TABLE OF CONTENTS

Table of Contents ..... **i**
1. INTRODUCTION AND BACKGROUND **1**
1.1 Introduction and Project Context 1
1.2 Background 3
1.2.1 Regional Official Plan Amendment No. 9 and the Rymal Road Secondary Plan 3
1.3 Special Policy Area 'C' 4
1.4 Project Location and Study Area 4
1.5 Study Scope and Objectives 4
1.5.1 Study Scope 4
1.5.2 Study Objectives and Approach 6
1.6 Related Studies 6
1.6.1 Growth Related Integrated Development Strategy (GRIDS) Program 6
1.6.2 North Glanbrook Industrial Business Park Transportation Master Plan 7
1.6.3 City Transportation Master Plan 7
1.6.4 City Water and Wastewater Master Plan 7
1.7 Project Team 8
1.8 Class Environmental Assessment Process 8
1.9 Agency / Stakeholder Consultation 11
1.10 Summary of Public Consultation Process 13
2. EXISTING STUDY AREA CONDITIONS **16**
2.1 Socio-Economic Conditions 16
2.1.1 Existing Land Use 16
2.1.2 Designated Land Use 16
2.1.3 Official Plan Policies 18
2.1.4 Archaeology and Cultural Heritage 19
2.1.4.1 Archaeology 19
2.1.4.2 Cultural Heritage 20
2.1.5 Noise 22
2.2 Natural Environment 22
2.2.1 Physiography and Soils 22
2.2.2 Designated Natural Areas 22
2.2.3 Vegetation and Vegetation Communities 24
2.2.4 Wildlife and Wildlife Habitat 24
2.2.5 Fisheries and Aquatic Ecosystems 25
2.3 Existing Transportation Facilities 26
2.3.1 Road Classification 26
2.3.2 Road Capacity 28
2.3.3 Road Network and Characteristics 28
2.3.4 Truck Routes 42
2.3.5 Transit Service 43
2.3.6 Pedestrian and Bicycle Network 43
2.4 Surface Runoff 43

2.5 Utilities and Other Services 47
2.5.1 Union Gas 47
2.5.2 Hamilton Hydro 47
2.5.3 Hydro One 47
2.5.4 Bell Canada 47
2.5.5 Source Cable 50
2.5.6 Other Services 50
3. NEEDS AND OPPORTUNITIES – Rymal Road Planning Area 51
3.1 Anticipated Growth 51
3.2 Existing Conditions 52
3.2.1 Traffic Data 52
3.2.2 Traffic Capacity Analysis 52
3.2.3 Route Alternatives 53
3.2.4 Truck Volumes 54
3.2.5 Transit Service 56
3.2.6 Pedestrian and Bicycle Network 56
3.3 Future Conditions 56
3.3.1 Background Traffic Growth 57
3.3.2 Planned Road Improvements 57
3.3.3 Future Link / Midblock Analysis 57
3.3.4 Screenline Analysis 59
3.3.5 Future Intersection Operations 59
3.3.6 Collector Roads and Area Access 64
3.3.7 Trinity Church Road Extension and Upper Mount Albion Road Closure 64
3.4 Non-auto Network 67
3.5 Road Safety Considerations 68
3.6 Summary of Needs and Opportunities 69
4. NEEDS AND OPPORTUNITIES – Trinity Neighbourhood 71
4.1 Existing Study Area Conditions 72
4.1.1 Land Uses 72
4.1.2 Truck Routes 72
4.1.3 Emergency Services Routes 72
4.1.4 Transit Service 73
4.1.5 Pedestrian and Bicycle Network 73
4.1.6 Design Conditions of Road Network 74
4.2 Existing Conditions 74
4.2.1 Volume to capacity 74
4.2.2 Travel Speeds 76
4.2.2.1 Second Road West 76
4.2.2.2 Upper Mount Albion Road 78
4.2.3 Road Safety Considerations 79
4.3 Future Conditions 80
4.4 Summary of Needs and Opportunities 81
5. NEEDS AND OPPORTUNITIES - Special Policy Area 'C' 82
5.1 Existing Study Area Conditions 82
5.1.1 Land Uses 82

5.1.2 Truck Routes 82
5.1.3 Transit Service 83
5.1.4 Pedestrian and Bicycle Network 83
5.2 Existing Traffic 83
5.3 Traffic Forecasts 83
5.3.1 2012 Background Traffic Forecast 83
5.3.1.1 Background Growth 84
5.3.1.2 Background Traffic Diversion Due to RHVP / LINC 84
5.3.1.3 Background Traffic Diversion Due to Trinity Church Road Extension and Closure of Upper Mount Albion Road 84
5.3.2 Site Traffic 85
5.4 Future Total Traffic 85
5.5 Road Safety Considerations 88
5.6 Summary of Needs and Opportunities 89
6. PROBLEM AND OPPORTUNITY STATEMENT 90
7. EVALUATION OF PLANNING ALTERNATIVES – Rymal Road Planning Area 91
7.1 Development and Evaluation of Planning Alternatives 91
7.1.1 Development of Planning Alternatives 91
7.1.1.1 "Do Nothing" Alternative 91
7.1.1.2 Travel Demand Management Alternative 91
7.1.1.3 Upgrade Other Routes / Build Other Routes Alternative 92
7.1.1.4 Operational Improvements Alternative 92
7.1.1.5 Widen Rymal Road Alternative 92
7.1.1.6 Trinity Church Road Extension Alternative 92
7.1.1.7 Regional Road 56 Widening 92
7.1.2 Planning Alternatives Evaluation Criteria 92
7.1.3 Evaluation of Planning Alternatives 93
7.1.4 Preliminary Preferred Planning Alternative 99
7.1.5 Timing of Rymal Road Planning Area Infrastructure 99
7.2 Public Consultation 102
7.2.1 Public Consultation Process 102
7.2.2 Public Comments and Project Team Responses 104
8. EVALUATION OF PLANNING ALTERNATIVES – Trinity Neighbourhood 105
8.1 Development and Evaluation of Planning Alternatives 105
8.1.1 Development of Planning Alternatives 105
8.1.1.1 "Do Nothing" Alternative 105
8.1.1.2 Enhanced Traffic Control 105
8.1.1.3 New Road Connections 106
8.1.1.4 Potential Road Closures 106
8.1.2 Planning Alternatives Evaluation Criteria 106
8.1.3 Evaluation of Planning Alternatives 107
8.1.4 Preliminary Preferred Planning Alternative 112
8.1.4.1 Phase 1 Solutions 112
8.1.4.2 Phase 2 Solutions 113
8.1.4.3 Identification of Closure Details 116

8.1.4.4 Timing of Trinity Neighbourhood Infrastructure 116
8.2 Public Consultation..... 117
8.2.1 Public Consultation Process..... 117
8.2.2 Public Comments and Project Team Responses..... 119
9. EVALUATION OF PLANNING ALTERNATIVES – Special Policy Area 'C'. 120
9.1 Development and Evaluation of Planning Alternatives..... 120
9.1.1 Development of Planning Alternatives..... 120
9.1.1.1 Do Nothing..... 120
9.1.1.2 Travel Demand Management and Transit Initiatives..... 120
9.1.1.3 New Major Infrastructure and Road Widenings..... 121
9.1.1.4 Operational Improvements..... 121
9.1.2 Planning Alternatives Evaluation Criteria..... 121
9.1.3 Evaluation of Planning Alternatives..... 121
9.2 Preliminary Preferred Planning Alternative..... 127
9.3 Timing of Special Policy Area C Infrastructure..... 128
9.4 Public Consultation..... 128
9.4.1 Public Consultation Process..... 128
9.4.2 Public Comments and Project Team Responses..... 131
10. RECOMMENDATIONS..... 133
10.1 Summary of ROPA 9 Study Recommendations..... 133
10.2 Summary of Trinity Neighbourhood Study Recommendations..... 136
10.2.1 Phase 1 Solutions..... 136
10.2.2 Phase 2 Solutions..... 137
10.2.3 Closure Details..... 137
10.3 Summary of Special Policy Area 'C' Study Recommendations..... 140
10.4 Further Studies Required..... 142

List of Tables

Table 2-1: Official Plan Definitions of the Road Classes 26
Table 2-2: Storm Outlet Description of Study Area 46
Table 3-1: Rymal Road Secondary Plan Land Use 51
Table 3-2: Link Operations on Rymal Road – Existing Conditions (AM) 53
Table 3-3: Screenline Operations – Existing Conditions (AM) 53
Table 3-4: Goods Movement Network 54
Table 3-5: Background Growth 57
Table 3-6: Future Link Operations – without widening Rymal Road (2 travel Lanes) 58
Table 3-7: Future Road Link Operations–with widening of Rymal Road (4 travel lanes) 58
Table 3-8: Screenline Operations North of Rymal Road – Future Conditions (AM) 62
Table 3-9: 2011 Signalized Intersection Operations 63
Table 3-10: 2021 Signalized Intersection Operations 63
Table 3-11: Intersection Collisions Summary for Rymal Road (2001 to 2004) 68
Table 3-12: Road Segment Collisions Summary for Rymal Road (2001 to 2004) 69
Table 4-1: Comparison of Roadway Design Conditions 74
Table 4-2: Existing Traffic Demand vs Road Capacity in the Trinity Neighbourhood 75
Table 4-3: Average Daily Speed Distribution on Second Road West (Fairhaven to Shadetree) 76
Table 4-4: Average Midday Hour Speed Distribution on Second Road West (Fairhaven to Shadetree) 77
Table 4-5: Average Daily Speed Distribution on Second Road West (Fairhaven to Shadetree) 77
Table 4-6: Average Daily Speed Distribution on Upper Mount Albion (Highland to Paramount) 78
Table 4-7: Average Daily Speed Distribution on Upper Mount Albion (Rymal to Highland) 78
Table 4-8: PM Peak Hour Speed Distribution on Upper Mount Albion (Rymal to Highland) 79
Table 4-9: Intersection Collision Summary for Trinity Neighbourhood 79
Table 4-10: Road Segment Collision Summary for Trinity Neighbourhood (2001 to 2004) 80
Table 5-1: SPA'C Area Signalized Intersection Operations: 2012 87
Table 5-2: SPA'C Area Unsignalized Intersection Operations: 2012 Total 88
Table 5-3: Intersection Collisions Summary for SPA 'C' (2001 to 2004) 88
Table 5-4: Road Segment Collisions Summary for SPA 'C' (2001 to 2004) 89
Table 7-1: Evaluation of Planning Alternatives for ROPA 9 94
Table 8-1: Evaluation of Planning Alternatives for Trinity Neighbourhood 108
Table 9-1: Evaluation of Transportation Planning Alternatives – Special Policy Area 'C' 123
Table 10-1: Preferred Solutions for ROPA 9 Lands 134
Table 10-2: Preferred Solutions for Trinity Neighbourhood 138
Table 10-3: Preferred Solutions for Special Policy Area 'C'. 141

List of Exhibits

Exhibit 1-1: Study Area 5
Exhibit 1-2: Class Environmental Assessment Process 10
Exhibit 2-1: Existing Land Uses 17
Exhibit 2-2: Existing Built Heritage and Cultural Features 21
Exhibit 2-3: Natural Environment 23
Exhibit 2-4: Existing Road Network and Classifications 27
Exhibit 2-5: Existing Study Area Roads and Lane Configurations 29
Exhibit 2-6: Rymal Road Westbound (approaching Fletcher Road) 30
Exhibit 2-7: Rymal Road Westbound (approaching Swayze Road) 30
Exhibit 2-8: Trinity Church Road Northbound (approaching Rymal Road) 31
Exhibit 2-9: Fletcher Road Southbound (south of Rymal Road) 32
Exhibit 2-10: Regional Road 56 northbound (approaching Rymal Road) 33
Exhibit 2-11: Upper Mount Albion Road Northbound (north of Rymal Road) 34
Exhibit 2-12: Second Road West Northbound (north of Gatestone Drive) 35
Exhibit 2-13: Whitedeer Road Southbound (north of Rymal Road) 36
Exhibit 2-14: Highland Road Eastbound (between Pritchard Road and Upper Mount Albion Road) 37
Exhibit 2-15: Highland Road Eastbound (east of Winterberry Drive) 37
Exhibit 2-16: Highbury Drive Westbound (at Whitedeer Road) 38
Exhibit 2-17: Gatestone Drive Northbound (north of Highbury Drive) 39
Exhibit 2-18: Gatestone Drive Eastbound (east of Second Road West) 39
Exhibit 2-19: Stone Church Road Westbound (east of Pritchard Road) 40
Exhibit 2-20: Stone Church Road Eastbound (at Winterberry Drive) 40
Exhibit 2-21: Winterberry Drive Southbound (approaching Stone Church Road / Paramount Drive) 41
Exhibit 2-22: Paramount Drive Northbound (approaching Mud Street) 42
Exhibit 2-23: Existing Transit Network 44
Exhibit 2-24: Bicycle Network 45
Exhibit 2-25: Location of Pre-development Sub-Catchment Areas 48
Exhibit 2-26: Location of Post-development Sub-Catchment Areas 49
Exhibit 3-1: Route Alternatives 55
Exhibit 3-2: 2011 Turning Movement Forecasts – Rymal Road Corridor 60
Exhibit 3-3: 2021 Turning Movement Forecasts – Rymal Road Corridor 61
Exhibit 3-4: Future Road Network – Rymal Road Corridor 65
Exhibit 3-5: Proposed Accesses & Collector Roads 66
Exhibit 4-1: ROPA 9 Study Area (with identification of Trinity Neighbourhood) 71
Exhibit 5-1: 2012 Turning Movement Forecasts – Special Policy Area 'C' 86
Exhibit 7-1: Conceptual Alternative Transportation Solutions 100
Exhibit 7-2: New North-South Arterial Conceptual Alignment Options 101
Exhibit 8-1: New Collector Road Conceptual Alignment Options 115
Exhibit 9-1: Future Road Network – Special Policy Area 'C' 129

Appendices A and B – Volume 2 of 3 of this Report

Appendix A	**Agency Consultation**
Appendix B	**Public Consultation**
B.1	Public Notices
B.2	Public Information Centres Materials and Summary
B.3	Newsletters and Summary
B.4	Minutes of Stakeholder Committee Meetings
B.5	Other Public Correspondences

Appendices C to G – Volume 3 of 3 of this Report

Appendix C	**Rymal Road Secondary Plan**
Appendix D	**Study Reports**
D.1	Stage 1 Archaeological Assessment (June 2005) – Archaeological Services Inc.
D.2	Cultural Heritage Assessment (April 2005) – Unterman McPhail Associates
D.3	Natural Environment (June 2006) – LGL
D.4	Environmental Site Assessment (April 2006) – Water and Earth Sciences Associates
Appendix E	**Official Plan Road Network**
Appendix F	**Needs Assessment**
F.1	MRC Memo (June 13, 2005) – ROPA 9 traffic data
F.2	Detailed Level of Service Calculations – ROPA 9
F.3	MRC Memo (July 19, 2005) – Future network variations
Appendix F.4	Detailed Level of Service Calculations – SPA 'C'
Appendix G	**Collision Summary Diagram**

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Amendment No. 9 to the Region of Hamilton-Wentworth Official Plan (ROPA 9) re-designated approximately 190 hectares (470 acres) of land in the Rymal Road Secondary Planning Area to allow urban development. The subject lands are located on the south side of Rymal Road East (Highway No. 53), east of Trinity Church Road and north of the hydro corridor, in the former Township of Glanbrook. The Rymal Road Secondary Plan requires that all municipal services receive necessary approvals and financial commitment prior to development of the area. Several transportation, sewage works and waterworks improvements are required as a result of growth in the area, and require Class Environmental Assessment (EA) approval.

On August 13, 2003, the City of Hamilton Council approved the recommendation to initiate a Master Plan Class Environmental Assessment in accordance with Section A.2.7 of the Municipal Engineers Class Environmental Assessment (June 2000) for the Rymal Road Secondary Planning Area. This would include Environmental Assessment studies for infrastructure improvements to service the planning area, including all necessary transportation, water and wastewater (sewer) improvements. The Master Plan may also include new collector roads within the lands to be developed by draft plans of subdivision.

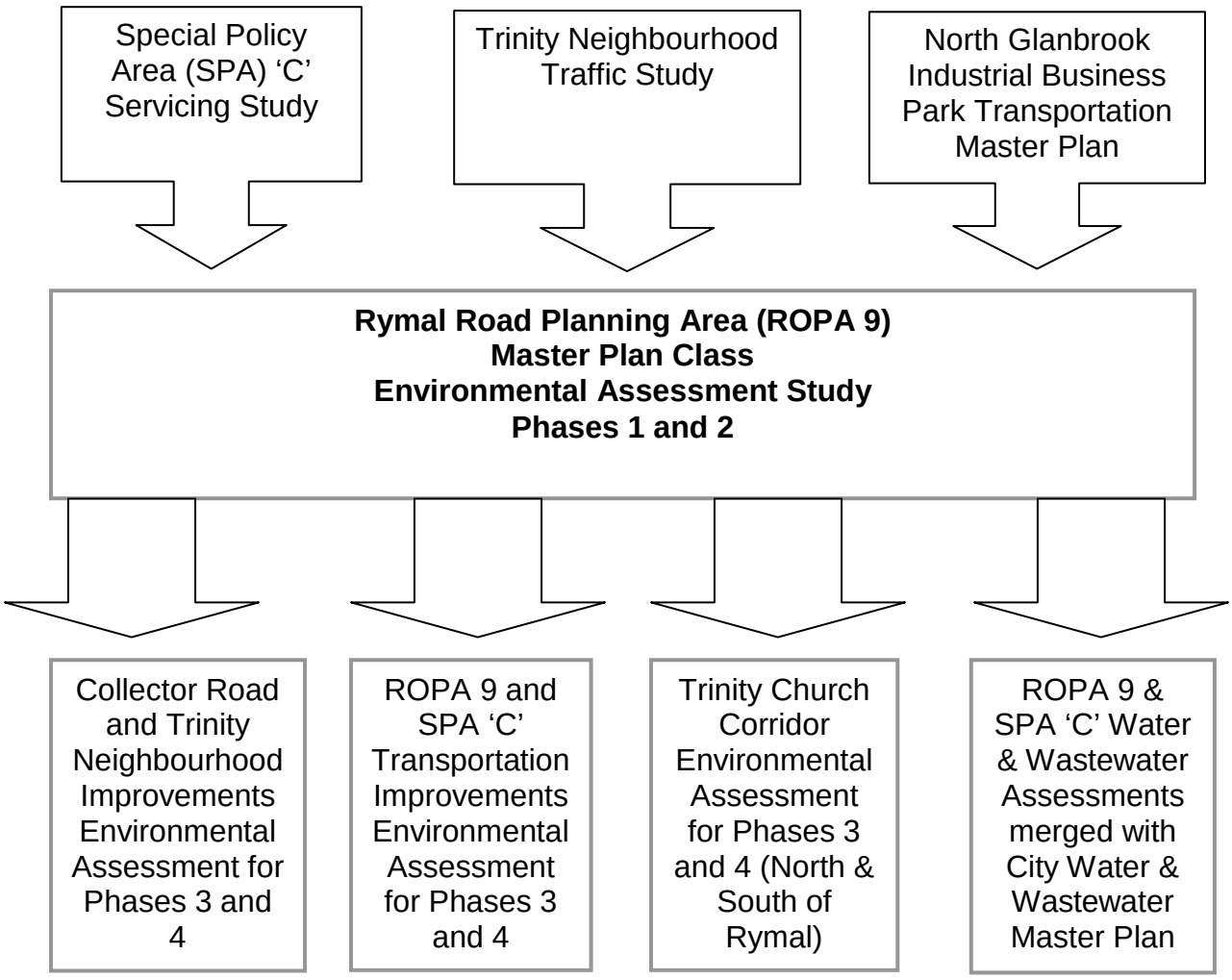
In October 2004, the City of Hamilton retained iTRANS Consulting Inc. to carry out the "ROPA 9" Lands Master Plan Class Environmental Assessment. Special Policy Area 'C', an area bounded by Winterberry Drive to the east, Paramount Drive to the south, the new Red Hill Creek / Mud Street interchange to the west, and the Lincoln Alexander Parkway-Mud Street West to the north, was subsequently included as part of the EA.

The iTRANS team consists of a number of multi-discipline leading specialists. These include municipal (water and wastewater), drainage and stormwater management, natural environment, noise, heritage, and archaeology. The Study will allow for a comprehensive assessment of the potential impacts of alternatives.

Completion of this Master Plan Class Environmental Assessment is part of the process to enable the City to address both the short-term and long-term infrastructure and service needs for the Rymal Road Planning Area, and for Special Area 'C'.

This report documents Phases 1 and 2 (as per the Municipal Class EA process) of the Master Plan Study. The report provides information on the background of the Study, infrastructure and service needs, problem statement, identification and evaluation of planning alternatives and selection of preferred planning alternatives.

A number of studies form part of Phases 1 and 2 of this Master Plan Class EA. The flow chart below provides a summary. Further discussion on the studies is provided in later sections of the report.



The identification and evaluation of design alternatives and the selection of preferred design alternatives will be documented in Phase 3 and 4 reports for the appropriate projects, as identified in the flow chart above, after these phases have been completed.

The water and wastewater assessments for ROPA 9, and for Special Policy Area 'C' will be included in the City Water and Wastewater Master Plan as part of the City's Growth Related Integrated Development Strategy (GRIDS) program.

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On June 6, 2001, the Ontario Municipal Board issued an interim decision approving Amendment No. 9 to the Region of Hamilton-Wentworth Official Plan (ROPA 9), to redesignate approximately 190 hectares (470 acres) of land from rural to urban, to allow residential and related urban development. On March 20, 2002 the Ontario Municipal Board proceeded to approve Amendment No. 36 to the Former Township of Glanbrook Official Plan, comprised of the Rymal Road Secondary Plan, to set out the detailed policy framework for development of the subject lands for urban purposes.

The Amendment is to allow future development of the Rymal Road Secondary Planning Area for a mix of land uses including approximately 3,590 residential units and 21.4 hectares (53 acres) of land for local, general and neighbourhood commercial uses. The Secondary Plan also designates land for stormwater management facilities and establishes a proposed collector road system. Secondary plan policies require that all municipal services to service the planning area, or specific phases of development, including transportation infrastructure, sanitary sewers, water, and stormwater management facilities, have received all necessary approvals and financial commitment prior to development.

As a first phase of development, the Secondary Plan allows for the construction of up to 500 residential units and 19,000 m^2 of general commercial space prior to the completion of certain condition precedents that are specifically set out in the Secondary Plan. Draft plans of subdivision have been approved accounting for the allotted 500 residential units (some 1,924 units have been approved). Subsequent to these draft plans of approvals, Council approved a minor increase of 50 units to the phasing cap of 500 units, for a total of 550 units which could be registered. A draft plan of subdivision has also been approved that would allow development of 19,000 m^2 of general commercial space.

Though more than the allowed 550 residential units have been draft approved, conditions have been imposed to ensure that no more than a maximum of 550 units could be registered prior to requirements in the Secondary Plan policy being fulfilled. As a result, no additional residential or general commercial development may occur within the Secondary Plan area until the required environmental assessments and respective capital budgets are finalized, funding mechanisms are approved for cost recoveries, and improvements are included in the capital budget, where required, or, until the required specific studies (e.g. individual traffic impact study, etc) have been approved, as per policy B.3.7.2.1 (d) and (e).

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A second development area was considered in the Master Plan Study given its proximity to ROPA 9. Special Policy Area 'C' (SPA 'C') is a proposed mixed use area including 4.7 ha of commercial and residential lands. The City has received applications for the development of these lands, which is also known as the Heritage Green Development. While the SPA 'C' application has not been approved at the time of this Master Plan Study, it was seen as prudent to identify the anticipated infrastructure needs as part of the Master Plan.

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The project is located within the City of Hamilton, and spans three municipalities - the former City of Stoney Creek, the former Township of Glanbrook and the former boundaries of the City of Hamilton. The project Study Area is shown in **Exhibit 1-1**.

The Rymal Road Planning Area extends along Rymal Road from Upper Centennial Parkway (Highway 20) – Regional Road 56 (Highway 56) to Trinity Church Road.

Special Policy Area 'C' is identified as the area bounded by Winterberry Drive to the east, Paramount Drive to the south, and the Lincoln Alexander Parkway – Mud Street West to the north, and the new Red Hill Creek / Mud Street interchange to the west.

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Based on previous studies, there were four anticipated transportation improvements, sewage pumping station, water booster station, and improvements to an existing reservoir and/or an existing pumping station that are necessary to service the ROPA 9 area that require approval under the Municipal Engineers Class Environmental Assessment (June 2000). In addition, there are new collector roads proposed which require Class Environmental Assessment approval. The goal is to facilitate development of lands within the Rymal Road Planning Area, and Special Policy Area 'C'. The Rymal Road Planning Area consists of approximately 190 hectares (470 acres) of land, to allow urban development including approximately 3,590 residential units and 21.4 hectares (53 acres) of commercial uses. The Special Policy Area 'C' area consists of approximately 20.5 hectares (51 acres) (with 12.5 hectares (31 acres) west of Upper Mount Albion Road, and 8.25 hectares (20 acres) east of Upper Mount Albion Road), to allow urban development including commercial and residential uses.

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The potential sewage pumping station, water booster station, and improvements to an existing reservoir and/or an existing pumping station will be included in the City-wide Water and Wastewater Master Plan as part of the City's Growth Related Integrated Development Strategy (GRIDS) program. These studies are being carried out as per the requirements of the Municipal Class Environmental Assessment process.

1.5.2 Study Objectives and Approach

The objectives of this project are:

1. To fulfil policy B.3.7.2.1(b) of the Rymal Road Secondary Plan, by finalizing the required Class Environmental Assessment studies and approvals for the transportation improvements.
2. To fulfil requirements of the municipal Class Environmental Assessment of completion of studies for changes to the road network.

The Class Environmental Assessment process allows the Master Plan approach to be used for a group of related works or undertakings. Council has approved the Master Plan approach for the group of infrastructure improvements, in accordance with Section A.2.7 of the Municipal Engineers Class Environmental Assessment process. In keeping with this approach, all of the transportation projects will be combined into one study. This will allow for a comprehensive plan including a single Master Plan Environmental Study Report, and a single decision by Council.

As a result, a **Master Plan Class Environmental Assessment** is being undertaken for these projects, as per the guidelines of the Municipal Engineers Association (MEA) ***Municipal Class Environmental Assessment***, June 2000. The Master Plan Class Environmental Assessment will follow Approach #2 as outlined in Appendix 4 of the MEA June 2000 document. This approach will fulfill Phases 1 and 2 of the Municipal Class EA process for all Schedule A, B and C projects.

1.6 Related Studies

1.6.1 Growth Related Integrated Development Strategy (GRIDS) Program

GRIDS is part of the City of Hamilton's Smart Growth strategy. It is a planning process that helps to determine where the future growth of the City will take place, over the next thirty or more years. This unique planning tool integrates land use, transportation, water, wastewater and stormwater planning into one project. For more information on GRIDS, please visit www.vision2020.hamilton.ca.

1.6.2 North Glanbrook Industrial Business Park Transportation Master Plan

The City of Hamilton is undertaking a Transportation Master Plan for the North Glanbrook Industrial Business Park. The North Glanbrook Industrial Business Park is defined by an area bounded by the north side of the Hydro Corridor on the north, Trinity Church Road on the east, Dickenson Road on the south, and beyond Nebo Road (in the vicinity of Upper Ottawa Street) on the west. The Study will identify a transportation network within the North Glanbrook Industrial Business Park Secondary Plan area to support planned future development. This Transportation Master Plan study is on-going. The first public information centre was held in June 2005, where the transportation needs and area road network were identified. These needs have been taken into consideration in this ROPA 9 Master Plan Study. A second public information centre was held in May 2006, which presented the preferred transportation network, details of the Schedule "B" projects, the future Study Areas for the Schedule "C" projects, and Dartnall Road Extension alignment alternatives (Schedule "C").

1.6.3 City Transportation Master Plan

The City of Hamilton is undertaking a City-wide Transportation Master Plan under its' GRIDS program. This City-wide Transportation Master Plan will develop policies and strategies for the City's transportation network over the next 30 years. It will also serve as a support document for the City's capital budgeting and its long-range strategic planning study, GRIDS. This City-wide Transportation Master Plan is ongoing.

As part of the City-wide Transportation Master Plan process, in November 2004, Hamilton City Council approved a new set of policies to guide the development of the transportation system. These polices are centered on four cornerstones:

- Promoting a strong and vibrant economy;
- Building liveable communities;
- Providing a balanced transportation network; and
- Improving public transport.

Any proposed transportation projects/network improvements required for the Rymal Road Planning Area will be consistent with these Transportation Policy Papers.

1.6.4 City Water and Wastewater Master Plan

The City of Hamilton is undertaking a City-wide Water and Wastewater Master Plan under the GRIDS program. This City-wide Water and Wastewater Master Plan will develop policies and strategies for the City's water and wastewater servicing over the next 30 years. This Study includes the lake based water distribution system, and combined sewer and sanitary sewer systems. It will also serve as a support document for

the City's capital budgeting and its long-range strategic planning GRIDS program. This City-wide Water and Wastewater Master Plan is ongoing.

Given the coordination of the water / wastewater component for the ROPA 9 lands and for Special Policy Area 'C' with the on-going GRIDS City Water and Wastewater Master Plan Study, it has become necessary to report the water / wastewater needs for ROPA 9 and for Special Policy Area 'C', in conjunction with completion of the City-wide Master Plan Study. This Study is anticipated to be completed in the fall of this year (2006).

1.7 Project Team

The ROPA 9 Environmental Assessment Study is being carried out by a consulting team led by iTRANS Consulting Inc., on behalf of the City of Hamilton. The Study team is outlined below:

City of Hamilton:

Christine Lee-Morrison (City Project Manager) – Environmental Planning
Mohan Philip – Strategic Planning
Leanne Ryan – Traffic Engineering & Operations
Mark Robinson – Plant Capital & Planning
Lisa De Angelis – Plant Capital & Planning

Consulting Team:

Ray Bacquie (Consultant Project Manager) – iTRANS Consulting
Liza Sheppard (Consultant Project Coordinator) – iTRANS Consulting
Suzette Shiu (Transportation Planning) – iTRANS Consulting
Perry Perera / Jerry Tan (Road Design) – iTRANS Consulting
Nathalie Baudais (Project Coordination) – iTRANS Consulting
Christine Hill (Water and Wastewater) – XCG
Li Wong (Stormwater Management) – XCG
Grant Kauffman (Natural Environment) – LGL
Richard Unterman (Cultural Heritage) – Unterman McPhail Associates
Robert Pihl (Archaeology) – Archaeological Services Inc.
John Emeljanow (Noise) – Valcoustics Canada Limited

1.8 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. The Environmental Assessment is being conducted in compliance with the guidelines for **Schedule "A", "B", and "C"** projects for the transportation infrastructure components. A brief description of each schedule follows:

A Schedule "A" project is limited in scale, has minimal adverse environmental effects, and includes a number of municipal maintenance and operational activities.

Schedule "A" projects are pre-approved and the proponent may proceed to implementation without following the full Class EA process.
A schedule "B" project has the potential for some adverse environmental effects. Schedule "B" projects generally include improvements and minor expansions to existing facilities, and the proponent is required to undertake a screening process.
A Schedule "C" project is one that generally entails the construction of new facilities and major expansions of existing facilities, for a total design and construction cost of greater than $1.5 million for roads. Schedule "C" projects have the potential for significant environmental impact.

This Study will complete the first two phases of the five-phase Class Environmental Assessment Process. **Exhibit 1-2** 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", "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.

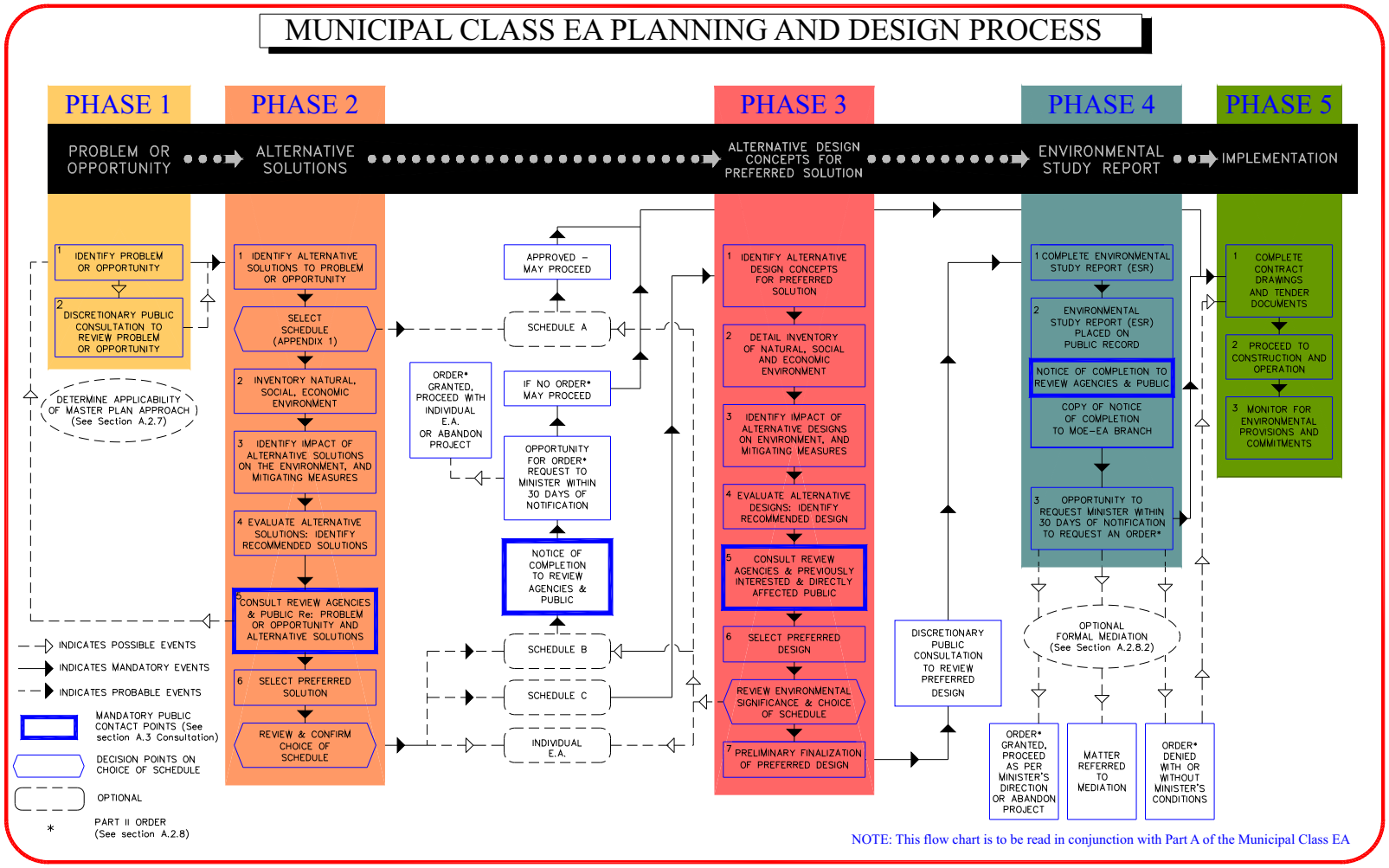
This Class EA Master Plan will fulfill all Phases 1 and 2 requirements for each project schedule.

The Class EA Master Plan will be used as input into further Class EA studies and ESR, which will finalize Phases 3 and 4 requirements for the Schedule "C" projects.

Phase 3 (**Schedule "C" projects)** – Examine alternative methods of implementing the preferred solution, based on the existing environment, public and review agency input, anticipated environmental effects, and methods of minimizing negative effects and maximizing positive effects.
Phase 4 (**Schedule "C" projects)** – Document in a Master Plan Environmental Study Report (ESR) a summary of the rationale, and the planning, design, and consultation process of the project.

Phase 5 (Schedule "A", "B" and "C" projects), which involves detail design, preparation of contract drawings and tender documents, construction, operation, and monitoring, is not part of this Study.

The Class EA Master Plan summarizes the work completed for the Study including: 1) background to the Study; 2) the problem statement 3) alternative solutions; 4) a description of the preferred alternative solutions and the rationale for the identification of the preferred alternative solutions; and 5) the public consultation process.



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Upon completion of the Class EA Master Plan, the report will be presented to City Council for approval. Upon Council approval, the Class EA Master Plan will be placed on public record for a minimum of 30-calendar days for review by the public and interested agencies/groups. At the time the report is filed, a Notice of Completion of the Class EA Master Plan will be advertised, to advise the public and other stakeholders where the Class EA Master Plan may be reviewed, and how to submit public comments. The submission of the Class EA Master Plan and Notice of Completion will apply to only the Schedule "B" projects resulting from the Study. Any Schedule "C" projects resulting from the Study will undergo Phases 3 and 4 of the Class EA process, resulting in an Environmental Study Report which will be filed upon completion of those additional studies. The Master Plan will provide the documentation of Phases 1 and 2 for the Schedule "C" projects, as shown in the flow chart in **Section 1.1**.

The Notice will also advise the public and other stakeholders of their right to request a Part II Order, and how and when such a request must be submitted. Under the Environmental Assessment Act, if it is felt after consulting with the proponent (the City of Hamilton) that serious environmental concerns remain unresolved, members of the public, interest groups, agencies, and other stakeholders may submit a written request to the Minister of the Environment to require the proponent to comply with Part II of the Environmental Assessment Act before proceeding with the proposed undertaking. Part II of the EA Act addresses Individual Environmental Assessments. Any Part II Order request must be made with respect to specific project(s) subject to the Class EA. A Part II Order Request cannot be submitted with respect to the Master Plan as a whole.

The request for a Part II Order must be copied to the proponent at the same time it is submitted to the Minister. Written requests for a Part II Order must be submitted to the Minister within the 30-calendar day review period, after the proponent has filed the Master Plan ESR and has issued the Notice of Completion of the Study. The decision to issue a Part II Order rests with the Minister of the Environment. Requests after the minimum 30-calendar day review period will not be considered by the Minister of the Environment.

1.9 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.

Federal Agencies
- Canadian Wildlife Services
- Canadian Environmental Assessment Agency
- Department of Fisheries and Oceans
- Environment Canada
- Parks Canada

Provincial Agencies
- Ontario Realty Corporation
- Ontario Provincial Police - Burlington Detachment
- Ministry of Agriculture, Food & Rural Affairs
- Ministry of Culture / Ministry of Tourism and Recreation
- Ministry of Community and Social Services
- Heritage and Libraries Branch, Ministry of Culture
- Ministry of Natural Resources
- Ministry of the Environment
- Ministry of Transportation
- Ministry of Health and Long Term Care
- Niagara Escarpment Commission

City of Hamilton Departments
- Corporate Services
- Economic Development
- Hamilton Emergency Services
- Hamilton Police Services
- Mayor's Office / Council
- Planning and Development
- Public Health and Community Services
- Public Works

Conservation Authorities
- Hamilton Conservation Authority
- Niagara Peninsula Conservation Authority

Local Groups / Stakeholders
- Citizens for a Sustainable Community
- Hamilton Chamber of Commerce
- Hamilton-Wentworth Catholic School Board
- Hamilton-Wentworth District School Board
- Local Architectural Conservation Advisory Committee
- Ontario Archaeological Society
- Canadian Center for Inland Waters - Remedial Action Plan (RAP)
- Resident's Group: Upper Mount Albion Road

Developers and their Consultants
- SmartCentres
- Counterpoint Engineering
- Multi-Area Developments Inc.
- A.J. Clarke and Associates Ltd.
- LEA Consulting Ltd.
- Loblaw Properties Limited
- Delcan Corporation
- J. Beume Real Estate Ltd.
- Mr. Joseph Maziarz
- Mr. Jack Pelech
- Mr. Nimigan
- Silvestri Investments
- BA Consulting Group Ltd.

Utilities

Bell Canada
Cogeco Cable Inc.
Enbridge Pipelines Inc.
Hydro One
Hamilton Hydro Incorporated
Hamilton Community Energy
Hamilton Utilities Corporation
Fibrewired Network - Hamilton
Source Cable Limited
Ontario Power Generation
Union Gas Limited
Trans Northern Pipeline
TransCanada Pipelines Limited
Mountain Cablevision
Allstream (formerly ATT & Unitel)
Canadian National Railway
Canadian National Railway - Engineering & Environmental Services
Canadian Pacific Railway
Imperial Oil Products & Chemical Division
Sun Canadian Pipeline

Correspondences with agencies are provided in **Appendix A**.

1.10 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.

Stakeholder and Technical Committee Meetings – A Stakeholder and Technical Committee was established as part of this Study. Three 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 prior to the newsletter mailout for Special Policy Area 'C'. The stakeholders consisted of representatives of local groups and businesses, and developers. City of Hamilton staff and consultants comprised the technical representatives. Additional Stakeholder and Technical Committee Meetings will be held prior to finalizing the Environmental Study Reports for the Schedule "C" projects resulting from the Class EA Master Plan Study.

Developers and their Consultants – A list of developers and their consultants was prepared at the project initiation. The opportunity for these parties to participate directly in the project was provided through the distribution of a Study Commencement notice. Further opportunity was provided as part of the Stakeholder

and Technical Committee Meetings and through announcement of two formal Public Information Centres (PICs).

Public Information Centres (PICs) – Two formal meetings were held during the Study. They consisted of a public open house with display panels. A brief presentation was made at each of the PICs. 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.

Newsletters – Two newsletters were sent out to those on the mailing lists during the course of the Study. The first newsletter was sent out prior to the notice of the second PIC to update the public on the Study progress. The second newsletter was sent out after the second PIC to obtain public input on the findings for Special Policy Area 'C'.

Newspaper advertisements – At least one and a half 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 in one edition of each of the following Brabant Newspapers:, ***Mountain News, Glanbrook Gazette*** 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 contact names, telephone numbers, and addresses.

Additional notification – At least one and a half 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.

Project 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 second PIC, a project website was launched to provide the public with an additional means to obtain information about the project. The project website was advertised in the second PIC notice and display materials, and also in the second newsletter.

Further details on the public consultation process are documented in other sections of the report. A summary of the Public Meetings is provided in **Appendix B**.

Major events in the public consultation process are summarized below:

Study initiation	October 6, 2004
Notification letters to utility companies and external agencies, area businesses, and residents	March 4, 2005
Newspaper advertisement of Study Commencement	March 4, 2005
Meeting No.1 with Stakeholder and Technical Committee	September 19, 2005
Notification letters to utility companies, external agencies, area businesses, residents and other stakeholders for Public Information Centre #1	September 14, 2005
Newspaper advertisement of Public Information Centre #1	September 16 & 23, 2005
1st Public Information Centre	October 3, 2005
Newsletter to residents and other stakeholders	December 20, 2005
Notification letters to utility companies, external agencies, area businesses, residents and other stakeholders for Public Information Centre #2	January 13, 2006
Newspaper advertisement of Public Information Centre #2	January 13 & January 20, 2006
2nd Public Information Centre	January 26, 2006
Newsletter to residents and other stakeholders	April 21, 2006
Meeting No.2 with Stakeholder and Technical Committee	April 27, 2006
City of Hamilton Council	June 14, 2006
Notice of Study Completion (Phases 1 and 2)	June 16 & June 23, 2006

2. EXISTING STUDY AREA CONDITIONS

This section describes the features of the existing socio-economic, cultural, and natural environment, and the transportation infrastructure in the Study Area.

2.1 Socio-Economic Conditions

2.1.1 Existing Land Use

The existing land uses in the Study Area are shown in **Exhibit 2-1**. Land use in the Study Area is predominantly agricultural and residential; comprising of agricultural fields, residential dwellings and businesses. Active development is occurring within the Study Area.

The land uses along the north side of Rymal Road consist of residential and commercial uses, with fewer residential dwellings on the south side of Rymal Road. Commercial uses include an existing retail commercial plaza, located in the northwest quadrant of the Rymal Road / Upper Centennial Parkway intersection. A pocket of industrial uses is located within the Rymal Road / Swayze Road / Upper Centennial Parkway boundary. The Rymal Road Community Church is located at 1957 Rymal Road opposite Fletcher Road. Active development is occurring on the south side of Rymal Road in the vicinity of Fletcher Road.

Several residential dwellings are also located along the Trinity Church Road corridor, particularly on the west side of the roadway. The Trinity United Church and Cemetery is located along this corridor at 10 Trinity Church Road.

Existing land uses in Special Policy Area ‘C’ are comprised of residential and agricultural uses. Residences are located on both sides of Upper Mount Albion Road that traverses through Special Policy Area ‘C’

2.1.2 Designated Land Use

The lands to the north of Rymal Road between Trinity Church Road and Upper Centennial Parkway fall under the jurisdiction of the former City of Stoney Creek. The City of Stoney Creek Official Plan designates a large portion of these lands to the north of Rymal Road as residential zoning. Other portions of the lands north of Rymal Road are designated as institutional, shopping centre, highway commercial, general commercial, open space, and service commercial.

The lands south of Rymal Road between Trinity Church Road and Upper Centennial Parkway are within the former Township of Glanbrook jurisdiction. The Rymal Road Secondary Plan area (Amendment No. 36 to the Official Plan of the former Township of Glanbrook) is bound by Rymal Road to the north, Trinity Church Road to the west, the hydro corridor to the south and Upper Centennial Parkway / Regional Road 56 to the

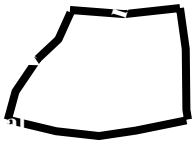


Exhibit 2-1
Existing Land Uses

east. The land use designations for the Rymal Road Secondary Plan Area are residential, institutional, and commercial. The Rymal Road Secondary Plan is attached in **Appendix C**.

The west side of Trinity Church Road and to the north of the Hydro corridor is in the jurisdiction of the former boundaries of the City of Hamilton. These lands are designated for industrial, commercial, and open space uses.

2.1.3 Official Plan Policies

The former Region of Hamilton-Wentworth Official Plan states that the movement of people and goods is vital to the prosperity of the Region. An integrated transportation system (combining transit, vehicles, bicycles, air and water transport and pedestrian movements) which stresses easy pedestrian, transit and vehicular access to all basic needs and supports a sustainable development pattern, is required.

Policies based on the Official Plans of the local municipalities vary within the Study Area. The following municipal policies apply:

Former City of Stoney Creek	Á To provide a safe and efficient Road Network that will accommodate anticipated traffic volumes at a reasonable level of service, fully integrated with the City of Hamilton, Region of Hamilton-Wentworth and Province of Ontario Road Systems.
Former Township of Glanbrook	Á The movement of people and goods is an important consideration in the planning for the future development of the Township, within both the local and regional context. The transportation policies and the road system are intended to facilitate the satisfactory movement of both people and goods within the Township of Glanbrook and to ensure the orderly movement of through traffic.
City of Hamilton	Á The general intent of this Plan is to ensure the development and maintenance of an effective circulation and movement system that will maximize accessibility in all parts of the City and reduce conflicts between pedestrian and vehicular circulation. The circulation and movement system will consist of a road network, public transit, parking, pedestrian and bicycle circulation, and rail, marine and air services which will link the various land use designations in the Plan.

2.1.4 Archaeology and Cultural Heritage

2.1.4.1 Archaeology

Archaeological Services Inc. (ASI) conducted a Stage 1 archaeological resource assessment as part of this Study. Three sources of information were consulted: the site record forms for registered sites housed at the Ontario Ministry of Culture; published and unpublished documentary sources; and the files of ASI. A field review was also conducted on March 13, 2005. This section provides a summary of the findings to date.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.) maintained by the Ontario Ministry of Culture. According to the O.A.S.D., numerous archaeological assessments have been conducted within and in the vicinity of the Study Area. These have produced at least 55 archaeological sites within 2 km of the Study Area. These sites reflect a lengthy occupation of the area from the Paleoindian Period (ca. 9,000-7,000 B.C.) to historic times. Most of the pre-contact sites are small campsites or findspots, but also includes one probable lithic workshop. The Euro-Canadian sites are usually farmsteads (or isolated middens), but one tavern and the community of Mount Albion Crossroads are also listed. While none of the registered sites are located within or immediately adjacent to the Study Area, 12 are located within Special Policy Area “C” (Leslie 1977; New Direction Archaeology 2003).

Potable water is the single most important resource necessary for any extended human occupation or settlement. Distance from water has been one of the most commonly used variables for predictive modeling of site location. The Ontario Ministry of Culture Primer on Archaeology, Land Use Planning and Development in Ontario (1997: 12-13) stipulates that undisturbed lands within 300 m of a primary water source, and undisturbed lands within 200 m of a secondary water source, are considered to exhibit archaeological potential.

The Study Area is intersected by various tributaries of Sinkhole Creek and Red Hill Creek, and these watercourses and springs were probably important foci for pre-contact settlement. In addition, many of the streams feed through a complex of sinkholes and springs which occur as part of the Eramosa Karst Area of Natural and Scientific Interest (Buck et al 2002). The surrounding feeder area also exhibits karst features. For example, springs are known to occur in the vicinity of Trinity Church Road: one south of the cemetery and another north of Rymal Road (MNR website). These aquatic features offer an additional attraction for prehistoric and historic activity in the area (ASI 2002).

Therefore, depending on the degree of previous land disturbance, it may be concluded that there is potential for the recovery of pre-contact archaeological remains within the Study Area. Local nineteenth century land use suggests that the Study Area also has potential for the identification of historical archaeological sites.

A field review confirmed the lack of topographic relief over most of the eastern portion of the Study Area that would make better-drained locations and springs more attractive. While most of the existing road rights-of-way are disturbed, development has been minimal and there is potential for sites on the adjacent agricultural lands. On the scattered residential properties, disturbance due to grading and landscaping is likely. A number of the structures indicated on the historic atlas mapping probably correspond to extant structures. Two cemeteries are also noted within the Study Area. One on the west side of Trinity Church Road south of Rymal Road (Trinity United Church and Cemetery – 10 Trinity Church Road), and the other on the north side of Rymal Road east of Fletcher Road (Rymal Road Community Church – 1957 Rymal Road).

Special Area 'C' includes lands on either side of Upper Mount Albion Road between the Lincoln Alexander Parkway and Stone Church Road. Single-family residences line both sides of Upper Mount Albion Road with the lands behind them in active cultivation. A section of the lands west of Upper Mount Albion Road were subject to archaeological assessment, and two sites were located, thus demonstrating the potential for sites in this vicinity (Leslie 1977).

Further details can be found in the Stage 1 Archaeological Assessment report, provided in **Appendix D.1**.

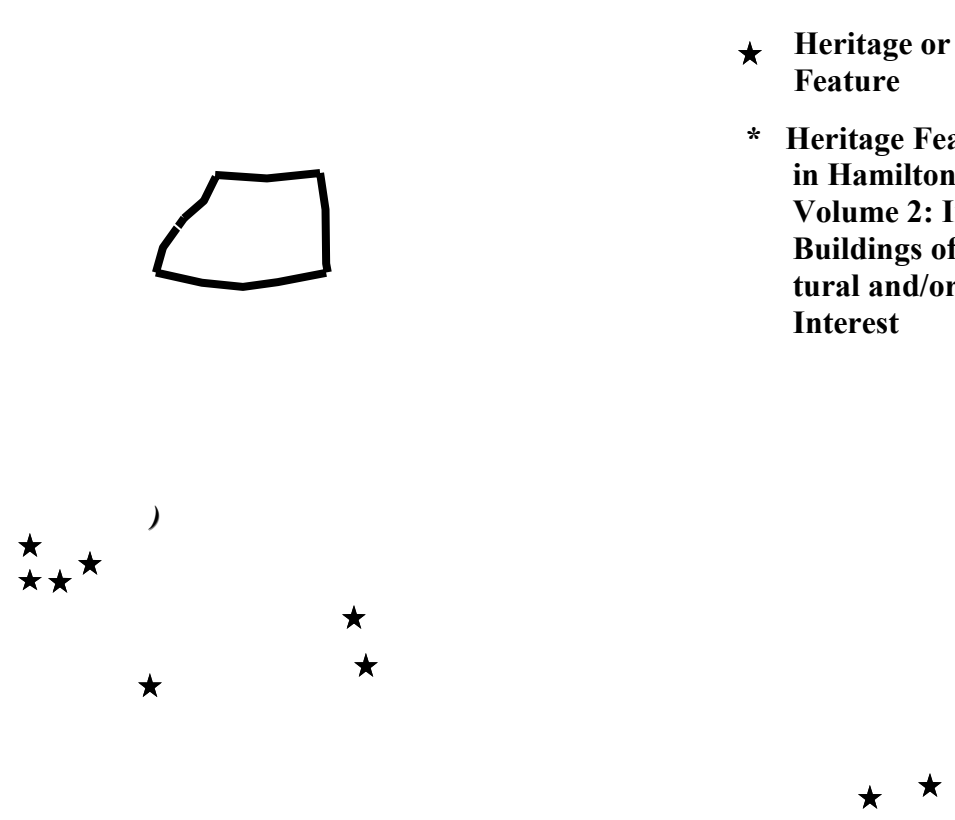
2.1.4.2 Cultural Heritage

Unterman McPhail Associates conducted a cultural heritage assessment as part of this Study. This section provides a summary of the findings to date. Identified existing cultural and built heritage features are shown in **Exhibit 2-2**.

A field survey of the Study Area was undertaken on March 10, 2005. A number of residences identified as built heritage features and a farm complex of 40 years or older are located along Rymal Road East within the Study Area. The intersection of Trinity Church Road is also identified as sensitive to change.

The historical community of Elfrida was located on the township line between Binbrook and Saltfleet Townships, to the west of the intersection of the former Highways 20, 53 and 56. Originally known as Swayze's Corners and then Clinesville, it was renamed Elfrida in 1865 when its post office was opened. Elfrida had two hotels, general store and Quance's mill south of the settlement on Highway 20 in the middle-to-late 1800s. A Methodist church was built on the Saltfleet Township side of the township road in 1856 and rebuilt in 1881. An Orange Hall stood across the road opposite the church. It later became the head office for the Binbrook and Saltfleet Fire Insurance Company. Only the former church building and the residence located at No. 2190 Rymal Road East remain of the community.

The identified built heritage features and cultural heritage landscapes have been assessed for heritage significance with the City of Hamilton. All identified built heritage features and cultural heritage landscapes have a local interest designation.



Note: BHF = Built Heritage Feature
CHL = Cultural Heritage Landscapes

Exhibit 2-2
Existing Built Heritage and Cultural Features

Two buildings identified within the Study Area are listed in the Hamilton's Heritage Volume 2: Inventory of Buildings of Architectural and/or Historical Interest, namely, No. 10 Trinity Church Road (Church) and No. 31 Trinity Church Road (Residence).

Further details on the Study Area build heritage and cultural landscape can be found in the cultural heritage assessment report, provided in **Appendix D.2**.

2.1.5 Noise

A noise assessment for the Study Area will be undertaken to determine the impacts on noise sensitive areas adjacent to the project area. Land uses designated as noise sensitive by the MOE include buildings that have outdoor recreational / living areas associated with residential units. This includes residential developments, hospitals, nursing / retirement homes, schools, daycare centres, etc. The definition excludes buildings such as vacant residential buildings, commercial, offices and light industrial establishments. The noise assessment will be documented in the ROPA 9 Schedule 'C' projects Phases 3 and 4 reports.

2.2 Natural Environment

LGL Limited undertook a natural sciences investigation of the Study Area as part of this Study. A field reconnaissance was undertaken on June 2 and 14, 2005. **Exhibit 2-3** shows the natural features within the Study Area. A summary of the findings is provided below. Further details can be found in the LGL Natural Sciences report, found in **Appendix D.3**.

2.2.1 Physiography and Soils

The Study Area is situated atop the Niagara Escarpment within the Haldimand Clay Plain physio-graphic region of southern Ontario. At one time, Glacial Lake Warren covered this area and deposited clay over much of the underlying till (Chapman and Putnam 1984: 156-157). The loam and silt soils are generally well drained in the west portion of the corridor, with the exception of the low area north of the intersection of Trinity Church Road and Rymal Road. To the north of the low area the land rises sharply to a high point between Stone Church Road and Highland Road. To the east along Rymal Road, soils are imperfectly drained and there is little topographic relief (Presant et al 1965).

2.2.2 Designated Natural Areas

No Environmentally Significant Areas (ESAs) or Evaluated Wetlands are located within the Study Area. The Red Hill Valley ESA is located along the main branch of Red Hill Creek to the west of the Study Area.

The Eramosa Karst Area of Natural and Scientific Interest (ANSI) spans Rymal Road between Upper Mount Albion Road and Second Road West in the Study Area.

Exhibit 2-3
Natural Environment

3.2 Existing Conditions

3.2.1 Traffic Data

Traffic volume counts on Rymal Road were commissioned by the City of Hamilton during the week of April 25th to April 29th, 2005. Our initial review of the counts indicated that the counts were significantly lower than counts from previous years.

McCormick Rankin (MRC) conducted the travel demand modelling for the area and was the City's consultant for the data analysis. As noted in MRC's memo on *Clarification of RRPA traffic data memo dated June 13, 2005* (refer to **Appendix F.1**), Rymal Road was undergoing construction for watermain replacement between Upper Mount Albion Road and Dartnall Road during the count period. The construction, which was specifically in the vicinity of Glover Road during the count period, also impacted traffic at Dartnall Road, Pritchard Road and Trinity Church Road. The construction activity would have influenced general traffic patterns, leading to lower vehicle volumes on Rymal Road than in previous years' counts.

Therefore, the existing traffic counts were synthesized by MRC to reflect more typical traffic volumes on Rymal Road based on historical traffic growth and patterns.

3.2.2 Traffic Capacity Analysis

Table 3-2 presents the existing link traffic volumes for the AM peak hour on Rymal Road. **Table 3-3** presents the screenline volumes north of Rymal Road. For analysis purposes, a conservative link capacity of 900 vph per lane (rural arterial road) was applied to the existing link volume to assess a volume to capacity ratio for Rymal Road. For the screenline analysis, a link capacity of 500 vph per lane was applied to collector roads and 300 vph per lane was applied to Upper Mount Albion Road which is designated a local road. Upper Mount Albion is currently providing an important role and function as a north-south link between Rymal Road and Stone Church Road. As such, it is operating more as an arterial roadway function, although it is designated a local road.

Table 3-2: Link Operations on Rymal Road – Existing Conditions (AM)

Rymal Road	Eastbound		Westbound	
	vph	v/c[1]	vph	v/c[1]
Trinity Church Road to Upper Mount Albion Road	625	0.69	655	0.73
Upper Mount Albion Road to Fletcher Road	605	0.67	840	**0.93**
Fletcher Road to Second Road	615	0.68	820	**0.91**
Second Road to Whitedeer Road	520	0.58	790	0.88
Whitedeer Road to Upper Centennial Parkway	510	0.57	750	0.83

1. assumed link capacity of 900 vphpl for Rymal Road

Table 3-3: Screenline Operations – Existing Conditions (AM)

Screenline	Northbound		Southbound	
	vph	v/c[1]	vph	v/c[1]
North of Rymal Road				
Upper Mount Albion Road (local)	287	0.96	108	0.36
Second Road, south of Gatestone (collector)	32	0.06	73	0.15
Whitedeer Road (collector)	83	0.17	125	0.25
Upper Centennial Parkway (4-lane arterial)	756	0.42	561	0.31
Screenline Total	**1158**	**0.37**	**867**	**0.28**

1. assumed link capacity of 900 vphpl for arterial, 500 vphpl for collector, and 300 vphpl for local roads.

The maximum existing v/c ratio on Rymal Road is 0.93 for the westbound direction during the AM peak hour. This indicates that Rymal Road is currently operating close to capacity within the Study Area. Additional capacity would be required to accommodate anticipated background traffic growth and the development of the ROPA 9 lands.

The north-south roads are currently operating below the typical capacity of rural arterial and collector roads. However, given the local designation of Upper Mount Albion Road, existing volumes are approaching the typical capacity of a local road.

3.2.3 Route Alternatives

Given the existing road network and the committed Red Hill Valley Parkway, route alternatives were plotted for traffic that would originate from the ROPA 9 area destined

to the North and West (based on most direct routing). **Exhibit 3-1** illustrates the route alternatives. As shown in **Exhibit 3-1**, there are a limited number of North-South connections.

3.2.4 Truck Volumes

A review of the 2005 and historical counts on Rymal Road indicated that truck volumes account for 6-10% of the AM peak hour peak direction traffic and approximately 3% of the PM peak hour traffic. Over the 7-hour period (3-hour AM, 1-hour midday and 3-hour PM), the average truck percentage on Rymal Road is approximately 8%.

It was noted that during the AM peak hour there is an additional 1 to 2% bus traffic along Rymal Road which may be attributed to the school bus depot located on Swayze Road.

The City of Hamilton recognizes the importance of goods movement through the following policy for the Transportation Master Plan Policy Papers:

Maintain, protect and enhance the existing goods movement network in Hamilton to support the economic development strategy.

A description of the goods movement network in the Study Area is included in **Table 3-4**.

Table 3-4: Goods Movement Network

Designated Heavy Traffic Road	Goods Movement Network Connections	Characteristics
Rymal Road	City of Hamilton's eastern border to Upper James Street and further west	Provides good east-west connectivity and the geometry of the roadway is suitable for this type of use.
Upper Centennial Parkway - Regional Road 56	QEW to the City of Hamilton's southern border	Provides good north-south connectivity and the geometry of the roadway is suitable for this type of use.
Upper Mount Albion Road	Rymal Road to Stone Church Road	Does not provide good connectivity due to lack of connection to Mud Street/Lincoln Alexander Parkway. The geometry of the roadway is not desirable for this type of use because of the rolling vertical geometry, narrow pavement width and a lack of shoulders.
Stone Church Road	Upper Mount Albion Road to Upper James Street	Provides good east-west connectivity and the geometry of the roadway is suitable for this type of use.

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3.2.5 Transit Service

The City of Hamilton recognizes the importance of transit service through the following policies for the Transportation Master Plan Policy Papers:

Provide a more balanced transportation system where walking, cycling, transit and shred-ride transportation are attractive and competitive to travel by private automobiles.

Increase opportunities for all residents and employees of the City of Hamilton to have access to the transit system.

The existing transit service in the Study Area does not provide connections to the Rymal Road Planning Area. The existing routes service the Trinity Neighbourhood and the area surrounding the Special Policy Area 'C' lands.

3.2.6 Pedestrian and Bicycle Network

The City of Hamilton recognizes the importance of walking and cycling through several of the policies for the Transportation Master Plan Policy Papers, such as:

Provide a more balanced transportation system where walking, cycling, transit and shred-ride transportation are attractive and competitive to travel by private automobiles.

Continue to improve and expand the existing network of pedestrian and bicycle infrastructure.

The Policy Papers also recognize that these uses should be considered in the establishment of the right-of way, and in the design of new roads and the reconstruction of existing roads.

There is a lack of sidewalks in the Study Area. Rymal Road and Regional Road 56 do not have any sidewalks throughout the Study Area.

3.3 Future Conditions

MRC collected existing (2005) traffic data on Rymal Road and forecasted future traffic demands within the Study Area using the City's EMME/2 model. The needs assessment in this Study is based on the traffic forecasts provided by MRC in their memo dated June 13, 2005 (which is included in **Appendix F.1**) and modifications to reflect growth within Binbrook.

Various network scenarios were modelled for the AM peak hour. Four main scenarios were evaluated for the planning horizon years of 2011 and 2021. The scenarios included the following:

- With and without the ROPA 9 development on the existing road network
- With and without the ROPA 9 development on the future road network

The detailed assumptions regarding the traffic forecasts are provided in **Appendix F.1**.

3.3.1 Background Traffic Growth

Background traffic growth was developed based on a review of the City's travel demand forecast volumes. The anticipated growth rates on Rymal Road, without any development of the ROPA 9 planning area, are summarized in **Table 3-5**.

Table 3-5: Background Growth

Period	Growth per annum	Average Annual Growth
2005-2011	2.6%	1.2%
2011-2021	0.3%	

3.3.2 Planned Road Improvements

The Red Hill Valley Parkway (previously known as the Red Hill Creek Expressway) is a four-lane north-south facility connecting the Lincoln Alexander Parkway to the QEW. The facility is currently under construction and is scheduled to open in the fall of 2007.

3.3.3 Future Link / Midblock Analysis

With projected traffic volumes, link capacity analysis was undertaken on Rymal Road throughout the corridor based on the existing conditions in the Rymal Road corridor. **Table 3-6** indicates the anticipated traffic conditions with planned road improvements including the construction of the Red Hill Valley Parkway. **Table 3-6** indicates that by 2011 peak hour volumes will exceed demand of a 2 or 3 lane facility on Rymal Road.

Table 3-6: Future Link Operations – without widening Rymal Road (2 travel Lanes)

Rymal Road	2011				2021			
	Eastbound		Westbound		Eastbound		Westbound	
	vph	v/c[1]	vph	v/c[1]	vph	v/c[1]	vph	v/c[1]
Trinity Church Road to Upper Mount Albion Road	1025		1385		1075		1440	
Upper Mount Albion Road to Fletcher Road	1025		1395		1080		1465	
Fletcher Road to Second Road	940		1205		980		1275	
Second Road to Whitedeer Road	950		1035		990		1100	
Whitedeer Road to Upper Centennial Parkway	725	0.81	905		755	0.84	970	

1. assumed link capacity of 900 vphpl

To assess future operating conditions with improvements in the Rymal Road corridor, **Table 3-7** summarizes capacity analysis associated with improvements equivalent to one additional lane per direction on Rymal Road. The analysis indicates that sufficient capacity will be available up to and beyond 2021, with the additional lanes.

Table 3-7: Future Road Link Operations – with widening of Rymal Road (4 travel lanes)

Rymal Road	2011				2021			
	Eastbound		Westbound		Eastbound		Westbound	
	vph	v/c[1]	vph	v/c[1]	vph	v/c[1]	vph	v/c[1]
Trinity Church Road to Upper Mount Albion Road	1025	0.57	1385	0.77	1075	0.60	1440	0.80
Upper Mount Albion Road to Fletcher Road	1025	0.57	1395	0.78	1080	0.60	1465	0.81
Fletcher Road to Second Road	940	0.52	1205	0.67	980	0.55	1275	0.71
Second Road to Whitedeer Road	950	0.53	1035	0.58	990	0.55	1100	0.61
Whitedeer Road to Upper Centennial Parkway	725	0.40	905	0.50	755	0.42	970	0.54

1. assumed link capacity of 900 vphpl for Rymal Road

3.3.4 Screenline Analysis

Screenline analysis was undertaken to assess the adequacy and appropriateness of the operating conditions for north-south components of the transportation network. Arterial road links were assessed in terms of their carrying capacity, and local / collector roads were assessed in terms of their functional capacity. **Table 3-8** summarizes the results.

An extension of Trinity Church Road north of Rymal Road as a 4-lane arterial would be reasonably well utilized with an estimated 1,300 vph in 2011 and 1,650 vph in 2021.

The forecasted volumes for Upper Mount Albion Road will exceed the typical threshold of a local road. If Upper Mount Albion Road was to be closed, it is anticipated that most traffic would divert to the adjacent Trinity Church Road extension. A 4-lane extension of Trinity Church Road north of Rymal Road would have sufficient capacity to accommodate the additional traffic demand (maximum link v/c of 0.68).

3.3.5 Future Intersection Operations

The operations of the Study intersections were analyzed for the future horizon years using the HCM analysis methodology in Synchro v6. A minimum four-lane cross-section was assumed on Rymal Road based on the results of the link/mid-block analysis, with appropriate turn lanes at the intersections. Forecasted turning movement volumes are presented in **Exhibit 3-2** and **Exhibit 3-3** for the 2011 and 2021 horizons.

The existing major unsignalized intersections within the Study Area are assumed to be signalized or roundabouts under future conditions based on the forecasted volumes and the widening of Rymal Road. Signal timings and phasings were optimized, with cycle lengths from 60 to 120 seconds, to best accommodate the traffic volumes. The phasing of the existing signalized Rymal Road / Upper Centennial Parkway intersection was retained for future year analyses.

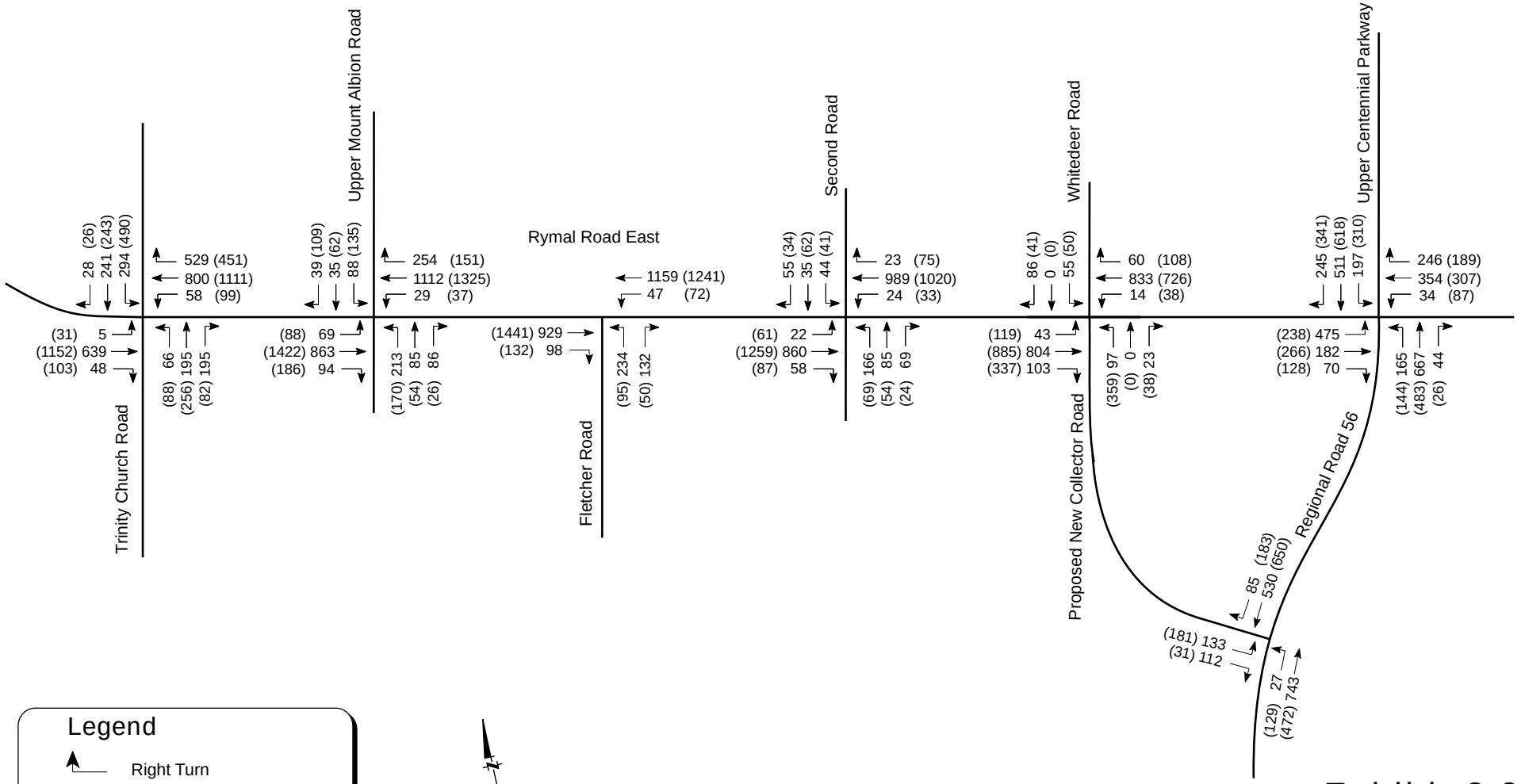


Exhibit 3-2
2011 Turning Movement Forecasts
Rymal Road Corridor

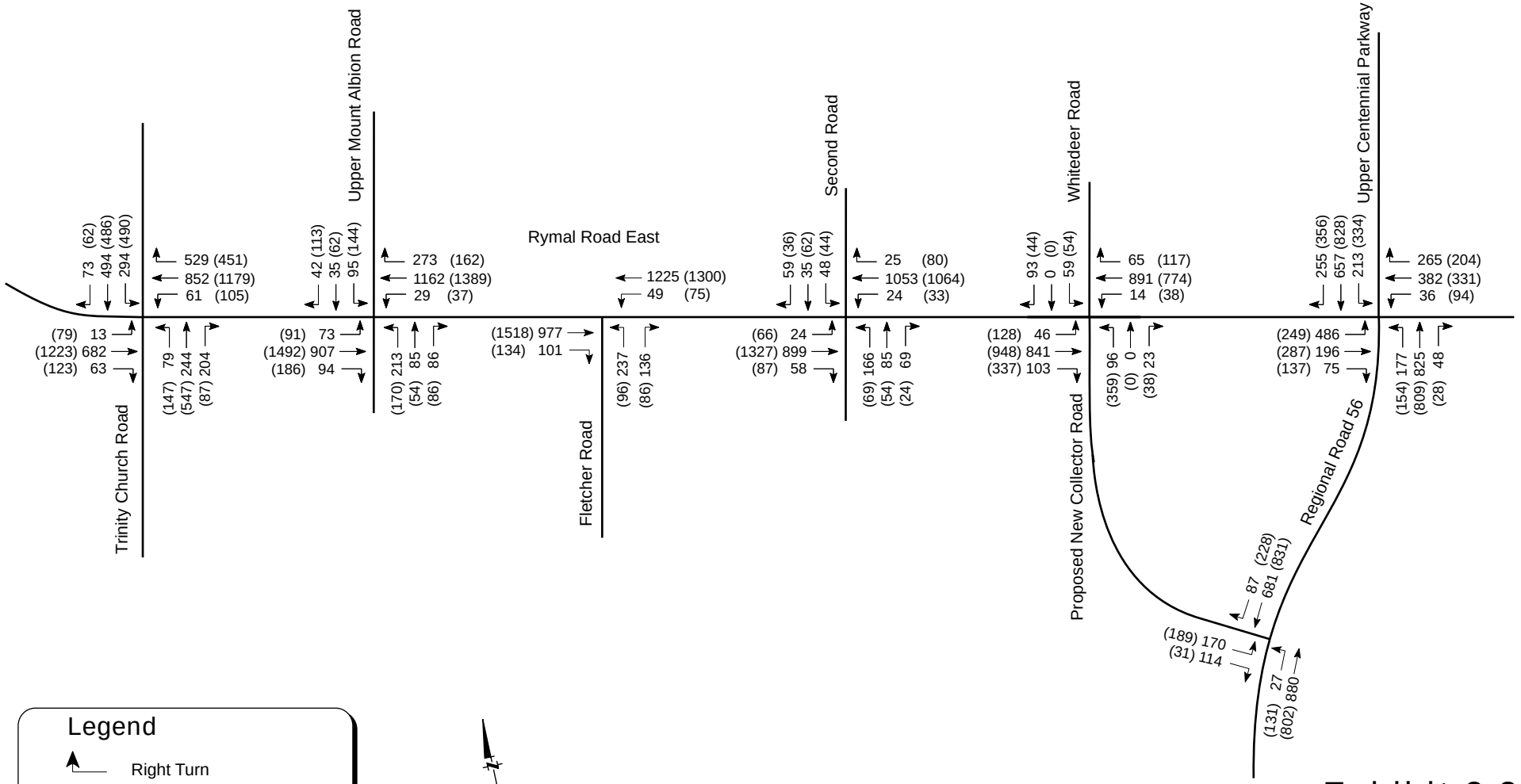


Exhibit 3-3
2021 Turning Movement Forecasts
Rymal Road Corridor

Table 3-8: Screenline Operations North of Rymal Road – Future Conditions (AM)

Rymal Road	Capacity (per direction)		2011				2021			
			Northbound		Southbound		Northbound		Southbound	
	Existing	Future	vph	v/c[1]	vph	v/c[1]	vph	v/c[1]	vph	v/c[1]
North of Rymal Road										
Trinity Church Road (4-lane arterial)	N/A	1800	730	0.41	565	0.31	785	0.44	860	0.48
Upper Mount Albion Road (local)	300	300	410		160	0.54	430		170	0.57
Second Road West, south of Gatestone (collector)	500	500	130	0.26	135	0.27	135	0.27	140	0.28
Whitedeer Road (collector)	500	500	105	0.21	140	0.28	110	0.22	150	0.30
Upper Centennial Parkway (4-lane arterial)	1800	1800	1390	0.77	950	0.53	1575	0.88	1125	0.63
Screenline Total	**3100**	**4900**	**2765**	**0.56** **0.89**[2]	**1950**	**0.40**	**3035**	**0.62** **0.98**[2]	**2445**	**0.50**

1. assumed link capacity of 900 vphpl for arterial, 500 vphpl for collector, and 300 vphpl for local roads
2. without Trinity Church Extension or equivalent north of Rymal Road

Table 3-9 and **Table 3-10** summarize the future intersection operations and levels of service for the Study Area signalized intersections. Detailed level of service calculations are provided in **Appendix F.2**.

The City of Hamilton's *Level of Service Policy Paper* recommends a level of service (LOS) "D" as the desired minimum standard for planning decisions for all modes. The policy paper recognizes the need for flexibility in applying this standard at a screenline level as it may not always be possible, or appropriate, to meet this standard for individual corridors.

Table 3-9: 2011 Signalized Intersection Operations

Location	AM Peak Hour	PM Peak Hour
	v/c (LOS)	v/c (LOS)
Rymal Road / Trinity Church Road	0.62 (C)	0.87 (D)
Rymal Road / Upper Mt. Albion Road	0.73 (B)	0.75 (B)
Rymal Road / Fletcher Road	0.61 (B)	0.60 (B)
Rymal Road / Second Road	0.58 (B)	0.47 (B)
Rymal Road / Whitedeer Road	0.48 (B)	0.77 (B)
Rymal Road / Upper Centennial Parkway	0.92 (D)	0.67 (C)
Regional Road #56 / New Collector Road	0.39 (B)	0.45 (B)

v/c - volume to capacity ratio
LOS – level of service

Table 3-10: 2021 Signalized Intersection Operations

Location	AM Peak Hour	PM Peak Hour
	v/c (LOS)	v/c (LOS)
Rymal Road / Trinity Church Road	0.68 (C)	**1.01 (E)***
Rymal Road / Upper Mt. Albion Road	0.75 (B)	0.83 (B)
Rymal Road / Fletcher Road	0.63 (B)	0.71 (B)
Rymal Road / Second Road	0.61 (B)	0.59 (B)
Rymal Road / Whitedeer Road	0.49 (B)	0.80 (B)
Rymal Road / Upper Centennial Parkway	0.94 (D)	0.88 (C)
Regional Road #56 / New Collector Road	0.47 (B)	0.61 (B)

v/c - volume to capacity ratio
LOS – level of service
* dual southbound left-turn required to accommodate forecast volumes

The Rymal Road / Trinity Church Road intersection will have an overall v/c ratio of 1.01, and individual movements with v/c ratios which exceed capacity at 2021. Based on projected demands, additional intersection capacity is recommended (a dual southbound left-turn lane could be a potential improvement). The recommended road network configuration to accommodate future traffic demand is illustrated in **Exhibit 3-4** .

3.3.6 Collector Roads and Area Access

The proposed accesses to the ROPA 9 lands and the collector road system are illustrated in **Exhibit 3-5**. The collector road system layout was assessed to determine:

- The appropriate configuration of intersection connections to the arterial road system, and
- The operational requirements of collector roads that may affect the road design.

Based on the intersection level of service analysis, the recommended intersection lane configurations are summarized in **Exhibit 3-4**. Capacity equivalent to two-lanes per direction plus exclusive left and right turn lanes are necessary to accommodate projected demands on Regional Road 56 at the new collector road connection south of Rymal Road.

