibited for approximately 15 metres (~two to three parking spaces) just north and south of the speed cushion.

Sidewalks are also recommended throughout the Second Road West corridor to complete the pedestrian network.

**Highland Road Alternative Solutions**
Several alternative solutions were developed and considered for Highland Road:

- **Options for Highland Road** – all options are within the existing curbs (i.e. only pavement marking changes)
  
- **Do Nothing (as is)**
  
- **Replace a Parking lane with a Turning Lane**
  
- **Replace a Parking lane with a Bike Lane in Sections**
  
- **Remove both Parking lanes for a Bike Lane & a Turning Lane**

The Highland Road alternatives were evaluated based on the ability of the alternative to address the problem statement, including impacts to transportation, anticipated property impacts, and environmental impacts and the list of criteria established.

**Preferred Highland Road Alternative**
The provision of marked on-road bicycle lanes improves the safety of on-road cyclists as well as improved cycling network connectivity. On-road cycling lanes will
be provided for the urbanized section of Highland Road (Winterberry Drive and easterly to Upper Centennial Parkway).

Existing parking will be removed from the south side of Highland Road (Winterberry Drive to First Road West) and on the north side (Highbury Drive to Upper Centennial Parkway) to accommodate the cycling lanes.

On Highland Road between First Road West and Highbury Drive, bicycle lanes will be added to the existing extra wide travel lanes and the existing centre turn lane will remain.

Sidewalks are recommended to complete the pedestrian network throughout the urbanized section of the Highland Road corridor (between Winterberry Drive and Upper Centennial Parkway). Sidewalks will be provided on the south side of Highland Road for sections between:
- Winterberry Road and Cityview Crescent
- Termination of trail adjacent to woodlot and end of woodlot (west of Second Road West)
- Second Road West and 100 m east of Second Road West
- Sidney Crescent and Carlson Street
- 100 m west of Upper Centennial Parkway to Upper Centennial Parkway

In recognition of the speeding issues along Highland Road (Section 4.5) and that there will be a delay to implement the preferred alternative, it is further recommended that the City request police enforcement.

**Public Consultation**
The City provided an extensive consultation process, including the formation of a Community Liaison Committee and two public information centres. The public consultation process for ROPA9 Transportation Master Plan Review involved the following activities:
- Study Commencement Notice and PIC #1 Invitation January 19, 2012
- Community Liaison Committee Meeting #1 January 19, 2012
- Public Information Centre #1 February 1, 2012
- Community Liaison Committee Meeting #2 September 27, 2012
- Public Information Centre #2 November 7, 2012

**Timing of Implementation**
The closure of Upper Mount Albion and road improvement works including the temporary traffic signal for Pritchard Road will be undertaken on a priority basis and is recommended to be completed by the second quarter of 2013. It is anticipated that all design and approvals would be in place and that construction would be completed before the end of August 2013.
The Second Road West traffic calming should be completed prior to the closure of Upper Mount Albion Road. Sidewalks on Second Road West and Highland Road bicycle lanes and sidewalks are also high priority works and recommended to be completed within 2013 / 2014.

**EA Schedules**

All of the recommendations in this addendum report are Schedule A and A+ projects and are considered approved under the Class EA process.
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1. INTRODUCTION, KEY ISSUES AND SCOPE

1.1 Project Location and Study Area

The project is located in Stoney Creek within the City of Hamilton. The project Study Area is shown in Exhibit 1-1.

Exhibit 1-1: Study Area
1.2 Introduction

In 2006, City of Hamilton Council endorsed Phases 1 and 2 of the Rymal Road Planning Area (ROPA9) Class Environmental Assessment (EA) Master Plan Study. The study addressed the infrastructure improvements required to service the “ROPA9” lands and Special Policy Area ‘C’. The purpose of the EA was to address the short and long term transportation infrastructure needs to allow development of the “ROPA9” lands for urban land uses. The Master Plan Study recommended a number of Schedules A, B, and C transportation projects, including proposed measures to address traffic concerns in the Trinity Neighbourhood.

The major projects/improvements recommended through the ROPA9 TMP (2006) included:

- Widening Rymal Road from Trinity Church Road to Regional Road 56. Widen Regional Road 56 from Rymal Road to approximately 900 m to the south. The Phase 3 & 4 study process for this project was completed in 2007.
- Constructing a new road, Trinity Church Arterial Corridor (TCAC), with two lanes in each direction, from the intersection of Stone Church Road and the Red Hill Valley Parkway ramp towards the south, crossing Rymal Road East midway between Pritchard and the existing Trinity Church Road, and connecting to the proposed Twenty Road realignment. Phases 3 & 4 of the EA process were completed in 2008. Subject to opening of this new road, the Upper Mount Albion (UMA) road was recommended for closure at Rymal Road.
- Road widening and intersection improvements to Stone Church Road East/Paramount Dr. and Winterberry Dr. surrounding the Special Policy Area ‘C’. These improvements have been completed by developers prior to the development of the Special Policy Area “C” lands.
- A new collector road Trinity Neighbourhood Collector Road (TNCR) connecting Gatestone Road at Second Road West to Highland Road was also identified as a required road link to provide capacity in the north-south direction, and partially to support the ROPA9 developments. This new road alignment was proposed through the lands east of the Eramosa Karst area which is owned by Infrastructure Ontario (IO), formerly Ontario Realty Corporation (ORC). However, the Phases 3 & 4 Municipal Class EA process for this project was suspended at the direction of the Council based on the concerns of potential adverse impact on the Eramosa Karst. Refer to Section 1.3.3 for more details.

The ROPA9 TMP (2006) recommendations are shown in Exhibit 1-2.
1.3 Overview of Key Issues

1.3.1 Trinity Church Arterial Corridor (TCAC)

The major road capacity increase for this area is expected by constructing the new TCAC Road and the Rymal Road improvements recommended in the ROPA9 (2006) TMP. Phases 3 & 4 of the Environmental Assessment process for the TCAC were completed in 2008. Funds for the design and construction of the TCAC were approved in the 2011 Capital budget. The design of the road has not been undertaken as the wildlife crossing requirement by the Hamilton Conservation Authority (HCA) and the stormwater management issues remain unresolved. City staff and their consultants are working with the HCA staff to resolve the issues.

The Trinity Church Arterial Corridor Road will be a four-lane arterial road extending southerly from the Red Hill Valley Parkway ramp terminals at Stone Church Road to Rymal Road, and then continuing southerly through the future North Glanbrook Industrial Business Park. The road is a critical link in the future road network providing required north-south traffic capacity. This additional capacity will be necessary to support the ROPA9 area developments and the Red Hill Industrial Business Park. The Environmental Study Report for this multi-year road project is approved, and a capital budget submission has been prepared in order to proceed with land acquisition and detailed design in 2010 for the Stone Church Road to Rymal Road section. Overall, there are a number of transportation issues which have yet to be resolved. There is the need for additional capacity and network connectivity in the north-south direction through the area. There is the potential for greater system-wide transportation issues in and around this area if this road is not provided in the short term.

1.3.2 Rymal Road Widening

The ROPA9 (2006) TMP recommended that Rymal Road be widened to a five-lane cross-section (two lanes in each direction and centre left-turn lane) from Upper Centennial Parkway / Regional Road 56 to Trinity Church Arterial Corridor. Phases 3 & 4 of the Environmental Assessment process for the widening of Rymal Road were completed in 2007. Funds for the design for the widening of the westerly portion of the Rymal Road corridor (Trinity Church Arterial Corridor to Fletcher Road) have been provided by the developers and the detailed design is in progress.

The widening of Rymal Road would accommodate approved development and facilitate turning movements into the Rymal Road Secondary Plan Area through the provision of exclusive turn lanes and a wider pavement surface. The additional capacity on Rymal Road is also seen as desirable to facilitate truck movements in the area.
1.3.3 Trinity East Lands and Trinity Neighbourhood Collector Road

The Eramosa Karst had been identified as an Area of Natural and Scientific Interest (ANSI) and had been deeded by the Province to the Hamilton Conservation Authority for the creation of the Eramosa Karst Conservation Area. The original neighbourhood plan was no longer valid as the expanded Eramosa Karst area restricts the development of the collector road and the interior lands. As such, through the planning process, the City designated the environmentally significant Eramosa Karst lands as “Open Space”, restricting development and build-out of interior lands and eliminating the feasibility of the proposed 2-lane Trinity Neighbourhood Collector Roadway (TNCR).

Preserving the Eramosa Karst lands has been a key factor in this entire process which is why efforts have been made to maintain the Trinity East lands as Open Space. However, in doing so, this poses a major constraint and challenge in identifying solutions for the transportation issues in the Trinity Neighbourhood and adjacent areas. The Trinity Neighbourhood Collector Road proposed under the ROPA9 TMP (2006) is no longer a viable solution. The issue is also exacerbated with the ongoing and planned developments in the ROPA9 area, Special Policy Area C, and the Binbrook area. In practical terms, there is no land available in the corridor between Pritchard Road and Upper Centennial Parkway for a new north-south collector road to provide for the additional capacity needs and connectivity.

The staff report for the Rymal Road Planning Area (ROPA9) Transportation Master Plan Update (PW11070) dated October 3, 2011 - (Wards 9 & 11) is included in Appendix A. The staff report provides further details on the Eramosa Karst and designation of the lands as “Open Space”.
1.4 **Study Scope**

The Transportation Master Plan (TMP) review initiated in late 2011 has addressed Phases 1 and 2 of the Class EA process and meets the requirements of Schedule A, A+, B and C projects. Investigation, consultation and documentation have been undertaken in accordance with the requirements of the Municipal Class EA process, shown in Exhibit 1-3.

The scope of this Transportation Master Plan Review is to review the ROPA9 TMP (2006) findings and update the TMP based on the changes in land use, development plans and infeasibility of constructing the earlier proposed Trinity Neighbourhood Collector Road since the previous study was completed. The study will include the following tasks:

- Analyze existing conditions and identify deficiencies
- Review previous problem statement to determine current relevance
- Identify alternative solutions based on current conditions
- Identify transportation alternatives that will satisfy short-term, medium-term and long-term traffic demands
- Present a recommended plan that is responsive to neighbourhood concerns while regarding the need to maintain the integrity of the road network and
- Undertake meaningful and transparent consultation with affected parties throughout the planning process in this co-operative venture with City staff.

1.5 **Class Environmental Assessment Process**

This Environmental Assessment (EA) is being undertaken in accordance with the guidelines of the Municipal Engineers Association *Municipal Class Environmental Assessment*, June 2000 (October 2000, as amended in 2007 and 2011). The Environmental Assessment is being conducted in compliance with the guidelines for Schedule “A”, “A+”, “B”, and “C” projects for the transportation infrastructure components. A brief description of each schedule follows:

1. **Schedule A – pre-approved activities:**
   Schedule A projects are limited in scale, have minimal adverse environmental effects and include a number of municipal maintenance and operational activities. Schedule A activities are pre-approved. The proponent may proceed without following the procedures set out in any other part of this Class EA. Schedule A projects generally include normal or emergency operational and maintenance activities.

2. **Schedule A+ - pre-approved activities:**
   Schedule A+ activities are pre-approved; however, the public is to be advised prior to project implementation. The manner in which the public is advised is to be determined by the proponent.
3. Schedule B – activities subject to the screening process: Schedule B projects have the potential for some adverse environmental effects. The proponent is required to undertake a screening process. If the screening process through Phases 1 and 2 results in other requirements of this Class EA being applicable, then those requirements must be fulfilled.

For Schedule B activities, the proponent shall contact specific agencies and potentially affected members of the public. Two points of contact with the public are mandatory.

4. Schedule C – activities subject to full Class EA process: Schedule C projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the Class EA document. Schedule C projects require that an Environmental Study Report be prepared and filed for review by the public and review agencies. Schedule C projects generally include the construction of new facilities and major expansions to existing facilities. Activities are subject to the full planning process of the Class EA.

This Study will complete the first two phases of the five-phase Class Environmental Assessment Process. Exhibit 1-3 illustrates the sequence of activities within the approved Class Environmental Assessment process leading to project implementation. The encompassing phases for this Study are described below:

- **Phase 1 (Schedule “A”, “A+”, “B”, and “C” projects)** – Identify the problem (deficiency) or opportunity.
- **Phase 2 (Schedule “B” and “C” projects)** – Identify alternative solutions to address the problem or opportunity by taking into consideration the existing environment, and establish the preferred solution taking into account public and review agency input.

This Class EA Master Plan fulfills all Phases 1 and 2 requirements for each project schedule. The Class EA Master Plan Addendum is placed on public record for a minimum of 30-calendar days for review by the public and interested agencies/groups.

Since this TMP review study has identified only Schedule A and A+ projects, these projects are considered approved under the Class EA process and hence there is no opportunity for the public or stakeholders to appeal the study recommendations.
Exhibit 1-3: Class Environmental Assessment Process
1.6 **Agency / Stakeholder Consultation**

A list of agency stakeholders, including federal and provincial ministries, City of Hamilton departments, local groups, conservation authorities, utilities, and developers and their consultants was prepared at the project initiation. The opportunity for these parties to participate in the project was provided through the distribution of a Study Commencement notice. Further opportunity was also provided through announcement of two formal Public Information Centres (PICs). The following is a summary of the agencies contact list.

### Provincial Agencies
- Ministry of Culture, Tourism and Recreation
- Ministry of Natural Resources
- Ministry of the Environment
- Ministry of Aboriginal Affairs
- Niagara Escarpment Commission

### Conservation Authorities
- Hamilton Conservation Authority
- Niagara Peninsula Conservation Authority

### City of Hamilton Departments
- Corporate Services
- Emergency Services
- Police Services
- Mayor's Office / Council
- Planning and Economic Development
- Public Health Services
- Public Works
- Environmental Sustainable Infrastructure
- Community Services
- Water and Wastewater Operations

### Utilities
- Enbridge Pipelines Inc.
- TransCanada Pipelines
- Union Gas
- Hamilton Utilities Corporation
- Cogeco Cable Inc.
- Hydro One
- Sun Canadian Pipeline
- Ontario Power Generation
- Horizon Utilities Corporation
- Bell Canada

### Local Groups / Stakeholders
- Hamilton District Catholic School Board
- Hamilton-Wentworth District School Board
- Resident's Group: Upper Mount Albion Road
- Safety on Second (SOS)
- Friends of Eramosa Karst

### Developers and their Consultants
- SmartCentres
- Multi-Area Developments Inc.
- A.J. Clarke and Associates Ltd.
- Loblaw Properties Limited
- J. Beume Real Estate Ltd.
- Mr. Joseph Maziarz
- Silvestri Investments
- DeSantis Development Ltd.
Correspondences with the agencies are provided in Appendix C.5.

1.7 Summary of Public Consultation Process

A comprehensive public consultation program was conducted for the Study, with the following components:

- **Mailing Lists** – A number of mailing lists were established for the Study. These included an agency mailing list as mentioned above and a mailing list which consisted of all members of the public within and adjacent to the Study Area, in addition to others who wrote, telephoned, emailed, or filled in comment sheets during the Study. People on the mailing list were sent letters prior to each of the public meetings. Opportunities for public input were provided throughout the process, including public meetings, telephone inquiries, letters, email and faxes.

- **Community Liaison Committee Meetings** – A Community Liaison Committee was established as part of this Study. Two meetings were held with this group during the course of the Study. The first meeting was held prior to Public Information Centre (PIC) No. 1 and the second was held prior to PIC No. 2. The members consisted of representatives of local residents and businesses, and developers. Members were identified from the list of interested parties from the ROPA9 TMP (2006) and from suggested contacts from local Councillors.

- **Public Information Centres (PICs)** – Two formal meetings were held during the Study. They consisted of a public open house with display panels. Attendees were asked to sign-in when they entered the public open house. A handout consisting of key display panels was made available. Comment forms were available to provide the public another opportunity for input to the Study. Members of the project team were on hand to respond to questions and concerns. Issues raised by the public during and after each meeting were recorded by the consultant team and subsequently addressed.

- **Newspaper advertisements** – At least two weeks prior to each public meeting, a newspaper advertisement was placed in two separate editions of the *Hamilton Spectator*, in the *At Your Service* section, and the *Mountain News*, and *Stoney Creek News* to announce the date, time, and location of the meetings. The newspaper advertisements invited the public to attend the meetings and to provide input. The advertisements provided information on key project team contact names, telephone numbers, and addresses.

- **Additional notification** – At least two weeks prior to each public meeting, a notice of the public meeting was mailed out to area residents and businesses on the project mailing lists. Notification letters were also mailed to utility companies and external agencies.
Email address – Through the newspaper advertisements and comments sheets, the public was invited to send comments by email to both the City and consultant team project managers.

Project website – Prior to the first PIC, a project website (www.hamilton.ca/ropa9-TMP-review) was launched to provide the public with an additional means to obtain information about the project. The project website was updated as the study proceeded by posting the notices, display panes, comment sheet and comment information.

Further details on the public consultation process are documented in Section 9 of the report. A summary of the Public Meetings is provided in Appendix C.

Major events in the public consultation process are summarized below:

- Study initiation
  Nov 8, 2011
- Notification letters to utility companies and external agencies, area businesses, and residents for Study Commencement and PIC No. 1
  Dec 21, 2011
- Newspaper advertisement of Study Commencement and PIC No.1
  Stoney Creek News
  Jan 19 & Jan 26, 2012
  Mountain News
  Jan 19 & Jan 26, 2012
  Hamilton Spectator
  Jan 20 & Jan 27, 2012
- Meeting No.1 with Community Liaison Committee
  Jan 19, 2012
- 1st Public Information Centre
  Feb 1, 2012
- Notification letters to utility companies, external agencies, area businesses, residents and other stakeholders for PIC No. 2
  Oct 25, 2012
- Newspaper advertisement of PIC No. 2
  Stoney Creek News
  Oct 25 & Nov 1, 2012
  Mountain News
  Oct 25 & Nov 1, 2012
  Hamilton Spectator
  Oct 26 & Nov 2, 2012
- Meeting No.2 with Community Liaison Committee
  Sept 27, 2012
- 2nd Public Information Centre
  Nov 7, 2012
- City of Hamilton Public Works Committee and Council
  April 22 and April 24, 2013
2. RELATED STUDIES AND POLICIES

2.1 Trinity West Secondary Plan and the Trinity East Amendments

In 2006, the City of Hamilton initiated a secondary planning process for the Trinity Neighbourhood. The Eramosa Karst Natural Science ANSI area had been identified and the Karst Core Area, Core Area buffer and identified feeder creeks had been deeded by the Province of Ontario to the Hamilton Conservation Authority for the creation of the Eramosa Karst Conservation Area. The previous neighbourhood plan was no longer valid as the Karst area restricts the development of the proposed Trinity Neighbourhood Collector Road (TNCR) and build-out of interior lands. The secondary plan had to be revised in order to reflect the large area of “no build” open space within the centre of the Trinity Neighbourhood. Throughout the process, the Secondary Plan review and subsequent Class EA for an internal collector road were placed on hold pursuant to Council direction.

Subsequently, the Trinity Secondary Planning Area was divided into two areas; Trinity West and Trinity East. In June 2010, the Trinity West Secondary Plan was approved while Council passed a resolution directing staff to re-designate and rezone the Trinity East lands to Open Space. In February 2011, City Council approved Official Plan Amendments No. 163 (to the former City of Stoney Creek Official Plan) and an amendment to the Urban Hamilton Official Plan for the Trinity East lands. These amendments designated these lands as “Open Space”, “Natural Open Space” and “Major Open Space” and established a specific policy area to require additional studies to address any potential impact on the Karst area prior to permitting any municipal infrastructure or consideration of any future land use changes. In addition, Council passed a Zoning By-law amendment to rezone the subject lands to the “Conservation/Hazard Land (P5)” zone. These amendments were not appealed and are now in effect.

The approved Trinity West Secondary Plan is shown in Exhibit 2-1.
Exhibit 2-1: Trinity West Secondary Plan
2.2 Hamilton Transportation Master Plan

The Road Network Strategy for the 2031 forecast year included in the City-wide Transportation Master Plan includes the following road improvements for the study area:

- Widening Rymal Road from beyond the westerly limit of the study area to Regional Road 56.
- Widen Regional Road 56 from Rymal Road to south of Binbrook
- Constructing a new road, Trinity Church Arterial Corridor (TCAC), with two lanes in each direction, from the intersection of Stone Church Road and the Red Hill Valley Parkway ramp towards the south, crossing Rymal Road East midway between Pritchard and the existing Trinity Church Road, and connecting to Dickenson Road
- A new collector road Trinity Neighbourhood Collector Road (TNCR) connecting Gatestone Road at Second Road West to Highland Road
- Upper Mount Albion Road road closure between Rymal and Highland and two-way left turn lane between Mud Street and Rymal Road
- Two-way left turn lane on Stone Church Road between Pritchard Road and Winterberry Drive

The 2031 Road Network Strategy is illustrated in Exhibit 2-2.

Some of the relevant policies from the City wide TMP are included below:

- Provide transportation choice by improving transit, walking and cycling networks
- Expand opportunities for people to walk or bicycle with paths, trails and bike lanes
- Continue to improve and expand the existing network of pedestrian and bicycle infrastructure
- Consider traffic calming as an effective means of reducing the negative impacts of traffic on the quality of life for Hamilton residents in existing and planned neighbourhoods and other built-up areas
- Install traffic calming devices only where warranted and in accordance with current standards and existing City practices

2.3 Pedestrian Mobility Master Plan

The City is undertaking a comprehensive Pedestrian Mobility Master Plan for the City of Hamilton. This plan will establish a 20 year (2031) framework to improve the pedestrian environment and increase the opportunity for walking as a mode of transportation (active travel) and recreation that is efficient, comfortable, safe inclusive, accessible and improve health of communities and economic development. Although the Pedestrian Mobility Master Plan is still underway, it is important for this review to consider opportunities to improve the pedestrian environment.
Exhibit 2-2: Hamilton Transportation Master Plan Road Network Strategy 2031
3. **EXISTING TRANSPORTATION CONDITIONS**

3.1 **Road Network and Characteristics**

Some of the key Study Area roads are described below.

**Rymal Road** – Rymal Road is a major arterial roadway with a two-lane, paved rural cross-section and a posted speed limit of 70 km/h between Trinity Church Road and Whitdeeer Road, and has a posted speed limit of 60 km/h between Whitdeeer road and Upper Centennial Parkway. It intersects with a number of north-south collector and arterial roads. Rymal Road will also provide new collector road connections to the Rymal Road Planning Area. Rymal Road has several residential and commercial accesses. No sidewalks are provided along the roadway.

Parallel east-west roadways north of Rymal Road include Mud Street West and Highland Road West. Golf Club Road parallels Rymal Road to the south of the Study Area.

**Upper Mount Albion Road** – Upper Mount Albion Road is a two-lane collector road which extends from the limits of the Lincoln Alexander Parkway (but not connecting to) to Rymal Road. The road provides direct access to residential and commercial properties. It provides an arterial road function within the study area road network. It is anticipated that Upper Mount Albion Road will serve more of a local road function in the future. Upper Mount Albion Road has a posted speed limit of 50 km/h. The road has a rural cross-section with an average pavement width of approximately 7.5 m and no sidewalks. Upper Mount Albion Road has a rolling terrain. There are several residential accesses and frontages along Upper Mount Albion Road. There is a load restriction (5 tonnes per axle) in effect on Upper Mount Albion Road annually from March 1 to April 30.

**Second Road West** – Second Road West is a collector road between Rymal Road and Gatestone Drive, and a local road north of Gatestone Drive. Second Road West has an urban cross-section and an average pavement width of approximately 10 m south of Gatestone Drive and 8.5 m north of Gatestone Drive. The posted speed limit is 50 km/h. There are several residential driveways and frontage along Second Road West. A sidewalk exists through the corridor; however, the side of the road where it is located varies throughout the study area.
Highland Road – Highland Road is a two-lane collector road. It has an urban cross-section east of Winterberry Drive and a rural cross-section with an average pavement width of approximately 6.5 m west of Winterberry Drive. There are residential accesses and frontage along Highland Road, which becomes more dense east of Winterberry Drive. A high school (Saltfleet Secondary School) is located on the northwest corner of the intersection with Highbury Drive. Municipal bus stops are provided on Highland Road, east of Gatestone Drive. A sidewalk is provided on the north side of Highland Road, east of Winterberry Drive. Sidewalks exist along a few sections on the south side. The posted speed limit on Highland Road is 50 km/h, reducing to 40 km/h in the vicinity of the school (School Flashing Zone).

Gatestone Drive – Gatestone Drive is a two-lane collector road with an urban cross-section and an average pavement width of approximately 10 m. Residential accesses and frontage are provided along Gatestone Drive. Sidewalks are provided on both sides of Gatestone Drive. An elementary school (Gatestone Elementary School) is located on the west side of Gatestone Drive, near Foxtrot Drive. The posted speed limit on Gatestone Drive is 50 km/h, with a reduction to 40 km/h posted speed limit in the vicinity of the Gatestone Elementary School. Municipal bus stops are provided on Gatestone Drive.

Pritchard Road – Parallel to Upper Mount Albion Road, this is a two-lane collector road with a rural cross-section connecting Rymal Road, Highland Road, Stone Church Road, crossing (but not connecting to) the Lincoln M. Alexander Parkway and connecting to Mountain Brow Boulevard. No sidewalks are provided. A multi-use path (part of the East Mountain Trail Loop) connects to the west side of Pritchard Road south of Harlowe Road. The predominant land use between Rymal Road and Stone Church Road is industrial. The posted speed limit is 50 km/h.

A summary of the roadway characteristics is provided in Table 3-1. The classifications and intersections controls for these roadways are portrayed in Exhibit 3-1.

3.2 Existing Traffic Volumes

Existing traffic counts were provided by the City of Hamilton for the study area. The most recent count data (2010, 2011 and 2012) was assembled and is presented as two-way, 24-hour traffic volumes in Exhibit 3-1.
### Table 3-1: Existing Roadway Characteristics Summary

<table>
<thead>
<tr>
<th></th>
<th>Upper Mount Albion Road south of Highland Road</th>
<th>Second Road West North of Gatestone</th>
<th>Second Road West South of Gatestone</th>
<th>Gatestone Drive</th>
<th>Highland Road East of Winterberry</th>
<th>Highland Road West of Winterberry</th>
<th>Pritchard Road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way ‡</td>
<td>~20 metres</td>
<td>~20 metres</td>
<td>~26 metres</td>
<td>~26 metres</td>
<td>~23 to 26 metres</td>
<td>~20 metres</td>
<td>~18.5 metres</td>
</tr>
<tr>
<td>Pavement Width</td>
<td>~6.0 metres</td>
<td>~8.5 metres</td>
<td>~10.0 metres</td>
<td>~10.0 metres</td>
<td>~14.5 metres ~6.5 metres</td>
<td>~6.5 metres</td>
<td>~6.5 metres</td>
</tr>
<tr>
<td>Number of Lanes</td>
<td>2 paved</td>
<td>2 paved</td>
<td>2 paved</td>
<td>2 paved</td>
<td>2 paved</td>
<td>2 paved</td>
<td>2 paved</td>
</tr>
<tr>
<td>Cross-section</td>
<td>Rural with side ditches</td>
<td>Urban</td>
<td>Urban</td>
<td>Urban</td>
<td>Urban</td>
<td>Rural</td>
<td>Rural</td>
</tr>
<tr>
<td>Road Classification</td>
<td>Collector</td>
<td>Local</td>
<td>Collector</td>
<td>Collector</td>
<td>Collector</td>
<td>Collector</td>
<td>Collector</td>
</tr>
<tr>
<td>Setback (Represents front yard setbacks from roadway)</td>
<td>15 to 30 m setback</td>
<td>10 to 20 m setback</td>
<td>15 m setback</td>
<td>15 m setback</td>
<td>10 to 45 m setback</td>
<td>&gt;10 m setback</td>
<td>10 to 15 m setback</td>
</tr>
<tr>
<td>Sidewalk † sidewalk condition varies throughout the corridor, from one side, to both sides.</td>
<td>None</td>
<td>Varies †</td>
<td>One side (east)</td>
<td>Both sides</td>
<td>Varies †</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
### Other

- Sub-standard shoulder widths
- Poor vertical profile
- Poor pavement condition
- High traffic volumes and delays at intersections
- Lack of sidewalks/cycling facilities

- Lack of sidewalks in some areas
- Lack of cycling facilities

- Presence of Elementary School
- Lack of cycling facilities

- Lack of sidewalks in some areas
- Lack of cycling facilities

- Sub-standard shoulder widths
- Lack of sidewalks/cycling facilities

- Pavement condition poor in places
- Lack of sidewalk/cycling facilities
- Inadequate ditching north of Highland Road

---

**Note:** *refer to Urban Official Plan for information regarding proposed Right-of-Way*
Exhibit 3-1: Existing Road Network Classifications, Volumes and Traffic Controls
3.3 Traffic Forecasts

The model used for the ROPA9 TMP review study was the Hamilton 2010 Model developed for the Light Rail Transit (LRT) project. It is a four-step macroscopic demand model built in EMME. It was developed as a refinement of the Hamilton 2008 model that was done to focus on producing forecasts for the LRT development. A calibration exercise was undertaken with adjustments made to the network, land use parameters and volumes made to the Hamilton model in developing forecasts for the base and alternative 2031 scenarios in the ROPA9 study area. A memo dated February 21, 2012, outlining the changes made and the results of the different scenarios tested is shown in Appendix B.1.