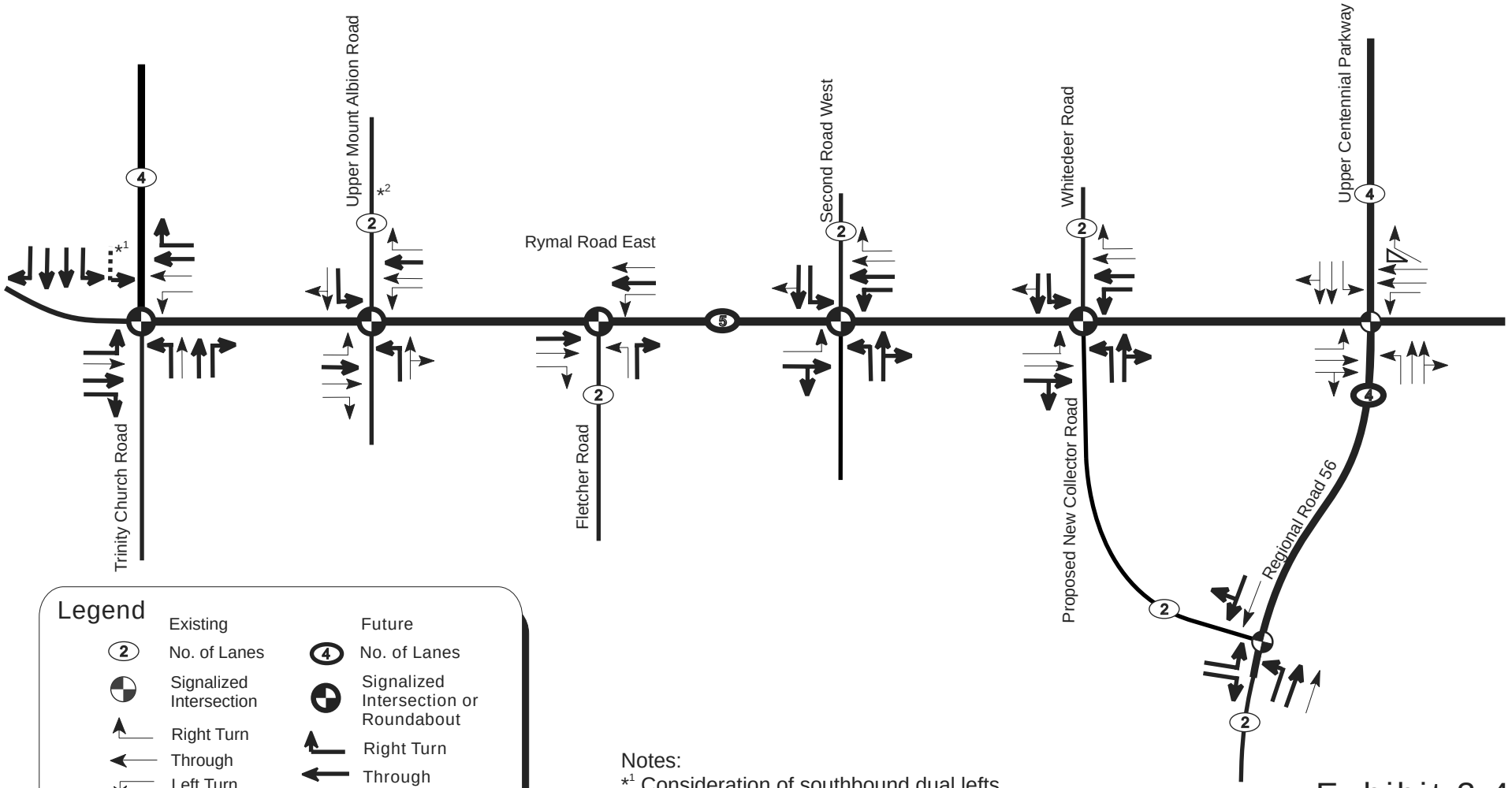
It is the City's policy that all roads within the urban boundary are built to urban standards with full municipal services. The design of the collector road system should be consistent with the City of Hamilton's Development Engineering Guidelines.

The City's Official Plan states that collector roads should have sufficient right-of-way to accommodate transit operations including pick-up and drop-off areas.

3.3.7 Trinity Church Road Extension and Upper Mount Albion Road Closure

Additional model runs and review of the spreadsheet assignments were performed to assess the need and timing for the extension of Trinity Church Road northerly from Rymal Road and the potential closure of Upper Mount Albion Road. The extension of Trinity Church Road would provide additional north-south capacity to accommodate increasing traffic demands. The potential closure of Upper Mount Albion Road at Rymal Road would limit traffic growth on the facility and maintain its local road function.

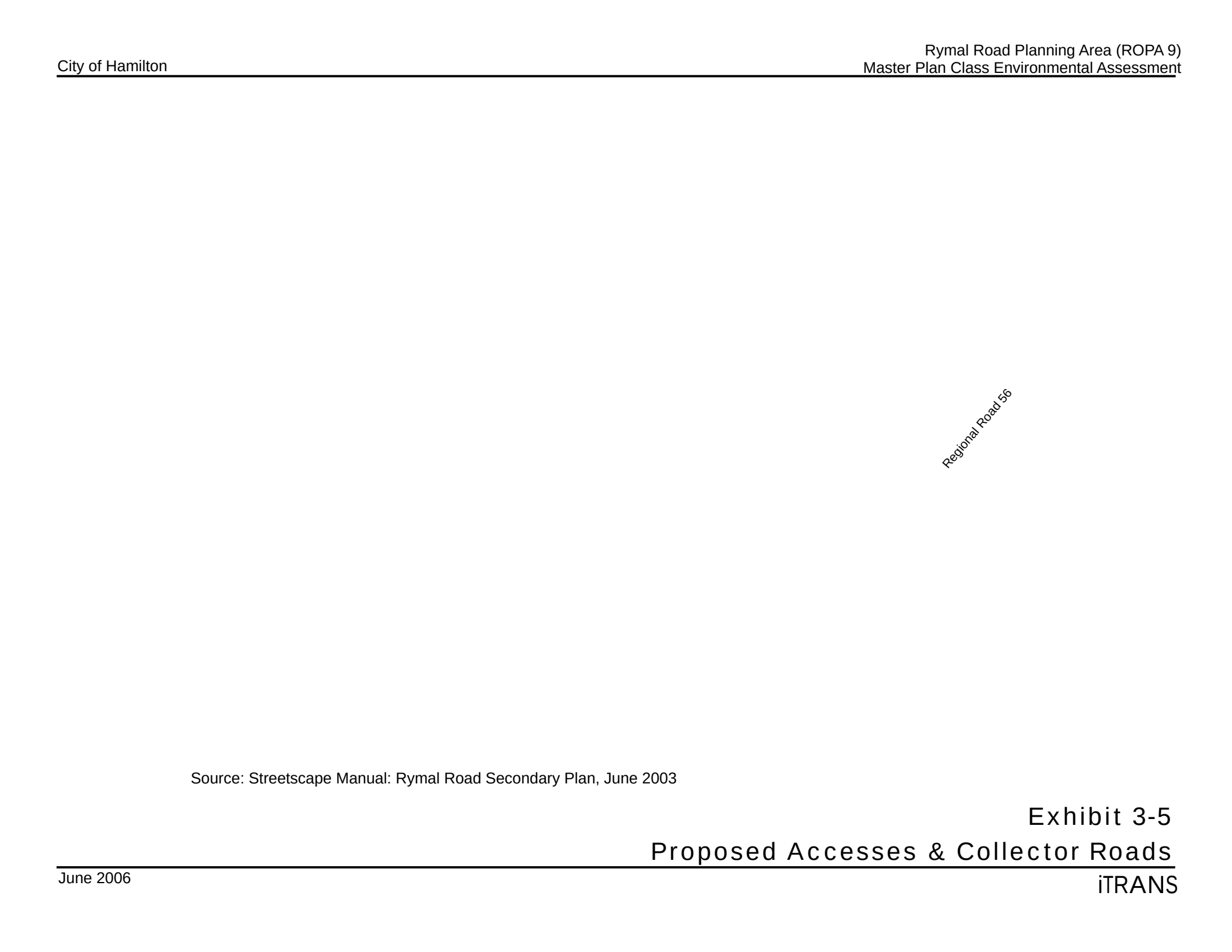
Upper Mount Albion Road is designated a local road with the primary function of serving abutting land uses. The *ITE Guidelines for Residential Subdivision Street Design* indicates that typical average daily traffic (ADT) for residential local roads ranges from 100 to 1,500 vehicles per day. The AM peak hour traffic is approximately 7-8% of the ADT and the PM peak hour traffic is approximately 10% of the ADT. Similarly, the *TAC Geometric Design Guide for Canadian Roads* indicates the typical ADT for a rural local road or residential urban local road is less than 1,000 vehicles per day (approximately less than 100 vph during peak hours).



Notes:
*[1] Consideration of southbound dual lefts.
*[2] Potential future closure of Upper Mount Albion Road north of Rymal Road.

Not To Scale

Exhibit 3-4
Future Road Network
Rymal Road Corridor



Source: Streetscape Manual: Rymal Road Secondary Plan, June 2003

Exhibit 3-5
Proposed Accesses & Collector Roads

The existing traffic volumes on Upper Mount Albion Road are approximately 400 vehicles per hour (2-way) during the AM peak hour and 350 vehicles per hour (2-way) during the PM peak hour. The existing traffic volumes on Upper Mount Albion Road already exceed the functional capacity of a local road. Upper Mount Albion is currently providing an important role and function as a north-south link between Rymal Road and Stone Church Road. As such, it is operating more as an arterial roadway function, although it is designated a local road.

The traffic forecasts for various scenarios with and without Upper Mount Albion Road and Trinity Church Road were provided by MRC in their memo dated July 19th, 2005 which is included in **Appendix F.3**.

The following network alternatives were considered for 2011 and 2021:

- Network alternative 1: with Upper Mount Albion Road open and with the Trinity Church Road extension in place
- Network alternative 2: with Upper Mount Albion Road open and without the Trinity Church Road extension in place
- Network alternative 3: with Upper Mount Albion Road closed and without the Trinity Church Road extension in place
- Network alternative 4: with Upper Mount Albion Road closed and with the Trinity Church Road extension in place

As detailed in the MRC memo, the EMME/2 modelling indicated that the closure of Upper Mount Albion Road would divert traffic to Trinity Church Road as well as other north-south corridors such as Dartnall Road, and Upper Centennial Parkway. The model also indicated that without the Trinity Church Road extension, traffic would mainly utilize Upper Mount Albion Road and Pritchard Road. A discussion on the results of each alternative is provided in **Appendix F.3**.

The preferred alternative, from a network perspective, is alternative 4 – to close Upper Mount Albion Road with a Trinity Church Road extension in place. Under a worst-case scenario where all traffic is diverted to Trinity Church Road, a 4-lane cross section on Trinity Church Road is needed to accommodate traffic demands up to 2021. Dual left turn lanes may be required to accommodate the high southbound left turn volumes at the Trinity Church Road / Rymal Road intersection by 2021.

3.4 Non-auto Network

As development of the ROPA 9 area proceeds, transit and pedestrian improvements will be required to serve the community. It is the City's policy to provide sidewalks on both sides of arterial roads such as Rymal Road.

The City of Hamilton's *Walking and Cycling Policy Paper* has recommended that the existing network of pedestrian and bicycle infrastructure should be improved and expanded. Currently, designated bicycle and pedestrian routes are not available in the

Rymal Road corridor. With the reconstruction of Rymal Road and the construction of new collector roads, there is an opportunity for the implementation of wider lanes or separate bike lanes on these facilities.

3.5 Road Safety Considerations

A safety review for the Rymal Road corridor was undertaken to review the collision history at the intersections and mid-block sections in the corridor. The City of Hamilton provided four years (2001-2004) of intersection and road segment collision history for Rymal Road between Trinity Church Road and Upper Centennial Parkway. The following is a summary of the key issues identified by the safety review.

A summary of the collision history of the Rymal Road corridor is provided in **Table 3-11** and **Table 3-12,** and in **Appendix G.**

Table 3-11: Intersection Collisions Summary for Rymal Road (2001 to 2004)

Intersection	**Fatalities**	**Injuries**	**Property Damage Only**	**Total**	**Annual Collisions** (collisions per year)
Rymal Road / Upper Centennial Parkway (Highway 20 / Highway 56)	0	16	10	26	6.5
Rymal Road / Swayze Road	0	2	0	2	0.5
Rymal Road / Whitedeer Road	0	1	1	2	0.5
Rymal Road / Second Road West	0	1	2	3	0.75
Rymal Road / Fletcher Road	0	2	0	2	0.5
Rymal Road / Upper Mount Albion Road	0	0	2	2	0.5
Rymal Road / Trinity Church Road	0	2	3	5	1.25

Although the number of collisions for the time period is not high, a significant number of the total collisions involved an injury. A large portion of the intersection collisions are attributed to turning movements.

Table 3-12: Road Segment Collisions Summary for Rymal Road (2001 to 2004)

Rymal Road Segment	Fatalities	Injuries	Property Damage Only	Total	Annual Collisions (collisions per year)
Swayze Road to Upper Centennial Parkway	0	5	5	10	2.5
Whitedeer Road to Swayze Road	0	1	1	2	0.5
Second Road West to Whitedeer Road	0	1	3	4	1
Fletcher Road to Second Road West	1	4	3	8	2
Upper Mount Albion Road to Fletcher Road	0	5	5	10	2.5
Trinity Church Road to Upper Mount Albion Road	0	0	1	1	0.25

The Swayze Road to Upper Centennial Parkway road segment experienced 10 collisions, which were a combination of the following vehicle collision patterns: turning (5), single-motor vehicle (2), sideswipe (1), intersection 90 degrees (1), and rear end (1). The Upper Mount Albion Road to Fletcher Road road segment experienced 10 collisions, which were mostly single motor vehicle (6) and rear end (3) collision patterns. The eight collisions that occurred on the road segment between Fletcher Road and Second Road west were various collision patterns, single motor vehicle (1), head on (3), rear end (3) and left-turn (1). No collision patterns are identified.

Property damage only (PDO) collisions account for over 50% of the total collisions (18/35).

3.6 Summary of Needs and Opportunities

Rymal Road Widening

Based on link analysis, sections of the Rymal Road corridor are approaching capacity under existing traffic conditions. Additional east-west traffic capacity (equivalent to one travel lane per direction) is needed as early as 2006 (v/c = 1.0 between Upper Mount Albion Road and Fletcher Road). A 4-lane Rymal Road can accommodate the anticipated growth in the ROPA 9 area beyond 2021.

Upper Mount Albion Road Closure and Trinity Church Road Extension

Existing traffic volumes on Upper Mount Albion Road are at the functional capacity of a typical local road. Upper Mount Albion is currently providing an important role and function as a north-south link between Rymal Road and Stone Church Road. As such, it

is operating more as an arterial roadway function, although it is designated a local road. Future traffic volumes are anticipated to exceed the capacity of a local road under 2011 and 2021 conditions. Traffic management measures to limit or reduce traffic levels on Upper Mount Albion Road and to keep its local road function, would be appropriate by 2011. However, additional north-south capacity at the west end of the Study Area would be required to accommodate the diverted traffic, and should therefore be coordinated with construction of a new roadway to provide this capacity.

At the same time, there is also insufficient north-south capacity in the Study Area road network to accommodate future traffic demands. Additional north-south capacity (equivalent to 2 lanes per direction) is needed in the Trinity Church Road Corridor by 2011. A 4-lane extension of Trinity Church Road north of Rymal Road would have sufficient capacity to accommodate future traffic demands, including diverted traffic, should Upper Mount Albion Road be closed to through traffic.

The North Glanbrook Industrial Business Park Master Plan has identified a need for a longer-term extension of Trinity Church Road to continue south of Rymal Road to service the Business Park and to allow flexibility for a potential future connection to the airport.

It is important for the intersection of the 4-lane extension of Trinity Church Road and Rymal Road to operate adequately prior to any extension / widening of Trinity Church Road south of Rymal Road. Accommodation is required at this intersection for high southbound left turn demands at Rymal Road from the freeway network by 2021.

Regional Road 56

As development of the ROPA 9 area proceeds, a collector road network will be established with a connection to Regional Road 56. Additional traffic capacity equivalent to one additional travel lane per direction will be needed to accommodate the additional traffic from the collector road connection.

Improving services for transit usage, and facilities for cycling and pedestrian usage to serve the community, as development of the Rymal Road Planning Area proceeds, is required.

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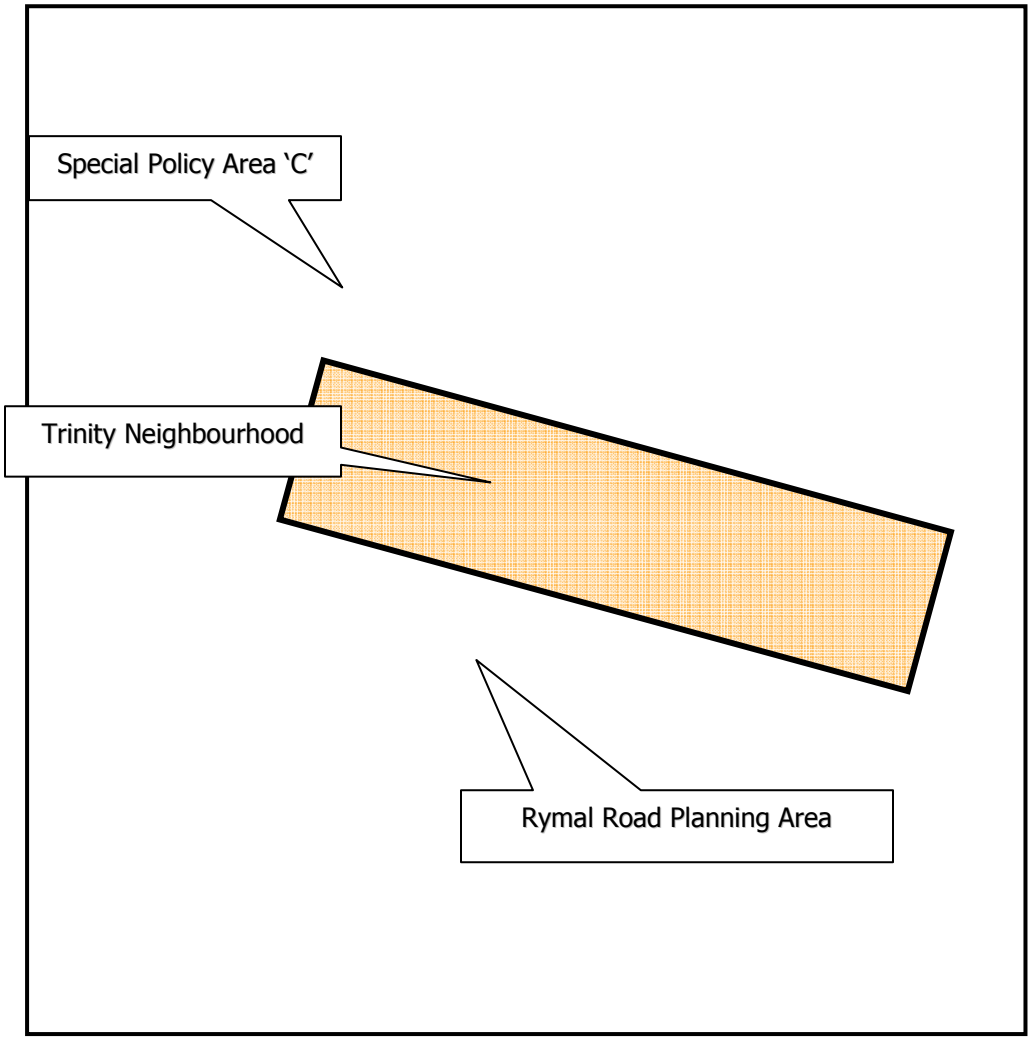
A Trinity Neighbourhood Traffic Assessment was also undertaken to incorporate a greater network perspective into the ROPA 9 Master Plan. **Exhibit 4-1** shows the Study Area of this assessment.

Exhibit 4-1: ROPA 9 Study Area (with identification of Trinity Neighbourhood)



As part of the Trinity Neighbourhood Traffic Assessment, the study of several issues for the Trinity Neighbourhood was undertaken, including:

A review of the existing transportation system and services,
A review of existing road network discontinuities,
A review of existing traffic level of service for road links and intersections,
A review of access points and collector road needs,
An assessment of future traffic levels of service for road links and intersections, and identification of transportation needs,
A review of collision history of the roads,
Identification of opportunities for traffic management measures, and
Recommendation of transportation management measures and appropriate implementation schedule.

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Existing land uses in the Trinity neighbourhood are predominately residential uses, with associated schools, churches, and fire station within the neighbourhood.

The Gatestone Elementary School is located on the west side of Gatestone Drive. A blue school zone advance warning sign is provided on Gatestone Drive. A blue school zone crossing sign and pavement markings are provided at the crossing on Gatestone Drive. A crossing guard is provided at the crossing.

St. Mark's Elementary School is located on the southwest corner of the intersection of Whitedeer Road and Highbury Drive. The posted speed limit is reduced to 40 km/h in the vicinity of the school on both Whitedeer Road and Highbury Drive. A crossing guard is provided at the corner of Whitedeer Road and Highbury Drive.

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Collector roads and local roads in residential neighbourhoods are designated for passenger and service vehicles only, according to TAC guideline. Heavy trucks should normally be routed on arterial roads, excepted for areas of industrial or commercial uses.

Upper Mount Albion Road, although a designated local road, is currently designated a Regional truck route. The appropriateness of Upper Mount Albion Road as a truck route will be reviewed as part of the truck route study which is being undertaken by the City.

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The fire station which services the Trinity Neighbourhood is Station 17, which is located at Mud Street and Isaac Brock Drive.

The station uses Upper Mount Albion Road and Trinity Church Road to access communities to the south of Rymal Road, as far as Trinity Church Road and Golf Club Road. Fire truck operators expressed concerns over a potential closure of Upper Mount Albion Road, which would cause them to reroute to Upper Centennial Parkway, Pritchard Road, and Fletcher Road to access the communities to the south of Rymal Road. This would greatly increase the fire truck response time.

The station uses Second Road West as a route to access the Trinity Neighbourhood. Fire truck operators also expressed concerns over a potential closure of Second Road West, which would divert the current routing to Highland Road and to Gatestone Drive. Fire truck operators generally try to avoid school zones when responding to emergencies.

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The City of Hamilton recognizes the importance of transit service through the following policies for the Transportation Master Plan Policy Papers:

Provide a more balanced transportation system where walking, cycling, transit and shred-ride transportation are attractive and competitive to travel by private automobiles.

Increase opportunities for all residents and employees of the City of Hamilton to have access to the transit system.

The existing transit service in the Trinity Neighbourhood services a portion of Gatestone Drive, Highland Road and Highbury Drive.

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There is a lack of pedestrian and bicycle network connectivity in the Trinity Neighbourhood. Upper Mount Albion Road does not have any sidewalks, and Second Road West has some sections with sidewalks on both sides, some sections with sidewalks on only one side of the roadway and the sidewalk is discontinuous.

The City of Hamilton recognizes the importance of walking and cycling through several of the policies for the Transportation Master Plan Policy Papers, such as:

Provide a more balanced transportation system where walking, cycling, transit and shred-ride transportation are attractive and competitive to travel by private automobiles.

Continue to improve and expand the existing network of pedestrian and bicycle infrastructure.

The Policy Papers also recognize that these uses should be considered in the establishment of the right-of way, and in the design of new roads and the reconstruction of existing roads. There are opportunities to improve the existing conditions.

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Table 4-1 summarizes the design conditions of the existing road network, including vertical geometry and setback, within the Trinity Neighbourhood with their designated road classifications. Other road features including posted speed limit, general pavement width, the type of cross section, and the provision of sidewalks are also summarized.

Table 4-1: Comparison of Roadway Design Conditions

Street	Designation	Posted Speed Limit	Pavement Width (~m)	Vertical Geometry	Cross-Section / Setback	Side-walk
2nd Road West (north of Gatestone)	Local	50	8.5	Generally flat	Urban 10 to 20 m setback	varies
2nd Road West (south of Gatestone)	Collector	50	10.0	Generally flat	Urban 15 m setback	one side (east)
Gatestone Drive	Collector	50/40	10.0	Generally flat	Urban 15 m setback	both sides
Whitedeer Road	Collector	40	14.0	Generally flat	Urban 10 to 15 m setback	one side (east) both sides at school
Highbury Drive	Collector	40/50	11.5	Generally flat	Urban 10 to 20 m setback	both sides
Upper Mount Albion Road	Local	60	7.0	Rolling	Rural 15 to 30 m setback	none

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The existing 24-hour traffic volumes on the north-south roads in the Trinity Neighbourhood connecting Rymal Road and Highland Road were obtained from the City of Hamilton. The traffic volumes were collected between August 18th and November 14th, 2005.

Table 4-2 summarizes the designated road classes and the associated environmental capacities according to the 1999 *Geometric Design Guide for Canadian Roads* by the Transportation Association of Canada (TAC). The existing two-way 24-hour traffic

volumes were compared to the road capacity in the table; the road sections that have a demand over capacity are underlined. The acceptability of the existing road geometry for the daily traffic volumes is also summarized in the table.

Table 4-2: Existing Traffic Demand vs Road Capacity in the Trinity Neighbourhood

Street	Desig-nation	Environ-mental Capacity (24-hr)	Existing Demand (24-hr)	Demand/ Capacity	Acceptable for Road Design Conditions
Second Road W N of Gatestone S of Gatestone	Local Collector	<1,500 <8,000	2,200 2,300 / 3,000	Over Under	Second Road West has a generally flat, urban cross-section; however, the pavement width north of Gatestone is narrow for these daily volumes.
Gatestone Drive	Collector	<8,000	1,450 / 4,400	Under	Gatestone Drive has a generally flat, urban cross-section and pavement width which make the road geometry adequate for these daily volumes.
Whitedeer Road	Collector	<8,000	4,000	Under	Whitedeer Road has a generally flat, urban cross-section with a very wide pavement width, making the geometry acceptable for these daily volumes.
Highbury Drive	Collector	<8,000	1,700 / 1,900	Under	Highbury Drive has a generally flat, urban cross-section and pavement width which make the road geometry acceptable for these daily volumes.
Upper Mount Albion Road	Local	<1,500	1,750 (N of Rymal) 1,400 (N of Highland)	Over	Upper Mount Albion Road has a rolling vertical geometry and a very narrow pavement width, which makes the geometry undesirable for these volumes.

The existing 24-hour traffic volumes on the north-south roads in the Trinity Neighbourhood range from 1,400 to 4,400 vehicles per day, with the highest volume (4,400) observed on Gatestone Drive north of Highbury Drive.

The existing traffic demand and capacity assessment indicates that the existing traffic demands on the collector roads are generally under the associated capacity of 8,000 vehicles per day, ranging from 1,450 to 4,400.

The traffic demands on the two designated local roads, Second Road West north of Gatestone Drive, and Upper Mount Albion Road, are over the associated local road capacity of 1,500 vehicles per day, with 2,200 observed for Second Road West and 1,750 for Upper Mount Albion Road.

Upper Mount Albion Road has a rolling vertical geometry and a narrow pavement width, which makes the geometry undesirable for these volumes. Upper Mount Albion is currently providing an important role and function as a north-south link between Rymal Road and Stone Church Road. As such, it is operating more as an arterial roadway function, although it is designated a local road.

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4.2.2.1 Second Road West

Second Road West is a two-lane collector road for the south section between Rymal Road and Gatestone Drive, and a local road north of Gatestone Drive. The posted speed limit is 50 km/h.

Motor vehicle speed distribution data on Second Road West were provided by the City of Hamilton. The data were collected for the northbound and southbound directions, by each hour from July 14th to July 16th, 2003. The directional average daily speed distribution data are summarized in **Table 4-3**.

Table 4-3: Average Daily Speed Distribution on Second Road West (Fairhaven to Shadetree)

Speed (km/h)	1-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>91	Total
NB	463	219	223	*163*	*75*	*34*	*11*	*3*	*1*	*1*	*1*	*9*	**1,203**
SB	428	226	186	*107*	*62*	*23*	*8*	*4*	*2*	*3*	*1*	*11*	**1,060**
Total	**891**	**445**	**409**	***270***	***137***	***57***	***19***	***7***	***3***	***4***	***2***	***20***	**2263**
	1,745 (77%)			***518 (23%)***									**2,263 (100%)**

Source: City of Hamilton, July 14 to July 16, 2003 average.

The 85th percentile speed on Second Road West fell into the range of 51 to 55 km/h. The data in the above table indicated that large numbers of vehicles were traveling over the post speed limit of 50 km/h, for both the northbound and southbound directions. An average total of 248 vehicles were observed speeding (as designated by italics in **Table 4-3**), which accounts for 23% of the total average daily volume of 2,263 vehicles. 20 vehicles were observed traveling at excessive high speeds of over 90 km/h on this section of local road.

Additional motor vehicle speed distribution data on Second Road West were provided by the City of Hamilton for the midday hour. The data were collected for the north section (local road) between Fairhaven Drive and Shadetree Crescent for the northbound and southbound directions, by each hour for August 19th, 2004. The directional average midday hour speed distribution data are summarized in **Table 4-4**.

Table 4-4: Average Midday Hour Speed Distribution on Second Road West (Fairhaven to Shadetree)

Speed (km/h)	1-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>91	Total
NB and SB	39	15	30	*14*	*12*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	110
	84 (76%)			*26 (24%)*									77 (100%)

Source: City of Hamilton, NB and SB, 10:00 – 11:00 AM, August 19, 2004.

The 85th percentile speed on Second Road West was observed to be 53 km/h during the observed midday hour from 10:00 to 11:00 AM on August 19th, 2004. A compliance rate of only 76% was observed. 26 vehicles were observed to be speeding (as designated by the italics in **Table 4-4**). No vehicles were observed to travel at a speed of 10 km/h higher than the posted speed limit.

Daily motor vehicle speed distribution data on Second Road West was taken again in September, 2005 by the City of Hamilton. The data were collected for the north section (local road) between Fairhaven Drive and Shadetree Crescent for the northbound and southbound directions, by each hour from September 13th to September 14th, 2005. The directional average daily speed distribution data are summarized in **Table 4-5**.

Table 4-5: Average Daily Speed Distribution on Second Road West (Fairhaven to Shadetree)

Speed (km/h)	1-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	>81	Total
NB	583	279	120	*35*	*9*	*2*	*0*	*1*	*1*	*6*	1,036
SB	739	284	115	*29*	*9*	*1*	*0*	*1*	*0*	*8*	1,186
Total	1,322	563	235	*64*	*18*	*3*	*0*	*2*	*1*	*14*	2,222
	2,120 (95%)			*102 (5%)*							2,222 (100%)

Source: City of Hamilton, September 13 to September 14, 2005, 24-hour.

The 85th percentile speed on Second Road West was observed to be 46 km/h during the observed 24-hour on September 13th to 14th, 2005. A compliance rate of 95% was observed. 38 vehicles were observed speeding (as designated in italics in **Table 4-5**) which accounts for 5% of the total average daily volume of 2,222 vehicles.

The number of vehicles travelling at excessively high speeds of over 90 km/h may have some safety implications on Second Road West, which has residential driveways and frontage along it.

4.2.2.2 Upper Mount Albion Road

Upper Mount Albion Road is a two-lane local road. The posted speed limit on Upper Mount Albion Road between Rymal Road and Paramount Drive is 60 km/h.
Motor vehicle speed distribution data on Upper Mount Albion Road were provided by the City of Hamilton. The data were collected for the section between Highland Road and Paramount Drive for the northbound and southbound directions, by each hour from January 19th to January 20th, 2006. The directional average daily speed distribution data are summarized in **Table 4-6**.

Table 4-6: Average Daily Speed Distribution on Upper Mount Albion (Highland to Paramount)

Speed (km/h)	1-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>91	Total
NB and SB	173	232	389	289	132	*33*	*7*	*0*	*0*	*0*	*0*	*0*	1255
	1215 (97%)					*40 (3%)*							1255 (100%)

Source: City of Hamilton, NB and SB, 15:45 – 16:45 PM, January 10, 2005.

The 85th percentile speed on Upper Mount Albion Road was observed to be 56 km/h. A compliance rate of 97% was observed. 40 vehicles were observed speeding (as designated in italics in **Table 4-6**) which accounts for 3% of the total average daily volume of 1255 vehicles.

Additional motor vehicle speed distribution data on Upper Mount Albion Road were provided by the City of Hamilton for the section between Rymal Road and Highland Road for the northbound and southbound directions, by each hour from January 19th to January 20th, 2006. The directional average daily speed distribution data are summarized in **Table 4-7**.

Table 4-7: Average Daily Speed Distribution on Upper Mount Albion (Rymal to Highland)

Speed (km/h)	1-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>91	Total
NB and SB	28	37	96	205	300	*347*	*234*	*141*	*53*	*22*	*13*	*5*	1481
	666 (45%)					*815 (55%)*							1481 (100%)

Source: City of Hamilton, NB and SB, 15:45 – 16:45 PM, January 10, 2005.

The 85th percentile speed on Upper Mount Albion Road was observed to be 71 km/h. A compliance rate of 45% was observed. 815 vehicles were observed speeding (as designated in italics in **Table 4-7**) which accounts for 3% of the total average daily volume of 1481 vehicles.

The City of Hamilton also provided speed survey data on this road section during the PM peak hour, as summarized in **Table 4-8**.

Table 4-8: PM Peak Hour Speed Distribution on Upper Mount Albion (Rymal to Highland)

Speed (km/h)	1-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>91	Total
NB and SB	0	0	3	6	11	*17*	*16*	*11*	*8*	*2*	*1*	*2*	77
	20 (26%)					*57 (74%)*							77 (100%)

Source: City of Hamilton, NB and SB, 15:45 – 16:45 PM, January 10, 2005.

The 85th percentile speed on Upper Mount Albion Road was observed to be 76 km/h during the PM peak hour. A compliance rate of only 26% was observed. 57 vehicles were observed speeding (as designated in italics in **Table 4-8**) which accounts for 74% of the total average peak hour volume of 77 vehicles. There were 16.9% of vehicles observed to travel at a speed of 15 km/h higher than the posted speed limit.

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The City of Hamilton provided collision data for the road segments within the Trinity Neighbourhood for 4 years (2001 – 2004). **Table 4-9** summarizes the total number of intersection collisions, and **Table 4-10** summarizes the total number of road segment collisions by severity type.

The number of collisions per year were reviewed to determine the existing level of safety.

Table 4-9: Intersection Collision Summary for Trinity Neighbourhood (2001 to 2004)

Intersection	Fatalities	Injuries	Property Damage Only	Total	Annual Collisions (collisions per year)
Second Road West / Rymal	0	1	2	3	0.75
Gatestone Drive / Second Road West	0	0	0	0	0
Whitedeer / Highbury	0	0	1	1	0.25
Whitedeer / Rymal	0	1	1	2	0.5
Highland / Second Road West	0	0	0	0	0
Upper Mount Albion / Highland	0	1	1	2	0.5
Upper Mount Albion / Paramount	0	1	3	4	1.0
Upper Mount Albion / Rymal	0	0	2	2	0.5
Total	**0**	**4**	**10**	**14**	

A total of 14 collisions were reported at intersections during the four-year period for the five major north-south roads in the Trinity Neighbourhood. Property damage only (PDO) collisions account for 70% (10/14) of the total collisions.

There were no collisions reported at the Gatestone Drive / Second Road West, or at the Highland Road / Second Road West intersections.

The collision history of the road segments is summarized in **Table 4-10**.

Table 4-10: Road Segment Collision Summary for Trinity Neighbourhood (2001 to 2004)

Segment	**Fatalities**	**Injuries**	**Property Damage Only**	**Total**	**Annual Collisions** (collisions per year)
Second Road West Highland Rd to Rymal Rd	0	0	0	0	0.00
Gatestone Drive Second Rd W to N Isaac Brock	0	1	1	2	0.50
Whitedeer Road Highbury to Rymal Rd	0	0	0	0	0.00
Highbury Drive Highland Rd to Gatestone	0	1	1	2	0.50
Upper Mount Albion Road Paramount to Rymal Rd	0	0	1	1	0.25
Total	**0**	**2**	**3**	**5**	

A total of 5 collisions were reported on road segments during the four-year period for the five major north-south roads in the Trinity Neighbourhood. Property damage only (PDO) collisions account for 60% of the total collisions (3/5).

There were no collisions reported on Second Road West and on Whitedeer Road (segments).

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Concerns were raised by local residents within the Trinity Neighbourhood regarding the potential increase of traffic on the local roads due to the future development in the ROPA 9 area. Second Road West north of Gatestone Drive, and Upper Mount Albion Road are designated local roads, according to the City of Stoney Creek Official Plan. As assessed in **Section 4.2.1**, the current daily traffic demand on these two local roads is currently over the associated environmental capacity. With the increase of future ROPA 9 traffic, which is mainly destined to the North and West, an increase in traffic demands are

anticipated for these local roads, resulting in further impaired traffic operation conditions and impacts to the residential neighbourhoods.

A comprehensive strategic traffic management plan is required with the anticipated future growth in ROPA 9, taking both the ROPA 9 lands and the Trinity Neighbourhood into consideration.

The objective of the traffic management plan is to ensure that successful transportation service is provided for the whole area, supporting the future development, while minimizing negative impacts to the existing conditions. This will require appropriate road network planning for the area, providing sufficient capacity and convenient accesses to accommodate increasing future traffic demands throughout the road network. Meanwhile, traffic should be managed and directed to appropriate routes to maintain appropriate road functions, with long distance travel mainly on arterial roads, and local roads mainly serving local trips. Road network implementation strategy and timing are key to ensure the success of traffic operations on the whole network. Road network safety, the accessibility for emergency vehicles, impacts / benefits to communities and other traffic related factors should all be taken into consideration in the traffic management plan.

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The traffic demands on Second Road West north of Gatestone Drive, and on Upper Mount Albion Road are over the volumes typically associated with local roads of 1,000 to 1,500 vehicles per day. Second Road West is observed to be carrying approximately 2,200 vehicles per day, and Upper Mount Albion Road approximately 1,750 vehicles per day.

The pavement width of Second Road West, north of Gatestone Drive is narrow for the daily traffic volumes it currently experiences. Upper Mount Albion Road between Rymal Road and Highland Road has a rolling vertical alignment at the north section, and a very narrow pavement width, which makes the geometry undesirable for the volumes it is currently experiencing.

There is a potential that future development of the ROPA 9 lands will exacerbate the existing traffic conditions on roadways within the Trinity Neighbourhood. As a result, solutions are necessary to address these issues.

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Special Policy Area 'C' includes 4.7 ha of commercial and residential lands, which is also known as the Heritage Green Development. The City has received applications for the development of these lands.

The City of Hamilton and iTRANS undertook a review of the traffic forecasts prepared by the Heritage Green developer in the September 2005 *Updated Traffic Study*, prepared by Delcan Consulting. This study assessed future conditions and impacts of traffic generated by Special Policy Area 'C' (SPA 'C'). These forecasts were compared to projections from McCormick Rankin Corporation (MRC) developed for the North Glanbrook Industrial Business Park (NGIBP) study, and estimates prepared by the City.

The following summarizes the assessment of the forecasts and presents the basis for traffic projections. The analysis takes into account the effects of the Red Hill Valley Parkway (RHVP), and the proposed new arterial connection from the RHVP ramps at Stone Church Road to Rymal Road, commonly referred to as the "Trinity Church Road extension". These forecasts were analysed to determine the adequacy of the road network to accommodate the SPA 'C' traffic.

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The Janet Lee Elementary School is located on the southwest corner of the intersection of Winterberry Drive and Paramount Drive. A blue school zone advance warning sign is provided on Winterberry Drive.

The Salvation Army Church is located on the northeast corner of the intersection of Winterberry Drive and Paramount Drive.

Residential properties exist on Upper Mount Albion Road, north of Paramount Drive.

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Collector roads and local roads in residential neighbourhoods are designated for passenger and service vehicles only, according to TAC guideline. Heavy trucks should normally be routed on arterial roads, excepted for areas of industrial or commercial uses.

Stone Church Road is currently designated a Regional truck route.

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The City of Hamilton recognizes the importance of transit service through the following policies for the Transportation Master Plan Policy Papers:

Provide a more balanced transportation system where walking, cycling, transit and shared-ride transportation are attractive and competitive to travel by private automobiles.

Increase opportunities for all residents and employees of the City of Hamilton to have access to the transit system.

The existing transit service in Special Policy Area 'C' services a portion of Winterberry Drive and Stone Church Road – Paramount Drive.

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There is a lack of pedestrian and bicycle network connectivity in the vicinity of Special Policy Area 'C'. Stone Church Road does provide bicycle lanes, but they are discontinuous in the vicinity of Upper Mount Albion Road. Winterberry Drive has sidewalks on the east side of the roadway only. Paramount Drive has sidewalks on the south side of the roadway partially between Upper Mount Albion Road and Winterberry Drive, and on both sides east to Mud Street. There are opportunities to improve current conditions

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The existing 2004 / 2005 turning movement volumes in the developer's traffic study were adopted as base year volumes.

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Based on the review of traffic forecasts from the above-mentioned sources, the future traffic conditions in the Study Area were assessed for the AM and PM peak hour conditions, as described below.

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The future 2012 total background traffic was developed consisting of background through traffic growth, and traffic diversion as a result of the RHVP / LINC and Trinity Church Road extension (with Upper Mount Albion Road closed).

5.3.1.1 Background Growth

A screenline analysis of the EMME/2 model forecast volumes for the road network in the SPA 'C' Study Area was carried out to determine background traffic growth rates. It was observed that the growth rate on Stone Church Road, Mud Street, and Winterberry Drive were approximately 0% from 2001 to 2011. The future increased traffic demands on the east-west roads were mainly traffic diverted by the anticipated Rymal Road widening. Major north-south arterial roads (including Trinity Church Road extension) were observed to carry most of the increased north-south traffic demand.

Therefore, a 0% background growth rate was deemed appropriate and as a result, no background traffic growth was applied to Stone Church Road, Mud Street or Winterberry Drive.

5.3.1.2 Background Traffic Diversion Due to RHVP / LINC

The anticipated RHVP / LINC connection to Stone Church Road would significantly increase the traffic demands on Stone Church Road and on the LINC west of the RHVP, from the west to the north via the new expressway. These travel patterns were demonstrated in the EMME/2 model assignments. The new Stone Church Road / RHVP intersection would experience considerable eastbound left and southbound right turning demands.

The new connection is expected to attract much of the traffic currently using circuitous routes via Upper Mount Albion Road – Winterberry Drive – Mud Street or Stone Church Road (to/from the west). Winterberry Drive may experience decreased traffic due to the new parallel connection.

5.3.1.3 Background Traffic Diversion Due to Trinity Church Road Extension and Closure of Upper Mount Albion Road

The latest updated EMME/2 model runs with and without the Trinity Church Road extension were reviewed to determine the magnitude of north-south traffic demands that could be anticipated on the Trinity Church Road extension. Upper Mount Albion Road is assumed to be closed upon extension of Trinity Church Road. The closure of Upper Mount Albion would result in notable traffic diversion to the Trinity Church Road extension.

Approximately 1,300 peak direction volumes were estimated for the Trinity Church Road extension south of Stone Church Road during the AM peak hour, incorporation traffic diversion and background traffic growth including the Rymal Road Planning Area.

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The developer's traffic study estimated SPA 'C' site traffic volumes were adopted to estimate the future total volumes with full build-out of SPA 'C'. The estimated site traffic volumes were found to be reasonable.

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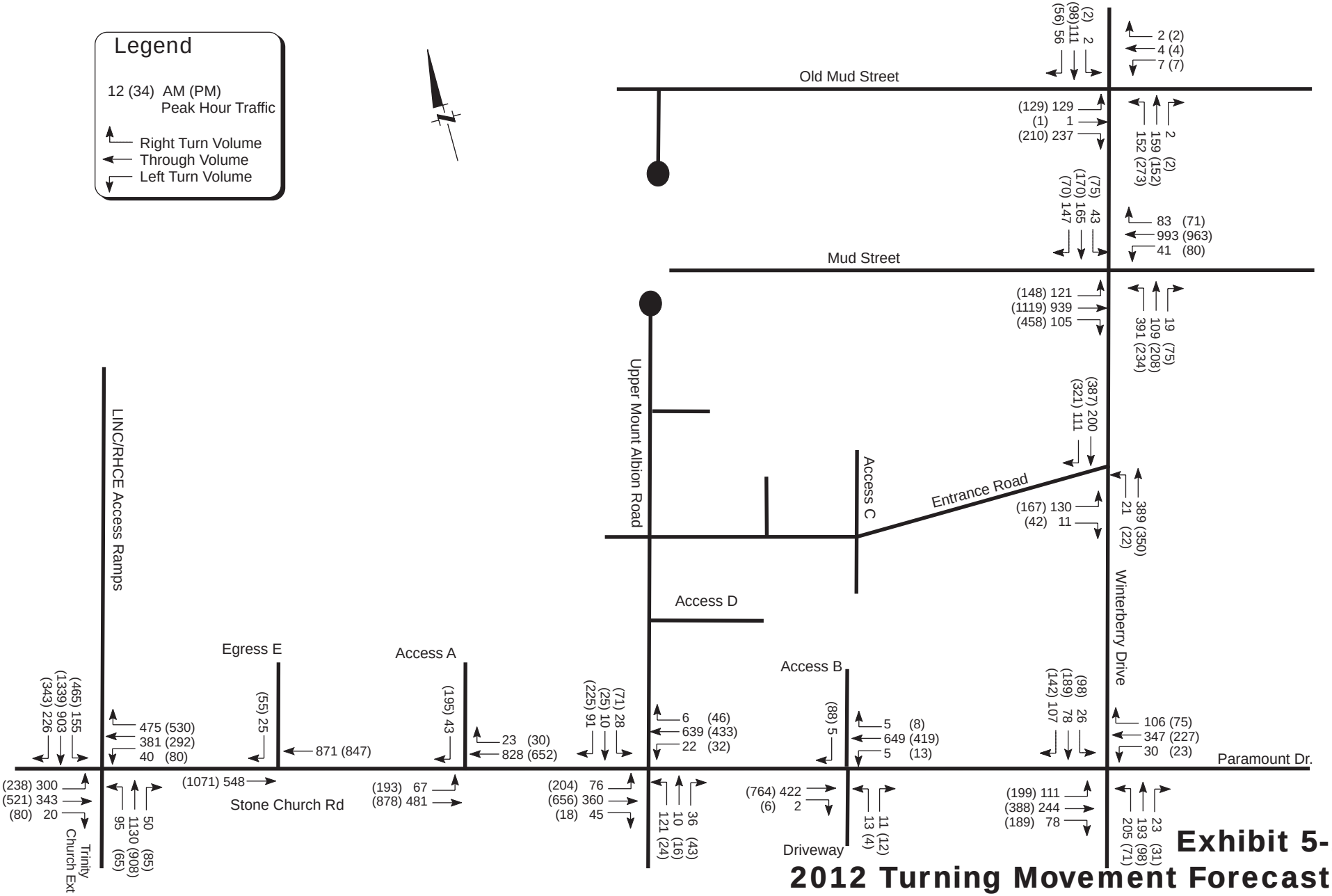
The future total traffic is the summation of the future background traffic and site generated traffic. Higher east-west through traffic volumes are noted on Stone Church Road and on Mud Street within the Study Area, and higher turning and through movement traffic volumes are estimated at the Stone Church Road / Trinity Church Road extension intersection, compared to the developer's traffic study estimates.

The estimated future total traffic volumes (2012) are shown in **Exhibit 5-1** Synchro analyses were carried out for the future total traffic conditions to determine the future road network requirements. The analysis results are summarized in **Table 5-1** for the signalized intersections, and in **Table 5-2** for the unsignalized intersections. Detailed level of service calculations are provided in **Appendix F**.



Not to Scale

Exhibit 5-1
2012 Turning Movement Forecasts
Special Policy Area 'C'

Table 5-1: SPA'C Area Signalized Intersection Operations: 2012

Intersection	Critical Movement[1]	AM Peak Hour v/c (LOS)[2]	PM Peak Hour v/c (LOS)[2]
Stone Church Rd / RHVP Ramp	**Overall**	**0.93 (D)**	**0.88 (C)**
	EBL	0.94 (E)	-
	WBT	0.91 (E)	-
	WBR	0.90 (D)	-
	NBL	-	0.90 (F)
	NBT	0.96 (D)	-
	Dual SBL	0.92 (F)	0.99 (E)
Stone Church Rd / Upper Mt Albion Rd[3]	**Overall**	**0.54 (B)**	**0.39 (B)**
	None	-	-
Paramount Dr / Winterberry Dr	**Overall**	**0.59 (C)**	**0.60 (B)**
	None	-	-
Winterberry Dr / Entrance Road[3]	**Overall**	**0.35 (A)**	**0.38 (A)**
	None	-	-
Mud St / Winterberry Dr	**Overall**	**0.91 (C)**	**0.77 (C)**
	WBTR	0.94 (D)	-
	NBL	0.92 (D)	-
Old Mud St / Winterberry Dr	**Overall**	**0.27 (B)**	**0.40 (B)**
	None	-	-

Note: 1, Critical Movement: movement that has a v/c ratio greater than 0.90
2, v/c: volume to capacity ratio; LOS- Level of Service
3, Traffic signal or roundabout required under future traffic conditions

As shown in **Table 5-1**, dual southbound left turn lanes will be required at the Stone Church Rd / RHVP Ramp intersection. This will be a heavily utilized movement, with the anticipated volumes almost reaching capacity in the PM peak hour by 2012 (v/c of 0.99). Other movements will operate with v/c ratios of 0.96 or less.

Table 5-2: SPA'C Area Unsignalized Intersection Operations: 2012 Total

Intersection	Key Movement	AM Peak Hour v/c (LOS)[1]	PM Peak Hour v/c (LOS)[1]
Stone Church Rd / Existing Driveway - Access B	NBLR SBR WBL	0.12 (C) 0.01 (C) 0.01 (A)	0.07 (C) 0.16 (B) 0.02 (B)
Stone Church Rd / Access A	EBL SBR	0.10 (B) 0.09 (B)	0.24 (B) 0.34 (B)
Stone Church Rd / Egress E	SBR	0.05 (B)	0.11 (B)

Note: 1, v/c: volume to capacity ratio; LOS- Level of Service

As shown in **Table 5-2**, all of the unsignalized intersections will operate at acceptable levels of service.

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A safety review of the Special Policy Area 'C' corridor was undertaken to review the collision history at the intersections and mid-block sections. The City of Hamilton provided four years (2001-2004) of intersection and road segment collision history. A summary of the collision history is provided in **Table 5-3** and **Table 5-4**.

Table 5-3: Intersection Collisions Summary for SPA 'C' (2001 to 2004)

Intersection	**Fatalities**	**Injuries**	**Property Damage Only**	**Total**	**Annual Collisions** (collisions per year)
Upper Mount Albion / Paramount	0	1	3	4	1.0
Paramount / Winterberry	0	3	4	7	1.75
Stone Church / Pritchard	0	0	1	1	0.25
Paramount / Mud	0	17	5	22	5.5
Mud / Winterberry	0	15	12	27	6.75
Total	**0**	**36**	**25**	**61**	

The Paramount Drive / Mud Street intersection has a high proportion of injury collisions. Most of these are rear end or left turn (opposite through) collision patterns. The Mud Street / Winterberry Drive intersection also has a high proportion of injury collisions.

Most of these injury collisions are left turn (opposite through) collision patterns. The City has implemented signal timing and operational changes at these two intersections in an effort to improve user safety and traffic flow.

Table 5-4: Road Segment Collisions Summary for SPA 'C' (2001 to 2004)

Road Segment	Fatalities	Injuries	Property Damage Only	Total	Annual Collisions (collisions per year)
Stone Church (Pritchard to Winterberry)	0	1	2	3	0.75
Winterberry (Mud to Highland)	0	2	2	4	1.0
Total	**0**	**3**	**4**	**7**	

The Stone Church road segment experienced 3 collisions which were all single motor vehicle collision pattern. Four collisions occurred on the Winterberry Drive segment. Each of these were different collision patterns, one single motor vehicle, one head on, one left-turn, and one right-turn. No collision patterns are identified.

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The analyses indicated that with the development of Special Policy Area 'C', travel demand will exceed capacity on Stone Church Road, at the Red Hill Valley Parkway ramps, at Stone Church Road / Upper Mount Albion Road and at Winterberry Dr / Entrance Rd as unsignalized intersections, and for queuing on Winterberry Drive at Mud Street. Therefore, based on the results of the analyses, additional capacity will be needed on the road network in the vicinity of Special Policy Area 'C'.

Opportunities to provide facilities for pedestrians, cyclists and transit services could be realized with the development of Special Policy Area 'C'.

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Development will occur within the ROPA 9 lands and within Special Policy Area 'C' lands. It is acknowledged that there are growth management mechanisms within the ROPA 9 Secondary Plan to manage the rate of development within the ROPA 9 lands consistent with transportation infrastructure and that development within Special Policy Area 'C' has not yet been approved and must demonstrate that an adequate transportation system must be in place to support it. And while the rate of development in ROPA 9 and magnitude of development in SPA 'C' is to be determined, there are needs and opportunities within the Rymal Road Study Area, Trinity Neighbourhood Study Area, and Special Policy Area 'C' Study Area based on the City's current understanding of growth potential. As such, the problem statement entails finding transportation solutions, which support Municipal Official Plans, and are necessary to:

1. Address projected capacity deficiencies in the Rymal Road corridor

2. Accommodate projected demands on Regional Road 56 at the new collector road connection south of Rymal Road

3. Provide additional north-south capacity to accommodate future traffic demands

4. Better accommodate service for autos, commercial vehicles, transit vehicles, pedestrians, and cyclists through the area.

5. Manage traffic impact on local roads adjacent to the Study Area, including:

    a. Ensure successful transportation service for the ROPA 9 lands, the Trinity Neighbourhood, and Special Policy Area 'C' lands with future development, while minimizing negative impacts to existing conditions.

    b. Provide sufficient capacity and appropriate access to accommodate increasing traffic demands throughout the road network.

    c. Manage and direct traffic to appropriate routes to maintain designated road functions, with arterial roads serving long distance travel, and local roads mainly serving local trips.

    d. Implement and time a road network strategy to ensure the success of traffic operations on the whole road network.

7. EVALUATION OF PLANNING ALTERNATIVES – RYMAL ROAD PLANNING AREA

The class environmental 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.

Alternatives to the undertaking are different means of addressing the problem. The problems identified for this project are described in **Section 3** 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 Development and Evaluation of Planning Alternatives

7.1.1 Development of Planning Alternatives

The following planning solutions to the undertaking were considered:
- "Do Nothing";
- Travel Demand Management (Promote ride sharing / carpooling);
- Upgrade Other Routes / Build Other Routes;
- Operational Improvements (Provide localized link or intersection improvements);
- Widen Rymal Road to provide additional lanes throughout the Study Area;
- Extend Trinity Church Road to connect to the Red Hill Valley Parkway; and
- Widen Regional Road 56 to provide additional lanes.

Each planning alternative is described in further detail below.

7.1.1.1 "Do Nothing" Alternative

This alternative was included in the assessment to provide a benchmark against which the other alternatives could be compared. Under this planning alternative, no changes or improvements to the existing transportation network are considered.

7.1.1.2 Travel Demand Management Alternative

This alternative involves methods to modify existing and future travel demand to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as

designated HOV lanes, public transit services, carpooling programs and parking facilities, and accommodation for pedestrians and cyclists.

7.1.1.3 Upgrade Other Routes / Build Other Routes Alternative

This option involves constructing new east-west corridors or north-south corridors and/or widening existing east-west or north-south corridors in the vicinity of the Study Area.

7.1.1.4 Operational Improvements Alternative

This alternative includes methods to increase the capacity of the existing road network, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, and adding or changing exclusive turn lanes at intersections.

7.1.1.5 Widen Rymal Road Alternative

This alternative involves providing additional lanes on Rymal Road throughout the Study Area.

7.1.1.6 Trinity Church Road Extension Alternative

This alternative involves extending Trinity Church Road to connect with the Red Hill Valley Parkway intersection at Stone Church Road.

7.1.1.7 Regional Road 56 Widening

This alternative involves providing additional lanes on Regional Road 56 from Rymal Road southerly for approximately 900 m.

7.1.2 Planning Alternatives Evaluation Criteria

A detailed assessment of the alternative transportation planning 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 Service

- Corridor Capacity and Level of Service
- Traffic Safety
- Access to/from Rymal Road and to/from Regional Road 56
- Transit Operations
- Accommodation for Pedestrians and Cyclists

Socio-Economic Impacts

- Noise Impacts
- Residents Impacts
- Dwellings displacement / property requirements
- Business impacts
- Institutional impacts
- Recreational Facilities adjacent to the corridor
- Archaeological/Cultural Heritage Resources
- Visual/Aesthetics
- Adjacent Local Roads (Potential for Traffic Infiltration)
- Air Quality
- Potential for Contamination

Natural Environment

- Vegetation
- Wildlife
- Aquatic Habitat
- Eramosa Karst
- Stormwater

Costs

- Utility Relocation
- Capital Costs
- Operating Costs
- Property Acquisition

7.1.3 Evaluation of Planning Alternatives

The Planning 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 Stakeholders Committee, and the public.

Following the evaluation, a recommendation was made on which Planning Alternatives would be carried forward to the next stage. **Table 7-1** contains the evaluation of the alternative transportation planning solutions and a summary of the impacts and recommendations for the Study Area.

Table 7-1: Evaluation of Planning Alternatives for ROPA 9

FACTOR	DO NOTHING Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	TRAVEL DEMAND MANAGEMENT Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved public transit services, accommodation for pedestrians and cyclists	UPGRADE OTHER ROUTES / BUILD OTHER ROUTES Involves constructing new east-west, or north-south corridors, and/or widening existing east-west or north-south corridors in the vicinity	OPERATIONAL IMPROVEMENTS Involves methods to increase the capacity of the existing road network, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections	RYMAL ROAD WIDENING Involves providing additional lanes on Rymal Road throughout the Study Area	TRINITY CHURCH ROAD EXTENSION Involves extending Trinity Church Road to connect with the Red Hill Valley Parkway interchange at Mud Street	REGIONAL ROAD 56 WIDENING Involves providing additional lanes on Regional Road 56 from Rymal Road southerly for approximately 900 m
TRANSPORTATION SERVICE:							
Corridor Capacity and Level of Service	No increase to corridor capacity Increase in traffic congestion	No increase to corridor capacity; however, slight decrease in peak hour auto demand	Increase to corridor capacity with potential for less traffic congestion	Slight increase to corridor capacity	Significant increase to corridor capacity and to overall Study Area roadway capacity	Significant increase to overall study area roadway capacity	Significant increase to corridor capacity and to study area roadway capacity
Traffic Safety within the study corridors	No change from existing	Potential increased safety for pedestrians / cyclists due to improvements to sidewalks / bike lanes and decreased auto traffic.	Potential increased safety due to the potential for less traffic congestion	Localized improvement in safety performance	Potential for improvement in safety performance along length of study corridor	New corridor, safety performance would be built in along length of corridor	Potential for improvement in safety performance along length of study corridor
Access to/from Rymal Road and to/from Regional Road 56	No change from existing	No change from existing	Improvement for cross streets accessibility with potential for less traffic congestion on Rymal Road	Potential improvement with new traffic signals facilitating access to / from Rymal Road and to / from Regional Road 56	Improvement for cross streets accessibility with less traffic congestion; however, additional lanes to cross when turning left	Potential for new cross streets connections	Allows for new street connection with Regional Road 56
Transit Operations within the study corridor	No current transit operations within the study corridor; potential for transit service in the future could be hampered by traffic congestion.	Potential for slight reduction in transit delays as a result of decrease in corridor auto demand. Transit service could be considered for Rymal Road as well as the collector road network for the Rymal Road Planning Area.	Potential for reduction in transit delays (should transit service be considered) as a result of increase in corridor capacity	Potential for slight reduction in transit delays (should transit service be considered) as a result of slight increase in corridor capacity	Potential for transit and resulting improvement in transit service within the study corridor	Potential for transit and resulting improvement in transit service within the study corridor	Potential for transit and resulting improvement in transit service within the study corridor
Accommodation for Pedestrians and Cyclists within the study corridors	No bicycle routes or sidewalks currently exist within the study corridors. The impact of Do Nothing will be the worsening of conditions for pedestrians and cyclists because of the increase in traffic and the fact that no improvements to the pedestrian/cyclist network will be done.	Would improve as a result of a focus on the pedestrian/cyclist network	Could result in new pedestrian/cyclist routes. Could also result in sidewalks being built as a result of the policy recommendations from the TMP City-wide Phase 2 in regard to Upgrading of routes and new construction. Note: This is not in the study corridor. These improvements however, would not improve conditions within the ROPA 9	No specific accommodation for pedestrians/cyclists, though operational improvements can result in a safer network for pedestrians / cyclists and transit users.	Potential for wider curb lanes and/or sidewalks on Rymal Road to better accommodate pedestrians and cyclists	Potential for wide curb lanes and/or sidewalks on Trinity Church Road to accommodate pedestrians and cyclists	Potential for wider curb lanes and/or sidewalks on Regional Road 56 to accommodate pedestrians and cyclists

Table 7-1: Evaluation of Planning Alternatives for ROPA 9

FACTOR	DO NOTHING Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	TRAVEL DEMAND MANAGEMENT Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved public transit services, accommodation for pedestrians and cyclists	UPGRADE OTHER ROUTES / BUILD OTHER ROUTES Involves constructing new east-west, or north-south corridors, and/or widening existing east-west or north-south corridors in the vicinity	OPERATIONAL IMPROVEMENTS Involves methods to increase the capacity of the existing road network, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections	RYMAL ROAD WIDENING Involves providing additional lanes on Rymal Road throughout the Study Area	TRINITY CHURCH ROAD EXTENSION Involves extending Trinity Church Road to connect with the Red Hill Valley Parkway interchange at Mud Street	REGIONAL ROAD 56 WIDENING Involves providing additional lanes on Regional Road 56 from Rymal Road southerly for approximately 900 m
			lands.				
SOCIO-ECONOMIC IMPACTS:							
Noise Impacts	Increase in noise levels with future traffic growth	Potential reduction in noise levels with slight decrease in peak hour auto demand.	Potential reduction in noise levels with less traffic congestion	Increase in noise levels with future traffic growth	Increase in noise levels with future traffic growth	No anticipated noise impacts on existing residents. Potential noise impacts on any future residents within the study corridor.	Increase in noise levels with future traffic growth
Residents Impacts	No direct impact to residents	No direct impact to residents – Encourages positive impacts of active lifestyle	Potential negative impact to residents along new / widened corridor	No direct impact to residents	Potential negative impact to residents with corridor widening	No anticipated impact to residents with corridor extension	No anticipated impact to residents with this corridor widening
Dwellings displacement / property requirements	No impact to existing dwellings / property	No impact to existing dwellings / property	Potential impact to existing dwellings / property along new / widened corridor	Potential impact to existing property at intersections	Potential impact to existing dwellings / property along Rymal Road	Impact to property along a Trinity Church Road extension	Potential impact to property along Regional Road 56
Business impacts	No impact to existing businesses. No changes to existing private driveways	No impact to existing businesses. No changes to existing private driveways	Potential impact to existing businesses along new / widened corridors	No impact to existing businesses. No changes to existing private driveways	Potential impact to existing businesses and private driveways along Rymal Road	New corridor, no impact to existing businesses	No anticipated impact to existing businesses
Institutional impacts	No institutions currently located along corridor	No institutions currently located along corridor	Potential impact on institutional uses along new / widened corridors	No institutions currently located along corridor	No institutions currently located along corridor	No institutions currently located along corridor	No institutions currently located along corridor
Recreational Facilities adjacent to the corridor	No recreational facilities adjacent to the corridor	No recreational facilities adjacent to the corridor	Potential impact on recreational facilities along new / widened corridors	No recreational facilities adjacent to the corridor	No recreational facilities adjacent to the corridor	Potential connection to proposed bicycle routes (Regional OP)	No recreational facilities adjacent to the corridor
Archaeological/Cultural Heritage Resources	No impacts to existing archaeological / cultural heritage resources	No impacts to existing archaeological / cultural heritage resources	Potential for impact on archaeological / cultural heritage resources along new / widened corridors	No anticipated impact to archaeological / cultural heritage resources	Potential for impact on archaeological / cultural heritage resources	Potential for impact on archaeological resources; no anticipated impact on cultural heritage resources	No anticipated impact on archaeological / cultural heritage resources
Visual/Aesthetics	No change to existing aesthetics	Existing aesthetics could be improved by the addition of sidewalks, cycling lanes and	Impact on aesthetics, due to increased pavement width along widened corridors. However,	No anticipated significant impact on aesthetics, though increased pavement width at	Impact on aesthetics due to increased pavement width on Rymal Road. However,	Potential for streetscaping with a Trinity Church Road extension	Impact on aesthetics due to increased pavement width on Regional Road 56; however,

Table 7-1: Evaluation of Planning Alternatives for ROPA 9

FACTOR	DO NOTHING Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	TRAVEL DEMAND MANAGEMENT Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved public transit services, accommodation for pedestrians and cyclists	UPGRADE OTHER ROUTES / BUILD OTHER ROUTES Involves constructing new east-west, or north-south corridors, and/or widening existing east-west or north-south corridors in the vicinity	OPERATIONAL IMPROVEMENTS Involves methods to increase the capacity of the existing road network, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections	RYMAL ROAD WIDENING Involves providing additional lanes on Rymal Road throughout the Study Area	TRINITY CHURCH ROAD EXTENSION Involves extending Trinity Church Road to connect with the Red Hill Valley Parkway interchange at Mud Street	REGIONAL ROAD 56 WIDENING Involves providing additional lanes on Regional Road 56 from Rymal Road southerly for approximately 900 m
		transit shelters	potential for streetscaping	intersections. However, potential for streetscaping	potential for streetscaping		potential for streetscaping
SOCIO-ECONOMIC IMPACTS (cont'd):							
Adjacent Local Roads (Potential for Traffic Infiltration)	Potential for traffic infiltration due to increased traffic congestion	Potential for slight reduction in traffic infiltration as a result of decrease in corridor auto demand	Potential for reduction in traffic infiltration due to potential for less traffic congestion	Potential for traffic infiltration due to increased traffic congestion, though slight increase to corridor capacity	Less potential for traffic infiltration as a result of increase in corridor and overall study capacity	Less potential for traffic infiltration as a result of increase in corridor and overall study capacity	Less potential for traffic infiltration as a result of increase in corridor and overall study capacity
Air Quality	No improvement to air quality. Congestion will continue to degrade air quality with increased vehicle emission due to increased congestion in the Study Area as development proceeds.	Potential for slight air quality improvement with decrease in auto traffic.	Moderate air quality improvement with potential for less traffic congestion in the Study Area.	Potential for slight air quality improvement with decrease in congestion.	Moderate air quality improvement with less traffic congestion in the Study Area.	Moderate air quality improvement with less traffic congestion in the Study Area.	Moderate air quality improvement with less traffic congestion in the Study Area.
Potential for Contamination	No change	Not applicable	Potential for contamination, depending upon locations.	Potential for contamination, depending upon locations and type of work (e.g. subsurface or surface work.)	Potential for contamination, due to commercial uses (e.g. services stations). Further investigations may be required	Potential for contamination, due to agricultural uses. Further investigations may be required	Potential for contamination, due to previous uses (e.g. commercial, agricultural). Further investigations may be required
NATURAL ENVIRONMENT IMPACTS:							
Vegetation	No anticipated impact on vegetation	No anticipated impact on vegetation	Potential for impact on vegetation along new / widened corridors	No anticipated impact on vegetation	Potential for impact on vegetation / trees along Rymal Road, potential for planting	Impact on vegetation / trees along a Trinity Church Road extension, potential for planting	Potential for impact on vegetation along Regional Road 56, potential for planting
Wildlife	No anticipated impact on wildlife	No anticipated impact on wildlife	Potential for impact on wildlife along new / widened corridors	No anticipated impact on wildlife	No anticipated impact on wildlife	Potential for impact on wildlife	No anticipated impact on wildlife
Aquatic Habitat	No anticipated impact on aquatic habitat	No anticipated impact on aquatic habitat	Potential for impact on aquatic habitat along new / widened corridors	No anticipated impact on aquatic habitat	Potential for impact on aquatic habitat with several Creek crossings	Potential for impact on aquatic habitat, due to potential water crossing	Potential for impact on aquatic habitat with a Creek crossing

Table 7-1: Evaluation of Planning Alternatives for ROPA 9

FACTOR	**DO NOTHING** Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	**TRAVEL DEMAND MANAGEMENT** Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved public transit services, accommodation for pedestrians and cyclists	**UPGRADE OTHER ROUTES / BUILD OTHER ROUTES** Involves constructing new east-west, or north-south corridors, and/or widening existing east-west or north-south corridors in the vicinity	**OPERATIONAL IMPROVEMENTS** Involves methods to increase the capacity of the existing road network, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections	**RYMAL ROAD WIDENING** Involves providing additional lanes on Rymal Road throughout the Study Area	**TRINITY CHURCH ROAD EXTENSION** Involves extending Trinity Church Road to connect with the Red Hill Valley Parkway interchange at Mud Street	**REGIONAL ROAD 56 WIDENING** Involves providing additional lanes on Regional Road 56 from Rymal Road southerly for approximately 900 m
Eramosa Karst	No anticipated impact on Karst features	No anticipated impact on Karst features	Potential for impact on Karst features along new / widened corridors	Potential for impact on Karst features at localized improvement areas	Potential for impact on Karst features	No anticipated impact on Karst features	No anticipated impact on Karst features
Stormwater	No anticipated additional impact on stormwater quality or quantity	No anticipated additional impact on stormwater quality or quantity	Potential impact on stormwater quality and quantity along new / widened corridors	No anticipated impact on stormwater quality or quantity	Impact on stormwater quality and quantity	Impact on stormwater quality and quantity	Impact on stormwater quality and quantity
COSTS							
Utility Relocation	No anticipated impact on utilities	No anticipated impact on utilities	Potential relocation of utilities along new / widened corridors	Potential relocation of utilities	Potential relocation of utilities	No anticipated impact on utilities	Potential relocation of utilities
Capital Costs	No anticipated capital costs	Capital costs of developing and implementing TDM program (Showcase)	High capital costs for road improvements	Anticipated minor capital costs for operational improvements	High capital costs for road improvements	High capital costs for road improvements	High capital costs for road improvements
Operating Costs	Potential for increase in operating cost with higher roadway maintenance costs, due to road surface and road base deterioration	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents.	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents along new / widened corridors	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents at localized improvement areas	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents along the corridor	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents along the new corridor	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents along the corridor
Property Acquisition	No anticipated property acquisition, therefore no property cost	No anticipated property acquisition, therefore no property cost	Anticipated high property acquisition along new / widened corridors	Potential minor property acquisition costs for operational improvements	Potential moderate property acquisition costs along Rymal Road	Property major property acquisition costs	Potential moderate property acquisition costs along Regional Road 56
RECOMMENDATION	The current Study Area road network is insufficient to meet the current traffic demand. With future development planned, improvements must be made to meet the future demand.	Travel Demand Management initiatives will contribute to reduced vehicular traffic in the corridors, but these will not address capacity or operational conditions within the study corridors. As such, they are recommended for further consideration, but it is recognized that they cannot address the problems alone.	Constructing new east-west corridors and/or widening existing east-west corridors have an overall potential high impact on the socio-economic and natural environments, and is associated with potentially very high capital costs.	Operational improvements on their own will not address all of the existing and future capacity and operational concerns within the study corridors. As such, they are recommended for further consideration, but it is recognized that they cannot address the problems alone.	Widening Rymal Road provides for additional capacity on the roadway, and allows for safety and operations improvements within the corridor.	Extending Trinity Church Road provides for additional capacity in the Study Area.	Widening Regional Road 56 provides for additional capacity on the roadway, and allows for any safety and operations improvements within the corridor.

Table 7-1: Evaluation of Planning Alternatives for ROPA 9

FACTOR	DO NOTHING	TRAVEL DEMAND MANAGEMENT	UPGRADE OTHER ROUTES / BUILD OTHER ROUTES	OPERATIONAL IMPROVEMENTS	RYMAL ROAD WIDENING	TRINITY CHURCH ROAD EXTENSION	REGIONAL ROAD 56 WIDENING
	Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved public transit services, accommodation for pedestrians and cyclists	Involves constructing new east-west, or north-south corridors, and/or widening existing east-west or north-south corridors in the vicinity	Involves methods to increase the capacity of the existing road network, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections	Involves providing additional lanes on Rymal Road throughout the Study Area	Involves extending Trinity Church Road to connect with the Red Hill Valley Parkway interchange at Mud Street	Involves providing additional lanes on Regional Road 56 from Rymal Road southerly for approximately 900 m
	Not Recommended	**Recommended in conjunction with the preferred solutions**	**Not Recommended**	**Recommended in conjunction with the preferred solutions**	**Recommended**	**Recommended**	**Recommended**

7.1.4 Preliminary Preferred Planning Alternative

Rymal Road is an important east-west transportation corridor. Rymal Road connects many north-south roads, including Upper Centennial Parkway / Regional Road 56. A north-south link from the Red Hill Valley Parkway to south of Rymal Road is crucial to the broader road network within the City, and would also serve the local community. Providing adequate capacity in these corridors is critical to planning for the economic growth and well-being of the City. The Regional Official Plan recognizes this need, and has designated a right-of-way for Rymal Road of 36 m to 45 m throughout the Study Area to provide for future growth and has highlighted a future extension of Trinity Church Road to the Red Hill Valley Parkway. Regional Road 56 is an important north-south transportation corridor, serving inter-regional traffic. It is important to provide adequate capacity on this highway.

Based on the assessment and evaluation of the Planning Alternatives, the preferred and recommended planning solution to address existing and future capacity issues is to:

- Widen Rymal Road from Trinity Church Road to Upper Centennial Parkway / Regional Road 56;
- Extend Trinity Church Road northerly to Stone Church Road;
- Widen Regional Road 56 south of Rymal Road;
- Encourage travel demand management (TDM); and
- Implement operational improvements.

The recommended planning solution is illustrated in **Exhibit 7-1**. Preliminary conceptual alignments of a Trinity Church Road extension (new north-south link between Rymal Road and the Red Hill Valley Parkway) are shown in **Exhibit 7-2.** Alternative alignment options will be assessed in detail in a separate Phases 3 and 4 Trinity Church Road Corridor Environmental Assessment Study for this new arterial roadway. A preferred alignment will be identified though this Study.

Based on the anticipated effectiveness of the other options in the Study Area, it was determined that these initiatives would contribute to reduced vehicular traffic, or improved operations, but in themselves, would not completely address capacity and operational conditions within the Study Area.

7.1.5 Timing of Rymal Road Planning Area Infrastructure

The timing of transportation improvements in support of the Rymal Road Planning Area are recommended as follows:

- The widening of Rymal Road is seen as needed now to accommodate approved development and to 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 as development proceeds.

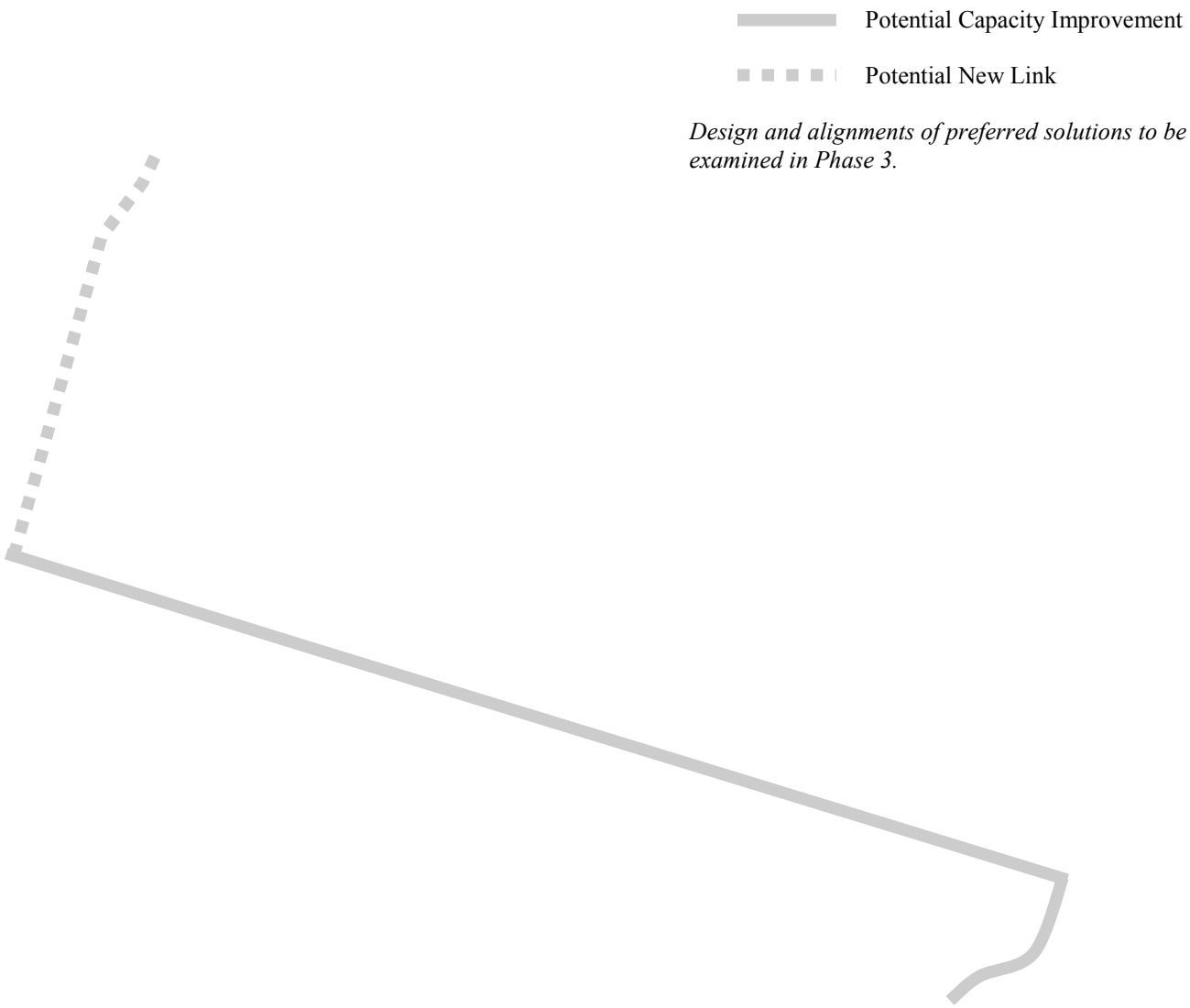

Exhibit 7-1
Conceptual Alternative Transportation Solutions

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- The widening and reconstruction of Regional Road 56 (from Rymal Road south to the intersection with the new collector road within ROPA 9) will be required in advance of the provision of the new collector intersection to accommodate development growth, and to minimize traffic impacts of construction.

Further development beyond that permitted under the Rymal Road Secondary Plan (current allocation) is not recommended until the infrastructure identified in **Section 7.1.4** can be accommodated or, unless other solutions can be identified through a traffic study acceptable to the City of Hamilton.

7.2 Public Consultation

The public consultation process and public reaction during the Problem Statement and Planning Alternatives Phases are summarized in this section of the report. Additional details on the public consultation process are contained in **Appendix B.**

7.2.1 Public Consultation Process

During the Problem Statement and Planning Alternatives phases, the public consultation process for ROPA 9 involved the following activities:

- Study Commencement Notice — March 4, 2005
- First Stakeholder Committee Meeting — September 19, 2005
- Advertisement of First Public Information Centre — September 16 & 23, 2005
- First Public Information Centre — October 3, 2005

First Stakeholder Committee Meeting (SC#1)

Representatives of the City and the consultant team met with the Stakeholder Committee once during this phase of the project. These meetings provided the SC 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, 10 members of the SC were present. Many items were discussed, including:

- How the EA process works and the role of the SC, City of Hamilton, and the consultant team in this process;
- SC Terms of Reference;
- Other studies being carried out in the vicinity of the Study Area which may pertain to this Study;
- Problem Statement;
- The preliminary list of evaluation criteria was reviewed. The following criterion was added: Adjacent Local Roads (Potential for Traffic Infiltration)

Meeting minutes are provided in **Appendix B.4.**

First Public Information Centre (PIC#1)

The first Public Information Centre (PIC#1) was held on Tuesday, October 3rd, 2005 from 6 p.m. to 9 p.m., at the Salvation Army Church Gym, 300 Winterberry Drive (at Paramount 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. Twenty-four panels were displayed. The information panels included the following:

- Welcome and Study Area
- Description of the Study background, Study goal and scope
- Chart of the EA process and class EA requirements
- Description of the public consultation plan
- Summary of the needs and opportunities for the Study for transportation, water, and wastewater
- Problem statement for transportation, water, and wastewater
- Existing official plan policies and other applicable policies
- Description of existing conditions
- Description of 7 transportation alternative solutions
- Description of 5 water alternative solutions
- Description of 3 wastewater alternative solutions
- Description of alternative solutions assessment criteria
- Evaluation tables of the transportation, water, and wastewater planning alternatives
- Identification and description of the preferred transportation, water, and wastewater planning alternatives
- Future actions
- Contact information

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 September 16, 2005 and Friday September 23, 2005, and in the Brabant papers (Mountain News, Glanbrook Gazette and Stoney Creek News) on Friday September 16, 2005. Notification letters were also mailed out to property owners within the Study Area, to other individuals who had responded with an interest in the Study since its commencement, to conservation authorities, Federal and Provincial agencies, and utility companies. A copy of the advertisement is provided in **Appendix B.1**.