The 2031 forecast volume/capacity (v/c) ratios for the main road links, Exhibit 3-2, show a number of east-west (E-W) links (Mud Street, Rymal Road and Dickenson Road) that are over capacity in the westbound direction. This is not necessarily an E-W problem, but possibly north-south traffic that has to travel westbound to access the planned Trinity Church Arterial Corridor (TCAC). This does not necessarily reflect a network problem as most road links in the study area have spare capacity, thus meaning that alternative routes are available.

Exhibit 3-2: 2031 Roadway Network V/C Ratios
Overall, the 2031 roadway network forecasts show that with the provision of the TCAC arterial in place and Rymal Road widened, the network will have enough capacity to handle future planned development and traffic. Further details on the modelling results can be found in Appendix B.1.

### 3.4 Transit Service

Currently, transit service is available along Rymal Road and within the communities north of Rymal Road. The Hamilton Street Railway Company (HSR) operates the following routes:

- **Route 44 – Rymal** (from Eastgate Square to Ancaster Business Park) via Centennial Parkway, Upper Centennial Parkway, Rymal Road and Garner Road. This route provides peak period service with 30 minutes headways.
- **Route 43–Stone Church** (from Saltfleet Secondary School to Limeridge Mall to the Ancaster Meadowlands). Within the study area transit is provided via Stone Church Road East, Winterberry Drive, Paramount Drive, Marston Street, Gordon Drummond Avenue, Isaac Brock Drive, Gatestone Drive, Highbury Drive, Highland Road West (Saltfleet Secondary School), First Road West, and Mud Street. This route provides all day service with 30 minute headways until 8:00 pm and 60 minute headways after 8:00 pm.
- **Route 11-Parkdale** (Burlington Bus Terminal to the Valley Park Loop). Within the study area transit is provided via Red Hill Valley Parkway, Winterberry Drive and Paramount Drive.
- **Route 22–Upper Ottawa** (from Anchor and Bigwin to MacNab Terminal). Within the study area transit is provided via Stone Church Road, Anchor Road, Harlouwe Road and Pritchard Road. This route provides evening service with 30 minute headways. Trans-Cab provides service between Canada Bread Trillium Plant to the Upper Ottawa at the Rymal transfer point (Routes #22 and #44) 7 days per week during Route 22 service span.

Review of the Hamilton Long Term Rapid Transit System “B-L-A-S-T” has indicated that Rymal Road, west of Upper Centennial Parkway has been identified as the “S” line, following the same origin/destination and route as HSR Route #44 – Rymal (Eastgate Square to Ancaster Business Park).

The existing and proposed transit routes are illustrated in Exhibit 3-3.
3.5 Bicycle Network

Within the ROPA9 Study Area bicycle facilities are limited. Designated bike routes do not currently exist along Rymal Road. Bicycle lanes are provided along the full length of Stone Church Road and Paramount Drive, Winterberry Drive north of Paramount Drive, Trinity Church Road between Rymal Road and Pinehill Drive, and on existing sections of Pinehill Drive.

The *City of Hamilton Cycling Master Plan* indicates additional proposed bike lanes on:
- Highland Road from First Road East to Winterberry Drive
- Winterberry Drive between Highland Road and Paramount Drive
- Pritchard Road between Stone Church Road and Rymal Road
- Rymal Road between Pritchard Road and Trinity Church Road
- First Road West
- Pinehill Drive / Bellagio Avenue (future constructed sections).

South of Rymal Road, Trinity Church Road and Fletcher Road are designated as proposed paved shoulder facilities. A proposed multi-use path has been planned within the Eramosa Karst Conservation Area, of which the northerly portion has been completed, which will provide a connection between Fletcher Road, Upper Mount Albion Road and Highland Road/Winterberry Drive.

The future planned cycling network is illustrated in *Exhibit 3-3*. 
Exhibit 3-3: Existing and Planned Transit and Cycling Network
### 3.6 Pedestrian Network

The current and future proposed sidewalk and trail network are shown in **Exhibit 3-4**.

Sections of roadway within the key study area where sidewalks are presently missing include:

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Side of Road</th>
<th>From</th>
<th>To</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pritchard Road</td>
<td>Both sides</td>
<td>Rymal Road</td>
<td>Stone Church Road</td>
<td>A narrow shoulder is available on one side of the road</td>
</tr>
<tr>
<td>Upper Mount Albion Road</td>
<td>Both sides</td>
<td>Rymal Road</td>
<td>Stone Church Road</td>
<td>Neither sidewalks or shoulders are available for pedestrians</td>
</tr>
<tr>
<td>Second Road West</td>
<td>West side</td>
<td>Rymal Road</td>
<td>Gatestone Drive</td>
<td>The west side does not coincide with houses and therefore is not critical</td>
</tr>
<tr>
<td>Second Road West</td>
<td>East side</td>
<td>Gatestone Drive</td>
<td>Highland Road</td>
<td>This section is adjacent to single family homes and would therefore benefit from having a sidewalk</td>
</tr>
<tr>
<td>Rymal Road</td>
<td>Both sides</td>
<td>Pritchard Road</td>
<td>250 m west of Whitedeer Road</td>
<td>This section will have sidewalks once the widening has been constructed</td>
</tr>
<tr>
<td>Rymal Road</td>
<td>North side</td>
<td>250 m west of Whitedeer Road</td>
<td>Swayze Road</td>
<td>Homes are mostly back-lotted in this area not generating much pedestrian activity</td>
</tr>
<tr>
<td>Roadway</td>
<td>Side of Road</td>
<td>From</td>
<td>To</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
<td>-------------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rymal Road</td>
<td>South side</td>
<td>250 m west of Whitedeer Road</td>
<td>Swayze Road</td>
<td>Sidewalk is provided across the commercial frontage; however, it is considered an incomplete pedestrian facility since illumination is not provided</td>
</tr>
<tr>
<td>Rymal Road</td>
<td>Both sides</td>
<td>Swayze Road</td>
<td>Upper Centennial Parkway</td>
<td>Shoulders and/or boulevards are available as an alternative</td>
</tr>
<tr>
<td>Highland Road</td>
<td>Both sides</td>
<td>Pritchard Road</td>
<td>Winterberry Road</td>
<td>The area is rural with little development; a shoulder is generally available as an alternative – and sidewalks could be implemented when the road is urbanized through development</td>
</tr>
<tr>
<td>Highland Road</td>
<td>South side</td>
<td>Winterberry Road</td>
<td>East of Cityview Crescent/Richdale Trail termination</td>
<td>There are several large developments (including a seniors residence) that would benefit from a sidewalk</td>
</tr>
<tr>
<td>Highland Road</td>
<td>South side</td>
<td>Termination of trail adjacent to woodlot (Richdale Trail termination)</td>
<td>East end of woodlot, west of Second Road West</td>
<td>This segment connects to a trail and would greatly benefit from a continuous sidewalk</td>
</tr>
<tr>
<td>Roadway</td>
<td>Side of Road</td>
<td>From</td>
<td>To</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
<td>-----------------------</td>
<td>------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Highland Road</td>
<td>South side</td>
<td>Second Road West</td>
<td>100 m east of Second Road West</td>
<td>There are houses on both sides of road, although trees and street furniture are possible constraints to establishing a sidewalk</td>
</tr>
<tr>
<td>Highland Road</td>
<td>South Side</td>
<td>Sidney West</td>
<td>Sidney East / Carlson Street</td>
<td>Adjacent houses would benefit from a sidewalk</td>
</tr>
<tr>
<td>Highland Road</td>
<td>South side</td>
<td>100 m west of Upper Centennial Parkway</td>
<td>Upper Centennial Parkway</td>
<td>Desirable to provide the connectivity of sidewalks to the signalized crossing at Upper Centennial Parkway</td>
</tr>
</tbody>
</table>

As outlined in the City wide TMP and reinforced by the Pedestrian Mobility Master Plan, it is important to provide transportation choice by improving transit, walking and cycling networks.

It is recognized that some of these road sections generate little pedestrian activity and/or have shoulders available as an alternative. The segments thought to be critically missing pedestrian facilities are highlighted in *italics*. While sidewalks along Upper Mount Albion Road would be highly desirable, it is known to be infeasible until the road is completely reconstructed when drainage issues and septic bed impacts can be addressed, i.e. this is not feasible in the short term. It is also recognized that sidewalks would be provided along the Rymal Road corridor as part of the road widening construction.
Exhibit 3-4: Existing and Proposed Pedestrian Network
4. NEEDS AND OPPORTUNITIES

4.1 Current Situation

The ROPA9 TMP (2006) recommended several transportation facilities; however, many of these have yet to be implemented.

The Trinity Church Arterial Corridor detailed design has been delayed due to the following issues under discussion with the Hamilton Conservation Authority:
- eco-passage to facilitate wildlife movement; if the wildlife eco-passage is provided, the Trinity West Secondary Plan may need minor revision
- stormwater management plans

Developments in and around the ROPA9 area continue to proceed and traffic volumes continue to grow and infrastructure improvements are not keeping up with development. It is the City’s priority to implement roadway connections to reduce traffic demand on the local road network and to support ongoing development; as such, there are many planned road construction projects planned in the near future in and around the study area, as outlined in Section 4.6.

4.2 Traffic Volume Trends

During the TMP Review study, recent and past traffic counts in the study area were reviewed to identify changes in traffic volumes since the ROPA9 TMP (2006) was completed. The traffic volume trends for some of the key roads in the study area are summarized below.
Exhibit 4-1: Upper Mount Albion Road Traffic Volume Trend

As can be shown in Exhibit 4-1 the traffic volumes on Upper Mount Albion Road have grown significantly since the ROPA9 TMP (2006) was completed. This is largely due to the ROPA9 development south of Rymal Road and the Special Policy Area ‘C’ development north of Stone Church Road. The volumes on Upper Mount Albion Road have also increased due to the opening of the Red Hill Valley Parkway and the connectivity that Upper Mount Albion Road provides to Rymal Road.

Exhibit 4-2: Rymal Road Traffic Volume Trend
As shown in Exhibit 4-2, the traffic volumes on Rymal Road have grown since 2005 in comparison to 2006, 2009, and 2012 counts. This is likely due to the development in and around the study area. The 2012 count dropped slightly due to construction along Rymal Road at the time that the count was taken.

Exhibit 4-3: Second Road West Traffic Volume Trend

As shown in Exhibit 4-3, the traffic volumes on Second Road West have remained fairly constant since 2006.

4.3 Future Traffic Volumes with the Trinity Church Arterial Corridor

Although it is anticipated that the Trinity Church Arterial Corridor construction will be started in 2013, a sensitivity analysis was undertaken to identify the traffic volumes in the study area if the Trinity Church Arterial Corridor is built between Rymal Road and Stone Church Road or not built for the 2031 time horizon. Table 4-1 shows the AM peak hour and 24 hour traffic volumes for both scenarios.

As shown in Table 4-1, the Trinity Church Arterial Corridor is a crucial element to the study area road network. Without it, the area roads will be subjected to very high traffic volumes. These roads are not suited to accommodate such volumes, particularly Upper Mount Albion Road.
Table 4-1: 2031 Forecast Volumes with / without Trinity Church Arterial Corridor

<table>
<thead>
<tr>
<th></th>
<th>2031 AM Peak Hour Volumes (2-way)</th>
<th>2031 24-Hour Volumes (2-way)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Trinity Church Arterial Corridor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trinity Church Arterial Corridor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>constructed between Rymal Road and Stone Church Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Road West (south of Highland)</td>
<td>650</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>6,500</td>
<td>4,000</td>
</tr>
<tr>
<td>Gatestone Road (south of Highland)</td>
<td>700</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>7,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Upper Mount Albion Road (north of Rymal)</td>
<td>1200</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td>12,000</td>
<td>9,000</td>
</tr>
<tr>
<td>Highland Road (Winterberry to Second)</td>
<td>800</td>
<td>660</td>
</tr>
<tr>
<td></td>
<td>8,800</td>
<td>6,600</td>
</tr>
</tbody>
</table>

*24 hour count was obtained by using the rule of thumb that the AM peak hour is 10% of the 24-hour volume.

4.4 Pedestrian Accommodation

As outlined in the City wide TMP and reinforced by the Pedestrian Mobility Master Plan, it is important to provide transportation choice by improving transit, walking and cycling networks.

As outlined in Section 3.6, there are several locations throughout the study area which would benefit from a pedestrian connection for continuity of the pedestrian network, particularly:
- Upper Mount Albion Road (both sides from Rymal Road to Stone Church Road)
- Second Road West (east side from Gatestone Drive to Highland Road)
- Highland Road (south side various sections)

### 4.5 Highland Road

As noted in Section 3.5, the *City of Hamilton Cycling Master Plan* indicates additional proposed bike lanes on Highland Road from First Road East to Winterberry Drive.

At the first public information centre, discussed in Section 9, a concern regarding access into/out of driveways, speeding and illegal passing was brought forward. Upon review of the issue, it was determined that the wide pavement width of the Highland Road corridor could give the false illusion that passing may be permissible and might make drivers feel more comfortable with higher speeds.

As part of the review of issues brought up by residents, a speed study was conducted on February 6, 2013. The study was conducted under ideal conditions (i.e. no snow banks, clear roads, etc.) in order to obtain realistic data. The study was conducted between 3:30 and 5:30 pm, on Highland Road between Winterberry and Glenhollow. The posted speed limit on Highland Road is 50 km/h, reducing to 40 km/h in the vicinity of the school (School Flashing Zone). The high school (Saltfleet Secondary School) is located on the northwest corner of the intersection with Highbury Drive.

**Eastbound Direction**

<table>
<thead>
<tr>
<th>Total Number Of Vehicles Recorded:</th>
<th>312</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation:</td>
<td>5.5 km/h</td>
</tr>
<tr>
<td>Average Speed:</td>
<td>54.8 km/h</td>
</tr>
<tr>
<td><strong>85th Percentile Speed</strong>:</td>
<td>60.6 km/h</td>
</tr>
<tr>
<td>Percent Compliance:</td>
<td>22.1 %</td>
</tr>
<tr>
<td>Vehicles Within Speed Limit:</td>
<td>69</td>
</tr>
<tr>
<td># Vehicles 15 km/h or more above speed limit:</td>
<td>14</td>
</tr>
<tr>
<td>% Vehicles 15 km/h or more above speed limit:</td>
<td>4.49 %</td>
</tr>
</tbody>
</table>
Westbound Direction

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number Of Vehicles Recorded</td>
<td>319</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>5.7 km/h</td>
</tr>
<tr>
<td>Average Speed</td>
<td>57.6 km/h</td>
</tr>
<tr>
<td><strong>85th Percentile Speed</strong></td>
<td><strong>63.6 km/h</strong></td>
</tr>
<tr>
<td>Percent Compliance</td>
<td>8.8 %</td>
</tr>
<tr>
<td>Vehicles Within Speed Limit</td>
<td>28</td>
</tr>
<tr>
<td>% Vehicles 15 km/h or more above speed limit</td>
<td>9.72 %</td>
</tr>
</tbody>
</table>

Combined

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number Of Vehicles Recorded</td>
<td>632</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>5.8 km/h</td>
</tr>
<tr>
<td>Average Speed</td>
<td>56.2 km/h</td>
</tr>
<tr>
<td><strong>85th Percentile Speed</strong></td>
<td><strong>62.3 km/h</strong></td>
</tr>
<tr>
<td>Percent Compliance</td>
<td>15.3 %</td>
</tr>
<tr>
<td>Vehicles Within Speed Limit</td>
<td>97</td>
</tr>
<tr>
<td>% Vehicles 15 km/h or more above speed limit</td>
<td>7.12 %</td>
</tr>
</tbody>
</table>

As shown by the speed survey, speeding was an issue on Highland Road at the time of the study.

An additional speed survey was undertaken from Tuesday, April 2, 2013 to Tuesday, April 9, 2013 and was provided to HDR. The volumes and speed collected was for westbound traffic on Highland Road, with the speed trailer placed approximately mid-way between all way stops at Winterberry and Glenhollow Dr. Based on the results, the 85th percentile speed was 57.5 km/h. The count summary sheets are provided in Appendix B.3.

4.6 Planned Roadway Construction

Many infrastructure improvements are planned for the study area and vicinity in the near future, including:
- Construction of the Trinity Church Arterial Corridor (north and south of Rymal Road)
- Widening of Rymal Road (west and east of Fletcher Road)
- Widening of Upper Centennial Parkway / Regional Road 56 (from Rymal Road southerly to 900m south of Rymal Road)
- Widening of Dartnall Road (north of Rymal Road)
- Construction of Dartnall Road (south of Rymal Road)
- Urbanization of Highland Road (east and west of Upper Mount Albion Road)

The planned improvements and associated timing are illustrated in Exhibit 4-4. Although these will improve traffic operations in the long term, there will be temporary delays and detours throughout the area during the construction period.

Many construction projects are also planned to service the North Glanbrook Industrial Business Park, as shown in Exhibit 4-4. Due to the proximity of these projects to the study area, there could be temporary delays and detours throughout the area during the construction period of these projects as well.
Exhibit 4-4: Planned Roadway Construction

Legend
- Existing Road
- 2012 Construction
- 2013 Construction
- 2014 Construction
- 2015 Construction
- 2016 Construction
- Not yet scheduled
- Study Area
- North Glanbrook Industrial Business Park

subject to timing of development
5. PROBLEM AND OPPORTUNITY STATEMENT

Transportation solutions are needed to:

- Ensure adequate road capacity in the study area to support existing and planned development and promote pedestrian, cycling and transit usage.
- Enhance safety and manage traffic impact on neighbourhood roads.
6. PLANNING ALTERNATIVES – UPPER MOUNT ALBION ROAD

The class environmental assessment process requires the examination of all reasonable alternatives, including alternatives to the undertaking, referred to as planning alternatives. A formal evaluation methodology is used to ensure that the process is traceable and reproducible, and that the process takes into account technical, as well as economic, social, and natural environmental issues. This section of the report provides a discussion of the development and evaluation of the planning alternatives for Upper Mount Albion Road.

Alternatives to the undertaking are different means of addressing the problem. The problems identified for this project are described in Section 4 of this report. The advantages and disadvantages of each planning alternative were identified and evaluated for the corridor, to determine the best functional solution to the problem. This is discussed below.

6.1 Upper Mount Albion Road Alternative Solutions

The following alternative solutions were developed and considered for Upper Mount Albion Road:

1. **Do-Nothing**
2. **Close Upper Mount Albion Road in the form of a cul-de-sac, just north of Rymal Road (as approved under previous studies) and:**
   a) Install temporary traffic signal at Pritchard / Rymal until Trinity Church Arterial Corridor is constructed
3. **Keep Upper Mount Albion Road open and any one of the following:**
   e) Install temporary traffic signal at Pritchard/Rymal and ban turns onto Upper Mount Albion Road from Rymal Road and Stone Church Road during peak periods only (this would have to be initially enforced with a police presence)
   f) Put a temporary halt to development in the area until the Trinity Church Arterial Corridor is complete and Rymal Road is widened
   g) Convert Upper Mount Albion Road to one-lane of traffic and a striped pathway for pedestrians and cyclists
   h) Provide temporary traffic calming

6.2 Impact of Upper Mount Albion Road Closure

To fully understand the potential implications of Alternative 1 (closing Upper Mount Albion Road), additional model forecasts were undertaken to see how traffic would reroute in the study area. The results of these forecasts are included in Table 6-1.
Table 6-1: 2011 Forecasts For Upper Mount Albion Road Alternatives

<table>
<thead>
<tr>
<th></th>
<th>2011 Counts</th>
<th>2011 Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak Hour</td>
<td>24 Hour*</td>
</tr>
<tr>
<td></td>
<td>2 way</td>
<td>2 way</td>
</tr>
<tr>
<td>Upper Mount Albion Road (north of Rymal Road)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1: Existing</td>
<td>470</td>
<td>4,700</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal prior to Trinity Church Arterial Corridor</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal post Trinity Church Arterial Corridor</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Pritchard Road (north of Rymal Road)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1: Existing</td>
<td>370</td>
<td>3,700</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal</td>
<td>690</td>
<td>6,900</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal post Trinity Church Arterial Corridor</td>
<td>510</td>
<td>5,100</td>
</tr>
<tr>
<td>Gatestone Drive (GD) (north end)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1: Existing</td>
<td>320</td>
<td>3,200</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal</td>
<td>350</td>
<td>3,500</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal post Trinity Church Arterial Corridor</td>
<td>330</td>
<td>3,300</td>
</tr>
<tr>
<td>Second Road West (south of Highland Road)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1: Existing</td>
<td>300</td>
<td>3,000</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal</td>
<td>360</td>
<td>3,600</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal post Trinity Church Arterial Corridor</td>
<td>310</td>
<td>3,100</td>
</tr>
<tr>
<td>Highland Road (east of Upper Mount Albion)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1: Existing</td>
<td>680</td>
<td>6,800</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal</td>
<td>710</td>
<td>7,100</td>
</tr>
<tr>
<td>Option 2: Close Upper Mount Albion north of Rymal post Trinity Church Arterial Corridor</td>
<td>1,050</td>
<td>10,500</td>
</tr>
</tbody>
</table>

*24 hour count was obtained by using the rule of thumb that the AM peak hour is 10% of the 24-hour volume.

As shown in Table 6-1, if Upper Mount Albion Road were closed prior to the construction of the Trinity Church Arterial Corridor, the majority of the traffic would divert to Pritchard Road. Gatestone Drive, Second Road West and Highland Road would see minor increases in traffic (30 to 60 vehicles in the AM peak hour).
After the Trinity Church Arterial Corridor is built, Pritchard Road, Second Road West and Gatestone Drive volumes reduce significantly, as traffic gets diverted to the new north-south corridor. However, Highland Road volumes increase as traffic is using east-west corridors to get to the new corridor. It is anticipated that the Highland Road volumes would decrease once the Rymal Road widening is completed and additional east-west capacity is provided. As shown in the future forecasted volumes included in Table 4-1, the forecasted 2031 volumes for Highland Road are less than the existing volumes being experienced. Therefore, once all the planned road construction projects are completed, Highland Road volumes should decrease.

Since much of the traffic is diverted to Pritchard Road, a Synchro analysis was undertaken for the intersections of Rymal Road and Stone Church Road to identify the potential operations at these locations. The Synchro analysis results showed that the intersections would operate adequately and that the queue lengths provided for the turning lanes were sufficient, providing that a temporary signal was provided at Rymal Road and Pritchard Road and that signal timings were adjusted to accommodate the change in travel patterns. The complete memo is included in Appendix B.2.

6.3 Evaluation Criteria

A detailed assessment of the alternative solutions was completed based on the criteria listed below. The criteria were developed as per requirements and guidelines of the Municipal Class EA document. The criteria were also developed to be able to evaluate potential adverse impacts for each identified alternative.

Transportation
- Traffic Diversion
- Traffic Demand and Operations
- Driveway Access
- Emergency Services Implications
- Provision of Pedestrian and Cyclist Facilities
- Road User Safety
- Vulnerable User Safety

Socio-Economic Environment
- Impact to Residential Properties
- Impact on Archaeological Resources
- Impact to Built and Cultural Heritage Resources

Natural Environment
- Effect of removal and/or disturbance to vegetation and wildlife habitat
- Impact on Karst

Planning
- Compatibility with Planning Policies
- Capital Costs
- Property Acquisition
6.4 Evaluation of Upper Mount Albion Road Alternatives

The Upper Mount Albion Road alternatives were evaluated based on the ability of the alternative to address the problem statement, including impacts to transportation, anticipated property impacts, and environmental impacts and the list of criteria provided above. The evaluation was completed with input from the project team, the project Community Liaison Committee, and the public.

Following the evaluation, a recommendation was made on which Planning Alternatives would be carried forward to the next stage. Table 6-2 contains the evaluation of the alternative transportation planning solutions and a summary of the impacts and recommendations for the Study Area.

6.5 Preferred Upper Mount Albion Road Alternative

The existing conditions of Upper Mount Albion Road are not consistent with the collector road classification.

Closure of Upper Mount Albion Road would significantly improve the safety of vulnerable road users by restricting vehicular traffic to local access.

A temporary traffic signal should be installed at the intersection of Pritchard Road and Rymal Road until Trinity Church Arterial Corridor is constructed, at which time the traffic signal would be removed. This traffic signal would facilitate the operations at this intersection and would encourage drivers to use this route rather than local residential roads in the study area.

Pavement conditions on some sections of Pritchard Road are not be suitable for the additional traffic being diverted, therefore asphalt padding should be provided to ensure that the pavement structure is maintained while the route is being used as a detour.

A wide paved shoulder should be constructed along the west side of Pritchard Road between the multi-purpose path (south of Harlowe Road) and Stone Church Road.

Due to the traffic diversion created by a closure of Upper Mount Albion Road, it is recommended that traffic volumes on neighbouring roads (including Second Road West, Gatestone Drive and Highland Road) be monitored until Trinity Church Arterial Corridor is constructed.
### Table 6-2: Evaluation of Upper Mount Albion Road Alternatives