The format was an informal drop-in centre from 6:00 to 7:00 PM to meet the project team and to view the display panels and drawings. There was a presentation at 7:00 PM, followed by a question and answer period. The PIC continued until 9:00 PM, which provided participants the opportunity to further discuss the project with the Study team. Attendees were asked to sign-in and were invited to fill-in comment forms at their convenience within a 3-week time frame.

Approximately 122 members of the public attended the PIC. Representatives from the City of Hamilton, iTRANS, and XCG attended the PIC to discuss the details of the project and answer questions of the public. A summary of issues and questions is provided below in **Section 7.2.2**. A full summary of the PIC is provided in **Appendix B.2**.

7.2.2 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 presented via PIC No.1 are as follows:

Rymal Road Widening – Comments on the need for improvements (long overdue), the need for widening of Rymal Road to James Street, timing for improvements, concerns regarding geometry of Rymal Road at Trinity Church Road, and increased traffic impact with the development of the ROPA 9 area.

Trinity Church Road Extension – Comments on the need for a new north south link between Rymal Road and the Red Hill Valley Parkway/Stone Church Road ramps, timing for improvement, alignment alternatives and potential impacts of a new north-south roadway on adjacent properties, suggestions for consideration of other routes

Special Policy Area 'C' – Comments suggesting no approval of development before the required road network is in place, concerns regarding increased traffic impacts as a result of the proposed development.

Traffic Operations on Local Roads and Road Closures – Comments on operational issues (increased traffic volumes, speeding, safety) on Second Road West, and on Upper Mount Albion Road, suggestions to close these roads.

Transit – Suggestions for improvements to transit service in the Study Area.

Complete summaries of the public meetings, along with project team responses to questions / issues are provided in **Appendix B.2.** All comments were taken into consideration in the analysis and evaluation of options, and additional reviews (such as the Trinity Neighbourhood Study) were undertaken as appropriate.

8. EVALUATION OF PLANNING ALTERNATIVES – TRINITY NEIGHBOURHOOD

The class environmental 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 the Trinity Neighbourhood review.

8.1 Development and Evaluation of Planning Alternatives

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

8.1.1 Development of Planning Alternatives

The proposed traffic management plan alternatives include the following:
- "Do Nothing"
- Enhanced Traffic Control
- New Road Connections; and
- Potential Road Closures.

Each planning alternative is described in further detail below.

8.1.1.1 "Do Nothing" Alternative

This alternative was included in the assessment to provide a benchmark against which the other alternatives could be compared. Under this planning alternative, no changes or improvements to the existing transportation network are considered.

8.1.1.2 Enhanced Traffic Control

This alternative involves methods of enhancing traffic control to local roads, Second Road West and Upper Mount Albion, such as:
- Additional Signage
- Painted stop bars
- Painted cross-walks at stop controlled intersections

- Roadway edge pavement markings
- Physical traffic calming (e.g. speed humps, diverters)

8.1.1.3 New Road Connections

This option involves constructing new north-south corridors in the vicinity of the Study Area:
- Trinity Church Corridor (from Stone Church Road / Red Hill Valley Parkway to Rymal Road),
- New collector road between Rymal Road / Second Road West and Highland Road.

8.1.1.4 Potential Road Closures

This alternative involves closing some of the roads in the area road network:
- Upper Mount Albion Road
- Second Road West (north of Gatestone Drive)
- Gatestone Drive
- Whitedeer Road.

8.1.2 Planning Alternatives Evaluation Criteria

A detailed assessment of the alternative planning 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.

Appropriateness of Network Plan
- Consistency with Road Designation
- Network Continuity
- Accessibility

Impacts on other Routes
- Diversion Volumes
- Turning Demand

Costs
- Capital
- Maintenance

Traffic Operational Issues
- Volume /Capacity
- Speed
- Collisions

Emergency Services Implications
- Routes
- Response Time

Impacts / Benefits to Communities
- Noise Impacts (effect of traffic-related noise)
- Residents
- Dwellings/property
- Accessibility
- Schools
- Air Quality

8.1.3 Evaluation of Planning Alternatives

The Planning alternatives were evaluated based on the ability of the alternative to address the problem statement, including impacts to transportation, anticipated property impacts, environmental impacts, and the list of criteria provided above. The evaluation was completed with input from the project team, the project Stakeholders 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 planning solutions, and a summary of the impacts and recommendations for the Study Area.

Table 8-1: Evaluation of Planning Alternatives for Trinity Neighbourhood

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
APPROPRIATENESS OF NETWORK PLAN							
Consistency with Road Designation	Official Plan road network not complete; local roads will continue to carry high levels of traffic	Applicable to local roads, though some measures have limited use for local rural roads; Intent of the Official Plan to have a complete road network is not met	Comply with the intent of the Official Plan to complete the Arterial road network	Comply with the intent of the Official Plan to complete the Collector road network	Closure is consistent with a local road designation	Closure is consistent with the local road designation north of Gatestone Dr.	Closure is not consistent with a collector road designation
Network Continuity	Trinity Church Road dead ends at Rymal Road; no collector road available between Pritchard Road and Second Road West; network continuity could be improved	Same as Option 1	Provides good network continuity with good north-west connection	Provides north-south connection from Highland Road to Rymal Road	Will impact network continuity with limited north-south routes.	Same as Option 5	Same as Option 5
Accessibility	Remain consistent as existing, generally accessible	Same as Option 1	Enhanced accessibility between ROPA 9 and areas to the north and west	Enhanced north-south accessibility	Road closure will impact local traffic accessibility	Same as Option 5	Same as Option 5
TRAFFIC OPERATIONAL ISSUES							
Volume / Capacity	Potential increase in through traffic volumes on neighbourhood roads, resulting in volumes over available capacity	Potential to reduce / maintain acceptable traffic volumes on area roads that is below road capacity	Provides additional north-south capacity to accommodate future traffic demand, and potentially reduce through traffic on neighbourhood roads	Same as Option 3	Closure will resolve high volume issues since roadway use limited to adjacent residents and businesses	Same as Option 5	Roadway use limited to adjacent residents; no volume or capacity issues expected
Operating Speeds	Current speeding issues will persist on area local roads	Potential to address speeding issues on area local roads	Operating speeds on new corridor could be controlled through appropriate roadway designation, geometry, etc.	Same as Option 3	Closure will address speeding issues since roadway use limited to adjacent residents and businesses	Same as Option 5	Roadway use limited to adjacent residents; no speeding issues expected
Overall Safety	Potential for increase in number of collisions on local roads, due to increase in traffic volume	Potential for increased safety for pedestrians and motorists	No anticipated safety issues with new corridor; also, a new corridor could improve safety for pedestrians and motorist on other routes with traffic diverted to the new route	Same as Option 3	Potential for increased safety for pedestrians and motorists with a reduction in traffic volumes	Same as Option 5	Same as Option 5; however traffic diversion could have safety implications on other routes
IMPACTS ON OTHER ROUTES							
Traffic Diversion	With capacity constraints traffic will divert; no additional capacity provided for traffic diversion	Minor traffic diversion may occur from local roads with enhanced traffic controls	New corridor will accommodate diverted traffic from area roads such as Upper Mount Albion and Second Road West.	Same as Option 3	Potential for significant traffic diversion to other area roads, with no new alternative routes provided. However, if implemented after new alternative routes (e.g. Options 3 and/or 4) are implemented, no adverse impacts anticipated.	Same as Option 5	Same as Option 5
Turning Demand	Dartnall Road / Rymal Road	Same as Option 1	Significant improvement and	The new collector will result in	Closure could result in an	Same as Option 5	Same as Option 5

Table 8-1: Evaluation of Planning Alternatives for Trinity Neighbourhood

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
	intersection will experience excessive southbound left and westbound right turning volumes; Turning demands at local road intersections could increase		balance of the turning demands resulting from the ROPA 9 development, particularly at Dartnall Road / Rymal Road intersection	acceptable turning movements at the intersections of the new collector road with the existing roads	increase in turning volumes at other intersections		
EMERGENCY SERVICES IMPLICATIONS							
Routing of Emergency Services (Ambulance, Fire, Police)	Same as existing	Same as Option 1	Additional route choice	Additional route choice to local community	The existing fire station is located north of Trinity (Mud/Isaac Brock); Closure at the south end will have little impact on residents on Upper Mount Albion Road. However, communities south of Rymal Road would now be accessed via Fletcher Road and Upper Centennial Parkway	The existing fire station is located north of Trinity (Mud/Isaac Brock); Closure at the south end will have little impact on residents on 2nd Road West. However, communities south of Rymal Road would now be accessed via Gatestone Drive where an elementary school is present.	Impact to available routes for emergency vehicles since these roads are designated emergency routes
Response Time	Same as existing	Varying types of traffic control could impact response time.	Potential for improved response time with an additional route	Same as Option 3	Potential increase in response times to the communities south of Rymal Road	Same as Option 5	Potential increase in response times to access local communities
NATURAL ENVIRONMENT							
Vegetation	No anticipated impact on vegetation	Same as Option 1	Impact on vegetation / trees	Impact on vegetation / trees, potentially including small woodlot	Same as Option 1	Same as Option 1	Same as Option 1
Wildlife	No anticipated impact on wildlife	Same as Option 1	Potential for impact on wildlife	Potential for impact on wildlife	Same as Option 1	Same as Option 1	Same as Option 1
Eramosa Karst	No anticipated impact on the Eramosa Karst	Same as Option 1	No anticipated impact on Karst features	Potential impact on Karst features	Same as Option 1	Same as Option 1	Same as Option 1
COSTS							
Capital	No capital cost	Low cost to implement control devices	Potentially high construction costs	Potentially moderate construction cost	Low construction cost for road closure	Same as Option 5	Same as Option 5
Maintenance	Potential for increase in maintenance cost, due to road surface and road base deterioration created by higher volumes	Low increase in maintenance costs over existing	Will require relevant maintenance	Same as Option 3	Lower maintenance costs due to less traffic volumes on closed road, but notable traffic diversion could increase maintenance needs on other roads	Same as Option 5	Same as Option 5
IMPACTS / BENEFITS TO COMMUNITIES (SOCIO-ECONOMIC)							
Traffic Noise	Potential increase due to increased traffic volumes	Noise conditions may improve on roads with enhanced traffic controls	No significant noise impacts anticipated	Same as Option 3	Improved noise conditions on closed road, but could increase noise impact on other roads due to traffic	Same as Option 5	Same as Option 5

Table 8-1: Evaluation of Planning Alternatives for Trinity Neighbourhood

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
					diversion		
Residents	Impacts to residents along local roads will persist and could become worse	Impacts to residents along local roads may be controlled in the short-term	Diversion of traffic to new route from adjacent local roads will benefit residents	Same as Option 3	Elimination of through traffic on closed road will benefit local residents; however may impact residents on other roads due to traffic diversion	Same as Option 5	Same as Option 5
Dwellings/property	No anticipated property or dwelling impacts	No anticipated property or dwelling impacts	New alignment may require property acquisition	Same as Option 3	Potential for property impact with closure design	Same as Option 5	Same as Option 5
Driveway Access	Driveway access on local roads with high volumes of traffic could be compromised	Potential for improved driveway access with enhanced traffic controls due to traffic diversion to other routes	Potential for improved driveway access on local roads with diversion of traffic to the new corridor.	Same as Option 3	Enhanced driveway access along closed road; however may impact residents on other roads due to traffic diversion	Same as Option 5	Same as Option 5
Schools	No anticipated impacts on schools	Same as Option 1	Same as Option 1	Same as Option 1	Same as Option 1	Potential for higher traffic exposure on Gatestone Elementary School, and on St Mark's Elementary School with use of these routes by diverted traffic, and by emergency vehicles, if no new alternative route is provided.	Accessibility of Gatestone Elementary School, and St Mark's Elementary School will be impacted
Air Quality	No improvement to air quality. Congestion will continue to degrade air quality with increased vehicle emission due to increased congestion in the Study Srea as development proceeds.	No overall improvement to air quality in the general Study Area. Congestion will continue to degrade air quality with increased vehicle emission due to increased congestion in the Study Area. Potential for slight improvement to air quality for residents on local roads where enhanced traffic control may be implemented, and result in traffic volumes reducing or levels maintained.	Potential significant improvement to air quality as traffic redistributes to new routes and congestion is relieved.	Potential significant improvement to air quality as traffic redistributes to new routes and congestion is relieved.	No overall improvement to air quality in the general Study Area. Congestion in the Study Area will continue to degrade air quality with increased vehicle emission due to increased congestion in the Study Area. Potential improvement to air quality for local residents on Upper Mount Albion Road as traffic volumes are reduced.	No overall improvement to air quality in the general Study Area. Congestion in the Study Area will continue to degrade air quality with increased vehicle emission due to increased congestion in the Study Area. Potential improvement to air quality for local residents on Second Road West as traffic volumes are reduced.	No overall improvement to air quality in the general Study Area. Congestion in the Study Area will continue to degrade air quality with increased vehicle emission due to increased congestion in the Study Area. Potential improvement to air quality for local residents on Gatestone Dr./Whitedeer Rd. as traffic volumes are reduced.
RECOMMENDATION	Road network improvements are required to accommodate existing and future development. The Do Nothing Option will not address these requirements, and will compound the traffic network deficiencies.	Enhanced Traffic Control will provide short-term solution for traffic issues on local roads; additional road network improvement will be required for the long-term	A necessary high order road link to accommodate future long distance north-south traffic demands	A necessary road link and function between Rymal Road and Highland Road in the Trinity neighbourhood; Necessary connection to carry north-south through traffic	Closure of Upper Mount Albion Road will allow it to functions as designated - a Local Road. Closure is however only feasible in conjunction with a new north-south connection	Closure of Second Road West will allow it to functions as designated - a Local Road; Closure is however only feasible in conjunction with a new collector road that provides	Closure of Gatestone Drive or of Whitedeer Road is not recommended, since closure is not consistent with a Collector Road designation. Also, closure will impact emergency

Table 8-1: Evaluation of Planning Alternatives for Trinity Neighbourhood

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
					between Rymal Road and Stone Church Road which will provide the capacity for future growth and traffic diverted from a closed Upper Mount Albion Road	connection between Rymal Road and Highland Road. If a new collector is not feasible due to the Karst Area or other constraints, a closure will be dependent on implementation of an additional north-south route such as a new link between Rymal Road and Stone Church Road	routes.
	Not Recommended	**Recommended for Phase 1 Implementation**	**Recommended for Phase 2 Implementation**	**Recommended for Phase 2 Implementation**	**Recommended for Phase 2 Implementation**	**Recommended for Phase 2 Implementation**	**Not Recommended**

8.1.4 Preliminary Preferred Planning Alternative

Based on the evaluation of the options, the recommended alternative solution is to implement a number of solutions in two phases. These included to build new connections such as the Trinity Church corridor and a new collector road through the Trinity Neighbourhood, and to close Second Road West and Upper Mount Albion Road. Since these conditions cannot be implemented immediately, interim traffic control measures should be implemented on the local roads to minimize the impacts of increasing traffic volumes. The preferred and recommended planning solutions are therefore as follows:

8.1.4.1 Phase 1 Solutions

As an interim solution to manage the traffic demand and traffic operations issues such as speeding and safety implications, enhanced traffic control devices are recommended for the designated local roads in the Trinity Neighbourhood, namely Second Road West (north of Gatestone Drive) and Upper Mount Albion Road.

Second Road West

- Implement enhanced traffic control (additional signage, painted stop bars) on Second Road West, north of Gatestone Drive as phase 1 measures to enhance the visibility of the stop-controlled intersections.

- Implementation of physical traffic calming measures on Second Road West does not currently meet the City policy requirements (speed thresholds have to be met), and is therefore not recommended as a potential solution at this time. However, the City will continue to monitor Second Road West for the appropriateness of physical traffic calming measures in the future, prior to any road closure.

Upper Mount Albion Road

- Consideration of enhanced traffic control measures (pavement markings, aggressive police enforcement and gateway features) for Upper Mount Albion Road as phase 1 solutions, appropriate for a rural cross-section.

- Implementation of physical traffic calming measures on Upper Mount Albion Road is not consistent with the City policy requirements for PRIMARY emergency / fire services routes, and is therefore not recommended as a potential solution, at this time. However, the City will continue to monitor roadway operations on Upper Mount Albion Road and if conditions change, physical traffic calming measures will be re-investigated.

Additional Future Phase 1 Solutions – Physical Traffic Calming Measures

As noted above under the Second Road West discussion, the City will continue to monitor Second Road West for the appropriateness of physical traffic calming measures in the future,

prior to any road closure. However, all current City policy requirements must be met, before consideration is given to traffic calming. This includes meeting a speeding threshold of the 85th percentile speed (the speed at which 85% of the vehicles travel at or below) being at least 8 km/h above the posted speed limit.

Consideration may also be given to additional measures on Upper Mount Albion Road, if the implemented Phase 1 solutions are not effective. Future measures on Upper Mount Albion Road are limited given the Primary emergency / fire services route designation. However, centreline rumble strips, which will not compromise the movement of emergency vehicles, or other measures identified as feasible by the City can be considered. All current City requirements and criteria for implementation of traffic calming measures would have to be met before any consideration would be given to traffic calming.

If the closure of either Second Road West, or of Upper Mount Albion Road has occurred or is imminent, traffic calming measures will not be implemented. Therefore, traffic calming will not be implemented in combination with road closures.

Potential physical traffic calming measures for consideration include, but are not limited to, the following:

- Second Road West – speed humps, chicanes, directional closures / diverters
- Upper Mount Albion Road – centerline rumble strips, other measures identified as feasible by the City

Any or all of these measures will need to be approved by the City of Hamilton before implementation.

8.1.4.2 Phase 2 Solutions

As a longer term solution to address the traffic operations issues within the Trinity Neighbourhood, wider network management is required. One of this Master Plan assessment findings and recommendations is that the anticipated traffic growth due to the planned development in ROPA 9 and surrounding areas will require additional north-south road link capacity in the Trinity Neighbourhood. It is also recommended that a new road link be built from Stone Church / Red Hill Valley Parkway ramps to Rymal Road. The following are the Phase 2 recommendations:

- Implement new road connections as soon as possible to provide additional north-south capacity
    - A new collector road in the Trinity Neighbourhood
    - New roadway from Stone Church Road / Red Hill Valley Parkway to Rymal Road (referred to as the Trinity Church Road extension)

- Implement road closure on Second Road West north of Gatestone Drive, and on Upper Mount Albion Road

- Closure of Second Road West should be coordinated with the construction of the new collector road
- Closure of Upper Mount Albion Road should be coordinated with a new north-south link from Stone Church Road to Rymal Road

New Collector Road

A new collector road in the Trinity Neighbourhood has been identified in the Former City of Stoney Creek Official Plan (Schedule A3). This collector was planned as an extension of Winterberry Drive to connect to Second Road West at Gatestone Drive. The results of this Master Plan analyses concur with the Official Plan recommendations. This planned collector road, together with Second Road West south of Gatestone Drive, will provide important future north-south connection between Rymal Road and Highland Road

With the traffic growth in the ROPA 9 area, and the anticipated major origin-destination (O-D) patterns to the north and west, a new collector road is expected to carry a notable amount of future traffic demands from ROPA 9. The construction of a new collector road would divert most of the through traffic currently on Second Road West and some from Upper Mount Albion Road. This is of benefit to the adjacent local roads to better perform their designated functions of which the major role is to serve the local communities.

With the discovery of the Karst features south of Highland Road, the environmental needs to protect the Karst core area limit the potential to construct a new collector road linking Rymal Road and Highland Road. Alignments for the new collector road are currently under investigation. Preliminary conceptual alignments of the new collector road are shown in **Exhibit 8-1**. Alternative alignment options will be assessed in detail in a separate Phases 3 and 4 Collector Road and Trinity Neighbourhood Improvements Environmental Assessment Study for this new collector roadway. A preferred alignment will be identified though this Study.

New North-South Arterial Road

Direct extension of the existing Trinity Church Road could be one of the road alignment options considered for this new north-south arterial road. Preliminary future traffic demands on the Trinity Church corridor are assessed in **Section 3,** in association with the potential changes of the adjacent road network. Preliminary conceptual alignments of the new link are shown in **Exhibit 7-2.** Alternative alignment options will be assessed in detail in a separate Phases 3 and 4 Trinity Church Road Corridor Environmental Assessment Study for this new arterial roadway. A preferred alignment will be identified though this Study.

Road Closures

Similar to the former City of Stoney Creek Official Plan recommending the extension of Winterberry Drive to Second Road West, Second Road West and Upper Mount Albion Road were both planned to be closed as part of the Trinity Neighbourhood Plan adopted by the

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former City of Stoney Creek Council in the early 1990's. The extension of Winterberry Drive to Second Road West is also included in this Neighbourhood plan. The results of this Master Plan analyses concur with the Trinity Neighbourhood Plan recommendations.

8.1.4.3 Identification of Closure Details

Second Road West

Since the closure of Second Road West is recommended to be coordinated with the construction of a new collector road between Rymal Road / Second Road West and Highland Road, it is appropriate that the identification of closure details be linked to the process of determining the details for a new collector road. As such, it is recommended that the details for the closure of Second Road West be determined in the Phases 3 and 4 Collector Road and Trinity Neighbourhood Improvements Environmental Assessment Study, which is currently on-going.

Consideration can be given to close Second Road West north of Gatestone Drive (an ideal location). The south section of Second Road West from Gatestone Drive to Rymal Road is designated a collector road. This section of Second Road West would remain open to Rymal Road to allow for a continuous Collector Road system with Gatestone Drive and a planned new collector road west of Second Road West. If Second Road West was closed at Rymal Road, the opportunity for through traffic to use Second Road West via Gatestone Drive would continue to exist, and would not fully mitigate the existing problems.

It is recommended that the new collector road be built as soon as possible, and for Second Road West to be closed at Gatestone Drive as soon as the new collector road is in place.

Upper Mount Albion Road

Similarly, the closure of Upper Mount Albion Road should be coordinated with a new north-south roadway linking Stone Church Road / Red Hill Valley Parkway to Rymal Road. As such, it is recommended that the details for the closure of Upper Mount Albion Road be determined in the Phases 3 and 4 Trinity Church Corridor Environmental Assessment, which is currently on-going.

8.1.4.4 Timing of Trinity Neighbourhood Infrastructure

Current traffic conditions on the local road network north (downstream) of the ROPA 9 lands are undesirable as noted in **Section 4.4**. As a result, the Trinity Neighbourhood Collector Road and the new road link from the Red Hill Creek Expressway ramps to Rymal Road (commonly referred to as the Trinity Church Extension) are seen needed now.

Further development beyond that permitted under the Rymal Road Secondary Plan (current allocation) and Special Policy Area 'C' is not recommended until the infrastructure identified in **Section 8.1.4.3** can be accommodated (particularly the Trinity Neighbourhood Collector Road and road closures implemented), unless other solutions can be identified through a traffic study acceptable to the City of Hamilton. As noted, the proposed road closures are not recommended until the new road links can be provided to accommodate capacity, circulation, and emergency services.

8.2 Public Consultation

The public consultation process and public reaction during the Problem Statement and Planning Alternatives Phases for Trinity Neighbourhood are summarized in this section of the report. Additional details on the public consultation process are contained in **Appendix B.**

8.2.1 Public Consultation Process

During the Problem Statement and Planning Alternatives phases, the public consultation process for Trinity Neighbourhood involved the following activities:

- Newsletter Update — December 20, 2005
- Advertisement of Second Public Information Centre — January 13, & January 20, 2006
- Second Public Information Centre — January 26, 2006

Newsletter

To update the public of the project status, a newsletter was sent to those on the mailing list.

The newsletter provided members of the public with a summary of the recommendations presented at PIC #1 for ROPA. It also provided members of the public with information regarding the Trinity Neighbourhood Traffic Study that the City was undertaking to address concerns expressed by residents adjacent to the ROPA Study Area at PIC#1.

The newsletter also informed members of the public that the second Public Information Centre would be held in January 2006, rather than December 2005, due to the additional work undertaken for the Trinity Neighbourhood Traffic Study.

Contact information was included in the newsletter. A copy of the newsletter is included in **Appendix B.3**.

Second Public Information Centre (PIC#2)

The second Public Information Centre (PIC#2) was held on Thursday, January 26th, 2006, from 6:00 to 8:00 PM at the Salvation Army Church Gymnasium, 300 Winterberry Drive (at

Paramount Drive), in the City of Hamilton. Members of the community in the vicinity of the ROPA 9 lands had expressed concerns regarding traffic operations in the area, specifically, traffic infiltration (resulting in increased traffic volumes on neighbourhood streets), travel speeds, traffic control compliance, and safety for pedestrians and cyclists. The purpose of PIC#2 was to present to members of the community, options that were identified and assessed in an attempt to address these concerns, and to gather public input. Twenty-six panels were displayed. The information panels included the following:

- Welcome
- ROPA9 Study information and Study Area
- Background to the meeting
- Overall project context
- Trinity Neighbourhood Study Area
- Road network and road classifications
- Description of existing conditions
- Future traffic conditions
- Problem/opportunity statement
- Description of 4 alternative transportation solutions
- Description of alternative solutions assessment criteria
- Evaluation tables of the transportation alternatives
- Recommended solutions
- Future actions
- Contact information

Advertisements informing the public of the PIC, were placed in the Hamilton Spectator on Friday, January 13th and on Friday, January 20th, 2006, and in the Stoney Creek News, Mountain News and Glanbrook Gazette (Brabant) on Friday, January 13th 2006. Notification letters were also mailed out to property owners in an area bounded by Pritchard Road to the west, Mud Street-Winterberry Drive-Highland Road to the north, the Hydro corridor to the south, and Whitedeer Road - Regional Road 56 to the east. Other individuals who had responded with an interest in the Study since its commencement, and conservation authorities, Federal and Provincial agencies, and utility companies were also notified. A copy of the public notice is provided in **Appendix B.1**.

The format was an informal drop-in centre from 6:00 to 6:30 PM to view the display panels and drawings, and to have discussions with the project team. There was a presentation at 6:30 PM, followed by a question and answer period. The PIC continued until 8:00 PM, which provided participants the opportunity to further discuss the project with the Study team. Attendees were asked to sign-in and were invited to fill-in comment forms at their convenience within a 2-week time frame.

Approximately 114 members of the public attended the PIC. Representatives from the City of Hamilton, iTRANS, and XCG attended the PIC to discuss the details of the project and answer questions of the public. A summary of issues and questions is provided below in **Section 8.2.2**. A full summary of the PIC is provided in **Appendix B.2**.

8.2.2 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 presented via PIC No.2 included the following:

Phase 1 Improvements – Timing for the improvements and effectiveness of the traffic control measures.

Phase 2 Improvements – Timing for the improvements.

Road Closures – Trucks and cars cut through the Second Road West and Upper Mount Albion Road; suggestions to close the roads.

Trinity Church Road Extension – Timing for the improvement. Alignment for the improvement.

Impacts to Other Streets – Impacts of road closures on adjacent streets such as Highland Road and Gatestone Drive.

Complete summaries of the public meetings, along with project team responses to questions / issues are provided in **Appendix B.2.**

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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 Special Policy Area 'C'.

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Alternatives to the undertaking are different means of addressing the problem. The problems identified for this component of the Master Plan are described in **Section 5** 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.

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The proposed traffic management plan alternatives include the following:

"Do Nothing"
Travel Demand Management and Transit Initiatives
New Major Infrastructure and Road Widenings; and
Operational Improvements.

Each planning alternative is described in further detail below.

9.1.1.1 Do Nothing

The Do Nothing alternative represents the continuation of existing conditions and would involve no changes or improvements to the existing transportation network.

9.1.1.2 Travel Demand Management and Transit Initiatives

This alternative involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling, improved transit service, accommodation for pedestrians and cyclists.

9.1.1.3 New Major Infrastructure and Road Widenings

New major infrastructure and road widenings involves constructing a new north-south corridor, such as a north-south connection between Rymal Road and Stone Church Road, and widening existing east-west (such as Stone Church Road) or north-south (such as Winterberry Drive) corridors in the vicinity of the Study Area.

9.1.1.4 Operational Improvements

Operational improvements involves methods to increase the capacity of the existing road network, such as localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections, changes to traffic signal timing and phasing.

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A detailed assessment of the alternative planning 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.

Effect on Transportation System
- Corridor Capacity
- Traffic Safety
- Access to/from Surrounding Roads
- Transit Operations
- Accommodation for Pedestrians and Cyclists

Effect on Natural Environment
- Vegetation
- Wildlife
- Aquatic Habitat
- Stormwater

Effect on Socio-Economic Environment
- Noise Impacts
- Residents Impacts
- Dwellings Displacement / Property Requirements
- Business impacts
- Future Land uses
- Institutional Impacts
- Recreational Facilities
- Archaeological/Cultural / Heritage Resources
- Air Quality

Cost Effectiveness
- Capital Costs
- Operating Costs
- Property Acquisition

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The Planning 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, and the project Stakeholders Committee.

Following the evaluation, a recommendation was made on which Planning Alternatives would be carried forward to the next stage. **Table 9-1** contains the evaluation of the alternative planning solutions and a summary of the impacts and recommendations for the Study Area.

Table 9-1: Evaluation of Transportation Planning Alternatives – Special Policy Area 'C'

FACTOR	Alternative 1 DO NOTHING Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	Alternative 2 TRAVEL DEMAND MANAGEMENT AND TRANSIT INITIATIVES Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved transit service, accommodation for pedestrians and cyclists	Alternative 3 NEW MAJOR INFRASTRUCTURE AND ROAD WIDENINGS Involves constructing a new north-south corridor, such as a north-south connection between Rymal Road and Stone Church Road, and widening existing east-west (such as Stone Church Road) or north-south (such as Winterberry Drive) corridors in the vicinity of the Study Area	Alternative 4 OPERATIONAL IMPROVEMENTS Involves methods to increase the capacity of the existing road network, such as localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections, changes to traffic signal timing and phasing
Effect on Transportation System - Corridor Capacity - Traffic Safety - Access to/from Surrounding Roads - Transit Operations - Accommodation for Pedestrians and Cyclists	No increase to corridor capacity; expected increase in traffic congestion; potential for significant traffic infiltration on area local roads such as Upper Mount Albion Road, south of Stone Church	No increase to corridor capacity; however, slight decrease in peak hour auto demand; potential for significant traffic infiltration on area local roads such as Upper Mount Albion Road, south of Stone Church Road	Significant increase to corridor capacity and to the overall Study Area roadway capacity	Significant increase to corridor capacity resulting in less traffic congestion within Study Area; potential for traffic infiltration on area local roads such as Upper Mount Albion Road, south of Stone Church Road
	Existing safety conditions may worsen with increased traffic congestion from traffic growth	Potential increased safety due to the potential for less traffic congestion	Potential increased safety due to the potential for less traffic congestion	Localized improvement in safety performance
	Access to/from surrounding roads could become more difficult with increased traffic congestion from traffic growth	Minor improvement for cross streets accessibility with potential for less traffic congestion on Stone Church Road, and on Winterberry Drive	Improvement for cross streets accessibility with potential for less traffic congestion on Stone Church Road and on Winterberry Drive	Improvement with new traffic signals or roundabouts facilitating access to / from Stone Church Road, and to / from Winterberry Drive
	Potential for future transit service (transit service currently along Winterberry Drive, and Stone Church Road) to be hampered by traffic congestion	Potential for minor reduction in transit delays as a result of minor increase in corridor capacity	Potential for reduction in transit delays as a result of increase in corridor capacity	Potential for reduction in transit delays as a result of increase in corridor capacity
	No bicycle lanes or sidewalks currently exist on Stone Church Road between Pritchard Road and Winterberry Drive. An asphalt sidewalk is currently located only on the east side of Winterberry Drive between Mud Street and Paramount Drive. Bike lanes exist on Stone Church Road west of Pritchard Road and east of Winterberry Drive	Could improve as a result of a focus on the pedestrian / cyclist network	Could result in new pedestrian/cyclist routes. Could also result in sidewalks being built as a result of the policy recommendations from the City-wide Phase 2 TMP in regard to upgrading of routes and new construction.	Potential to implement bike lanes and sidewalks on Stone Church Road for a continuous bike network across Stone Church Road, and sidewalks on Winterberry Drive to better accommodate pedestrians
Effect on Socio-Economic Environment	Increase in noise levels with future traffic growth	Potential reduction in noise levels with slight decrease in peak hour auto demand.	Increase in noise levels with future traffic growth	Increase in noise levels with future traffic growth
- Noise Impacts	No direct impact to residents, though	No direct impact to residents – Encourages	Potential impact (displacement) to residents in	No anticipated direct impact to residents; potential

Table 9-1: Evaluation of Transportation Planning Alternatives – Special Policy Area 'C'

FACTOR	Alternative 1 DO NOTHING Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	Alternative 2 TRAVEL DEMAND MANAGEMENT AND TRANSIT INITIATIVES Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved transit service, accommodation for pedestrians and cyclists	Alternative 3 NEW MAJOR INFRASTRUCTURE AND ROAD WIDENINGS Involves constructing a new north-south corridor, such as a north-south connection between Rymal Road and Stone Church Road, and widening existing east-west (such as Stone Church Road) or north-south (such as Winterberry Drive) corridors in the vicinity of the Study Area	Alternative 4 OPERATIONAL IMPROVEMENTS Involves methods to increase the capacity of the existing road network, such as localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections, changes to traffic signal timing and phasing
- Residents Impacts - Dwellings Displacement / Property Requirements - Business impacts - Future Land uses - Institutional Impacts - Recreational Facilities - Archaeological/Cultural / Heritage Resources - Air Quality	increased vehicle emission (potentially poor air quality) is anticipated with increased congestion	positive impacts of active lifestyle	the area of a new corridor; no anticipated direct impact to residents along widened corridor; potential for improved air quality (over alternative 1) with less traffic congestion	for improved air quality (over alternative 1) with less traffic congestion
	No impact to existing dwellings / property	No impact to existing dwellings / property	Impact to existing property along new corridor; potential minor impact to existing property along widened corridor for increased right-of-way; property for widening at development related locations along existing corridors would be dedicated to the City under the Planning Act, at the time of development approvals	Potential minor impact to existing property at intersections to accommodate turn lanes; property for widening at development related locations would be dedicated to the City under the Planning Act, at the time of development approvals
	No impact to existing businesses. No changes to existing private driveways	No impact to existing businesses. No changes to existing private driveways	No anticipated impact to existing businesses	No anticipated impact to existing businesses
	Anticipated significant impact on potential for future development with no improvements to the transportation network	Minor change in allowance for future development (i.e direct access could still be limited) with improvements in travel demand management and transit initiatives	Significant improvements to the transportation network will allow for future development	Operational improvements to the transportation network will allow for future development
	No impact to school or church within Study Area	No anticipated impact to institutions within the area	No anticipated impact to institutions within the area	No anticipated impact to institutions within the area
	No recreational facilities adjacent to the corridors	No recreational facilities adjacent to the corridors	No anticipated impact on recreational facilities	No recreational facilities adjacent to the corridors
	No impacts to existing archaeological / cultural heritage resources	No impacts to existing archaeological / cultural heritage resources	Potential for impact on archaeological resources along new corridor; anticipated minor to negligible impact on archaeological resources along widened corridors, given anticipated previous disturbances within the existing or widened right-of-way	Anticipated minor to negligible impact on archaeological resources, given anticipated previous disturbances within the existing or widened right-of-way

Table 9-1: Evaluation of Transportation Planning Alternatives – Special Policy Area 'C'

FACTOR	Alternative 1 DO NOTHING Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	Alternative 2 TRAVEL DEMAND MANAGEMENT AND TRANSIT INITIATIVES Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved transit service, accommodation for pedestrians and cyclists	Alternative 3 NEW MAJOR INFRASTRUCTURE AND ROAD WIDENINGS Involves constructing a new north-south corridor, such as a north-south connection between Rymal Road and Stone Church Road, and widening existing east-west (such as Stone Church Road) or north-south (such as Winterberry Drive) corridors in the vicinity of the Study Area	Alternative 4 OPERATIONAL IMPROVEMENTS Involves methods to increase the capacity of the existing road network, such as localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections, changes to traffic signal timing and phasing
	No improvement to air quality. Congestion will continue to degrade air quality with increased vehicle emission due to increased congestion in the Study Area as development proceeds	Potential for slight air quality improvement with decrease in auto traffic	Potential significant air quality improvement with decrease in congestion	Potential for slight air quality improvement with potential for slight decrease in congestion
Effect on Natural Environment - Vegetation - Wildlife - Aquatic Habitat - Stormwater	No anticipated impact on vegetation	No anticipated impact on vegetation	Potential for impact on vegetation along new corridor; potential for minimal impact on vegetation / trees along widened corridors; opportunity for replanting	Potential for minimal impact on vegetation / trees along Winterberry Drive, and along Stone Church Road; opportunity for replanting
	No anticipated impact on wildlife	No anticipated impact on wildlife	Potential for impact on wildlife along new corridor; no anticipated impact on wildlife along widened corridors	No anticipated impact on wildlife
	No anticipated impact on aquatic habitat	No anticipated impact on aquatic habitat	Potential for impact on aquatic habitat along new corridor; no anticipated impact on aquatic habitat along widened corridors	No anticipated impact on aquatic habitat
	No anticipated additional impact on stormwater quality or quantity	No anticipated additional impact on stormwater quality or quantity	Potential impact on stormwater quality and quantity along new corridors; no anticipated impact on stormwater quality or quantity along widened corridors	No anticipated impact on stormwater quality or quantity
Cost Effectiveness - Capital Costs - Operating Costs - Property Acquisition	No anticipated capital costs	Capital costs of developing and implementing TDM program (Showcase)	High capital costs for road improvements, however, growth related improvements would be covered under development charges	Anticipated moderate capital costs for operational improvements
	Potential for increase in operating cost with higher roadway maintenance costs, due to road surface and road base deterioration	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents	Maintenance costs related to roadway, sidewalks and cycling lanes to better respond to the needs of the residents
	No anticipated property acquisition, therefore no property cost	No anticipated property acquisition, therefore no property cost	Anticipated high property acquisition along new corridor; potential minor property	Potential minor property acquisition costs in locations that are not development related;

Table 9-1: Evaluation of Transportation Planning Alternatives – Special Policy Area 'C'

FACTOR	Alternative 1 DO NOTHING Represents continuation of existing conditions and would involve no changes or improvements to the existing transportation network	Alternative 2 TRAVEL DEMAND MANAGEMENT AND TRANSIT INITIATIVES Involves methods to modify existing and future travel demand, to reduce the growth of single-occupant vehicular travel during the peak travel periods, such as carpooling programs and parking facilities, improved transit service, accommodation for pedestrians and cyclists	Alternative 3 NEW MAJOR INFRASTRUCTURE AND ROAD WIDENINGS Involves constructing a new north-south corridor, such as a north-south connection between Rymal Road and Stone Church Road, and widening existing east-west (such as Stone Church Road) or north-south (such as Winterberry Drive) corridors in the vicinity of the Study Area	Alternative 4 OPERATIONAL IMPROVEMENTS Involves methods to increase the capacity of the existing road network, such as localized roadway section and intersection geometric improvements, adding or changing exclusive turn lanes at intersections, changes to traffic signal timing and phasing
			acquisition costs along widened corridors in locations that are not development related; property for road widening in development related locations would be dedicated to the City under the Planning Act at the time of development approvals	property for road widening in development related locations would be dedicated to the City under the Planning Act at the time of development approvals
RECOMMENDATION	The current Study Area road network is insufficient to meet future traffic demand. With development planned, improvements must be made to meet the future traffic demands. **Not Recommended**	Travel Demand Management initiatives will contribute to reduced vehicular traffic in the corridors, but these will not address capacity conditions within the study corridors. As such, they are recommended for further consideration, but it is recognized that they cannot address the problems alone. **Recommended in conjunction with the preferred solutions**	With development planned, infrastructure improvements will be needed to meet future traffic demands. The need for additional north-south network capacity, and roadway section widening are required, to meet these future traffic demands. It is recognized that these are needed in combination with operational improvements. **Recommended**	Localized operational improvements on their own will not address all of the existing and future capacity and operational concerns within the Study Area. As such, they are recommended as a component to the overall road network capacity improvements, but it is recognized that they cannot address the problems alone. **Recommended**

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The preliminary preferred planning alternative includes a combination of travel demand management and transit initiatives, new major infrastructure (a new north-south roadway between Rymal Road and Stone Church Road), and road widenings and operational improvements. The following are the specific recommended transportation solutions for Special Policy Area 'C', in conjunction with the improvements stated above:

Along Mud Street:

Provision of an eastbound right turn lane at the intersection with Winterberry Drive

Along Stone Church Road - Paramount Drive:

Provision of an eastbound left turn lane entering the site at Access A
Provision of eastbound and westbound left turn lanes at Upper Mount Albion Road
Provision of a westbound left turn lane at the existing entrance to 800 Paramount Drive
Provision of traffic controls (signals or roundabouts) at the intersection with Upper Mount Albion Road
Provision of a westbound right turn lane at the Red Hill Valley Parkway Ramp/Stone Church Road intersection. This westbound right turn lane is recommended to commence from Upper Mount Albion Road, and would become a "forced" right turn lane at the RHVP ramps
Provision of an eastbound left turn lane at the RHVP Ramp/Stone Church Road intersection, with minimum storage of 100 m.
Widening of eastbound Stone Church Road east of the interchange ramps to two lanes, to receive dual southbound left turn lanes from the ramps, and to carry the two eastbound lanes beyond Upper Mount Albion Road
Provision of an eastbound through lane and a shared eastbound through-right turn lane on the west approach at the intersection with the RHVP Ramps, to match the two receiving lanes on the east

Along Winterberry Drive:

Extension of the existing northbound left turn lane at the intersection with Mud Street
Provision of a northbound left turn lane at the intersection with the proposed Entrance Road to the SPA 'C' site
Provision of traffic controls (signals or roundabout) at the Entrance to the SPA 'C' site
Provision of a southbound right turn lane extending from Mud Street to the proposed Entrance Road to the SPA 'C' site
Provision of a southbound right turn lane at the intersection with Mud Street

Along Upper Mount Albion Road:

Provision of left turn lanes at Stone Church Road
Provision of an exclusive southbound right turn at Stone Church Road to better accommodate the outbound right turn demands

Red Hill Valley Parkway Ramps / Stone Church Road Intersection:

Provision of dual southbound left turn lanes. This will also provide more storage to reduce potential queue lengths that might queue back towards the RHVP southbound off ramp

Provision of an exclusive southbound right turn lane

It is necessary to coordinate development with infrastructure requirements.

The proposed future road network in the SPA 'C' Study Area is shown in **Exhibit 9-1**.

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Development of SPA 'C' should not proceed until the infrastructure identified in **Section 9.2** can be accommodated (particularly the Trinity Church Extension) and road closures implemented, unless other solutions can be identified through a traffic study acceptable to the City of Hamilton. This will be determined through the development approval process.

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The public consultation process and public reaction during the Problem Statement and Planning Alternatives Phases for Special Policy Area 'C' are summarized in this section of the report. Additional details on the public consultation process are contained in **Appendix B.**

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During the Problem Statement and Planning Alternatives phases, the public consultation process for Special Policy Area 'C' involved the following activities:

First Public Information Centre	October 3, 2005
Newsletter Notification	April 21, 2006
Second Stakeholder Committee Meeting	April 27, 2006

First Public Information Centre (PIC#1)

The first Public Information Centre (PIC#1) for the Class EA Master Plan Study which includes Special Policy Area 'C', was held on Tuesday, October 3rd, 2005 from 6 p.m. to 9 p.m., at the Salvation Army Church Gym, 300 Winterberry Drive (at Paramount 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. Twenty-four panels were displayed. The information panels included the following information for Special Policy Area 'C':

Welcome and Study Area
Description of the Study background, Study goal and scope
Chart of the EA process and class EA requirements

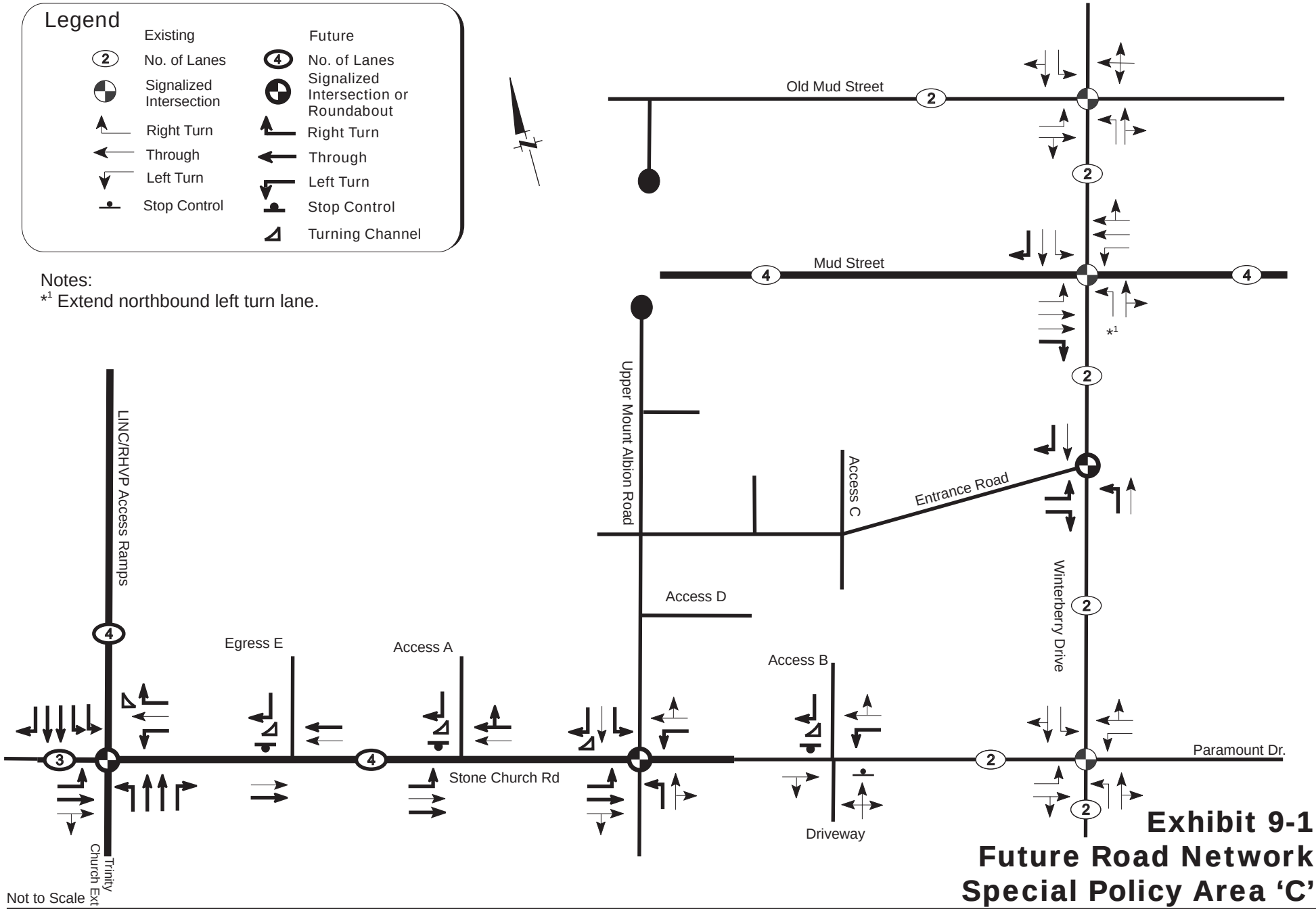

Exhibit 9-1
Future Road Network
Special Policy Area 'C'

Not to Scale

Description of the public consultation plan
Summary of the status of the needs and opportunities
Existing official plan policies and other applicable policies
Description of existing conditions
Future actions
Contact information

The needs and opportunity assessment for Special Policy Area 'C' was not completed at the time of PIC #1 and was presented to the public via a newsletter, discussed below.

The public was advised about the meeting through advertisements in the local paper. Advertisements were placed in the Hamilton Spectator on Friday September 16, 2005 and Friday September 23, 2005, and in the Brabant papers (Mountain News, Glanbrook Gazette and Stoney Creek News) on Friday September 16, 2005. Notification letters were also mailed out to property owners within the Study Area, to other individuals who had responded with an interest in the Study since its commencement, to conservation authorities, Federal and Provincial agencies, and utility companies. A copy of the advertisement is provided in **Appendix B.1**.

The format was an informal drop-in centre from 6:00 to 7:00 PM to meet the project team and to view the display panels and drawings. There was a presentation at 7:00 PM, followed by a question and answer period. The PIC continued until 9:00 PM, which provided participants the opportunity to further discuss the project with the Study team. Attendees were asked to sign-in and were invited to fill-in comment forms at their convenience within a 3-week time frame.

Approximately 122 members of the public attended the PIC. Representatives from the project team attended the PIC to discuss the details of the project and answer questions of the public. A full summary of the PIC is provided in **Appendix B.2**.

Newsletter

To notify the public of the findings of the needs assessment for Special Policy Area 'C', a newsletter was sent to those on the study mailing lists, on Friday, April 21st, 2006. The newsletter documented the results of the Transportation needs for Special Policy Area 'C'. A brief summary of the existing conditions was included for completeness, although the information was presented at PIC #1 for the Master Plan Study. The newsletter documented:

proposed land uses
transportation needs assessment
problem statement
identification of planning alternatives
evaluation criteria for planning alternatives, and
recommended solutions.

A copy of the newsletter is provided in **Appendix B.3**. Members of the public were referred to the project website and to the City of Hamilton's office by contacting Christine Lee-Morrison, to review the detailed evaluation tables. Contact information and the project website were included in the newsletter.

A comment form was included with the newsletter and the public was invited to submit their comments via mail, fax, email and/or telephone within a 2-week time-frame. Contact information and a pre-paid return envelope were included in the newsletter. Public comments were still received after the 2-week period.

Second Stakeholder Committee Meeting #2 (SC #2)

Representatives of the City and the consultant team met with the Stakeholder Committee during the SPA 'C' problem statement and planning alternatives phase of the project. This meeting provided the SC members an opportunity to discuss the status of the Master Plan project, and the results of the transportation assessment for SPA 'C'. Nine members of the SC (not including the project team members) were present at the meeting. Many items were discussed, including:

Project update;
Summary of PIC #1 (ROPA 9) and PIC #2 (Trinity Neighbourhood);
SPA 'C' needs assessment; and
SPA 'C' public notification.

Meeting minutes are provided in **Appendix B.4.**

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The consultant team compiled comments and questions received from the public via returned comment sheets and e-mail. Key public comments provided on the SPA 'C' needs assessment included the following:

Special Policy Area 'C' – Comments suggesting no approval of development before the required road network is in place. Concerns regarding increased traffic impacts as a result of the proposed development, access points / entrances to the development, traffic noise impacts to residential areas. Concerns regarding traffic operations (volumes, safety, etc.) in the vicinity of Janet Lee School.

Rymal Road Widening – Comments on the need for improvements (long overdue), timing for improvements, concerns regarding Fletcher / Rymal intersection and reducing speed limit on Rymal Road.

Trinity Church Road Extension – Comments on the need for a new north south link between Rymal Road and the Red Hill Valley Parkway/Stone Church Road ramps, timing for improvement, and alignment alternatives.

Traffic Operations on Local Roads and Road Closures – Comments on operational issues (increased traffic volumes, speeding and safety) on Second Road West, Highland Road and on Upper Mount Albion Road, suggestions to install traffic signal at Rymal Road / Upper Mount Albion Road intersection.

Transit – Suggestions for improvements to transit service in the Study Area.

Accommodation of Pedestrians and Cyclists – Comments on the plans for sidewalks and connections to the Karst area.

Complete summaries of the public meetings, along with project team responses to questions / issues are provided in **Appendix B.2.**

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Given the coordination of the water/wastewater component for this Class EA Master Plan Study with the on-going GRIDS City Water and Wastewater Master Plan Study, it became necessary to report the water/wastewater needs for the Study, in conjunction with completion of the City wide Master Plan Study. This Study is anticipated to be completed in the fall of this year. Therefore all recommendations in this Phase 1 and 2 Class EA Master Plan report, are for the transportation component.

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The following are the planning recommendations for the Rymal Road Planning Area:

Widen Rymal Road from Trinity Church Road to Regional Road 56;
Widen Regional Road 56 from Rymal Road to approximately 900 m to the south;
A new road link from Stone Church Road / Red Hill Valley Parkway ramps to Rymal Road (on an alignment to be determined);
Travel demand management; and
Operational improvements, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing turn lanes at intersections.

The applicable Class EA Schedule for each of the ROPA 9 recommendations is summarized in **Table 10-1**.

Table 10-1: Preferred Solutions for ROPA 9 Lands

Project	Class EA Schedule
Transportation	
1. Widen Rymal Road from Trinity Church Road to Regional Road 56 (required as early as 2006)	C
2. Widen Regional Road 56 from Rymal Road to approximately 900 m to the south, and provision of a new signalized collector road intersection with appropriate turn lanes in this location	C
3. A new road link from Stone Church Road / Red Hill Valley Parkway ramps to Rymal Road (on an alignment to be determined, required by 2011 or sooner).	C
4. Travel demand management	N/A
5. Operational improvements, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing turn lanes at intersections.	Separately, an A or B, but will be implemented in conjunction with the Schedule C studies.
Water	
6. Upgrade the HD007 Pumping Station and HDR07 Reservoir (on existing City site).	A, to be merged with City-wide Master Plan**
Wastewater	
7. Construct a new Sanitary Sub-trunk to Red Hill Creek Interceptor (existing ROW)	A, to be merged with City-wide Master Plan**

Refer to details included in **Section 1.6.4

The City of Hamilton's *Promoting Public Transit Policy Paper* states that a goal of providing at least 90% of residents and employees within the City with transit service within 400 metres (5 minute walk) should be established. Transit improvements will be required to service the ROPA 9 community. As development proceeds, transit service should be considered along Rymal Road with potential new transit stops at the intersections with Upper Mount Albion Road and Fletcher Road; along Trinity Church Road, with potential new transit stops at intersections with Stone Church Road, Highland Road, proposed trail head for the Red Hill Valley Open Space Replacement Strategy, and Rymal Road; and along Regional Road 56, with potential new transit stops at intersections with Rymal Road and the new collector road from the ROPA 9 community. Transit service could also be considered within the ROPA 9 community. The opportunity for transit service will need to balance the operational cost-effectiveness, strategic objectives, and providing a service to the community.

The City of Hamilton's *Walking and Cycling Policy Paper* has recommended that the existing network of pedestrian and bicycle infrastructure be improved and expanded. It also recognizes that these uses should be considered in the establishment of the right-of way and the design of new roads and the reconstruction of existing roads. As such, as development of the ROPA 9 area proceeds, pedestrians and cyclists improvements will be required to serve the community. Sidewalks should be provided on both sides of Rymal Road, with consideration for transit stops. Sidewalks should also be provided within the ROPA 9 lands.

Although not identified in the *Shifting Gears* Bicycle Network Master Plan, Rymal Road should be considered for a potential bike route with bicycle racks, since it was identified as a desirable connection in the Rymal Road Planning Area *Urban Design Guidelines*. This will be considered in greater detail in Phases 3 and 4 for the ROPA 9 Study. Bicycle routes should also be considered within the ROPA 9 lands. Sidewalks and bicycle routes should also be considered for Regional Road 56 and the Trinity Church Road extension. Bicycle routes for consideration are illustrated in **Exhibit 2-24**. The road design for the Trinity Church Road Corridor will need to consider the crossing for the Red Hill Valley Open Space Replacement Strategy Trail which is proposed south of Highland Road.

The City of Hamilton's *Managing Travel Demand Policy Paper* recommends actively considering Travel Demand Management as a component of other initiatives intended to increase walking, cycling, transit use and carpooling, particularly to and from major travel destinations. To improve travel options for the communities in the vicinity of the Study Area, a carpool lot should be considered along the Trinity Church Road extension, due to its proximity to the Lincoln Alexander Parkway and the Red Hill Valley Parkway. This will be studied in greater detail in Phases 3 and 4 for the Trinity Church Road Corridor Study.

The City of Hamilton's *Good Movement Policy Paper* identified a need to find "missing links" in the goods movement network. The Trinity Church Road Corridor would provide a valuable north-south link in the goods movement network and should be considered for truck route designation. It would provide good access to the North Glanbrook Industrial Business Park and East Mountain Industrial Business Park from the Lincoln Alexander Parkway and the Red Hill Valley Parkway. The establishment of the Trinity Church Road Corridor as a truck route would also provide the opportunity to remove the truck route designation from Upper Mount Albion Road.

Due to the potential impacts of the Trinity Church Road Corridor on Highland Road, potential opportunities for improvements should be reviewed for Highland Road (such as urbanization) between Pritchard Road and Winterberry Drive. Highland Road from Winterberry Drive easterly is identified in the Shifting Gears Bicycle Network Master Plan as a bicycle route. There would be the potential to continue this bicycle route along Highland Road from Pritchard Road to Winterberry Drive if improvements were implemented on this section of Highland Road. This will be examined in further detail during the Phase 3 and 4 Study for the Trinity Neighbourhood Collector Road.

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The following are the planning recommendations for the Trinity Neighbourhood area:

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Second Road West

Implement enhanced traffic control (additional signage, painted stop bars) on Second Road West, north of Gatestone Drive to enhance the visibility of the stop-controlled intersections.

Implementation of physical traffic calming measures on Second Road West does not meet the City policy requirements, and is therefore not recommended as a potential solution at this time. However, the City will continue to monitor Second Road West for the appropriateness of physical traffic calming measures in the future, prior to any road closure.

Upper Mount Albion Road

Consideration of enhanced traffic control measures (pavement markings, aggressive police enforcement and gateway features) for Upper Mount Albion Road, appropriate for a rural cross-section.

Implementation of physical traffic calming measures on Upper Mount Albion Road is not consistent with the City policy requirements for PRIMARY emergency / fire services routes, and is therefore not recommended as a potential solution, at this time. However, the City will continue to monitor roadway operations on Upper Mount Albion Road, and if conditions change, physical traffic calming measures, aggressive police enforcement and gateway features will be re-investigated.

Additional Future Phase 1 Solutions – Physical Traffic Calming Measures

The City will continue to monitor Second Road West for the appropriateness of physical traffic calming measures in the future, prior to any road closure. All current City policy requirements must be met, before consideration is given to traffic calming. This includes meeting a speeding threshold of the 85th percentile speed (the speed at which 85% of the vehicles travel at or below) being at least 8 km/h above the posted speed limit.

Consideration may also be given to additional measures on Upper Mount Albion Road, if the implemented Phase 1 solutions are not effective. Future measures on Upper Mount Albion Road are limited given the Primary emergency / fire services route designation. However, centreline rumble strips, which will not compromise the movement of emergency vehicles, or

other measures identified as feasible by the City can be considered. All current City requirements and criteria for implementation of traffic calming measures would have to be met before any consideration would be given to traffic calming.

If the closure of either Second Road West, or of Upper Mount Albion Road has occurred or is imminent, traffic calming measures will not be implemented.

Potential physical traffic calming measures for consideration include, but are not limited to, the following:

Second Road West – speed humps, chicanes, directional closures / diverters
Upper Mount Albion Road – centerline rumble strips, other measures identified as feasible by the City

Any or all of these measures will need to be approved by the City of Hamilton before implementation.

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Implement new road connections as soon as possible to provide additional north-south capacity. These include:

A new collector road in the Trinity Neighbourhood
New roadway from Stone Church Road / Red Hill Valley Parkway to Rymal Road (on an alignment to be determined)

Implement road closure on Second Road West north of Gatestone Drive, and on Upper Mount Albion Road

Closure of Second Road West should be coordinated with the construction of the new collector road
Closure of Upper Mount Albion Road should be coordinated with a new north-south link from Stone Church Road / Red Hill Valley Parkway to Rymal Road

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Since the closure of Second Road West should be coordinated with the construction of a new collector road between Rymal Road / Second Road West and Highland Road, it is appropriate that the identification of closure details be linked to the process of determining the details for a new collector road. As such, it is recommended that the details for the closure of Second Road West be determined in the Phases 3 and 4 Collector Road and Trinity Neighbourhood Improvements Environmental Assessment, which is currently on-going.

Similarly, the closure of Upper Mount Albion Road should be coordinated with a new north-south roadway linking Stone Church Road / Red Hill Valley Parkway to Rymal Road. As such, it is recommended that the details for the closure of Upper Mount Albion Road be

determined in the Phases 3 and 4 Trinity Church Road Corridor Environmental Assessment, which is currently on-going.

The applicable Class EA Schedule for each of the Trinity Neighbourhood Study recommendations is summarized in **Table 10-2**.

Table 10-2: Preferred Solutions for Trinity Neighbourhood

Project	Class EA Schedule	Phases 1 or 2 Implementation
Second Road West		**Phase 1**
1. Enhanced traffic control, north of Gatestone Drive as measures to enhance the visibility of the stop-controlled intersections	A	
2. Monitor for the appropriateness of physical traffic calming measures in the future, and implementation of traffic calming measures if required, prior to any road closure	B	
Upper Mount Albion Road		
3. Consideration of enhanced traffic control measures (pavement markings), appropriate for a rural cross-section	A	
4. Monitor for the appropriateness of physical traffic calming measures (e.g. rumble strips) in the future, and implementation of traffic calming measures if required, prior to any road closure	B	

Project	Class EA Schedule	Phases 1 or 2 Implementation
New road connections as soon as possible to provide additional north-south capacity		**Phase 2**
5. A new collector road in the Trinity Neighbourhood connecting Rymal Road to Highland Road	C	
6. New roadway from Stone Church Road / Red Hill Valley Parkway ramps to Rymal Road (alignment to be determined, project no. 3 for ROPA 9 lands, Table 10-1 above)	C	
Road Closures		
7. Closure of Second Road West, to be coordinated with the construction of the new Trinity Neighbourhood collector road	B	
8. Closure of Upper Mount Albion Road, to be coordinated with the new roadway from Stone Church Road / Red Hill Valley Parkway ramps to Rymal Road	B	

The City of Hamilton's *Promoting Public Transit Policy Paper* states that a goal of providing at least 90% of residents and employees within the City with transit service within 400 metres (5 minute walk) should be established. Transit improvements will be required to service the Trinity Neighbourhood community. As development proceeds, transit service should be considered along the new collector road with potential transit stops at the intersections with Rymal Road, Gatestone Drive and Highland Road. The opportunity for transit service will need to balance the operational cost-effectiveness, strategic objectives, and providing a service to the community.

The City of Hamilton's *Walking and Cycling Policy Paper* has recommended that the existing network of pedestrian and bicycle infrastructure be improved and expanded. It also recognizes that these uses should be considered in the establishment of the right-of way and the design of new roads, and the reconstruction of existing roads. As such, as development of the Trinity Neighbourhood proceeds, pedestrians and cyclists improvements will be required to serve the community. Sidewalks should be provided on both sides of the new collector road, with consideration for transit stops. Sidewalks should also be provided where discontinuous in the existing pedestrian network.

Although not identified in the *Shifting Gears* Bicycle Network Master Plan, Upper Mount Albion Road should be considered for a potential bike route with bicycle racks when it is urbanized since it would provide a good north-south connection in the bicycle network from Stone Church Road to the ROPA 9 lands. This connection in the bicycle network would also provide opportunities to connect to the Hamilton Conservation Authority Karst lands and trail network. Although Upper Mount Albion Road will be closed in the future, accommodation could be made to allow bicycle access. This will be considered in greater detail in Phases 3 and 4 for the Trinity Church Road Corridor Study. Bicycle routes for consideration are illustrated in **Exhibit 2-24**.

The City of Hamilton's *Good Movement Policy Paper* identified a need to identify locations where road geometry could present a problem for trucks, and to develop routing and/or infrastructure options to address these issues. The appropriateness of Upper Mount Albion Road as a truck route will be reviewed as part of the truck route study which is being undertaken by the City. Consideration should be given to transferring the designated truck route from Upper Mount Albion Road to the Trinity Church Road Corridor which would provide good access to the North Glanbrook Industrial Business Park and East Mountain Industrial Business Park from the Lincoln Alexander Parkway and the Red Hill Valley Parkway.

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The following are the recommended transportation solutions for Special Policy Area 'C', in conjunction with Travel Demand Management initiatives, and a new north-south roadway between Rymal Road and Stone Church Road / Red Hill Valley Parkway (RHVP) ramps:

- Exclusive turn lanes at: Stone Church Road / Upper Mount Albion Road, Winterberry Drive/Proposed site access, Winterberry Drive/Mud Street, RHVP ramps / Stone Church Road;
- Dual southbound left turn lanes at RHVP ramps / Stone Church Road ;
- Traffic controls (signals or roundabout) at Stone Church Road / Upper Mount Albion Road;
- Widening of Stone Church Road to 4 lanes from the RHVP ramps to Upper Mount Albion Road;
- Traffic controls (signals or roundabout) at Winterberry Drive / Site access; and
- Extension of the existing northbound left turn lane on Winterberry Drive at Mud Street.

It is necessary to coordinate the Special Policy Area 'C' development with infrastructure requirements.

The applicable Class EA Schedule for each of the Special Policy Area 'C' Study recommendations is summarized in **Table 10-3**.

Table 10-3: Preferred Solutions for Special Policy Area 'C'.

Project	Class EA Schedule
1. Exclusive turn lanes at: Stone Church Road/Upper Mount Albion Road, Winterberry Drive/Proposed site access, Winterberry Drive/Mud Street, Red Hill Valley Parkway (RHVP) ramps/Stone Church Road	Separately, an A or B, but will be part of the Schedule C studies.
2. Dual southbound left turn lanes at RHVP ramps/Stone Church Road	Separately, an A or B, but will be part of the Schedule C studies.
3. Traffic controls (signals or roundabout) at Stone Church Road/Upper Mount Albion Road	Separately, an A or B, but will be part of the Schedule C studies.
4. Widening of Stone Church Road to 4 lanes from the RHVP ramps to Upper Mount Albion Road	C (cost expected to be >$1.5 million)
5. Traffic controls (signals or roundabout) at Winterberry Drive/Site access	Separately, an A or B, but will be part of the Schedule C studies.
6. Extension of the existing northbound left turn lane on Winterberry Drive at Mud Street	Separately, an A or B, but will be part of the Schedule C studies.

The City of Hamilton's *Promoting Public Transit Policy Paper* states that a goal of providing at least 90% of residents and employees within the City with transit service within 400 metres (5 minute walk) should be established. Transit improvements will be required to service the Special Policy Area 'C' lands. As development proceeds, the existing transit service should be re-examined along Winterberry Drive and along Stone Church Road. Additional stops could be provided within the Special Policy Area 'C' lands. The Special Policy Area 'C' lands provide a strategic location for a potential transit hub due to its vicinity to the Lincoln Alexander Parkway, Red Hill Valley Parkway, ROPA 9 lands, and North Glanbrook Industrial Business Park. The opportunity for transit service will need to balance the operational cost-effectiveness, strategic objectives, and providing a service to the community.

The City of Hamilton's *Walking and Cycling Policy Paper* has recommended that the existing network of pedestrian and bicycle infrastructure be improved and expanded. It also recognizes that these uses should be considered in the establishment of the right-of way and the design of new roads, and the reconstruction of existing roads. As such, as development of Special Policy Area 'C' proceeds, pedestrians and cyclists improvements will be required to serve the lands. Sidewalks should be provided on both sides of Stone Church Road and Winterberry Drive, with consideration for transit stops. Stone Church Road is identified in the *Shifting Gears* Bicycle Network Master Plan, and as such, the bicycle lanes should be maintained and made continuous from Winterberry Drive to Pritchard Road. Bicycle routes for consideration are illustrated in **Exhibit 2-24**.

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Based on the Study approach, three Phase 3 and 4 Class EA studies will follow finalization of the Master Plan. This will entail alternative design concepts for the preferred solution and the Environmental Study Report (ESR). The studies will include:

ROPA 9 and SPA 'C' Transportation Improvements (projects 1, 2 and 5 from Table 10-1: Preferred Solutions for ROPA 9 Lands and projects 1 to 6 from Table 10-3: Preferred Solutions for Special Policy Area 'C'.);

Trinity Church Road Corridor, and Closure of Upper Mount Albion Road (project 3 from Table 10-1: Preferred Solutions for ROPA 9 Lands and phase 1 and 2 conclusions for the Trinity Church Road Corridor south of Rymal, from the North Glanbrook Industrial Business Park Master Plan; and project 8 from Table 10-2: Preferred Solutions for Trinity Neighbourhood); and

Trinity Neighbourhood Collector Road, and Closure of Second Road West (projects 5 and 7 from Table 10-2: Preferred Solutions for Trinity Neighbourhood).

Appendix A
Agency Consultation

SIX NATIONS COUNCIL

SIX NATIONS LANDS & RESOURCES

P.O. Box 5000 OHSWEKEN, ONTARIO CANADA N0A 1M0
PHONE: 519-753-0665 FAX: 519-753-3449

FACSIMILE TRANSMITTAL SHEET

To:	CHRISTINE LEE-MORRISON	**From:**	JO-ANN E.C. GREENE
	SENIOR PROJECT MANAGER		DIRECTOR
Fax:	905-546-4435	**Pages:**	2
Phone:		**Date:**	Wednesday, 02 November 2005
Company	CITY OF HAMILTON – PUBLIC WORKS DEPARTMENT		
Re:	Rymal Road Planning Area (ROPA 9 Lands) Master Plan, Class Environmental Assessment		

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

PLEASE SEE ATTACHED LETTER.

ORIGINAL BY MAIL: NO	**OPERATOR: GARNETTE**
If you do not receive all pages, please call 519-753-5799, as soon as possible.	

SIX NATIONS COUNCIL

www.sixnations.ca

Administration
519-445-2201
(f) 519-445-4208

Economic Development
(519) 753-1950
(f) 758-0768

Health Services
445-2418
(f) 445-0068

Housing
445-2235
(f) 445-2778

Human Resources
445-2223
(f) 445-2266

Lands/Membership
445-4613
(f) 445-2778

Lands & Resources
519-753-0665
(f) 519-753-3449

Parks & Recreation
445-4311
(f) 445-4401

Public Works
445-4242
(f) 445-4763

Social Services
445-0232
(f) 445-1783

Welfare
445-2084
(f) 445-0133

November 2, 2005

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager
Capital Planning and Implementation
Public Works Department

VIA FAX 905-546-4435

City of Hamilton
320 – 77 James Street North
Hamilton, ON L8R 2K3

Dear Ms. Lee-Morrison:

Re: Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment

I attended the Public Information Centre (PIC) held on October 3, 2005, on the Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment.

While I have no comment at this time on the proposed study as presented at the PIC, there are over arching concerns and issues for Six Nations of the Grand River (Six Nations) that are outlined briefly.

- There are areas within the City of Hamilton where Six Nations resource users still exercise their Aboriginal and treaty rights.
- The study is within two kilometres of a substantial number of know archaeological sites.
- There is a significant natural site in the Eramosa Karst area.
- The study area does have streams that feed into the Red Hill Creek and Twenty Mile Creek watersheds.

Six Nations would like to see included in the study at the time that the preferred alternative options are presented at the next PIC mitigation and measures to address the above concerns and issues. Further, we would like copies of the reports generated for this project, especially, the archaeological reports and to be included in any notices of future meetings.

Please forward communications to Six Nations Lands and Resources, 2498 Chiefswood Road, P.O. Box 5000, Ohsweken, ON N0A 1M0.

Sincerely,

Jo-Ann E.C. Greene, Director
Six Nations Lands & Resources

Lee-Morrison, Christine

From: Darlene Truax [darlene@meridianplan.ca]
Sent: Tuesday, October 25, 2005 8:14 AM
To: Lee-Morrison, Christine
Subject: Rymal Road Planning Area Master Plan - Class EA

Hi Christine,

Please see attached comments with respect to the above-noted EA. Let me know if you need any further information.

Thanks,

Darlene Truax,
Planning Coordinator

Meridian Planning Consultants Inc.
113 Collier St.
Barrie, ON L4M 1H2

Ph. 705-737-4512, ext. 235
Fx. 705-737-5078

October 25, 2005

Ms. Christine Lee-Morrison, MCIP, RPP
Senior Project Manager,
City of Hamilton
320-77 James Street North
Hamilton, ON
L8R 2K3

Dear Christine:

Re: Rymal Road Planning Area Master Plan – Class Environmental Assessment
Our File No. PAR 4314

We are in receipt of notice that the City of Hamilton has initiated the EA process for the lands in the Rymal Road Planning Area and have the following comments to offer.

TransCanada has two high pressure natural gas pipelines within our right-of-way that crosses through the study area in a east-west direction. Any development within 200 metres of TransCanada's facilities may affect the safety and integrity of those facilities. Should any development occur within 200 metres of our facilities, the following conditions of development would apply:

1. All permanent structures and excavations shall be located at least 7m from the limits of TransCanada's right-of-way. Accessory structures and lots with side-yards abutting the right-of-way shall have a minimum setback of at least 3m from the limit of the right-of-way.

2. All crossings of TransCanada's right of way by roads, access ramps, fairways, trails or pathways, and above or below ground services and utilities must have TransCanada's prior authorization. The crossing applicant will be required to sign a crossing agreement that will be binding upon all subsequent owners of the crossing. The Owner agrees to meet all clearances and design requirements outlined in the crossing agreement had the NEB Pipeline Crossing Regulations.

3. Any grading not otherwise permitted by the NEB Act or Crossing Regulations Part 1, that will affect the right-of-way or drainage onto it, regardless of whether or not the grading is conducted on the right-of-way, must receive TransCanada's prior written approval. Grading activities on the right-of-way

will only be permitted when a TransCanada representative is present to inspect and supervise them.

4. The Owner shall contact TransCanada for written approval prior to commencement of construction works for any blasting undertaken within 300m of the right-of-way. Prior to any blasting being undertaken within 60m of the right-of-way, a report on the methods and charges to be used must be prepared, at the owner's expense, by a qualified blasting engineer and submitted for TransCanada's written approval. Blasting within 30m of a federally regulated pipeline is prohibited by the NEB (National Energy Board).

5. Section 112 of the National Energy Board Act requires that anyone excavating with power-operated equipment or explosives within 30 metres of the pipeline must obtain leave from the National Energy Board before starting any work. To satisfy this NEB requirement, you may send your request for leave directly to TransCanada with supporting information explaining how the work will be carried out. Once you obtain written approval for your excavation request, you must notify TransCanada at 1-800-827-5094 three business days before the start of any excavation using power-operated equipment and seven business days before the use of explosives within 30 metres of the pipeline right-of-way limits.

6. No fill or building material may be stored on the pipeline easement before, during or after any construction unless prior written approval is obtained from TransCanada.

7. During construction of the site, temporary fencing must be erected and maintained along the limits of the right-of-way by the owner(s) to prevent unauthorized access by heavy machinery. The fence erected must meet TransCanada's specifications concerning type, height and location. Please note that Section 112 of the NEB Act states that "...no person shall operate a vehicle or mobile equipment across a pipeline unless leave is first obtained from the company..." The Owner is responsible for ensuring proper maintenance of the temporary fencing for the duration of construction.

8. Notice must be given to TransCanada directly (1-800-827-5094) or through Ontario One Call (1-800-400-2255) a minimum of three business days before the start of any construction on or within 30m of the pipeline right-of-way and 7 business days minimum advance notice for any work involving explosives.

9. Landscaping of TransCanada's right-of-way must be approved in writing by TransCanada and done in accordance with TransCanada's Planting Guidelines.

10. Any roads or streets designed to run parallel to our right-of-way, must not have any portion of the road allowance limits located within the pipeline right-of-way.

11. Vehicle barriers, of a design acceptable to TransCanada or as may be required by law, shall be installed across the width of the right-of-way, where public roads cross the right-of-way. The location of these barriers must be approved by TransCanada.

12. The Owner shall ensure through all contracts entered into, that all contractors and subcontractors are aware of and observe the foregoing conditions.

13. The developer or Owner must invite TransCanada to a pre-job meeting prior to any construction at this site. At this meeting, TransCanada must be given the opportunity to make a presentation to all job supervisors responsible for construction on this project. This presentation will be a maximum of 30 minutes in length.

While we believe the above addresses TransCanada's concerns, this does not preclude the recommendation for additional clauses at the time of final circulation. We would appreciate receiving a copy of all reports, including proposed options, and the final Environmental Study Report with respect to the above-noted EA. If the decision can be provided either by email to darlene@meridianplan.ca or by fax at 705-737-5078 it would be greatly appreciated. If you have any questions, please do not hesitate to contact our offices.

Yours truly,

Wesley Crown, BES, MCIP, RPP
Associate

1170 – 120 King Street West
Hamilton ON L8P 4V2
www.hamilton.ca

Waste Management Division, Public Works Department
Physical Address: 120 King Street West, Suite 1170
Phone: 905.546-2424 Ext.5252 Fax: 905.546.4473
Email: cbrakewe@hamilton.ca

Hamilton

October 21, 2005

City of Hamilton
Public Works Department
Strategic and Environmental Planning
320-77 James Street North
Hamilton, Ontario
L8R 2K3

Attn: Christine Lee-Morrison, MCIP, RPP

Re: Rymal Road Planning Area ("ROPA 9" Lands) Master Plan – Class Environmental Assessment (EA)

In response to your request for comments regarding the above, the application has been reviewed by Waste Management Division staff.

There is no impact on the City of Hamilton's Solid Waste Management System.

If you require further information, please contact Colleen Brakewell at (905) 546-2424 ext. 5252.

Yours truly,

Pat Parker, MCIP
Manager of Solid Waste Planning

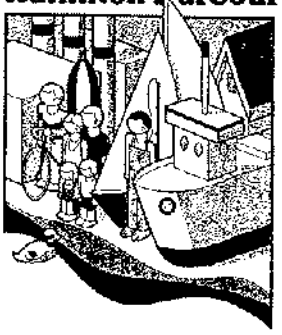
cb/

RECEIVED SEP 27 2005

Remedial Action Plan for Hamilton Harbour
P. O. BOX 5050
867 Lakeshore Road
BURLINGTON, Ontario
L7R 4A6
Tel: (905) 336-6279
Fax: (905) 336-4906

CL-M

Remedial Action Plan for Hamilton Harbour



September 23, 2005

Ms. Christine Lee-Morrison, M.C.I.P., R.P.P.
Senior Project Manager
Capital Planning & Implementation
Public Works Department
City of Hamilton
Suite #320
77 James Street, N.
Hamilton, ON L8R 2K3

RE: Rymal Road Planning Area ("ROPA 9" Lands) Master Plan – Class Environmental Assessment (EA) Our File I03 - HA

Dear Ms. Lee-Morrison:

Thank you for circulating this environmental assessment to the Hamilton Harbour Remedial Action Plan office.

Please be advised that the Hamilton Harbour Remedial Action Plan office coordinates the many programs and projects of the Remedial Action Plan. It does not, however, provide formal comments on planning and policy-related projects.

Our RAP partners are asked to incorporate RAP interests in their specific comments. Those directly commenting on this environmental assessment would include the City of Hamilton and the Hamilton Conservation Authority.

Sincerely

John D. Hall

Mr. John D. Hall, M.C.I.P., R.P.P.
Hamilton Harbour Remedial Action Plan Coordinator

CC: Kathy Menyes, Hamilton Conservation Authority
Mary Lou Tanner, City of Hamilton (BAIT)

Remedial Action Plan
Plan d'Assainissement

Lee-Morrison, Christine

From: andrew.maclean@HydroOne.com
Sent: Friday, September 23, 2005 1:21 PM
To: Lee-Morrison, Christine
Subject: Rymal Road Planning Area Master Plan (EA)

Dear Christine,

As a major steak holder Hydro One would like to review detailed plans of the proposed EA. We have 4 X 230,000 v lines in behind the proposed area, which in the study appears to go right to the Hydro One right of way. If you could send those plans to me that will further aid my decision.