<table>
<thead>
<tr>
<th>Factor</th>
<th>1. Do Nothing</th>
<th>2. Close Upper Mount Albion Road and Provide Temporary Traffic Signals at Pritchard Road/Rymal Road (ban turn movements on Upper Mount Albion Road)</th>
<th>3.a) Provide Temporary Traffic Signals at Pritchard Road/Rymal Road</th>
<th>3.b) Put Temporary Halt to Development</th>
<th>3.c) Convert Upper Mount Albion Road to one-way</th>
<th>3.d) Provide Traffic Calming Measures to Upper Mount Albion Road</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Traffic Diversion</strong></td>
<td>No anticipated traffic diversion</td>
<td>Traffic diverted to other area roads, particularly along Rymal Road and Pritchard Road</td>
<td>Potential for some traffic diversion to other Rymal Road and Pritchard Road; however, enforcement is required to ensure compliance</td>
<td>No anticipated traffic diversion</td>
<td>Traffic diverted in one direction to other area roads, particularly Pritchard Road, Highland Road and Second Road West</td>
<td>Negligible traffic diversion may occur from Upper Mount Albion Road with traffic calming measures</td>
</tr>
<tr>
<td><strong>Traffic Demand and Operations (2011 and 2012 count data)</strong></td>
<td>Upper Mount Albion Road between Rymal and Highland = 530 Upper Mount Albion Road between Highland and Stone Church Road = 550 Pritchard between Rymal and Highland = 400 Pritchard between Highland and Stone Church = 530</td>
<td>Traffic volumes on Upper Mount Albion Road greatly reduced - local traffic only. Traffic volumes increase on Pritchard Road to a maximum of 900 vehicles.</td>
<td>Traffic volumes on Upper Mount Albion Road significantly reduced (depending on enforcement). Traffic volumes increase on Pritchard Road to a maximum of 900.</td>
<td>Upper Mount Albion Road between Rymal and Highland = 530 Upper Mount Albion Road between Highland and Stone Church Road = 550 Pritchard between Rymal and Highland = 400 Pritchard between Highland and Stone Church = 530</td>
<td>Traffic continues to increase in one direction on Upper Mount Albion Road, however, no traffic in the opposite direction. One-way traffic volumes of approximately 450 vehicles divert to other streets in the peak hours.</td>
<td>Upper Mount Albion Road between Rymal and Highland = 530 Upper Mount Albion Road between Highland and Stone Church Road = 550 Pritchard between Rymal and Highland = 400 Pritchard between Highland and Stone Church = 530</td>
</tr>
<tr>
<td><strong>Driveway Access</strong></td>
<td>Driveway access on Upper Mount Albion Road is difficult during peak periods due to high volumes of traffic</td>
<td>Enhanced driveway access along closed road; however circuitous route to access Upper Mount Albion Road to/from the south</td>
<td>Slight improvement to driveway access along Upper Mount Albion Road due to reduced volumes during peak periods</td>
<td>Driveway access on Upper Mount Albion Road would be difficult during peak periods due to high volumes of traffic</td>
<td>Enhanced driveway access along Upper Mount Albion Road during the peak period direction; however circuitous route to access Upper Mount Albion Road to/from the closed direction</td>
<td>Negligible improvement to driveway access along Upper Mount Albion Road due to reduced operating speeds in the vicinity of traffic calming measures</td>
</tr>
<tr>
<td><strong>Emergency Services Implications</strong></td>
<td>Response times will not change</td>
<td>Closure at the south end will have little impact on residents on Upper Mount Albion Road. However, potential increase in response times for communities south of Rymal Road which would now be accessed via Fletcher Road, Dakota Boulevard, Trinity Church Road</td>
<td>Response times will not change</td>
<td>Response times will not change</td>
<td>Potential increase in response times for emergency services in one direction</td>
<td>Increase in response times for emergency services for residents on Upper Mount Albion Road as well as communities south of Rymal Road</td>
</tr>
<tr>
<td>Factor</td>
<td>1. Do Nothing</td>
<td>2. Close Upper Mount Albion Road and Provide Temporary Traffic Signals at Pritchard Road/Rymal Road</td>
<td>3.a) Provide Temporary Traffic Signals at Pritchard Road/Rymal Road (ban turn movements on Upper Mount Albion Road)</td>
<td>3.b) Put Temporary Halt to Development</td>
<td>3.c) Convert Upper Mount Albion Road to one-way</td>
<td>3.d) Provide Traffic Calming Measures to Upper Mount Albion Road</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Provision of Pedestrian and Cyclist Facilities</td>
<td>No sidewalk or cycling facilities provided</td>
<td>No sidewalk or cycling facilities provided</td>
<td>No sidewalk or cycling facilities provided</td>
<td>No sidewalk or cycling facilities provided</td>
<td>No sidewalk or cycling facilities provided</td>
<td>Provides an opportunity to separate pedestrians and cyclists from vehicular traffic</td>
</tr>
<tr>
<td>Road User Safety</td>
<td>Sub standard road geometry and shoulders and poor pavement conditions which is inconsistent with current traffic volumes</td>
<td>Sub standard road geometry and pavement conditions which are more consistent with local access only</td>
<td>Sub standard road geometry and pavement conditions which is inconsistent with current traffic volumes</td>
<td>Sub standard road geometry and pavement conditions which are more consistent with local access only</td>
<td>Sub standard road geometry and pavement conditions which are more consistent with local access only</td>
<td>Sub standard road geometry and pavement conditions which are more consistent with local access only</td>
</tr>
<tr>
<td>Vulnerable User Safety</td>
<td>No safe refuge for pedestrians or cyclists</td>
<td>No safe refuge for pedestrians or cyclists; however, substantially less potential for conflicts with traffic due to localized access for Upper Mount Albion Road</td>
<td>No safe refuge for pedestrians or cyclists</td>
<td>No safe refuge for pedestrians or cyclists</td>
<td>Significant improvement in safety for pedestrians and cyclists due to safe refuge provided on the road from vehicular traffic</td>
<td>No safe refuge for pedestrians or cyclists</td>
</tr>
<tr>
<td>Socio-Economic Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact to Residential Properties</td>
<td>Noise and dust impacts to residents along Upper Mount Albion Road will persist</td>
<td>Elimination of through traffic on closed road will significantly reduce noise and dust impacts to local residents</td>
<td>Reduction of traffic on Upper Mount Albion Road will reduce noise and dust impacts to local residents</td>
<td>Noise and dust impacts to residents along Upper Mount Albion Road will persist</td>
<td>Noise and dust impacts to residents along Upper Mount Albion Road will persist</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>Consistent with Urban Official Plan</td>
<td>Upper Mount Albion Road is designated as a collector road in the Urban Official Plan; closure is not consistent with a collector road designation; however, closure is consistent with Trinity West Secondary Plan</td>
<td>Consistent with Urban Official Plan</td>
<td>Halting development is not consistent with Urban Official Plan policies</td>
<td>Providing isolated one-way road without incorporating it into a one-way road network system is not consistent with designation in the Urban Official Plan.</td>
<td>Traffic calming is not consistent with collector road designation in the Urban Official Plan</td>
</tr>
<tr>
<td>Capital costs</td>
<td>No capital cost</td>
<td>Low construction cost for the road closure and ~$300,000 for construction cost for temporary signals</td>
<td>~$300,000 construction cost for temporary signals</td>
<td>No capital cost; loss of tax income for the City</td>
<td>Low construction cost for physical modifications, pavement markings and signage</td>
<td>Low construction cost for physical modifications and traffic calming measures</td>
</tr>
<tr>
<td>Property acquisition</td>
<td>No property acquisition required</td>
<td>Potential for minor property impact with closure design and temporary signals</td>
<td>Potential for minor property impact for temporary signals</td>
<td>No property acquisition required</td>
<td>No property acquisition required</td>
<td>No property acquisition required</td>
</tr>
</tbody>
</table>
### Evaluation Summary

**Upper Mount Albion Road** has substandard road geometry, shoulders and poor pavement conditions which is inconsistent with current traffic volumes. As such measures should be implemented prior to the long-term recommendation. **Not recommended**

**Factor** | **1. Do Nothing** | **2. Close Upper Mount Albion Road and Provide Temporary Traffic Signals at Pritchard Road/Rymal Road** | **3.a) Provide Temporary Traffic Signals at Pritchard Road/Rymal Road (ban turn movements on Upper Mount Albion Road)** | **3.b) Put Temporary Halt to Development** | **3.c) Convert Upper Mount Albion Road to one-way** | **3.d) Provide Traffic Calming Measures to Upper Mount Albion Road**
---|---|---|---|---|---|---
**1. Do Nothing** | The sub standard road geometry, shoulders and pavement conditions of Upper Mount Albion Road are more consistent with local access only. Closure of Upper Mount Albion Road would also significantly improve the safety of vulnerable road users by restricting traffic to local access. Due to the traffic diversion created by a closure of Upper Mount Albion Road, it is recommended that traffic volumes on neighbouring roads be monitored until Trinity Church Arterial Corridor is constructed. **Recommended** | The provision of temporary traffic signals at Pritchard Road would not divert a significant amount of traffic from Upper Mount Albion Road. Compliance with the banned turning movements would require consistent enforcement. **Not recommended** | Placing a temporary halt on development is not consistent with Urban Official Plan policies. The construction works planned for the area rely on development charges. **Not recommended** | Although it provides a safe refuge for vulnerable road users, a one-way Upper Mount Albion Road will not adequately address the sub standard road geometry, shoulders and poor pavement conditions along Upper Mount Albion Road which is inconsistent with the current traffic volumes. **Not recommended** | Traffic calming measures will not adequately address the sub standard road geometry, shoulders and poor pavement conditions along Upper Mount Albion Road which is inconsistent with the current traffic volumes. Traffic calming measures will not significantly reduce the traffic volumes on Upper Mount Albion Road, nor will it significantly improve the safety of road users or vulnerable users. **Not recommended**
7. **PLANNING ALTERNATIVES – SECOND ROAD WEST**

The class environmental assessment process requires the examination of all reasonable alternatives, including alternatives to the undertaking, referred to as planning alternatives. A formal evaluation methodology is used to ensure that the process is traceable and reproducible, and that the process takes into account technical, as well as economic, social, and natural environmental issues. This section of the report provides a discussion of the development and evaluation of the planning alternatives for Second Road West.

Alternatives to the undertaking are different means of addressing the problem. The problems identified for this project are described in Section 4 of this report. The advantages and disadvantages of each planning alternative were identified and evaluated for the corridor, to determine the best functional solution to the problem. This is discussed below.

**7.1 Second Road West Alternative Solutions**

The following alternative solutions were considered:

1. **Do-nothing**
2. **Close Second Road West, and any one of the following:**
   a) Close north of Gatestone Drive
   b) Close north of Rymal Road
   c) Close north of Gatestone Drive and extend Gatestone Drive southwards through the west portion of White Deer Park to intersect with Rymal Road.
   d) Close south of Fairhaven and provide parking lot at Karst trail head
3. **Keep Second Road West open**
   a) Put a temporary halt to development in the area until the Trinity Church Arterial Corridor is complete and Rymal Road is widened
   b) Provide traffic calming feature(s)

**7.2 Impact of Second Road West Closure**

To fully understand the potential implications of Alternative 2 (closing Second Road West), additional model forecasts were undertaken to see how traffic would reroute in the study area. The results of these forecasts are included in Table 7-1.
### Table 7-1: 2011 and 2031 Forecasts for Second Road West Alternatives

<table>
<thead>
<tr>
<th>Second Road West (north end)</th>
<th>2011 Counts AM Peak Hour 2 way</th>
<th>2011 Counts 24 Hour* 2 way</th>
<th>2031 Forecasts AM Peak Hour 2 way</th>
<th>2031 Forecasts 24 Hour * 2 way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1: Existing</td>
<td>300</td>
<td>3,000</td>
<td>420</td>
<td>4,200</td>
</tr>
<tr>
<td>Option 2a and 2d: Close Second Road West north of Gatestone Drive</td>
<td>110</td>
<td>1,100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 2c: Gatestone Drive extended south to Rymal Road</td>
<td>110</td>
<td>1,100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 2b: Close Second Road West south of Gatestone Drive</td>
<td>280</td>
<td>2,800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Road West (south end)</th>
<th>2011 Counts AM Peak Hour 2 way</th>
<th>2011 Counts 24 Hour* 2 way</th>
<th>2031 Forecasts AM Peak Hour 2 way</th>
<th>2031 Forecasts 24 Hour * 2 way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1: Existing</td>
<td>140</td>
<td>1,400</td>
<td>430</td>
<td>4,300</td>
</tr>
<tr>
<td>Option 2a and 2d: Close Second Road West north of Gatestone Drive</td>
<td>270</td>
<td>2,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 2c: Gatestone Drive extended south to Rymal Road</td>
<td>30</td>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 2b: Close Second Road West south of Gatestone Drive</td>
<td>10</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gatestone Drive (north end)</th>
<th>2011 Counts AM Peak Hour 2 way</th>
<th>2011 Counts 24 Hour* 2 way</th>
<th>2031 Forecasts AM Peak Hour 2 way</th>
<th>2031 Forecasts 24 Hour * 2 way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1: Existing</td>
<td>320</td>
<td>3,200</td>
<td>530</td>
<td>5,300</td>
</tr>
<tr>
<td>Option 2a and 2d: Close Second Road West north of Gatestone Drive</td>
<td>880</td>
<td>8,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 2c: Gatestone Drive extended south to Rymal Road</td>
<td>880</td>
<td>8,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 2b: Close Second Road West south of Gatestone Drive</td>
<td>390</td>
<td>3,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Road West (north end)</td>
<td>2011 Counts AM Peak Hour 2 way</td>
<td>2011 Counts 24 Hour 2 way</td>
<td>2031 Forecasts AM Peak Hour 2 way</td>
<td>2031 Forecasts 24 Hour * 2 way</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------</td>
<td>--------------------------</td>
<td>----------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Highland Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1: Existing</td>
<td>680</td>
<td>6,800</td>
<td>660</td>
<td>6,600</td>
</tr>
<tr>
<td>Option 2a and 2d: Close Second Road West north of Gatestone Drive</td>
<td></td>
<td></td>
<td>580</td>
<td>5,800</td>
</tr>
<tr>
<td>Option 2c: Gatestone Drive extended south to Rymal Road</td>
<td></td>
<td></td>
<td>660</td>
<td>6,600</td>
</tr>
<tr>
<td>Option 2b: Close Second Road West south of Gatestone Drive</td>
<td></td>
<td></td>
<td>680</td>
<td>6,800</td>
</tr>
</tbody>
</table>

* 24 hour count was obtained by using the rule of thumb that the AM peak hour is 10% of the 24-hour volume.

As shown in Table 7-1, closing Second Road West results in a drop in traffic volumes on Second Road West, both north and south of Gatestone Drive. However, options 2a, 2c and 2d result in a significant increase in traffic on Gatestone Drive. Option 2b, a closure of Second Road West south of Gatestone Drive, results in a reduction in traffic on Gatestone Drive.

### 7.3 Evaluation Criteria

A detailed assessment of the alternative solutions was completed based on the criteria listed below. The criteria were developed as per requirements and guidelines of the Municipal Class EA document. The criteria were also developed to be able to evaluate potential adverse impacts for each identified alternative.

- **Transportation**
  - Traffic Demand
  - Traffic Diversion
  - Driveway Access
  - Emergency Services Implications
  - Provision of Pedestrian and Cyclist Facilities
  - Road User Safety
  - Vulnerable User Safety
- **Socio-Economic Environment**
  - Impact to Residential Properties
Natural Environment
- Effect of removal and/or disturbance to vegetation and wildlife habitat
- Impact on Karst

Planning
- Compatibility with Planning Policies
- Capital Costs
- Property Acquisition

### 7.4 Evaluation of Second Road West Alternatives

The Second Road West alternatives were evaluated based on the ability of the alternative to address the problem statement, including impacts to transportation, anticipated property impacts, and environmental impacts and the list of criteria provided above. The evaluation was completed with input from the project team, the project Community Liaison Committee, and the public.

Following the evaluation, a recommendation was made on which Planning Alternatives would be carried forward to the next stage. **Table 7-2** contains the evaluation of the alternative transportation planning solutions and a summary of the impacts and recommendations for the Study Area.
### Table 7-2: Evaluation of Second Road West Alternatives

<table>
<thead>
<tr>
<th>Factor</th>
<th>2. Do Nothing</th>
<th>2.a) Close Second Road West north of Gatestone Drive</th>
<th>2.b) Close Second Road West north of Rymal Road</th>
<th>2.c) Close Second Road West and extend Gateway Drive south to intersect with Rymal Road</th>
<th>2.d) Close Second Road West South of Fairhaven Provide Parking Lot at Karst trail head</th>
<th>3.a) Put Temporary Halt to Development</th>
<th>3.b) Provide Traffic Calming Measures to Second Road West</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Demand</td>
<td>Second Rd West south of Highland = 420</td>
<td>Second Rd West south of Highland = 110</td>
<td>Second Rd West south of Rymal = 10</td>
<td>Second Rd West south of Highland = 110</td>
<td>Second Rd West south of Highland = 420</td>
<td>Second Rd West south of Highland = 420</td>
<td>Second Rd West south of Highland = 420</td>
</tr>
<tr>
<td>(2031 forecasts)</td>
<td>Second Rd West north of Rymal = 430</td>
<td>Second Rd West north of Rymal = 270</td>
<td>Gatestone Drive = 880</td>
<td>Gatestone Drive = 390</td>
<td>Gatestone Drive = 880</td>
<td>Gatestone Drive = 530</td>
<td>Gatestone Drive = 530</td>
</tr>
<tr>
<td>AM Peak Hour Both Directions</td>
<td>Gatestone Drive = 530</td>
<td>Gatestone Drive = 880</td>
<td>Gatestone Drive = 390</td>
<td>Gatestone Drive = 390</td>
<td>Gatestone Drive = 880</td>
<td>Gatestone Drive = 530</td>
<td>Gatestone Drive = 530</td>
</tr>
<tr>
<td>Traffic Diversion</td>
<td>No anticipated traffic diversion</td>
<td>Traffic diverted to other area roads, particularly along Gatestone Drive</td>
<td>Traffic diverted to other area roads</td>
<td>Traffic diverted to other area roads, particularly along Gatestone Drive</td>
<td>Traffic diverted to other area roads, particularly along Gatestone Drive</td>
<td>No anticipated traffic diversion</td>
<td>Negligible traffic diversion may occur from Second Road West with traffic calming measures</td>
</tr>
<tr>
<td>Driveway Access</td>
<td>Driveway access on Second Road West is adequate</td>
<td>Enhanced driveway access along closed road; however circuitous route to access Second Road West to/from the south</td>
<td>Enhanced driveway access along closed road; however circuitous route to access Second Road West and Gatestone to/from the south</td>
<td>Enhanced driveway access along closed road; however circuitous route to access Second Road West to/from the south</td>
<td>Enhanced driveway access along closed road; however circuitous route to access Second Road West to/from the south</td>
<td>Driveway access on Second Road West would be adequate</td>
<td>Driveway access on Second Road West would be similar to existing conditions</td>
</tr>
<tr>
<td>Emergency Services Implications</td>
<td>Response times will not change</td>
<td>Residents on the southern portion of Second Road West would now be accessed via Gatestone (with elementary school)</td>
<td>Closure will have little impact on response times for residents on Second Road West.</td>
<td>Closure will have little impact on response times for residents on Second Road West.</td>
<td>Residents on the southern portion of Second Road West would now be accessed via Gatestone (with elementary school)</td>
<td>Response times will not change</td>
<td>Slight increase in response times for residents on Second Road West</td>
</tr>
<tr>
<td>Provision of Pedestrian and Cyclist Facilities</td>
<td>Sidewalks are provided on one side of Second Road West for the entire corridor; some sections have sidewalks on both sides; No cycling facilities</td>
<td>Provides an opportunity to complete the sidewalks along the corridor; No cycling facilities</td>
<td>Provides an opportunity to complete the sidewalks along the corridor; No cycling facilities</td>
<td>Provides an opportunity to complete the sidewalks along the corridor; No cycling facilities</td>
<td>Provides an opportunity to complete the sidewalks along the corridor; No cycling facilities</td>
<td>Provides an opportunity to complete the sidewalks along the corridor; No cycling facilities</td>
<td>Provides an opportunity to complete the sidewalks along the corridor; No cycling facilities</td>
</tr>
<tr>
<td>Road User Safety</td>
<td>No significant collision history; Current operating speeds (85th percentile) = 60km/h</td>
<td>Reduction in vehicles exposure due to less volumes; Speeds may increase slightly due to less volume</td>
<td>Reduction in vehicles exposure due to less volumes; Speeds may increase slightly due to less volume</td>
<td>Reduction in vehicles exposure due to less volumes; Speeds may increase slightly due to less volume</td>
<td>Reduction in vehicles exposure due to less volumes; Speeds may increase slightly due to less volume</td>
<td>No change from existing</td>
<td>No significant change in vehicle exposure; Speeds (already moderate) may be reduced further</td>
</tr>
<tr>
<td>Factor</td>
<td>2. Do Nothing</td>
<td>2.a) Close Second Road West north of Gatestone Drive</td>
<td>2.b) Close Second Road West north of Rymal Road</td>
<td>2.c) Close Second Road West and extend Gatestone Drive south to intersect with Rymal Road</td>
<td>2.d) Close Second Road West South of Fairhaven Provide Parking Lot at Karst trail head</td>
<td>2.a) Put Temporary Halt to Development</td>
<td>2.b) Provide Traffic Calming Measures to Second Road West</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------</td>
<td>----------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Vulnerable User Safety</td>
<td>Safe refuge provided for pedestrians No safe refuge provided for cyclists</td>
<td>Safe refuge provided for pedestrians No safe refuge provided for cyclists</td>
<td>Safe refuge provided for pedestrians No safe refuge provided for cyclists</td>
<td>Safe refuge provided for pedestrians No safe refuge provided for cyclists</td>
<td>Safe refuge provided for pedestrians No safe refuge provided for cyclists</td>
<td>Safe refuge provided for pedestrians No safe refuge provided for cyclists</td>
<td>Safe refuge provided for pedestrians No safe refuge provided for cyclists</td>
</tr>
<tr>
<td>Socio-Economic Environment</td>
<td>Noise and dust impacts to residents along Second Rd West will persist</td>
<td>Elimination of through traffic will reduce noise and dust impacts to residents along the closed portion of Second Rd West</td>
<td>Elimination of through traffic will reduce noise and dust impacts to residents along the closed portion of Second Rd West</td>
<td>Elimination of through traffic will reduce noise and dust impacts to residents along the closed portion of Second Rd West</td>
<td>Noise and dust impacts to residents along the closed portion of Second Rd West</td>
<td>Noise and dust impacts to residents along Second Rd West will persist</td>
<td></td>
</tr>
<tr>
<td>Natural Environment</td>
<td>No anticipated impact on vegetation or wildlife habitat</td>
<td>No anticipated impact on vegetation or wildlife habitat</td>
<td>No anticipated impact on vegetation or wildlife habitat</td>
<td>Significant impact to the Whitedeer woodland which is a high quality habitat, with mature oak and hickory.</td>
<td>Potential for slight impact on vegetation or wildlife habitat to provide the parking facilities</td>
<td>No anticipated impact on vegetation or wildlife habitat</td>
<td>No anticipated impact on vegetation or wildlife habitat</td>
</tr>
<tr>
<td>Impact on Eramosa Karst Planning</td>
<td>No anticipated impact on the Karst</td>
<td>No anticipated impact on the Karst</td>
<td>No anticipated impact on the Karst</td>
<td>No anticipated impact on the Karst</td>
<td>Potential for slight impact on the Karst to provide parking facilities</td>
<td>No anticipated impact on the Karst</td>
<td>No anticipated impact on the Karst</td>
</tr>
<tr>
<td>Compatibility with planning policies</td>
<td>Consistent with Urban Official Plan</td>
<td>Second Road West is classified as a local road in the Urban Official Plan (north of Gatestone Drive); closure is allowed for a local road designation</td>
<td>Second Road West is classified as a collector road in the Urban Official Plan (south of Gatestone Drive); closure is not consistent with a collector road designation</td>
<td>Second Road West is classified as a local road in the Urban Official Plan (north of Gatestone Drive); closure is allowed for a local road designation</td>
<td>Second Road West is classified as a local road in the Urban Official Plan (north of Gatestone Drive); closure is allowed for a local road designation</td>
<td>Halting development is not consistent with Urban Official Plan policies</td>
<td>Second Road West is classified as a local road (north of Gatestone Drive) and a collector road (south of Gatestone Drive) in the Urban Official Plan; traffic calming measures are consistent with a local road classification</td>
</tr>
<tr>
<td>Capital costs</td>
<td>No capital cost</td>
<td>Low construction cost for road closure</td>
<td>Low construction cost for road closure</td>
<td>Significant construction cost for extension of Gatestone Drive</td>
<td>Moderate construction cost for road closure and parking lot</td>
<td>No capital cost; loss of income for the City</td>
<td>Low construction cost for traffic calming measures</td>
</tr>
<tr>
<td>Factor</td>
<td>2. Do Nothing</td>
<td>2.a) Close Second Road West north of Gatestone Drive</td>
<td>2.b) Close Second Road West north of Rymal Road</td>
<td>2.c) Close Second Road West and extend Gatestone Drive south to intersect with Rymal Road</td>
<td>2.d) Close Second Road West South of Fairhaven Provide Parking Lot at Karst trail head</td>
<td>3.a) Put Temporary Halt to Development</td>
<td>3.b) Provide Traffic Calming Measures to Second Road West</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
<td>---------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Property acquisition</td>
<td>No property acquisition required</td>
<td>Potential for property impact with closure design</td>
<td>Potential for property impact with closure design</td>
<td>Significant property impact for extension of Gatestone Drive</td>
<td>Potential for property impact with closure design and provision of parking lot</td>
<td>No property acquisition required</td>
<td>No property acquisition required</td>
</tr>
<tr>
<td>Evaluation Summary</td>
<td>Since an alternate north-south link within the Trinity East Neighbourhood is no longer feasible due to the Open Space and Karst, Second Road West must remain open to provide a north-south link within the transportation grid. However, due to the closure of Upper Mount Albion, some measure should be taken to ensure that excessive traffic volumes aren't diverted to Second Road West.</td>
<td>Closure of Second Road West results in significant diversion to other roads within the Trinity East Neighbourhood.</td>
<td>Not Recommended</td>
<td>Closure of Second Road West results in significant diversion to other roads within the Trinity East Neighbourhood.</td>
<td>Not Recommended</td>
<td>Closure of Second Road West results in significant diversion to other roads within the Trinity East Neighbourhood.</td>
<td>Not Recommended</td>
</tr>
</tbody>
</table>
7.5 **Preferred Second Road West Alternative**

Since an alternate north-south link within the Trinity East Neighbourhood is no longer feasible due to the Open Space and Karst, Second Road West must remain open to provide a north-south link within the transportation grid. However, due to the closure of Upper Mount Albion, some measure(s) should be taken to ensure that excessive traffic volumes aren’t diverted to Second Road West.

One speed cushion (see **Exhibit 7-1**) located between Gatestone Drive and Fairhaven Drive would help ensure that excessive traffic volumes aren’t diverted to Second Road West. Due to the large number of driveways along the road, the placement of the speed cushion is severely restricted. To provide a speed cushion, parking would need to be prohibited for approximately 15 metres (~two to three parking spaces) just north and south of the speed cushion.

Sidewalks are also recommended throughout the Second Road West corridor to complete the pedestrian network.
Exhibit 7-1: Second Road West Traffic Calming
8. PLANNING ALTERNATIVES – HIGHLAND ROAD

The class environmental assessment process requires the examination of all reasonable alternatives, including alternatives to the undertaking, referred to as planning alternatives. A formal evaluation methodology is used to ensure that the process is traceable and reproducible, and that the process takes into account technical, as well as economic, social, and natural environmental issues. This section of the report provides a discussion of the development and evaluation of the planning alternatives for Highland Road.

Alternatives to the undertaking are different means of addressing the problem. The problems identified for this project are described in Section 4 of this report. The advantages and disadvantages of each planning alternative were identified and evaluated for the corridor, to determine the best functional solution to the problem. This is discussed below.

8.1 Highland Road Alternative Solutions

The following alternative solutions were considered for Highland Road:

Options for Highland Road – all options are within the existing curbs (i.e. only pavement marking changes)
8.2 Evaluation Criteria

A detailed assessment of the alternative solutions was completed based on the criteria listed below. The criteria were developed as per requirements and guidelines of the Municipal Class EA document. The criteria were also developed to be able to evaluate potential adverse impacts for each identified alternative.

Transportation
- Traffic Diversion
- Traffic Demand and Operations
- Driveway Access
- Emergency Services Implications
- Provision of Pedestrian and Cyclist Facilities
- Road User Safety
- Vulnerable User Safety

Socio-Economic Environment
- Impact to Residential Properties

Engineering and Planning
- Compatibility with Planning Policies
- Capital Costs
- Property Acquisition

8.3 Evaluations of Highland Road Alternatives

The Highland Road alternatives were evaluated based on the ability of the alternative to address the problem statement, including impacts to transportation, anticipated property impacts, and environmental impacts and the list of criteria provided above. The evaluation was completed with input from the project team, the project Community Liaison Committee, and the public.