Andrew MacLean
Asset Management
Hydro One Networks Inc.
483 Bay St, TCT15 (North) - A10 - Toronto, Ontario M5G 2P5
Office: 416-345-6855
andrew.maclean@hydroone.com

RECEIVED SEP 19 2005

Ontario Realty Corporation / Société immobilière de l'Ontario

Ferguson Block
Queen's Park
Toronto, Ontario
M7A 2G3
Tel: 416-212-6456

Edifice Ferguson
Queen's Park
Toronto, Ontario
M7A 2G3
Fax: 416-212-1131

August 29, 2005

Margaret Fazio
Project Manager
City of Hamilton
77 James Street North, Suite 320
Hamilton, Ontario L8R 2K3

RE: ORC Initial Comments on Rymal Road Planning Area (ROPA 9 Lands) Master Plan - Class EA

Thank you for circulating Ontario Realty Corporation (ORC) on your notice related to your environmental assessment undertaking.

ORC is the strategic manager of the government's real property with a mandate of maintaining and optimizing value of the portfolio, while ensuring real estate decisions reflect public policy objectives of the government.

We are writing to provide you with the following initial comments for consideration and inclusion in your EA project file.

Potential Negative Impacts to ORC Tenants and Lands

Our preliminary review of your notice and supporting information indicates that ORC managed lands are within the vicinity of your study area. As a result, your proposal may have the potential to impact these lands and/or the activities of tenants present on ORC managed lands. Attached please see a map that identifies ORC managed lands within your study area to assist you in identifying and avoiding potential impacts.

Negative environmental impacts associated with the project design and construction, such as the potential for dewatering, dust, noise vibration impacts, and impacts to natural heritage features/habitat and functions, should be avoided and/or appropriately mitigated in accordance with applicable regulations best practices and MNR and MOE standards. Avoidance and mitigation options that characterize baseline conditions and quantify the potential impacts should be present as part of the EA project file. Details of appropriate mitigation, contingency plans and triggers for implementing contingency plans should also be present.

Negative impacts to land holdings, such as taking of developable parcels of ORC managed land or fragmentation of utility or transportation corridors, should be avoided. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study.

If takings are suggested as part of any alternative these should be appropriately mapped and quantified within EA report documentation. In addition, details of appropriate mitigation and or next steps related to compensation for any required takings should be present. ORC requests

circulation of the draft EA report prior to finalization if potential impacts to ORC managed lands are present as part of this study.

Cultural Heritage Issues

If proposed alternatives may impact cultural heritage features on ORC managed lands, we would request that the examination of cultural heritage features be enhanced to include issues such as cultural landscapes and places of sacred and secular value.

Potential Triggers Related to ORC's Class EA

The ORC Class Environmental Assessment (ORC Class EA) applies to a range of realty and planning activities that may be triggered as part of environmental assessment (EA) undertakings. The range of activities includes leasing or letting, planning approvals, selling, demolition and property maintenance/repair, all of which could be triggered if an EA undertaking involves land takings or work on ORC managed lands. If the potential to trigger the ORC Class EA is present as part of this undertaking you should contact ORC's General Manager of Environment and Heritage to discuss these issues at the earliest possible stage of your study. For details on the ORC Class EA please visit the Environment and Heritage page of our website found at http://www.orc.gov.on.ca/english/environmental.html. If the ORC Class EA is triggered consideration should be given to explicitly referring to the ORC's undertaking in your EA study.

Specific Comments

ORC has reviewed the properties on the attached map and has identified areas 1 through 7 as having future development potential. Since the proposed study area is not solely focused south of Rymal Road East but also includes the lands to the north of Stonechurch Road East, it is recommended that the study area be expanded to include areas 1 through 7 (refer to reference map).

ORC staff is currently in discussion with City of Hamilton Planning Staff about opportunities for facilitating the urban development of and conservation uses on ORC managed lands. Inclusion of ORC managed lands would be an important step in facilitating this discussion and achieving the highest and best use of provincial lands.

Concluding Comments

Thank you for the opportunity to provide initial comments on this undertaking. If you have any questions on the above I can be reached at 416-212-6456 or by email at john.Mackenzie@orc.gov.on.ca.

Sincerely,

John MacKenzie, MCP, RRP
General Manager, Planning Services

CC: Regional Office, ORC
GM Environment and Heritage, ORC
GM Planning, ORC

Reference Map – Provincial Landholdings in Study Area

Remedial Action Plan for Hamilton Harbour
P. O. BOX 5050
867 Lakeshore Road
BURLINGTON, Ontario
L7R 4A6
Tel: (905) 336-6279
Fax: (905) 336-4906

RECEIVED SEP - 6 2005

Remedial Action Plan for Hamilton Harbour

September 23, 2005

Ms. Christine Lee-Morrison, M.C.I.P., R.P.P.
Senior Project Manager
Capital Planning & Implementation
Public Works Department
City of Hamilton
Suite #320
77 James Street, N.
Hamilton, ON L8R 2K3

RE: Rymal Road Planning Area ("ROPA 9" Lands) Master Plan – Class Environmental Assessment (EA) Our File 103 - HA

Dear Ms. Lee-Morrison:

Thank you for circulating this environmental assessment to the Hamilton Harbour Remedial Action Plan office.

Please be advised that the Hamilton Harbour Remedial Action Plan office coordinates the many programs and projects of the Remedial Action Plan. It does not, however, provide formal comments on planning and policy-related projects.

Our RAP partners are asked to incorporate RAP interests in their specific comments. Those directly commenting on this environmental assessment would include the City of Hamilton and the Hamilton Conservation Authority.

Sincerely

John D. Hall

Mr. John D. Hall, M.C.I.P., R.P.P.
Hamilton Harbour Remedial Action Plan Coordinator

CC: Kathy Menyes, Hamilton Conservation Authority
Mary Lou Tanner, City of Hamilton (BAIT)

Ministry of Culture **Ministère de la Culture**
Heritage & Libraries Branch
Southwest Archaeological Field Office
900 Highbury Avenue
London, Ontario N5Y 1A4

(519) 675-6898; Fax: 675-7777

Ontario

February 9, 2006

To: Christine Lee-Morrison
Senior Project Manager
Capital Planning & Implementation
Public Works Department
320-77 James Street N.
Hamilton, Ontario L8R 2K3

RE: Rymal Road Planning Area ("ROPA 9" Lands) Master Plan - Class Environmental Assessment

This office has had the opportunity to review the information provided with your letter of January 12, 2006 regarding the above. A principal concern of this office is the adverse effects that development activities might have on cultural heritage resources. Cultural heritage resources include built heritage, archaeological resources and cultural heritage landscapes. If the preferred alternatives will have the potential to impact cultural heritage resources, then our office would recommend that a heritage assessment be conducted as part of the environmental assessment. If any significant heritage or archaeological resources are identified, then any negative impacts would need to be mitigated by either avoidance or documentation.

Given the above, potential impacts to cultural heritage resources should be considered during the selection process for the preferred alternatives. When the preferred alternatives have been selected, it would be useful to be provided with detailed information and mapping, outlining the extent and type of land disturbance anticipated and what portions of the project, if any, may exhibit potential for impacting heritage resources, and thus would require an assessment to inventory all heritage resources present, and determine what mitigation work, if any, may be required.

I trust that this is of assistance. Please do not hesitate to contact me if you require further information.

Sincerely,

Neal Ferris
Heritage Planner/ Archaeologist
Southwestern Ontario Region

71 Main St. West
Hamilton ON L8P 4Y5
905-546-2424 EXT. 4235 (Telephone)
905-546-2338 (Facsimile)

MEMORANDUM

Hamilton

Community Services Department
CULTURE & RECREATION DIVISION

Date: February 6, 2006

To: Christine Lee-Morrison, MCIP, RPP
Senior Project Manager
Strategic and Environmental Planning

From: Dale Wood, District Manager
West Hamilton, Glanbrook & Winona (Wards 1,7,8,11)

Subject: Rymal Road Planning Area ("ROPA 9" Lands) Master Plan – Class Environmental Assessment (EA)

After reviewing your memorandum dated January 12, 2006, Culture and Recreation staff share the concerns expressed by the residents. In particular, Culture and Recreation wishes to encourage that consideration be given to secondary commuter routes for cyclists and that they be identified outside of road allowances or at the minimum, protected from vehicular traffic by a barrier or buffer. Pedestrian routes should be considered as separate from cycling where possible to maximize safety.

The study makes note of the need to consider the cycling pedestrian routes but does not identify them as separate.

Dale Wood

:sv

c.c.: Bill Fenwick, Director, Culture & Recreation

RECEIVED FEB 0 9 2006

Lee-Morrison, Christine

From: Barley, Steve
Sent: Tuesday, January 17, 2006 9:49 AM
To: Lee-Morrison, Christine
Subject: Rymal Road Planning Area (ROPA 9 Lands)

Hi Christine,
After reviewing your submittal dated January 12, 2006 my only comment is as follows;
Fig 2.2 - Existing Watermains of District 7
- there is a new water tower in operation on the north side Binbrook Road (west of 56) - it is tied into the watermains from the booster station on 56.
Steve Barley, C.E.T.
Elect/Instr. Technologist,
Operations & Maintenance

Hamilton Conservation Authority

January 24, 2006

Our File No. CEA-MUN/05-04

RECEIVED JAN 3 1 2006

City of Hamilton
Public Works Department
320 – 77 James Street north
Hamilton, Ontario
L8R 2K3

Attention: Christine Lee-Morrison, Senior Project Manager
Strategic and Environmental Planning

Dear Mrs. Lee-Morrison:

SUBJECT: Rymal Road Planning Area (ROPA 9) Master Plan
Class Environmental Assessment (EA)

Fnrther to our meeting of December 15, 2005 and your January 12, 2006 notice of the EA undertaking and request for comments. The following comments are provided to assist the city with this undertaking.

As you are aware, a traffic plan is being undertaken as part of this overall EA. Traffic volumes on neighbourhood streets in the area of the ROPA 9 lands have been increasing significantly and the City is seeking a solution to this problem. As such, 4 alternatives for route alignments have been proposed and assessed. One alternative is 'do nothing' which will not assist in alleviating the traffic problems. The other 3 alternatives provide for a new north-south collector road connection through the Trinity neighhourhood, bounded on the north by Highland Road West, on the south by Rymal Road, on the west by the Trinity Church Road allowance and on the east by Second Road West.

As you are aware, the Eramosa Karst Area of Natural and Scientific Interest (ANSI) is located within the Trinity neighbourhood and extends north and south of this neighbourhood as well. This ANSI is 195.7 hectares in size and its area and features are depicted on the attached map, which was provided to you at our December meeting. The Eramosa Karst is a provincially significant earth science ANSI and contains numerous diverse karstic features, including dry valleys, overflow sinks, sinking streams and a post glacial stream cave of significant length – the Nexus Cave. Provincial and Conservation Authority goals respecting this ANSI pertain to preserving its geomorphology and the hydrological function of the karst.

The April 2003 Ministry of Natural Resonrces (MNR) report (Earth Science Inventory and Evaluation of the Eramosa Karst Areas of Natural and Scientific Interest) provides guidance to decision-makers on how best to manage the Eramosa Karst and recommends

certain technical studies that need to be undertaken as part of development within the karst and its three main subareas – Developed Area, Core Area, Feeder Area.

In addition to the above, the Hamilton Conservation Authority has recently secured 60 hectares of the Core and buffer areas of the Eramosa Karst from the province as part of our efforts to preserve this significant resource. Attached is a map depicting this land area. This is the same map that we provided to you at our December meeting.

We have had an opportunity to review Sheet 3 (Collector Road – Potential Alignments) of the Class EA which was forwarded earlier this month. This map depicts the 3 alternatives noted above as they may or may not impact the HCA Karst property and other karst features not under public ownership.

As you are aware, Alternative 2, which traverses the Core, Buffer and Feeder Areas of the Karst is not recommended by our agency as it dissects some of the most significant features of the Eramosa Karst – the Nexus Cave and its feeder areas.

Alternatives 3 and 4 appear to be more viable and appropriate than Alternatives 1 and 2. The alignments for Alternatives 3 and 4 avoid the Core Area of the Karst, the Buffer Area around the Core Area and some buffers around the surface streams feeding the Core Area. These alignments also traverse a portion of the Nexus Cave Feeder Area, the Developed Area of the Karst and part of the alignments avoid the Karst altogether.

The MNR report does, however, recommend that several studies be undertaken in the Feeder Areas, in particular, as well as the Developed Area should development proposals arise. These studies relate to ensuring that any new development does not adversely impact the ability of surface flows from the Feeder Area to continue to recharge the karst in the Core Area. The MNR report provides more detailed direction as follows,

"It is recommended that the Feeder Area be afforded a level of protection to ensure that:

1. the flows of the creeks into the Core Area are substantially maintained (i.e. stream discharge including low flow and high flow characteristics, and discharge response to runoff events),
2. water quality is improved (i.e. primarily a reduction in sediment load, since the sediment load is currently quite high as a result of agriculture), and,
3. protective measures are employed to reduce the risk of contamination of surfact streams by substances that would significantly impact the karst.

It is also recommended that prior to any development in the Feeder Area, development plans be reviewed to ensure that these objectives will be met. As well as expertise in civil engineering, reviewers should have expertise in environmental hydrology and geomorphology. A sound knowledge of karst hydrology and geomorphology would be an asset."

Recommendations pertaining to the protection of buffers along the streams upstream from the sinkpoints in the Core Area using specific criteria are included as well.

As can be seen, detailed hydrological and geomorphological studies need to be undertaken to ensure that Alternatives 3 and 4 can proceed to a design stage.

The HCA will be investigating this matter further in order to provide the City with more detailed information on the above-noted studies in light of the locations of proposed alignments depicted under Alternatives 3 and 4. We will keep you apprised of our findings and will continue to work closely with you to find a solution to the traffic challenges in this neighbourhood while protecting this significant karst feature.

We trust the above provides adequate input to this Master Plan process at this time. We have copied the City's Planning Department as we are aware of their upcoming work on the Trinity Neighbourhood Plan Review and will be responding to their request for background information in the near future. Should you have any questions, please feel free to contact me at extension 130.

Yours sincerely,

Katherine J. Menyes
Director, Watershed Planning & Engineering
Hamilton Conservation Authority
Tel – 905-525-2181
Fax – 905-648-4622

KJM/

cc- Nathalie Baudais, iTRANS Consulting Inc.
- Vanesssa Grupe, Community Planning and Design Section, Planning and Economic Development Department, City of Hamilton

N
HIGHLAND RD W
UPPER MOUNT ALBION RD
0
200 m

Needs Assessment and Potential Solutions

iTRANS
transportation planning and traffic consultants

Transportation

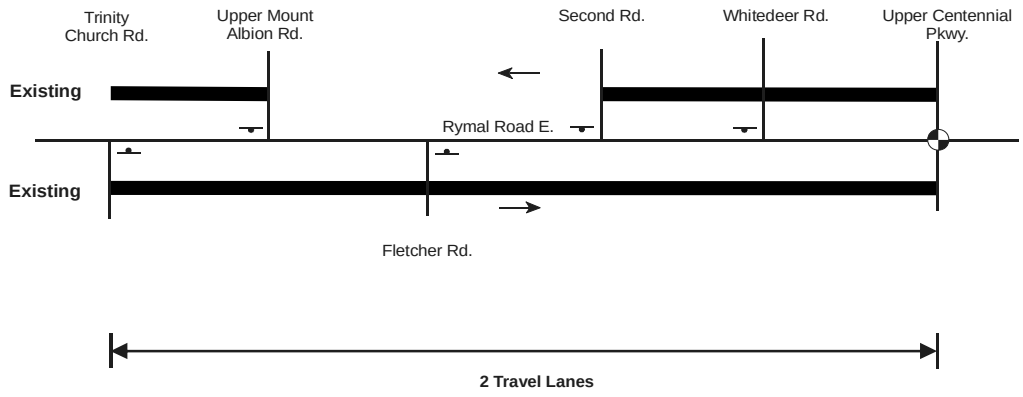
Existing and Future Traffic Conditions

Transportation Needs

Existing Link Operations ï with 2 travel lanes on Rymal Road

City of Hamilton

Rymal Road Secondary Planning Area (ROPA 9 Lands)
Master Plan Class EA



Legend
- Signalized Intersections
- Unsignalized Intersections

Volume to Capacity Ratio
- Below 0.90
- 0.9 - 0.99
- Above 1.00

Not To Scale

Existing Link V/C Ratios

September 2005

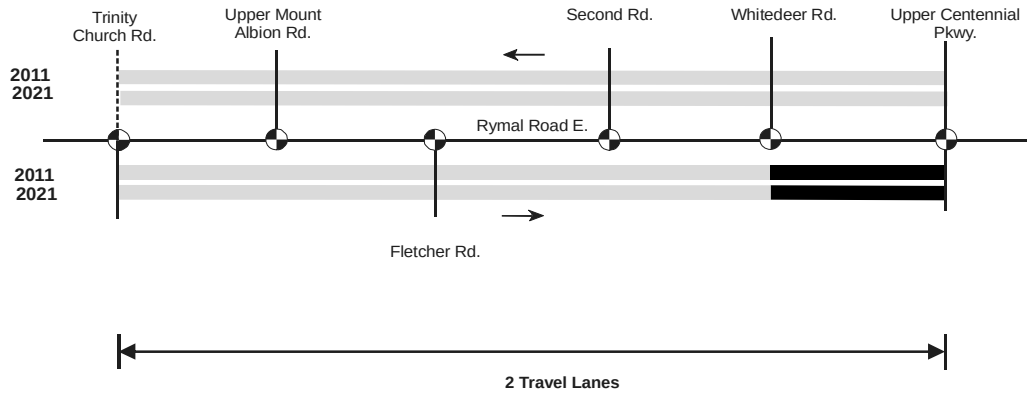
iTRANS

Transportation Needs

Future Link Operations ï with 2 travel lanes on Rymal Road

City of Hamilton

Rymal Road Secondary Planning Area (ROPA 9 Lands)
Master Plan Class EA



Legend
- Signalized Intersections
- Unsignalized Intersections

Volume to Capacity Ratio
- Below 0.90
- 0.9 - 0.99
- Above 1.00

Not To Scale

2 Travel Lanes
Future Link V/C Ratios

September 2005

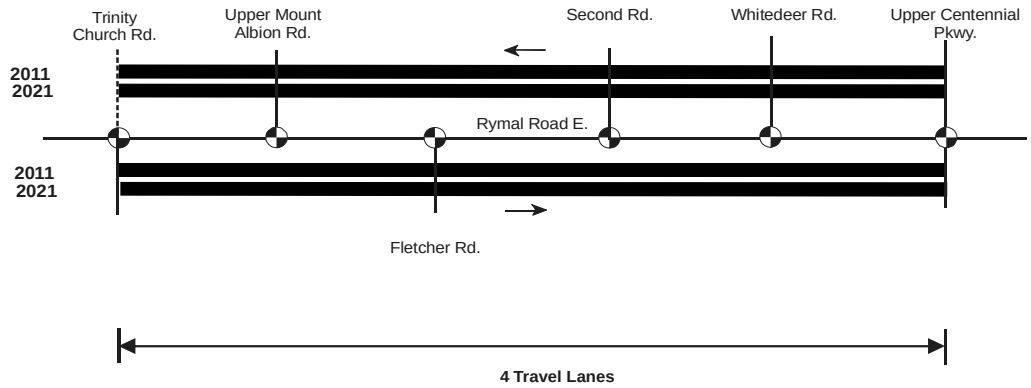
iTRANS

Transportation Needs

Future Link Operations ï with 4 travel lanes on Rymal Road

City of Hamilton

Rymal Road Secondary Planning Area (ROPA 9 Lands)
Master Plan Class EA



Legend
- Signalized Intersections
- Unsignalized Intersections

Volume to Capacity Ratio
- Below 0.90
- 0.9 - 0.99
- Above 1.00

Not To Scale

4 Travel Lanes
Future Link V/C Ratios

September 2005

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Summary Transportation Needs

- Additional east-west capacity (equivalent to one lane per direction) as early as 2006.
- Additional north-south capacity (equivalent to 2 lanes per direction) by 2011.
- Accommodation of high southbound left turn demand from the freeway network by 2021.
- Traffic management measures on Upper Mount Albion Road - coordinated with the additional north-south capacity on other routes.
- Improving services for transit usage, and facilities for cycling and pedestrian usage, as development of the ROPA 9 Area proceeds.

Transportation Problem Statement

- To address projected capacity deficiencies in the Rymal Road corridor,
- To accommodate projected demands on RR56 at a new collector road connection,
- To provide additional north-south capacity to accommodate future traffic demands,
- To manage traffic impact on local roads adjacent to the study area
- To improve service for all road users.

What are potential Transportation Solutions?

- Do Nothing
- Travel Demand Management
- Upgrade / Build Other Routes
- Operational Improvements
- Widen Rymal Road
- Extend Trinity Church Road
- Widen RR 56

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Evaluation of Alternatives

Alternatives evaluated based on a number of criteria:

- Transportation service
- Socio economic impacts
- Natural environment impacts
- Costs

A number of sub criteria as shown on the display panels.

Transportation Preliminary Preferred Alternative

The recommended alternative solution, in conjunction with Travel Demand Management initiatives, is to:

- Widening Rymal Road from Trinity Church Road to RR56.
- Extend Trinity Church Road from Rymal Road to the Lincoln Alexander Parkway, as a 4-lane facility.
- Widening RR56 from Rymal Road southerly for approximately 900 m.
- Coordinate future Trinity Church Road improvements north and south of Rymal Road as a separate planning and design initiative.

These options fully address the problem statement

Needs Assessment and Potential Solutions

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Water and Wastewater

Existing and Future Conditions

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Water / Wastewater Needs

- Future needs include additional fire and emergency storage to maintain adequate operating pressure.
- Higher pumping capacity to accommodate the increased demands resulting from new development in ROPA 9, Binbrook, and the remainder of Pressure District 7.
- New sewers with capacity to accommodate sanitary sewage from the Study Area and to convey flows to the existing sanitary sewer system. Alternative routes are being considered.
- Improvements may be required to increase the capacity of the existing collection system to accommodate the additional sanitary flows from both Binbrook and ROPA9 under ultimate build-out conditions.

Water / Wastewater Problem Statement

- Water and wastewater solutions are necessary to:
  - Provide adequate reservoir storage and pumping capacity to provide sufficient water supply and maintain adequate water pressure in the H-7 Pressure District.
  - Provide adequate conveyance capacity to convey wastewater from ROPA9 to the existing sanitary sewer system and ensure that the existing system has sufficient capacity to convey flows to treatment.

What are potential Water Solutions?

- Do Nothing
- Water Conservation
- Operational changes to the HD007 Pumping Station and expand the HDR07 Reservoir
- New booster pumping station and expand the HDR07 Reservoir to service ROPA9 lands
- Operational changes to the HD007 Pumping Station and Construct new storage
- New Booster Pumping Station and Construct New Storage

What are potential Wastewater Solutions?

- Do Nothing
- Construct new sanitary sub-trunk to Red Hill Creek Interceptor and improvements to the Red Hill Creek Interceptor.
- Construct new sanitary sub-trunk to Davis Creek Sub-Trunk and downstream improvements to the Red Hill Creek Interceptor.
- Construct new sanitary sub-trunk to Mount Albion Sub-Trunk and improvements to the Red Hill Creek Interceptor.

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Evaluation of Alternatives

Alternatives evaluated based on a number of criteria

- Water / Wastewater service
- Socio economic impacts
- Natural environment impacts
- Costs

A number of sub criteria as shown on the display panels.

Water / Wastewater Preliminary Preferred Alternative

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The recommended alternative solutions are to:

- Upgrade the HD007 Pumping Station and HDR07 Reservoir.
- Construct a new Sanitary Sub-trunk to Red Hill Creek Interceptor.

These options fully address the problem statement

Special Policy Area óCô

- Transportation and water / wastewater analyses are currently being conducted for Special Policy Area óCô.
- It is anticipated that additional roadway capacity will be needed on the road network in the vicinity of Special Policy Area óCô, consistent with the type and magnitude of proposed uses.
- The results of the analyses and design will be presented at the next Public Information Centre.

Trinity Church Road Needs Assessment

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Transportation assessments conducted for servicing the ROPA 9 lands, and the North Glanbrook Industrial Business Park. Key findings of these studies include:

- Additional north-south capacity (equivalent to 2 lanes per direction) by 2011.
- Accommodation of high southbound left turn demand from the freeway network by 2021.
- Maintaining the existing north-south capacity between Rymal Road to south of Twenty Road, and protecting for additional capacity in the long term.
- Improving services for transit usage, and facilities for pedestrian usage, as development of the ROPA 9 Area and the North Glanbrook Business Park proceeds.

Trinity Church Road
Problem Statement

Transportation solutions are necessary to:

- Provide additional north-south capacity to facilitate growth in the surrounding areas of ROPA 9, Special Policy Area óCô, North Glanbrook and the Airport area
- Resolve transportation network discontinuities
- Improve service for autos, commercial vehicles, transit vehicles, pedestrians, and cyclists, and
- Manage traffic impact on local roads adjacent to the study area.

Next Steps

- Confirm the preferred planning solutions (Transportation, water and wastewater)
- Identify and assess alternative designs (Transportation)
- Select preferred design alternative (Transportation)
- Prepare preliminary design of the preferred alternative (Transportation)
- Present results, including needs for Special Policy Area óCô at Public Meeting No.2 (Transportation, water and wastewater)

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We Value Your Input

- Please fill out a comment sheet with your comments; sheets can be mailed or faxed by October 21
- Opportunity to ask questions after the presentation
- You may speak with any of the project representatives here at the meeting tonight

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THANK YOU!

Summary of

PUBLIC INFORMATION CENTRE #1

Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment

Monday, October 3rd, 2005
From 6:00 PM to 9:00 PM

City of Hamilton

TABLE OF CONTENTS

TABLE OF CONTENTS 2
1. INTRODUCTION 3
2. NOTIFICATION 3
3. PIC PRESENTATION MATERIAL 3
4. SUMMARY OF QUESTIONS AND COMMENTS 4
5. CONCLUSIONS 12

1. INTRODUCTION

The first Public Information Centre (PIC#1) was held on Monday, October 3rd, 2005, 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. The format was an informal drop-in centre from 6:00 to 7:00 PM to meet the project team and to view the display panels and drawings. There was a presentation at 7:00 PM, followed by a question and answer period. The PIC continued until 9:00 PM, which provided participants the opportunity to further discuss the project with the study team. Approximately 100 members of the public attended the PIC. The following representatives from the project team were in attendance:

City of Hamilton:	Christine Lee-Morrison, Project Manager – Strategic Planning Helene T. Ellermeyer – Strategic Planning Kimberley Grimwood – Strategic Planning Lisa de Angelis – Systems Planning Leanne Ryan – Traffic Engineering
iTRANS Consulting:	Ray Bacquie, Study Project Manager Liza Sheppard, Project Engineer Nathalie Baudais, Transportation Planner
XCG:	Christine Hill, Municipal Engineering Lead
Urban Strategies:	Cyndi Rottenberg-Walker (facilitator)

Councillor Phil Bruckler of Ward 9 of the City of Hamilton was also in attendance.

2. NOTIFICATION

Advertisements were placed in the Hamilton Spectator on Friday, September 16, 2005 and Friday, September 23, 2005, and in the Brabant paper on Friday, September, 16, 2005 informing the public of the PIC. Notification letters were also mailed out to property owners within the study area, to other individuals who had responded with an interest in the study since its commencement, to conservation authorities, Federal and Provincial agencies, and utility companies.

3. PIC PRESENTATION MATERIAL

Upon arrival at the PIC, attendees were asked to sign a visitor registration sheet. One hundred and twenty two people signed the registration sheet.

Twenty-four panels were displayed. The information panels included the following:

- Welcome and study area
- Description of the study background, study goal and scope
- Chart of the EA process and Class EA requirements
- Description of the public consultation plan
- Summary of the needs and opportunities for the study for transportation, water, and wastewater
- Problem statement for transportation, water, and wastewater
- Existing official plan policies and other applicable policies
- Description of existing conditions
- Description of transportation alternative solutions
- Description of water alternative solutions
- Description of wastewater alternative solutions
- Description of alternative solutions assessment criteria
- Evaluation tables of the transportation, water, and wastewater planning alternatives
- Identification and description of the preferred transportation, water, and wastewater planning alternative
- Future actions
- Contact information

4. SUMMARY OF QUESTIONS AND COMMENTS

The questions asked and comments received verbally or via comment sheets at the PIC and comments/questions received after the PIC via e-mail, letters and telephone calls are summarized below:

Comments	Responses
Needs, Opportunities and Problem Statement	
Since Summit Ridge will be up and running in the near future, I feel construction of the Trinity Church Road extension north of Rymal Road should have first priority over Rymal Road. A good portion of the traffic from Summit Park will be North/South and to wait 5 years for the extension to be built makes no sense. Also travel demand management, promote ride share / carpooling. A noble idea, but people won't do it. Another idea and this would require provincial / federal input, I am sure. Reclaim the rail trail. The road bed is there. A bridge would be needed for Stone Church Road, otherwise, new tracks for light rail or GO service to the East Mountain and Binbrook area. Lots of people are moving to Hamilton from Toronto but commute to Toronto. Just a thought. If not now, in the future. Also, are there anyone from the School Boards and the Hamilton Conservation Authority sitting in at these meetings? I think that they should be represented.	The need for a widening of Rymal Road and an extension of Trinity Church Road, has been identified in the needs assessment for the ROPA 9 lands. The Master Plan Class EA is therefore considering both corridors for improvement in the overall road network in the future. The Hamilton Conservation Authority has been advised of the project and we will be coordinating with them throughout the process. The school boards have been advised of the project.
I am positive that there will be a need for all that you have planned.	Comment noted.
Unlike other communities off of Rymal Road or South Mountain subdivisions, the east mountain has insufficient north/south direct routes for the volumes of traffic. Instead of roads like Upper Sherman, Gage or Ottawa, etc. we have winding roads or series of roads to go north/south causing a lot of traffic to travel through residential areas.	Comment noted. The City of Hamilton continues to improve the City's road network as feasible.
To me, these aren't problems, they are necessary in order for this area to accommodate the large growth of the area both for residents and commercial land. I think the problem is that it is taking too long to make a reality. You don't give us time to pay our taxes so why should we continue to be silent and patient while we wait for you!	The class environmental assessment process is required to comply with the Environmental Assessment Act. A Class Environmental Assessment is a process that enables the planning and implementation of municipal infrastructure projects to be undertaken, in accordance with an approved procedure designed to protect the environment (including residents).
We question the need to widen any part of Trinity Church Road because the majority of the road lies within the GREENBELT where major development is NOT PERMITTED. It is our preferred plan to have no road from the Glanbrook prestigious business park to enter onto Trinity Church Road. Rather, our plan, as given to and accepted by the road planner for the Park is to be presented as a viable choice – with the most eastern road in the Park extending to Pritchard Road.	Comment noted. Further study will be carried out on the Trinity Church Road corridor, as part of the Trinity Church Road Corridor Class EA.
Evaluation Criteria	
Page 3, Bottom Paragraph – No more than 550 units can be built until required environmental assessments and respective capital budgets are finalized. What does this refer to specifically? Does it refer to new libraries, community centres, annual road costs (snow/ice), waste pickup?	The 550 units refer to single family homes. The capital budget refers to the budget required for any infrastructure needs identified by the Class Environmental Assessments.
The committees must follow guidelines and criteria when addressing growth issues; however the area is growing so fast that the City's plans and traffic intentions are already too late. These plans should have been implemented at least 5 years ago instead of today, just to keep one step ahead of the problems.	Comment noted.
The evaluation is evident. There will be impacts everywhere. You need to start action!	Comment noted.
The study is not large enough.	Comment noted. Additional studies west of the Study Area are being undertaken (e.g. North Glanbrook Industrial Park Study), or will be undertaken (e.g. Rymal Road west of Trinity Church Road, as appropriate).
The criteria seem fine.	Comment noted.
Transportation service, socio-economic impacts, natural environment impacts and costs all seem like reasonable criteria to consider. It will be great for our City to see business boom and expand in the area south of Rymal. However, the nearby residential neighbourhoods will lose a lot, facing negative socioeconomic impacts if the traffic and congestion cannot be contained to the major roads outlined in the study (i.e. Rymal Road and Trinity Church Road).	Comment noted.

Comments	Responses
The criteria re: widening Trinity Church Road being that it was once a Regional Road between 2 townships, Mount Hope and Binbrook no longer applies. The 2 townships joined to become Glanbrook. Trinity Church Road was allowed to become a rural residential road. Please do not turn it into another Centennial Parkway with heavy truck traffic and accompanying pollution. That would be an abomination in this enlightened age. Develop to the east of Centennial and Highway 56, nearer the Rymal / Centennial commercial area and NOT south of the hydro corridor.	Comment noted. Further study will be carried out on the Trinity Church Road corridor, as part of the Trinity Church Road Corridor Class EA.
Transportation Alternative Solutions	
Why build a 4-lane road for a short section? Rymal Road is a thoroughfare to James Street.	The section of Rymal Road between Regional Road 56 and Trinity Church Road with a north-south connection to the Linc, will be a highly utilized corridor. This additional capacity is required to accommodate development of the ROPA 9 lands and surrounding areas. Improvements to Rymal Road west of the study area will be addressed as a separate study by the City.
Will Trinity Church Road and Upper Centennial Parkway remain the main north-south connections to the ROPA 9 lands and Binbrook?	The ROPA 9 lands needs assessment has identified the need for a new north-south connection between Rymal Road and the Linc. This corridor and Upper Centennial Parkway will be the main north-south connectors in the future road network.
Dartnall Road should be considered and evaluated as an alternative to the Trinity Church Road extension. Will the Trinity Church Road extension be for 4-lanes from south of Twenty Road to the Lincoln Alexander? An alternative solution to a left-turn off the LINC to Trinity Church Road is to use Dartnall – presently linked to the LINC on both east and west lanes – a commercial road which will be extended into Glanbrook prestigious business park. Trucks will need to take that route to service businesses within the Park. Failing that solution – connect another ramp off the LINC to Pritchard Road – also a commercial road which will be extended into the Glanbrook prestigious business park. Trinity Church Road is a rural residential road.	All possible and feasible alignments will be examined as part of the Trinity Church Road Corridor EA. The public will be provided opportunities to comment on the Trinity Church Road alignment and design.
Will any improvements to bus service be considered / recommended?	The ROPA 9 Master Plan will assess improvements to transit. The study will consider the road width requirements to accommodate other modes of transportation.
Special Policy Area C seems to be getting buried in the ROPA 9 lands and the First Pro commercial. Rymal Road should be improved to 4-lanes with a 5th centre turn lane from Upper James to Tappet Road. Need alternate route study Binbrook Road to Lincoln Alexander Parkway via Nebo. Suggest extending #20 Road Glanbrook east to 56 Highway to take traffic off Rymal Road. Suggest study traffic load on Paramount Road to relieve congestion on Rymal Road East. I do not agree because the study only concentrates on 56 Highway to Trinity Church Road (lack of vision by the planners).	The west limit of the ROPA 9 Master Plan study is Trinity Church Road. Improvements to Rymal Road west of the study area will be assessed as a separate study by the City, as appropriate.
The Trinity Church Road extension should be built right away since the interchange is already in place. Will the Trinity Church Road extension be put in place before the Rymal Road widening? It is important to serve the needs of the current residents before planning for the needs of potential residents. The Trinity Church Road extension should be put in place first to relieve the local residential streets. I, like most neighbours, agree that the Trinity Church Road extension should not be delayed until 2011, it should be immediately upon completion of the Red Hill Expressway. This is not just for the 6,000 new residences south of Rymal, but for the thousands coming to our area because of Big Box Stores. Drivers using the Lincoln Alexander Parkway or the Red Hill Expressway will have to drive through our neighbourhood. GIVE THEM A MORE DIRECT SAFER ROUTE.	Comments noted. The need for a widening of Rymal Road east of Trinity Church Road and an extension of Trinity Church Road, has been identified in the needs assessment for the ROPA 9 lands. The Master Plan Class EA is therefore considering both corridors for improvement in the overall road network in the future.
The closing of Upper Mount Albion Road ASAP. If not, major road repairs and sidewalks of some description that will serve until 2011.	Comment noted.

Comments	Responses
Why is the study for Special Policy Area 'C' not done?	There are two types of studies being conducted for Special Policy Area 'C' - one through the EA process and one through the development process. The EA process addresses the broader infrastructure needs. Since Special Policy Area 'C' and the ROPA 9 lands are geographically close and the result of the studies could be interrelated, Special Policy Area 'C' was added to the ROPA 9 Master Plan Class EA study. The developer is preparing a traffic impact study as part of development approvals for the Special Policy Area 'C' lands. Separate public meetings will be held as part of the development approvals. The developer's traffic impact study will be taken into account during the ROPA 9 Master Plan Class EA study.
What type of traffic controlling measures will be assessed for Second Road West? What would traffic calming or traffic control measures include for Upper Mount Albion Road? The ROPA 9 development has an access point connecting to Upper Mount Albion Road.	General traffic control measures for local or collector roads could include physical calming measures (e.g. speed humps, diverters, closures) or passive calming measures, such as line painting, additional signs, etc. The need for traffic control measures on 2nd Road West and on Upper Mount Albion Road, and the appropriate measures would be assessed at a later stage in the study.
The 1989 City of Stoney Creek council decision to close 2nd Road West demonstrates that it was not intended to be a collector road, but rather a neighbourhood street.	The Official Plan designation for 2nd Road West is a collector road south of Gatestone Drive and a local road north of Gatestone Drive.
When will the stores open in ROPA9? As soon as they do, the streets will be a mess.	The Walmart development will open in January, 2006.
What will happen at the S-curve at Rymal Road and Trinity Church Road? This will present a problem if it merges from 4-lanes to 2-lanes at this location.	This will be addressed in the design stage of the study. Appropriate transition lengths based on the City design standard would be applied.
Residents expressed concerns with directing the development traffic to the Lincoln Alexander rather than all directions.	Comment noted.
Please peruse my comments and sketch regarding the Trinity Church Road and Rymal Road intersection. Regarding Regional Road 56 south of Rymal Road, try to make it safer as there have been a number of accidents with at least one fatality.	Comment noted.
These are fine and are essential to the development of the area.	Comment noted.
I agree that Rymal Road will need to be widened, and signalized intersections introduced. I agree that north/south traffic must be accommodated, and support plans to extend Trinity Church Road and widen or improve Trinity Church Road as necessary. From a logical standpoint, north/south traffic should be provided easy access to the Linc, and future Red Hill Creek Expressway. Only the Trinity Church Road extension or Upper Mount Albion offer direct proximity to these high volume routes. I agree with promoting traffic flow along the main arteries, designed specifically for high volume commuter traffic while eliminating or reducing effects on residential areas (ie, I would support a road closure for Second Road West and Upper Mount Albion). The 'preliminary Preferred Transportation Solution' in the written study does not include any measures to protect the nearby residential area. The road closures listed above work hand-in-hand with the planned solutions, to funnel traffic directly to the recommended routes (Rymal & Trinity Church). If Second Road West and Upper Mount Albion can no longer be used as 'shortcuts', the troublesome traffic on Highland Road will also decrease.	Comment noted.
Water / Wastewater Alternative Solutions	
There is still a resident on Upper Mount Albion Road who is on a well. How would he be impacted? Has the Conservation Authority been involved in this assessment? What effect will this have on the Karst rock formation?	The City is currently undertaking a City-wide Water/Wastewater Master Plan that will address the future needs for the City, where issues such as this will be addressed. The conservation authority is involved in the ROPA 9 Master Plan Class EA study.
The water line up Trinity Church Road is 30 years old. Should it be checked? There have already been sections replaced. Definitely a new pumping station and reservoir is needed to meet the demands of the growing community. Our present system barely works efficiently now much less adding so many new homes to the area. In the last 20 years, we have noticed a marked decline in the water pressure. Levies on new development should automatically cover the costs of such issues Do not want sanitary subtrunk to Mount Albion subtrunk when I don't even have sewers. I was told this would run down Upper Mount Albion Road if it were built. We would like information regarding the expansion of water and sewer services along Fletcher Road and into Binbrook to accommodate Phase 2 of the Binbrook development project.	The City is currently undertaking a City-wide Water/Wastewater Master Plan that will address the future needs for the City, where issues such as these will be addressed. Notification of public meetings will be provided to the public.

Comments	Responses
Water needs are evident for the projected growth! Common sense!	Comment noted.
Water services must be supplied and maintained for the health and safety of the general population of the City; anything less is not acceptable.	Comment noted.
I agree with the (water) solutions. I have no reason to disagree (with the wastewater solutions). I have no other alternatives to offer (for the wastewater solutions). The wastewater solutions seem to be reasonable for the new development areas.	Comments noted.
I agree with the solutions. Both preferred alternatives do not pose any long-term detriment or inconvenience to citizens. If upgrading or new construction does inconvenience anyone, it would only be temporary.	Comment noted.
Check the locations of all the man holes north and south of Rymal Road in this area and Glover Road, Dartnall, 2nd Road West, Fletcher Road.	Comment noted.
Wastewater services must be supplied and maintained for the health and safety of the general population of the City; anything less is not acceptable.	Comment noted.
Trinity Church Road	
As a property owner on Trinity Church Road, I would hope you would not touch the Trinity United Church parking lot. When making the connection from Trinity Church Road to the Lincoln Alexander Parkway, crossing Rymal Road east of the present intersection joining south behind the existing house then swinging west back to existing Trinity Church Road past the south side of the cemetery, you would only need to deal with one property owner.	All possible and feasible alignments will be examined as part of the Trinity Church Road Corridor EA. The alignments will be presented to the public at a Public Information Centre to provide the public with an opportunity to provide comments.
RE: roads to service the Glanbrook prestigious business park – the residents of Trinity Church Road were promised a high, treed berm on the west side behind the existing houses to be a buffer between Trinity Church Road and the business park. There was to be no access roads from Trinity Church Road into the business park. No need to widen Trinity Church Road. We, on Trinity Church Road chose to live in a rural area and that is our right. Development was to be curtailed to the north of the hydro corridor. Rural areas NEED TO BE PRESERVED.	Comment noted. This comment has been provided to the North Glanbrook Industrial Business Park study team.

Comments	Responses
The majority of Trinity Church Road lies within the Greenbelt under regulations which do not permit major development on that land.	Comment noted.
Prior to amalgamation, City staff advised the Council against the plans of several developers to build residential and commercial properties south of Rymal Road between Highway 56 and Trinity Church Road citing that the development plan would initiate negative urban sprawl. However, the former council in its final days, proceeded to vote in favour of Aldo De Santis, allowing him to build the residential area called Summit Park. That development was to extend southward ONLY to the hydro corridor. Thereby leaving the farm fields from the hydro corridor southward to Golf Club Road undeveloped. South of Golf Club Road lies within the Provincial Green Belt. If Hamilton City council keeps its promise to curtail the development to the north of the hydro corridor, there will be no further significant development along Trinity Church Road to accommodate in the distant future and no need to create a four-lane highway on this road. Land behind the present strip-housing is farmland. Change those parameters and you change our quality of life.	Comment noted.
Another criteria stated by the planners was that Trinity Church Road was once a Regional Road between two townships, Mount Hope and Binbrook. Since Regional Government was created in 1973 and the two townships joined to become Glanbrook that designation ceased to exist. Trinity Church Road has been a rural, residential road since 1973. That is our choice and our right to live in a rural, residential area. We do not ask for services like sewers, sidewalks or street lights. We prefer to live the rural lifestyle.	Although Trinity Church Road operates as a rural residential road, the Glanbrook Official Plan (December 2000) designation for Trinity Church Road is an arterial road.
Young children ride their bikes on Trinity Church Road, and residents of the care facility, Participation House, drive their wheelchairs on the road.	Comment noted.
Trinity Church Road is NOT a through street. It ends at Lake Niapenco. It would be preferable to have a north-south route that could potentially join into the proposed, Mid-Peninsula freeway. Nebo Road, which transverses the North Glanbrook Prestigious Industrial Business Park already extends beyond White Church Road which is the western extension of Binbrook Road.	All possible and feasible alignments will be examined as part of the Trinity Church Road Corridor EA. The alignments will be presented to the public at a Public Information Centre to provide the public with an opportunity to provide comments.
The halfway point between Highway 6 (Upper James Street) and Highway 56 (the extension of Centennial Parkway into Binbrook) lies halfway between Nebo Road and Dartnall Road. Thus either one of those two roads would be most appropriate for a middle north-south highway. Both Nebo Road and Dartnall Road traverse the North Glanbrook Prestigious Industrial Business Park. Highways (truck routes) ought to service local business areas. Nebo Road should have been the road of choice for an off ramp from the LINC but bad municipal planning positioned the Ottawa Street dump as an obstacle for such an exit route. Dartnall Road then was the obvious choice. Dartnall is also a commercial road with businesses that will need truck delivery service. With Dartnall being the exist route off the LINC and Nebo being a through road, it would seem most feasible for the four lane truck route (highway) to exit the LINC on Dartnall and then gradually curved through the North Glanbrook Prestigious Industrial Business Park to join into Nebo Road at some point and progress southward to join the future, proposed Mid-Peninsula Highway. The only businesses requiring truck traffic on Trinity Church Road are the Army Sewer Contractors near Rymal Road and the sod farm on White Church Road. The Army Sewer Company could access their business onto the new road to be built in the North Glanbrook Prestigious Industrial Business Park directly behind their property. Trucks servicing the sod farm likewise could use a road through the above said Park. Enclosed with this information is the revised road plan for the North Glanbrook Prestigious Industrial Business Park which was submitted by my husband, a retired building contractor and draftsman, to Gavin Norman, P.Eng. Senior Project Manager, City of Hamilton, re: the North Glanbrook Prestigious Industrial Business Park – Transportation Master Plan, Public Information Centre #1. The plan was received and a reply was sent to us citing that the plan which my husband submitted would be incorporated into the study route alternatives. Plan A, as included, was the preferred plan. Thus no roads from the Park would exit onto Trinity Church Road, making the need to widen the north end of said road to the former City of Hamilton boundary unnecessary. Note also: that a buffer strip (an earthen berm with a MINIMUM height of 5 feet – higher would be preferable – with trees planted along it) was promised to separate our RURAL / RESIDENTIAL road completely from the said PARK. Trinity Church Road was allowed by Glanbrook and the City of Hamilton to develop as a Residential road of strip housing. (Not to mention that housing permits were issues to build residential homes right within the North Glanbrook Prestigious Industrial Business Park.) It is obscene that this was allowed to happen, and now a slaughterhouse is to be built in those people's midst. This is BAD PLANNING. Turning Trinity Church Road into a 4-lane highway would be the final insult.	

Comments	Responses
Special Policy Area 'C'	
Special Policy Area 'C' development should not be approved before this study is done.	This Master Plan process will facilitate the coordination of the developments.
Regarding "Plan C" off Winterberry, a big box store should not be allowed right in the middle of a residential area. Perhaps offices and restaurants would be a better choice. Keep in mind that there is an elementary school across the road. The traffic of Big Box development would raise safety issues in traffic as well as large vehicles. Also, I was disappointed to hear that there is no plan to make Rymal Road, west of Pritchard Road, a 5-lane artery. For the present, as well as future development, this should have been 5 lanes years ago. Rymal is the fastest growing commercial artery, don't wait 10 years before you realize that oops the road is too small, then rip it apart and upset the thousands of drivers when you upgrade the road. Imagine if Mohawk or Fennel Roads were left as 2 lanes. Traffic on Rymal will only get worse!!!	The infrastructure needed to support SPA 'C' will be assessed and identified as part of the Master Plan Class EA. The recommendations will be presented to the public. The west limit of the ROPA 9 Master Plan study is Trinity Church Road. Improvements to Rymal Road west of the study area will be assessed as a separate study by the City, as appropriate.
Closure of Second Road West	
Approximately 92 comments regarding traffic operations on 2nd Road West were received. Typical concerns included: Á Speeding Á Traffic volumes Á Impacts of ROPA 9 on future traffic volumes Á Driveway access Á Safety Á Pedestrian accommodation Á Traffic control compliance Á Setback of homes to street and high traffic volumes Á Drag racing Á Collisions Á Proximity to two elementary schools Á Property taxes Á Designation/classification of the road Á Previous plans for closure Á Width of the road cannot accommodate traffic volumes Á Upper Mount Albion and Pritchard are more suitable options for through traffic.	These concerns were addressed at a PIC held in January 2006. The PIC presented the results of the following keys tasks: Á A review of the function and design of existing roads adjacent to the study area Á Analysis of the traffic volumes on adjacent roads, and assessment of the need for traffic management measures, including road closures/realignments. Á Assessment of potential traffic impacts that could be created with traffic management measures. Á Identification and evaluation of potential traffic management options. Further details are provided in the body of the Master Plan report.
Every time I drive on Highland Rd. and look at the Nursing Home, I always have a question in mind. I wonder how the owner of that nursing home obtained a building permit to build the nursing home on the core of the Karsts. That area from 2000 was forbidden to have any sort of construction on it. HOW DID THIS HAPPEN? Even Aldo DeSantis had to stop building houses in that area. The nursing home was built in 2002-2003.	

Comments	Responses
Other Questions / Comments / Suggestions	
When the City decides to extend Red Hill Expressway to Rymal Road and Trinity Church Road, please let me know.	Your name will be added to the mailing list.
This meeting of October 3rd was more for City workers and staff, not for general public. For us, we should have been told how this development will affect our lives and neighbourhood. My son and I think that this discussion is too late. Aldo De Santis is in the process of building 3,200 new homes. Al Fisina is building a Walmart. A car dealership is already operating. Now, a Maple Leaf factory is planning to be built.	Comment noted.
Following the presentation, my son and I asked the iTRANS representative what businesses are planning to be built. His answer was that he himself didn't know. How can someone who doesn't know what types of businesses are being built conclude that there should be 4 lanes on Rymal Road extending from Highway 20 to Trinity Church Road? Based on the types of businesses being built, we believe that 4 lanes should be extended to Upper James. Furthermore, my son believes that the view is one way so to speak. When these businesses are built, people from Upper James, Upper Wentworth, Upper Gage, and Garth will be taking Rymal. Should we not think ahead and accommodate them too? What's more, if the experts believe that Second Road West can accommodate 8,000 cars per day (roughly 340 per hour) then anything is possible.	The traffic assessment conducted for the study was based on residential and commercial land uses, given City approved population and employment forecasts, and on known specific developments at the time. Unfortunately, most specific developments are not known until development applications are submitted to the City. The appropriateness of each development based on Official Plan and zoning is then assessed. The ROPA 9 study takes an overall view of development of the ROPA 9 lands, and includes an assessment of trips destined to and from the area. The west limit of the ROPA 9 Master Plan study is Trinity Church Road. Improvements to Rymal Road west of the study area will be assessed as a separate study by the City, as appropriate. We also clarify that 2nd Road West, south of Gatestone Drive is designated a Collector Road which is the section we noted has a capacity to accommodate less than 8,000 vehicles / day.
With regards to extending Trinity Church Road to the LINC, the discussion is about 6 years too late because in the Winterberry area, 2 bridges have been built, which to this day not 1 car has driven over it, connect the LINC to Trinity Church Road.	Comment noted.
We don't have any comments for questions 4 and 5 because the experts have decided pipe sizes, numbers of people to accommodate, what to do with pump stations. We don't know that problems that are occurring in the Binbrook subdivision.	Comment noted.
With regards to question 6, displays were outdated since the new plans weren't presented in the maps so people were confused.	All future displays will have current mapping. Updated aerial and other base mapping were not available at the time of the meeting.
Acceptable up to date. More information in the future is required.	Comment noted.
I feel that this is a good thing that the City is finally looking into improving this area. We are the owners of two properties in the Portside Drive area and welcome these improvements.	
A question that I had for Christine Hill was: who will be responsible for installing and paying for the main sewer and water services for those of us on Portside Drive. *(We are assuming this is Portside Street at Rymal Road and RR56)*	The City is currently undertaking a City-wide Water/Wastewater Master Plan that will address the future needs for the City, where issues such as these will be addressed. Notification of public meetings will be provided to the public.
A big concern of ours is that this area has always had a problem with collecting runoff water from rain or melting snow and as new development is being allowed in this corner we are seeing this problem increase. The water that is being generated or collected in this area cannot escape fast enough; we would greatly appreciate it if this is taken into consideration when Highway 56 is being worked on.	Comment noted. Stormwater management will be assessed as part of the Master Plan study, and we will take this concern into consideration.

5. CONCLUSIONS

In general, the public was supportive of the project, and provided concerns to be addressed. An additional Public Information Centre was held in January 2006 to address some of these concerns.

Copies of the comments are on file with the City.

Appendix B.2.2
Public Information Centre #2
Materials and Summary

WELCOME

PUBLIC INFORMATION CENTRE #2

TRINITY NEIGHBOURHOOD STUDY
Neighbourhood Adjacent to the Rymal Road Planning Area ("ROPA 9" Lands)

Thursday, January 26, 2006

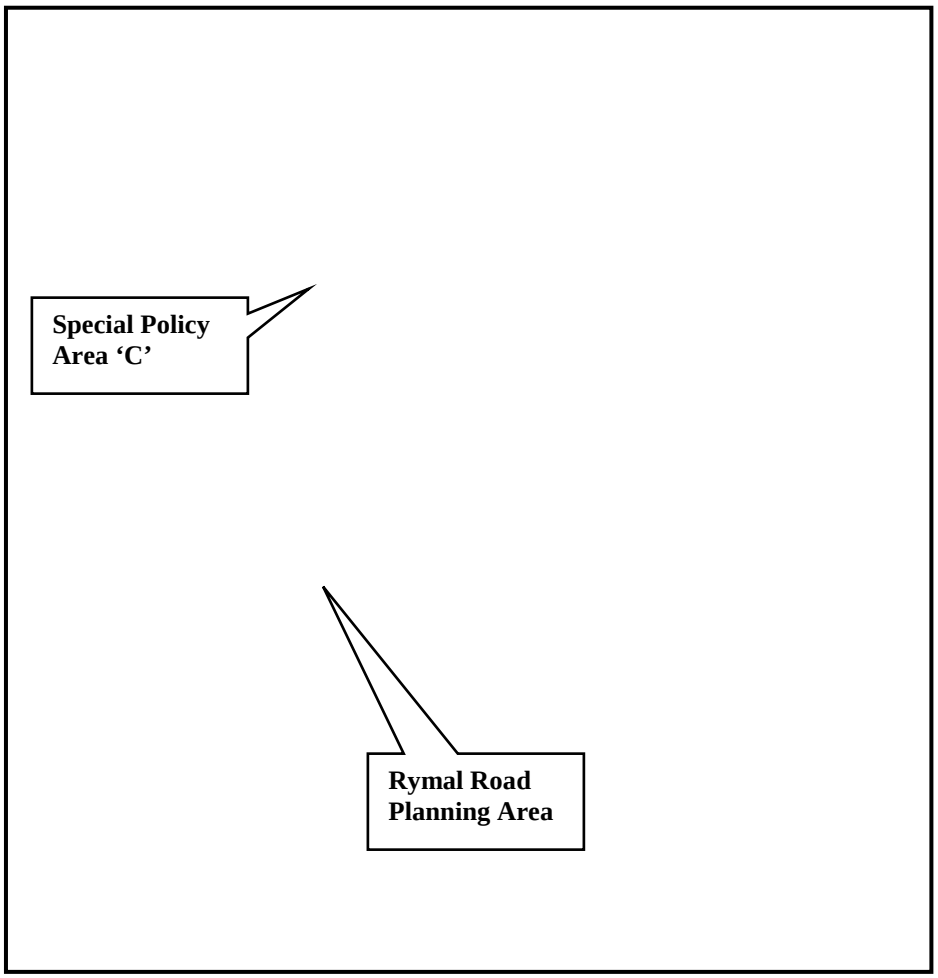
City of Hamilton

ROPA 9 STUDY

The City of Hamilton is undertaking a Master Plan Environmental Assessment for the ROPA 9 lands located on the south side of Rymal Road East (Highway No. 53), east of Trinity Church Road, west of Regional Road 56, and north of the hydro corridor, in the former Township of Glanbrook. The study is assessing transportation, water and wastewater requirements for the area.

Special Policy Area 'C' will form part of the study. This area is bounded by Mud Street West to the north, Paramount Drive to the south, Winterberry Drive to the east, and the Mud Street / Red Hill Creek interchange to the west.

The Study Area is shown below.



ROPA 9 STUDY CONT'D

The first Public Information Centre (PIC #1) for the ROPA 9 Study was held on October 3rd, 2005. At that meeting, we presented the need for infrastructure improvements (roads, water and wastewater) for the area.

As a recap to the recommendations and plans discussed at PIC #1, the following are the planning recommendations for the Rymal Road Planning Area:

- Widen Rymal Road from Trinity Church Road to Regional Road 56.
- Widen Regional Road 56 from Rymal Road to approximately 900 m to the south.
- A new road link from Stone Church Road / Red Hill Creek Expressway ramps to Rymal Road (on an alignment to be determined).
- Travel demand management.
- Operational improvements, such as changes to traffic signal timing and phasing, localized roadway section and intersection geometric improvements, adding or changing turn lanes at intersections.
- Upgrade the HD007 Pumping Station and HDR07 Reservoir.
- Construct a new Sanitary Sub-trunk to Red Hill Creek Interceptor.

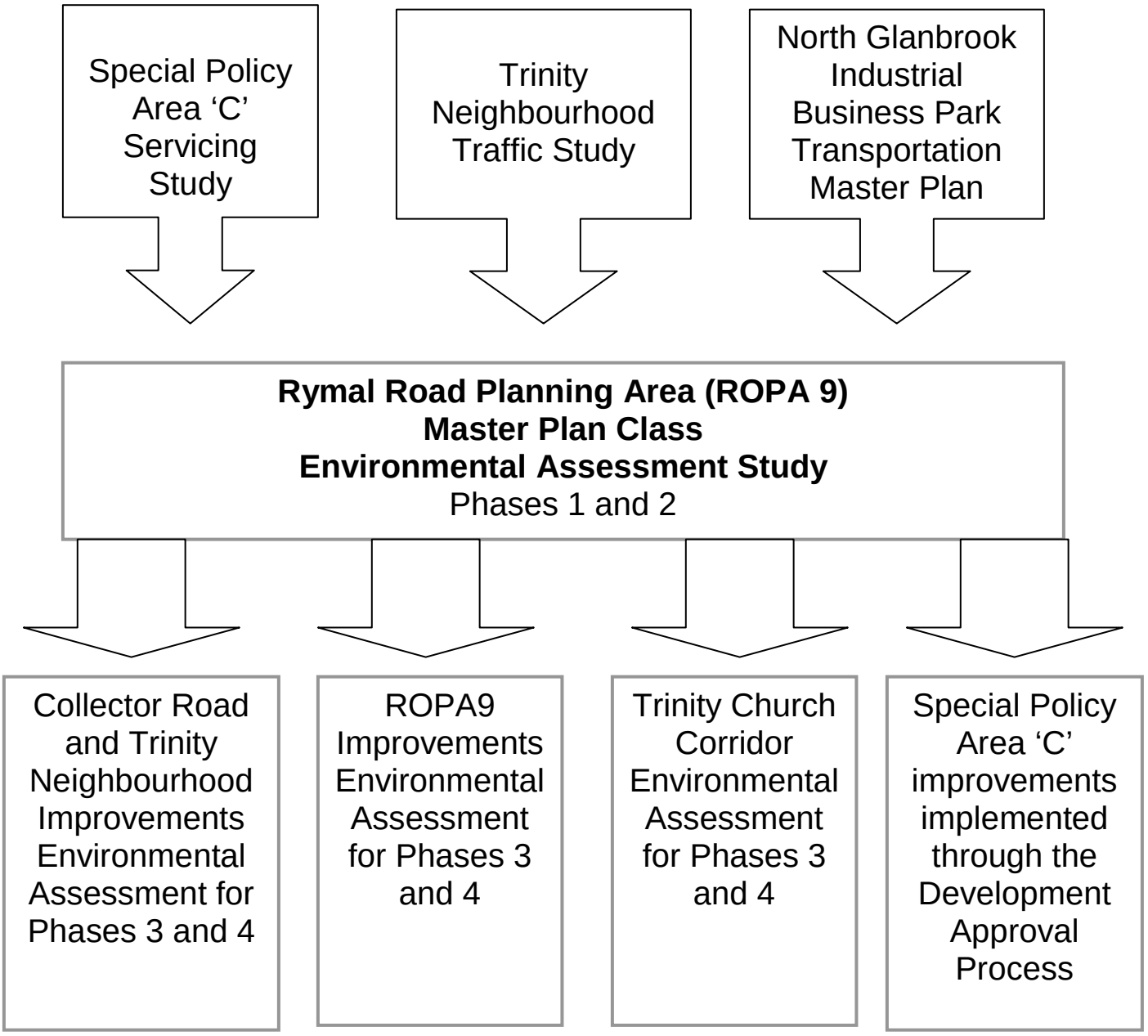
Community comments received during the study will be addressed prior to completion of the EA.

BACKGROUND TO THIS MEETING

- Through the public consultation process for the ROPA 9 Study, members of your community have expressed concerns regarding traffic operations in the area of the ROPA 9 Lands. Specifically:
  - traffic infiltration (resulting in increased traffic volumes on neighbourhood streets)
  - travel speeds
  - traffic control compliance, and
  - safety for pedestrians and cyclists
- The City of Hamilton is taking this opportunity to address these issues and to gather community input.
- Various options have been identified and assessed in an attempt to address these concerns.
- We have completed the following key tasks in addressing the issues:
  - Assessed the function and design of existing roads adjacent to the study area
  - Analyzed the traffic volumes on adjacent roads, and assessed the need for traffic management measures, including road closures / new routes
  - Identified and evaluated potential traffic management options, including an assessment of potential traffic impacts that could be created with traffic management measures
- The results of this assessment will be documented in a report **(Trinity Neighbourhood Traffic Assessment Report)** that will serve as a background document to the ROPA 9 Lands Master Plan Class EA.

OVERALL PROJECT CONTEXT

A number of studies will form part of Phases 1 and 2 of the ROPA 9 Master Plan Class EA. The flow chart below provides a summary:



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EXISTING CONDITIONS

The following is a summary of the existing characteristics for roadways within the Trinity Neighbourhood.

Street	Designation	Posted Speed Limit	Pavement Width (~m)	Vertical Geometry	Cross-Section / Setback*	Side-walk
2nd Road West (north of Gatestone)	Local	50	8.5	flat	Urban 10 to 20 m setback	varies
2nd Road West (south of Gatestone)	Collector	50	10.0	flat	Urban 15 m setback	one side (east)
Gatestone Drive	Collector	50/40	10.0	flat	Urban 15 m setback	both sides
Whitedeer Road	Collector	40	14.0	flat	Urban 10 to 15 m setback	both sides
Highbury Drive	Collector	40/50	11.5	flat	Urban 10 to 20 m setback	both sides
Upper Mount Albion Road	Local	60	7.0	rolling	Rural 15 to 30 m setback	none

* Represents front yard setbacks from roadway

EXISTING CONDITIONS CONT'D

The following is a summary of the existing traffic demand versus the appropriate capacity for each roadway being assessed.

Street	Capacity (24-hr)	Existing Traffic Demand (24-hr)	Demand/ Capacity	Comments on Acceptability for Road Design Conditions
2nd Road W N of Gatestone	<1,500	2,200	Over	North of Gatestone Drive, traffic volumes are above levels associated with the road class and design.
S of Gatestone	<8,000	2,000*	Under	South of Gatestone Drive, the road class and design of 2nd Road W. (collector road, wide pavement width) is appropriate for the daily volumes experienced.
Gatestone Drive	<8,000	1,450 / 4,400	Under	The road class and design of Gatestone Drive (collector road, wide pavement width) is appropriate for the daily volumes experienced.
Whitedeer Road	<8,000	2,900*	Under	The road class and design of Whitedeer Road (collector road, very wide pavement width) is appropriate for the daily volumes experienced.
Highbury Drive	<8,000	1,700 / 1,900	Under	The road class and design of Highbury Drive (collector road, wide pavement width) is appropriate for the daily volumes experienced.
Upper Mount Albion Road	<1,500	1,300 (N of Rymal) 1,100 (N of Highland)	Over	Traffic volumes are above levels associated with the road class, the rolling vertical geometry, and a very narrow pavement width on Upper Mount Albion Road.

* Estimated from the available PM peak hour traffic volumes

EXISTING CONDITIONS CONT'D

The following is a summary of existing speed survey results on 2nd Road West, and on Upper Mount Albion Road.

2nd Road West (50 km/h posted speed limit)

- Speed survey conducted between Fairhaven Drive and Shadetree Crescent
- The speed at which 85% of the vehicles on 2nd Road West travel at or below, falls within a range of 45 to 55 km/h.
- 5% to 25% of the total daily traffic was operating above the posted speed limit.
- 15 to 40 vehicles were observed traveling at a speed of 70 km/h or higher on this section of local road (20 km/h above the posted speed limit), within a 24 hour period.

Upper Mount Albion Road (60 km/h posted speed limit)

- Speed survey conducted between Rymal Road and Highland Road.
- During the PM peak hour, the speed at which 85% of the vehicles on Upper Mount Albion Road travel at or below, is observed to be 71 to 76 km/h.
- 74 to 85% of the total traffic was operating above the posted speed limit.
- 40 vehicles were observed traveling at a speed of 80 km/h or higher (20 km/h above the posted speed limit), within a 24 hour period.

EXISTING CONDITIONS CONT'D

Road Collision Summary in Trinity Neighbourhood (2001-2004, 4-year)

Street	Fatal	Injury	PDO[1]	Total	Collision Rates (collisions per million vehicle-km per year)
2nd Road West Highland Rd to Rymal Rd	0	0	0	**0**	**0.00**[2]
Gatestone Drive 2nd Rd W to N Isaac Brock	0	1	1	**2**	**0.54**
Whitedeer Road Highbury to Rymal Rd	0	0	0	**0**	**0.00**
Highbury Drive Highland Rd to Gatestone	0	1	1	**2**	**0.54**
Upper Mount Albion Road Paramount to Rymal Rd	0	0	1	**1**	**0.42**[3]

1, PDO-Property Damage Only
2, One collision occurred in 2005
3, One collision occurred in 2005

- 5 collisions were reported on road sections of the five major north-south roads during the four-year period. One collision was reported on 2nd Road West in the last 5 years. Two collisions were reported on Upper Mount Albion Road in the last 5 years.

- Property damage only (PDO) collisions accounts for 60% of the total collisions (3/5).

- Collision rates are typical for the road functions.

SUMMARY OF EXISTING CONDITIONS

The traffic demands on Second Road West north of Gatestone Drive, and on Upper Mount Albion Road are over the volumes typically associated with local roads of 1,000 to 1,500 vehicles per day. Second Road West is observed to be carrying approximately 2,200 vehicles per day, and Upper Mount Albion Road approximately 1,300 vehicles per day.

The pavement width of Second Road West, north of Gatestone Drive is narrow for the daily traffic volumes it currently experiences.

Upper Mount Albion Road between Rymal Road and Highland Road has a rolling vertical alignment at the north section, and a very narrow pavement width, which makes the geometry undesirable for the volumes it is currently experiencing.

FUTURE TRAFFIC CONDITIONS

Official Plan Amendments for the ROPA 9 lands, allow future development for a mix of uses including approximately 3,590 residential units and 21.4 hectares (53 acres) of land for local, general, and neighbourhood commercial uses. The Secondary Plan also designates land for stormwater management facilities and establishes a proposed collector road system.

A first phase of development allows for the construction of up to 550 residential units and 19,000 m^2 of general commercial space. Draft plans of subdivision have been approved accounting for the allotted 550 residential units. A draft plan of subdivision has also been approved that would allow development of 19,000 m^2 of general commercial space.

Additional specifics include:

- Hamilton Mountain Development Inc. commercial site on the south side of Rymal Road between Whitedeer Road and Swayze Road. The site comprises 7.6 ha (18.8 acres), including a Wal-Mart store.
- Summit Park subdivision located south of Rymal Road between the southerly extension of Upper Mount Albion Road and Fletcher's Road. The proposed development will ultimately consist of approximately 680 residential units and approximately 11,935 m2 (128,470 ft2) of gross floor area of commercial development.

There is a potential that future development of the ROPA 9 lands will exacerbate the existing traffic conditions on roadways within the Trinity Neighbourhood. As a result, solutions are necessary to address these issues.

PROBLEM/OPPORTUNITY STATEMENT

Objective (5) of the ROPA 9 Master Plan problem statement states: ***Transportation solutions, which support Municipal Official Plans, are necessary to manage traffic impact on local roads adjacent to the study area.***

Based on the foregoing analyses, transportation solutions are required to:

1. Ensure successful transportation service for the ROPA 9 and the Trinity Neighbourhood areas with future development, and while minimizing negative impacts to the existing conditions.

2. Provide sufficient capacity and appropriate access to accommodate increasing traffic demands throughout the road network.

3. Manage and direct traffic to appropriate routes to maintain designated road functions, with arterial roads serving long distance travel, and local roads mainly serving local trips.

4. Implement and time a road network strategy to ensure the success of traffic operations on the whole road network.

Objective (5) of the ROPA 9 Lands Master Plan problem statement is intended to address the requirements outlined above.

ALTERNATIVE SOLUTIONS - TRINITY NEIGHBOURHOOD

To address the identified existing and future problems, the following alternative solutions were identified:

- Do Nothing

- Enhanced Traffic Control - for example:
  - Additional signage
  - Painted stop bars
  - Painted cross-walks at stop controlled intersections
  - Physical traffic calming (e.g. speed humps, diverters)
  - Roadway edge pavement markings

- New Road Connections - for example:
  - Collector road between Rymal Road / 2nd Road West and Highland Road
  - New north-south roadway from Stone Church Road/Red Hill Creek Expressway to Rymal Road

- Road Closures - for example:
  - Upper Mount Albion
  - 2nd Road West
  - Gatestone Drive / Whitedeer Road

ASSESSMENT CRITERIA

The alternatives were evaluated based on their ability to address the problems, and based on the following criteria.

Appropriateness of Network Plan
- Consistency with Road Designation
- Network Continuity
- Accessibility

Traffic Operational Issues
- Volume / Capacity
- Operating Speeds
- Overall Safety

Impacts on Other Routes
- Traffic Diversion
- Turning Demand

Emergency Services Implications
- Routing of Emergency Services
- Response Time

Natural Environment
- Vegetation
- Wildlife
- Eramosa Karst

Costs
- Capital
- Maintenance

Impacts / Benefits to Communities
- Noise Impacts (effect of traffic-related noise)
- Residents
- Dwellings/property
- Accessibility
- Schools

Evaluation of Alternatives

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
APPROPRIATENESS OF NETWORK PLAN							
Consistency with Road Designation	Official Plan road network not complete; local roads will continue to carry high levels of traffic	Applicable to local roads, though some measures have limited use for local rural roads; Intent of the Official Plan to have a complete road network is not met	Comply with the intent of the Official Plan to complete the Arterial road network	Comply with the intent of the Official Plan to complete the Collector road network	Closure is consistent with a local road designation	Closure is consistent with the local road designation north of Gatestone Dr.	Closure is not consistent with a collector road designation
Network Continuity	Trinity Church Road dead ends at Rymal Road; no collector road available between Pritchard Road and Second Road West; network continuity could be improved	Same as Option 1	Provides good network continuity with good north-west connection	Provides north-south connection from Highland Road to Rymal Road	Will impact network continuity with limited north-south routes.	Same as Option 5	Same as Option 5
Accessibility	Remain consistent as existing, generally accessible	Same as Option 1	Enhanced accessibility between ROPA 9 and areas to the north and west	Enhanced north-south accessibility	Road closure will impact local traffic accessibility	Same as Option 5	Same as Option 5
TRAFFIC OPERATIONAL ISSUES							
Volume / Capacity	Potential increase in through traffic volumes on neighbourhood roads, resulting in volumes over available capacity	Potential to reduce / maintain acceptable traffic volumes on area roads that is below road capacity	Provides additional north-south capacity to accommodate future traffic demand, and potentially reduce through traffic on neighbourhood roads	Same as Option 3	Closure will resolve high volume issues since roadway use limited to adjacent residents and businesses	Same as Option 5	Roadway use limited to adjacent residents; no volume or capacity issues expected
Operating Speeds	Current speeding issues will persist on area local roads	Potential to address speeding issues on area local roads	Operating speeds on new corridor could be controlled through appropriate roadway designation, geometry, etc.	Same as Option 3	Closure will address speeding issues since roadway use limited to adjacent residents and businesses	Same as Option 5	Roadway use limited to adjacent residents; no speeding issues expected
Overall Safety	Potential for increase in number of collisions on local roads, due to increase in traffic volume	Potential for increased safety for pedestrians and motorists	No anticipated safety issues with new corridor; also, a new corridor could improve safety for pedestrians and motorist on other routes with traffic diverted to the new route	Same as Option 3	Potential for increased safety for pedestrians and motorists with a reduction in traffic volumes	Same as Option 5	Same as Option 5; however traffic diversion could have safety implications on other routes

Evaluation of Alternatives

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
IMPACTS ON OTHER ROUTES							
Traffic Diversion	With capacity constraints traffic will divert; no additional capacity provided for traffic diversion	Minor traffic diversion may occur from local roads with enhanced traffic controls	New corridor will accommodate diverted traffic from area roads such as Upper Mount Albion and Second Road West.	Same as Option 3	Potential for significant traffic diversion to other area roads, with no new alternative routes provided. However, if implemented after new alternative routes (e.g. Options 3 and/or 4) are implemented, no adverse impacts anticipated.	Same as Option 5	Same as Option 5
Turning Demand	Dartnall Road / Rymal Road intersection will experience excessive southbound left and westbound right turning volumes; Turning demands at local road intersections could increase	Same as Option 1	Significant improvement and balance of the turning demands resulting from the ROPA 9 development, particularly at Dartnall Road / Rymal Road intersection	The new collector will result in acceptable turning movements at the intersections of the new collector road with the existing roads	Closure could result in an increase in turning volumes at other intersections	Same as Option 5	Same as Option 5
EMERGENCY SERVICES IMPLICATIONS							
Routing of Emergency Services (Ambulance, Fire, Police)	Same as existing	Same as Option 1	Additional route choice	Additional route choice to local community	The existing fire station is located north of Trinity (Mud/Isaac Brock); Closure at the south end will have little impact on residents on Upper Mount Albion Road. However, communities south of Rymal Road would now be accessed via Fletcher Road and Upper Centennial Parkway	The existing fire station is located north of Trinity (Mud/Isaac Brock); Closure at the south end will have little impact on residents on 2nd Road West. However, communities south of Rymal Road would now be accessed via Gatestone Drive where an elementary school is present.	Impact to available routes for emergency vehicles since these roads are designated emergency routes
Response Time	Same as existing	Varying types of traffic control could impact response time.	Potential for improved response time with an additional route	Same as Option 3	Potential increase in response times to the communities south of Rymal Road	Same as Option 5	Potential increase in response times to access local communities

Evaluation of Alternatives

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
NATURAL ENVIRONMENT							
Vegetation	No anticipated impact on vegetation	Same as Option 1	Impact on vegetation / trees	Impact on vegetation / trees, potentially including small woodlot	Same as Option 1	Same as Option 1	Same as Option 1
Wildlife	No anticipated impact on wildlife	Same as Option 1	Potential for impact on wildlife	Potential for impact on wildlife	Same as Option 1	Same as Option 1	Same as Option 1
Eramosa Karst	No anticipated impact on the Eramosa Karst	Same as Option 1	No anticipated impact on Karst features	Potential impact on Karst features	Same as Option 1	Same as Option 1	Same as Option 1
COSTS							
Capital	No capital cost	Low cost to implement control devices	Potentially high construction costs	Potentially moderate construction cost	Low construction cost for road closure	Same as Option 5	Same as Option 5
Maintenance	Potential for increase in maintenance cost, due to road surface and road base deterioration created by higher volumes	Low increase in maintenance costs over existing	Will require relevant maintenance	Same as Option 3	Lower maintenance costs due to less traffic volumes on closed road, but notable traffic diversion could increase maintenance needs on other roads	Same as Option 5	Same as Option 5
IMPACTS / BENEFITS TO COMMUNITIES (SOCIO-ECONOMIC)							
Traffic Noise	Potential increase due to increased traffic volumes	Noise conditions may improve on roads with enhanced traffic controls	No significant noise impacts anticipated	Same as Option 3	Improved noise conditions on closed road, but could increase noise impact on other roads due to traffic diversion	Same as Option 5	Same as Option 5
Residents	Impacts to residents along local roads will persist and could become worse	Impacts to residents along local roads may be controlled in the short-term	Diversion of traffic to new route from adjacent local roads will benefit residents	Same as Option 3	Elimination of through traffic on closed road will benefit local residents; however may impact residents on other roads due to traffic diversion	Same as Option 5	Same as Option 5
Dwellings/property	No anticipated property or dwelling impacts	No anticipated property or dwelling impacts	New alignment may require property acquisition	Same as Option 3	Potential for property impact with closure design	Same as Option 5	Same as Option 5
Driveway Access	Driveway access on local roads with high volumes of traffic could be compromised	Potential for improved driveway access with enhanced traffic controls	Potential for improved driveway access on local roads with diversion of	Same as Option 3	Enhanced driveway access along closed road; however may	Same as Option 5	Same as Option 5

Evaluation of Alternatives

FACTOR	1-DO NOTHING	2-ENHANCED TRAFFIC CONTROL	3-BUILD NEW ROAD (RYMAL ROAD TO STONE CHURCH ROAD)	4-BUILD NEW COLLECTOR ROAD (RYMAL ROAD TO HIGHLAND ROAD)	5-POTENTIAL CLOSURE OF UPPER MOUNT ALBION ROAD	6-POTENTIAL CLOSURE OF SECOND ROAD WEST	7-POTENTIAL CLOSURE OF GATESTONE DR. / WHITEDEER RD.
		due to traffic diversion to other routes	traffic to the new corridor.		impact residents on other roads due to traffic diversion		
Schools	No anticipated impacts on schools	Same as Option 1	Same as Option 1	Same as Option 1	Same as Option 1	Potential for higher traffic exposure on Gatestone Elementary School, and on St Mark's Elementary School with use of these routes by diverted traffic, and by emergency vehicles, if no new alternative route is provided.	Accessibility of Gatestone Elementary School, and St Mark's Elementary School will be impacted
OVERALL	Road network improvements are required to accommodate existing and future development. The Do Nothing Option will not address these requirements, and will compound the traffic network deficiencies. **Not Recommended**	Enhanced Traffic Control will provide short-term solution for traffic issues on local roads; additional road network improvement will be required for the long-term **Recommended for Phase 1 Implementation**	A necessary high order road link to accommodate future long distance north-south traffic demands **Recommended for Phase 2 Implementation**	A necessary road link and function between Rymal Road and Highland Road in the Trinity neighbourhood; Necessary connection to carry north-south through traffic **Recommended for Phase 2 Implementation**	Closure of Upper Mount Albion Road will allow it to functions as designated - a Local Road. Closure is however only feasible in conjunction with a new north-south connection between Rymal Road and Stone Church Road which will provide the capacity for future growth and traffic diverted from a closed Upper Mount Albion Road **Recommended for Phase 2 Implementation**	Closure of Second Road West will allow it to functions as designated - a Local Road; Closure is however only feasible in conjunction with a new collector road that provides connection between Rymal Road and Highland Road. If a new collector is not feasible due to the Karst Area or other constraints, a closure will be dependent on implementation of an additional north-south route such as a new link between Rymal Road and Stone Church Road **Recommended for Phase 2 Implementation**	Closure of Gatestone Drive or of Whitedeer Road is not recommended, since closure is not consistent with a Collector Road designation. Also, closure will impact emergency routes. **Not Recommended**

Hamilton

Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment Process

Special Policy Area 'C' Transportation Needs

Comments / Questionnaire

RECEIVED MAY 0 2006

Thank you for reviewing the attached Newsletter on the Transportation needs for **Special Policy Area 'C'**. Your input is important to help the City address transportation solutions for Special Policy Area 'C'. **It would be appreciated if you would answer the following questions and mail/fax them, by May 5th, 2006 to:**

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager
Capital Planning and Implementation
Public Works Department, City of Hamilton
320 - 77 James St. N
Hamilton, ON L8R 2K3.
Phone: 905-546-2424 ext. 6390 Fax: 905-546-4435 Email: cleemorr@hamilton.ca

Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

My greatest concern is traffic noise. As for the residential area directly across from Policy Area 3. There will be constant traffic noise 7 days a week all day. I am also concerned about traffic noise levels after 11PM when the planned theatre lets out. Will noise barriers be erected to protect residents at 200 Paramount specifically?

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutiona that have not been identified?**

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

My back yard backs onto Stone Church Upper Mount Albion Rd how will Noise and exhaust pollution be controlled.

How exactly would round abouts work and control traffic

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☒ YES ☐ NO

To fulfill Environmental Assessment Act requirements, we will maintain your comments on file for use during this Study and may include them in Study documentation. With the exception of personal information, all comments received will become part of the public record. Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act.*

Hamilton

Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment Process

Special Policy Area 'C' Transportation Needs

Comments / Questionnaire

RECEIVED APR 2 9 2006

Thank you for reviewing the attached Newsletter on the Transportation needs for **Special Policy Area 'C'**. Your input is important to help the City address transportation solutions for Special Policy Area 'C'. **It would be appreciated if you would answer the following questions and mail/fax them, by May 5th, 2006 to:**

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager
Capital Planning and Implementation
Public Works Department, City of Hamilton
320 - 77 James St. N
Hamilton, ON L8R 2K3.
Phone: 905-546-2424 ext. 6390 Fax: 905-546-4435 Email: cleemorr@hamilton.ca

Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

Special Policy Area "C" seems to be a Concern Regarding. You seem to think this area will be mostly commercial

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

The connection between RHCE, Trinity Church Rd Rymal Rd & Stone Church Rd.

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

I agree since you think it's the area "C" it's going to be mostly commercial

4. **Do you have any other comments regarding the information provided in the Newsletter?**

There is no mention of the Cemetery with a Mud St West exit & Upper Mt Albion Rd. No provision for Car Parking for the Cemetery.

Another thing that bothers me is what is going to happen to the old Blacksmith Shop on old Mud Street - north side

Who from Upper Gen take over the Sunklub area East of Mt Albion Rd & the spoke of something I know well to Mt Albion Caledonia - Where?

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email: [redacted]

Would you like to be added to our ROPA 9 Lands mailing list?

☑ YES ☐ NO

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Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

NO COMMENTS

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

NO COMMENTS

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

NO COMMENTS

I AGREE -

4. **Do you have any other comments regarding the information provided in the Newsletter?**

NO

Contact Information (Optional)

Name:

Address: [redacted]

Phone Number:

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☐ YES ☑ NO

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---

Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

RECEIVED MAY 0 2 2006

OK.

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

Please plan for sidewalks throughout.

Consider that Janet Lee School is crammed with traffic during morning & afternoon school dropoff times.

Please maintain or improve bicycle route access - there is no suitable route to get from east of Winterberry to the Rail Trail west of Mt. Albion.

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

Please implement all of them

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☑ YES ☐ NO

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Comments / Questionnaire

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Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

Yes. We have growth traffic on Upper Mount Albion Rd. now.

2. **Do you have sny comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

Ensure road to Twenty Rd. East

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

Limit road to twenty ft.

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☑ YES ☐ NO

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Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

Sounds as a good future plan

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

No comment. Proposals seem fine.

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

I agree completely. It needs to be done.

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Keep sending letters to keep us informed! Thank you,

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☑ YES ☐ NO

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Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

I do not think that the traffic problem have been addressed yet. It takes a lot longer to get on the lights and as a resident of 2nd Rd W. we are getting all the bypass traffic and our road is not even on the map. We need to have a less densely populated road made wider and close 2nd Rd. to 53.

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

Near around Janett Lee school at dismissal time !! What is going to happens when you add the traffics from the business.

our roads are not wide enough to accomodate extra traffic we need to have a direct south to the residential area and from area C to Rymal (53) ~~to~~ upper ~~to~~ Mount Albion widened

from 53 to 4 lanes and make the densely pop. areas as a slower traffic patterns.

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

I do not agree because for years we were promised a Tesco store and we had nothing now we have too much and are over serviced and stores will not be able to service

4. **Do you have any other comments regarding the information provided in the Newsletter?**

it looks very nice on paper but this area is a lot more populate that it is on this map this map is about 15 years old maybe it should show the true traffic problem and density of area

Contact Information (Optional)

Name:

Address:

Phone Number:

Email: [redacted]

Would you like to be added to our ROPA 9 Lands mailing list?

☒ YES ☐ NO

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Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

I AGREE WITH YOUR RECOMMENDED SOLUTIONS FOR SPECIAL POLICY AREA "C"
ALSO
STONE CHURCH RD SHOULD BE WIDENED FROM WINTERBERRY TO AT LEAST PRITCHARD RD. #53
A STOP LIGHT AT MT ALBION IS A MUST AND LOWERING THE SPEED FROM NEAR TO 20+5L TO 60 KM WOULD HELP.

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

4. **Do you have any other commente regarding the information provided in the Newsletter?**

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☒ YES ☐ NO

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---

Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

Regarding the intersection of Fletcher and Rymal Roads: In the past there have been a number of accidents and fatalities at this intersection. Vehicles traveling at the posted speed limit of 80KMH on Rymal Rd., make an entry from Fletcher Rd., very risky because the west-bound side is single lane.
On Rymal Rd. this intersection is not well marked and drivers unaccustomed to this are not able to recognize the potential danger of incoming traffic. At certain times of the day there is a heavy flow of traffic on Rymal Rd. Taking into consideration that this area is prone to winter white-outs and dense fog, I feel that appropriate measures should be immediately taken to improve the safety of this intersection and reduce the posted speed limit on Rymal Rd.

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

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[redacted]

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email: [redacted]

Would you like to be added to our ROPA 9 Lands mailing list?

☐ YES ☑ NO

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---

Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

While your Newsletter is headed "Rymal Road Planning Area" it speaks exclusively about the issues involving "Special Policy Area 'C'". I am more interested in the "Rymal Road Planning Area".

In that connection, I praise you for mentioning on page 3, right column, ...a new north-south roadway between Rymal Road and Stone Church Road. I suggest, this be the straight connection between the existing RHCE south ramp and Rymal Road, flowing south into Trinity Church Road. - When will this new road be built and what capacity will it have?

Thank you for your commentaries.

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

Western Flyers

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Thank you for your valiant effort to inform the interested parties. Keep the newsletters coming. More importantly, get on with the actual work, rather than merely talking about it.

Contact Information (Optional)

Name:

Address:

Phone Number:

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☐ YES I am or apparently ☐ NO

APR 28 2006

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(1)

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Comments / Questionnaire

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Total Pages : 5 pages

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Hamilton, ON L8R 2K3.
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---

Your Comments Please!

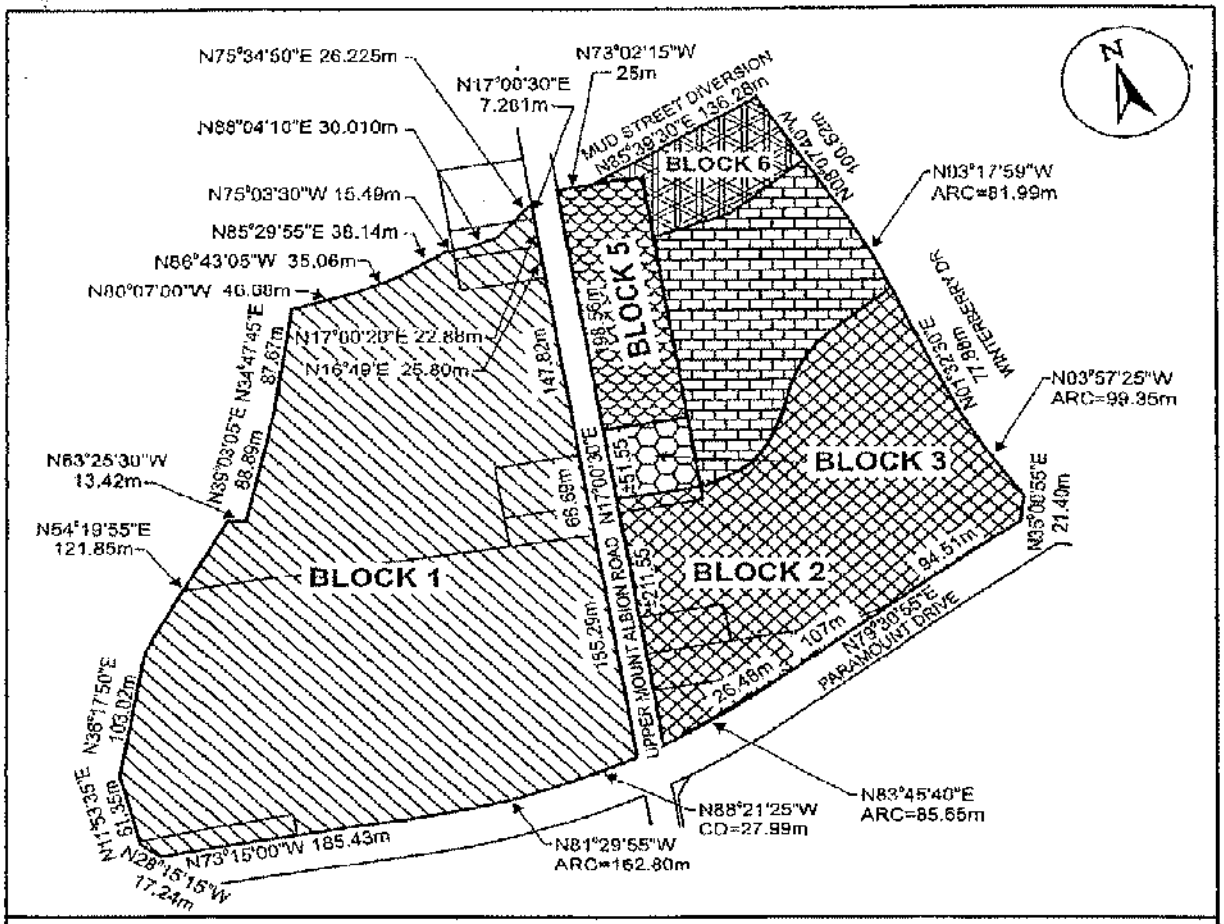
1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

Please see attached

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

As per our letter dated September 8, 2004 attn to Mr. Peter De Lulio, we are strongly disagreeing with the entrance/exit on Paramount Drive.

After reviewing the staff report dated April 25, 2006, we can see that entrance/exit will mostly be used by the Theater customer which will have high traffic between 6pm to 12am and will causes noise and disturbance to the existing multiple residential area (RM3). Therefore we suggest removing the entrance/exit on Paramount Drive. Otherwise, the usage of Block 2 should switch with Block 4 & 5 (Appendix D to Report PED06137 – Page 12 of 12).



This is Schedule "A" to By-Law No. 06—

Clerk

Passed the ..... day of ....., 2006

Mayor

Schedule "A"

Map Forming Part of
By-Law No. 06-____
to Amend By-Law No. 3692-92

Planning and Economic Development Department
Hamilton

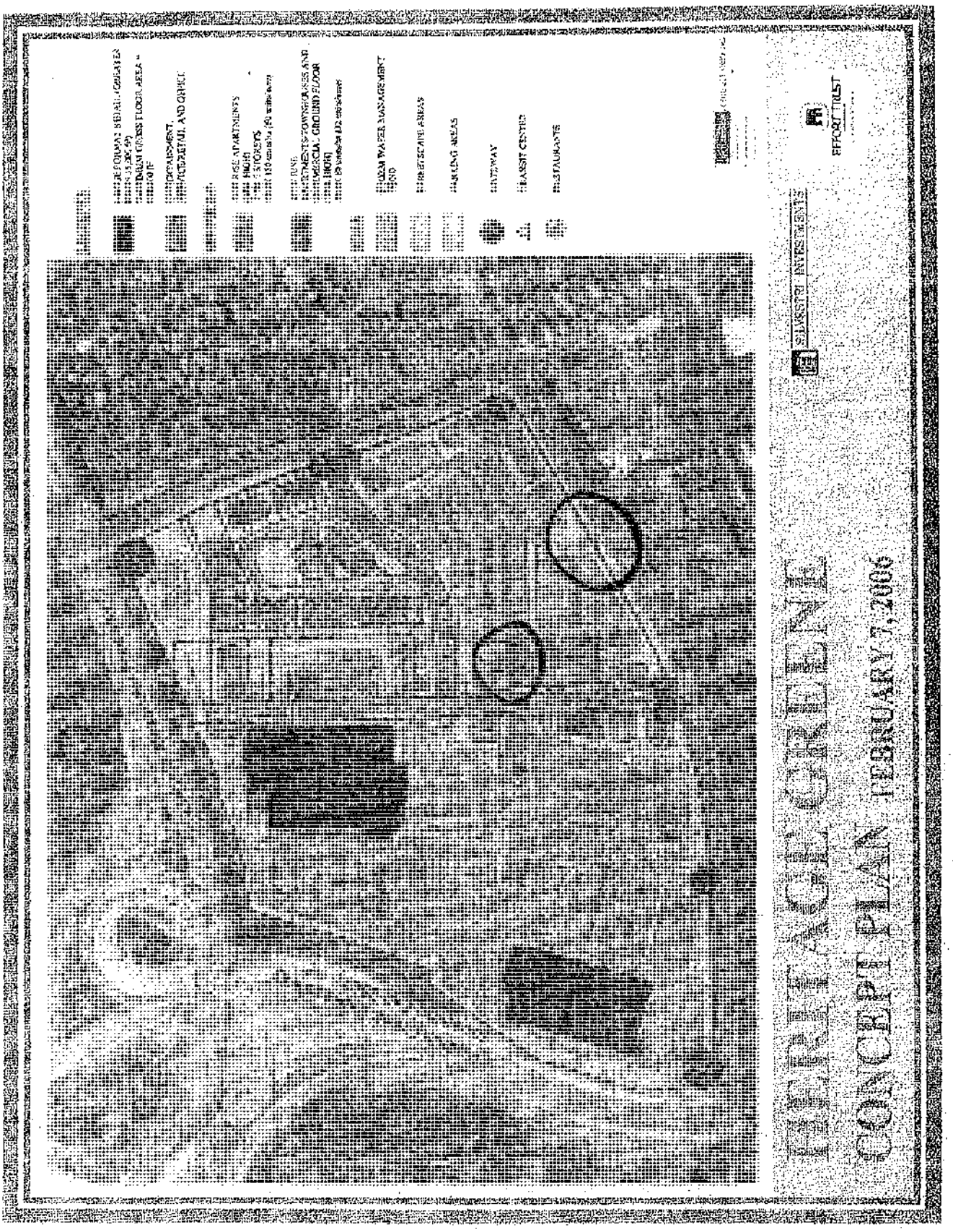
Subject Property
Lands to be rezoned from the Neighbourhood Development "ND Zone to:

- Block 1 - Community Shopping Centre (Holding) "SC2-3(H)" Zone
- Block 2 - Neighbourhood Shopping Centre (Holding) "SC1-3(H)" Zone
- Block 3 - Mixed Use Commercial (Holding) "MUC-1(H)" Zone
- Block 4 - Multiple Residential (Holding) "RM3-27(H)" Zone
- Block 5 - Multiple Residential (Holding) "RM4-5(H)" Zone
- Block 6 - Open Space "OS" Zone

	Scale: Not to Scale	File Name/Number: OPA-03-26/ZAC-03-83/ GHOS-N & 25T-200309
N	Date: April 20, 2006	Planner/Technician: PD/NB

T&C File Name:

Appendix "G" to Report PED06137 (Page 1 of 1)



3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email: [redacted]

Would you like to be added to our ROPA 9 Lands mailing list?

☒ YES ☐ NO

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Your Comments Please!

1. **Do you have any comments regarding the existing or future traffic / transportation conditions in the area of Special Policy Area 'C'?**

I agree that if there is going to be so much development in the area, it is critical to improve traffic conditions

2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

I understand there is talk of closing 2nd Rd W between Highland Road and Rymal Road. PLEASE DO NOT CLOSE 2nd Rd W, as this is a critical access from those neighbourhoods. I believe it is extremely important to keep 2nd Rd W as a through street or the traffic problems in Special Policy Area "C" will be even worse!!!! Blocking that access to Rymal Rd would cause all kinds of problems!!!

3. **Do you have any comments regarding the transportation recommendations for Special Policy Area 'C'? Do you agree with the recommendations? Please indicate why or why not.**

4. **Do you have any other comments regarding the information provided in the Newsletter?**

Contact Information (Optional)

Name:

Address:

Phone Number:

Email:

Would you like to be added to our ROPA 9 Lands mailing list?

☐ YES ☐ NO

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Your Comments Please!

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2. **Do you have any comments regarding the potential transportation solutions presented and criteria used to analyze these transportation solutions? Are there any additional transportation solutions that have not been identified?**

The city should really look into the corner of 53 Hwy + Swayze Rd. where the new wall went in and also at that corner the drive thru at Tim Hortons. Major traffic problems and the public trying to enter onto 53 Hwy. I see it every day. It is a death trap for accidents needs Stop lights.

4. **Please provide comments regarding the Alternative Water Servicing Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Water Servicing Solutions? Please indicate why or why not.**

5. **Please provide comments regarding the Alternative Wastewater Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Wastewater Solutions? Please indicate why or why not.**

6. **Do you have any other comments regarding the material and displays you have seen today?**

We would like information regarding ~~[illegible]~~ & the expansion of water and sewer services along Fletcher Rd and into Binbrook to accomodate Phase 2 of the Binbrook development project.

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email: [redacted]

Would you like to be added to our ROPA 9 Lands mailing list?

☒ YES ☐ NO

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Hamilton

Rymal Road Planning Area (ROPA 9 Lands) Master Plan
Class Environmental Assessment
Public Information Centre No. 1, October 3, 2005

Comments / Questionnaire

Thank you for attending today's Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment Open House. Your input is important to help the City evaluate the proposed recommendations in the Rymal Road Planning Area. The purpose of the first Public Information Centre is to present the needs and opportunities, preliminary alternative solutions to address servicing issues, the natural and socio-economic environmental inventories, the preliminary criteria used to evaluate the proposed alternatives, the evaluation of the alternatives, and a preliminary preferred alternative for each project.

It would be appreciated if you would answer the following questions and drop them off in the box provided tonight or mail/fax them, **by October 21, 2005** to:

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager
Capital Planning and Implementation
Public Works Department
City of Hamilton
320 - 77 James St. N
Hamilton, ON L8R 2K3.
Phone: 905-546-2424 ext. 6390
Fax: 905-546-4435
Email: cleemorr@hamilton.ca

Your Comments Please!
Please provide your comments about the information presented during the Public Information Centre.

1. **Do you have any comments regarding the needs, opportunities and problem statement presented?**

Please Close Second Road West!

2. **Do you have any comments regarding the evaluation criteria used to assess the potential solutions?**

Please Close Second Road West!

3. **Please provide comments regarding the Alternative Transportation Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Transportation Solutions? Please indicate why or why not.**

Please Close Second Road West!

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4. **Please provide comments regarding the Alternative Water Servicing Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Water Servicing Solutions? Please indicate why or why not.**

Please Close Second Road West!

5. **Please provide comments regarding the Alternative Wastewater Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Wastewater Solutions? Please indicate why or why not.**

Please Close Second Road West!

6. **Do you have any other comments regarding the material and displays you have seen today?**

Please Close Second Road West

Contact Information (Optional)

Name:

Address: Please Close Second Road West

Phone Number:

Email: keep the promise please

Would you like to be added to our ROPA 9 Lands mailing list?

☐ YES ☐ NO

To fulfill Environmental Assessment Act requirements, we will maintain your comments on file for use during this Study and may include them in Study documentation. With the exception of personal information, all comments received will become part of the public record. Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act.*

Hamilton

Rymal Road Planning Area (ROPA 9 Lands) Master Plan
Class Environmental Assessment
Public Information Centre No. 1, October 3, 2005

p1-2

Comments / Questionnaire

Thank you for attending today's Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment Open House. Your input is important to help the City evaluate the proposed recommendations in the Rymal Road Planning Area. The purpose of the first Public Information Centre is to present the needs and opportunities, preliminary alternative solutions to address servicing issues, the natural and socio-economic environmental inventories, the preliminary criteria used to evaluate the proposed alternatives, the evaluation of the alternatives, and a preliminary preferred alternative for each project.

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Email: cleemorr@hamilton.ca

Your Comments Please!
Please provide your comments about the information presented during the Public Information Centre.

1. **Do you have any comments regarding the needs, opportunities and problem statement presented?**

NO.

2. **Do you have any comments regarding the evaluation criteria used to assess the potential solutions?**

yes.
Study not large enough.

3. **Please provide comments regarding the Alternative Transportation Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Transportation Solutions? Please indicate why or why not.**

1. Need alt route study Rebrook Rd Tubak via Nebo.
2. Suggest extending #20 Rd Rambrook east to HWY 56 take Traffic off Rymal Rd.
3. Suggest study traffic load on Brownsville Rd W. To relieve congestion on Rymal Rd E.
4. I do not agree, because the study only concentrates on HWY 56 to Trinity church Rd. (Lack of vision by the Planners)

P2-2

4. Please provide comments regarding the Alternative Water Servicing Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Water Servicing Solutions? Please indicate why or why not.

Water services must be supplied and monitored for the health and safty of the general population of the city; anything less is not acceptable.

5. Please provide comments regarding the Alternative Wastewater Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Wastewater Solutions? Please indicate why or why not.

Same as # 4

6. Do you have any other comments regarding the material and displays you have seen today?

Acceptable up To date.
More information in the future required.

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Email: [redacted]

Would you like to be added to our ROPA 9 Lands mailing list?

☑ YES ☐ NO

To fulfill Environmental Assessment Act requirements, we will maintain your comments on file for use during this Study and may include them in Study documentation. With the exception of personal information, all comments received will become part of the public record. Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act.*

Your Comments Please!

Please provide your comments about the information presented during the Public Information Centre.

1. **Do you have any comments regarding the needs, opportunities and problem statement presented?**

We live in the neighbourhood and are concerned about the traffic that will travel on nearby Second Rd. W. On a daily basis we utilize Second Rd. W., and see the speeding and the people who ignore stop signs - what will happen when more people flock to the area for shopping? Our friends on Second Rd. W. have told us about the planned road closure, and we think closing Second Rd. W. would protect our neighbourhood.

2. **Do you have any comments regarding the evaluation criteria used to assess the potential solutions?**

The criteria seems fine.

3. **Please provide comments regarding the Alternative Transportation Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Transportation Solutions? Please indicate why or why not.**

Why were only Rymal Rd. and Trinity Church Rd. planned in detail? Where are the plans for our local roads such as Second Rd. W.?
Will Second Rd. W. be closed to stop speeders endangering our streets on their way to or from Walmart etc?

4. Please provide comments regarding the Alternative Water Servicing Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Water Servicing Solutions? Please indicate why or why not.

Ok.

5. Please provide comments regarding the Alternative Wastewater Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Wastewater Solutions? Please indicate why or why not.

Ok.

6. Do you have any other comments regarding the material and displays you have seen today?

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Rymal Road Planning Area (ROPA 9 Lands) Master Plan
Class Environmental Assessment
Public Information Centre No. 1, October 3, 2005

Hamilton

Comments / Questionnaire

Thank you for attending today's Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment Open House. Your input is important to help the City evaluate the proposed recommendations in the Rymal Road Planning Area. The purpose of the first Public Information Centre is to present the needs and opportunities, preliminary alternative solutions to address servicing issues, the natural and socio-economic environmental inventories, the preliminary criteria used to evaluate the proposed alternatives, the evaluation of the alternatives, and a preliminary preferred alternative for each project.

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Hamilton, ON L8R 2K3.
Phone: 905-546-2424 ext. 6390
Fax: 905-546-4435
Email: cleemorr@hamilton.ca

From: [redacted]

Your Comments Please!
Please provide your comments about the information presented during the Public Information Centre.

1. **Do you have any comments regarding the needs, opportunities and problem statement presented?**

The problem statement regarding Transportation clearly acknowledges the need to "manage traffic impact on local roads adjacent to the study area." The written study does not do this. Verbally, Mr. Bacque discussed closing Upper Mt. Albion. A road closure for 2nd Rd W. should also be included, to address the very real problem of speeding on Highland Rd. and 2nd Rd. W. Without this closure, the high volume of traffic will cripple this residential neighbourhood with commuters looking for a quick North/South route to Rymal Rd. and the Linc.

2. **Do you have any comments regarding the evaluation criteria used to assess the potential solutions?**

Transportation service, Socio economic impacts, natural environment impacts and costs all seem like reasonable criteria to consider. It will be great for our City to see business boom and expand in the area South of Rymal. However, the nearby residential neighbourhoods will lose a lot, facing negative socio economic impacts if the traffic and congestion can not be contained to the major roads outlined in the study (i.e. Rymal Rd. and Trinity Church Rd.)

3. **Please provide comments regarding the Alternative Transportation Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Transportation Solutions? Please indicate why or why not.**

The written study does not do this. Verbally, Mr. Bacquie discussed a closing Upper Mt. Albion. A road closure for 2nd Rd. W. should also be included, to address the very real problem of speeding on Highland Rd. and 2nd Rd. W. Without this closure, the high volume of traffic will cripple this residential neighbourhood with commuters looking for a quick North/South route to Rymal Rd. and the Linc.

2. **Do you have any comments regarding the evaluation criteria used to assess the potential solutions?**

Transportation service, Socio economic impacts, natural environment impacts and costs all seem like reasonable criteria to consider. It will be great for our city to see business boom and expand in the area South of Rymal. However, the nearby residential neighbourhoods will lose a lot, facing negative socio economic impacts if the traffic and congestion can not be contained to the major roads outlined in the study (i.e. Rymal Rd. and Trinity Church Rd.)

3. **Please provide comments regarding the Alternative Transportation Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Transportation Solutions? Please indicate why or why not.**

Plans listed in the study deal with only Rymal Rd. and Trinity Church Rd., and providing adequate passage for large volumes of traffic on these routes. Plans discussed verbally by Ray Bacquie were inadequate in dealing with 2nd Rd. W. My daughter and grandchildren live on 2nd Rd. W. I am very familiar with the current traffic concerns. I must insist that in order to curb commuter traffic through the residential neighbourhood 2nd Rd. W. must be eliminated as a North/South short cut!

4. Please provide comments regarding the Alternative Water Servicing Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Water Servicing Solutions? Please indicate why or why not.

I agree with the Solutions.

5. Please provide comments regarding the Alternative Wastewater Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Wastewater Solutions? Please indicate why or why not.

I have no reason to disagree.

6. Do you have any other comments regarding the material and displays you have seen today?

Close 2nd Rd. W.

Contact Information (Optional)

Name: [redacted]

Address: [redacted]

Phone Number: [redacted]

Rymal Road Planning Area (ROPA 9 LANDS) Master Plan
Class Environmental Assessment
Re: Response to Oct. 3, 2005 Public Information Centre No. 1.

Transportation re: TRINITY CHURCH ROAD

Study initiative statement, "to accommodate future development"

Reply: by [redacted]

- The majority of Trinity Church Road lies within the Greenbelt under regulations which do not permit major development on that land.

- Prior to amalgamation, city staff advised the council against the plans of several developers to build residential and commercial properties south of Rymal Road between hwy 56 and Trinity Church Road citing that the development plan would initiate negative urban sprawl. However, the former council in its final days, proceeded to vote in favour of Aldo De Santis, allowing him to build the residential area called Summit Park. That development was to extend southward ONLY to the hydro corridor. Thereby leaving the farm fields from the hydro corridor southward to Golf Club Road undeveloped. South of Golf Club Road lies within the Provincial Green Belt.
  If Hamilton City council keeps its promise to curtail the development to north of the hydro corridor, there will be no further significant development along Trinity Church Road to accommodate in the distant future and no need to create a four-lane highway on this road. Land behind the present strip-housing is farmland.
  Change those parameters and you change our quality of life.

- Another criteria stated by the planners was that Trinity Church Road was once a Regional Road between two townships, Mount Hope and Binbrook. Since Regional Government was created in1973 and the two townships joined to become Glanbrook that designation ceased to exist. Trinity Church Road has been a rural, residential road since 1973. That is our choice and our right to live in a rural, residential area. We do not ask for services like sewers, sidewalks or street lights. We prefer to live the rural lifestyle.

- Young children ride their bikes on Trinity Church Road, and residents of the care facility, Participation House, drive their wheelchairs on the road.

- Trinity Church Road is NOT a through street. It ends at Lake Niapenco. It would be preferable to have a north-south route that could potentially join into the proposed, Mid- Peninsula freeway. Nebo Road, which transverses the North Glanbrook Prestigious Industrial Business Park already extends beyond White Church Road which is the western extension of Binbrook Road.

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- The halfway point between highway 6 (Upper James Street) and highway 56 (the extension of Centennial Parkway into Binbrook) lies half way between Nebo Road and Dartnall Road. Thus either one of those two roads would be most appropriate for a middle north-south highway. Both Nebo Road and Dartnall Road traverse the North Glanbrook Prestigious Industrial Business Park. Highways (truck routes) ought to service local business areas. Nebo Road should have been the road of choice for an off ramp from the LINC but, bad municipal planning positioned the Ottawa Street dump as an obstacle for such an exit route. Dartnall Road then was the obvious choice. Dartnall is also a commercial road with businesses that will need truck delivery service. With Dartnall being the exit route off the LINC and Nebo being a through road, it would seem most feasible for the four lane truck route (highway) to exit the LINC on Dartnall and then gradually curved through the North Glanbrook Prestigious Industrial Business Park to join into Nebo Road at some point and progress southward to join the future, proposed Mid Peninsula Highway.

- The only businesses requiring truck traffic on Trinity Church Road are the Army Sewer Contractors near Rymal Road and the sod farm on White Church Road. The Army Sewer company could access their business onto the new road to be built in the North Glanbrook Prestigious Industrial Business Park directly behind their property. Trucks servicing the sod farm likewise could use a road through the above said Park.

- Enclosed with this information is the revised road plan for the North Glanbrook Prestigious Industrial Business Park which was submitted by my husband, a retired building contactor and draftsman, to Gavin Norman, P. Eng. Senior Project Manager, City of Hamilton, re: the North Glanbrook prestigious Industrial Business Park – Transportation Master Plan, Public Information Centre #1. The plan was received and a reply was sent to us citing that the plan which my husband submitted would be incorporated into the study route alternatives. Plan A, as included, was the preferred plan. Thus no roads from the Park would exit onto Trinity Church Road, making the need to widened the north end of said road to the former City of Hamilton boundary unnecessary. NOTE also: that a buffer strip (an earthen berm with a MINIMUM height of 5 feet – higher would be preferable - with trees planted along it) was promised to separate our RURAL/RESIDENTIAL road completely from the said PARK. Trinity Church Road was allowed by Glanbrook and the City of Hamilton to develop as a Residential road of strip housing. (Not to mention that housing permits were issued to build residential homes right within the North Glanbrook Prestigious Industrial Business Park.) It is obscene that this was allowed to happen, and now a slaughterhouse is to be build in those people's midst. This is BAD PLANNING. Turning Trinity Church Road into a 4-lane highway would be the final insult.

Yours truly,

[redacted]

Hamilton

Mailing Address:
City Hall, 71 Main Street West
Hamilton, Ontario
Canada L8P 4Y5
www.hamilton.ca

Planning and Development Department
Development and Real Estate Division
Development Engineering – East Section
Phone: 905-546-2424 ext.1322 Fax: 905-546-4202

RECEIVED OCT 13 2005

September 21, 2005

File No.: 30.30.04/72

[redacted]

Re: North Glanbrook Industrial Business Park - Transportation Master Plan Public Information Centre #1

Dear [redacted]

Thank you for attending the first North Glanbrook Industrial Business Park (NGIBP) Public Information Centre on June 29, 2005 and for providing us with your thoughts on the transportation and land use issues along Trinity Church Road including the alternative route alignments you'd like the City to consider (attached).

Currently the City is undertaking two Environmental Assessment (EA) studies in the area; this study and the Rymal Road Planning Area (RRPA) EA Study. The result of travel demand forecasting undertaken for both studies indicate a need for additional north-south lane capacity between Stone Church Road and Rymal Road east of Pritchard Road to support growth in the area. South of Rymal Road, future demand which is based primarily on future growth in the NGIBP, translates into a need for Trinity Church Road to be a two lane arterial road (with protection for four lanes) feeding into the park from Rymal Road.

It should be noted that except for the future Dartnall Road Extension, this study is intended to identify the basic requirements of the preferred road network for the NGIBP; i.e. satisfy Schedule B requirements (Phase 1 - problem / opportunity statement and Phase 2 - evaluation of alternative solutions) of the Class EA. For future Dartnall Road, Schedule C requirements (Phase 3 - alternative route evaluation and Phase 4 - Environmental Study Report) are also being completed in order to get approval for the future route's alignment.

For Trinity Church Road, it was the intention of the City, and defined in this study's scope as such, to defer the determination of the road's future alignment (i.e. Phases 3 and 4) to a future study, recognizing that the role of Trinity Church Road as an access to the NGIBP was a longer term requirement; however, based on the

concerns brought forward by residents along Trinity Church Road, the City has decided to advance phases 3 and 4 of the study in order to act on the resident's concerns and develop a recommended alignment for the road.

In that regard, Phase 3 and 4 (Schedule C) requirements for Trinity Church Road south of Rymal Road are being combined with the concurrent RRPA EA Study that is assessing the need for an extension of Trinity Church Road to Stone Church Road; in that way planning for the road can be completed using a consistent and holistic approach. The alternatives you've submitted will be incorporated into the study route alternatives.

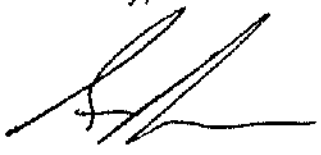
Through the course of the summer the project team has been finalizing the preferred road network based on input received at the Information Centre, beginning preparation of a Master Plan Report in accordance with the Municipal Class Environmental Assessment (2000), and developing specific details of the recommended road projects to be determined as part of this study. In particular, we will be generating and evaluating road alignment alternatives for the future Dartnall Road Extension. These items will be presented at a subsequent Public Information Centre in late 2005 or early 2006 for stakeholder review and comment.

Should you require further information regarding this study, please feel free to contact one of the project team members listed below.

Gavin Norman, P. Eng.
Senior Project Manager
City of Hamilton
71 Main Street West
Hamilton, ON L8P 4Y5
Phone: (905) 546-2424 ext 1322
Fax: (905) 546-4202
email: gnorman@hamilton.ca

Mr. Mike Bricks
Consultant Project Manager
Ecoplans Limited
2655 North Sheridan Way
Mississauga, ON L5K 2P8
Phone: (905) 823-4988
Fax: (905) 823-2669
email: mbricks@ecoplans.com

Yours truly,



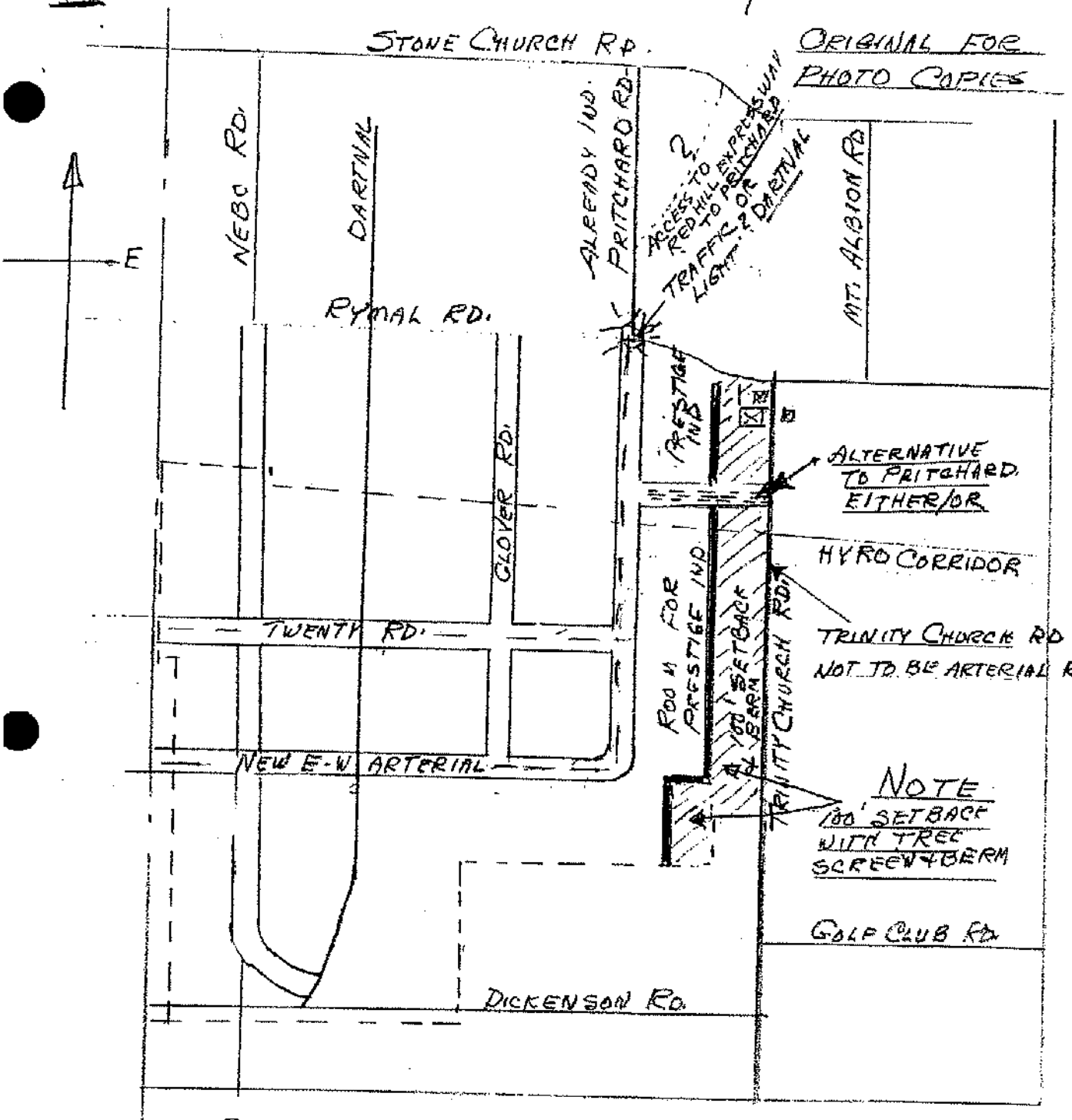
Gavin Norman, P. Eng.
Senior Project Manager
Planning and Economic Development
City of Hamilton

\attach.

cc. M. Bricks, Ecoplans Limited
C. Lee Morrison, Public Works

A

ALTERNATIVES TO ROAD PLANS / INDUSTRIAL PARK



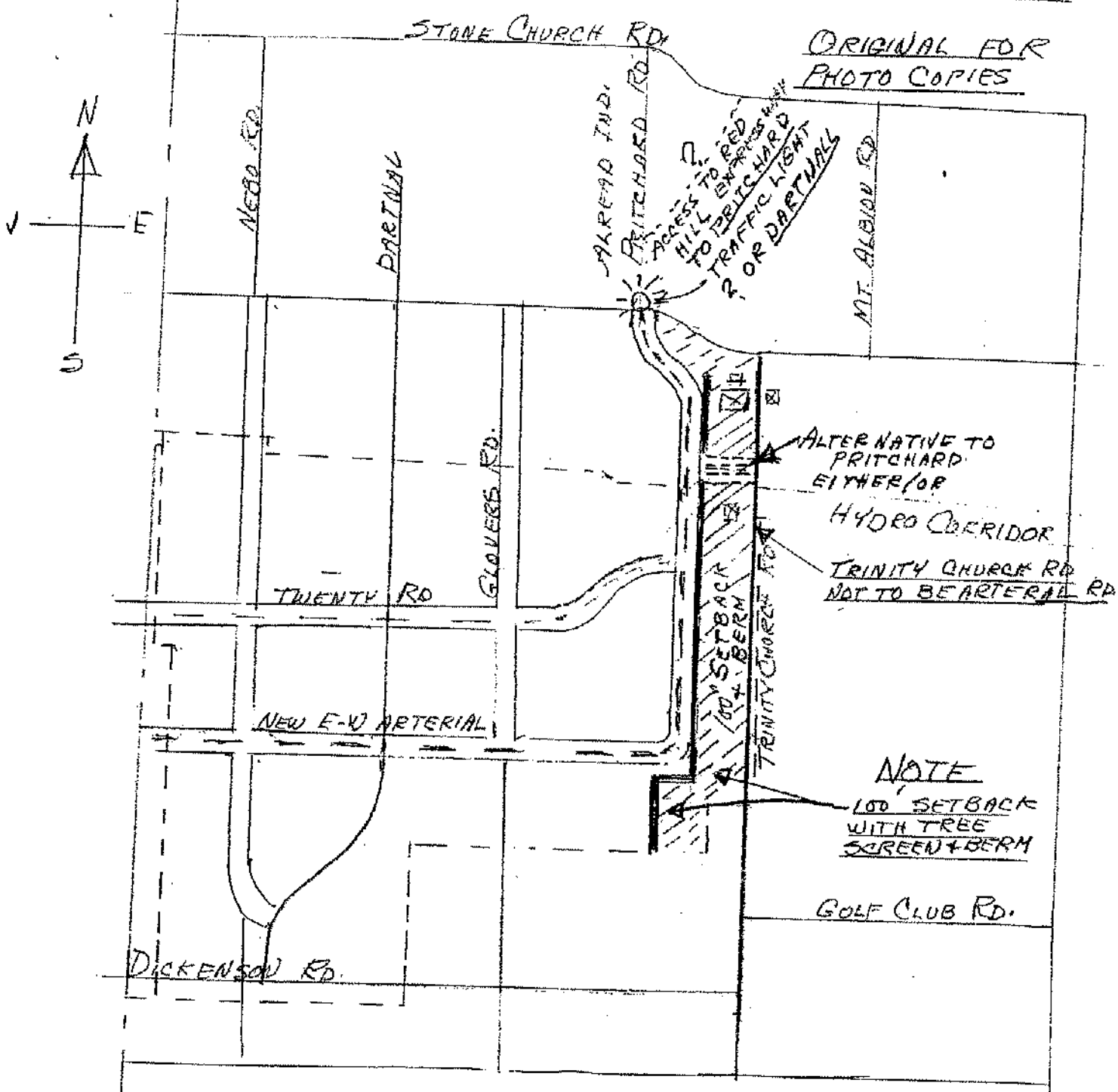
- 1 PREFERED ROUTE IN RED DOTTED LINE.
- 2 TRINITY CHURCH RD. RESIDENT WANT NO TRAFFIC FROM THE PARK COMING ONTO OUR ROAD (AS DISCUSSED WITH RESIDENTS
- 3 THE BERM (WITH TREES WAS PROMISED, IF THE INDUSTRIAL PARK WAS DEVELOPED. (BERM 5' & SCREED OF TREES)

THIS MEETS A COMPROMISE FOR RESIDENCES

ON BOTH SIDES OF TRINITY CHURCH RD

DRAWN UP BY ROBERT WM. SMITH rwm29@sympatico.ca)
561 TRINITY CHURCH RD. / RR 2 HAMILTON ONT (905) 692-3101

B ALTERNATIVES TO ROAD PLANS / INDUSTRIAL PARK



1 PREFERRED ROUTE IN RED DOTTED LINE

2 TRINITY CHURCH RD RESIDENTS WANT NO TRAFFIC FROM THE PARK COMING ONTO OUR ROAD (AS DISCUSSED WITH RESIDENTS)

3, THE BERM (WITH TREES WAS PROMISED, IF THE INDUSTRIAL PARK WAS DEVELOPED (BERM 5' + SCREEN OF TREES)

THIS MEETS A COMPROMISE FOR RESIDENCES ON BOTH SIDES OF TRINITY CHURCH RD

DRAWN UP BY ROBERT WM. SMITH (rwm29@sympatico.ca)
561 TRINITY CHURCH RD / RR 2 HANNON, ONT (905) 692-3101

Item 7

THE CORPORATION OF THE TOWNSHIP OF GLANBROOK
BY-LAW NO. 464-56-00
TO AMEND ZONING BY-LAW NO. 464

WHEREAS the Region of Hamilton-Wentworth Official Plan designates the lands subject to this By-law as *URBAN*, which permits industrial uses; and

WHEREAS the Township of Glanbrook Official Plan designates the lands subject to this By-law *as NORTH GLANBROOK INDUSTRIAL-BUSINESS PARK*, and

WHEREAS the *North Glanbrook Industrial Business Park Secondary Plan* of the Township Official Plan designates the lands subject to this By-law as *"Prestige Business/Industrial"*; and

WHEREAS the Corporation of the Township of Glanbrook deems it desirable and expedient that By-law No. 464 be amended as hereinafter set forth.

RECEIVED OCT 13 2005

NOW, THEREFORE, THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF GLANBROOK ENACTS AS FOLLOWS:

1. SCHEDULE "G" – North Glanbrook Industrial-Business Park of Zoning By-law No. 464 of the Township of Glanbrook, is hereby amended by changing from the *Prestige Business/Industrial "M1" Zone*, to a modified *Prestige Business/Industrial "M1" Zone*, which is to be identified by Exception Number *"M1-155"*, part of the lands located on the west side of Trinity Church Road, north of the future extension of Twenty Road East, and being Part of Lot 16, Concession 1, in the former Township of Glanford, now in the Township of Glanbrook, and as more particularly shown in hatched lines and identified as Lots 25 and 26 on the attached Schedule A, which is hereby declared to form part of this By-law.

2. In addition to the permitted accessory uses of **SECTION 30: PRESTIGE BUSINESS/INDUSTRIAL "M1" ZONE**, Subsection 30.1 **PERMITTED USES**, Clause (i) of Township Zoning By-law No. 464, a single detached dwelling, accessory to a permitted industrial use, shall be permitted on each of the lots identified as Lots 25 and 26 on the attached Schedule "A", subject to the following additional regulations:

   (a) Required Setback from Trinity Church Road ..... behind the houses 30 metres (100 feet)

   (b) Minimum Lot Size for Lot 25 ..... 0.8 hectares (1.9 acres)

   (c) Minimum Lot Size for Lot 26 ..... 0.5 hectares (1.3 acres)

(d) Maximum Dwelling Size .....180 square metres (1,937 square feet)

(e) Occupancy of the Dwelling

The resident/occupant of the accessory single detached dwelling shall be restricted to the owner/manager of the principal industrial use on the same lot.

3. Notwithstanding the regulations associated with the buffer strip adjacent to Trinity Church Road of **SECTION 30: PRESTIGE BUSINESS/INDUSTRIAL "M1" ZONE**, Subsection 30.3 **REGULATIONS FOR USES PERMITTED IN PARAGRAPHS (a) TO (i) INCLUSIVE OF SUBSECTION 30.1** Clause (n) of Township Zoning By-law No. 464, the following additional specific regulations shall apply to the lands shown in hatched lines and identified as Lots 25 and 26 identified on the attached Schedule A:

(a) That one (1) temporary access driveway shall be permitted from Trinity Church Road through the required Buffer Strip provided pursuant to Clause 30.1(n)(i) of Zoning By-law No. 464, where both an industrial building and accessory single detached dwelling are constructed at the same time;

(b) That this permitted temporary access driveway shall be removed and replaced with the required Buffer Strip immediately upon the construction and opening of the required adjacent internal public road, shown as Future Street 'B' on the attached Schedule A, which will provide the ultimate permanent access to the subject lands;

(c) That the landscaped area which forms a part of the required Buffer Strip adjacent to Trinity Church Road shall also include, among the current identified matters, an earthen berm with a minimum height of 1.5 metres (5 feet) with a planting strip; and

(d) That this required earthen berm shall be provided along the entire frontage of the subject lands adjacent to Trinity Church Road, save and except where the permitted temporary access driveway is located, however, upon the provision of the ultimate permanent access to the subject lands from the adjacent Future Street B to the west and the concurrent removal of the temporary driveway access, the earthen berm and planting strip shall be provided along the remaining frontage of the subject lands in the location of the former temporary driveway access.

alternate plan to be adopted

4. Notwithstanding the Minimum Building Size regulations of **SECTION 30: PRESTIGE BUSINESS/INDUSTRIAL "M1" ZONE**; Subsection 30.3 **REGULATIONS FOR USES PERMITTED IN PARAGRAPHS (a) TO (i) INCLUSIVE OF SUBSECTION 30.1** Clause (d) of Township Zoning By-law No. 464, where the accessory single detached dwelling(s) is constructed along with the industrial building(s) on the subject lands shown in hatched lines on the attached Schedule A, as permitted by Paragraph 2 of this By-law, the Minimum Industrial Building Size shall be reduced to 278 square metres (3,000 square feet).

5. Notwithstanding anything in Zoning By-law No. 464, where the industrial building(s) and accessory single detached dwelling(s) are constructed at the same time on the lands subject to this By-law, and the related temporary driveway access is established pursuant to Paragraph 3 of this By-law, no vehicle exceeding a gross vehicle weight of 5 tonnes per axle shall be parked and/or stored on the subject lands shown in hatched lines on the attached Schedule A.

6. All development of the lands subject to this By-law shall be subject to Site Plan Control.

7. **SECTION 44: EXCEPTIONS TO THE PROVISIONS OF THIS BY-LAW** of Township Zoning By-law No. 464 shall be amended to include Exception Number *"M1-155"*, in accordance with Paragraph 1 of this By-law and the specific provisions established by Paragraphs 2 to 6 inclusive of this By-law.

8. The metric numerical figures contained within this By-law shall be the actual requirements of this By-law. The imperial figures are approximate and are provided for information purposes only.

9. This By-law shall come into force and take effect on the day of the final passing thereof.

ENACTED AND PASSED THIS 17th DAY OF JULY, 2000.

_____
Glen Etherington
Mayor

_____
Brian Rodgers
Clerk-Treasurer

Rymal Road Planning Area (ROPA 9 Lands) Master Plan
Class Environmental Assessment
Public Information Centre No. 1, October 3, 2005

amilton

Comments / Questionnaire

Thank you for attending today's Rymal Road Planning Area (ROPA 9 Lands) Master Plan Class Environmental Assessment Open House. Your input is important to help the City evaluate the proposed recommendations in the Rymal Road Planning Area. The purpose of the first Public Information Centre is to present the needs and opportunities, preliminary alternative solutions to address servicing issues, the natural and socio-economic environmental inventories, the preliminary criteria used to evaluate the proposed alternatives, the evaluation of the alternatives, and a preliminary preferred alternative for each project.

It would be appreciated if you would answer the following questions and drop them off in the box provided tonight or mail/fax them, **by October 21, 2005** to:

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager
Capital Planning and Implementation
Public Works Department
City of Hamilton
320 - 77 James St. N
Hamilton, ON L8R 2K3.
Phone: 905-546-2424 ext. 6390
Fax: 905-546-4435
Email: cleemorr@hamilton.ca

Your Comments Please!
Please provide your comments about the information presented during the Public Information Centre.

1. **Do you have any comments regarding the needs, opportunities and problem statement presented?**

We question the need to widen any part of Trinity Church Rd. because the majority of the road lies within the GREENBELT where major development is NOT PERMITTED. It is our preferred plan to have no road from the Glanbrook prestigious business park to enter onto TRINITY CHURCH RD. - Rather our plan - as given to & accepted by the road planner for the Park is to be presented as a viable choice - with the most eastern road in the Park extending to Pritchard Rd.

2. **Do you have any comments regarding the evaluation criteria used to assess the potential solutions?**

The criteria re: widening Trinity Church Rd. being that is was once a Regional Rd. between 2 townships, Mount Hope & Binbrook no longer applies. The 2 townships joined to become Glanbrook. Trinity Church Rd was allowed to become a rural residential road. Please do not turn it into another Centennial Parkway with heavy truck traffic & accompaning pollution. That would be an abomination In this enlightened age. Develop to the east of Centennial & Hwy 56, nearer the Rymal / Centennial Commercial area & NOT SOUTH of the Hydro Corridor.

3. **Please provide comments regarding the Alternative Transportation Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Transportation Solutions? Please indicate why or why not.**

An alternative solution to a left-turn off the LINC to Trinity Church Rd. is to use Dartnell - presently linked to the LINC on both east & west lanes - a commercial road which will be extended into the Glanbrook prestigious business park. Trucks will need to take that route to services businesses within the PARK.
Failing that solution - connect another ramp off the LINC to Pritchard Rd - also a commercial road which will be extended into the Glanbrook prestigious business park.
Trinity Church Rd is a rural residential road - no place for

4. **Please provide comments regarding the Alternative Water Servicing Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Water Servicing Solutions? Please indicate why or why not.**

5. **Please provide comments regarding the Alternative Wastewater Solutions identified. Are there any additional Alternatives that have not been identified? Do you agree with the preliminary preferred Wastewater Solutions? Please indicate why or why not.**

6. **Do you have any other comments regarding the material and displays you have seen today?**

Re: roads to service the Glanbrook prestigious business park - the residents of Trinity Church Rd. were promised a high, treed berm on the west side behind the existing houses to be a buffer between Trinity Church Rd & the business park. - There was to be no access roads from Trinity Church Rd. into the business park. No need to widen Trinity Church Rd. We, on Trinity Church Rd. chose to live in a rural area & that is our right. Development was to be curtailed to the north of the hydro corridor. Rural areas NEED to be PRESERVED.

Contact Information (Optional)

Name: Mr. + Mrs. Robert Wm. Smith

Address: 561 Trinity Church Rd.
RR #2 Hannon, ON

Phone Number: 905-692-3101

Email: rws29@sympatico.ca

Would you like to be added to our ROPA 9 Lands mailing list?

☑ YES ☐ NO

To fulfill Environmental Assessment Act requirements, we will maintain your comments on file for use during this Study and may include them in Study documentation. With the exception of personal information, all comments received will become part of the public record. Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*.

June Too

From: Nathalie Baudais
Sent: Monday, June 05, 2006 2:05 PM
To: June Too
Subject: FW: Damaged Truck/Families at risk

Hi June,

Can you please print this comment and include it in the appendix for the RHOPA 9 Master Plan with names blacked out and include a copy in the public consultation binder too.

Thanks,
Nathalie

From: Liza Sheppard
Sent: Monday, June 05, 2006 2:02 PM
To: Nathalie Baudais
Subject: FW: Damaged Truck/Families at risk

From: [redacted] [mailto[redacted]
Sent: Monday, June 05, 2006 10:39 AM
To: editor@stoneycreeknews.com; [redacted]
Dalton.McGuinty@premier.gov.on.ca; [redacted] dmitchell@hamilton.ca; [redacted]; jmossop.mpp@liberal.ola.org [redacted] ldiianni@hamilton.ca; lryan@hamilton.ca; [redacted]; lsheppard@itransconsulting.com; [redacted] pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]
Subject: Damaged Truck/Families at risk

I am reporting an incident on behalf of [redacted] of Second Road West. His e-mail is currently in need of repair as his 2003 Ford Ranger is. As all of us, [redacted] has been vocal towards the speeders and traffic violators on our street. In return, his almost new vehicle was severely damaged. He can not even drive it. The windshield was smashed and the entire paint job was dented and damaged with nails. As you know, this happened to me 2 years ago and to [redacted] of [redacted] Second Road West(3 times). These ignorant s.o.b.'s feel they have the right to abuse our road. They don't have the spine to step out of their cars and deal with us but they feel brave at 3:00am in the morning when we are sleeping.

Phil, I am scared for my children's safety. I watch my children like a hawk but they are children, they are not always attached to my hip. I am thankful for the lines at the stops but we are in ***desperate*** need

of some ***real*** concrete and ***immediate*** solutions. Phil we have taken matters into our own hands far to long.

In the past I have been told that if I am not part of the solution I am part of the problem. We have since been heavily involved in the solution and it has gotten us damaged vehicles and egged homes. (Have you ever tried to get egg out of brick?) Just ask [redacted] of [redacted] Second Road West sold his third car because he could not afford to park it on the street any longer. It was damaged many times.

Perhaps we should look at our property taxes. The issues that we are facing (Traffic, theft, vandalism) are those of another property bracket.

Where can I get a "Property tax reconsideration form"? I have asked for one of these many many times.

5 years of living hell Phil. What would you do? How would you deal with what we deal with? I think it will take a tragedy to get something done. I really hope I never witness something like that.

Mike

From: [redacted]
To: *"Bruckler, Phil" <pbruckler@hamilton.ca>,* [redacted] *>,"Lee-Morrison, Christine" <cleemorr@hamilton.ca>,"DiIanni, Larry" <ldianni@hamilton.ca>,"Kirchknopf, Gary" <gkirchkn@hamilton.ca>*
CC: [redacted]
Subject: *Re: Trucks traffic on Second Rd W*
Date: *Sun, 4 Jun 2006 13:11:06 -0400*

HI Phil

All of Saturday big trucks continued to travel up and down our street. Traffic is unbelieve. My son was telling me that when he had to back out with his car he was waiting 5 minutes to even think about backing out, and i am NOT exadurating.

I was certain that there was to be 4 lines on Rymal rd between Highway 20 and Trinity Church Road but if you look at the intersection on Rymal and Whitedeer theres only one line each way. This has created a lot traffic. Why is the city spending money on surveys if they don't do anything with the information they get. Why is the city not respecting the recommendations from iTrans. I wonder if they respect closing our street.

Regards

[redacted]

----- Original Message -----
From: Bruckler, Phil
To: [redacted]; Lee-Morrison, Christine ; DiIanni, Larry ; Kirchknopf, Gary
Cc: [redacted]
Sent: Thursday, May 04, 2006 4:45 PM
Subject: RE: Trucks traffic on Second Rd W

H[redacted]
I fully concur with your comments. Clearly Second Road is not a truck route and therefore only local destinations would be permitted.

By forwarding this to Gary Kirchnopf, I will have him provide you with the regulations related to truck traffic and arrange for enforcement to address your concern.
Please contact me if I can be of further assistance.
Phil

Phil Bruckler
Councillor, Ward 9
Heritage Stoney Creek
Phone: 546-2703
Fax: 540-5183

-----Original Message-----
From: [redacted][mailto[redacted]]
Sent: Thursday, May 04, 2006 4:26 PM
To: Bruckler, Phil; Lee-Morrison, Christine; DiIanni, Larry
Cc: [redacted]
Subject: Trucks traffic on Second Rd W

Hi Phil,

I am hoping that you can give me some information. Do you know the specifics about by-laws for trucks in the city of Hamilton? If not, who can I speak to?

I am noticing more and more truck traffic using Second Rd West as a thoroughfare. I realize that there is construction being done in the neighbourhood and for this reason, there will be some truck traffic on our street. I have witnessed, however, many other larger vehicles using our street to get through to Rymal Road. Even the dump trucks carrying away excavated land and others delivering shingles, soil etc in the area could use only the southern portion of Second Rd, however, many are traveling the much narrower northern part of the road toward Highland. I can live with the temporary truck traffic during construction, however, I think something needs to be done about other, non-local trucks using Second Rd West. I'm sure you can appreciate my concern. Not only are we experiencing high volumes of personal vehicles using Second Rd as a direct link between Highland and Rymal Road, speeding and disobeying stop signs, but now we are also being subject to large, noisy trucks using a very small, narrow street that is populated with parked cars, lack of sidewalks and children playing outside. The addition of these larger vehicles causes very impatient motorists in their passenger vehicles to take chances constantly passing too closely to parked vehicles, passing on the opposite side of the road and ignoring the requests of local citizens. Please help me deal with this situation. I would like more information about commercial traffic on local roads. With the warmer weather and more children playing outside, I am deathly afraid of an accident. We need to deal with this situation immediately. We need to deal with it before something tragic happens.

Sincerely,

[redacted]

No virus found in this incoming message.
Checked by AVG Free Edition.
Version: 7.1.392 / Virus Database: 268.5.3/331 - Release Date: 5/3/2006

Nathalie Baudais

From: Liza Sheppard
Sent: Monday, May 29, 2006 11:22 AM
To: Nathalie Baudais
Subject: FW: Large Vehicles on Second Road/Phase One

From: [redacted]
Sent: Monday, May 29, 2006 11:12 AM
To: [redacted]
Cc: [redacted] leemorr@hamilton.ca; Dalton.McGuinty@premier.gov.on.ca; [redacted] dmitchell@hamilton.ca; editor@stoneycreeknews.com; [redacted] jmossop.mpp@liberal.ola.org; [redacted] diianni@hamilton.ca; [redacted] lryan@hamilton.ca; lsheppard@itransconsulting.com; [redacted]; pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]
Subject: Re: Large Vehicles on Second Road/Phase One

Phil,

I agree with Mike completely. Yesterday morning (approx. 9:30 am), while I was taking a walk with my daughter, two "Pacific Western" buses travelled down our road within approximately 2 minutes of one another. I did catch the bus number of one of them which I believe was 1183. I can't understand why they are using our road and where they are coming from but, as Mike stated, they barely fit down the narrow section of our road and are becomingly more intolerable to us as it is happening on a more frequent basis.

Further, on Saturday morning, Lou and I caught more than 5 cars in a matter of 2 minutes go directly through the stop sign situated at the front of our home. Phil, as you can imagine, our frustrations are mounting as we are trying to be patient with the City and all the bureaucracy involved with closing our road however, the violations are happening blatantly in front of us and there is nothing we can do about it. Trying to catch a license plate is impossible, and to tell you the truth, my husband and I tend to yell at the motorists about their violation and we end up getting cursed at. Something, we don't want happening in front of our 3 year old.

Notwithstanding the violators, the amount of volume of vehicles accessing our road is incredible. The addition of Wal Mart obviously hasn't helped our cause but, the volume is even quite excessive at times when Wal Mart is closed. I can't imagine how crazy it will continue to be once the residents of Summit Part move in. Each morning, I have to allow at least 6-8 cars go by before I can even leave my driveway...that seems pretty excessive for a narrow residential road.

Phil, are hands are tied at the moment and as Mike stated, we are all looking forward to an update on Phase 1 of our road closure. We would like all of our families to have the ability to enjoy a wonderful summer on a safe street. Right now, we are from this reality.

Kind Regards,
[redacted]

[redacted]

[redacted]

05/29/2006 10:53 AM

To editor@stoneycreeknews.com, ACukier@brabantnewspapers.com, [redacted] cleemorr@hamilton.ca, [redacted] Dalton.McGuinty@premier.gov.on.ca; [redacted] dmitchell@hamilton.ca, [redacted] jmossop.mpp@liberal.ola.org, [redacted] [redacted] nl@hamilton.ca, lryan@hamilton.ca, [redacted] lsheppard@itransconsulting.com, [redacted] [redacted] bruckler@hamilton.ca, rbacquie@itransconsulting.com, [redacted]

cc

Subject Large Vehicles on Second Road/Phase One

Hello Phil. I was wondering if you could tell me why those huge grey hound buses are up and down Second Road West. They can barely fit. They give off large amounts of black smoke. I would imagine they should be using 53 and 20. Should there be a sign letting motorist know that their vehicle is illegal on our very narrow residential side street? Also, is there any word on the possible speed limit to 40km/h. We are a school pick up and drop off zone.
Any word on phase one? The amount of traffic and noise is out of hand.

Thanks, [redacted]

Nathalie Baudais

From: Liza Sheppard
Sent: Tuesday, May 23, 2006 1:53 PM
To: Nathalie Baudais
Subject: FW: Second Road West

-----Original Message-----
From: Bruckler, Phil [mailto:pbruckler@hamilton.ca]
Sent: Tuesday, May 23, 2006 12:40 PM
To: [redacted]
Cc: [redacted]
rbacquie@itansconsulting.com; lsheppard@itransconsulting.com;
rbacquie@itransconsulting.com; [redacted]
Subject: RE: Second Road West

Hi [redacted]
I am sure you and [redacted] are enjoying parenthood. Look forward to seeing your new daughter when I walk by some time soon.

On the other matters:
- the work order for line painting to create stronger awareness of the stops has been issued, I will let you know when that is to be scheduled. Hopefully soon.

- regarding the waste truck drivers socializing in that area, I'll forward your concern to our manager, Blair Smith, who will follow-up to ensure it is not an ongoing thing.

- Regarding the walkway to the Park and Gatestone school, I'll review with staff as to who the walk is to be accessed from the west side of Second St. It is important that this be resolved until such time as the street is closed.

- Police presence: I know Duncan Mculloch and other officers are activity in the area. By way of this e-mail I'll ask that he respond to more recent surveillance of Second Rd.

I'll get back to you and other interested Second Road residents when I have information on these matters.
Sincerely,
Phil

Phil Bruckler
Councillor, Ward 9
Heritage Stoney Creek
Phone: 546-2703
Fax: 540-5183

-----Original Message-----
From: [redacted]
Sent: Friday, May 19, 2006 9:29 PM
To: Bruckler, Phil
Cc: [redacted] rbacquie@itansconsulting.com; lsheppard@itransconsulting.com;
rbacquie@itransconsulting.com; [redacted]
Subject: Second Road West

Hello Phil! I hope all is well. I am sending this e-mail regarding my concerns. Since I have been home for some time now (basically since January) I have noticed a dramatic increase in traffic on our street - both during the day and night. As well, during my time at home I did a count (free of charge). On average, 1 out of 2 cars are either either speeding and/or running the stop signs. This worries me Phil. It is difficult enough trying to get out of my driveway or cross the street - and now that I have a newborn in the car that could potentially receive the impact of a careless driver - the thought sickens my stomach.

Since the last public meeting, I was under the assumption that there was going to be some change on Second Road West sooner than later. Police presence has yet to be seen and the white stop bar on the pavement has not yet been painted (as Mr. Ponte mentioned in his e-mail as well). I do not understand the logic in painting only white lines on Highland Road and Gatestone and not on Second Road and connecting streets. Wouldn't it be more cost effective if the City paid workers only once to do a job instead of waisting our tax dollars for repeat visits?

As well, I would like to bring to your attention that for the past 2 weeks, city trucks have been "meeting" on the corner of Second Road West and Hillcroft during the day. I believe the trucks are for the green bin pick up. This "socialization break" makes it difficult for traffic to get around them and is increasingly dangerous to pedestrians - especailly since failing to stop at the stop sign at this intersection and speeding are a concern as well.

Also, I have also noticed work is being done on the walkway leading to Gatestone elementary. Will the city be paving soon? Maybe to save our precious tax dollars, when the City pours the walkway and curbs leading to the school, the City can also close our road with the walkway! Just a thought.

[redacted] and I would appreciate action taking place in regard to the City and Itrans resolutions. Summer is approaching, school will be out soon ... we would like everyone on our street to have a safe summer!

Thank you and talk to you soon.

[redacted]

Nathalie Baudais

From: Liza Sheppard
Sent: Tuesday, May 23, 2006 1:54 PM
To: Nathalie Baudais
Subject: FW: Second Road West

From: [redacted] [mailto: [redacted]
Sent: Friday, May 19, 2006 10:51 AM
To: [redacted] pbruckler@cityofhamilton.ca; cleemorr@hamilton.ca; pbruckler@hamilton.ca
Cc: [redacted]; [redacted] lryan@hamilton.ca; [redacted] rbacquie@itansconsulting.com; lsheppard@itransconsulting.com; rbacquie@itransconsulting.com; [redacted]
Subject: RE: Second Road West

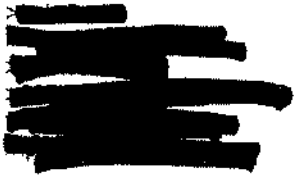
Phil

We all agree with [redacted] I think another important measure would be to reduce the speed limit to 40kms/h. It needs to be posted and **enforced**. (The key component) Having said this, the speed limit can 5kms/h, if it is not enforced it will not matter. The community of Second Road West needs to **see** rather than just hear results and reactions form your part. What is happening here is we are being send the clear message. The message is that we need to cause noise in order to get something done. We all know the residents of Second Road have no problem with that, but, is it necessary? That takes time away from our families. We already pay our taxes. I also feel that our property taxes are **much** too high. We live on a dangerous high volume road. We need to get a **Tax Reconsideration Application**. Until the road is as it was planed, we should not pay the taxes for it. Could you tell me where to get one please. I am sure that if we do not see some results soon,(End of May) we will be forced to, once again , take matters into our own hands. We have been dealing with these issues for five years. We are sick and tired of being sick and tired.

Phil, help us enjoy our first safe summer on Second Road West.

[redacted]

From: [redacted]
To: *<pbruckler@cityofhamilton.ca>, <cleemorr@hamilton.ca>, <pbruckler@hamilton.ca>*
CC: [redacted]
<lryan@hamilton.ca>, [redacted] *"Liza Sheppard" <lsheppard@itransconsulting.com>, <rbacquie@itransconsulting.com>, <*[redacted]*,* [redacted]
Subject: *Second Road West*
Date: *Thu, 18 May 2006 17:39:31 -0400*
>Good afternoon to all,
>
>Let me begin by saying that I understand we are still within a process
>and although the recommendation to have Second Road closed was put
>forward from Itans it will take some time for this to come to fruition.

>
>Our fundamental concerns however, remain the same;
>-Traffic volumes using Second Road are continually increasing
>throughout the day and night hours with the peak periods literally out
>of control.
>
>-Speeding and running of stop signs has intensified at an alarming
>rate.
>
>-Within numerous community and advisory meetings the mention of police
>presence was to be seen, no constables to date.
>
>-A recommendation was put forth regarding a white stop bar on the
>pavement, and although, it was a recommendation all were in favour this
>would be a simple, cost effective step until closure took place.
>Nothing to date.
>
>We have also attempted to take down license plate's and send them in
>but this has become increasingly difficult. There is no way someone can
>take the plate number down of either a car who was speeding and went
>through the stop sign or of a car who just plainly ran the stop. You
>literally have to stand at the curb to accomplish this feat.
>
>We as a community have taken a proactive approach and as all will agree
>have tried to work with the City and Itrans to try and come up with a
>resolution which everyone could agree on.
>
>Please feel free to share your comments.
>Best regards,
>
>
>
>
> 

Nathalie Baudais

From: Liza Sheppard
Sent: Tuesday, May 23, 2006 1:54 PM
To: Nathalie Baudais
Subject: FW: Second Road West

From: Bruckler, Phil [mailto:pbruckler@hamilton.ca]
Sent: Monday, May 22, 2006 7:01 PM
To: [redacted]; pbruckler@cityofhamilton.ca; Lee-Morrison, Christine
Cc: [redacted]bacquie@itansconsulting.com; lsheppard@itransconsulting.com; rbacquie@itransconsulting.com; [redacted]
Subject: Re: Second Road West

Hi [redacted]
Away for weekend. Will follow up on timing of interim improvements such as line painting etc , which was recommended, when I get back. Will also check with police.
Phil

-----Original Message-----
From: [redacted]
To: pbruckler@cityofhamilton.ca <pbruckler@cityofhamilton.ca>; Lee-Morrison, Christine; Bruckler, Phil
CC: [redacted] rbacquie@itansconsulting.com <rbacquie@itansconsulting.com>; Liza Sheppard <lsheppard@itransconsulting.com>; rbacquie@itransconsulting.com <rbacquie@itransconsulting.com>; [redacted]
Sent: Thu May 18 17:39:31 2006
Subject: Second Road West

Good afternoon to all,

Let me begin by saying that I understand we are still within a process and although the recommendation to have Second Road closed was put forward from Itans it will take some time for this to come to fruition.

Our fundamental concerns however, remain the same;
-Traffic volumes using Second Road are continually increasing throughout the day and night hours with the peak periods literally out of control.

-Speeding and running of stop signs has intensified at an alarming rate.

-Within numerous community and advisory meetings the mention of police presence was to be seen, no constables to date.

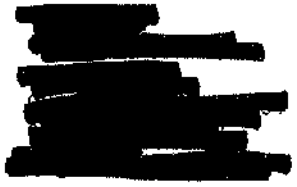
-A recommendation was put forth regarding a white stop bar on the pavement, and although, it was a recommendation all were in favour this would be a simple, cost effective step until closure took place.

Nothing to date.

We have also attempted to take down license plate's and send them in but this has become increasingly difficult. There is no way someone can take the plate number down of either a car who was speeding and went through the stop sign or of a car who just plainly ran the stop. You literally have to stand at the curb to accomplish this feat.

We as a community have taken a proactive approach and as all will agree have tried to work with the City and Itrans to try and come up with a resolution which everyone could agree on.

Please feel free to share your comments.
Best regards,



Nathalie Baudais

From: Grupe, Vanessa [vgrupe@hamilton.ca]
Sent: Thursday, April 27, 2006 12:39 PM
To:
Cc: Lee-Morrison, Christine; Bruckler, Phil; Liza Sheppard; Nathalie Baudais
Subject: RE: ROPA 9

Attachments: Trinity PIC #1 March 27 06 Minutes of Meeting.doc

Trinity PIC #1
March 27 06 Min...

As requested, attached are the draft minutes of the Trinity Neighbourhood Plan Review Public Meeting held on March 27, 2006. These notes are currently being reviewed by staff for completeness, and I am glad to provide you with a draft copy. Several references are made to citizen comments about keeping Second Road West open, especially in the notes of the discussion groups attached after the minutes.

Please feel free to contact me directly with any comments you may have about these minutes or the Trinity neighbourhood plan review. The final minutes and a summary of all comments received are being prepared, and will be made available on the project web site at www.hamilton.ca/trinity. Thank you.

Vanessa Grupe, Senior Planner
Community Planning & Design Section
Planning & Economic Development Department City of Hamilton
Phone: 905-546-2424 Ext. 1263

-----Original Message-----
From: Lee-Morrison, Christine
Sent: Thursday, April 27, 2006 10:32 AM
To: '
Cc: Bruckler, Phil; 'Liza Sheppard'; Grupe, Vanessa; 'Nathalie Baudais'
Subject: RE: ROPA 9

Dear

Again, thank you for bringing your concerns and comments forward to the City. I trust our telephone conversation clarified stakeholder committee membership, the purpose of public meetings held this January and March and timing of the Special Policy Area C newsletter. By copy of this e-mail to Vanessa Grupe, I am requesting that she send the record of the March Trinity Neighbourhood meeting to you directly. Please feel free to call or e-mail if you have any further questions or comments.

Sincerely,

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
Public Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435

cleemorr@hamilton.ca

-----Original Message-----
From: [mailto.
Sent: Thursday, April 27, 2006 1:05 AM
To: Lee-Morrison, Christine
Cc: Bruckler, Phil; 'Liza Sheppard'; Grupe, Vanessa; 'Nathalie Baudais'
Subject: RE: ROPA 9

Christine,

Thank you for your prompt reply. But I need to disagree with you regarding the Stakeholder Members they all appear to be members of council, City employees and staff from ITrans. As a rate payers and Hamiltonian, I would like to think that I am a Stakeholder regarding this matter and therefore feel that these meeting should not be held behind closed doors.

As for what you said about a second public meeting, I was at the last one and we where all told that "we are not here to talk about roads tonight" So if I missed a meeting where we talked about road alternatives please inform me of when it was. Also I noticed that on the web site you have placed the Newsletter for the month of April, You have a paragraph that says "Your Input" I have spoken to a few neighbors and they have not received this news letter yet either. Could you please tell me when I and my neighbor might expect to receive this?

I have reviewed the minutes of the meeting and the comments that you have mentioned and was wondering where the comments regarding actually closing Second Rd where and the opposition that was voiced by at least 10 people at the meeting.

I look forward to discussing this matter with you in more detail and perhaps with Mr. Bruckler.

Thanks again for your time

-----Original Message-----
From: Lee-Morrison, Christine [mailto:cleemorr@hamilton.ca]
Sent: Wednesday, April 26, 2006 12:55 PM
To: '
Cc: Bruckler, Phil; Liza Sheppard; Nathalie Baudais; Grupe, Vanessa
Subject: RE: ROPA 9

Dear

Thank you for your interest in this project. The Stakeholder Committee was formed at the commencement of the Rymal Road Planning Area Class EA Master Plan study, to (1) provide the Project Team with an understanding of the public issues, (2) provide comments and concerns related to road

and water/waste water servicing, and (3) provide feedback on alternative solutions and their impacts, so that these issues can be considered throughout the study process, particularly in preparation for the public meetings. So the role of the Stakeholders Group is to provide a community perspective on issues, planning processes and solutions, which the general public has been involved with at the public meetings.

The Committee is comprised of residents from the community, other property owners, developers, and Councillors Bruckler (Ward 9) and Mitchell (Ward 11). These focus group meetings are unfortunately not public meetings. However, all information is presented to the public at the public meetings.

The focus of the upcoming meeting is to review the transportation Alternatives and Evaluation for the Special Policy Area C lands. There will be a second public meeting to discuss the Trinity Collector alignment in the Fall. Your name will be placed on the mailing list and you will be kept informed as public meetings are scheduled. Also, for your information, I understand that the Planning Department will be forming an Advisory Committee for the Trinity Neighbourhood Land Use Review and you may contact Vanessa Grupe (e-mail address above) if you are interested in sitting on the Trinity Neighbourhood Land Use Review Committee.

I trust this provides clarification on the matter. Please call me if you have questions.

Sincerely,

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
Public Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

-----Original Message-----
From: [mailto:
Sent: Tuesday, April 25, 2006 11:11 PM
To: Lee-Morrison, Christine
Cc: Bruckler, Phil
Subject: ROPA 9

Christine,

I am a resident of Richdale Drive. I was at the meeting on January 26 2006. I was under the impression that the neighbors would be included in the discussions and decision making regarding the roads and construction in the area. I have just noticed on the web site that you are having a meeting regarding "ROPA 9 Master Plan Class Environmental Assessment Stakeholder Committee Meeting #2 "I was wondering why the people that live in the area are not being included in this meeting.

I will be forwarding this information to all the neighbors in my immediate area and would hope that this meeting is open to the public!!

Please forward any communications regarding this matter as soon as possible

Thanks in Advance

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No virus found in this outgoing message.
Checked by AVG Free Edition.
Version: 7.1.385 / Virus Database: 268.4.6/323 - Release Date: 4/24/2006

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TRINITY NEIGHBOURHOOD LAND USE REVIEW

DRAFT MINUTES OF PUBLIC FORUM - MONDAY MARCH 27, 2006

6:00 p.m. – 8:30 p.m. Winterberry Heights Church

There were present:
Approximately 60 residents / citizens
Councillor Phil Bruckler, Ward 9
Councillor Dave Mitchell, Ward 10
Staff of the City Planning Dept., Public Works Dept., Hamilton Conservation Authority and other interested parties.

1. Open House – Review of Displays

Displays were available for public viewing illustrating the purpose and status of the land use review and the related transportation studies.

2. Public Meeting – Welcome and Meeting Purpose – Vanessa Grupe

Presentations began at 6:30 p.m. Vanessa Grupe of the City Planning Department welcomed all to the public meeting. Purpose of the meeting was to:

- provide an overview of the Planning Department's land use review;
- hear a presentation from the Conservation Authority regarding the Karst;
- summarize related transportation studies in the area;
- enable residents to do a visioning exercise on types of development and density they would like to see in the area.

3. Councillor's Remarks – Councillor Phil Bruckler

Councillor Phil Bruckler welcomed residents to the meeting. He noted the tremendous opportunity presented by the Karst features. He also noted that input from residents and the public is very important in these studies for Trinity.

4. Neighbourhood Plan Review Overview – Vanessa Grupe

An overview was provided of the land use review:

- Study area boundaries are Second Rd. W., Rymal Rd., Highland Rd. and the extension of Trinity Church Rd.
- Existing approved land use plan was prepared in early 1990's for the entire Heritage Green secondary plan area, which includes Trinity

- This plan provided for a range of housing types, from low to medium density, also commercial, schools, parks.
- Karst area, the boundaries of which have recently been confirmed, takes up about half the interior of the Trinity neighbourhood.
- Therefore need to revise this land use plan, due to the Karst area, which eliminates the mid-block collector road originally proposed to connect Gatestone at Second Rd. W. to Winterberry Dr. at Highland Rd.
- The Rymal Road Secondary Plan for ROPA 9 lands to the south of Rymal Rd. identifies the development pattern for these lands; Development in Trinity must be integrated with plans for the ROPA 9 lands.
- A preliminary site analysis has been prepared for Trinity, to identify areas of opportunity and constraint, views, to help guide the land use review.

Transportation issues were also discussed by Vanessa Grupe, with assistance from Christine Lee-Morrison:

- Transportation studies are underway by City Public Works Dept. for the ROPA 9 lands, which includes a Class EA (Environmental Assessment).
- Development in Trinity will be affected by proposed closure of 2 roads:
    - Second Rd. W., about halfway between Highland and Rymal, and
    - Upper Mount Albion Rd., just north of Rymal.
- These road closures were included in the approved Secondary Plan for the area, and are therefore committed to by the City.
- A new north-south road will be built as an extension of Trinity Church Rd., exact location of which is to be determined (Trinity Church Collector EA).
- This public meeting is not intended to discuss these road projects in detail or as a primary focus. However, it is recognized that these Public Works roads projects affect the Trinity areas and future land use plan.
- A new collector road is to be built through the Trinity Neighbourhood, to the east and possibly to the north of the Karst area. This is needed to provide an alternative to Second Rd. W., which will be closed. Several options have been identified for the location of the collector road, by Public Works staff, and these are being evaluated.
- A public meeting was held on January 26 2006 to obtain input on the Trinity Neighbourhood Traffic Study.