Following the evaluation, a recommendation was made on which Planning Alternatives would be carried forward to the next stage. Table 8-1 contains the evaluation of the alternative transportation planning solutions and a summary of the impacts and recommendations for the Study Area.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Do Nothing</th>
<th>Replace a Parking Lane with a Centre Turn Lane</th>
<th>Replace a Parking Lane with Bike Lanes in Sections</th>
<th>Replace Both Parking Lanes for Bike Lanes and a Centre Two Way Left Turn Lane (TWLTL)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Demand and Operations</td>
<td>Highland Road west of Second Road West= 700</td>
<td>Highland Road west of Second Road West= 700</td>
<td>Highland Road west of Second Road West= 700</td>
<td>Highland Road west of Second Road West= 700</td>
</tr>
<tr>
<td>AM peak hour Both directions</td>
<td>None anticipated</td>
<td>None anticipated</td>
<td>None anticipated</td>
<td>None anticipated</td>
</tr>
<tr>
<td><strong>Driveway Access</strong></td>
<td>No change; maintains existing driveway accessibility</td>
<td>Enhanced driveway access</td>
<td>No change; maintains existing driveway accessibility</td>
<td>Enhanced driveway access</td>
</tr>
<tr>
<td><strong>Emergency Services Implications</strong></td>
<td>No change in response times</td>
<td>No change in response times</td>
<td>No change in response times</td>
<td>No change in response times</td>
</tr>
<tr>
<td><strong>Provision of Pedestrian and Cyclist Facilities</strong></td>
<td>Sidewalks provided on both sides of the roadway No cycling facilities provided</td>
<td>Sidewalks provided on both sides of the roadway No cycling facilities provided</td>
<td>Sidewalks provided on both sides of the roadway On-road cycling facilities would be provided along Highland Road</td>
<td>Sidewalks provided on both sides of the roadway On-road cycling facilities would be provided along Highland Road</td>
</tr>
<tr>
<td><strong>Parking Availability</strong></td>
<td>Parking provided on both sides of the roadway</td>
<td>Reduced on-street parking availability; parking provided on one side of the roadway</td>
<td>Reduced on-street parking availability; parking provided on one side of the roadway</td>
<td>Lack of on-street parking availability; no parking provided on the roadway</td>
</tr>
<tr>
<td><strong>Road User Safety</strong></td>
<td>Left turns take place in the through lane with the potential for rear end collisions</td>
<td>Improved safety for left turning vehicles due to the centre lane refuge</td>
<td>Left turns take place in the through lane with the potential for rear end collisions</td>
<td>Improved safety for left turning vehicles due to the centre lane refuge</td>
</tr>
<tr>
<td><strong>Vulnerable User Safety</strong></td>
<td>Sidewalks available throughout the corridor No refuge provided for on road cyclists</td>
<td>Sidewalks available throughout the corridor No refuge provided for on road cyclists</td>
<td>Sidewalks available throughout the corridor Improved safety for on road cyclists due to refuge provided</td>
<td>Sidewalks available throughout the corridor Improved safety for on road cyclists due to refuge provided</td>
</tr>
<tr>
<td><strong>Socio-Economic Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact to Residential Properties</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
</tr>
<tr>
<td>Engineering and Planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatibility with planning policies</td>
<td>Consistent with Urban Official Plan</td>
<td>Consistent with Urban Official Plan</td>
<td>Consistent with Urban Official Plan and Cycling Master Plan</td>
<td>Consistent with Urban Official Plan and Cycling Master Plan</td>
</tr>
<tr>
<td>Capital costs</td>
<td>No capital cost</td>
<td>Low construction cost for pavement markings</td>
<td>Low construction cost for pavement markings</td>
<td>Low construction cost for pavement markings</td>
</tr>
<tr>
<td>Property acquisition</td>
<td>No property acquisition required</td>
<td>No property acquisition required</td>
<td>No property acquisition required</td>
<td>No property acquisition required</td>
</tr>
<tr>
<td>Factor</td>
<td>Do Nothing</td>
<td>Replace a Parking Lane with a Centre Turn Lane</td>
<td>Replace a Parking Lane with Bike Lanes in Sections</td>
<td>Replace Both Parking Lanes for Bike Lanes and a Centre Two Way Left Turn Lane (TWLTL)</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Evaluation Summary</td>
<td>Although this alternative provides the most on-street parking availability, it does not improve the driveway accessibility or cycling facilities for the corridor. <strong>Not recommended</strong></td>
<td>The centre left turn lane provides improved safety for left turning vehicles and enhanced driveway access along Highland Road. This option does not provide a refuge area for on-road cyclists. <strong>Not Recommended</strong></td>
<td>The provision of on-road cycling lanes improves the safety of on-road cyclists as well as improved cycling network connectivity. This alternative maintains existing driveway accessibility. On-road cycling lanes would be provided for the urbanized section of Highland Road (Winterberry Drive and easterly to Upper Centennial Parkway). Parking would be removed from the south side of Highland Road (Winterberry Dr to First Rd W) and on the north side (Highbury Dr to Upper Centennial Parkway) to accommodate the cycling lanes. On Highland Road between First Rd W and Highbury Drive, bike lanes would be added to the existing extra wide travel lanes and the existing centre turn lane would remain. <strong>Recommended</strong></td>
<td>The centre left turn lane provides improved safety for left turning vehicles and enhanced driveway access along Highland Road. The provision of on-road cycling lanes improves the safety of on-road cyclists. This option lacks on-street parking. <strong>Not recommended</strong></td>
</tr>
</tbody>
</table>

---

**Not recommended**

**Recommended**
8.4 **Preferred Highland Road Alternative**

The provision of marked on-road bicycle lanes improves the safety of on-road cyclists as well as improved cycling network connectivity. On-road cycling lanes would be provided for the urbanized section of Highland Road (Winterberry Drive and easterly to Upper Centennial Parkway).

Existing parking would be removed from the south side of Highland Road (Winterberry Drive to First Road West) and on the north side (Highbury Drive to Upper Centennial Parkway) to accommodate the cycling lanes.

On Highland Road between First Road West and Highbury Drive, bicycle lanes would be added to the existing extra wide travel lanes and the existing centre turn lane would remain.

Sidewalks are recommended to complete the pedestrian network throughout the urbanized section of the Highland Road corridor (between Winterberry Drive and Upper Centennial Parkway). Sidewalks should be provided on the south side of Highland Road for sections between:

- Winterberry Road and Cityview Crescent
- Termination of trail adjacent to woodlot and end of woodlot (west of Second Road West)
- Second Road West and 100 m east of Second Road West
- Sidney Crescent and Carlson Street
- 100 m west of Upper Centennial Parkway to Upper Centennial Parkway

In recognition of the speeding issues along Highland Road (Section 4.5) and that there will be a delay to implement the preferred alternative, it is further recommended that the City request police enforcement.
9. CONSULTATION

The public consultation process and public reaction during the ROPA9 Transportation Master Plan Review are summarized in this section of the report. Additional details on the public consultation process are contained in Appendix C.

9.1.1 Public Consultation Process

The public consultation process for ROPA9 Transportation Master Plan Review involved the following activities:

- Study Commencement Notice and PIC #1 Invitation January 19, 2012
- Community Liaison Committee Meeting #1 January 19, 2012
- Public Information Centre #1 February 1, 2012
- Community Liaison Committee Meeting #2 September 27, 2012
- Public Information Centre #2 November 7, 2012

First Community Liaison Committee Meeting (CLC #1)

Representatives of the City and the consultant team met with the Community Liaison Committee (CLC) twice during the ROPA TMP review. These meetings provided the CLC members an opportunity to meet the project team, gain preliminary information on the project, and discuss any issues relating to the project. At the first meeting, 15 members of the CLC were present. Many items were discussed, including:

- Role and Mandate of the CLC
- Study Background and Overview
- EA Process
- Transportation Issues and Concerns (Upper Mount Albion Road, Second Road West, Rymal Road and others)
- Implementation Timing
- Alternative Solutions for the Team to Consider.

Meeting minutes are provided in Appendix C.4.

First Public Information Centre (PIC #1)

The first Public Information Centre (PIC #1) was held on Wednesday, February 1st, 2012, from 6:00 to 8:00 PM at the Salvation Army Church Gymnasium, 300 Winterberry Drive, in the City of Hamilton. The purpose of PIC #1 was to provide information about the study to the public and at the same time obtain public input.
Eighteen panels were displayed. The information panels included the following:

- Welcome and Purpose of PIC #1
- Chart of the EA process and Class EA requirements
- Description of the study area, study background, goal and objectives
- Implications of Eramosa Karst Area of Natural and Scientific Interest (ANSI)
- Area Developments
- Cycling and Transit Map
- Road Classifications and Existing Traffic Volumes
- Alternative Planning Solutions and Evaluation Criteria
- Description of the public consultation plan
- Next Steps
- Contact information

The format was an informal drop-in centre to meet the project team and to view the display panels and drawings. Attendees were asked to sign-in and were invited to fill-in comment forms at their convenience within a two-week time frame.

As with all of the public information centres, the public was advised about the meeting through advertisements in the local paper. Advertisements were placed in the Hamilton Spectator on Friday, January 20, 2012 and Friday, January 27, 2012 and in the Stoney Creek News and Mountain News on Thursday, January 19, 2012 and January 26, 2012. Notification letters were also mailed out to property owners within the study area, to conservation authorities, Federal and Provincial agencies. A copy of the advertisement is provided in Appendix C.1.

Approximately 50 members of the public attended the PIC. Representatives from the City of Hamilton and HDR attended the PIC to discuss the details of the project and answer questions from the public. A summary of issues and questions is provided below in Section 9.1.2. A full summary of the PIC is provided in Appendix C.2.

**Second Community Liaison Committee Meeting (CLC #2)**

Representatives of the City and the consultant team met with the CLC twice during the ROPA9 TMP review to provide the CLC members with an opportunity to meet the project team, gain preliminary information on the project, and discuss any issues relating to the project. At the second meeting, 13 members of the CLC were present. Many items were discussed, including:

- Update on the Implementation of the Trinity Church Arterial Corridor
- Alternative Solutions for Upper Mount Albion Road, Second Road West, and Highland Road
- Evaluation of Alternatives and Preliminary Recommendation
- Summary and Next Steps

Meeting minutes are provided in Appendix C.4.
Second Public Information Centre (PIC #2)

The second Public Information Centre (PIC #2) was held on Wednesday, November 7th, 2012, from 6:00 to 8:00 PM at the Salvation Army Church Gymnasium, 300 Winterberry Drive, in the City of Hamilton. The purpose of PIC #2 was to provide information about the study to the public and at the same time obtain public input.

Twenty-six panels were displayed. The information panels included the following:
□ Welcome and Purpose of PIC #1
□ Rationale for the TMP update
□ Chart of the EA process
□ Existing Roadway Characteristics and Terminology
□ Current Situation
□ Traffic Volume Trends and Future Traffic Volume Forecasts
□ Planned Construction
□ Problem and Opportunity Statement
□ Alternative Planning Solutions and Evaluation Criteria
□ Evaluation of Alternatives
□ Summary and Map of Recommendations
□ Next Steps and Contact information

The format was an informal drop-in centre to meet the project team and to view the display panels and drawings. Attendees were asked to sign-in and were invited to fill-in comment forms at their convenience within a two-week time frame.

Advertisements were placed in the Hamilton Spectator on Friday, October 26, 2012 and Friday, November 2, 2012 and in the Stoney Creek News and Mountain News on Thursday, October 25, 2012 and Thursday, November 1, 2012 informing the public of the PIC. Notification letters were also mailed out to property owners within the study area, to conservation authorities, Federal and Provincial agencies. A copy of the advertisement is provided in Appendix C.1.

Approximately 50 members of the public attended the PIC. Representatives from the City of Hamilton and HDR attended the PIC to discuss the details of the project and answer questions from the public. A summary of issues and questions is provided below in Section 9.1.2. A full summary of the PIC is provided in Appendix C.3.

9.1.2 Public Comments and Project Team Responses

The consultant team compiled comments and questions received from the public via comment sheets, verbal questions, letters, e-mail, telephone calls, or faxes. Key public comments are as follows:
## Public Information Centre #1

<table>
<thead>
<tr>
<th>Public Comment</th>
<th>Study Team Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Do you have any specific transportation issues or concerns that you would like to inform the project team about?</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Upper Mount Albion Road  
  - High traffic volumes  
  - Truck traffic  
  - Speeds  
  - Road conditions (no sidewalks)  
  - Safety issues  
  - Pedestrian safety  
  - Difficulty entering and exiting residences | Thank you for providing your insights into the study area. We will consider your concerns as we proceed with the study. |
| Highland Road  
  - Speeding issue  
  - Illegal passing / overtaking (due to wide lanes)  
  - Difficulty accessing driveways  
  - High traffic volumes  
  - Consider a centre left turn lane to ease access to residences | Thank you for providing your insights into the study area. We will consider your concerns as we proceed with the study. |
| 2nd Road West  
  - Disobedience of stop signs  
  - Aggressive drivers  
  - High traffic volumes  
  - Narrow roadway  
  - Safety issues  
  - Speeding issue | Thank you for providing your insights into the study area. We will consider your concerns as we proceed with the study. |

**Please provide comments regarding the potential solutions to be considered.**

| Please provide additional solutions that the team could consider during the study. |
|----------------|---------------------|
| Improve Pritchard Road and add a traffic light at Pritchard and Rymal | Thank you for your input. This alternative will be considered in the study. |
| Close 2nd Road West at Gatestone Drive, connecting the Karst area to Gatestone Park and the trail that goes through to First Road. | Thank you for your input. This alternative will be considered in the study. |
| Don’t close 2nd Road or close at Rymal. | Thank you for your input. This alternative will be considered in the study. |
| As a temporary measure to slow down traffic on Upper Mount Albion Road, consider speed bumps along the entire road (at frequent intervals). | This will be reviewed. |
**Public Information Centre #2**