Public Consultation
This is a very important part of the land use review process, and all City studies. Public input will be enabled by means such as public meetings, comment sheets, project web sites, and newsletters to provide status reports on projects.

5. Hamilton Conservation Authority and Karst – Bruce Duncan
Bruce Duncan, GM / CAO of the Hamilton Conservation Authority (HCA), provided a presentation on the Karst features and the HCA's role:

- The extent of the Karst area was shown by means of a map.
- Photos were used to illustrate some of the Karst features, including underground caves, streams, etc., showing their size and extent.

- This is a major Environmentally Significant Area (ESA) in the province
- The Karst lands are in the process of being transferred from the Province to the HCA at a cost of $ 2.
- The HCA will manage the area and provide amenities such as trails, an interpretive centre, parking area, tours, and educational events.
- The specifics of these amenities are being defined. Some examples from other areas were shown for the purpose of illustration.
- There was a brief question and answer session about the HCA role, as well as the planning process and the road projects.

6. Questions; Introductions to Discussion Groups – Vanessa
The format for this public forum will include small discussion groups, to enable residents to do visioning about land use types and densities they prefer in Trinity.

7. Small Discussion Groups – See Discussion Questions
The participants formed 3 small discussion groups, each with a facilitator and a recorder(s). The attached discussion questions formed the basis for sharing of ideas and concerns. The groups met for about 45 minutes, and translated their comments into written and map form.

8. Reporting Back to Large Group
The attached is a summary of the discussion from each of the small groups.

9. Next Steps and Adjournment
The comments from this meeting, including written and verbal, will be compiled. Residents were invited to take comment sheets home with them to complete and submit during the next two weeks. Residents are also invited to express their interest in participating on a citizen advisory committee.

All present were thanked for attending and participating by Councillor Bruckler and Planning staff. Meeting results and updates will be posted at the project web site at www.hamilton.ca/trinity Another further public meeting will be held once staff have prepared alternative land use concepts, for public input. The meeting was adjourned at 9:00 p.m.

TRINITY NEIGHBOURHOOD LAND USE REVIEW

Discussion Questions for Public Forum - March 27, 2006

The City is preparing a plan for future development in the Trinity area. As part of this process, it is important for City staff to hear from local residents and property owners about what form of development you feel would be most appropriate for this area.

Please use the questions below as a starting point for discussion. Feel free to use the maps provided to sketch your group's concepts. Also please have your group's recorder note written comments to explain your ideas. The separate comment sheets can be used to provide any further comments, this evening or over the next two weeks.

1. Land Uses
- What future uses do you feel are most suitable for the Trinity area ?
- Housing types - single family/ semis/ quads, townhouses, low / high apartments
- Forms of commercial might include corner stores, small or medium size plazas
- Other uses could be parks, school, church sites, etc.

2. Residential Densities
- What types of residential densities do you feel are appropriate for these areas ?
- This could be based on housing form, lot size, units per acre, etc.

3. Commercial Areas
- Do you feel there is a need for commercial i.e. stores in the area ?
- How much and what type of commercial would you prefer to see here – such as small or medium size plazas, corner variety stores or strip commercial ?
- Where would these best be located, such as along which roads ?

4. Building Heights
- What should be the maximum height for buildings in each part of this area ?
- In terms of how many storeys are appropriate ?
- Should there be medium / higher residential densities in some areas, such as along arterial roads, along the collector road, or elsewhere ?

5. Mixed Use
- Is mixed use (commercial and residential together) appropriate in this area ?
- What about allowing professional offices in existing homes along Rymal Road ?
- This might include doctors and dentists.

6. Design Themes
- What is special / memorable / unique about this area's past and present ?
- What types of landmark features could be used as themes for the area ?
- Any suggestions for street names based on historic land owners or residents ?

7. Other
- What other comments do you have about future development in this area ?
- What do you feel is appropriate for the internal local road pattern ?

Reporting Back to Large Group

Trinity Neighbourhood Land Use Review
Blue Group - Summary of Discussions - March 27, 2006 Forum

Between Upper Mount Albion Road & Second Road West

- Most residents would like to keep the neighbourhood low density with linked townhomes kept to a minimum.
- Preserve the wooded area and SWM pond at Richdale Drive. Concerns were raised about its future given that preferred road alignment goes through the woodlot area.
- Do not want any commercial facilities in their neighbourhood. Would prefer to keep all commercial south of Rymal Road. There was some acceptance of professional offices i.e. doctor, dental, legal along Rymal Road.
- Generally, do not want mixed use in this area.
- There is a perception that schools are needed in this neighbourhood particularly Catholic secondary.
- Residents would like to see a neighbourhood park with a splash pad and rubberized surface.
- Link the various parks, proposed and existing with a comprehensive trail system.

Karst Area

- Integrate all Karst features into the park including those not identified in the core or feeder areas i.e. Nexus Spring, Olmsted Spring, Olmsted Cave.
- Do not develop the properties south of the identified Karst boundary and include them in the conservation park.
- Maintain the open space character of the Karst feature.

West of Upper Mount Albion Road

- Residents not as concerned about the land use in this area.
- Receptive to higher density housing, commercial and mixed-use.
- No strip malls.
- Higher density buildings at intersections served by transit.
- Neighbourhood parks connected to the city trail system desirable.

Design Themes

- Neighbourhood theme and street names relating to the Karst would be appropriate such as:
    2. Potruff Cave Court
    3. Watercress Sink Street
    4. Willow Spring Road
    5. Nexus Cave Crescent

Trinity Neighbourhood Land Use Review
Green Group - Summary of Discussions - March 27, 2006 Forum

1. Land Uses

- What future uses do you feel are most suitable for the Trinity area ?
- *Conservation land*
- *Green Space (Open Space)*
    - Housing types - single family/ semis/ quads, townhouses, low / high apartments
- *Single Family (Low Density)*
    - Forms of commercial might include corner stores, small or medium size plazas
- *No need for more commercial (enough services available in the area)*
    - Other uses could be parks, school, church sites, etc.
- *Passive Recreational (Soccer fields)*
- *Parkette*
- *No need for any new schools or churches*

2. Residential Densities

- What types of residential densities do you feel are appropriate for these areas ?
  - Low Density Residential (less actual development, more land/space)
- This could be based on housing form, lot size, units per acre, etc.
  - Estate housing backing onto Karst lands

3. Commercial Areas

- Do you feel there is a need for commercial i.e. stores in the area ?
  - No need for any additional commercial development in the area (no lack in any services)
- How much and what type of commercial would you prefer to see here – such as
  small or medium size plazas, corner variety stores or strip commercial ?
  - No need for any form of commercial types
- Where would these best be located, such as along which roads ?
  - Along Rymal Road where development already exists (not in Trinity Neighbourhood)

4. Building Heights

- What should be the maximum height for buildings in each part of this area?
  - 2 storeys
- In terms of how many storeys are appropriate ?
  - 2 storeys (The higher the storeys permitted the more chance the development will be higher)
- Should there be medium / higher residential densities in some areas, such as along arterial roads, along the collector road, or elsewhere ?
  - No

5. Mixed Use

- Is mixed use (commercial and residential together) is appropriate in this area ?
  - Mixed feelings about this use, some agreed that if a butcher wants a shop below and residence above that could be appropriate. But others think that there is no need for any forms of commercial whether its mixed use or not
- What about allowing professional offices in existing homes along Rymal Road ?
  - Yes, professional offices, especially doctors is in great need in this area
- This might include doctors and dentists.
  - Medical clinic for families (especially children)

6. Design Themes

- What is special / memorable / unique about this area's past and present ?
  - Pathways that start beyond First Street West (Gatestone Rd. area) and continue over to Second Street into the Storm Water Pond.
- What types of landmark features could be used as themes for the area ?
  - None mentioned
- Any suggestions for street names based on historic land owners or residents ?
  - None mentioned

7. Other

- What other comments do you have about future development in this area?
  - Fencing is needed around the cave to stop children from entering into them, especially those caves outside of HCA lands (unprotected caves)
  - Continue linkages from pathways from First and Second Street into the Karst and Trinity Neighbourhood
- What do you feel is appropriate for the internal local road pattern ?
  - No one mentioned specifically whether the local road pattern was appropriate or not, but some residents did have a concern as to where the location currently is on the conceptual mapping. Since it goes right over the rear of one resident's property

Trinity Neighbourhood Land Use Review
Red Group - Summary of Discussions - March 27, 2006 Forum

New Collector Road Through Trinity Neighbourhood

- Concerns regarding the construction of this road.
- Need for alternative roads in north - south direction – concerns regarding road capacity available to serve regular traffic and any potential emergency situations such as when roads are blocked by accidents
- Some residents felt the proposed new road might pass over other caves and sinkholes which are not included in designated Karst area, may sink.

Closure of Second Road West

- Many residents prefer to keep this road open, not build a new road.
- Other residents felt this road must be closed as was intended in City plans
    - They note that many children play on Second Road West.

Land Use Types and Densities

- Some residents prefer no new development on lands south-east of Karst – keep this area as open space
- However, cost to the City or Cons. Auth. of retaining these lands as open space is prohibitive – may be up to $200,000 per acre for residential land
- Low density residential preferable – no more than 3 storeys in height.

Additional Public Comments

- Prefer no new development
- Add to extent of Karst boundary, to include more lands in no-build zone
- Need to maintain park in behind Richdale
- New collector road should go straight north from Rymal Road
- Do not close Second Road West, but add another new road.
- This will provide two roads to handle (anticipated) traffic volumes
- Commercial - no more commercial lands – they generate too much traffic
- Residential - no apartment buildings
- Parkland – include a water pad / splash pads
- There is (considered to be) insufficient parkland for Stoney Creek Mountain
- Mail out notices for next meeting based on names provided on sign-in sheet

Nathalie Baudais

From: Lee-Morrison, Christine [cleemorr@hamilton.ca]
Sent: Wednesday, April 26, 2006 4:44 PM
To:
Cc: Liza Sheppard; Nathalie Baudais
Subject: Records of Public Information Centres
Attachments: ROPA9-PIC-2-Summary.pdf; ROPA9-PIC-1-Summary.pdf

Dear

As per your request, please find attached copies of Summaries of Public Information Centres No. 1 and 2. This information has also been posted to the project web site: www.hamilton.ca/ropa9.

<<ROPA9-PIC-2-Summary.pdf>>

<<ROPA9-PIC-1-Summary.pdf>>

Please call me if you have any questions.

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
Public Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

Nathalie Baudais

From: Lee-Morrison, Christine [cleemorr@hamilton.ca]
Sent: Tuesday, April 11, 2006 10:15 AM
To: lsheppard@itransconsulting.com; NBaudais@itransconsulting.com
Cc: Ryan, Leanne; Grupe, Vanessa; Philip, Mohan
Subject: FW: ROPA 9

Liza, Nathalie

FYI

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
Public Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

-----Original Message-----
From:
Sent: Monday, April 10, 2006 6:54 PM
To: Lee-Morrison, Christine
Subject: Re: ROPA 9

Lee-Morrison:
I was at the meeting, (Trinity development)and the feeling was over whelming against a new road: as follows " why build a new road to close down two others.See my info forwarded to
Vanessa Grupe.
Always remember any study can bring out any conclusions (case in point) the same traffic department lowered the speed limit on Mount Albion road from 50km to 40km (back in 1990) that was also based on study data.(at the time).
the decision was overturned and the limit was raised again back to 50km: when everyone realised what a mistake it was.
How about as a compromise:
1. Build the trinity church rd extension .
2. wait for the Red-Hill valley to be completed
3. re-study traffic problems under the long term conditions .
Please do not make another mistake like the politically motivated 50km-40km speed limit change:one of the most misinformed decisions ever.: Building yet another road to satisfy a few unhappy people on First rd , would be in the top ten for sure.
Thanks very much for your information

----- Original Message -----
From: Lee-Morrison, Christine

To:
Cc: Grupe, Vanessa ; Liza Sheppard ; Nathalie Baudais ; Philip, Mohan ; Cyndi Rottenberg-Walker ; Bruckler, Phil
Sent: Monday, April 10, 2006 4:58 PM
Subject: RE: ROPA 9

Dear

Further to your recent submission of comments regarding this study, the following additional information is provided by our study team.

As presented at the public meeting held on January 26th, we have conducted an extensive review of key roadways within the Trinity Neighbourhood, including 2nd Road West, Upper Mount Albion Road, Gatestone Drive, Whitedeer Road and Highbury Drive. We looked at the roadway designations / function (e.g., local road, collector road), the posted speed limit, pavement width, presence of sidewalks, setback distances of homes from the roadway, and the existing traffic demand versus the appropriate capacity (the volume of traffic the roadway was designed to carry). The review explicitly considered the nature of the road, including the presence of schools and pedestrian activity. We also looked at the collision history for the roadways, and speed survey data available for 2nd Road West, and for Upper Mount Albion Road.

Key finding of this review, as presented at the meeting, are as follows:

- Traffic volumes on 2nd Road West, north of Gatestone Drive are above levels associated with the road class (local road) and design.
- Traffic volumes on Upper Mount Albion Road are above levels associated with the road class (local road), the rolling vertical geometry, and a very narrow pavement width.
- Travel speeds is an issue on Upper Mount Albion Road, and high end speeds are being experienced on 2nd Road West
- Collision rates are typical for the road functions.

Also, as shown in Schedule A3 of the former City of Stoney Creek Official Plan, a collector road connecting Gatestone Drive and Winterberry Drive is planned. This planned collector road provides important future north-south connection between Rymal Road and Highland Road within the Trinity Neighbourhood. Upper Mount Albion Road and Second Road West were both planned to be closed as part of the Trinity Neighbourhood Plan adopted by former City of Stoney Creek Council in the early 1990's. The City of Hamilton has recently initiated the Trinity Neighbourhood Land Use Review Study to update and prepare a future land use plan for the Trinity Neighbourhood. This will be conducted in recognition of the intended closure of Second Road West and of Upper Mount Albion Road, and construction of a new collector road to allow access through the neighbourhood. The collector road alignment study (currently underway) will be coordinated with the Trinity Neighbourhood Land Use Review Study.

Based on the results of the study conducted prior to the January 26th Public Meeting, we confirmed the need for closure of Second Road West, and of Upper Mount Albion Road. We recommended that the closure of Second Road West be implemented in coordination with construction of the planned new collector road in the Trinity Neighbourhood. We also recommended that the closure of Upper Mount Albion Road be implemented in coordination with construction of a planned new arterial road link between Rymal Road and Stone Church Road / Redhill Expressway. A study for this new arterial road is currently underway.

We are also working closely with the Hamilton Conservation Authority to ensure that a proposed new collector road within the Trinity Neighbourhood, will not adversely impact the Karst. The collector road alignment will have to avoid the Karst core area, which results in an alignment shift to the east compared to the original alignment shown in Schedule A3 of the former City of Stoney Creek Official Plan. A preferred alignment for the new collector road will be determined under a separate study which is currently underway. One of the key objectives

in determining a preferred alignment will be to minimize impacts on not only the Karst and other environmental features, but also on existing residents.

We have added your name to our study mailing list and will ensure that you receive any future Notices and invitations to public meetings. Please feel free to contact me if you have any further questions or comments.

Sincerely,

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
Public Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

-----Original Message-----
From: Lee-Morrison, Christine
Sent: Friday, March 24, 2006 4:43 PM
To:
Cc: Grupe, Vanessa; Liza Sheppard; 'Nathalie Baudais'
Subject: FW: ROPA 9

Dear

Thank you for submitting your comments on this study. As discussed, I have forwarded your e-mail to our project consultants who are carefully reviewing and considering all comments and concerns received. Also, for your information, attached is a copy of the Notice for the public meeting occurring March 27.

Sincerely,

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
Public Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

-----Original Message-----
From:
Sent: Friday, March 10, 2006 7:49 PM
To: Lee-Morrison, Christine
Subject: ROPA 9

Hello Christine;
I live in the "Summit Park" area. Drive to and from work(Lower Stony Creek. previously lived on Gatestone Drive. (4 years) and in the general area for the past 20 years.

As a tax payer & resident I feel I have some relevant opinions and information to offer.
I'm sure you are aware of the background material so I will not qualify my statements. If you need clarification please ask.

1. The studied volumes (2nd rd West) will change after the North-South Redhill expressway is completed.I suspect less after.

2. The ANSI area has been promoted as a "park" by area builders. To build any roads in the area (your option 2,3,or 4) would be ecologically irresponsible. I get the point.To bypass 2ns Road West. However this would be a short term solution only, to a none existing problem.The majority of the time 2nd road has very little traffic, but very heavy ,at to and from work times.

3. Building the Trinity Church/Rymal RD.- Stone Church connection is the best solution and will remove a majority of the through traffic from 2nd road West.

4. Building a "bypass" around 2nd road through a designated conservation area- ANSI to satisfy a few complainers (whom live on 2nd road) is a waste of money and will only invite further traffic to the Gatestone area. Once the Rymal-Stonechurch road is built the majority of the 2nd Road through traffic will be gone.

5. When the north-South valley expressway is done a huge amount of traffic will be removed from the MountAlbion/Mud & Winterberry route , and relocated to the Pritchard or Upper Mount Albion Route.There is a huge bottle-neck temporally created during the construction of the Red-Hill valley , which will be moved West after its done.

6. Closing upper Mount Albion ? Why? Its a road and has been for decades.Same logic applies as for 2nd road West.
I have driven theses all of these roads for many years in all seasons. I have walked all of the trails. I have biked the roads.

I can offer any further details you like.
Call
or e-mail
Thanks

<< File: Trinity PIC #1 March 27 06 Public Notice.doc >>

PUBLIC NOTICE
TRINITY NEIGHBOURHOOD LAND USE REVIEW

The City of Hamilton Planning and Economic Development Department have initiated a study to prepare a future land use plan for the Trinity Neighbourhood. This is the area bounded by Highland Road, Second Road West, Rymal Road East, and the proposed extension of Trinity Church Road, as indicated on the attached map. This area is located within the Heritage Green Secondary Plan and the West Mountain Planning Area.

A land use plan was originally prepared for the Trinity Neighbourhood in the early 1990's, and adopted by former Stoney Creek Council. This plan identified the location of an internal collector road, schools, parks and housing areas of various densities.

During the late 1990's, the Eramosa Karst was discovered within the Trinity neighbourhood. This series of underground caves, sinking streams and related features include several features which are provincially significant. The boundary of this Area of Natural and Scientific Interest (ANSI) has been confirmed following detailed studies, and is shown on the attached map.

Most of the Karst area will be retained in a natural state, and residential development will not be permitted. These lands, which are largely owned by the Ontario Realty Corporation, are in the process of being transferred to the Hamilton Conservation Authority. This natural area will be managed by the Conservation Authority, with trails and an interpretive centre.

The form of development for the remaining lands in the Trinity Neighbourhood must be decided. The original neighbourhood plan is no longer valid, as the Karst area restricts the development of the collector road and the interior lands. A new land use plan must be prepared to guide development of this area. Future plans must also recognize the intended closure of Second Road West and Upper Mount Albion Road, and the construction of the Trinity Church Road extension. The interior collector road must be located accordingly to allow access through the neighbourhood. The Public Works Department is studying traffic access, and has held previous public meetings on these matters for the Rymal Road Planning Area Study (ROPA 9).

Public participation is an important part of the City's process for developing future land use plans. Input from residents, land owners and other interested parties are important in determining these future plans. Accordingly, citizens are invited to attend a Public Information Centre regarding the Trinity Neighbourhood Plan Review, to be held:

Date:	**Monday, March 27, 2006**
Time:	**6:00 p.m. – 8:30 p.m., with Presentations at 6:30 pm.**
Location:	**Winterberry Heights Church**
	300 Winterberry Dr. (at Paramount Dr.) Stoney Creek

The purpose of the Public Information Centre is to outline the land use study process, and to enable input from citizens on their preferred vision for the area, and the form and character of development. There will be information displays, brief presentations from staff, and participation through small discussion groups to enable input.

The next steps will include the preparation of alternative land use options, to be integrated with options for the location of the collector road. These land use options will be evaluated and a final plan recommended for approval by City Council by fall of 2006. A further public meeting will be held prior to Council adoption.

You are invited to attend the Public Information Centre on March 27 to provide your comments on the type of development which you would like to see occur in this area. You are also able to provide comments by various other means including email, phone, fax, and postal mail to the address noted below.

Please see the project web site for the study, which is found on the City web site at http://www.myhamilton.ca/myhamilton/CityandGovernment/CityDepartments/PlanningEcDev/Development/CommunityPlanning/SecondaryPlans/index.htm to obtain further details, contact information and comment sheets. Please contact staff if you wish to be placed on the mailing list for this study. Thank you for your interest in this project.

For questions and inquiries, please contact:

Vanessa Grupe, Senior Planner
Community Planning & Design Section
Planning & Economic Development Department
City of Hamilton
Mailing Address: 71 Main St. W.
Hamilton, ON L8P 4Y5
Phone: 905-546-2424 Ext. 1263
Fax: 905-643-7250
Email: vgrupe@hamilton.ca

2808 2-3

Nathalie Baudais

From: Lee-Morrison, Christine [cleemorr@hamilton.ca]
Sent: Tuesday, April 11, 2006 10:11 AM
To:
Cc: Cecchetti, Lynne; Grupe, Vanessa; lsheppard@itransconsulting.com; Philip, Mohan; JMosher@itransconsulting.com; NBaudais@itransconsulting.com
Subject: RE: Rymal Road Planning Area Class EA

Dear

In reply to your recent e-mail inquiry, the following information is provided.

1) The lands in the former City of Hamilton are west of the approximate location of the proposed Trinity Church Road corridor extension. The are located within the East Mountain Industrial Business Park, which includes various types of restricted light industrial and commercial designations. The former City of Hamilton portion of your family's lands at 60 Highland Road are split into two equal portions each in a different zoning district. The western portion, closest to the Hydro corridor, is designated "Restricted Industrial (M-14 and M-15)." The portion just of east of this, up to the former Hamilton boundary, is designated "Restricted Industrial - Commercial (M-12 & M-13)." Planning staff would be glad to provide a map and details to illustrate.

The M categories refer to zoning by-law districts and definitions, and there are many permitted uses within each category. The by-law includes a table and text which explains these in detail. The M-14 and M-15 zones permit light industrial uses as well as commercial. The M-11 and
M-12 zones permit a range of commercial, wholesale, public and office uses, and only a couple of industrial uses.

2) Planning staff can provide you with a map to illustrate these designations. For the lands bounded by Highland, the LINC, Pritchard and the former Hamilton boundary, the western portion is presently designated "Restricted Industrial (M-14 & M-15)" in the East Mountain Industrial Business Park approved plan. A Utilities (Hydro) corridor runs north-south through this area. The eastern third is "Restricted Industrial - Commercial (M-11 and M-12)."

For lands in the former City of Stoney Creek, between Paramount and Highland, west of Upper Mount Albion, lands are presently designated "Service Commercial" for the westerly third. The centre third is Neighbourhood Park in the south, and Medium High Density Residential in the north. The eastern third is Medium High Density Residential. These designations are all contained in the approved Heritage Green Secondary Plan, which is under review in this area. Due to the identification of the Karst boundary, the Trinity Neighbourhood portion of this Secondary plan is under review. North of Paramount Drive in this area is the Special Policy C area, which is designated for mixed commercial and residential land uses.

3) The future designation of the eastern part of your lands is presently Service Commercial, under the above-noted Stoney Creek plans approved in the early 1990's. Yes, it is possible that this designation will change within the Trinity Neighbourhood land use review, depending on input from staff, property owners and the general public. Planning staff are targeting to have land use options for public review by June of this year. It is anticipated that a final land use plan will be taken to Planning Committee and City Council by fall of this year for approval, if all issues can be resolved.

4) As discussed in an earlier e-mail, the City is intending to finalize the Rymal Road Planning Area Class EA Master Plan this spring. The Master Plan would establish the need for the new road link between Rymal Road and Stone Church Road as one of the solutions required for the Rymal Road Planning Area. Once the Rymal Road Planning Area Master Plan is complete, the City will commence with the next level of study required to evaluate the design concepts (road alignments) for the new road and that a further Public Information Centre (PIC) will be held during this study to present and discuss corridor options. This PIC has been tentatively scheduled for the last week of June, 2006. Once the exact date

and times are determined a notice will be sent people on our mailing list and published in the Spectator. Your name has been placed on our study mailing list and you will be advised of any upcoming meetings.

We would be glad to speak with you or meet if needed to explain the land use designations further. Planning staff will forward copies of the relevant portions of these plans under separate cover. Should you have any questions regarding the land use designations, please contact:

Vanessa Grupe, Senior Planner
Community Planning & Design Section
Planning & Economic Development Department City of Hamilton
Phone: 905-546-2424 Ext. 1263

Please feel free to contact me with any further questions on the Class EA studies, or any general inquiries you may have.

Sincerely,

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning Capital Planning and Implementation Public Works Department City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

-----Original Message-----
From:
Sent: Saturday, April 01, 2006 2:36 PM
To: Lee-Morrison, Christine
Cc: Cecchetti, Lynne; Grupe, Vanessa; lsheppard@itransconsulting.com; NBaudais@itransconsulting.com; Bruckler, Phil; Philip, Mohan
Subject: RE: Rymal Road Planning Area Class EA

Dear Ms. Lee-Morrison,

Thank you for the information that you provided regarding land and road development in our neighbourhood. My husband and I appreciated your knowledgeable and thoughtful responses to our queries at last Monday's meeting.

In your e-mail response to my initial questions, you indicated "the existing land uses between Pritchard Road and Upper Mount Albion Road, and between Highland Road and Rymal Road are agricultural and residential. The City of Stoney Creek Official Plan (April 2001 consolidation) designates the lands as service commercial. The future designations will be reviewed by the City as development in the area proceeds." While we understand that the land and road development in the area is currently under review, we hope that you can clarify a few points.

1) Not all of the land between Pritchard and Upper Mount Albion and between Highland and Rymal was part of the former City of Stoney Creek. Some of the

land, including our property at 60 Highland, was part of The City of Hamilton. What are the current and proposed future designations or Hamilton
portion of the land?

2) What are the current and future designations for the lands bounded by
Paramount/ The L.I.N.C. and Highland, and by Pritchard and Upper Mount Albion (both the former Stoney Creek and Hamilton sections)?

3) Assuming that the future designation of any of the lands surrounding our
property is anticipated to be service commercial, as proposed by the Stoney
Creek Official Plan, is it possible that this future designation will change? At what point in the review process will the designation be finalized?

4) At what point will public input regarding the exact route of the arterial
road begin? What sort of timeframe is anticipated before construction on the
arterial road actually begins?

Sincerely,

Nathalie Baudais

From:

Sent: Monday, April 10, 2006 6:19 PM

To: cleemorr@hamilton.ca

Cc: lsheppard@itransconsulting.com; rbacquie@itransconsulting.com; mphilip@hamilton.ca; lryan@hamilton.ca; vgrupe@hamilton.ca; crottenbergwalker@urbanstrategies.com; NBaudais@itransconsulting.com; pbruckler@hamilton.ca

Subject: Re: Proposed Road issue

Thank you for your reply.

It would appear that you have done some due diligence in this issue. Your email illustrated a lot of points.

I have written emails like yours in reply to concerned citizens, so I took the liberty of reading between the lines and took a look at what was really there, not much, apart from a few surveys.

As is the case with most controversial issues, common sense usually prevails, and I hope in this instance this holds true, becuse this new winding road through the fields and woodlot as your solution to the problem is certainly laughable.

Look forward to discussing the issue further.

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: Lee-Morrison, Christine
To
CC: Liza Sheppard; Kay Bacquie; Philip, Mohan; Ryan, Leanne; Grupe, Vanessa; Cyndi Rottenberg-Walker; Nathalie Baudais; Bruckler, Phil
Sent: Mon Apr 10 16:44:53 2006
Subject: RE: Proposed Road issue

Dear

Thank you for your interest in this study.

As presented at the public meeting held on January 26th, we have conducted an extensive review of key roadways within the Trinity Neighbourhood, including 2nd Road West, Upper Mount Albion Road, Gatestone Drive, Whitedeer Road and Highbury Drive. We looked at the roadway designations / function (e.g., local road, collector road), the posted speed limit, pavement width, presence of sidewalks, setback distances of homes from the roadway, and the existing traffic demand versus the appropriate capacity (the volume of traffic the roadway was designed to carry). The study explicitly considered the nature of the road, including the presence of schools and pedestrian activity. We also looked at the collision history for the roadways, and speed survey data available for 2nd Road West, and for Upper Mount Albion Road.

Key finding of this review, as presented at the January 26th meeting, are as follows:

* Traffic volumes on 2nd Road West, north of Gatestone Drive are above levels associated with the road class (local road) and design.
* Traffic volumes on Upper Mount Albion Road are above levels associated with the road class (local road), the rolling vertical geometry, and a very narrow pavement width.
* Travel speeds is an issue on Upper Mount Albion Road, and high end speeds are being experienced on 2nd Road West
* Collision rates are typical for the road functions.

Cover Fax Sheet Info

Mar. 2/06

To: Christine Lee-Morrison
Senior Project Manager re:
Rural Road Planning Area
(Regional Lands)

From:
(Local resident.)

Re: Alternatives Being Discussed with regard to Trinity Church Rd. Alignments.

Phone:

Address:-

Mar.2/06

Ms. Lee-Morrison:

First, my apologies for the lateness of this response to your presentation to the public residing in the Trinity neighbourhood on Jan. 26/06.

Of the seven listed Alternatives given on the Trinity Church Conceptual Alignments Map, dated Jan. 2006, almost every resident of this road and members of the Trinity Church Rd. Citizen's Committee agree that only Alternative 2 or a combination of Alternatives 2 + 2a or 2 + 2b would resolve and alleviate our concerns. Not only would it accomplish that, but it would also circumvent the problems of the congregation of Trinity Church located immediately at the intersection of Trinity Church and Rymal Rd. and its accompanying cemetery. These choices would additionally maintain the safety of churchgoers who must park their cars in the church parking lot opposite the church and then cross Trinity Church Rd. to enter the church to attend services and/or banquet and wedding events etc.

Alternatives 2 + 2a and /or 2b would not only avoid the above complications, but would also more rapidly aid in opening up the core of the industrial park to the west where the development is desirable

Thus, if the concerns of the Trinity community are respected, as we believe the Alternatives we have cited do achieve, then Hamilton's future as it evolves, will do so more successfully and expeditiously.

Sincerely,

Nathalie Baudais

From:

Sent: Saturday, March 18, 2006 6:12 PM

To: [redacted]; cleemorr@hamilton.ca; [redacted]; dmitchell@hamilton.ca; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted] mossop.mpp@liberal.ola.org; [redacted] ldiianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca [redacted] lmuraca@ngco.com; lsheppard@itransconsulting.com; [redacted]; NBaudais@itransconsulting.com; [redacted]; pm@pm.gc.ca; pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]

Subject: New Issues

Hello Phil. How are you?

As you know we are very pleased with everything that was done for the residents of Second Road West. Your office with that of ITrans is to be thanked. Unfortunately, I have some negative feedback. The conditions on Second Road West are at an all-time low. The Wal-Mart, car dealership, Fortinos, etc are bringing many unfamiliar rushed motorists. They are ignoring speed limits and stop signs. This may sound like that same old story but it is far from that. The majority of the problem before was from local residents. The problem now is that on top of the ignorance displayed by the local residents we now have many, many new faces traveling our streets. They must be unaware of the issues we have dealt with, or perhaps I am being silly in believing that if they did they would slow down and stop. Phil, the issue is different now. It is much more severe. There is much more volume. In all due respect, the numbers presented in the past in regard to the amount of speeding and the speeds that are actually traveled are very unrealistic. I am not saying that the tests performed are always unreliable but in this instance they are. What I am asking is that we speed up the closure. I believe that there was a "Phase 1" purposed at the last meet. I feel that it is vital that the phase one be implemented immediately. There is a resident that has a "Disabled Person" sign. It is being completely ignored. As a matter of fact, the last major collision would have taken that sign out. The nice weather is around the corner. Our family wants to have our first enjoyable spring/summer in our neighborhood. Phil ,please deal with this severe issue at your earliest convenience.

Regards, The[redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Monday, April 03, 2006 6:06 PM
To: Liza Sheppard; Nathalie Baudais
Subject: FW: Look forward to the meeting...

Ray Bacquie, P.Eng, AVS.

Vice President

iTRANS Consulting Inc.

100 York Boulevard, Suite 300

Richmond Hill, ON L4B 1J8

Phone: 905-882-4100 Ext. 5227

Direct: 905-695-5227

Fax: 905-882-1557

E-mail: rbacquie@itransconsulting.com

www.itransconsulting.com

-----Original Message-----
From: [redacted]
Sent: Monday, March 20, 2006 9:39 AM
To: [redacted] cleemorr@hamilton.ca; ldilanni@hamilton.ca; lryan@hamilton.ca; pbruckler@hamilton.ca
Cc:

Subject: Re: Look forward to the meeting...

Hi [redacted]
Thanks for once again keeping the Second Rd. W. closure in the forefront. I am particularly eager to attend the upcoming meeting regarding the plan and vision for the Trinity Neighbourhood. For anyone who missed it in the Stoney Creek News a few weeks ago, the information meeting will be held on Monday, March 27, 6-8:30pm at the Salvation Army Church on Winterberry Drive. Like yourselves, Mike and Luis, I am hoping that some progress has been made towards the new north/south collector road that will link Highland and Rymal. I would also like to see some of the interim measures put into place, but I share your conviction that these 'bandaid' measures won't rescue us from the high volume/speed concerns on our road, which are getting progressively worse.
See you at the meeting.
[redacted]

----- Original Message -----
From: [redacted]
To: <cleemorr@hamilton.ca>; <ldilanni@hamilton.ca>; <lryan@hamilton.ca>; <pbruckler@hamilton.ca>
Cc:

[redacted]
Sent: Monday, March 20, 2006 7:37 AM
Subject: Re: New Issues

> Hello all,
>
> [redacted]s absolutely correct in his statements which go back to our
> original concerns. The trend has been set and we have been going
> through this for 5 years now. A glimpse of warm weather and sunshine
> and the vehicular chaos intensifies on Second Road.
>
> To further complicate things and provide validation to our
> concerns; Walmart, Fortinos and HMP have created new volumes on our
> street as we have anticipated they would all along. Summit Park will
> be going into their heaviest months of closing dates, they are on the
> final stages of their 2nd Phase with another Phase still to follow.
> The commercial developments will also be breaking ground shortly, for
> what I'm sure are to be fall openings in time for the holiday season.
> This will all lead to increased volumes on our street as we have seen
> thus far.
>
> At the last meeting which Itrans put forth their recommendation to
> the residents and city officials they outlined a 3-5 year time line
> which would potentially be placed into 3 phases. Immediate areas for
> improvement, we the residents were not in favour of but in the attempt
> of securing our families safety and working toward controlling the
> volume and speed we all agreed needed to be done.
>
> To date, no white lines have been marked on the road approaching
> the stop signs as suggested. Larger stop signs were to be placed
> nothing to date. I particularly find this ridiculous considering if
> motorists are not speeding they will see the current ones, but I'm a
> team player and at this point willing to try anything.
>
> Phil, have any new developments taken place? Has the time line of
> 3-5 years been firmed up/ reduced? Any realistic chance that the time
> line can be reduced? In this 3-5 year plan, can the trail system/
> walkway be put in across Second Road at the front end of the time line
> rather than the back-end?
>
> As we have seen drivers adjust to the quickest route, if Second
> Road is not an option anymore they will also adjust. Considering all
> that has gone on over the past 5 years I don't think this is much to
> ask.
>
> Best regards,
>
>
>
>
> [redacted]
>
>>>> '[redacted] 3/10/2006 6:12:11
> PM >>>
> Hello Phil. How are you?
>
> As you know we are very pleased with everything that was done for the

> residents of Second Road West. Your office with that of ITrans is to
> be thanked. Unfortunately, I have some negative feedback. The
> conditions on Second Road West are at an all-time low. The Wal-Mart,
> car dealership, Fortinos, etc are bringing many unfamiliar rushed motorists.
> They are ignoring speed limits and stop signs. This may sound like
> that same old story but it is far from that. The majority of the
> problem before was from local residents. The problem now is that on
> top of the ignorance displayed by the local residents we now have
> many, many new faces traveling our streets. They must be unaware of
> the issues we have dealt with, or perhaps I am being silly in
> believing that if they did they would slow down and stop. Phil, the issue is different now.
> It is much more severe. There is much more volume. In all due
> respect, the numbers presented in the past in regard to the amount of
> speeding and the speeds that are actually traveled are very
> unrealistic. I am not saying that the tests performed are always
> unreliable but in this instance they are. What I am asking is that we
> speed up the closure. I believe that there was a "Phase 1" purposed
> at the last meet. I feel that it is vital that the phase one be
> implemented immediately. There is a resident that has a "Disabled
> Person" sign. It is being completely ignored. As a matter of fact,
> the last major collision would have taken that sign out. The nice weather is around the corner. Our family wants
> to have our first enjoyable spring/summer in our neighborhood. Phil
> ,please deal with this severe issue at your earliest convenience.
>
> Regards,
>
>

[redacted]

Nathalie Baudais

From: Liza Sheppard
Sent: Tuesday, February 14, 2006 11:38 AM
To: Nathalie Baudais; Ray Bacquie
Subject: FW: Ropa 9 Questionnaire

From: Lee-Morrison, Christine [mailto:cleemorr@hamilton.ca]
Sent: Tuesday, February 14, 2006 11:19 AM
To: [redacted]
Cc: Liza Sheppard; [redacted]
Subject: RE: Ropa 9 Questionnaire

[redacted]

Your fax was received. Thank you for your interest in this project. All comments received will be carefully reviewed and considered. Also, could you please relay the following information to your husband, Mr. [redacted] The City is aware of the need to coordinate the Rymal Road Planning Area Class EA (north of Rymal) and the North Glanbrook Business Park Class EA study (south of Rymal). As you know, the Rymal Road Planning Area study has presented the need for a new road link from Stone Church Road / Red Hill Creek Expressway ramps to Rymal Road. However, please note that, as illustrated at the meeting, the potential alignment for this road is yet to be determined. It is recognized that the studies for the areas north and south of Rymal must be coordinated. Therefore, a further study, the Trinity Church Corridor Environmental Assessment for Phases 3 and 4 will follow to identify and evaluate alternative road alignments and design concepts. Further public consultation will take place. Your name and address have been added to the mailing list and you will be advised of future notices.

Sincerely,

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
Public Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

-----Original Message-----
From: [redacted]
Sent: Tuesday, February 14, 2006 10:36 AM
To: Lee-Morrison, Christine
Subject: Ropa 9 Questionnaire

I have just faxed a questionnaire from my husband [redacted] Since it is legal form, I am not sure if it came through properly. Also I had to fax the front page then the back so the pages may have been split up. Can you please let me know if you received the fax successfully?

[redacted]

2/14/2006

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:28 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: The Status of Second Rd W

Ray Bacquie, P.Eng, AVS.

Vice President

iTRANS Consulting Inc.

100 York Boulevard, Suite 300

Richmond Hill, ON L4B 1J8

Phone: 905-882-4100 Ext. 5227

Direct: 905-695-5227

Fax: 905-882-1557

E-mail: rbacquie@itransconsulting.com

www.itransconsulting.com

-----Original Message-----
From: [redacted] [mailto:[redacted]
Sent: Thursday, November 17, 2005 1:08 PM
To: [redacted]
Cc: [redacted]
Subject: RE: The Status of Second Rd W

excellant point regarding Pritchard Road.

>>> <[redacted] 11/17/2005 11:08:15 AM >>>
Good morning all,

I also agree that Upper Mount Albion is definitely an adequate road to

handle the north/south traffic. Again, it has the capacity for installation of sidewalks on both sides and is sparsely populated. I am positive that the commercial businesses on that road will also be delighted that the road stay opened for ease of customers. Further, it

directly links to one of the main entrances to Summit Park and therefore seems to be the logical choice with respect to ease of traffic flow.

Also, I never heard Pritchard Road in any of these discussions. Would

this road not also be a logical choice for north/south traffic? Again,

sparsely populated, the majority of the road is occupied by commercial

development and runs from Rymal Road to Paramount Drive. I am sure the

commercial developments on Pritchard Road as well as the new Leons store would not protest the extra traffic that the commercial and residential

developments on Rymal Road will bring. This road also provides easy access to the Linc via Dartnall Road. It would also alleviate the traffic from Winterberry Drive (from which I understand the residents are really concerned with).

Again, another more logical choice than utilizing Second Road West. A

road that can not handle the traffic it is already receiving and further, a road that was to have traffic diverted as per City Plans (whether it be City of Hamilton or City of Stoney Creek Plans - Are we not all the City of Hamilton now and therefore, these are all now City of Hamilton issues/plans?)

Best Regards
The [redacted]

[redacted]
11/17/2005 10:14 AM

To
[redacted] rbacquie@itransconsulting.com,
[redacted] pbruckler@hamilton.ca, cleemorr@hamilton.ca, eswitenik@hamilton.ca
cc [redacted]

[redacted] Subject
RE: The Status of Second Rd W

Upper Mt Albion is more suitable
From: [redacted]
To: '[redacted] "rbacquie@itransconsulting.com"
<rbacquie@itransconsulting.com>, "ldiianni@hamilton.ca"
<ldiianni@hamilton.ca>, "pbruckler@hamilton.ca"
<pbruckler@hamilton.ca>,
"cleemorr@hamilton.ca" <cleemorr@hamilton.ca>, "eswitenik@hamilton.ca"

<eswitenik@hamilton.ca>
CC: [redacted]

[redacted]

Subject: RE: The Status of Second Rd W
Date: Tue, 15 Nov 2005 13:52:16 -0500
>Good points [redacted] With respect to Upper Mount Albion being a more suitable North/South thoroughfare...it also runs North all the way to Paramount!! This means traffic from the Linc, after scooting up Winterberry, could turn right at Paramount (westbound) to quickly reach

Upper Mount Albion for easy North/South access to Summitt Park, and all

destinations on and South of Rymal. This would alleviate traffic flowing by Janet Lee School, and traffic on Highland Rd., which has already been identified as a concern.
>To me, it just makes sense!

[redacted]

>-----Original Message-----
>From: [redacted] [SMTP:[redacted]
>Sent: November 15, 2005 11:46 AM
>To: rbacquie@itransconsulting.com; ldiianni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca; eswitenik@hamilton.ca
>Cc: [redacted]

>Subject: The Status of Second Rd W
>
>Mr. Bacquie,
>
> In response to your email. I am confused with respect to a few of
>your observations. I am very confused as to why Gatestone Drive and
>Highland Rd need to be assessed whether or not they can handle redirected
>traffic. According to the original "Trinity Neighbourhood Plan", before
the
>'sudden' discovery of the karsts lands, Gatestone was supposed to be
the
>route between Rymal Rd and Highland road anyway. If it were built with
that
>intention at that time, how could its function and capability be
different
>now?
>
> In your email, you speak of function and design of a road. Highland
>Rd and Gatestone Drive are built to function as a commuter road. They

are
>wider than other residential roads and they have sidewalks on both
sides
of
>the street. Second Rd West was not designed and cannot function as a
>commuter road regardless if there is no other North South connection
between
>Rymal Rd and Highland Rd. Other solutions must be possible. Traffic

will
>have to be redirected elsewhere.

>
> Upper Mount Albion is the perfect solution. Presently there are very
>few houses on Upper Mount Albion Rd. The road could easily be
made
>wider, sidewalks could be installed on both sides and residents could
>receive City water and sewers. It could very easily be developed to
meet
>the needs and would ultimately let its design function as a North
South
>connection. Upper Mount Albion is presently designated as a truck
route,
>which further supports the idea of it being a good solution for
north/south
>traffic.
>
> The approximate 3200 homes being built south of Rymal road at the end
>of Upper Mount Albion, as well as all other vehicles using the
>commercial developments in that area could very easily use Upper
Mount
>Albion as their local connection to other residential areas, but they

could
>also use the expansion of Trinity Church to reach the Red Hill
Expressway.
>With the expansion of Trinity Church, combined with the improvement of

Upper
>Mount Albion, residents of the area would have perfect access both
locally
>and to the expressway.
>
> It is beyond my comprehension why consultants and the City of Hamilton
>are now looking into traffic patterns and solutions to
traffic
>problems. Opening of the commercial development on Rymal Rd before
traffic
>concerns are addressed is very disturbing to me. Rymal Rd will be
>disastrous. Rymal Rd itself at this time is too narrow to accommodate

the
>traffic that will be brought by the opening of Walart. The amount of
>vehicles hoping to avoid the congestion that will be brought from
those
>entering and leaving Walmart will look for the easiest route out.
>Unfortunately Second Rd W will be their choice. A road which was
designed
>to function as a local road will be forced to handle these large
amounts
of
>traffic. This will create a dangerous situation of not only those
residents
>who live there, but for all using it as a thoroughfare. Lets keep all
of
>our roads safe. Close Second Rd W and redirect traffic to other
locations
>which were designed with safety in mind.
>
> We need to find a solution quickly. Walmart will be opening shortly.
>We cannot waste time. We need to stop major problems before

they
>arise. The safety of Hamilton's residents depends on it.
>
>Sincerely
>
>[redacted]
>

>
> << File: ATT00000.htm >>

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Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 11:05 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: The Status of Second Rd W

From: [redacted] [mailto[redacted]]
Sent: Tuesday, November 15, 2005 2:15 PM
To: rbacquie@itransconsulting.com; ldilanni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca; eswitenik@hamilton.ca
Cc: [redacted]
Subject: RE: The Status of Second Rd W

Hello everyone,

After our street meeting on Friday we took a drive over to Upper Mt. Albion Road to try and get a good "sense" of what that street was like. I was pretty shocked to count only 13 houses on each side of the road (and two of them are for sale). As earlier mentioned the speed limit is already posted at 60kph and I had forgotten that there is a pizza restaurant and variety store on the north end of Upper Mt. Albion. You can imagine what will happen to their businesses if their road is closed. I am sure the owners would welcome the increased traffic to help them improve their business.

Just to review the facts, we have been told that there needs to be an alternate north/south route from Rymal to Highland to handle the new increased volume.

Second Road, a highly populated residential street backing onto a huge park and school.

Upper Mt. Albion, sparsely populated road with existing businesses and an already posted 60 kph speed limit. Not to mention, lots of room to upgrade the road.

If the decision is between these two roads it is pretty clear which one should be closed.

Close Second Road.

Regards,

[redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:28 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: The Status of Second Rd W

From: [redacted]
Sent: Thursday, November 17, 2005 2:49 PM
To: [redacted]
Cc: [redacted]
Subject: RE: The Status of Second Rd W

I agree. There are many other options.

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:32 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: Street measurements

From: [redacted]
Sent: Saturday, November 12, 2005 10:39 AM
To: [redacted]
Cc: [redacted]
Subject: RE: Street measurements

Thanks [redacted] This is why we felt it would remain a residential street.

From: [redacted]
To: [redacted]
Subject: *Street measurements*
Date: *Sat, 12 Nov 2005 07:32:55 -0500*
>The average width of Second Rd between Highland and Gatestone is 28 ft 3
>inches
>
>The average width of Second Rd between Gatestone and Rymal is 32 ft 8 inches
>
>Gatestone Drive just off of Second Rd is 32 ft 8 inches
>
>Hillcroft Rd. just off of Second Rd is 28 ft 3 inches. (which would suggest
>to me, that the north end of Second is a residential rd just like Hillcroft)
>
>
>[redacted]
>

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:32 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: Ray-Measurements?

From: [redacted]
Sent: Saturday, November 12, 2005 11:11 AM
To: [redacted] ldiianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted]; NBaudais@itransconsulting.com [redacted] pm@pm.gc.ca; pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]
Subject: Ray-Measurements?

Hello Ray. Can a street that is only 28 feet be a collector road? Is there not a minimum requirement for that much traffic? We can barely handle 800 a day.

Thanks, [redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:31 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: Phil, When?

From: [redacted] [redacted]
Sent: Saturday, November 12, 2005 11:13 AM
To: [redacted]Dalton.McGuinty@premier.gov.on.ca; [redacted] dmitchell@hamilton.ca; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted] jmossop.mpp@liberal.ola.org; [redacted] ldiianni@hamilton.ca; [redacted] lryan@hamilton.ca; [redacted] lsheppard@itransconsulting.com; [redacted] NBaudais@itransconsulting.com; [redacted] pm@pm.gc.ca; pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]
Subject: Phil, When?

Hello Phil. Did you receive my voice mail? Will we know at the December meeting what our fate is? I really hope that we will get answers. Would you not agree that it is a fair request????

[redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:31 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: [redacted]

From: [redacted]
Sent: Saturday, November 12, 2005 11:20 AM
To: [redacted]
Subject: [redacted]

Dear [redacted]

[redacted]by now you must be fully aware of what has been happening on Second Road West over the past 4 years. What is your view on this matter? Can we count on your support? We were told that our road would be closed. We purchased our home with trust of integrity.

Respectfully, [redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Wednesday, November 16, 2005 10:19 AM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: The Status of Second Rd W

Ray Bacquie, P.Eng, AVS.
Vice President
iTRANS Consulting Inc.
100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8

Phone: 905-882-4100 Ext. 5227
Direct: 905-695-5227
Fax: 905-882-1557
E-mail: rbacquie@itransconsulting.com
www.itransconsulting.com

From: [redacted]
Sent: Tuesday, November 15, 2005 1:09 PM
To: [redacted] rbacquie@itransconsulting.com; ldiianni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca; eswitenik@hamilton.ca
Cc: [redacted]
Subject: RE: The Status of Second Rd W

[redacted] I agree.

Has anybody received the plate # of that black jeep that speeds down our residential street? It was racing at about 80kms or more today. I fear what will come when 8000 of those come down our residential street.

[redacted]

From: [redacted]
To: *<rbacquie@itransconsulting.com>, <ldiianni@hamilton.ca>,<pbruckler@hamilton.ca>, <cleemorr@hamilton.ca>,<eswitenik@hamilton.ca>*
CC: [redacted]
Subject: *The Status of Second Rd W*
Date: *Tue, 15 Nov 2005 11:46:04 -0500*

Mr. Bacquie,

In response to your email. I am confused with respect to a few of your observations. I am very confused as to why Gatestone Drive and Highland Rd need to be assessed whether or not they can handle redirected traffic. According to the original "Trinity Neighbourhood Plan", before the 'sudden' discovery of the karsts lands, Gatestone was supposed to be the route between Rymal Rd and Highland road anyway. If it were built with that intention at that time, how could its function and capability be different now?

In your email, you speak of function and design of a road. Highland Rd and Gatestone Drive are built to function as a commuter road. They are wider than other residential roads and they have sidewalks on both sides of the street. Second Rd West was not designed and cannot function as a commuter road regardless if there is no other North South connection between Rymal Rd and Highland Rd. Other solutions must be possible. Traffic will have to be redirected elsewhere.

Upper Mount Albion is the perfect solution. Presently there are very few houses on Upper Mount Albion Rd. The road could easily be made wider, sidewalks could be installed on both sides and residents could receive City water and sewers. It could very easily be developed to meet the needs and would ultimately let its design function as a North South connection. Upper Mount Albion is presently designated as a truck route, which further supports the idea of it being a good solution for north/south traffic.

The approximate 3200 homes being built south of Rymal road at the end of Upper Mount Albion, as well as all other vehicles using the commercial developments in that area could very easily use Upper Mount Albion as their local connection to other residential areas, but they could also use the expansion of Trinity Church to reach the Red Hill Expressway. With the expansion of Trinity Church, combined with the improvement of Upper Mount Albion, residents of the area would have perfect access both locally and to the expressway.

It is beyond my comprehension why consultants and the City of Hamilton are now looking into traffic patterns and solutions to traffic problems. Opening of the commercial development on Rymal Rd before traffic concerns are addressed is very disturbing to me. Rymal Rd will be disastrous. Rymal Rd itself at this time is too narrow to accommodate the traffic that will be brought by the opening of Walart. The amount of vehicles hoping to avoid the congestion that will be brought from those entering and leaving Walmart will look for the easiest route out. Unfortunately Second Rd W will be their choice. A road which was designed to function as a local road will be forced to handle these large amounts of traffic. This will create a dangerous situation of not only those residents who live there, but for all using it as a thoroughfare. Lets keep all of our roads safe. Close Second Rd W and redirect traffic to other locations which were designed with safety in mind.

We need to find a solution quickly. Walmart will be opening shortly. We cannot waste time. We need to stop major problems before they arise. The safety of Hamilton's residents depends on it.

Sincerely

[redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:32 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: Mr. Dilanni

From: [redacted]
Sent: Wednesday, November 09, 2005 4:57 PM
To: [redacted]
[redacted]Dalton.McGuinty@premier.gov.on.ca; [redacted]
dmitchell@hamilton.ca; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted]
jmossop.mpp@liberal.ola.org; [redacted]
[redacted]
ldilanni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted]
lsheppard@itransconsulting.com; [redacted]
[redacted] pbruckler@hamilton.ca; rbacquie@itransconsulting.com;
[redacted]
Subject: Mr. Dilanni

Dear Mr. Dilanni,
How are you? As you know we have been working diligently for over four years now to close Second Road West. Please assist us in resolving this matter quickly as we are understandably out of patience. Ms. Mossop has forwarded a letter to your office in support of our cause. Would you also kindly support us in the form of a letter addressed to whomever can help us best.

Thank you, [redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:33 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: Mr. Bacque

From: [redacted]
Sent: Wednesday, November 09, 2005 4:51 PM
To: [redacted]
[redacted]on.McGuinty@premier.gov.on.ca; [redacted]
dmitchell@hamilton.ca; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted]
jmossop.mpp@liberal.ola.org; [redacted]
[redacted]
ldilianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted];
lsheppard@itransconsulting.com; [redacted]
[redacted]Baudais@itransconsulting.com; [redacted]
[redacted]pm@pm.gc.ca; pbruckler@hamilton.ca; rbacquie@itransconsulting.com;
[redacted]
Subject: Mr. Bacque

Mr.Bacque. How are you?

Have you had the opportunity to drive trough our survey yet? If so I'm sure you will understand our determination to resolve our cause **immediately**. Please remember that we were directed into this survey with the **clear** understanding that **local** traffic would be all that we would need to deal with. I believe that your options are ample. There are **many many** streets that can and should be used as a collector. Second Road West will not serve you well for this purpose. Our options are limited. The city either does what they promised or we **have to** move. Who will compensate us for out losses?

Best Regards, [redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:33 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: Mr.McCulloch

From: [redacted] [mailto:[redacted]
Sent: Wednesday, November 09, 2005 4:35 PM
To: [redacted]
[redacted] Dalton.McGuinty@premier.gov.on.ca; [redacted]
[redacted] iianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted]
lsheppard@itransconsulting.com; [redacted]
[redacted] pm@pm.gc.ca; pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]
Subject: [redacted]

Hello [redacted] We have been submitting license plate numbers. What exactly happens with those submissions? Does it help our cause at all or are we just wasting our time? What else are we to do to make our street safe?

Respectfully, [redacted]

Nathalie Baudais

From: Ray Bacquie
Sent: Thursday, November 17, 2005 10:38 PM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: pictures

Attachments: Signs1.jpg; Signs2.jpg; Signs3.jpg

Signs1.jpg (743 KB) Signs2.jpg (750 KB) Signs3.jpg (930 KB)

Ray Bacquie, P.Eng, AVS.

Vice President

iTRANS Consulting Inc.

100 York Boulevard, Suite 300

Richmond Hill, ON L4B 1J8

Phone: 905-882-4100 Ext. 5227

Direct: 905-695-5227

Fax: 905-882-1557

E-mail: rbacquie@itransconsulting.com

www.itransconsulting.com

-----Original Message-----
From: [redacted]
Sent: Monday, November 07, 2005 1:36 PM
To: [redacted] eswitenk@hamilton.ca; ldiianni@hamilton.ca; lryan@hamilton.ca; pbruckler@hamilton.ca; [redacted] bacquie@itransconsulting.com; jmossop.mpp@liberal.ola.org; pm@pm.gc.ca; Dalton.McGuinty@premier.gov.on.ca;
Cc: [redacted]
Subject: pictures

All,
Attached are some photo's which depect [redacted] and I over the weekend trying to record some license plates who in our opinion were either speeding, rolling the stop or just driving through it altogether.

Unfortunately for us the vests may have given us away as they slowed down, however, [redacted] and I cannot stay outside for 24 hrs, 7 days a week. Something which we were continually noticing while we were out

there is the amount of traffic using Second Road West as their north-south corridor. This of course was of no surprise to us rather just confirmation that once the residential and commercial developments are complete the problem will only multiply itself.

As I understand Itrans Consulting is claiming they have done a study on our street but I ask that they physically come down and see the traffic pattern prior to making their recomendations to the City's Planners.

Regards,

[redacted]

Nathalie Baudais

From: [redacted]
Sent: Thursday, November 17, 2005 11:08 AM
To: [redacted]
Cc: [redacted]
Subject: RE: The Status of Second Rd W

Good morning all,

I also agree that Upper Mount Albion is definitely an adequate road to handle the north/south traffic. Again, it has the capacity for installation of sidewalks on both sides and is sparsely populated. I am positive that the commercial businesses on that road will also be delighted that the road stay opened for ease of customers. Further, it directly links to one of the main entrances to Summit Park and therefore seems to be the logical choice with respect to ease of traffic flow.

Also, I never heard Pritchard Road in any of these discussions. Would this road not also be a logical choice for north/south traffic? Again, sparsely populated, the majority of the road is occupied by commercial development and runs from Rymal Road to Paramount Drive. I am sure the commercial developments on Pritchard Road as well as the new Leons store would not protest the extra traffic that the commercial and residential developments on Rymal Road will bring. This road also provides easy access to the Linc via Dartnall Road. It would also alleviate the traffic from Winterberry Drive (from which I understand the residents are really concerned with).

Again, another more logical choice than utilizing Second Road West. A road that can not handle the traffic it is already receiving and further, a road that was to have traffic diverted as per City Plans (whether it be City of Hamilton or City of Stoney Creek Plans -
Are we not all the City of Hamilton now and therefore, these are all now City of Hamilton issues/plans?)

Best Regards
[redacted]Family

[redacted]

11/17/2005 10:14 AM

To [redacted]
rbacquie@jtransconsulting.com, ldiianni@hamilton.ca, pbruckler@hamilton.ca, cleemorr@hamilton.ca, eswitenik@hamilton.ca
cc [redacted]
Subject RE: The Status of Second Rd W

Upper Mt Albion is more suitable

From: [redacted]
To: [redacted] <rbacquie@itransconsulting.com>, "ldilanni@hamilton.ca" <ldilanni@hamilton.ca>, "pbruckler@hamilton.ca" <pbruckler@hamilton.ca>, "cleemorr@hamilton.ca" <cleemorr@hamilton.ca>, "eswitenik@hamilton.ca" <eswitenik@hamilton.ca>
CC: [redacted]
Subject: *RE: The Status of Second Rd W*
Date: *Tue, 15 Nov 2005 13:52:16 -0500*

>Good points[redacted]. With respect to Upper Mount Albion being a more suitable North/South thoroughfare...it also runs North all the way to Paramount!! This means traffic from the Linc, after scooting up Winterberry, could turn right at Paramount (westbound) to quickly reach Upper Mount Albion for easy North/South access to Summitt Park, and all destinations on and South of Rymal. This would alleviate traffic flowing by Janet Lee School, and traffic on Highland Rd., which has already been identified as a concern.
>To me, it just makes sense!
[redacted]
>-----Original Message-----
>From: [redacted]
>Sent: November 15, 2005 11:46 AM
>To: [redacted]
>Subject: The Status of Second Rd W
>
>Mr. Dacquie,
>
> In response to your email. I am confused with respect to a few of
>your observations. I am very confused as to why Gatestone Drive and
>Highland Rd need to be assessed whether or not they can handle redirected
>traffic. According to the original "Trinity Neighbourhood Plan", before the
>'sudden' discovery of the karsts lands, Gatestone was supposed to be the
>route between Rymal Rd and Highland road anyway. If it were built with that
>intention at that time, how could its function and capability be different
>now?
>
> In your email, you speak of function and design of a road. Highland
>Rd and Gatestone Drive are built to function as a commuter road. They are
>wider than other residential roads and they have sidewalks on both sides of
>the street. Second Rd West was not designed and cannot function as a
>commuter road regardless if there is no other North South connection between
>Rymal Rd and Highland Rd. Other solutions must be possible. Traffic will
>have to be redirected elsewhere.
>
> Upper Mount Albion is the perfect solution. Presently there are
>very few houses on Upper Mount Albion Rd. The road could easily be made
>wider, sidewalks could be installed on both sides and residents could
>receive City water and sewers. It could very easily be developed to meet
>the needs and would ultimately let its design function as a North South
>connection. Upper Mount Albion is presently designated as a truck route,
>which further supports the idea of it being a good solution for north/south
>traffic.
>
> The approximate 3200 homes being built south of Rymal road at the
>end of Upper Mount Albion, as well as all other vehicles using the
>commercial developments in that area could very easily use Upper Mount

>Albion as their local connection to other residential areas, but they could
>also use the expansion of Trinity Church to reach the Red Hill Expressway.
>With the expansion of Trinity Church, combined with the improvement of Upper
>Mount Albion, residents of the area would have perfect access both locally
>and to the expressway.
>
> It is beyond my comprehension why consultants and the City of
>Hamilton are now looking into traffic patterns and solutions to traffic
>problems. Opening of the commercial development on Rymal Rd before traffic
>concerns are addressed is very disturbing to me. Rymal Rd will be
>disastrous. Rymal Rd itself at this time is too narrow to accommodate the
>traffic that will be brought by the opening of Walart. The amount of
>vehicles hoping to avoid the congestion that will be brought from those
>entering and leaving Walmart will look for the easiest route out.
>Unfortunately Second Rd W will be their choice. A road which was designed
>to function as a local road will be forced to handle these large amounts of
>traffic. This will create a dangerous situation of not only those residents
>who live there, but for all using it as a thoroughfare. Lets keep all of
>our roads safe. Close Second Rd W and redirect traffic to other locations
>which were designed with safety in mind.
>
> We need to find a solution quickly. Walmart will be opening
>shortly. We cannot waste time. We need to stop major problems before they
>arise. The safety of Hamilton's residents depends on it.
>
>Sincerely
>
>[redacted]
>
>
> << File: ATT00000.htm >>

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Nathalie Baudais

From: Ray Bacquie
Sent: Wednesday, November 16, 2005 10:36 AM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: Ray Bacquie

Ray Bacquie, P.Eng, AVS.

Vice President

iTRANS Consulting Inc.

100 York Boulevard, Suite 300

Richmond Hill, ON L4B 1J8

Phone: 905-882-4100 Ext. 5227

Direct: 905-695-5227

Fax: 905-882-1557

E-mail: rbacquie@itransconsulting.com

www.itransconsulting.com

-----Original Message-----
From: [redacted]
Sent: Tuesday, November 15, 2005 10:06 PM
To: rbacquie@itransconsulting.com; pbruckler@hamilton.ca
Cc: [redacted]
Subject: Ray Bacquie

Mr. Bacquie,

How are you? I would like to begin by thanking you for calling us back so quickly and for being so very helpful. It is clear that you have your plate full with all of the activity that is surrounding our area. We are glad to hear that your knowledge of our area is ample. For this reason we feel confident that you will understand the dilemma that we find ourselves in of having purchased our homes under this premises. We have been very diligent and pro-active in working towards the options that should be put forth. There is no secret that one of the options that we don't want to see materialized is that of Second Road West remaining open. Perhaps there are some people that have jumped on out coat-tails and have opposed us. Please keep in mind that our family and many others have been consistently working at our cause for many years. It is important to us that you realize that the people in opposition at this time are simply responding to the signs and the media exposure that we ourselves have created. These people were quick to jump at the type of our activity; we however, waited patiently before going public with our cause. We are not unreasonable people, we are pro-active and willing to work together on this. Ray, we are dealing with many sensible options. When looking at our community, starting from Hwy 20, Whitedeer, Gatestone (linking to Highbury and Highland), Upper Mount Albion, and the opening of Trinity Church Road are all much, much better and safer solutions (not

alternatives). In other words there are plenty of avenues that will handle large amounts of traffic. When you close Second Road West traffic will be dispersed evenly among the other avenues. If you don't, they will all come down Second Road West and that will prove to be catastrophic. In doing some research on the city's web page, as of 9:00pm on Nov 15, 2005, it clearly indicates Gatestone joining up to the now Winterberry to Paramount. Therefore, houses are still being sold under this pretense. Also, the Nursing Home on Highland was built on Karst land, perhaps another small exception could be made to make a road through the area with minimal disturbance to the karst. Ray, the bottom line is that we purchased our homes with the understanding of having to deal with a few hundred cars a day in our area. Our road, and our residents for that matter, cannot safely handle 8, 000 cars a day. As we speak, with a thousand cars a day we are having immense issues and great frustrations. In your attempt to take everything into consideration please take into consideration one further point, we are dealing with hard working people, with families with mortgages and bills to pay who feel strongly that they were misled and lied to.

Respectfully, [redacted]

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&SU=http://hotmail.com/enca&HL=Market_MSNIS_Taglines
Start enjoying all the benefits of MSN® Premium right now and get the first two months FREE*.

Nathalie Baudais

From: Ray Bacquie
Sent: Wednesday, November 16, 2005 10:19 AM
To: Nathalie Baudais; Liza Sheppard
Subject: FW: The Status of Second Rd W

Ray Bacquie, P.Eng, AVS.

Vice President

iTRANS Consulting Inc.

100 York Boulevard, Suite 300

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Direct: 905-695-5227

Fax: 905-882-1557

E-mail: rbacquie@itransconsulting.com

www.itransconsulting.com

-----Original Message-----
From: [redacted]
Sent: Tuesday, November 15, 2005 1:52 PM
To: '[redacted]quie@itransconsulting.com; ldiianni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca; eswitenik@hamilton.ca
Cc: [redacted]
Subject: RE: The Status of Second Rd W

Good points [redacted] With respect to Upper Mount Albion being a more suitable North/South thoroughfare...it also runs North all the way to Paramount!! This means traffic from the Linc, after scooting up Winterberry, could turn right at Paramount (westbound) to quickly reach Upper Mount Albion for easy North/South access to Summitt Park, and all destinations on and South of Rymal. This would alleviate traffic flowing by Janet Lee School, and traffic on Highland Rd., which has already been identified as a concern.
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[redacted]

-----Original Message-----
From: [redacted]
Sent: November 15, 2005 11:46 AM
To: rbacquie@itransconsulting.com; ldiianni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca; eswitenik@hamilton.ca
Cc: [redacted]

cladinorobis@hotmail.com
Subject: The Status of Second Rd W

Mr. Bacquie,

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We need to find a solution quickly. Walmart will be opening shortly. We cannot waste time. We need to stop major problems before they arise. The safety of Hamilton's residents depends on it.

Sincerely

[redacted]

<< File: ATT00000.htm >>

Nathalie Baudais

From: Ray Bacquie
Sent: Wednesday, November 16, 2005 10:18 AM
To: Liza Sheppard; Nathalie Baudais
Subject: FW: Nursing home Highland Rd.

From: [redacted]
Sent: Tuesday, November 15, 2005 1:11 PM
To: [redacted]
Cc: rbacquie@itransconsulting.com; ldiianni@hamilton.ca; cleemorr@hamilton.ca; eswitenik@hamilton.ca; [redacted]
Subject: RE: Nursing home Highland Rd.

[redacted] Great question. Why not build the road that was to go through the karst?

From: [redacted]
To: *<pbruckler@hamilton.ca>*
CC:
<rbacquie@itransconsulting.com>, <ldiianni@hamilton.ca>, <cleemorr@hamilton.ca>, <eswitenik@hamilton.ca>, <editor@stoneycre
Subject: *Nursing home Highland Rd.*
Date: *Tue, 15 Nov 2005 12:53:19 -0500*

Hi Phil

How are you today?

Everytime I drive on Highland Rd. and look at the Nursing Home, I always have a question in mind. I wonder how the owner of that nursing home obtained a building permit to build the nursing home on the core of the Karsts. That area from 2000 was forbidden to have any sort of construction on it. HOW DID THIS HAPPEN? Even Aldo DeSantis had to stop building houses in that area. The nursing home was built in 2002-2003

Can you provide some sort of answers for us?

[redacted]

>No virus found in this outgoing message.
>Checked by AVG Free Edition.
>Version: 7.1.362 / Virus Database: 267.13.0/168 - Release Date: 11/14/2005

Nathalie Baudais

From: [redacted]

Sent: Monday, November 14, 2005 11:32 AM

To: [redacted]
cleemorr@hamilton.ca; [redacted]m; Dalton.McGuinty@premier.gov.on.ca;
[redacted]chell@hamilton.ca; eswitenk@hamilton.ca;
htanguay@hamilton.ca; [redacted]mossop.mpp@liberal.ola.org;
[redacted]
ldiianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca;
[redacted] lsheppard@itransconsulting.com[redacted]
NBaudais@itransconsulting.com; [redacted]
pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]

Subject: FW: RE: ROPA 9 Master Plan EA and the status of Second Road

Hey guys. This message is not getting to Ray. Can somebody else try?

From: [redacted]
To: [redacted]' <rbacquie@itansconsulting.com>
CC: "[redacted]<jmossop.mpp@liberal.ola.org>,
"[redacted] "'ldiianni@hamilton.ca'" <ldiianni@hamilton.ca>, "'pbruckler@hamilton.ca'"
<pbruckler@hamilton.ca>, "'cleemorr@hamilton.ca'" <cleemorr@hamilton.ca>, "'lryan@hamilton.ca'" <lryan@hamilton.ca>,
"'eswitenk@hamilton.ca'" <eswitenk@hamilton.ca>, "'dmcculloch@hamiltonpolice.on.ca'" <dmcculloch@hamiltonpolice.on.ca>,
[redacted]
Subject: *RE: ROPA 9 Master Plan EA and the status of Second Road*
Date: *Mon, 14 Nov 2005 00:10:40 -0500*

> I agree with you 100%. Re-directing traffic to Gatestone should be a non-issue. In the current neighbourhood plan, North/South traffic is designed to utilize Upper Centennial, Gatestone or the Winterberry extension. Gatestone was built wider, with sidewalks on both sides of the street to accommodate the anticipated traffic. For Gatestone to handle some increase in traffic is not only reasonable, it was planned for way back in 1989, and re-affirmed when the plan was revised in 2000.
>
>If the ORC's transfer of ANSI land makes the Winterberry extension impossible, why not look at Upper Mount Albion as a suitable alternate? Certainly, it is more suitable than Second Rd. W. It is a sparsely populated street, with houses set far back from the road. It is not part of a network of sidestreets in a family neighbourhood, like Second Rd. W. is. Instead, Upper Mount Albion stands alone, providing a straight, unencumbered North/South route, providing direct access for residents of the 3000+ Summit Park homes. Upgrading and widening Upper Mount Albion and adding sidewalks on both sides would be feasible - where it is not feasible on Second Rd. W. Also, residents of Upper Mount Albion still receive their Hydro via overhead wires running to poles on their homes and the homes are still on septic systems. Since modern services (underground hydro & city sewers) are required anyway, it would be logical to upgrade and widen the road as necessary, and add sidewalks at the same time.
>
>Also, if re-directing traffic to Highland Rd. is a concern, then utilizing Upper Mount Albion instead of Second Rd. W. would divert traffic away from the troublesome Highland/Glenhollow corner. From Winterberry, it is a very short jaunt to the West along Highland to reach Upper Mount Albion. To travel East to Second Rd. W. is more than double the distance along Highland, a road already identified by the police and in the newspaper as a 'trouble spot' for traffic and speeding.
>

>We can only hope the folks making the decisions listen to our very practical concerns. Second Rd. W. should be closed, and if the planned 4-lane Trinity Church extension will not provide sufficient North/South access, then Upper Mount Albion should be utilized as an alternate or additional route.
>Sincerely,
>[redacted]
>
>
>-----Original Message-----
>From: [redacted]
>Sent: November 8, 2005 3:47 PM
>To: 'rbacquie@itansconsulting.com'
>Cc: [redacted] 'jmossop.mpp@liberal.ola.org'; [redacted]; 'ldilanni@hamilton.ca'; 'pbruckler@hamilton.ca'; 'cleemorr@hamilton.ca'; 'lryan@hamilton.ca'; 'eswitenk@hamilton.ca'; 'dmcculloch@hamiltonpolice.on.ca' [redacted]
>Subject: RE: ROPA 9 Master Plan EA and the status of Second Road
>
>Hello Mr. Bacquie,
>
>Unfortunately, I have been away on business and I have not had an
>opportunity to respond to your e-mail until now. There are several
>statements that you have made that I would like to see clarified.
>
>The first issue is that you have confirmed that Second Road is a collector
>(capacity 8000 cars a day) road, south of Gatestone Drive. Do realize that
>this portion of the road encompasses maybe 1/10th of the length of the
>entire street?
>
>You wrote about your mandate relating specifically to the ROPA 9 and Special
>Policy Area "C" lands. If you take a look at your map you will see the
>quickest route from one area to the other is along Winterberry, Highland and
>Second Road. Winterberry and Highland are very wide roads that can
>accommodate four car widths at any one time. Second Road, especially the
>northern portion, cannot handle three car widths at the same time (as you
>have seen from the pictures forwarded to you previously, the motorists who
>try it have crashed their vehicles). There is no room to widen this
>northern portion of Second Road because the houses have been built so close
>to the road already.
>
>You have asked some questions in the second portion of your e-mail that I am
>having difficulty understanding? My first thought is why are you looking
>into these questions now when they have already started the construction of
>the ROPA project? Talk about putting the wagon in front of the horse. All
>of these questions should have been addressed at the outset of this project
>not when the stores are only months away from opening. Regardless of that
>point, you have written that you need a "sense" about how the volumes on
>Second compare with adjacent streets or similar roads in the city. I am
>hoping that you have truly read all of the e-mails we have sent you and I
>believe that alone should give you some kind of "sense" of what is
>happening.
>
> As for your question about dispersing traffic and what adjacent roads could
>handle the north/south traffic, why are you not looking at Upper Mt. Albion
>Road? That road is sparsely populated already has a posted speed limit of
>60 kph and the houses that are there are set way back from the street. The
>city could upgrade that street and make it a four lane road with sidewalks
>on both sides. Although, I am not an engineer I can't understand why your
>group would even be contemplating bringing more commuting traffic into the
>subdivisions (Second Rd.) when you have a street (Upper Mt. Albion) with
>minimal residents that would be more than an adequate solution for your
>north/south problem.
>
>Your second question in regards to redirecting traffic to Gatestone and
>Highland? I am baffled? Those streets were designed/built to accommodate
>that re-directed traffic. The original plan called for Winterberry to hook

>up directly with Gatestone which hooks up with Highland. What has changed
>that would not allow them to be able to handle the traffic now?
>
>You wrote about conflicts at more sensitive traffic/pedestrian locations.
>They are building a huge park complete with children's play area, splash pad
>and outdoor ice rink approximately 200 meters east of Second Road. The path
>(Bell easement) that runs just south of Fairhaven on Second will most likely
>be one of the major entrances to the area. What will be more sensitive than
>all these kids heading into and out of the park?
>
>I am not sure why you brought up Whitedeer in your next question? Whitedeer
>is a short street that ends at Highbury. In my opinion this street is a non
>issue. It is not the path of least resistance and instead would have most
>commuters lost in the middle of the survey if they took it.
>
>Mr. Bacquie, I understand that there are political and monetary factors
>involved in your decision, however, the biggest factor should be safety and
>we the families that live on this road cannot emphasize enough how dangerous
>it is on this road. If something is not done prior to the opening of those
>stores I am very fearful of what might happen. There is so much volume
>already and I have personally witnessed too many near misses between
>kids/cars/trucks/buses to count.
>
>You need to close this road.
>
>I look forward to your reply.
>
>Regards,
>
>[redacted]
>
>Enabling businesses to succeed through innovative solutions.
>Visit our website at [redacted]
>
> This message, including any attachments, is intended only for the
>use of the individual (s) to which it is addressed and may contain
>information that is privileged/confidential. Any other distribution,
>copying or disclosure is strictly prohibited. If you are not the intended
>recipient or have received this message in error, please notify us
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>
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>renseignements confidentiels ou proteges. Il est strictement interdit d`en
>faire toute autre distribution, copie ou divulgation. Si vous n`etes pas le
>destinataire vise ou que vous avez recu ce message par erreur, veuillez nous
>en aviser immediatement en repondant a ce courriel et le detruire (y compris
>ses fichiers joints) de facon definitive sans le lire ou en faire de copie.
>Merci.
>
>-----Original Message-----
>From: Ray Bacquie [mailto:rbacquie@itransconsulting.com]
>Sent: Sunday, October 30, 2005 3:57 PM
>To: [redacted]

>[redacted]
>[redacted]
>lryan@hamilton.ca; leeaustin@sympatico.ca; [redacted] Liza Sheppard;
>[redacted];
>[redacted] Nathalie
>Baudais; [redacted]
>Ray Bacquie; [redacted]
>[redacted]
>[redacted]
>[redacted]
>Subject: ROPA 9 Master Plan EA and the status of Second Road
>
>
>
>Hello [redacted]
>
>
>
>I fully understand the sensitivity and your sense of urgency in addressing
>the issue of traffic volumes, operations, and safety on Second Road. We
>understand that the members of the community that have been emailing want
>Second Road closed. I would like to reassure you that we are reviewing the
>emails from the community to identify specific operational issues that we
>need to consider. What we have seen to date include concerns that
>specifically relate to:
>
>* High volumes relative to the Capacity of Second Road
>
>* Lack of compliance with traffic controls (i.e. vehicles running the
>stop sign)
>
>* Speeding
>
>* Safety and ease of driveway access/egress
>
>* Accommodation and safety of pedestrians and cyclists
>
>* Effects of ROPA 9 development (residential and commercial) on
>traffic volumes
>
>* Official Plan designation of Second Road West
>
>* School bus pick up
>
>
>
>At the public meeting held October 3rd, we heard similar concerns from the
>community during the question and answer period and in one-on-one
>discussions with you and your neighbours. We confirm that Second Road is a
>collector road south of Gatestone Drive. However, as noted at the meeting,
>we are looking further into the need and implications of a closure to Second
>Road. Our review is within the context of the need for transportation
>network changes (including the need for road closures) as a result of the
>release of any further development of the ROPA 9 and Special Policy Area 'C'
>lands. Our mandate relates specifically to the ROPA 9 and Special Policy
>Area 'C' lands.
>
>
>
>The ROPA 9 (and Special Policy Area 'C') Master Plan study must consider all
>potential implications of changes in the transportation infrastructure. We
>must have a sense for the following:
>
>* How do the traffic volumes on Second Road compare to adjacent
>streets? How do the traffic volumes on Second Road compare to other similar
>roads in the City? Is it more appropriate to disperse the traffic to the
>road network including Second Road or can adjacent roads handle any
>redirected traffic?

>
>* Will a closure of Second Road north of Gatestone Drive result in
>redirecting traffic to Gatestone Drive to Highland Road? Can Gatestone Drive
>handle this traffic given its function and design? Will redirected traffic
>create conflicts at more sensitive traffic / pedestrian generators or
>locations with poor road geometry?
>
>* Will a closure of Second Road at Rymal Road result in a redirection
>of traffic to adjacent local roads via Whitedeer Road? Can Whitedeer handle
>additional traffic given its function and design? Will redirected traffic
>create conflicts at more sensitive traffic / pedestrian generators or
>locations with poor road geometry?
>
>* Will the closure of Second Road allow for acceptable access to
>future services south of Rymal Road? Does it allow for adequate community
>connectivity north and south of Rymal Road? How would the closure of Second
>Road affect emergency services (fire and ambulance)?
>
>
>
>It may be possible that other members of the community will have an interest
>in these questions, hence we are working toward answering them. Ultimately
>we will have to have recommended plan that balances the needs of the whole
>community. The ultimate recommended plan must also recognize the reality
>that the impact of the Karst lands includes the delay or deletion of
>alternative collector roads that would have accommodated north-south traffic
>as an alternative to Second Road. Our analysis must consider the possibility
>that no other north-south link will be provided between Pritchard Road and
>Upper Centennial.
>
>
>
>City staff and the consultant team will be meeting shortly to discuss the
>issues raised above. We will be in touch with the community when we have
>answers to these questions. We all look forward to continuing to work with
>the community.
>
>
>
>Regards
>
>
>
>Ray
>
>
>
>Ray Bacquie, P.Eng, AVS.
>
>Vice President
>
>ITRANS Consulting Inc.
>
>100 York Boulevard, Suite 300
>
>Richmond Hill, ON L4B 1J8
>
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>
>Phone: 905-882-4100 Ext. 5227
>
>Direct: 905-695-5227
>
>Fax: 905-882-1557
>
>E-mail: rbacquie@itransconsulting.com
><mailto:rbacquie@itransconsulting.com>
>

>www.itransconsulting.com
>
>
> _____
>
>
>From: [redacted]
>Sent: Sunday, October 30, 2005 2:15 PM
>To: [redacted]
>lsheppard@itransconsulting.com; [redacted]
>NBaudais@itransconsulting.com; [redacted]
>[redacted]acquie@itransconsulting.com; [redacted]
>Subject: Mr.Bacquie??
>
>
>
>Mr. Bacquie
>
>
>
>As you are aware we have been dealing with some very serious issues on
>Second Road West in Stoney Creek for over four years. We need Second Road
>West closed as promised. We have respectfully forwarded you all of our
>e-mails; however, we have had no response from you thus far. Your input is
>necessary in order for our issue to be resolved quickly. We look forward to
>hearing from you at your very earliest convenience.
>
>
>
>Second Road West Residents
>
> << File: ATT00001.htm >>

Nathalie Baudais

From: [redacted]

Sent: Sunday, November 13, 2005 6:26 PM

To: [redacted]
cleemorr@hamilton.ca; [redacted] Dalton.McGuinty@premier.gov.on.ca; [redacted] eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted] mossop.mpp@liberal.ola.org; [redacted] ldiianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted] sheppard@itransconsulting.com; [redacted] NBaudais@itransconsulting.com; [redacted] pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]

Subject: Property Tax Reconsideration

Hello [redacted] How are you? Any word on that application form for the re-evaluation of our property taxes? I'm sure the taxes that are withdrawn at this point include a peaceful and safe environment.

Thanks, [redacted]

Nathalie Baudais

From: [redacted]

Sent: Sunday, November 13, 2005 10:44 AM

To: [redacted]mitchell@hamilton.ca; eswitenk@hamilton.ca; htanguay@hamilton.ca; info@deanallison.ca; jmossop.mpp@liberal.ola.org; [redacted] ldiianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca [redacted] lsheppard@itransconsulting.com; [redacted] NBaudais@itransconsulting.com; [redacted] pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]

Subject: Ray-Let's work together

Hello Ray. I was just wondering if you received my voice mail. Please give me a call if you wish to discuss this matter in detail. If you are in town, I am willing to personally show you what we are dealing with in regards to traffic issues, but more importantly the width of the streets around us. If you come and see for yourself, I am very confident that you will side with us. I am sure we have stated this before, but **if** all else was equal there is one factor that would make this a no brainer; ***we were told the road would be closed.*** Having said this, ***everything else is not equal.*** Surrounding roads are twice the width. Highland, Gatestone, Highbury and Whitedeer have their own turning lanes. Yes, that is correct, their own turning lanes. On the other hand, we can barely turn. Our entire street is 28 feet in width. I will get back to you with the exact measurement of those other future collector roads. Ray, Second Road West is not the road that will do the joh you want it to. That is why I purchased my home here.

Please call me if you would like to work together on this matter that is very important to me, my family and my community.

Respectfully, [redacted]

Nathalie Baudais

From: [redacted]

Sent: Thursday, November 10, 2005 9:49 PM

To: [redacted]Dalton.McGuinty@premier.gov.on.ca; [redacted]; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted]mossop.mpp@liberal.ola.org; [redacted]ldilianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted]lsheppard@itransconsulting.com; [redacted]NBaudais@itransconsulting.com; [redacted]rbacquie@itransconsulting.com; [redacted]

Subject: Second Road West Closure

Hello [redacted]

Obviously people that live on Gatestone will oppose the closure. They do not want more traffic on their street even though they are the ones causing most of the disruption on our street at this time. What bothers me is that this would not even be an issue if the road was closed as it was to be in the plans. It is their problem if they did not do their homework. If they in fact did do their planning, as we did, they would see that things were going aaccording to city plans. The only reason why they feel they can put their 2 cents in is because of all the signs and newspaper coverage we have generated. But what else were we to do? It was obvious that closure was out of the picture. i.e. a collector road of 8000 a day. The message was clear as day that we were not being heard. I feel that it is important that those people complaining understand that they really have no right. We were told our road would be closed. They were not promised anything of the sort. With all due respect, their argument is undeniably weak. Take a look at the width of the road. My question to them is ....What did you expect? What we expected was road closure. Why? because that is what we were told. Phil, I cannot express how much it bothers me that people from surrounding area have the audacity to oppose the closure. That is simply inconsiderate. I trust that their suggestions are being put into perspective. We have been waiting for 4 years. Again, the attention that we were forced to bring to ourselves is the only reason why these people have spoken up, otherwise they would have accepted what was planned by the city. Phil, we need to resolve this issue very very soon. Our families are in limbo and that is simple not fair. Closing Second Road West would not harm any other surrounding streets. They are built for any increased volume. Please remember, we bought our homes with the trust and integrity of a promise.

Please Close Second Road West!

[redacted]

From: [redacted]
To: [redacted]
CC: [redacted]
Subject: *clarification please, Phil*
Date: *Thu, 10 Nov 2005 11:32:47 -0500*
>Hello [redacted]
>[redacted] I agree with you completely that iTrans may not understand the gravity of the situation on our street. I read with great interest [redacted] suggestion that, "It may be strategic to give the EA process time to wind down."
>
>[redacted] I would like some clarification here please....
>In early December we anticipate another public meeting, at which time Mr. Bacquie will indicate the substance of his recommendations. IF his final recommendation to the City suggests that the planned Second Rd. W., road closure should not be honoured, then what are our options?
>Can the Mayor and our elected Councillors, in conjunction with City Planning Department staff, decide to reject all or part of iTrans recommendations? Can you and your colleagues decide, for example, that leaving Upper Mount Albion open - instead of our street - would be a preferrable alternative because:
>1) both roads are predominantly built for local access....meaning both would require upgrades to handle the increased traffic anticipated due to commercial & housing developments
>2) for upgrading purposes, Upper Mount Albion is a logical choice because the street could easily be widened, and sidewalks added since homes are set far back from the road, unlike our homes which are situated much closer to the street
>3) Upper Mount Albion is sparsely populated, compared to our street which is home to far greater numbers of families, children and even a CAS home (these children have already seen enough risk and danger in their lives - let's keep them safe on our street)
>4) our street is in the middle of a busy, vibrant neighbourhood, with many side-streets and even a pathway/bikeway providing access to the brand new elementary school, and neighbourhood park with playground, compared to Upper Mount Albion which provides the same North/South access, but does not impact any side-streets (meaning increased traffic would be far less a danger there)
>5) many of the homes on Upper Mount Albion pre-date the 1989 Plan (and again, there are far fewer homes), unlike the vast majority of homes on our street, which were built recently with the planned road closure as a major factor
>
>It would be great if our mayor, and our elected Councillors would stand together and do what is right (upholding the road closure that was promised to so many on our street). Could this still happen, regardless of what the iTrans recommendations are? Please educate me as to whether the recommendations of the EA process are binding and irreversible.
>I appreciate your insight into this matter, Phil.
>Sincerely,
[redacted]
>P.S. I am still hopeful that, based on our insight and many submissions, the iTrans recommendations will support the planned road closure for Second Rd. W.
>
>
>
>-----Original Message-----
>From [redacted]
>Sent: November 10, 2005 8:29 AM
>To [redacted]
>Cc: [redacted]
>Subject: Re: second road west
>
>Hi [redacted] thank you for your prompt response.
>Understandibly you would get opposition to closure, unfortunately those
>opposed are the drivers who in my opinion use Second as an alternate,
>I'm sure.
>
>The trend is very clear as you have witnessed while we've been in
>casual conversations out in front of our homes throughout the summer
>months. The Eringate development including the homes in and around
>Gatestone continually use Second as an alternate to Gatestone. As you
>can well attest there are significant differences between the 2 streets
>which we have continually tried to convey to you, the city of hamilton
>and now Itrans.
>
>Those opposed are just looking at it as their quickest route either in
>the morning or afternoon. These are the same residents however who
>speed and roll the stops, it's not in front of their homes so why should
>they care. Maybe my next course of action is to follow one who is
>speeding and then spend 2 hours speeding in front of his home to see how
>much they like it.
>

>Phil, I understand we are into the EA process but so are they with the
>Walmart construction and Multi-Area Development. It will be open soon
>and I'm not entirely convinced that Itrans understands the impact this
>will have.
>
>Best regards,
>
>[redacted]
>[redacted]
>[redacted]
>[redacted]
>[redacted]
>[redacted]
>
> >>> "Bruckler, Phil" <pbruckler@hamilton.ca> 11/10/2005 12:59:18 AM
> >>>
>Things are busy all around. To your credit you have certainly raised
>the profile of your concern. It will get heightened consider as part of
>the ongoing process of which you are a part of. The next meeting which
>has not been set will be held in early Dec and you will be notified.
>You should know that I have received several calls from area residents
>strongly opposed to the closure. It may be strategic to give the EA
>process time to wind down.
>Phil
>
>-----Original Message-----
>From: [redacted]
>To: Bruckler, Phil <pbruckler@hamilton.ca>
>CC: [redacted]
>[redacted]
>Sent: Wed Nov 09 17:04:00 2005
>Subject: second road west
>
>Hi Phil, how is it going?
>Just wondering where we stand with the consulting firm. Have they
>submitted any recommendations as of yet?
>
>As you can see we are still experiencing problems with speeding, stops
>and overall volume. It unfortunately has become a daily occurrence
>and
>at least my families frustrations are at an all time high. Mike was
>correct in his earlier email today that the novelty of the signage has
>definitely worn off. I feel we have been very proactive in bringing
>the
>issue forward and raising the awareness on the street. I'm sure that
>some individuals will and have openly criticised the approach we used
>such as homemade signs, rented signs, media outlets, e-mail, petitions
>and questionnaires. We feel we had remained patient over the last 4
>years and as it was brought forth to us this would be the time for
>input.
>
>Please feel free to either contact me over the phone or via email,
>I'll
>also leave my home # if you wish to call through the evening.
>
[redacted]

Nathalie Baudais

From: [redacted]

Sent: Wednesday, November 09, 2005 4:51 PM

To: [redacted]mitchell@hamilton.ca; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted]jmossop.mpp@liberal.ola.org; [redacted]ldilianni@hamilton.ca; lcecchet@hamilton.ca; tryan@hamilton.ca; [redacted]lsheppard@itransconsulting.com; [redacted]NBaudais@itransconsulting.com; [redacted]pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]

Subject: Mr. Bacque

Mr.Bacque. How are you?

Have you had the opportunity to drive trough our survey yet? If so I'm sure you will understand our determination to resolve our cause **immediately**. Please remember that we were directed into this survey with the **clear** understanding that **local** traffic would be all that we would need to deal with. I believe that your options are ample. There are **many many** streets that can and should be used as a collector. Second Road West will not serve you well for this purpose. Our options are limited. The city either does what they promised or we **have to** move. Who will compensate us for out losses?

Best Regards, [redacted]

Nathalie Baudais

From: [redacted]

Sent: Wednesday, November 09, 2005 4:35 PM

To: [redacted]
cleemorr@hamilton.ca; cladinorobis@hotmail.com; Dalton.McGuinty@premier.gov.on.ca; [redacted]; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted]
[redacted]
lilianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted]
[redacted] Liza Sheppard; [redacted] Nathalie Baudais [redacted]

Subject: [redacted]

Hello [redacted] We have been submitting license plate numbers. What exactly happens with those submissions? Does it help our cause at all or are we just wasting our time? What else are we to do to make our street safe?

Respectfully, [redacted]

Nathalie Baudais

From: [redacted]
Sent: Wednesday, November 02, 2005 10:55 AM
To: [redacted] Nathalie Baudais; [redacted] Ray Bacquie; Liza Sheppard; ldilanni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca
Cc: [redacted]
Subject: RE: Second Road West - Now I have to deal with profanity from motorists

[redacted] Just remember to consider the source. There are many ignorant people that do not understand because they are not going through what we are going through. We were promised/told closure and we will not relent until we get what we deserve and paid for.

[redacted]

From: [redacted]
To: *NBaudais@itransconsulting.com,* [redacted] *rbacquie@itransconsulting.com, Liza Sheppard <lsheppard@itransconsulting.com>, ldilanni@hamilton.ca, pbruckler@hamilton.ca, cleemorr@hamilton.ca*
CC: [redacted]
Subject: *Second Road West - Now I have to deal with profanity from motorists*
Date: *Wed, 2 Nov 2005 10:01:06 -0500*

Hello All,

As you are all probably aware, we, as residents of Second Road West have taken much time and money from our pockets to put up signs (including rented one) on our lawns to voice our concern with not only the excessive traffic on our road but motorists who are continuously speeding and not adhering to stop signs. We all decided that yes, these signs will be taking away from the time, money and effort we all put in upkeeping the appearance of our front lawns, but, what other alternative do we have at this time? We seem to be getting no where with respect to receiving "concrete unpolitical answers" from our City representatives and the consulting firm and therefore, we can only rely on our efforts in knowing that we did everything we could possibly do with respect to getting the road closure we all expected when deciding to reside in this neighbourhood.

Now, not only do I have to continuously pay close attention to watch out for hundreds of cars darting by and the good chance that they will not stop at the stop sign located in the front of my home, but, now I have to deal with the profanity coming from motorists and pedestrians on why are we "fighting" (their word) such a battle. I do assure you that their comments are not so eloquently put - they come with quite the aggressive tone and with much profanity. At times, I am with my two year old daughter when this occurs. On Monday as I am getting my home ready for the children tick or treating, I get a pedestrian walking by and says - in a very aggressive tone - "Why are you all putting up signs, complaining and trying to get articles in the paper and not concerned with the parking of vehicles on this stretch of the road. It is getting out of hand" - My response, "Well, we have no other choice but to try and slow down and detour traffic from using our road than to park our vehicles on the road. It is the only thing we can humanly do at this time." She than gives me another comment to which I felt I should not have to deal with and I came into my home. This by the way came from a woman, who lives on a quiet street, does not have any children to worry about, but, continuously uses our side of the sidewalk (as sidewalks are very scarce in our area) to walk her dogs. I was completely offended and upset with her comments and right way thought - if our road was closed, as was shown on City plans, we wouldn't have to park on the road, and I wouldn't have had to listen to her rude comments. If I wanted to deal with this harassment and profanity, I could have purchased a much cheaper home in a more lower class neighbourhood in the city and be paying much lower property taxes.

This has not been the only occasion, many of us neighbours have discussed this as we deal with motorists yelling profanity out of their car windows due to our parking of vehicles and our signs.

My point - We would not have to resort to these measures, and deal with these horrible experiences if the road was closed as depicted on City Plans. Since this play on words of "promised" and "so called closures" has been thrown in our faces by some City staff members, I won't use it. "Per City Plans" is what I will say.

Bottom line - It is becoming increasingly more difficult to justify residing on this road - the cons are far outweighing the pros. Our only heartbreak is that our children have become very close with one another and we as neighbours have become very close indeed with our recent effort to see our road closed. We will be the ones greatly effected by this as City constituents and the consultants just go about their day without any of this phasing them.

Thank you.

[redacted]

Nathalie Baudais

From:

Sent: Wednesday, November 02, 2005 8:31 PM

To:

Cc:

Subject: Re: ROPA 9 Master Plan EA and the status of Second Road

John, that is an excellent point. I agree.

From:
To: *"Ray Bacouie" <rbacouie@itransconsulting.com>,*

Sheppard"
<lsheppard@itransconsulting.com>,
Baudais"
<NBaudais@itransconsulting.com>,
Subject: *Re: ROPA 9 Master Plan EA and the status of Second Road*
Date: *Wed, 2 Nov 2005 19:01:28 -0800*

Hi Ray,
My name is nd I am a resident o I would like to respond to some of the comments in your email. Obviously you have a concern for the *function* and *design* of a road. In fact, you specifically mention the *function* and *design* of Gatestone, Highland, Whitedeer, and Second Road West. I am certain that you are aware that the first three streets mentioned are MUCH wider than Second Road. In the case of Gatestone, it can accomodate 4 car widths; Highland and Whitedeer can accomodate 5 widths. Second Road West can barely accomodate the width of 3 cars. Obviously its DESIGN cannot allow it to FUNCTION as a route between Rymal and Highland.

You also mention the Karsk lands and how its geography could block its ability to build a road that could handle north/south traffic. I submit to you that the "man-made" geography of Second Road West blocks its ability to handle north/south traffic. The street is too narrow; the houses are too close to the road. If you can't "force" a road through the Karsk, you certainly can't force traffic through on Second Road West. Accidents will happen; people will be hurt!

Please! Do the right thing and close this road.

Sincerely,

—— Original Message ——
From: Ray Bacquie
To:

Sent: Sunday, October 30, 2005 12:56 PM
Subject: ROPA 9 Master Plan EA and the status of Second Road

Hello Mr. Borrelli,

I fully understand the sensitivity and your sense of urgency in addressing the issue of traffic volumes, operations, and safety on Second Road. We understand that the members of the community that have been emailing want Second Road closed. I would like to reassure you that we are reviewing the emails from the community to identify specific operational issues that we need to consider. What we have seen to date include concerns that specifically relate to:

- High volumes relative to the Capacity of Second Road
- Lack of compliance with traffic controls (i.e. vehicles running the stop sign)
- Speeding
- Safety and ease of driveway access/egress
- Accommodation and safety of pedestrians and cyclists
- Effects of ROPA 9 development (residential and commercial) on traffic volumes
- Official Plan designation of Second Road West
- School bus pick up

At the public meeting held October 3rd, we heard similar concerns from the community during the question and answer period and in one-on-one discussions with you and your neighbours. We confirm that Second Road is a collector road south of Gatestone Drive. However, as noted at the meeting, we are looking further into the need and implications of a closure to Second Road. Our review is within the context of the need for transportation network changes (including the need for road closures) as a result of the release of any further development of the ROPA 9 and Special Policy Area 'C' lands. Our mandate relates specifically to the ROPA 9 and Special Policy Area 'C' lands.

The ROPA 9 (and Special Policy Area 'C') Master Plan study must consider all potential implications of changes in the transportation infrastructure. We must have a sense for the following:

- How do the traffic volumes on Second Road compare to adjacent streets? How do the traffic volumes on Second Road compare to other similar roads in the City? Is it more appropriate to disperse the traffic to the road network including Second Road or can adjacent roads handle any redirected traffic?
- Will a closure of Second Road north of Gatestone Drive result in redirecting traffic to Gatestone Drive to Highland Road? Can Gatestone Drive handle this traffic given its function and design? Will redirected traffic create conflicts at more sensitive traffic / pedestrian generators or locations with poor road geometry?
- Will a closure of Second Road at Rymal Road result in a redirection of traffic to adjacent local roads via Whitedeer Road? Can Whitedeer handle additional traffic given its function and design? Will redirected traffic create conflicts at more sensitive traffic / pedestrian generators or locations with poor road

geometry?

- Will the closure of Second Road allow for acceptable access to future services south of Rymal Road? Does it allow for adequate community connectivity north and south of Rymal Road? How would the closure of Second Road affect emergency services (fire and ambulance)?

It may be possible that other members of the community will have an interest in these questions, hence we are working toward answering them. Ultimately we will have to have recommended plan that balances the needs of the whole community. The ultimate recommended plan must also recognize the reality that the impact of the Karst lands includes the delay or deletion of alternative collector roads that would have accommodated north-south traffic as an alternative to Second Road. Our analysis must consider the possibility that no other north-south link will be provided between Pritchard Road and Upper Centennial.

City staff and the consultant team will be meeting shortly to discuss the issues raised above. We will be in touch with the community when we have answers to these questions. We all look forward to continuing to work with the community.

Regards

Ray

Ray Bacquie, P.Eng, AVS.
Vice President
iTRANS Consulting Inc.
100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8

Phone: 905-882-4100 Ext. 5227
Direct: 905-695-5227
Fax: 905-882-1557
E-mail: rbacquie@itransconsulting.com
www.itransconsulting.com

From:
Sent: Sunday, October 30, 2005 2:15 PM
To:
hamiltonbackcountry@yahoo.ca; arturmaiz@hotmail.com; astogiannes@cogeco.ca; cleemorr@namilton.ca; cladinorobis@hotmail.com; ddolenec@cogeco.ca; danester@sympatico.ca; dmitchell@hamilton.ca; dverticchio@hamiltoncas.com; eswitenk@hamilton.ca; htanguay@hamilton.ca; info@deanallison.ca; jmossop.mpp@liberal.ola.org; Joelle.Pattison@sympatico.ca; joebisciglia@hotmail.com; John.diklich@camc.ge.com; john_northey@sympatico.ca; jvenneri@wrs.on.ca; mkrysztofiak@sympatico.ca; ldianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; leeaustin@sympatico.ca; lmuraca@ngco.com; lsheppard@itransconsulting.com; lponte@namasco.com; mgraham@grahamrestorations.com; geminimario@yahoo.ca; bellamia99@hotmail.com; mcinelli1@cogeco.ca; mcinelli@cogeco.ca; NBaudais@itransconsulting.com; nilograbar@yahoo.ca; ppalmieri1@cogeco.ca; pbruckler@hamilton.ca; rbacquie@itransconsulting.com; rbacquie@hamilton.ca; rick.muraca@camc.ge.com; fatboyskinny@hotmail.com; sandy.m.ponte@ca.pwc.com; sdolenac@cogeco.ca; sdolenec@cogeco.ca; smarczak@cogeco.ca; tomask51@hotmail.com; cleishman@hamiltonpolice.on.ca; dmcculloch@hamiltonpolice.on.ca; wayne.rockel@hwdsb.on.ca
Subject: Mr.Bacquie??

Mr. Bacquie

As **you are aware** we have been dealing with some very serious issues on Second Road West in Stoney Creek for over four years. We need **Second Road West closed** as promised. We have respectfully forwarded you all of our e-mails; however, we have had **no response** from you thus far. Your input is necessary in order for our issue to be resolved **quickly**. We look forward to

Nathalie Baudais

From: [redacted]

Sent: Saturday, November 05, 2005 10:16 AM

To: [redacted]
Dalton.McGuinty@premier.gov.on.ca; [redacted]
tanguay@hamilton.ca; [redacted] hossop.mpp@liberal.ola.org; [redacted]
ldilianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca [redacted]
lsheppard@itransconsulting.com; [redacted]
NBaudais@itransconsulting.com; [redacted]

Subject: Response to Ray Bacque

Hello Ray,

Thank you for your response. It is my understanding that looking at a grid of our survey, the quickest way from point A to point B in this case would be Second Road West. However, Ray when you add real people with real children, real safety concerns, promises and ultimately loss of money, the issue becomes larger than a map. Perhaps it is in the best interest of your company's reputation and the safety of our community, that you take a drive in our survey. Ray you must understand that when we purchased our homes, we were purchasing a quiet neighbourhood. It was obvious that regardless of all our efforts in the past four years, the closure was being thrown under the carpet with shallow excuses. With all due respect,your suggestion of having to consider the rest of the survey before adhering to the original plan and promise is bothersome. In my opinion, you need to first address the largest issue which is the promised closure of our Road, and then worry about the rest. Gatestone, Highland and Highbury are roads that are two times the width of Second Road West. If you do your homework as we did when purchasing your home, you will know that these Roads are meant to take large capacity. By no means does Second Road West fit under this category. In regards to the karst, they were there much before the 1989 Heritage Green Plan, why all of a sudden the big issue? As a matter of fact, when the walkway is placed where it was promised, it will in fact beautify our community and enhance the prestige of the karst. We feel strongly that you should indeed consider the following facts: Second Road West is physically not the road to be a collector road, and the integrity of the argument is very weak as we paid large amounts of dollars for our homes, and are paying large amounts in property tax. Let's face it, we were "promised" or "told", whatever you want to call it, that we would deal with local traffic only.

We plead with you to close Second Road West

Respectfully [redacted]

Nathalie Baudais

From: [redacted]

Sent: Wednesday, November 02, 2005 10:01 PM

To: Ray Bacquie; [redacted]
dverticchio@hamiltoncas.com; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted] mossop.mpp@liberal.ola.org; [redacted] Sheppard; [redacted]

Subject: Re: ROPA 9 Master Plan EA and the status of Second Road

Hi Ray,
My name is [redacted] and I am a resident of Second Road West. I would like to respond to some of the comments in your email. Obviously you have a concern for the *function* and *design* of a road. In fact, you specifically mention the *function* and *design* of Gatestone, Highland, Whitedeer, and Second Road West. I am certain that you are aware that the first three streets mentioned are MUCH wider than Second Road. In the case of Gatestone, it can accomodate 4 car widths; Highland and Whitedeer can accomodate 5 widths. Second Road West can barely accomodate the width of 3 cars. Obviously its DESIGN cannot allow it to FUNCTION as a route between Rymal and Highland.

You also mention the Karsk lands and how its geography could block its ability to build a road that could handle north/south traffic. I submit to you that the "man-made" geography of Second Road West blocks its ability to handle north/south traffic. The street is too narrow; the houses are too close to the road. If you can't "force" a road through the Karsk, you certainly can't force traffic through on Second Road West. Accidents will happen; people will be hurt!

Please! Do the right thing and close this road.

Sincerely,
[redacted]

Nathalie Baudais

From: Mossop_Jennifer-MPP [jmossop.mpp@liberal.ola.org]

Sent: Wednesday, November 02, 2005 1:21 PM

To: [redacted]ossop_Jennifer-MPP; [redacted]
idilanni@hamilton.ca; ldilanni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted] lsheppard@itransconsulting.com; [redacted]
[redacted]NBaudais@itransconsulting.com; [redacted]

Subject: RE: We need your help!

Attachments: Mayor Ditanni-Second Rd West.doc

Hi – I have attached a copy of the letter I sent to the Mayor on behalf of the residents on Second Road West.

Hopefully this will help.

Regards,

[redacted]

November 1, 2005

Mayor Larry DiIanni
City of Hamilton
71 Main St. W.
Hamilton, ON L8P 4Y5

Dear Mayor DiIanni:

Recently I have received numerous e-mails from constituents lobbying for the closure of Second Road West.

Although this is not a provincial issue and I have no role in any changes, I have assured the residents of Second Road West that I would relay to you the importance of their concerns regarding the road closure.

I understand their urgency in addressing the issue of traffic volumes and the lack of compliance with traffic rules, such as speeding and running stop signs, to ensure safety for their children in the neighbourhood.

I know you have taken their concerns seriously and will move swiftly to resolve the issue.

Best regards,

Jennifer Mossop, MPP
Stoney Creek

Nathalie Baudais

From: [redacted]

Sent: Wednesday, November 02, 2005 10:55 AM

To: [redacted]NBaudais@itransconsulting.com[redacted] rbacquie@itransconsulting.com; lsheppard@itransconsulting.com; ldilianni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca

Cc: [redacted]

Subject: RE: Second Road West - Now I have to deal with profanity from motorists

[redacted]. Just remember to consider the source. There are many ignorant people that do not understand because they are not going through what we are going through. We were promised/told closure and we will not relent until we get what we deserve and paid for.

[redacted]

Nathalie Baudais

From: [redacted]

Sent: Wednesday, November 02, 2005 10:01 AM

To: NBaudais@itransconsulting.com; [redacted] rbacquie@itransconsulting.com; Liza Sheppard; ldilanni@hamilton.ca; pbruckler@hamilton.ca; cleemorr@hamilton.ca

Cc: [redacted] mossop.mpp@liberal.ola.org; [redacted]

Subject: Second Road West - Now I have to deal with profanity from motorists

Hello All,

As you are all probably aware, we, as residents of Second Road West have taken much time and money from our pockets to put up signs (including rented one) on our lawns to voice our concern with not only the excessive traffic on our road but motorists who are continuously speeding and not adhering to stop signs. We all decided that yes, these signs will be taking away from the time, money and effort we all put in upkeeping the appearance of our front lawns, but, what other alternative do we have at this time? We seem to be getting no where with respect to receiving "concrete unpolitical answers" from our City representatives and the consulting firm and therefore, we can only rely on our efforts in knowing that we did everything we could possibly do with respect to getting the road closure we all expected when deciding to reside in this neighbourhood.

Now, not only do I have to continuously pay close attention to watch out for hundreds of cars darting by and the good chance that they will not stop at the stop sign located in the front of my home, but, now I have to deal with the profanity coming from motorists and pedestrians on why are we "fighting" (their word) such a battle. I do assure you that their comments are not so eloquently put - they come with quite the aggressive tone and with much profanity. At times, I am with my two year old daughter when this occurs. On Monday as I am getting my home ready for the children tick or treating, I get a pedestrian walking by and says - in a very aggressive tone - "Why are you all putting up signs, complaining and trying to get articles in the paper and not concerned with the parking of vehicles on this stretch of the road. It is getting out of hand" - My response, "Well, we have no other choice but to try and slow down and detour traffic from using our road than to park our vehicles on the road. It is the only thing we can humanly do at this time." She than gives me another comment to which I felt I should not have to deal with and I came into my home. This by the way came from a woman, who lives on a quiet street, does not have any children to worry about, but, continuously uses our side of the sidewalk (as sidewalks are very scarce in our area) to walk her dogs. I was completely offended and upset with her comments and right way thought - If our road was closed, as was shown on City plans, we wouldn't have to park on the road, and I wouldn't have had to listen to her rude comments. If I wanted to deal with this harassment and profanity, I could have purchased a much cheaper home in a more lower class neighbourhood in the city and be paying much lower property taxes.

This has not been the only occasion, many of us neighbours have discussed this as we deal with motorists yelling profanity out of their car windows due to our parking of vehicles and our signs.

My point - We would not have to resort to these measures, and deal with these horrible experiences if the road was closed as depicted on City Plans. Since this play on words of "promised" and "so called closures" has been thrown in our faces by some City staff members, I won't use it. "Per City Plans" is what I will say.

Bottom line - It is becoming increasingly more difficult to justify residing on this road - the cons are far outweighing

the pros. Our only heartbreak is that our children have become very close with one another and we as neighbours have become very close indeed with our recent effort to see our road closed. We will be the ones greatly effected by this as City constituents and the consultants just go about their day without any of this phasing them.

Thank you.

[redacted]

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3805 23

Nathalie Baudais

From: [redacted]
Sent: Tuesday, November 01, 2005 8:19 PM
To: [redacted]
Cc: editor@stoneycreeknews.com
Subject: Why I may be forced to move

Dear [redacted]

Please contact me if you need further information. I have written some of my thoughts on your question. I will start by saying that when I was looking for somewhere to purchase my home, I pictured looking out of my window and safely watching my children playing street hockey. Local neighbours would drive by, slow down and wave, and the parents would bring out hot chocolate. This is one of the reasons why I purchased my home. I was looking for a quiet, peaceful neighbourhood; that was my first priority. Unfortunately, we are nowhere close to that, in fact, we are the complete opposite. My children play nowhere near the front of my property. We built our home with the intention of making this our first and last home. With this in mind, we extended ourselves to do things that would make this our dream home. My wife and I are really upset because instead of planning for our children's future, we get to look forward to having our finances absorbed by moving costs which include, real estate and lawyer fees, land transfer tax, and the countless miscellaneous monies that will be spent in moving. Furthermore, much time has to be spent when looking to move. As it is, much of our time is spent policing our own community; for example, recording and submitting vehicle license plates, yelling at speeders to stop and slow down (which targets our homes and families), and having to deal with profane responses which are heard by our children. I understand that police are very busy and cannot always be parked on Second Road West, but when they are present a zero tolerance should be in effect. Police warnings do not suffice, they only reinforce the behaviour. We are also spending time and money to make and rent signs to bring attention to our grave situation. Residents are forced to double park in order to slow traffic down, which in turn decreases safety for children on the street. At this time, I feel that words are being played with. Statements such as "told" not "promised", "lead to believe" not "promised" are some examples. In my opinion, we almost need to forget about what was said or done in the past. The reality lies in the fact that we are having major issues with only a few hundred cars a day; 8,000 would be absurd, or even 3-4,000.

You ask why I am considering moving? Inereased speeding, increased stopping violations, increased pollution and fumes, increased collisions to moving and parked vehicles, and God forbid personal injury or death. I also feel that taxes are being collected as if it were a residential community, not one that would supposedly accommodate 8,000 people a day.

Thank you, [redacted]

From: [redacted]
To: [redacted]
Subject: *RE: Thank you*
Date: *Mon, 31 Oct 2005 15:43:42 -0500*

You can call me at [redacted] or [redacted]
Tomorrow, I can be reached at the second number in the a.m., the first in the afternoon. If it has to be in the evening, you can call me at [redacted]

Thanks,
[redacted]

From: [redacted]
Sent: Monday, October 31, 2005 2:32 PM
To: [redacted]
Subject: RE: Thank you

[redacted] Not a problem. I am home after 6:30pm. Tonight I will be in and out as the kids will want to go out for some candy. Give me a try though. If not I can call you. What are the #'s that I can call you at.

[redacted]

From: [redacted]
To: [redacted]
Subject: *RE: Thank you*
Date: *Mon, 31 Oct 2005 14:09:19 -0500*

Hi [redacted]

I noticed in your letter to Jennifer, you mentioned you are considering selling your home.

Would I be able to ask you a few questions about your experience? Let me know when I can call you, today or tomorrow.

Thanks,
[redacted]

From: [redacted]
Sent: Friday, October 14, 2005 12:15 PM
To: [redacted]
Cc: [redacted]

Subject: RE: Thank you

[redacted] I agree with [redacted] You are a talented writer and did justice to our cause. Great Job! Thanks
[redacted]

From: [redacted]

To: <editor@stoneycreeknews.com>
CC: [redacted]

Subject: *Thank you*
Date: *Fri, 14 Oct 2005 09:02:18 -0400*
[redacted]
>Thank you for dedicating your time to our concerns. I just finished
>reading the article and am very pleased.
>
>We the looking forward to working with you in the near future.
>
>
>
[redacted]

Nathalie Baudais

From: [redacted]

Sent: Sunday, October 30, 2005 9:34 AM

To: [redacted]

ldilianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted] Liza Sheppard; [redacted] pbruckler@hamilton.ca; Ray Bacquie; [redacted]

Subject: Letter to City

Hello [redacted] We were just wondering if you sent the letter to the city of Hamilton on behalf of the residents of Second Road West, Stoney Creek ON. We feel that the letter would help our cause. As you know, we have made little progress and our frustration and disappointment is growing at an alarming rate. I am personally considering selling the home that I took so much pride in building. I have two very young children and feel very angry that any money that I would put aside for their education would be absorbed by real estate , land transfer costs, lawyer fees, renting of movers etc. This is far more than a group of residents angry at speeders and drivers that will not stop at a stop sign. We were told/promised that Second Road West would be closed. **We feel betrayed!** I'm sure that anyone in our situation would feel the same way. We are honest and very hard working people, we pay our taxes, and feel we deserve answers and closure.

Respectfully, [redacted]

Nathalie Baudais

From: [redacted]
Sent: Sunday, October 30, 2005 6:02 PM
To: [redacted]
Cc: [redacted] dverticchio@hamiltoncas.com; eswitenk@hamilton.ca; htanguay@hamilton.ca; [redacted] jmossop.mpp@liberal.ola.org; [redacted] ldlianni@hamilton.ca; lcecchet@hamilton.ca; lryan@hamilton.ca; [redacted] lsheppard@itransconsulting.com; [redacted] NBaudais@itransconsulting.com; [redacted] pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]
Subject: RE: What else? Second Road West

Hello [redacted] How are you?

I also feel that we are in the dark. The efforts that we have displayed have been time consuming and yet we have no idea as to our status. We can not wait until January. Where are we with all of this?

Thanks, [redacted]

From: [redacted]
To: <pbruckler@hamilton.ca>
CC: [redacted]
Subject: *What else? Second Road West*
Date: *Sun, 30 Oct 2005 17:33:46 -0500*
>Hi Phil,
>
>How is it going, I haven't seen you for a while. Phil, realistically
>where do we stand with our issues. I have finally received a message
>from both Mr. Bacquie and Ms. Morrison.
>
>We are and have been continually emailing daily and we filled out the
>questionnaire's which were a part of the environmental assessment
>process.
>
>Can you let us know if we are moving in the right direction.
>
> [redacted]

Lee-Morrison, Christine

From: Lee-Morrison, Christine
Sent: Thursday, October 27, 2005 4:36 PM
To: [redacted]
Cc: Switenky, Ed; DiIanni, Larry; Ryan, Leanne; Bruckler, Phil; rbacquie@itransconsulting.com; Tanguay, Helene; Liza Sheppard
Subject: RE: Second Road West

[redacted]

Your comments and input are appreciated and are an important part of the Class EA process. The Rymal Road Planning Area project team has received a large number of e-mail submissions regarding Second Road West as well as other submissions related to this study. Although we are not able to reply to each e-mail individually as they come in, every e-mail is considered a submission to the Rymal Road Planning Area Class EA study and will be reviewed and considered during the EA evaluation. We are also receiving completed comment sheets that were handed out at the Public Information Centre (PIC) last week (comments were requested by October 21). Once we have an opportunity to review all submissions, written responses will be prepared and sent to all the individuals who submitted comments including those who submitted e-mails. The results of the public input received will be summarized for the next Stakeholder Committee Meeting and PIC tentatively scheduled for December.

Sincerely,

Christine Lee-Morrison, MCIP, RPP
Senior Project Manager, Environmental Planning
Capital Planning and Implementation
[redacted]blic Works Department
City of Hamilton
320-77 James St. N.
Hamilton, Ontario, L8R 2K3
tel: 905-546-2424 extension 6390
fax: 905-546-4435
cleemorr@hamilton.ca

-----Original Message-----
From: [redacted] [mailto:[redacted]
Sent: Tuesday, October 25, 2005 4:21 PM
To: Lee-Morrison, Christine; Switenky, Ed; DiIanni, Larry; Ryan, Leanne; Bruckler, Phil; rbacquie@itransconsulting.com; jmossop.mpp@liberal.ola.org
Cc: [redacted]
Subject: Second Road West

All of you are well informed about our issues to date regarding our road and closure. Unlike other residents in the Hamilton area we are not pushing for something that is out of the question, the road and homes were built with closure planned.

[redacted]ty of Hamilton plans depict closure and all who are involved [redacted]urchased their homes under that premise. We unfortunately are not speaking of a $2 or $3000 investment, this was our life savings put into the biggest single purchase we may ever make.

Frustrations are growing by the day and can you honestly blame us.

I am yet to receive a response from Mr. Bacquie regarding his comment of 8000 vehicles at the last meeting. I feel we as taxpayers should be entitled to an answer on this topic.

If Mr. Bacquie is once again unavailable for comment can someone else provide me with an answer to the question,

[redacted]

Lee-Morrison, Christine

From: [redacted]
Sent: Tuesday, October 25, 2005 3:02 PM
To: Dilanni, Larry; Ryan, Leanne; Lee-Morrison, Christine; Jennifer Mossop (E-mail); Ray Bacquie (E-mail); Bruckler, Phil
Cc: [redacted]
Subject: More dangers...

Like [redacted] who was almost hit by a passing vehicle, and [redacted] who almost lost her sideview mirror, I have been frightened to death by the aggressive drivers on our street.
If you don't live on Second Rd. W., you'll have a hard time believing this....my neighbours will understand completely.
On four separate occassions I narrowly escaped a 'T-bone' collision while trying to pull into my driveway. In each case, I was travelling South on Second Rd. W., towards my home. At the Fairhaven intersection I always come to a full stop, and put on my left turn indicator...to give the cars approaching or behind me plenty of warning that I intend to turn left into my driveway (which is the first one South, about 150 feet from the intersection).
The danger has come from 4 idiots (sorry, no other word will do!) following behind me, who sped away from the Fairhaven stop sign (or didn't stop at all) and tried to pass me from behind, on the left, before I could turn into my driveway. Normally, I wouldn't expect a driver to veer into the oncoming lane and pass me on the left, when I am clearly slowing down - signalling to turn left. The first time it happened, I truly almost hit the car. I knew he was behind me at the stop sign. I knew he saw my left turn signal as I slowly approached my driveway. I had no idea he would be passing me on the left as I turned into my driveway. At the last split second I saw him in my sideview mirror, and hit my brakes. Also, I would have been charged in that near accident, because I was the one turning left. The same situation, being passed from behind on the left while preparing to turn left into my own driveway, has happened on 3 additional occassions. None of these were such 'close calls', because I now always watch the car behind, anticipating that they may try to pass on the left.
And we have only lived here for 3 years. The plan to close Second Rd. W., (shown to me by city planning department staff prior to our purchase) was a big part of our decision to relocate here. We

Nathalie Baudais

From: [redacted]

Sent: Tuesday, October 25, 2005 5:37 PM

To: [redacted] cleemorr@hamilton.ca; eswitenk@hamilton.ca; ldiianni@hamilton.ca; lryan@hamilton.ca; pbruckler@hamilton.ca; Ray Bacquie; jmossop.mpp@liberal.ola.org

Cc: [redacted]

Subject: RE: Second Road West

[redacted] We need to demand a response. I feel that it is a slap in the face. I also feel that we need to get our closure very very soon. We can not wait until December. It has been four years. Why so long??? Closure is the only option as far as I'm concerned. I personally will not entertain any other suggestions. We should get a property tax rebate. Why are we paying these kind of taxes? It is very busy road.

From: [redacted]
To: *<cleemorr@hamilton.ca>, <eswitenk@hamilton.ca>, <ldiianni@hamilton.ca>, <lryan@hamilton.ca>, <pbruckler@hamilton.ca>, <rbacquie@itransconsulting.com>, <jmossop.mpp@liberal.ola.org>*
CC: [redacted]
Subject: *Second Road West*
Date: *Tue, 25 Oct 2005 16:20:43 -0400*

>All of you are well informed about our issues to date regarding our road
>and closure. Unlike other residents in the Hamilton area we are not
>pushing for something that is out of the question, the road and homes
>were built with closure planned.
>
>City of Hamilton plans depict closure and all who are involved
>purchased their homes under that premise. We unfortunately are not
>speaking of a $2 or $3000 investment, this was our life savings put into
>the biggest single purchase we may ever make.
>
>Frustrations are growing by the day and can you honestly blame us.
>
>I am yet to receive a response from Mr. Bacquie regarding his comment
>of 8000 vehicles at the last meeting. I feel we as taxpayers should be
>entitled to an answer on this topic.
>
>If Mr. Bacquie is once again unavailable for comment can someone else
>provide me with an answer to the question,
>
>
>
>
>
>
>[redacted]

Lee-Morrison, Christine

From: [redacted]]

Sent: Tuesday, October 25, 2005 1:45 PM

To: [redacted], Lee-Morrison, Christine; Ryan, Leanne; rbacquie@itransconsulting.com; cleishman@hamiltonpolice.on.ca; dmcculloch@hamiltonpolice.on.ca; Bruckler, Phil; Dilanni, Larry; jmossop.mpp@liberal.ola.org

Cc: [redacted]

Subject: Re: RE: Second Rd W closure

[redacted] It's good to hear you escaped that dangerous situation. It sounds like this is what it will take to get something done. I have had a vehicle damaged. The car that hit me did not stick around. At the time insurance co were on their rampage. I had to pay out of my own pocket. With 2 children, it **really** hurt. $1500. The vehicle was never the same. The hood would not sit properly, the paint is peeling etc. I don't think it matters to anybody else but it does angers me. I purchased my home knowing that it would be closed. **We must have Second Road West closed as told/promised.**

From: [redacted]

To: [redacted]<cleemorr@hamilton.ca>,<lryan@hamilton.ca>,<rbacquie@itransconsulting

CC: [redacted]

Subject: *Re: RE: Second Rd W closure*

Date: *Tue, 25 Oct 2005 13:17:52 -0400*

>During the weekend I was working on building my home and witnessed cars repeatedly speeding down Second Road West. I was appalled at the speeds these people were driving at so I stopped working and just watched and almost all the cars that went from hwy 53 to highland road failed to stop at the Fairhaven stop sign at around 6:00pm.

>THE WORST PART- i went to my truck to leave and i opened my door to get in, my brother in law yelled watch out as I was nearly hit by a car with my door partially opened, missed me by about a foot, scared the hell out of me. My brother in law was terrified.

>Please ,Please close Second road West. If my door was fully open I would have been killed by that speeder.

>[redacted]

>

>I am so upset now that I will put up signs as large as possible on any piece of open land that I can find, if this road is not closed.If i break the law in doing so, I will accept my punishment. I WAS NEARLY KILLED BECAUSE NO ONE WILL DO WHAT THEY PROMISED AND CLOSE SECOND ROAD.

>

> >

> > From: [redacted]

> > Date: 2005/10/25 Tue PM 12:57:05 EST

> > To: [redacted]@hamilton.ca, lryan@hamilton.ca, rbacquie@itransconsulting.com, cleishman@hamiltonpolice.on.ca, dmcculloch@hamiltonpolice.on.ca, pbruckler@hamilton.ca, ldilanni@hamilton.ca, jmossop.mpp@liberal.ola.org

> > CC: [redacted]

[redacted]

> > Subject: RE: Second Rd W closure
> >
> >

[redacted]What will happen when 800 cars turns to 8000??? As I said in the Sc news "We are dead"

From: [redacted]
To: *<cleemon@hamilton.ca>, <lryan@hamilton.ca>,<rbacquie@itransconsulting.com>, <cleishman@hamiltonpolice.on.ca>,<dmcculloch@hamiltonpolice.on.ca>, <pbruckler@hamilton.ca>,<kdiianni@hamilton.ca>, <jmossop.mpp@liberal.ola.org>*
CC: [redacted]
Subject: *RE: Second Rd W closure*
Date: *Tue, 25 Oct 2005 10:39:25 -0400*

The other night as I was returning home, just as the sun was setting and it was pouring rain. I patiently waited to make a right turn into my driveway. I was taking my time, because there was oncoming traffic and there were cars parked on the road around my driveway. With pour visibility because of the dark and the rain, I thought I would be extra careful as I maneuvered around the parked cars. Unfortunately the vehicle approaching me did not feel the same way. Apparently as this vehicle traveled southbound up Second Rd W, they were in a very big hurry. Rather than letting me turn into my driveway safely, they felt the need to squeeze between me and the parked car, almost taking my side view mirror with them. I would love to know where exactly they were going in such a hurry.

Second Rd West is not a wide street, yet vehicles constantly attempt to speed through tight spots, impatiently weaving between traffic and parked cars. This has got to stop. Second Rd was not meant at a thoroughfare. It was not meant as the quickest and most direct route between Rymal Rd and Highland. Yet this is what it has become.

This problem can be fixed by keeping with the original plan to **CLOSE SECOND RD W!!!**

[redacted]

Lee-Morrison, Christine

From: [redacted]

Sent: Tuesday, October 25, 2005 1:02 PM

To: [redacted] Lee-Morrison, Christine; Dilanni, Larry; Ryan, Leanne; Bruckler, Phil; rbacquie@itransconsulting.com; jmossop.mpp@liberal.ola.org

Cc: [redacted]

Subject: RE: Second Road West

[redacted] the only solution is to close Second Road West as told/promised.

From: [redacted]
To: *<cleemorr@hamilton.ca>,<ldilanni@hamilton.ca>, <lryan@hamilton.ca>,<pbruckler@hamilton.ca>, <rbacquie@itransconsulting.com>,<jmossop.mpp@liberal.ola.org>*
CC: [redacted]
Subject: *Second Road West*
Date: *Mon, 24 Oct 2005 16:09:51 -0400*

>Well unfortunately drivers even under adverse conditions as we
>experienced over the weekend with all the rain still will not slow down
>or obey the traffic stops.
>
>Although some drivers appear to be local if you spend enough time
>outside you definitely notice the trend. They come and use Second Road
>as their thoroughfare.
>
>This is extremely disappointing and frustrating from our perspective
>considering this situation would not exist if closure would have taken
>place as we were told.
>
>Fair?????????????????
>
>
>
>[redacted]

Nathalie Baudais

From: [redacted]

Sent: Monday, October 24, 2005 5:31 PM

To: [redacted] cleemorr@hamilton.ca; ldiianni@hamilton.ca; lryan@hamilton.ca; pbruckler@hamilton.ca; Ray Bacquie; jmossop.mpp@liberal.ola.org

Cc: [redacted]

Subject: RE: Second Road West

I feel that things are starting to go back to the "same old". They slowed down at first but the novelty is wearing off.

From: [redacted]
To: *<cleemorr@hamilton.ca>, <ldiianni@hamilton.ca>, <lryan@hamilton.ca>, <pbruckler@hamilton.ca>, <rbacquie@ltransconsulting.com>, <jmossop.mpp@liberal.ola.org>*
CC: [redacted]
Subject: *Second Road West*
Date: *Mon, 24 Oct 2005 16:09:51 -0400*

>Well unfortunately drivers even under adverse conditions as we
>experienced over the weekend with all the rain still will not slow down
>or obey the traffic stops.
>
>Although some drivers appear to be local if you spend enough time
>outside you definitely notice the trend. They come and use Second Road
>as their thoroughfare.
>
>This is extremely disappointing and frustrating from our perspective
>considering this situation would not exist if closure would have taken
>place as we were told.
>
>Fair??????????????????
>
>
>
[redacted]

Lee-Morrison, Christine

From: [redacted]

Sent: Monday, October 24, 2005 4:36 PM

To: NBaudais@itransconsulting.com; rbacquie@itransconsulting.com; Liza Sheppard; Dilanni, Larry; Bruckler, Phil; Lee-Morrison, Christine; Cecchetti, Lynne; Ryan, Leanne

Cc: [redacted]

Subject: Second Road West - NOT Intended as Collector Road

For those who have not read the latest article we have sought from the local media, I have attached a link below. We thank Ms. Leanne Ryan for her time and comments. Unfortunately, Mr. Bacquie was not available for comment for the second week in a row. We definitely seek out his remarks with respect to his repeated comment that Second Rd. West can handle 8000 cars a day.

To reiterate, City officials along with sales staff of Multi-Area Developments advised that the road would be closed. The proof is in the pudding - City Plans Show Road Closure. We ask that you keep to the plan and close the road. Our road is too narrow to accommodate high volumes of traffic. We can't even fit sidewalks on both sides of the road.

As my husband, stated, even with the high winds and rain we dealt with this weekend and today, we repeatedly dealt with high volumes of traffic and cars zipping through the stops sign all weekend. I was out on my driveway at 12:00 today putting my 2 year old daughter in her car seat, and had two cars in a matter of 2 minutes go through the stop sign in front of my home. Further, I had to allow 6 cars coming from the south direction of Second Rd. by before I could pull out of my driveway. This was at 12:00 on a Monday afternoon - with NO WalMart and Summit Park - once these developments go up, how many minutes will I have to add onto my day just to get out of my house?? This is ridiculous. If I wanted a busy street I would have moved onto Highland Road or Paramount. There should be no comparison....

Stoney Creek News Article - 10/21/05
http://www.stoneycreeknews.com/NASApp/cs/ContentServer?
pagename=brabant/Layout/Article&c=Article&cid=1129888518220&call_pageid=1071061598532&col=107347686

Regards

[redacted]

Lee-Morrison, Christine

From: [redacted]

Sent: Monday, October 24, 2005 7:51 PM

To: [redacted]ee-Morrison, Christine; Ryan, Leanne; rbacquie@itransconsulting.com; cleishman@hamiltonpolice.on.ca; dmcculloch@hamiltonpolice.on.ca; Bruckler, Phil; Dilanni, Larry; jmossop.mpp@liberal.ola.org

Cc: [redacted]

Subject: RE: FW: Second Rd W.

Al, I drove down Gatestone the other day. There is **more than enough** room for double parking and 2 way traffic. I stress **more than enough room**. Second Road West....not even close!

From: [redacted]
To: [redacted]*leemorr@hamilton.ca, lryan@hamilton.ca, rbacquie@itransconsulting.com, cleishman@hamiltonpolice.on.ca, dmcculloch@hamiltonpolice.on.ca, pbruckler@hamilton.ca, ldilanni@hamilton.ca, jmossop.mpp@liberal.ola.org*
CC: [redacted]
Subject: *RE: FW: Second Rd W.*
Date: *Mon, 24 Oct 2005 17:44:23 -0400*

Hello everyone,

Last Friday, I decided I would walk up to my mailbox which is located at the south end of the street (there are no sidewalks on either side of the street so you are forced to walk on the shoulder of the road). I decided I would count the number of vehicles driving on the street on my way. As I was walking to the mailbox I was passed by 8 cars/trucks headed north and 11 cars/trucks, 2 dump trucks and 1 cement mixer headed south. On my way back home I was passed by 9 cars/trucks heading north and 13 cars/trucks and 1 bus heading south. The volume on this road is out of control and it is some kind of luck that no one (especially a child) has not been hurt or killed walking/riding down this street. When the big vehicles are coming down or two cars are passing each other going in opposite directions there is no where for people to go because the road is so narrow. I am guessing that we live on the busiest "local" road in the entire city (if not the busiest certainly the most dangerous).

I understand there is concern about closing Second Road because of volume flows, traffic patterns etc.etc. My suggestion is that if Gatestone was designed for this volume of traffic, why not start using it? Gatestone currently connects Highland to the southern portion of Second Rd. Let's at least use that portion of the cities plan as it will take the pressure off Second Road which wasn't built to handle this volume. Safety should always come first.

I can't stress enough how dangerous this road is. You need to close it (the sooner it's closed, the safer everyone is going to be).

Regards,

[redacted]

Enabling businesses to succeed through innovative solutions.
Visit our website at [redacted]

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Lee-Morrison, Christine

From: Mossop_Jennifer-MPP [jmossop.mpp@liberal.ola.org]

Sent: Friday, October 21, 2005 3:16 PM

To: [redacted]
Morrison, Christine; cmvander@hamilton.ca; [redacted] Mossop_Jennifer-MPP; [redacted]; idiianni@hamilton.ca; DiIanni, Larry; Cecchetti, Lynne; Ryan, Leanne [redacted]; lsheppard@itransconsulting.com; [redacted] NBaudais@itransconsulting.com; [redacted] uckler, Phil; rbacquie@itransconsulting.com; [redacted]

Subject: RE: We need your help!

Hi everyone,

I have been following this issue, along with all of you, thanks to being cc'd on your email exchanges. This is a municipal issue and as such I have no role or opportunity for any real input or to make any changes in this matter, at all. I think you have all been doing an excellent job of keeping your local council and media aware of this issue. However, if you think it would be of assistance, I am happy to send a formal letter to City Council to let them know that I have been made aware of these concerns, and that it is an issue of great importance to my constituents in this neighbourhood.

Thank you, again, for keeping me in the loop on this issue, and I trust you will be able to work with the city to find a satisfactory solution.

All the best,

Jennifer Mossop, MPP
Stoney Creek

From: [redacted]
Sent: October 18, 2005 10:18 PM
To: [redacted]
cmvander@hamilton.ca; cladinorobis@hotmail.com; [redacted] Mossop_Jennifer-MPP; [redacted] diianni@hamilton.ca; ldiianni@hamilton.ca; [redacted] lryan@hamilton.ca; [redacted] lsheppard@itransconsulting.com; [redacted] NBaudais@itransconsulting.com; [redacted] pbruckler@hamilton.ca; rbacquie@itransconsulting.com; [redacted]

Subject: We need your help!

Dear Mr. DiIanni and Ms.Mossop.

As you are aware we have been dealing with serious issues on Second Road West in Stoney Creek for

over four years. We need Second Road West closed as promised. We have respectfully forwarded both of you all of our e-mails; however, we have had no response or support from you thus far. We feel your input is necessary in order for our issue to be resolved quickly. We look forward to hearing from you at your very earliest convenience.

Respectfully, [redacted]

Lee-Morrison, Christine

From: [redacted]
Sent: Thursday, October 20, 2005 6:35 PM
To: Lee-Morrison, Christine; rbacquie@itransconsulting.com
Cc: [redacted]0 [redacted]bruckler@cityofhamilton.ca; [redacted], Dilanni, Larry; Ryan, Leanne; [redacted]nossop.mpp@liberal.ola.org; [redacted]
Subject: Second Road West

Mr. Bacquie,

I understand Mr. Bacquie you have been out of the office. We the concerned residents of Second Road West in Stoney Creek have been trying to obtain some answers regarding the statement you made at the Environmental Assessment Mtg.

As you were going through your presentation and throughout the question and answer period with the local residents, you made a [redacted]tatement that Second Road can handle up to 8000 vehicles. This as you [redacted]ave noticed has not gone over very well with the residents, we feel that it is not only inaccurate but unreasonable for the some of the following reasons.

1. The City of Hamilton engineered the road to be closed as it is apparent due to the width of the road.
2. There has been open space which remains open south of Fairhaven Drive where the walkway was to come across the road.
3. Residents were continually informed and provided with City plans which clearly depict closure.
4. Stop signs were never put on Second Road West until the closure delays started to take place. Usually with street signs, stop signs also go up unless of course a road will not become a corridor, which it wasn't supposed to be.
5. Local developers were using closure as a selling feature, as they were informed by city planners.
6. The setback of all the homes (23' from sidewalk) is consistent with a low volume street. Shadetree Cres. which is the street directly behind Second Road has a greater setback (30') and that is a crescent with only local traffic, not a road which apparently can handle 8000 vehicles.

Unfortunately I the pure optimist have been patiently awaiting a response from you affirming that indeed the statement was incorrect. At this point however, I'm not sure how to react whether I should be upset that you haven't replied at all, or to continue to doubt the validity of the study which was apparently conducted by your firm, Itrans. Further to this, we were informed to become involved because community feedback [redacted]as critical to the study as you and your associates continued to affirm throughout the meeting.

I look forward to speaking to either you or Ms. Morrison regarding this matter in the near future.

Ce courriel est strictement reserve a l'usage de la personne a qui il est adresse (le destinataire). Il peut contenir de l'information privilegiee et confidentielle. L'examen, la reexpedition et la diffusion de ce message par une personne autre que son destinataire est interdite. Nous declinons toute responsabilite a l'egard des pertes ou des dommages subis par une personne autre que le destinataire par suite de decisions ou de mesures fondees sur le contenu de cette communication ou autrement. Si vous avez recu ce courriel par erreur, veuillez communiquer avec son expediteur et en detruire toutes les copies.

[redacted]

ubject: RE: Second Road West
losure
>Date: Sun, 09 Oct 2005 19:56:51 -0400
> >All though i do not pay property taxes I still live here and my
> >parents pay the property taxes and I'm with the rest of you.
> >Something has to be done! Just yesterday i was pulling out to go
> >out. I was lucky that I looked in my rear view mirror. A white van
> >had turned onto second road from Highland and was passing through.
> >When the van got infront of my house had, had he been lessthen a
> >mere 2-3 inches more to the right he would have hit my truck just
> >like the inccident that occured a week ago. Something has to be
> >done! I DO NOT want to end up going to Mcmaster Hospital instead of
> >my classes at Mcmaster becuase people can't 1 find an alternate way
> >to go from Point A to Point B, and 2 At least have the common sense
> >to slow
>down in a congested area rather than goin 60 km/h. If there
> >is anything I can do to help please let me know. Close this road.
> >
> [redacted]
> >
> >
> >>From: [redacted]
> >>To: [redacted] lryan@hamilton.ca,
> >>rbacquie@itransconsulting.com, cleishman@hamiltonpolice.on.ca,
> >>dmcculloch@hamiltonpolice.on.ca, pbruckler@cityofhamilton.ca,
> >>ldiianni@hamilton.ca, jmossop.mpp@liberal.ola.org,
> >>cmvanber@hamilton.ca
> >>CC: [redacted]
> >>[redacted]
> >>[redacted]
> >>[redacted]
> >>[redacted]
>
> >>[redacted]
> >>[redacted]
> >>[redacted]
> >>Subject: RE: Second Road West Closure
> >>Date: Sun, 09 Oct 2005 18:45:13 -0400
> >>
> >>
> >> [redacted] I feel the same. I would not have purchased our home in this
> >>location had I known this is what we would have to deal with. With
> >>two young children it is not possible to just pick up and move. It
> >>is expensive and difficult. If I wanted this volume I would have
> >>purchased elsewhere. At least our property taxes would reflect the
> >>area. We pay way too much for this type of community. I feel that
> >>if nothing is put in accomplished in
>the very near future we should
> >>rethink our strategies and take more drastic measures. After all
> >>we are talking about safety of children here. Our proerty taxes
> >>need to be reviewed. We were promised closure. Nothing else will
> >>suffice.
> >>
> >>How do the rest of you feel?
> >>
> >>Please copy all when responding
> >>
> >>
> >>
> >> [redacted]
> >>
> >>
> >>
> >>
> >>

> >>
> >>
> >>From: "[redacted]
> >>To: [redacted],
> >><lryan@hamilton.ca>,<rbacquie@itransconsulting.com>,
> >><cleishman@hamiltonpolice.on.ca>,<dmcculloch@hamiltonpolice.on.ca>,
>
> >><pbruckler@cityofhamilton.ca>,<ldiianni@hamilton.ca>,
> >><jmossop.mpp@liberal.ola.org>,<cmvanber@hamilton.ca>
> >>CC: [redacted],
> >>[redacted]
> >>[redacted]
> >>[redacted]
> >>[redacted]
> >>[redacted]
> >>[redacted]
> >>[redacted],
> >>[redacted],
>
> >>[redacted]"
> >>[redacted]
> >>Subject: Second Road West Closure
> >>Date: Sun, 9 Oct 2005 16:46:59 -0400
> >> >We purchased our home on Second Road West almost four years
> >>ago. Having two
> >> >young children, location was one of the most important
> >>considerations when
> >> >choosing our new home. After many telephone conversations with
> >>people
> >> >working at the City of Hamilton, we decided to purchase our dream
> >>home on
> >> >Second Rd West. We made this very difficult decision based on
> >>the
> >> >information given to us by those at the city. We were assured
> >>repeatedly
> >>
> >that Second Rd
> >>West was scheduled to be closed. We were given plans of the
> >> >Trinity Church neighbourhood which illustrated where the street
> >>closure was
> >> >to take place. Although we were not given a time line as to when
> >>the
> >> >closure would take place, we were assured that it would indeed be
> >>closed.
> >> >
> >> >Purchasing our new home was one of the biggest decisions we have
> >>every had
> >> >to make. We made that decision on the assumption that our
> >>children would
> >> >have a quiet and safe location to play and grow. Instead, we
> >>have a very
> >> >busy street with many speeding cars. Our children are growing up
> >>in a
> >> >location which
>requires them to only play in the backyard,
> >>because their
> >> >parents feel it is unsafe for them to play in the front yard. We
> >>as well as
> >> >our neighbours are very angry and
> >>disappointed at the way our neighbourhood
> >> >has developed. Almost every other house on Second Rd West has
> >>small
> >> >children which unfortunately are unable to play together because
> >>the are
> >> >limited to playing in their backyards. Would so many families
> >>have
> >> >purchased homes in this area unless they were confident that

>>their children
>> >would have a safe place to play? No, they would have chosen to
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>> >homes elsewhere.
>> >
>> >We have joined
with a number of other families on the street and
>>are
>> >committed to fight for the street closure that we were
>>promised. We are
>> >committed to our fight. We will not go away.
>> >WE WANT SECOND RD WEST CLOSED!!
>> >
>> >[redacted]
>> >[redacted]
>> >
>>
>>
>
>

Lee-Morrison, Christine

From: [redacted]

Sent: Sunday, October 09, 2005 9:29 PM

To: [redacted] Lee-Morrison, Christine; Ryan, Leanne; rbacquie@itransconsulting.com; cleishman@hamiltonpolice.on.ca; dmcculloch@hamiltonpolice.on.ca; pbruckler@cityofhamilton.ca; Dilanni, Larry; jmossop.mpp@liberal.ola.org; van Berkel, Chris

Cc: [redacted]

Subject: RE: Second Road West Closure

I have three young kids and my brother in law who is my neighbour has four. This is all about the safety of our children and a promise whether it was from the builder to the residents on the highland end of the street or from the city planning department(Paul Moore) and others to the people closer to Gatestone Drive, we were all lied to and that is inexcusable. This street must be closed and I agree with [redacted] that drastic measures must be taken for our children to have a safe future on Second Road West.There will (God forbid), I fear, come a day, that if the road is not closed one our children will be hurt by these speeders if not killed. I know what the answers will be,parking on one side of the street, more stop signs,slower speed limits. This doesn't work, just ask the people on Lake Avenue street.If something is not done and something tragic does occur the responsibility will be on those who wouldn't listen.Four parked cars have been hit on the street in the last couple of years because of it's width and the speed and rate of traffic. Those four parked cars could have easily been four small children playing. I challenge all of our representatives to do the right thing and CLOSE Second Road West at some point for the sake of our kids and so far empty promises.

[redacted]

From: [redacted]

Sent: Sunday, October 09, 2005 6:45 PM

To: [redacted] leemorr@hamilton.ca; lryan@hamilton.ca; rbacquie@itransconsulting.com; cleishman@hamiltonpolice.on.ca; dmcculloch@hamiltonpolice.on.ca; pbruckler@cityofhamilton.ca; ldilanni@hamilton.ca; jmossop.mpp@liberal.ola.org; cmvanber@hamilton.ca

Cc: [redacted]

Subject: RE: Second Road West Closure

[redacted] I feel the same. I would not have purchased our home in this location had I known this is what we would have to deal with. With two young children it is not possible to just pick up and move. It is expensive and difficult. If I wanted this volume I would have purchased elsewhere. At least our property taxes would reflect the area. We pay way too much for this type of community. I feel that if nothing is put in accomplished in the very near future we should rethink our strategies and take more drastic measures. After all we are talking about safety of children here. Our property taxes need to be reviewed. We were promised closure. Nothing else will suffice.

How do the rest of you feel?

Please copy all when responding

[redacted]

From: [redacted]
To: *<cleemorr@hamilton.ca>, <lryan@hamilton.ca>,<rbacquie@itransconsulting.com>, <cleishman@hamiltonpolice.on.ca>,<dmcculloch@hamiltonpolice.on.ca>, <pbruckler@cityofhamilton.ca>,<ldiianni@hamilton.ca>, <jmossop.mpp@liberal.ola.org>,<cmvanber@hamilton.ca>*
CC: [redacted]
Subject: *Second Road West Closure*
Date: *Sun, 9 Oct 2005 16:46:59 -0400*

>We purchased our home on Second Road West almost four years ago. Having two
>young children, location was one of the most important considerations when
>choosing our new home. After many telephone conversations with people
>working at the City of Hamilton, we decided to purchase our dream home on
>Second Rd West. We made this very difficult decision based on the
>information given to us by those at the city. We were assured repeatedly
>that Second Rd West was scheduled to be closed. We were given plans of the
>Trinity Church neighbourhood which illustrated where the street closure was
>to take place. Although we were not given a time line as to when the
>closure would take place, we were assured that it would indeed be closed.
>
>Purchasing our new home was one of the biggest decisions we have every had
>to make. We made that decision on the assumption that our children would
>have a quiet and safe location to play and grow. Instead, we have a very
>busy street with many speeding cars. Our children are growing up in a
>location which requires them to only play in the backyard, because their
>parents feel it is unsafe for them to play in the front yard. We as well as
>our neighbours are very angry and disappointed at the way our neighbourhood
>has developed. Almost every other house on Second Rd West has small
>children which unfortunately are unable to play together because the are
>limited to playing in their backyards. Would so many families have
>purchased homes in this area unless they were confident that their children
>would have a safe place to play? No, they would have chosen to build their
>homes elsewhere.
>
>We have joined with a number of other families on the street and are
>committed to fight for the street closure that we were promised. We are
>committed to our fight. We will not go away.
>WE WANT SECOND RD WEST CLOSED!!
>
>[redacted]
>
>

Nathalie Baudais

From: DiIanni, Larry [ldiianni@hamilton.ca]

Sent: Saturday, October 08, 2005 8:34 AM

To: [redacted] Lee-Morrison, Christine; Ryan, Leanne; Bruckler, Phil; dmcculloch@hamiltonpolice.on.ca; Ray Bacquie; jmossop.mpp@liberal.ola.org

Cc: [redacted]

Subject: Re: Second Road West

Please keep me informed on this question. Thx.

Sent from a Handheld Device

-----Original Message-----
From: [redacted]
To: Lee-Morrison, Christine <cleemorr@hamilton.ca>; DiIanni, Larry <ldiianni@hamilton.ca>; Ryan, Leanne <lryan@hamilton.ca>; Bruckler, Phil <pbruckler@hamilton.ca>; dmcculloch@hamiltonpolice.on.ca <dmcculloch@hamiltonpolice.on.ca>; rbacquie@itransconsulting.com <rbacquie@itransconsulting.com>; jmossop.mpp@liberal.ola.org <jmossop.mpp@liberal.ola.org>
CC: [redacted]
Sent: Fri Oct 07 23:49:56 2005
Subject: Second Road West

At Monday's Environmental Assessment Public Information Forum, I heard repeatedly from Mr. Ray Bacquie that Second Road West was collector road.

How can Second Road become a collector road or be deemed a collector road almost overnight? It was planned, surveyed, engineered and constructed to be closed. We have obtained plans which support and prove this along with the simple truth that the road is indeed narrow.

How does a street which was planned for closure all of sudden become equipped to deal with constant flows of traffic and be deemed "collector"?

Looking forward to hearing from you,

[redacted]

2808 2.3

Nathalie Baudais

From: Ray Bacquie [rbacquie@rogers.blackberry.net]
Sent: Saturday, October 08, 2005 8:00 PM
To: Liza Sheppard; Nathalie Baudais
Subject: Fw: Second Road West

Attachments: ATT803433.htm

ATT803433.htm (3 KB)

-----Original Message-----
From: "[redacted]
Date: Sat, 08 Oct 2005 09:11:28
To:[redacted] cleemorr@hamilton.ca, ldiianni@hamilton.ca,
lryan@hamilton.ca, pbruckler@hamilton.ca, dmcculloch@hamiltonpolice.on.ca,
rbacquie@itransconsulting.com, jmossop.mpp@liberal.ola.org
Cc:[redacted]
Subject: RE: Second Road West

Phil. You said that the average speed was 51kms. Where were the speed detectors placed? I was told that they were placed between the stop signs. I don't think the detectors can detect the running stops. I can see why the speed did not reflect reality. Can we place them closer to the walkway? Also, Lake Ave has the 40km zone. They have no schools there. We have school pick ups. Can we look at that again as an immediate and temporary solution?

The car accident that occurred last week was one of many. That one was reported to the police because the person actually stayed to give his information. There were many others that did not. We paid out of our own pockets. Have you seen insurance rates in the last ? years? What choice did we have.

I am sick and tired of being sick and tired.

We can live with losing a vehicle but we cannot live with losing a child over this. We were promised closure. I don't care if the people speeding are from our community. As far as I'm concerned many of them should not even have access to Second Road West. It should be closed.

The [redacted]

From: "[redacted]" [redacted]
To: <cleemorr@hamilton.ca>,<ldiianni@hamilton.ca>,
lryan@hamilton.ca>,<pbruckler@hamilton.ca>,
dmcculloch@hamiltonpolice.on.ca>,<rbacquie@itransconsulting.com>,
jmossop.mpp@liberal.ola.org>
Cc: [redacted]

[redacted]

Subject: Second Road West
Date: Fri, 07 Oct 2005 23:49:56 -0400

>At Monday's Environmental Assessment Public Information Forum, I heard
>repeatedly from Mr. Ray Bacquie that Second Road West was collector
>road.
>
>How can Second Road become a collector road or be deemed a collector
>road almost overnight? It was planned, surveyed, engineered and
>constructed to be closed. We have obtained plans which support and
>prove this along with the simple truth that the road is indeed narrow.
>
>How does a street which was planned for closure all of sudden become
>equipped to deal with constant flows of traffic and be deemed
>"collector"?
>
>Looking forward to hearing from you,
>
>[redacted]
>
>

2808 2-3

Nathalie Baudais

From: Ray Bacquie [rbacquie@rogers.blackberry.net]
Sent: Saturday, October 08, 2005 10:27 PM
To: Nathalie Baudais
Cc: Liza Sheppard
Subject: Fw: Second Road West

Attachments: ATT808107.htm

ATT808107.htm (4 KB)

-----Original Message-----
From: [redacted]
Date: Sat, 08 Oct 2005 11:43:53
To:ldiianni@hamilton.ca, lponte@namasco.com, cleemorr@hamilton.ca, lryan@hamilton.ca, pbruckler@hamilton.ca, dmcculloch@hamiltonpolice.on.ca, rbacquie@itransconsulting.com, jmossop.mpp@liberal.ola.org
Cc: [redacted]
Subject: Re: Second Road West

Hello Larry. Welcome to our fight. Hope you can help us.

[redacted]

From: "DiIanni, Larry" <ldiianni@hamilton.ca>
To: [redacted] "Lee-Morrison, Christine" <cleemorr@hamilton.ca>,"Ryan, Leanne" <lryan@hamilton.ca>,"Bruckler, Phil" <pbruckler@hamilton.ca>,<dmcculloch@hamiltonpolice.on.ca>,<rbacquie@itransconsulting.com>, <jmossop.mpp@liberal.ola.org>
CC: [redacted]
Subject: Re: Second Road West
Date: Sat, 8 Oct 2005 08:33:39 -0400

Please keep me informed on this question. Thx.

Sent from a Handheld Device

-----Original Message-----
From: [redacted]
To: Lee-Morrison, Christine <cleemorr@hamilton.ca>; DiIanni, Larry <ldiianni@hamilton.ca>; Ryan, Leanne <lryan@hamilton.ca>; Bruckler, Phil <pbruckler@hamilton.ca>; dmcculloch@hamiltonpolice.on.ca <dmcculloch@hamiltonpolice.on.ca>;

rbacquie@itransconsulting.com <rbacquie@itransconsulting.com>; jmossop.mpp@liberal.ola.org <jmossop.mpp@liberal.ola.org>
CC: [redacted]
Sent: Fri Oct 07 23:49:56 2005
Subject: Second Road West

At Monday's Environmental Assessment Public Information Forum, I heard repeatedly from Mr. Ray Bacquie that Second Road West was collector road.

How can Second Road become a collector road or be deemed a collector road almost overnight? It was planned, surveyed, engineered and constructed to be closed. We have obtained plans which support and prove this along with the simple truth that the road is indeed narrow.

How does a street which was planned for closure all of sudden become equipped to deal with constant flows of traffic and be deemed "collector"?

Looking forward to hearing from you,

[redacted]

Lee-Morrison, Christine

From: [redacted]
Sent: Friday, October 07, 2005 11:20 AM
To: Lee-Morrison, Christine
Cc: isheppard@itransconsulting.com
Subject: Public meeting

Christine with regards to the public meeting at the Salvation Army Church on October 3rd 2005.

Subject: Rymal Road planning Area (ROPA 9Lands)

I feel that this is a good thing that the city is finally looking into improving this area. We are the owners of two properties in the Portside Drive area and welcome these improvement.

A question that I had for Christine Hill was, who will be responsible for installing and paying for the main sewer and water services for those of use on Portside Drive.

A big concern of ours is that this area has always had a problem with collecting runoff water from rain or melting snow and as new development is being allowed in this corner we are seeing this problem increase. The water that is being generate or collected in this area can not escape fast enough, we would greatly appreciate it if this is taken into consideration when highway 56 is being worked on.

Thank you,

[redacted]

"This e-mail and any attachments may contain confidential and privileged information. If you are not the intended recipient, please notify the sender immediately by return e-mail, do not use the information, delete this e-mail and destroy any copies. Any dissemination of use of this information by a person other than the intended recipient is unauthorized and may be illegal. Unless otherwise stated, opinions expressed in this e-mail are those of the author and are not necessarily endorsed by the author's employer. If you are authorized to use this information, please keep it confidential and use it only for its intended purpose."

From: LESMYERS@ROYALLEPAGE.CA [mailto:LESMYERS@ROYALLEPAGE.CA]
Sent: Monday, May 02, 2005 1:41 PM
To: mfazio@hamilton.ca
Cc: lsheppard@itransconsulting.com
Subject: Rymal road environmental

This is in regards to the environmental assessment being done in the rymal and trinity church area.
As you know tthere are kursts, caves and underground streams all through this area. There are protected lands on the north side of rymal due to these kursts. Thius has been caused by a hugh underground lake in the white church road area. this lake runs north underground till it comes out of the escarpment in various places.

I hope people don't think that these kursts and caves just jumped from white church to rymal. These kursts and caves are probahly all through these areas. You don,t think that the developer is going to tell you when he finds one and hold up his projects and money. They didn't tell you when they found them on the Stoney Creek mtn till they got caught. There are a few homes that are sinking and have problems due to these hidden and undisclosed kursts and caves.

The farmer that used to do the area said that he witnessed more then once a blasting that went down instead of up. He also told us of different areas that he thought maybe burial sitess ets as he has found small artifacts and things over the years but that no one listenes to him. They think he just wants to keep the land to lease for his farm.

They have now carved a hugh chunk out of the ground as there is a big drop from where the land used to be to their level now. They are already above the ground level for the existing homes in the area . Where will the water go but into these peoples backyards and homes.

I hope you can use this little bit of info.

Thank you[redacted]

[redacted]

Nathalie Baudais

From: Liza Sheppard
Sent: Tuesday, March 08, 2005 3:51 PM
To: Nathalie Baudais
Subject: FW: Rymal Road Master Plan

[redacted]

From: [redacted]
Sent: Tuesday, March 08, 2005 10:01 AM
To: mfazio@hamilton.ca
Cc: lsheppard@itransconsulting.com
Subject: Rymal Road Master Plan

Re: Notice of Study Commencement, Rymal Road Planning Area Master Plan, Class Environmental Assessment

As per the notice published on March 4, 2005, I would like to be added to the study mailing list. I am a land owner in the study area.

[redacted]

Nathalie Baudais

From: Liza Sheppard
Sent: Tuesday, January 18, 2005 3:35 PM
To: [redacted]
Subject: RE: Rymal Road EA

Hi [redacted]

I have forwarded your e-mail to the City. They are maintaining the mailing list for the project.

Regards,
Liza

From: [redacted] mailto:[redacted]]
Sent: Tuesday, January 18, 2005 3:23 PM
To: lsheppard@itransconsulting.com
Cc: [redacted]
Subject: Rymal Road EA

Hi Liza, please could you please add [redacted] and I to the circulation list for the Rymal Road EA. Email is fine in lieu of mailings if possible.