<table>
<thead>
<tr>
<th>Public Comment</th>
<th>Study Team Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have any comments regarding the evaluation of the potential solutions?</td>
<td>Although less development will be proceeding due to the Open Space designation, there is still a need for connectivity to service local traffic. Speed surveys were completed on Second Road West and the 85th percentile speeds (standard often used by traffic professionals) were within 5 km/h of the posted speed limit. As part of the recommendation, a speed cushion is recommended for the Second Road West corridor. This would help ensure compliance with the posted speed limit.</td>
</tr>
<tr>
<td>I believe that Second Road West should still be closed because only half of the development of the area is completed; therefore we only need half of the planned ring road, which Gatestone Drive is. Gatestone is a school zone with a 40 km/h speed limit and is curved with multiple stop signs, which does not have the speeding issues that Second Road West does.</td>
<td>The construction of the Trinity Church Arterial Corridor between Stone Church Road and Rymal Road is a high priority for the City. The construction is planned to begin in 2013. Unfortunately, the conditions on Upper Mount Albion Road are deteriorating and the construction of TCAC will take approximately 2 years. As such, the closure of Upper Mount Albion Road is recommended prior to the completion of TCAC. To minimize impacts of the closure, a temporary traffic signal is recommended at the intersection of Rymal Road and Pritchard Road to facilitate turning movements at that intersection.</td>
</tr>
<tr>
<td>Trinity Church Arterial Corridor should be completed prior to any other road closures eliminating needless diversions and congestion.</td>
<td>Please provide comments regarding the preliminary preferred solutions presented.</td>
</tr>
<tr>
<td>I think that there should be a speed cushion placed approximately halfway between the stop sign at Second Road West and Gatestone and the stop sign at Second Road West and Fairhaven, by adding a third speed cushion (or relocation one of the others if 3 speed cushions are not possible).</td>
<td>Reviewed the suggestion. One speed cushion is recommended; it will be located approximately halfway between Gatestone Drive and Fairhaven Drive.</td>
</tr>
<tr>
<td>Building the Trinity Church Arterial Corridor is an excellent idea.</td>
<td>The construction of the Trinity Church Arterial Corridor between Stone Church Rd. and Rymal Rd., planned to begin in 2013.</td>
</tr>
<tr>
<td>Widening Rymal from Trinity to Upper Centennial should be done ASAP.</td>
<td>The widening of Rymal Rd. from Dartnall Road to Fletcher Road is scheduled to begin in 2014 and from Fletcher Road to Upper Centennial Parkway is planned to begin in 2016.</td>
</tr>
<tr>
<td>Traffic calming on Second Road West is a good idea. If Second Road West was closed there would be too much traffic on Gatestone. Please leave Second Road West OPEN!!</td>
<td>A speed cushion along Second Road West is recommended to ensure that traffic is not diverted to Second Road West once Upper Mount Albion R is closed. The speed cushion should also encourage compliance with the posted speed limit. Second Road West will remain open.</td>
</tr>
<tr>
<td>“As is” for Highland Road does not suit everyone, as can be seen when reading comments provided by others.</td>
<td>“As is” for Highland Road does not suit everyone, as can be seen when reading comments provided by others.</td>
</tr>
<tr>
<td>The recommended alternative includes on-road cycling lanes on Highland Road (between Winterberry Drive and Upper Centennial Parkway) to provide an improved cycling network and to improve the safety of on-road cyclists.</td>
<td>The recommended alternative includes on-road cycling lanes on Highland Road (between Winterberry Drive and Upper Centennial Parkway) to provide an improved cycling network and to improve the safety of on-road cyclists.</td>
</tr>
<tr>
<td>Parking would be removed from the south side of Highland Rd (Winterberry Dr to First Rd W) and on the north side (Highbury Dr to Upper Centennial Parkway) to accommodate the cycling lanes. Parking would be maintained on the other side of the street and should be sufficient to service the parking demand in the area.</td>
<td>Parking would be removed from the south side of Highland Rd (Winterberry Dr to First Rd W) and on the north side (Highbury Dr to Upper Centennial Parkway) to accommodate the cycling lanes. Parking would be maintained on the other side of the street and should be sufficient to service the parking demand in the area.</td>
</tr>
<tr>
<td>On Highland Road between First Rd W and Highbury Drive, bike lanes would be added to the existing extra wide travel lanes and the existing centre turn lane would remain.</td>
<td>On Highland Road between First Rd W and Highbury Drive, bike lanes would be added to the existing extra wide travel lanes and the existing centre turn lane would remain.</td>
</tr>
<tr>
<td>A completion of the sidewalk network along Highland Road is also included in the recommendation.</td>
<td>A completion of the sidewalk network along Highland Road is also included in the recommendation.</td>
</tr>
<tr>
<td>Marked vehicle lanes, bicycle lanes and parking space improves safety of all.</td>
<td>Marked vehicle lanes, bicycle lanes and parking space improves safety of all.</td>
</tr>
<tr>
<td>Upper Mount Albion Road</td>
<td>The construction of the Trinity Church Arterial Corridor between Stone Church Road and Rymal Road is a high priority for the City. The construction is planned to begin in 2013.</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Please consider constructing the Trinity Church Extension before closing Upper Mount Albion Road at Rymal Road. Pritchard is a terrible road with narrow lanes, no shoulders, and poor visibility at the Highland Road intersection.</td>
<td>The conditions on Upper Mount Albion Road are deteriorating rapidly; there are high traffic volumes on a substandard road with no shoulders and a rolling topography. There is a school scheduled to open in the Fall of 2013 at the southwest corner of the Rymal Road / Dakota Boulevard intersection and it is expected that the pedestrian demand along Upper Mount Albion Road will increase once it does. In addition, the construction of TCAC will take approximately 2 years. For these reasons, the closure of Upper Mount Albion Road is recommended prior to the completion of TCAC.</td>
</tr>
<tr>
<td>Although Pritchard Road is not the ideal road to carry this traffic, it is a better alternative than Upper Mount Albion Road. It does not have the rolling topography that Upper Mount Albion does, it has fewer residents and more commercial / industrial land uses. As part of the recommendations, Pritchard Road would have some asphalt padding on some of the sections. A temporary traffic signal is also recommended at the intersection of Rymal Road and Pritchard Road to facilitate turning movements at that intersection.</td>
<td></td>
</tr>
</tbody>
</table>
I am not sure how this recommendation to keep Second Road West open could be followed by the city. It was the City of Stoney Creek that determined that Second Road West would be closed. That is why this was designed and built as a residential street. It is not possible to now re-design and re-build it as a collector road and maintain an acceptable level of safety for anyone.

To clarify, I know that the recommendation is not to make it a collector road, however, the reasons that are use to support keeping it open are because of some of the functions of a collector road that Second Road West provides would be lost (ie. delivery of emergency services, a link between Rymal and Highland for North-South traffic, to divert traffic from other streets, etc.)

Agreed that bicycle lanes on Highland Road West are an improvement but needs reinforcement by police to ensure that lanes are respected.

Would like to see a traffic signal warrant for the intersection of Highland Road West and Winterberry and feedback.

Highland Road West needs a better assessment between Glenhollow and Winterberry Roads - traffic is excessive, drivers speed and pass and this needs to be addressed.

Would also like to see police enforced radar speed sign used on Highland Road West between Second Road and Winterberry.

I would like feedback and further communications in regards to these concerns.

There is no need to change Second Road West north of Gatestone to a collector road designation. It is intended that it provide a north-south road connection for local traffic.

As part of the recommendation, a speed cushion is recommended for the Second Road West. This would help ensure compliance with the posted speed limit. Second Road West is not intended to divert traffic from other streets. The speed cushion will help ensure that it is not used as such.

The recommended alternative also includes a completion of the sidewalk network which will better accommodate the pedestrians using the corridor.

Agreed that bicycle lanes on Highland Road West are an improvement but needs reinforcement by police to ensure that lanes are respected.

Would like to see a traffic signal warrant for the intersection of Highland Road West and Winterberry and feedback.

Highland Road West needs a better assessment between Glenhollow and Winterberry Roads - traffic is excessive, drivers speed and pass and this needs to be addressed.

Would also like to see police enforced radar speed sign used on Highland Road West between Second Road and Winterberry.

I would like feedback and further communications in regards to these concerns.

Noted.

A traffic signal warrant for the intersection of Highland Road and Winterberry was undertaken and the signal is not warranted.

Reviewed.

Noted. Part of the recommendation will be that the City request police enforcement and that a speed trailer be placed once the program resumes.

Provided.
Complete summaries of the public meetings, together with project team responses to questions / issues are provided in Appendix C. All comments were taken into consideration in the analysis and evaluation of options, and additional reviews (such as the southerly extension of Gatestone Drive, speed survey for Highland Road, signal warrant analysis for Highland Road/Winterberry Drive) were undertaken as appropriate.
10. RECOMMENDATIONS AND SUMMARY

The results presented in this ROPA9 Transportation Master Plan Review Addendum to 2006 Phase 1 and 2 Report have been adopted by the Public Works Committee on April 22, 2013 (Public Works Report 13-005, staff report # PW 13032) with certain amendments. The report to the Council was approved by the Council on April 24, 2013.

10.1 Recommended Solutions

Based on the assessment and evaluation of the Planning Alternatives, the preferred and recommended planning solution to address the problems is to:

- Install temporary signal at Rymal / Pritchard and Close Upper Mount Albion Road (north of Rymal Road)
- Provide traffic calming features for Second Road West
- Provide on-road cycling lanes for Highland Road
- Complete the pedestrian network for Second Road West and Highland Road.

The recommended planning solutions are shown on Exhibit 10-1. Details on the traffic calming features for Second Road West are shown on Exhibit 7-1.

10.1.1 Upper Mount Albion Road Closure

The existing conditions of Upper Mount Albion Road are not consistent with the collector road classification.

Closure of Upper Mount Albion Road would significantly improve the safety of vulnerable road users by restricting vehicular traffic to local access.

A temporary traffic signal should be installed at the intersection of Pritchard Road and Rymal Road until Trinity Church Arterial Corridor is constructed, at which time the traffic signal would be removed. This traffic signal would facilitate the operations at this intersection and would encourage drivers to use this route rather than local residential roads in the study area.

A wide paved shoulder should be constructed along the west side of Pritchard Road between the multi-purpose path (south of Harlowe Road) and Stone Church Road.

Due to the traffic diversion created by a closure of Upper Mount Albion Road, it is recommended that traffic volumes on neighbouring roads (including Second Road West, Gatestone Drive and Highland Road) be monitored until Trinity Church Arterial Corridor is constructed.

Pavement conditions on some sections of Pritchard Road are not suitable for the additional traffic being diverted, therefore asphalt padding should be provided to ensure that the pavement structure is maintained while the route is being used as a detour.
Exhibit 10-1: Map of Recommendations
10.1.2 Second Road West Traffic Calming and Sidewalks

Since an alternate north-south link within the Trinity East Neighbourhood is no longer feasible due to the Open Space and Karst, Second Road West must remain open to provide a north-south link within the transportation grid. However, due to the closure of Upper Mount Albion, some traffic calming measures should be taken to ensure that excessive traffic volumes aren’t diverted to Second Road West.

One speed cushion (see Exhibit 7-1) located between Gatestone Drive and Fairhaven Drive would help ensure that excessive traffic volumes aren’t diverted to Second Road West. Due to the large number of driveways along the road, the placement of the speed cushion is severely restricted. To provide a speed cushion, parking would need to be prohibited for approximately 15 metres (~two to three parking spaces) just north and south of the speed cushion.

Sidewalks are also recommended throughout the Second Road West corridor to complete the pedestrian network.

10.1.3 Highland Road Cycling Lanes and Sidewalks

The provision of marked on-road cycling lanes improves the safety of on-road cyclists as well as improved cycling network connectivity. On-road cycling lanes would be provided for the urbanized section of Highland Road (Winterberry Drive and easterly to Upper Centennial Parkway).

Existing parking would be removed from the south side of Highland Road (Winterberry Drive to First Road West) and on the north side (Highbury Drive to Upper Centennial Parkway) to accommodate the cycling lanes.

On Highland Road between First Road West and Highbury Drive, bike lanes would be added to the existing extra wide travel lanes and the existing centre turn lane would remain.

Sidewalks are recommended to complete the pedestrian network throughout the urbanized section of the Highland Road corridor (between Winterberry Drive and Upper Centennial Parkway). Sidewalks should be provided on the south side of Highland Road for sections between:

- Winterberry Road and Cityview Crescent
- Termination of trail adjacent to woodlot and end of woodlot (west of Second Road West)
- Second Road West and 100 m east of Second Road West
- Sidney Crescent and Carlson Street
- 100 m west of Upper Centennial Parkway and Upper Centennial Parkway.
In recognition of the speeding issues along Highland Road (Section 4.5) and that there will be a delay to implement the preferred alternative, it is further recommended that the City request police enforcement.

10.2 EA Schedule for Recommended Projects

The applicable Class EA Schedule and construction cost for each of the recommended projects is summarized in Table 10-1.

10.3 Timing of Implementation

The provision of a new north-south arterial road (Trinity Church Arterial Corridor) in the study area is needed now to provide traffic capacity and network connectivity.

The widening of Rymal Road is needed now to accommodate the current traffic and to facilitate improved network capacity.

In the ROPA9 TMP (2006) study, the above two projects were recommended to be in place by 2011 and 2008 respectively.

The closure of Upper Mount Albion and road improvement works including the temporary traffic signal for Pritchard Road should be undertaken on a priority basis and is recommended to be completed by the second quarter of 2013. It is anticipated that all approvals would be in place and that construction could take place in the Spring of 2013.

The Second Road West traffic calming and sidewalks and Highland Road bicycle lanes and sidewalks are also high priority works and should be completed within the 2013 / 2014 construction year.
# Table 10-1: Class EA Schedules for Recommended Solutions

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Details</th>
<th>Cost Estimate</th>
<th>Class EA Schedule</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity Church Arterial Corridor</td>
<td>Acceleration of design and construction of new road (between Stone Church Road and Rymal Road)</td>
<td>-</td>
<td>Schedule C</td>
<td>ESR approved in 2008</td>
</tr>
<tr>
<td>Rymal Road</td>
<td>Acceleration of design and construction (between Trinity Church Arterial Corridor and Upper Centennial)</td>
<td>-</td>
<td>Schedule C</td>
<td>ESR approved in 2007</td>
</tr>
</tbody>
</table>
| Close Upper Mount Albion Road north of Rymal Road East | Install temporary traffic signals at Pritchard Road / Rymal Road until Trinity Church Arterial Corridor is open and then the signals would be removed.  
Aasphalt overlay work on Pritchard Road:  
• between Bigwin Rd and Highland Rd (adjacent to the ongoing development)  
• various minor sections between Highland and Rymal  
• intersection of Pritchard and Rymal  
Construct paved shoulder along west side of Pritchard Road between trail connection (south of Harlowe Road) and Stone Church Road and associated storm drain works | $79,000        | Schedule C        |                | $106,100                      | $101,500                      |
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Subtotal</th>
<th>Schedule</th>
<th>Approval Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close Upper Mount Albion Road north of Rymal Road with a cul de sac (location as proposed in the Trinity West Secondary Plan)</td>
<td>$81,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implement Traffic Calming on Second Road West</td>
<td>$10,400</td>
<td>Schedule A</td>
<td>pre-approved</td>
</tr>
<tr>
<td>Provide Sidewalk on Second Road West</td>
<td>$76,000</td>
<td>Schedule A+</td>
<td>pre-approved</td>
</tr>
<tr>
<td>Provide Bicycle Lanes on Highland Road</td>
<td>$97,000</td>
<td>Schedule A+</td>
<td>pre-approved</td>
</tr>
<tr>
<td>Provide Sidewalk on Highland Road south side</td>
<td>$142,000</td>
<td>Schedule A+</td>
<td>pre-approved</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$743,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>