Thanks
[redacted]

[redacted]

[redacted]

AMENDMENT NO. 36 TO
THE OFFICIAL PLAN OF THE
FORMER TOWNSHIP OF GLANBROOK

RYMAL ROAD SECONDARY PLAN

Recommended Alternative by

The City of Hamilton

Revised March 12, 2002

TABLE OF CONTENTS

PART I- THE PREAMBLE..... Part I, Page 1

PART II - THE OFFICIAL PLAN AMENDMENT .....Part II, Page 1

PART III - THE SECONDARY PLAN ..... Part III, Page 1

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SCHEDULES `A', `E', 'F' and 'I' CONSTITUTING PART OF THE AMENDMENT

PART I- THE PREAMBLE

1. TITLE

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2. COMPONENTS OF THIS AMENDMENT

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4. LOCATION OF THIS AMENDMENT

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PART II - THE OFFICIAL PLAN AMENDMENT

1. INTRODUCTION

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2. OFFICIAL PLAN SCHEDULE CHANGES

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3. TEXT CHANGES

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5 (:+ . 1 - . , ,),)*), ! , - - !1 / !(61; !(*) ,)5)7 , !.17 !)1 , 61 ; / , *)- , !) . , - 71+ + 7) . - @ .18+ , !), !(12 , *( )8 17 ! - *1; !(16 !( )! , 1+ + ; ,)!: *)- , !)5) -), !(61 +)!: 16 !1 , : 0 66)7) . . , !(2). - @ .18 2)!(+)= 16 (1; *), 61 + * , - - , *)!) * , - 2). 71 , !), !) 8 *1 , . * @)7 , - 71+ + ; ,)!: ; * *), ! , - - !1 * @ !(:+ . 1 - . , ,), , - *; 1; , -),

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5 # & (81.)7) * 16 !(71 , - : . , * 8 1@)- ! - !) / ; ! -1 , 1 ! *; 8 * - .. 1 !(81.)7) * 16 !(66)7) . . , , - * *; 7(*(1; .- / -), 71 , A; , 7!)1 , 2)!(!(81.)7) * 16 !(66)7) . . , 3 (!( )* 71 , 6.)7! / !2 , !(66)7) . . , , - 71 , - : . , !(81.)7) * 16 !(71 , - : . , *(.. 8 @) 9

7!)1 , #)* (/ : + , - - *61..12 *
5 1 , 71; !(+ A 81 !)1 , 16 !(*)- , !) . - @ .18+ , !), !(12 , *( )8 !1 .17 !), / , !! + , ! *1 , !(/ *)* 16 6; .. + ; ,)7)8 . * @)7 * (* *), 7.; - !( ), / 110 / , !! + , ! !(1; , ! 18 / , !! + , ! !(. , - - *) , ! - *)- , !) . 1 , 2 , !: 1 - , - !(:+ . 1 - 71 , - : . , 1+ *)- , !) . - @ .18+ , ! 2). / 8 +)!! -), !( ), / 110 / , !! + , ! 8)1 !1 !(8 1@)*)1 , 16 6; .. + ; ,)7)8 . * @)7 * !(!1)+)! - *)- , !) . - @ .18+ , ! 2). / 8 +)!! -), !(; .), 7.; -), !(3 11 - / ; , ; . !! + , ! ; . *)- , !) . *! ! - @ .18+ , ! , - * @ , 7 *), 771 - , 7 2)!(!(81.)7) * 16 !( )* . , , - !( )1 , . 66)7) . . ,

7!)1 ,)* (/ : + , - - / : 7(,), !(818; . !)1 , 1 . 6 1+ 5 $%% 8 *1 , * 61 !(12 , *( )8 16 . , / 110 / : !(: % 9 !1 5 %%% 8 *1 , *61 !(12 , *( )8 16 . , / 110 / : !(: % 9

$ 7!)1 , #)* (/ : - . ! -

" 7!)1 , %)* (/ : + , - - / : --), !(61..12), 21 - * !1 !(* 71 , - 8 8(6! !(21 - *5(B - . , - *9
5 , - 8; / .)7 *!1 + 2 ! + , + , ! *9

& 7!)1 ,)* (/ : + ,- - *61..12 *
5 !)* !( ), ! , !16 !()* . , !(!6 ;.. + ; ,)7)8 . * @)7 *), 7. ; -), + ; ,)7)8 . 2 !
, - * ,)! : * 2 * / 8 1@)- - !1 !(/ , *16 !(12 , *( )8), 7. ; -), !(
), / 110 , - 1 ; , ! 18 / , !! + , ! * !(*)- , !) . . , - *1 , 2 , !:
1 - !(1 !(. , / 110 , -) 81 ! , - ; *!) .> ; *), ** 0* !(:+ . 1 -
71 , - : . , , - !(. , - *- *) , ! -) 81 ! . ! - 1+ + 7) . - A7 , !
!1) (2 : 1 " -) 7! : !1 !(*1 ; !(16 !(61 +)!: 16 +) !1 , L 12 , *( )8 16
. , / 110 ; ,)7)8 . / 1 ; , - : *- *) , ! - 1 , 7(- ;. 5 9< , - * . ,

I 7!)1 ,)* (/ : + ,- - / : - -), !(61..12), 21 - * 6 ! 5 1 - !21 0
. ,'
5 , - !(/1 ; , -) * / !2 , !(. , - ;* - *) , !)1 , * *(12 , 1 , 7(- ;. >
:+ . 1 - 71 , - : . , , - * . , 9

I , 2 7!)1 , B.3 - RYMAL ROAD SECONDARY PLAN *(.. / - - - * * !1 ; !),
! 16 !()* + , - + , !

PART III - THE SECONDARY PLAN

B.3 RYMAL ROAD SECONDARY PLAN

B.3.1 DEVELOPMENT PRINCIPLES AND OBJECTIVES

(:+ . 1 - 71,- : . ,)*/ * - 1, !(*! !) *16)*)1, %% !(66)7). . , 81.)7) *16 !(61 + 12,*()8 16 . ,/ 110 ,- 61 +)1, 16 +)!1,> 3 ,!21 !(,- !(. ,- ;* 8. , ,), 81.)7) *16 !(1@),7 16 ,!)1 (61..12), 8),7)8. * * !1;! !(8 +)* 61 - @.18+ ,! ,- - @.18+ ,!2)!(), !(:+ . 1 - . , ,),

@.18+ ,! *(.. / / * - 1, 71+ 8 7! ; / , 61 + 2 ()7(8 1+1! * * ,* 16 71+ + ; ,)!: ,71; * +)=), 16 ;* * *! /.)*(* @)/ ,! ,) (/1; (11- * !!), ,71; * 8 - *!) , ! @. ,- 1!(.! , !)@ +1- * 16 +1@ + ,! ,- 7 ! * *)- ,!) . - ,*)!) *2 ()7(*;881 ! ! ,*)!

(1/A7!)@ * **17) ! - 2)!(!()*8),7)8. '
F 1 8 1@)- ,- ,71; * 16 8 - *!) , 77 **)/))!: / !2 , *)- ,!) . ,) (/1; (11- * 71+ + 7). * ,- 1!(. ,- ;* *

/F 1 - @.18 8 - *!) , ,- /)7:7. , !21 0 ;*), 6 !; * *;7(* 0. ,- * *7(11. : - * ;!))!: 71)-1 * *!1 +2 ! + , + ,! * ,- 2 (88 18) ! .17 . *! !*

7F 1 8 1@)- 61 + =)+ ;+ 2 .0), -)*! ,7 16 , ..: #%% + ! * !1 ,) (/1; (11- 8 0*

-F 1 ,*; !(!D%M 16 !(*)- ,!) . ; ,)!* 2)!(), 88 1=)+ ! . : #%% + ! *16 81! ,!) . ! ,*)! *!18

F 1 ,71; +)=), 16 -2 ..), !:8 * ,- - ,*)!) * !(1; (1;! !(* 71,- : 8. ,

6F 1 ,71; !(8 1@)*)1, 16 71+ + 7). ,- () ( ),! ,*)!: *)- ,!) . ;* *), 71)-1 * .1, :+ . 1 - !1 * @ !(71+ + ; ,)!: ,- !1 *;881 !8;/.)7! ,*)!

F 1 ,71; 71+ + 7). * !1 - @.18 2)!(, 16 71+ + 7). * @)7 ,- 71+ + ; ,)!: ;* * 88 18) ! !1 !( ) 6; ,7!)1, ,- !1),! ,*)!: 1@ !)+),!1 +)= - ;* *

(F 1 ,71; + ;.!)-;*),*!)!; !)1, . ,- 71+ + ; ,)!: 6 7))!) *

(*:*! + 16 *! !* 2)!( ), !(71,- : . , *(.. 8 1@)- 61 ,1 ! 1,. : !(66)7) ,! + 1@ + ,! 16 @ ( )7. ! 66)7 / ;! .*1 71,!)/ ;! 11 !(8;/.)7 .+ !(1; (. ,- ;* 8 !! , !(! ,71; *2 .0), 7 ! *8 - *!) ,1) ,! - - @.18+ ,! ,- *! !*7 8 *.),0* !(71+ 81, ,!*16 !(71+ + ;,)!: ,- 8 1@)- *!( ),6 *! ;7!; 61 .! , !)@ +1- *16 ! ,*81 ! !)1, (+)->/.170 *!2 *! 71.. 711 =! ,-), !(. , !(16 !(*!;- : 2). .*1 6;,7!)1, * 8 - *!) , ,- /)7:7. 1) ,! - *8), 16 !(71+ + ;,)!:.),0), .. *) ,)7 ,!. ,- ;* *2)!( ), !(71+ + ;,)!:

(1/A7!)@ * **17) ! - 2)!(!( )*8),7)8. '

F 1 7 !)- *:*! + 16 71.. 711 ,-.17. 1 -* ,- -)*71; 7;.>- >* 7*

/F 1 - @.18 2 .0 /. ,) (/1; (11-*!(1; ( )- *:*! + 16 *! !* *(1 !/.170* *! !1) ,! - - @.18+ ,! *6 ,- !! 7!)@ 8;/.)7 .+ ,- 8 - *!) ,*7. - *! !*

7F 1 71,*)- 88 18) ! .! , !)@ - @.18+ ,! *! ,- -* 61 .. !:8 * 16 - @.18+ ,! *! !* ,- * @)7), ,- 11 ;!)B , 16 81.)7: ,- ;. 11 :),*! ;+ ,!* 11)+ 8. + ,! .! , !)@ *! ,- -* 11 !(=! ,!81**)/.

-F 1 8 1@)- ! ,*81 ! !)1, , !21 0 !(! 771+ +1- ! * ,- 8 1+1 ! * 8 - *!) , ,- /)7:7. +1@ + ,!), *6 ,- 71,@ ,) ,! + , , ,- !(!*;881 !* 8;/.)7 ! ,*)!

F 1 8 1@)- 2 (81**)/. * 8 ! 8 - *!) , ,- 7:7.), , !21 0* .1, 8;/.)7 *! !* ,- !(1; (8;/.)78 0. ,-

6F 1 +8.1: ! 66)7 7.+), + *; * 1, 71.. 711 1 -*), 1 - 11 -;7 ! 66)7 *8 -* ,- + 0 *!(*! !*71,-;7)@ 11 8 - *!) , ,- /)7:7. ! @.

F 1 1) ,! ! .. *7(11.* ,- !(+ A1)!: 16 8 0* .1, !(+), 71.. 711 1 - *8), 16 !(71+ + ;,)!: ,- 11 ,*; !(! .. 71+ + 7). *2)!( ), !(. ,)!(-) 7!:1),-) 7!:71,, 7! - 11 !(71.. 711 1 - *8), !(1; ( ),! * 7!), 71.. 711 ,- !). 1 -*

(F 1 1) ,! ! *! !* 11 8 1+1 ! , :71,* @ !)1,

@.18+ ,! 2)!( ), !(:+ . 1 - 71,- : . , 2).),! ! 2)!(!( )! , 71+ + ;,)!: 11 !(,1 !(8 1+1 ! 71+ 8 !)/))!: 2)!(!(=)*!), ,- - *) , ! -),- ;*!). * 11 !(*! ,- 2 *! / * ,*)!)@ 11 !(; .7(7! 11 !(*1;!(,- 7 ! ! 2 : 11 !( )!:

(1/A7!)@ * **17) ! - 2)!(!()* 8),7)8. '

F 1 7 ! ! ,*)!)1, 16 ;* * ,- - ,*)!) * .1, !(*1;!(, /1;,- : 16 !(. ,,), -A7 ,! !1 !(; . ,- !1 8 1@)- 61 @) 2 71)-1 *6 1+ 8;/.)7*! !*),!1 !(; .. ,-*7 8 *1;!(16 !(:+ . 1 - . ,,),

/F 1 ,*; . ,- ;* 71+ 8 !)/))!: / !2 , , / : =)*!), ,- 8. ,, -),-;*!). ;* * !(1; (!(-)*!)/ ;!)1, 16 . ,- ;* *),7.;-), ! ,*)!)1, . ;* * ,- -)*! ,7 * 8 !)1,*

7F 1 *! /.)*(*:*! + 16 18 , *8 7 !)* ,- .),0 *1, !(. ,-*2)!(), !((:- 1 71)-1 2 ()7(61 + !(*1;!(, /1;,- : 16 !(. ,,), ,- !1 8 +)! 71+ + ;,)!: - ,*2)!(), !((:- 1 71)-1

-F 1 *! /.)*(() 7(: 16 71+ + 7). * 2 ()7(71+ 8. + ,!* !(=)*!), ,- - *), ! - 71+ + 7). * ,- 71+ + 7). () 7(: 2)!(), !( )! , 71+ + ;,)!: ,- 2 ()7(!1 !(* @ * !(, -*16 !(*)- ,!*2)!(), !(:+ . 1 - ,-)! , 71,- : . , * ,- *; 1;,-), *), ,),! ! - + ,,

F 1),71 81 ! . + ,!*),!1 !(- *) ,16 !(71+ + ;,)!: ,- !(- *) ,16 0 : ! 2 : .17 !)1,* .1,) (2 : $" . !7(1 -),)!: (;7(1 - ,- :+ . 1 - !1),61 7 !(* ! 2 : !1 !( )!:

/ 1 - , 16 (1;*), 61 + * ,- !:8 * 2)./ 8 1@)- - 2 ()7(7 , 771+ + 1- ! (1;* (1.-*16 @)1;* *),71+ * .)§ *!:. * ,- 6 +): *! ;7!; (* (1;*), 61 + * ,71; - !1 / +)= - !(1; (1;!!(71,- : . ,

(1/A7!)@ * **17) ! - 2)!(!()* 8),7)8. '

F 1 ,71;),,1@ !)@ ,- @) - (1;*), !:8 * - ,*)!) * ,- - *) ,*;!))B), 71+ /), !)1,16 ;. !1 : ,-),7 ,!)@ >/ * - 81.)7: !11.* * 88 18) !

/F 1 8 1@)- !(1881 !;,)!: 61 .)§ *!:. *)- ,!).- @ .18+ ,! ,- !1 ,71; J),),8. 7 K2 (-)6 ,!(1;*), 61 + * 771+ + 1- ! .)§ 7:7. 7(, *

7F 1 8 1@)- @) !: 16 (1;*), !:8 * ,- - *) ,* ! , 16 8)7 *),1 - !1 8 1@)- !(1881 !;,)!: 61 661 - /. *)- ,!).;,)!*

$ @ .18+ ,!*(.. 6. 7! !( )*)1, %%8),7)8. *16 ,@)1,+ ,!.*;*!), /))!: ,- 71 ,)B !(6;,- + ,!.)+ 81 !,7 16 (.!(: 71*:*! + * * *;7(, !; . ,@)1,+ ,!.*:*! + **(.. / 8 1! 7! - ,(,7 - ,- *;*!), - ,- !( ),! 7!)1, 16 (;+ , *:*! + * ,- 71*:*! + **(.. / + , - !1 8 1@)- 61 !(2 ..>/), 16 !(71*:*! + 1@ !(.1, ! +

(1/A7!)@ * **17) ! - 2)!(!( )* 8),7)8. '

F 1 +),!), 1 ,(,7 !(8 - @.18+ ,!*;6 7 2 ! H; .)!: ,- H; ,!)!:), 771 - ,7 2)!(+ ; ,)7)8 . ,- 71,* @ !)1, ; !(1)!: *! ,- -*), 1 - !1 8 1! 7! ,- ,(,7 -12 ,*! + 6)*( ) * ,- 166>*)! 4 *!6 !; * ,-6;,7!)1,*

/F 1 + 8.1: , !; .)B - 61 + * 16 *!1 + 2 ! + , + ,! 2 ( )7(+),)+)B *!1 + 2 ! ; ,>166 ,- -;7 !(, - 61 ,- *)B 16 *!1 + 2 ! + , + ,! 81,-*

7F 1 *8 7! ,- +),!), !(=)*!), -), /1;,-) * 2)!( ), !(:+ . 1 - . ,,),

-F 1 +),!), !(H; ,!)!: ,-)+ 8 1@ !(H; .)!: 16 2 ! 6.12), ,1 !( ), !1 ! 2 ! ,- (1 ,)= 0**1 * !1 +),!), ,- ,1!)+ 8 7! !(4 *!6 !; * ,-6;,7!)1,* **17) ! - 2)!(!(1* 7 0*

F 1 ,*; !(1; (88 18) ! *!;-) * ,- +)!) !)1, + *; * !(!8;/.)7 * 6 !:)* ,1 !7 1+ 8 1+)* - / : / ;) -), ,-),6 *! ;7!; 71,*! ;7!)1, 2)!( ), !(@)7),)!: 16 4 *!6 !; * 2)!( ), !(:+ . 1 - . ,,),

" .. + ;,)7)8 . * @)7 *),7.;-), ! ,*81 ! !)1,),6 *! ;7!; H;) - !1 * @)7 !(:+ . 1 - 71,- : . , 1 *8 7)\)7 8 (* *16 - @.18+ ,!16 !(71,- : . , !1 (@ 7)@ - .. , 7 ** : 88 1@ .*),7.;-), 6), ,7) . 71+ +)!+ ,! ,- .. * ,)! : 2 ! ,- *!1 + 2 ! + , + ,!6 7))!) * !1 /), 8. 7 ,- 18 !)@ 8)1 !1 1 71),7)- ,! 2)!(!(- @.18+ ,!16 !(. ,- 1 - @.18+ ,!16 *8 7)\)7 8 (* *16 !(. ,-

(1/A7!)@ * **17) ! - 2)!(!( )* 8),7)8. '

F 1 8 1@)- 6;.. + ;,)7)8 . * @)7 *),7.;-), * ,)! : * 2 * 8)8 - 2 ! *;88.: ,- 88 18) ! *!1 + 2 ! + , + ,!6 7))!) *

/F 1 8(* - @.18+ ,! 771 -), !1 !(7 8 7)!: 16 + ;,)7)8 . * @)7 * ,- ! ,*81 ! !)1,),6 *! ;7!; .) - ;81,/ : !(:+ . 1 - 71,- : . ,

& 1*!* 61 !(88.)7 /. 81 !)1, 16 12 !(. ! -),6 *! ;7!; ,- * @)7)+ 8 1@ + ,!* H;) - !1 * @)7 - @.18+ ,! 2)!( ), !(71,- : . ,),7.;-), 1 - * * ,)! : *!1 + ,- 2 ! * @)7 * *(.. / 8)- 61 / : - @.18+ ,! 1)+ 8. + ,! !( )* 8),7)8. ,- !1 ,*; !(! *;7( ),6 *! ;7!;)* @) /.), !)+ .: + ,, '

F 1;,7) 2). ;8- ! !(;,)7)8 . @.18+ ,! (* :>. 2 !1),7.;- ..)+ 8 1@ + ,!* H;) - / : !(- @.18+ ,! ,!) *;7(!)+ * 1;,7) ;8- ! * !(

; ,)7)8 . @ .18+ , ! (* :>. 2)! + : 71 , *)- *8 7)\ )7 - @ .18+ , ! 7(*C

/F , - -)!)1 , !1 - @ .18+ , ! 7(* 6 - !1), & 1 ; , 7) + : .*1 + 8.1 :'

}F 6 1 , ÞÞ , -), + , !* - @ .18+ , ! 7(7 -)! + , !* , - 8 8 :+ , !16 - @ .18+ , ! 7(+ , !* ; , - !(@ .18+ , ! (* 7!C

))F 8 ; /.)7L8)@ ! 8 !, *( )8*C

)))F 71 , -)!)1 , *16 *; / -)@)*)1 , 88 1@ .C

)@F 7 !)1 , 16 1 , 611 ! * @ *C

@F 71 *! *( ), + , !* 1 / *! 661 ! + , !* !1 71@ 71 *!* 6 1+ / , 6)!), . , -12 , *C

@)F , : 16 !(/1@ *), . : 1), 71+ /), !)1 , 2)!(, : 1 !(*C1

@))F , : 1 !(+ 7(,)*+ 1 ; , 7) 71 , *)- * 88 18) !), !(7) 7; + *! , 7 *

I (71 , - : . ,)* !1 / - @ .18 - 2)!( ), !(71 , ! =! 16 * ! 16 ; / , - *) , 8), 7)8. * , - 1/A7!)@ * (61..12), ; / , - *) , 8), 7)8. * * !1 ; ! , . 7)!) 61 !(- @ .18+ , ! 16 /1 !(!(8 ; /.)7 .+ , - 8)@ ! . , -* !1 7 ! , !! 7!)@ * 6 , - 8 - *!) , 6) , -. : , @) 1 , + , !

F 1 *; 881 ! !(1 !(@ .18+ , !), 7)8. * , - /A7!)@ * 61 71+ + ; ,)!: - *) , - 1 , !(/ *)* 16 71+ 8 7! ; / , 61 +

/F @ .18 ,), ! 71 , , 7! - *: *! + 16 8 ; /.)7 , - 8)@ ! *! !*), 7. ; -), !(- @ .18+ , ! 16 , *Þ2 *! 7 , ! . *8), !(1 ; (!(71+ + ; ,)!: , -), ! !)1 , 2)!(!(=)*!), *; 1 ; , -), . , - ; * , - - @ .18+ , !8 !! ,

7F *) , !( ), ! , . , !2 1 0 16 *! !* 2)!( ), !(71+ + ; ,)!: !1 6 7))! ! 8 - *!) , + 1@ + , ! , - .), 0 !1 !(/ 1 - 8 - *!) , *: *! + 3 (88 18) !), ! , . 71.. 71 *! !* 2).), 71 81 ! - *) , + *; * !1 771+ + 1- ! 8 ; /.)7 ! , *)! * @)7 2 ( ) -)*71 ;), !( ), 6) ! !)1 , 16)1 , . ! 66)7), !1 !(71+ + ; ,)!:

-F 1+ 1 ! !! 7!)@ *! !*7 8 * *17) .), ! 7!)1 , ! , *)! ; * , - * 6 !: !(1 ; (!(. !)1 , *( )8 16 / ;) -), * !1 !(*! !*

F @ .18 8 - *!) , >6) , -. : , - 8 - *!) , >1) , ! - 71+ + ; ,)!: !(1 ; (!(. :1 ; ! 16 *! !* 71 , 6) ; !)1 , 16 .1 !* , - !(*)!), , - 71 , 6) ; !)1 , 16 / ;) -), * !(!2). - - ** !(61..12), *! !*7 8 - *) , 8), 7)8. * , - 1/A7!)@ *

}F 1@)- * 16 8 - *!) , 77 ** , - , A1 :+ , ! 16 8 ; /.)7 *! !* , - 1 !(1 ; !- 11 *8 7 * !(1 ; (71 , *)*! , !. @ . 16 *! !*7 8 - *) ,), 71 81 !), *; 7(. + , !* * 88 18) ! 8. , !), .) (!), , - *) ,

)) F ,71; 8 - *!) , 71, , 7!)@)!: !(1; (1; ! !(71+ + ; ,)!: / ;) -), 1, !(7 ,! . *8), * !(+), *!2 *! 71, , 7!), . + ,! 16 !(71+ + ; ,)!: !(1; (!(88 18) ! 8. 7 + ,!16 8; /.)72 .02 :* ,- /)0 8 !(*

)) F 1@)- 71+ + ; ,)!: 617 . 81), !* !(1; (!(.17 !)1, 16 !( ), 8. 7 * .1, !(7 ,! . *8),), 7.; -), *7(11.* ,- 8 0*

)@F),61 7 !( )+ 81 ! ,7 16 8; /.)7 ,-), *!)!; !)1, . / ;) -), *), !(71+ + ; ,)!: ,- , (,7 !( ) 1. !(1; (- *) , .17 !)1, ,- 1) , ! !)1,

@F 1+ 1 ! !(* 6 !: ,- * 7;)!: 61 .. 8 *1, *), 8; /.)7 8. 7 *), 7.; -), *! !* 8 0* ,- + ,)!: * !(1; (!(- *) , ,- *)!), 16 / ;) -), ,! ,7 * 2 .02 :* + ,)!: ,- 8 0), * !1 8 1@)- @)*)/))!: ,- 1881 !; ,)!) *61),61 + . *; @). ,7

@) F *) , * @)7 ,- 8 0), 6 7))!) * !1 +),)+)B -)* ; 8 !)1, !1 !(* 6 !: 16 8 - *!) , +1@ + ,! ,- !(!! 7!)@ , ** 16 - @ .18+ ,! -A7 ,! !1 !(8; /.)7 .+

@)) F),61 7 !(. !)1, *( )8 16 / ;) -), * !1 !(*! ! / : @1)-), 2 (81 **)/. @ * .1 !!), -A7 ,! !1 8; /.)7 *! !*

@))) F 1+ 1 ! !(. !)1, *( )8 16 / ;) -), * !1 *! !* !(1; (!(, + ,! 16 / ;) -), *1, .1 !* * !/ 70* !1 !(*! ! !(8. 7 + ,!16 8 0), ,- * ,- !(;* 16 *8 7))7 7( )! 7!; . ! !+ ,! 2 (!(*)- 6 N - 16 / ;) -), / ; !* *! ! 2)!(@) 2 !1 7 !), *! !8 * ,7

6F *) , 71+ + 7) . - @ .18+ ,!*), ! + * 16 *7 . / ; .0 - *) , ,- *)!), !1 / 71+ 8 !)/. 2)!(!(-A7 ,! *)- ,!) . * ,- !1 +),)+)B)+ 8 7!*1, -A7 ,! ; * *

B.3.2 LAND USE DESIGNATIONS

B.3.2.1 General

(:+ . 1 - 71, - : . ,)* 8. , , - !1 771+ + 1- ! , ;. !)+ ! 818; . !)1, 16 88 1=)+ !. : D &%%8 *1, *

/ (88 1=)+ ! 16 . , - 2)!( ), 7(. , - ; * - *) , !)1,)* *(12 ,), 88 , -)= : , - * , . : *)* ( )* /. .*1 8 1@)- * !(*!)+ ! - , ; + / 16 - 2 ..), ; ,)!* 2)!( ), 7(*)- , !) . . , - ; * - *) , !)1, , - !(*!)+ ! - 818; . !)1,

B.3.2.2 *Residential Designations*

)- ,!) . - @ .18+ ,!), !(:+ . 1 - . , ,), 2). (@ 71+ 8 7! ; / , 61 + ,-- *) , ! - J *)- ,!) .K*(.. / - @ .18 -), 771 - ,7 2)!(7(- ;. > :+ . 1 - 71 ,- : . , ,- * . , ,- !(61..12), 81.)7) *

B.3.2.2.1 *General Policies for all Residential Designations*

1 ;*), 1881 !; ,)!) * *(.. / *81 , *)@ !1 @) !: 16 (1 ;*), , -*), 1 - !1 + 0 (1 ;*), 77 **)/ . !1 , 16 8 *1 , * 1 ; , 7))* 71+ +)!! - !1 , 71 ;), @) !: 16 (1 ;*), 1881 !; ,)!) * *;)! /. !1 2)- , 16 (1 ;*), , -* !(1 ; (@) !: 16 ! , ; 18 !)1 , * (1 ;*), 8)7 * , - (1 ;*), 61 + *), 7. ; -),), ,1@ !)@ (1 ;*),)- *

/ -;.! .)) *!:. - @ .18+ ,!)* 8 +)!! - 2)!( ), 7(*)- ,!) . - *) , !)1 , 8 1@)- -)!)* 71 , !), -), (1 ;*), 61 + 8 +)!! - / : !(*8 7!)@ - *) , !)1 , ,- 8 1@)- - !(!

)F (8 -1+), ,! ; * 16 !(* . , -* *(.. / 61 *)- ,!) . -2 ..), * !(77 **1 : ; * * + : / 8 +)!! -), 7. ; -), 7 !)1 , . ; * * .17 . 71+ + 7) . ; * * *!1 6 7))!) * , - -+),)*! !)1 , , - * . *166)7 EF 2 ( )7(- *) , - !1 =7. ; *)@ . : * @ !(, -* 16 !(*)- ,!* 16 !(-;.! .)) *!:. 71+ + ; ,)!: ,- 71+ 8 !)/ . 2)!(!(*)- ,!) . - @ .18+ ,!

))F (8 1@)*)1 , 16 18 , *8 7 * 2)!( ), !(-;.! .)) *!:. - @ .18+ ,!* !(1 ; (!(7. ; *!), 16 !(*)- ,!) . ; ,)!* *(.. / ,71 ; - * 2 .. * 1 !( ), ,1@ !)@ *)! 8. , ,), - *) , * 2 ( )7(* !)*6 : !(81.)7) *16 !( )* . , ,- !(;. !)1 , *16 !( )+ 8. + ,!), O1 ,), :>. 2

)))F (* * *(.. / B1 , - 1 , *)! > *8 7)) 7 / *)*), !( )+ 8. + ,!), O1 ,), :>. 2 (*)! *8 7)) 7 B1 ,), *(..)- ,!) : *8 7)) 7 8 +)!! - ; * * ,- *! / .)*(;. !)1 , * 2 ( )7(+ :), 7. ; - *; 7(+ !! * * +),)+ ; + * !/ 70 -)*! ,7 *C + =)+ ; + / ;) -), ( ) (!*C * 8 !)1 , -)*! ,7 * / !2 , * 8 ! ,- L1 /.170* 16 -2 ..), ; ,)!*C +),)+ ; + . , - *7 8), ,- / ;66), H ;) + ,!*C1 ,>*)! 7 !)1 , . ,- 71+ + 7) . ; * *C+),)+ ; + 8 0), ,- 18 , *8 7 H ;) + ,!*C ,- 1 !(+ !! *- + - , 7 ** : / : 1 ; , 7)

)@F .. - @ .18+ ,! 2)!( ), !(* *)* *; / A7! !1)! . , 1 , ! 1. 8 ; *; ,! !1 7!)1 , # 16 !(*Planning Act* ,- 7!)1 , I 16 !(66)7) . . ,

@F ;7(-;.! .)) *!:. - @ .18+ ,! *(.. / .)+)! - !1 !(. , -* 2 *! 16 . !7(1 -

7 1!2)!(*! ,-), 7!)1 , 16 !(. , / 110 66)7) . . , 71+ + 7) . - @ .18+ ,! 2). ,1! / 8 +)!! -), !(*)- ,!) . *) , !)1 , * 16 !(:+ . 1 - 71 ,- : . , =7 8 ! 61 .17 . 71+ + 7) . ; * *), 71 , A ; , 7!)1 , 2)!(-;.! .)) *!:. - @ .18+ ,!*

- 1;,7) *(.. ,71; !(81@)*1,16 (1;*), 61 8 *1,*2)!(*87). (1;*), , -* **;7(1;8 (1+ * *)- ,!). 7 6 7))!) * ,- ,; *), (1+ **(../ 8 +)!!-), .. *)- ,!). - *) , !)1,* ,- *;/A7! !1 *87)7 81@)*1,*16 !(O1,), :>. 2 (*B ,- *7. 16*;7(6 7))!) **(../ *)+) !1 ,-1),!- !1 !(/;)!61 + 8 +)!!-), 7(- *) , !)1, , !(.12 - ,*)!: *)- ,!). - *) , !)1, !(* 6 7))!) **(../ 8 +)!!-), 71,@ !--2 ..), *1), *)+) /;)!61 + 1,.1!*;8 !1 %# (

+ .. *7. ,*!)!; !)1,. ;** *;7(*8)@ ! *7(11.* 7(; 7(* - :,; *)* ,- 1!(. !-71++;,)!: ,-),*!)!; !)1,. ;** *(../ 8 +)!!-), .. *)- ,!). - *) , !)1,*1,.1!*;8 !1 %# (2)!(1;! , + ,-+ ,! !1 !()* . , *;/A7! !1 88 18)! B1,), /:>. 2 + ,-+ ,!* ,-)! . ,71,!1. 88 1@.*

6 (+)!) !)1,16 !(81!;*)1,16 **(../ ,71; -!1 61*! *! !* *),! 7!)@ 1;!-11 *8 7 61 8 -*!),* ( )+8. + ,!), O1,), :>. 2 *(..71,!),8 1@)*1,* *!)7!), !(=!,!16 8 1!;*)1,*

) 7! 77 ** !1),-)@)-;. -2 ..), ;,)!* .1, !). 1 -* *(.. ,1!/ 8 +)!!- =7 8!61),6). -@.18+ ,!1 1!(*)+) *)!; !)1,*2(!( )!: (*- ! +), -!(!,11!(.! , !)@ 77 **18!)1,* @)/.

( ) 7! 77 ** !1),-)@)-;. *! !12,(1;* ;,)!* .1, 1.. 71 1 -* *(../ -)*71; - ,- !(;* 16 71++1, 77 ** 1 . , , + ,!* 2). /,71; -

) @ * 6 1,! .1!!), 8 !! ,**(../ -)*71; - ,-+ :1,.:/ 8 +)!!-), *(1 ! 7(* 1 2(!(12, * !)*6)*!( )!: !(! ,11!(.! , !)@ -@.18+ ,!61 + 1 *! !8 !! ,* 6 *)/. (;* 16 .1, 7(* 16 71;*!)7.2 ..* -A7,!1 !). 1 -**(.. .*1/ -)*71; -

A), !: 8 7,!16 .. *)- ,!). ;,)!* *(../ 2)!(), 88 1=)+ !.: #%%+ ! 2 .0), -)*!,7 6 1+ 8;/.)7! ,*)!*118

B.3.2.2.2 *Low Density Residential*

12 ,*)!: *)- ,!). ;** *(..71,*)*!8)+):16*), . - !7(--2 ..), ** +)- !7(-,- -;8. =-2 ..), * ! ! . !-112,(1;*-2 ..), *,-1!(.12)* +;.!) *)- ,!). ;,)!*+ : .*1/ 8 +)!!-

/ (,! *)- ,!). -,*)!:16 12 ,*)!: *)- ,!). -@.18+ ,!*(../ 61+ # !1 $;,)!*8 ,! *)- ,!). (7! E88 1=)+ !.: $& !1 #;,)!*8 ,! 7 F (,! *)- ,!). -,*)!:+ :/ @ -1@ 7(8. ,16*;/-)@)*1,2)!(), !(-*), !)1,

7 ! ! . ! - !12 , (1 ; * * ,- 1 !(.12)* + ;. !) *)- , !) . (1 ; *), 61 + * *(.. / ,71 ; - !1 .17 ! -A7 , ! !1 1), !(, / : @)7),)!: 16 !(71.. 7!1 1 - * 2)!( ), !(71 , - : . ,

- 1 !2)!(*! , -), / *! ! . ! - !12 , (1 ; * * 2). / 8 +)!! - ; 8 !1 + =)+ ; + - , *)!: 16 #$; ,)!* 8 , ! *)- , !) . (7! E I ; ,)!* 8 , ! 7 F 8 1@)- - !(; ,)!*), ! ! - 2)!(1 !((1 ; *), 61 + * 1 , !(*! ! ,- -1 ,1 ! =7 - $; ,)!*), , : 1 , 7. ; *!

( )+ 8. + , !), B1 ,), / :>. 2 *(.. 7 ! !(6. =)/))!: !1 , 71 ; +)= 16 (1 ; *), 61 + *), !(.12 - , *)!: *)- , !) . - *) , !)1 ,

6 @) !: 16 (1 ; *), . @ !)1 , * *(.. / ,71 ; - 2)!( ), 7(*)- , !) . /.170 !1 8 1@)- ,), ! *!), *! !*7 8 , !( )* - !(B1 ,), / :>. 2 + : 71 , !), *! ,- - * 71 , ! 1..), !(8 !)!)1 , 16 6 1 , ! / ;) -), . @ !)1 , *

B.3.2.2.3 *Low-Medium Density Residential*

12> -); + , *)!: *)- , !) . * *(.. 8 +)!.12)* E ; 8 !1 *!1 : *F *), . - ! 7(- - 2 ..), * + ;. !)8. !! 7(- - 2 ..), ; ,)! !: 8 *), 7. ; -), *! ! ,- /.170 !12 , (1 ; * - 2 ..), * ,- L1 1 !(61 + * 16 + ;. !)8. - 2 ..), * *; 7(* * +) - ! 7(- - ; 8. = * !)8. = * *! 70 - !12 , (1 ; * * ,- .12)* 8 !+ , ! / ;) -), *)=), 16 ; ,)! !: 8 * *(.. / ,71 ; - ,- !( )+ 8. + , !), B1 ,), / :>. 2 + : 71 , !), 8 1@)*)1 , * !1 ..12 61 +)=), 16 ; ,)!*

/ !) + , ! (1 + * ,- .1 , ! + 7 6 7))!) * .*1 8 +)!! - 8 1@)- - !(: 71 , !), - 2)!( ), / ;) -), 61 + 8 +)!! -), /1@

7 (- , *)!: , 61 12> -); + , *)!: *)- , !) . * *(.. / 6 1 + # !1 $% ; ,)!* 8 , ! *)- , !) . (7! E 88 1=)+ ! . : D & !1 % ; ,)!* 8 , ! 7 F (, ! *)- , !) . - , *)!: + : / @ - 1@ 7(8. , 16 *; / -)@)*)1 , 2)!( ), !(- *) , !)1 ,

- ; . !)8. > *)- , !) . (1 ; *), 61 + * *(.. / ,71 ; - !1 .17 ! -A7 , ! !1 1), !(, / : @)7),)!: 16 !(!) . ,- 71.. 7!1 1 - * 2)!( ), ,- -A7 , ! !1 !(71 , - : . ,

@) !: 16 (1 ; *), . @ !)1 , * *(.. / ,71 ; - 2)!( ), 7(*)- , !) . /.170 !1 8 1@)- ,), ! *!), *! !*7 8 3 (!12 , (1 ; *),)* 8 181 * - +)= 16 .1 , ,- *(1 ! !12 , (1 ; * /.170 * 1 , 8 ; /.)7 ,- 8)@ ! *! !*)* ,71 ; - !1 8 1@)- @) !: !1 !(*! !*7 8 (+ **), 16 .1 , !12 , (1 ; * /.170 * 7 , / / 10 , -12 , *1 !(! *), . +1 , 1 !1 , 1 ; * . @ !)1 ,)* , 1 ! 7 ! - (B1 ,), / :>. 2 + : 71 , !), *! ,- - * 71 , ! 1..), !( )* 7) 7; + *! , 7

B.3.2.2.4 *Medium Density Residential*

-);+ ,*)!: *)- ,!). ;* **(.. / 71+ 8)* - 8 -1+), ,!: 16 @)!: 16 .12)* E;8 !1 # *!1 :*+ + ;.!)8. !! 7(- -2 ..), ;,)! !:8 *), 7.;-), *! ! ,- /.170 !12 ,(1;* -2 ..), * ,- 1!(61 + *16 + ;.!)8. -2 ..), **;7(* * +)- ! 7(- -;8. = * !)8. = * *! 70 - !12 ,(1;* * ,-.12)* 8 !+ ,!/;)-), *

/ !) + ,!(1+ * ,-.1, ! + 7 6 7))!) * .*1 8 +)!! - 8 1@)- - !(: 71,!), -2)!(), /;)-), 61 + 8 +)!! -), # /1@

7 (- ,*)!: , 61 -);+ ,*)!: *)- ,!). **(.. / 6 1+ $!1 &%;,)!* 8 , ! *)- ,!). (7! E88 1=)+ !.: # !1 I ;,)!* 8 , ! 7 F (, ! *)- ,!). - ,*)!: + : / @ - 1@ 7(8. , 16 *;/-)@)*)1, 2)!(), !(- *), !)1,

- ,.17 !), , 2 -);+ ,*)!: *)- ,!). * 71,*)- !)1, *(.. /)@ , !1 !(61..12), 7)!)'

) .17 !)1, -A7,!!1 !). 1 -* ,-1!(8;/.)7! ,*)! 1;!*C

)) 2(-);+ ,*)!: *)- ,!). ;* * 8 181* - !1 / .17 !- -A7,!!1 12 ,*)!: *)- ,!). 71,*)- !)1, *(.. /)@ , !1 !(88 18)!),! !)1,16 /;)!61 + !1 ,(,7 71+ 8 !)/))!:

3 (!12, (1;*),)* 8 181* - +)=16 .1, ,- *(1 ! !12,(1;* /.170*1, 8;/.)7 ,- 8)@ ! *! !*)* ,71; - !1 8 1@)- @)!: !1 !(*! !*7 8 (+ **), 16 .1, !12,(1;* /.170*7, / / 10, -12, *1 !(! *), . +1,1 !1,1;* . @ !)1,)* ,1!7 ! - (B1,), /:>. 2 + : 71,!), *! ,- -*71,!1..), !()* 7)7;+ *! ,7

B.3.2.2.5 *Medium-High Density Residential*

-);+>) (,*)!: *)- ,!). * + : 8 +)! 8 !+ ,!* !12,(1;* * *! 70 - !12,(1;* -2 ..), * ,- 1!(61 + *16 + ;.!)8. !! 7(- -2 ..), * * *), . 61 + 1 +)= - 61 + - @.18+ ,!), +)->)* (1;*), 61 + E;8 !1 D *!1 :*+

/ !) + ,!(1+ * ,-.1, ! + 7 6 7))!) * .*1 8 +)!! - 8 1@)- - !(: 71,!), -2)!(), /;)-), 61 + 8 +)!! -), $ /1@

7 (+),)+ ;+ - ,*)!: 61 -);+>) (,*)!: *)- ,!). **(.. / '%;,)!* 8 , ! *)- ,!). (7! E88 1=)+ !.: # ;,)!* 8 , ! 7 F (+ =)+ ;+ - ,*)!: *(.. / * !1;!), !( )+ 8. + ,!), O1,), :>. 2

- -);+>) (,*)!: *)- ,!). **(.. / , ..: .17 !- 1, !(8)8(: 16 !(*)- ,!). 1), * /;!!), 71+ + 7). - @.18+ ,! !). 1 1.. 7!1 1 -*

3 (-);+>) (,*)!: *)- ,!). * 8181*- !1 / .17 !- -A7 ,! !1 12 ,- -);+ ,*)!: *)- ,!). ;** 71,*)- !)1, *(.. /)@ , !1 !(88 18)!),! !)1, 16 /;)!61 + !1 ,(,7 71+8 !)/))!: ()* + : / 771+8.)*(- !(1; (7()!7!; . + **), .1!*!/ 70*( ) (!*!/ 70*16 ;88 6.11 * *7. - ,*)!: /;66), ,-. ,-*7 8),

B.3.2.3 *Institutional Designation*

(. ,-*- *) , !- J,*)!;!)1, .K1, 7(-;. > :+ . 1 - 71,- : . , ,- * . , *(.. 8 +)! *7(11.* - : 7 7 ,! * 7(; 7(* ,; *), (1+ * *)- ,!). 7 6 7))!) * 71+ +;,)!: 6 7))!) * 1@ ,+ ,!* @)7 * ,- 1!(*)+)),*)!;!)1, .;**

/ !), ,*)!;!)1, .*)!**(12 ,1, 7(-;. ./ .. - *8;/.)7 ,-*8 ! .+ ,!: E ,- F ,-*71,- : *7(11. E F *)!* (* 8 *,! !(, ..17 !)1, ,-*)B 16 .+ ,!: ,-*71,- : *7(11.*)!** H;*!-/: !(+)!1,>3 ,!21!(1+ , !(1.)7 8 ! 7(11. 1 - ,-!(+)!1,> 3 ,!21!( )*!)7! 7(11. 1 - (*./.*7,7(, 2)!(1;! , + ,-+ ,! !1 !()* . ,

7 .. *7(11.**(.. / .17 !- -A7 ,! !1 - *) , !- 0. ,- * !1 81@)- 1881!;,)!)*!1*(6 7))!)*

- 1;,7) ,71; *!(- @.18+ ,!16 *7(11.*), A1),!7+8;**!!), *2 .. * !(- @.18+ ,!16 +;.!)8. ;* /;)-), *61 A1),!*7(11. ;* ,- A1),!*7(11. > 71+ +;,)!:6 7))!:;*

(*8 7)))7*)B 16 7(- *) , !- *7(11.*)! *(.. / - ! +), - 8)1 !1 88 1@. 16 !(- 6!8. ,16 *;/-)@)*)1,), 2 ()7(7(*7(11.*)!)*.17 !- (, -61 8 !)7;. *7(11.*)! *(.. .*1 / 71,6)+ - 8)1 !1 - 6!8. , 88 1@. ,- !(!)+), 61 2 ()7(!(*)!)* * @ - 2). .*1 / *!/.)*(- !!(!!)+

6 (1;.- ,:1 .. 16 !(- *) , !- *7(11.*)!*,1!/ H;) - *;7(. ,-*+ :/ ;* - 61 !(61..12), 8;81** 2)!(1;! !(H;) + ,!61 , 66)7). . , + ,-+ ,!

)} * *8 +)!! -), !(12 ,*)!: *)- ,!). - *) , !)1,C

))} * *8 +)!! -), !(12> -);+ ,*)!: *)- ,!). - *) , !)1,C ,-L1

)))} !(,*)!;!)1, .;**

,*)!;!)1, ./;)-), **(1;.- / - *) , - * ,) (/1; (11-617. 81),!* 2 ()7(7 ! -)*!),7!@ 71+ +;,)!:)- ,)!: ,- * ,* 16 8. 7 ,- * @ *. ,-+ 0* 61 1),! !)1, ,-.17 .)- ,)!:

(!!(!)+ 16 *;/-)@)*)1, 88 1@. *7(11.*)!*+ :/ B1, -61 /1!( ),*)!;!)1, . 8;81** ,-.12 - ,*)!: ,-L1 .12>+ -);+ - ,*)!: *)- ,!). 8;81**

B.3.2.4 *Parkland Designation*

,- - *) , ! - J 0. ,-K*(.. 71,*!)!;! ,) (/1; (11- . @ . 8 0* ,- / ;* - 61 7!)@ ,- 8 **)@ 8 0. ,- 8; 81* * !1 8 1@)- @) !: 16 7 !)1, . 1881 !;,)!) *61 !(*)- ,!* 16 !(:+ . 1 - . ,,), +)!! - ;* * *(..),7.;- 7!)@ 7 !)1, . ;* **;7(**81 !*6).-* ,- 8. : 1;,-* *2 .. * 8 **)@ 7 !)1, . 18 , *8 7 * ,- !)* (*8 7)!)7 6 7))!) * 8 1@)- -), 7(8 0*(.. / - ! +), - /: !(1+ + ;,)!: @)7 * 8 !+ ,!

/) (/1; (11- 8 0* *(.. / .17 ! - ,1 +1 !(, !%% + ! * 8 ! ,- .. *)- ,!). ;* *2)!(), !(71,- : . , *(.. , ..: / .17 ! - 2)!(), #%%+ ! -)*! ,7 E$+),;! 2 .0F 16 8 0

7 0. ,-)* ,71; - !1 / .17 ! - -A7 ,! !1 ,-), 71,A;,7!)1, 2)!(*7(11.* *)! * ,- 2 (81**)/. 2)!(*!1 + 2 ! + , + ,! 81,-* (12 @ ,)!(16 !(* . !! *)! **(.. / 71,*)- - !1 * !)%: ,: 8 0. ,- - -)7 !)1, H;) + ,!*

-) (/1; (11- 8 0*),! ,- - !1 / *H; 1 7! , ;.), *(8 (@ *) ,)7 ,! *! !6 1,! ,- / +),)+ ;+ 16 D (7! *), *)B 12 @ !1 8 1@)- 6. =)/))!:), - *) , ! 6! . , 16 ;/ -)@)*)1, !(*8 7)!)7.17 !)1, *)B ,- *(8 16 !(,) (/1; (11- 8 0*+ :@ :*;/A7! !1 !(88 1@ . 16 !( )!: ,: + A1 *)B 1 *(8 7(, 1 .17 !)1, 16) (/1; (11- 0 2). H;) , + ,-+ ,! !1 !()* . ,

8 - *!) , ,- /)7:7. !) , !21 0 *(.. / *! /.)*(- !1 .),0 8 0* 2)!(-A7 ,! *)- ,!). * (8 - *!) , ,- /)7:7. !) , !21 0 *(.. .*1 .),0 2)!(1.. 71 1 -* =! ,-), ,1 !(16 :+ . 1 - *1 * !1 8 1@)- !(1881 !;,)!: !1 .),0 2)!(!(8 181*- !) , !21 0), !( )! , 1+ + ;,)!: !)*),! ,- - !(! !(, !21 0 2). ;* 8;/.)7 *! !* *)- 2 .0* ,- 8;/.)7 18 , *8 7 . ,-* (, !21 0 *(.. /)- ,!)) - !(1; (!(! !*7 8 ,; .), $,- +1 *8 7)!)7 ..: - .), ! - -;), !(8 17 **), 16 *;/ * H; ,!8. ,*16 *;/ -)@)*)1,

6 , 71>18 !)1, 2)!(!(*8 7!)@ ;!))!: 71+ 8 ,) * !( )!: *(.. *! /.)*(8 - *!) , ,- /)7:7. !) , !21 0 .1, !(:- 1 71)-1 !(! 61 + * !(*1;!(, /1;,- :16 !(:+ . 1 - 71,- : . ,

B.3.2.5 *Commercial Designations*

(:+ . 1 - 71,- : . , 8 1@)- *61 61; 1+ + 7). - *) , !)1,*), 7.;-), , . 1+ + 7). * !1 * @ !(+1 177 *)1, . *(188), , -*16 *; 1;,-), *)- ,!). *C) (/1; (11- *C 17 . 1+ + 7). * !1 * @ !(2 0.: ,- -): , -* 16 *)- ,!). ,) (/1; (11- *C 17 . 1+ + 7). * !1 * @ !(71,@ ,), 7 , -* 16 !(, /: *)- ,!* ,- !(8 **>/: ! @..), 8;/.)7C ,- @)7 1+ + 7). E 7 !)1, .F * 2 ()7(8 1@)- 8)@ ! ,- 8;/.)7 7 !)1, . ;* * / ,H; ! 6 7))!) * *! ; ,!* * @)7 71+ + 7). ;* * ,- 166)7 *

B.3.2.5.1 *General Commercial*

,-*-*),!-,.1++7).),!,--61 71++7).-@.18+,!2()7((*.,-=!,*)@ H;)+,!**;7(*.6*!,-),/;)-),*2)!(*),.;* 1;8 16/;)-),*1+;.!)8.!,,!*(188),7,!*()*-*),!-)*),!,--!1 8)+):*@!(+1 177*)1,.71++7).,-*16!(*;1;-),*)-,!).*,-*(../ &(ED7*F

/ +)!!-;**),7.;-6;.., 16 !) ,-*@)7 71++7).8*1,.,-/;*), ** *@)7*166)7*,-+-)7.7,!*,!!),+,!67))!)*,-*!;,!*=7.;-),*;8+0!*(8!)7;.,,-*)B16;***(../-!+),-!(1;(+0!)+87!*!;-:-);+>()(-,*)!:*)-,!).;**+:.*1/8+)!!-),71>1-),!--@.18+,!61+!

7)1 !1 881@.16 ,:)+8.+,!),B1,),/:>.2 +,-+,!61 ,. 1++7).*)! +0!)+87!*!;-:E),7.;-),71,*;+ *;@:F*(../;,-!0,!1-+1,*!!!(!!(8181*-;*2).,1!-@*.:)+87!(8.,,-6;,7!)1,16 ,:=)*!),1-*),!-71++7).*(+0!)+87!*!;-:*(..)-,!):881 8)!;**!)+),,-+),)+;+6.11*)B*61),-)@)-;.*!1 *),1-!1 @1)--@*)+87!1,!(8.,,-6;,7!)1,16 ,:=)*!),1-*),!-71++7).*(!),,1;!*)-8 @)271,*;.!,!!!(8181,,!K*=8,*!18 @)2!(8181,,!K*+0!)+87!*!;-:

-,.1++7).**(../-@.18-),71>1-),!-,-71+8(,*)@+,,77**81),!**(../.)+)!-,--*(../)@,!1!(*(),1677**81),!*-H;!),!,.!66)7 7);.!)1,,-*-H;!166>*!!8 0),.1-),,-+,1;@),6 7))!)*

8,*!1 16 11-*,-+!).**(..,1!/8+)!!-=7 8!),*8 7).7**E -,7,!(-2 *!1 F*;/A7!!1 1;,7)K* 881@.,-)+8.+,!),O1,),:>.2 ;.!)1,*

6 1-),,-;,.1-),**(../.17!-*1*!1+),)+)B-@*66 7!*!1-A7,!*)-,!).*,-*(../*7,-61+@)2

,-*7 8),*(..61+,),!.8 !16..-@.18+,!*,-*7,),,-L1/;66),*(../81@)--/!2,71++7).,-1!(*,*)!)@-A7,!.,-;**

(..()(),!,*)!:1;!-11.)(!),*(../1),!-2 :61+*)-,!).*,-*! !*

B.3.2.5.2 *Neighbourhood Commercial*

,-* - *) , ! -) (/1; (11- 1++ 7).),! ,- - !1 8 1@)- !(-):
,- 2 0.: *(188), + ,)!) *61 !(*; 1;,-), *)- ,!). * (* *
*(.. , ..: ,1! =7 -#"(E # 7F

/ +)!! - ;* **(..),7.;- , 16 !) *1 *),7.;-), *;8 + 0 !E7;!
=7.;-), - 8 !+ ,!*1 F *2 .. ** @)7 71++ 7). ;** *!; ,!* ,-
71++;,)!: ,-),*!)!;!)1,.;** -);+>() (- ,*)!: *)- ,!).;**+ : .*1
/ 8 +)!! -), 71>1 -), ! - - @.18+ ,!61 + !

7) (/1; (11- 1++ 7).-*) , !)1,*(.. (@ + =)+;+ 1**. * /.
6.11 16 %%%*H; + ! *)1 !1 88 1@.16 ,:)+8.+ ,!), E1,),
/:>. 2 + ,-+ ,!61 ,) (/1; (11- 71++ 7).*)! + 0 !)+8 7!*!;-:
(../ ;,- !0 ,!1 - +1,! ! !(!!(8 181*- ;* 2).,1! -@ *.:)+8 7!
!(8. ,, -6;,7!)1,16 ,: =)*!), 1 - *) , ! - 71++ 7). *

- 7!)1,* $ E-F !1 E(F),7.;*)@ .*1 88.: !1 !(- @.18+ ,!16
) (/1; (11- 1++ 7). *

B.3.2.5.3 *Local Commercial*

,-* - *) , ! - 17. 1++ 7).),! ,- - !1 8 1@)- !(71,@ ,),7
*(188), + ,)!) *61 !(*; 1;,-), *)- ,!* *2 .. *1 !(8 **>/:! @..),
8;/.)7

/ +)!! - ;* **(..),7.;- .)+)! - , 16 71,@ ,),7 !) 8 *1,.* @)7 *
8 16 **)1,.166)7 * ,- *! ; ,!;* *

7 (+ =)+;+ 1**. * /. 6.11 16 ,:),-)@)-;.71++ 7). *!/.)*(+ ,!
*(../ $%%*H + ,-!(+ =)+;+ 1**. * /. 6.11 16 ,: 1;8 16 17.
1++ 7).;** **(../ $%%*H +

- 7!)1,* $ E-F !1 E(F),7.;*)@ .*1 88.: !1 !(- @.18+ ,!16 17.
1++ 7). *

1!2)!(*!,-), 7!)1, $ /G 7 !(17. 1++ 7). !!(*1;!(2 *!
71 , 16 :+ . 1 - ,- 71,- 1 - 2()7(2 * 8 @)1;*.: 88 1@ - !(1; (
66)7). . , + ,-+ ,!* D ,- *(.. (@ + =)+;+ *)! 16 "
(7! * 2)!(,1 + =)+;+ 6.11 ,- / 8 +)!! - !1 71,!), !(61..12),
--)!)1,.;** *
) + H;)8+ ,!*. * ,!. ,-* @)7
)) + *;88.: *! /.)*(+ ,!*
))) - ,7,! *C
)@ + 8 1-;7 + 0 !*
@ ,!)-H; ,-)!*(18*
@) *! ; ,!2)!(+ =)+;+ * !), 7 8 7)!:16 %8 *1,*

@) 6 *(+ ,!*! ,-
@)) 3 (1..: ,7.1* - @ !), : * @)7 *! /.)*(+ ,!
@))) !*!1
)= !611- *!1
= *1, . !(+ *! /.)*(+ ,! ,-
=) ;)-), * *! ;7!; * ,- ;** 77 **1 : !1 !(/1@>,1!-8 +)!!- ;**

B.3.2.5.4 *Service (Recreational) Commercial*

,-*- *), !- @)7 E 7 !)1, .F 1++ 7).),!,- - !1 81@)- +1 *8 7).)B - ,-.)+)!- 71++ 7).;** *;7(*166)7 / ,H; !6 7))!)* *! ; ,!* ,- 7 !)1,.;** !)*!1 * =7 8!61 ,7). : 71,@ ,),7 !)*(.. ,1! / 8 +)!!-

/ 7!)1,* $ E-F !1 E(F),7.;*)@ .*1 88.: !1 !(- @.18+ ,!16 @)7 E 7 !)1, .F 1++ 7). *

B.3.2.6 *Stormwater Management Area Designation*

,-*- *), !- * !1 +2 ! , + ,! *1, 7(-;. *(.. / ;*- 8)+):61 *!1 +2 ! -), 8;81** *;7(**!1 +2 ! -), 7(,,.* ,-81,-*!1 71,!1.*!1 +2 ! H; ,!)!: ,-)+ 81@ *!1 +2 ! H; .)!: *2 .. *71+8 !)/. !)1 8 **)@ 7 !)1,.8;81**), 771 - ,7 2)!(!(61..12), 81.)7)* !1 +2 ! + , + ,!)* ,)+81 !,! 71+81,,! 16 ; / , - @.18+ ,! (*6 7))!)*)+8 1@ !(H; .)!:16 ; / ,*!1 +2 ! !(!6.12*166 7)!:*! !* ,- -)@ 2 :*),!1 !(*!1 + *2 *:*!+* ,- 71,!1.*!(H; ,!)!:16 !(*!1 +2 ! 6.12*!1 8 >- @.18+ ,!. @.*

/ (- *), 16 !(!1 +2 ! + , + ,!6 7))!)* *(.. 71+8.: 2)!(!(H;) + ,!*16 !(+ ;,)7)8 .)!:8;*; ,!!1 !(88 1@ - *! @)7), ,-), . ,61 !(:+ . 1 - . ,,), !(-18!-*! ,- -*16 !( )!: 16 +)!1, !(81.)7)*16 !()* . , ,- !(H;) + ,!*16 !(88.)7 /. 1,* @ !)1, ;!(1)!)* !( ),)*!:16 ,@)1,+ ,! ,- !( ),)*!:16 !; . *!1;7*

7 !1 +2 ! + , + ,!6 7))!)* *(1;.- / - *), -), 71,*;.!!)1, 2)!(H; .)) - . ,-*7 8 7()! 7! ,- 2(81**)/.),71 81 ! , !; .)B - - *), !1 7()@ 8 0>.)0 * !!), 2)!(88 18)! ! * *(;/*+ -12 ** * ,- 2)-6.12 * *2 .. *),71 81 ! !)1 8 **)@ 7 !)1,.;**

- ,-* H;) - 61 *!1 +2 ! + , + ,!6 7))!)* *(12,1, 7(-;. *(.. / - -)7!- !1 !(+;,)7)8 .)!:

( )!: + :71,*)- !(*! /.)*(+ ,!16),!)+ *!1 +2 ! + , + ,! 6 7))!)* 1, ! +81 : / *)* 2)!(), !(:+ . 1 - . ,,), ,1!2)!(*!,-), !(;,- .:), . ,- ;* - *), !)1,61 !(. ,-* 81@)- - !(

), !)+ 6 7))!) * -1 ,1 !8 7.; - 1 8 A; -)7 6; !; - @ .18+ , !1 , !(/ *)* 16 !(. ,- ;* - *) , !)1 , * *(12 , 1 , 7(- ;.

6 (, * 1 !(* - *) , ! - 1 + 2 ! , + , ! * + : / + - 2)!(1; ! , + , - + , ! 1 !( )* . , / * - 1 , +1 - !) -),61 + !)1 , , - , .: *)* *; / A7! 1 , + , - + , ! 1 !(*! @)7), , -), . , , - !(88 1@ . 16 !( )!: , - 8 !), , ! , 7) *

3 (81 **)/. *1 + 2 ! + , + , ! 6 7))!) * *(1; .- / 71+ /), - 2)!(1 !(18 , *8 7 ;* * *; 7(* 0. , - *

B.3.3 ENVIRONMENT

(8 >- @ .18+ , !. , - *7 8 2)!( ), !(:+ . 1 - . , ,), 71 , *)*!*. .: 16 7; .!)@ ! - 6 +. , - /)* 7! - / :), ! +)!! , ! *! + * ( )* .17 ! - ! !((-2 ! *61 , ; + / 16 *! + * , -)* -)@)- -), 1 !21 2 ! *(- * !(-). 0 , - 2 , !: 0 (7 , ! . 81 !)1 , 16 !(*!; - : -), * , 1 !( ), 1 !(! 2 ! , - (1 ,)= 0* 3)!( ), !( )! , 71+ + ; ,)!: !(* 7 0* (@ 7 ! - 4 *! . , - *7 8 71 , *)*!), 16 *), 0(1. * , - 7 @ * (**17) ! - 2)!(!(* 4 *!6 !; *), 7.; -), !(; 8*! + 2 ! *(- (*/ , 8 181* - * , 16 !; . , - 7) , !)) 7 , ! *! E F *8)! !( )* 8 181* . - @ .18+ , ! 2)!( ), !(*8 7!)@ 2 ! *(- * 2)!( ), !(:+ . 1 - 71 , - : . , 7 , 177; 8 1@)- - !(! !(H; .)!: , - H; , !)!: 16 *; 6 7 2 ! -),), 6 1+ !(71 , - : . ,), 81 *)- @ .18+ , ! 71 , -)!)1 , -1 * , 1 !)+ 8 7! !(-12 , *! + 0 *! 8 17 **1 6 !; * (2 *! , 81 !)1 , 16 !(*!; - : -), * 1 !(, , 1 , 0 ( ), ! +)!! , ! *! + * **17) ! - 2)!(!((-2 ! * 16 !(, , 1 , 0 (@ 7 ! - 4 *! 6 !; *), !( )* 81 !)1 , 16 !(:+ . 1 - . , ,), (* 4 *! . , - *7 8 * 8 * , ! !(+1*! *) ,)) 7 , ! , !; . 6 !; * 1 , , - -A7 , ! 1 !(:+ . 1 - . , ,), (*! , 81 !)1 , 16 !(. , ,), -), * *! 1), 0(1. 0 !)/ ; ! : 16 2 , !: 0

(2 ! H; .)!: -),), , 1 !( ), 1 !(! 2 ! , - (1 ,)= 0* *(.. /)+ 8 1@ - 8), 7)8 .. : 2)!(*8 7! 1 * -)+ , !.1 - !(1; (, !; .)B - *1 + 2 ! + , + , ! ! 7(,)H; */1 !(- ;), , - 61..12), 71 , *! ; 7!)1 ,

/ (2 ! H; , !)!: -),), , 1 !( ), 1 !(! 2 ! , - (1 ,)= 0* *(.. +), !), !(8 >- @ .18+ , !)+), 771 - , 7 2)!(88.)7 /. + ; ,)7)8 . *1 + 2 ! + , + , ! 81.)7) * 16 !( )!: 16 +) 1 , , - 6.12 * *(1; .- 1 1 /1 !(! 2 ! , - (1 ,)= 0 ! 88 1=)+ ! . : !(* + 8 181 !)1 , * 7; , ! : =)*!*

7 1 + 2 ! + , + , ! 81 , - * *(.. / 7. :>.), - 1 8 @ , !.1 ** 16 *; 6 7 6.12 1 ! 2 ! , - (1 ,)= 0*

- (4 *! 6 !; * .17 ! - 2)!( ), !(:+ . 1 - . , ,), , - **17) ! - 2)!(, , 1 , 0 *(.. / 7.1* - 1; ! 1 + 2 ! + , + , ! *: *! + * *(.. / - *) , - / : !(88.)7 , ! 8)1 1 88 1@ . 16 - 6 ! 8. , * 16 *; / -)@)*)1 , 1 >

1;! *;6 7 2 ! !(!-),*),!1 !(* 4 *!6 !; **1 !(!)!-),*),!1 !(,,1, 02 ! *(-2 *!16),)!: (;7(1 -

(2 ! H; ,!)!: -),), 2 *!),!1 ,,1, 0 *(.. +),!), !(8 > - @.18+ ,! . @.*), 771 - ,7 2)!(88.)7 /. + ;,)7)8. *!1 +2 ! + , + ,!81.)7) *16 !( )!:16 +)!1,

6 1!7(,)7. *!;-)**(.. / 71+8. !- /: !(88.)7 ,!8)1 !1 88 1@.16 - 6! 8. ,*16 *;/-)@)*)1, !1)- ,!):!(.17 !)1,164 *!6 !; *2()7(71;.- 66 7!!(71,*!;7!)1,16 /;)-), * 1 -** @)7 * ,-;!))!)* ,- 71++ ,- 88 18)! 71,*!;7!)1,!7(,)H; * ,-1!(+)!) !)@ + *; *!1 8 1!7!8;/.)7(.!(,- *6 !:

-)+ ,!!)1, ,- 1)1,71,!1.8. ,*(../ *;/+)!!- !- !)- ,),), 8)1 !1)*! !)1,168. ,*16 *;/-)@)*)1,2()7(-- ** *(12 *-)+ ,!!)1,2)./ 71,!1.. - -;), 71,*!;7!)1, *! *

B.3.4 INFRASTRUCTURE

!)*!( ),!,!16 1;,7)!1 ,*; !(!!(:+ . 1 - . ,,), -@.18*1,!(/ *)*166;.. +;,)7)8. * @)7 *),7.;-), *,)! :*2 * ,- 8)8-+;,)7)8.2 ! *;88.:), 771 - ,7 2)!(!(61..12), 81.)7) *

( )!: ,- 8 !),,!8)@ ! *711),! *!* *(..21 0), 71>18 !)@ ,- 8 1 7!)@ + ,,), 1 - !1 8 1@)- !(88 18)! *,)! :*2 * @)7 *,-+;,)7)8.2 ! *;88.:!1 !(:+ . 1 - . ,,),), + ,, !(!)*/1!(,@)1,+ ,!..: ,-6)*7..:*1;,-

/ (8 1@)*)1,16 +;,)7)8. *,)! :*2 * ,-2 ! +),**(..71+8.:2)!(!(H;)+ ,!*16 !( )!:8; *; ,!!1 !(88 1@- *! @)7), ,-), .,61 !(:+ . 1 - . ,,),

7 !)*),!,- - !(! 81 !)1,16 !(.,,), 2)./ * @)7 - /: H;)- *,)! :*2 8;+8), *! !)1, ,- 2 ! /11*! *! !)1, /1!(.17 !-), ,-L1 -A7,!!1 !(*1;!(> *! .:81 !)1,16 !(.,,), (=7!.17 !)1,*16 !(*,)! :*2 8;+8), *! !)1, ,-L1 2 ! /11*! *! !)1, *(../ - ! +), - !!(6), .- *),*! ,!()* - ,:81 !)1,16 !(.,,), + :/ ;*-61 !(*,)! :*2 8;+8), *! !)1, ,-L1 2 ! /11*! *! !)1,

- =)*!), *)- ,!).-2 ..), * ,71; - !1 71,, 7!!1 +;,)7)8.8)8-2 ! ,-*,)! :*2 * ** @)7 * =!,- -

F ,: =)*!), 2 ..*2()7(/,-1, - +;*!/ 8.; -), 771 - ,7 2)!(,!)1 ;. !)1, D% LD%E2 ..*F *6; !(+ ,- - ,: =)*!), *8!)7L(1.-), !,0*2()7(/,-1, - +;*!/ 8;+8-1;!/: .)7,*-*2 (;. ,-!(!,071..8*-16).-),2)!(7. ,*1)+ !).

B.3.5 TRANSPORTATION

!)* !( ), ! , ! 16 1 ; , 7) !1 8 1@)- * 6 ,- 66)7) , ! ! ,*81 ! !)1 , *: *! + 2 ( )7( ), 7. ; - * /)0 8 !(* 1 , ,- 166>*! !2 .0), !)* ! ,*)!.), 0 * ,- 1 - , !2 1 0 61 !(:+ . 1 - . , ,),), 771 - ,7 2)!(7(- ;. > :+ . 1 - 71 , - : . , ,- * . , ,- !(61..12), 81.)7) *

B.3.5.1 General Policies

7(- ;.)- , !)) * ,), ! , . 8 ; / .)7 1 - *: *! + ,- 1 - ( ) 7(: 61 !(. , ,), (1 - ( ) 7(: 71 , *)*!*16 !) . 1.. 71 ,- 17 . 1 - * .!(1 ; (17 . 1 - * ,1 ! *(12 , 1 , 7(- ;.

.. , 2 1 - * 2)!( ), !(. , ,), *(.. / - *) , - ,- 71 , *! ; 7! -), 771 - ,7 2)!(!(! ,- - 2), * 61 / , 1 - * 71 , !), - 2)!( ), !(-18 ! - *! ,- - * 16 !( )!: 16 +) !1 , ( )!: + : 71 , *)- .! , !)@ @ .18+ ,! ! ,- - * 2 ( ), !(18),)1 , 16 !( )!: !(: 88 18) ! ,- -1 ,1 ! 71 + 8 1+)* 8 ; / .)7 * 6 !: 1 !(66)7) , 7: 16 !(! ,*81 ! !)1 , , !2 1 0 1 !(/))!: !1 .17 ! !(H;) - * @)7 *

/ * 71 , -)!)1 , 16 - @ .18+ ,! 1 - @ .18+ ,! 88 1@ . .. . ,- * H;) - 61 , 2), ! , . 8 ; / .)7 1 - * 1 - 2)- ,), *61 =)*!), 8 ; / .)7 1 - * ! 66)7 7 .+), + *; * ,- L1 - :>.) (!), !) , . * *(.. / - -)7 ! - 6 16 7(,- 6 16 .. ,7; + / ,7 * !1 !(* !)% 7!)1 , 16 !( )!: =7 8 ! 2 (!( )!: K* - @ .18+ ,! 7(81.)7: 8 1@)- *1 !(2)*

7 (88.)7 /. 81 !)1 , 16 12 !(. ! - 71 *!* . ! - !1 !(- *) , ,- 71 , *! ; 7!)1 , 16 .. , 2 8 ; / .)7 1 - * ,- !(88 18) ! ; 8 -), 16 !(- A7 , ! =)*!), 8 ; / .)7 1 - * H;) - * *; . ! 16 - @ .18+ ,! 16 :+ . 1 - . , ,), *(.. / 8)- 61 / : - @ .18+ ,! ,- *(.. / *; / A7 ! !1 !(6), ,7), 8 1@)*)1 , *16 7!)1 , & 16 !( )* . , ,- !(71 *! *( ), 8 1@)*)1 , *16 7!)1 , &#

- , *1+ * ,- 61 *1+ - @ .18+ ,! *; 7(* *! ! !12 , (1 ; * * .1 , 1.. 71 1 - * 77 ** !1 - @ .18+ ,! * @)7 - / : . , * 1 6 1 , ! . , * + : / 88 18) ! ,- ,71 ; -), 1 - !1 71 , !) / ; ! !1 ,)+ 8 1@ - *! !*7 8 ,- ; / , 7(7! / ; ! *; 7(. , *1 6 1 , !. , *+ : +),), 8)@ ! 12 , *( )8

,>*! !8 0), + : / 8 +)!! - 1 , 1.. 71 ,- 17 . 1 - * * *8 7)) -), !( )* 8. , 1 61 - -)!)1 , . 8 0), 8 +)**)1 , ! !(-)*7 !)1 , 16 !( )!: 16 +) !1 ,

6 (; * 16 7; .>- >* 7), !(1 - 8 !! , *(.. / -)*71 ; - ,- + : 1 ,. : / 8 +)!! - 2 (!(12 , * !)%) * !( )!: !(! ,1 1 !(.! , !)@ - @ .18+ ,! 61 + 1 *! !8 !! ,* 6 *) / .

B.3.5.2 Streetscape

! !*7 8)* 0 : . + , ! 16 *; 77 **6 ;. 8 ; / .)7 .+ (1 -)* !(8), 7)8 .), ! 6 7 / !2 , / ;) !61 + , - !(8 ; / .)7 .+ , - **; 7(8. : * -1+), , ! 1.), - ! +),), !(7(7! 16 , :)@ , ,) (/1 ; (11- (. + , !* !(! *(8 !(*! !*7 8), 7. ; - -A7 , ! 7( )! 7!; . - *) , !(. !)1 , *( )8 16 / ;) -), * !1 !(*! ! : - * , - /1 ;. @ - * 1 - * *)- 2 .0* 8. , !), 16 ! * 6 , 7 * , - ; !))!) * ! !*7 8 81.)7) *), ! , - - !1 ;)- !(8. , ,), , - - *) , 16 8 ; / .)7 1 - 2 :*), 7. ; -), !(*8 7 * =! , -), 7 1** !(1 -

7 1+ 8 (, *)@ ! !*7 8 , ; . *(.. / 8 8 - / : !(. , -12 , * !1 !(* !)*6 7!)1 , 16 !( )!: 61 !(1@ .. :+ . 1 - . , ,), (! !*7 8 , ; . *(.. 6. 7! !(*! !*7 8 8), 7)8. * , - 1/A7!)@ *), 7!)1 , 16 !( )* . , (! !*7 8 , ; . *(.. -- ** !(61..12), '

) !(6 ; , 7!)1 , - *) , , - ! !+ , ! 16 1 - !:8 *E) *)- 2 .0* , - 7 1**2 .0* . , - *7 8), L/1 ;. @ - 8. , !), *), ! * 7!)1 , ! !+ , !* 1 ,>*! ! 8 0), *) , *! !.) (!), , - ; !))!: 2) * !7FC

)) 7 1 , !), ; 1 ; * /)7: 7. !) *: *! + , - 88 18) ! + , * !1 77 1+ + 1- ! !(*: *! + 1 , !) . , - 7 1.. 7 !1 1 - *C

))) 7 1 , !), ; 1 ; * 8 - *!) , !) *: *! +), 7. ; -), 8 ; / .)7 *)- 2 .0*C

)@ H ;) + , !*61 !(+ 1/))!:)+ 8) - *; 7(* * 6 !: 6 !; * ! !+ , !* !/ ; * *!1 8* *! , - -*61 !(8. 7 + , ! 16 *! !6 ; ,)!; *)- 2 .0 +), ! , , 7 , - - *) ,), 7. ; -), 7; / 7; !* *1 * !1 8 1@)- 7 1 , !), ; 1 ; * /) 6 8 !(!1 ! , *)! * @)7 *C

@ H ;) + , !*61 /1 ;. @ - ! 8. , !),), 7. ; -), *8 7), , - 7 , 18 : - , *)!:C

@) !(- *) , 16 *8 7) . , ! : 81), !* 1 ! 2 : 6 !; * 2 (7 1.. 7 !1 1 - *), ! * 7! 2)!(8)+ ! !) . 1 - *C , -

@) !(- *) , 16 ! 66)7 7 .+), 6 !; * .1 , !(7 1.. 7 !1 1 - *

/ (- *) , 16 .. *! !*7 8 . + , !* + ; *! / 7 1 , *)*! , ! 2)!(!(! !*7 8 , ; . *1 !(! !(1 - * 7 1 (*)@ , - !! 7!)@ 8. 7 * 61 8 - *!) , * , - 8 *1 , * ! @ ..), !(1 ; (!(+ 3 (!( )!: * !1),)!) ! .! , !)@ - @ .18+ , ! *! , - -* ! - 6 ! 8. , 16 *; / -)@)*)1 , 88 1@ . !(! !*7 8 , ; . *(.. / ; 8- ! - !1 6. 7! !( )* *! , - -

7 A), ! * 7!)1 , * *(1 ;. - / 8 - *!) , 1) , ! - 8 1@)-), 7 1 , , 7!)1 , !1 8 ; / .)7 2 .02 :* 1 ;. @ - ! 8. , !), *(1 ;. - / 7.1 * . : *8 7 -

-),1),! * 7!)1,* *(1;.- 71,!),; !1 6 !; . ,-*7 8 ! !+ ,!!(1; (1 - *! !! *. 7!)1,2)!(,),7 *--,*)!:16/1;.@ - ! 8. ,!),

  (*! !*7 8 88 ,7 16 !). ,- 1.. 71 1 -**(.. / ,(,7 - /: ,71;), /;)-), *!1 8 *,!!( ) +), /;)-), 6 7 - *!1 !(* 1 -* ,- !1 ,(,7 !( ) ! !+ ,!!1 @1)- !(88 ,7 16 /. ,0/;)-), 2 ..* ,- * @)7 ,! ,7 *

B.3.5.3 Arterial Roads

:+ . 1 - ,-)1,. 1 - $" (@ - *) , ! -) (Þ16>2 : 2)-!(16 88 1=)+ !.: "+ ! *

/),)!: (;7(1 - *1;!(16 :+ . 1 - (* - *) , ! -) (Þ16>2 : 2)-!(16 "+ ! *),)!: (;7(1 - *(.. / .) , - ! :+ . 1 - !1 .) , 2)!(!( ),)!: (;7(1 - =! ,*)1, ,1 !(16 :+ . 1 - 1 771+ +1- ! !()* .) ,+ ,!1 !1 81@)- 61 --)!)1,. !; ,), . , * +), . , *1 1!(+ *; * H;) - !1 .) , 2)!(!( ),)!: (;7(1 - =! ,*)1, ,1 !(16 :+ . 1 - --)!)1,. 1 - 2)-,), + :/ H;) - ! !( ),! * 7!)1, 2)!(:+ . 1 - 1!2)!(*! ,-), 7!)1, $ EF)--)!)1,.. ,-*/ :1,-!(- *) , ! - "+ !) (Þ16>2 : 2)-!(H;) - !(: 2)./ 8)-61 /: !( )!:

7 1!2)!(*! ,-), 1.)7: / E)F 16 !(. ,/ 110 66)7).. , @ * .1! 6 1,! - @.18+ ,!*(.. ,1!/ 8 +)!! - .1, !). 1 -* =7 8! *8 1@)- - 61), 7!)1, 016 !()* . ,

- 1!2)!(*! ,-), 1.)7: $EF 16 !(. ,/ 110 66)7). . , !(H;) - 1 - 2)-,), 2)./ !0, H;..: 6 1+ /1!(*)- *16),)!: (;7(1 - 2( )! /1;,-*!(:+ . 1 - 71,- : . ,

B.3.5.4 Collector Roads

( ) (Þ16>2 : 2)-!(16 !(1.. 71 1 -**(.. / "+ ! * /;!+ :/ ;8 !1 % + ! * !1 771+ +1- ! ! 66)7 7.+), + 7(,)*+ * 1 *! !*7 8 6 !; *)- ,!§)-), !(! !*7 8 ,;.

/ ( )!: *(.. H;) *;66)7),!) (Þ16>2 : / - -)7 !- !1 ,*; !(81**)/. .1, ! + 6;!; =! ,*)1,16 71,- 1 - 3 *! *1;!(!(1; (!((:- 1 71)-1 !(.) ,+ ,!16 2 ()7(*(.. / 71>1 -), ! - 2)!(:- 1> , !21 0* 1)!* *;77 **1 71+ 8 ,: , !( ),!)+ !()* 8;/.)7) (Þ16>2 : *(.. / ;* - * 8 - *!),,- /)7:7. 77 **

7)7:7. 6 7))!)**(.. /),7.;- -2)!(), 1.. 71 1 -) (Þ16>2 :*

- (7,! . *Þ2 *! 71.. 71 1 -*(.. 71,!), + =)+ ;+ 16 !(1; (. , * 8 1@)- 61 1,>*! !8 0), 1, !. *!1,*)- ,-),71 81 ! ! 66)7 7.+), 6 !; *

88 18) ! ! 66)77.+), 6 !; **(.. /),71 81 ! -),!1 !(71.. 711 1 -2 : *:*! + !.17 !)1,* - ! +), - /: !( )!: 16 +)!1, ,- 71,*! ;7! - !1 !(* !)%6 7!)1,16 !( )!: ! !(*1. =8 ,* 16 !(. ,-12 ,

B.3.5.5 Local Roads

17. 1 -)* ,),! , . .17. *! ! !(!)*),! >.),0 - !1 !(,) (/1; (11- , !21 0

** !1;!), 7!)1, # / .! , !)@ - @.18+ ,! *! ,- -* ,- 1 - 2)- !(* + :/ 71,*)- - (- !)* -), 88 18) !) (!*>16>2 :2)- !(**(.. / -- ** - 8)1 !1 - 6!8. ,16 *;/ -)@)*)1, 88 1@.

/ ,>*! !8 0), *(.. / 8 +)!! - 1,1, EF *)- 16 !(1 -

7 (.),+ ,!16 81**)/. =!,*)1,16 2 :B 1 - *(.. / - ! +), - 8)1 !1 !(88 1@.16 ,: - 6!8. ,16 *;/ -)@)*)1,61 !(-A7,!. ,-*

B.3.5.6 Sidewalks and Bicycle Paths

)- 2 .0* 8. 7 * 61 8 - *!), +1@ + ,! 7()- ,K* 8. : ,- ,) (/1; *K *17).)B),)- 2 .0* ,71; 2 .0), * ; / , ! ,*81 ! !)1, 2 .0), !1 ! ,*)! ,- 2 .0), 61 8. *;)- 2 .0*)+ 8 1@ !(.)@ /))!: 16 71+ + ; ,)!: ,(,7 *6 !: ,- @)!. !1 * ,)1 * ,- !(-)* /. -.

(! !*7 8 ,; . * H;) -), 7!)1, $ *(..)- ,!): !(.17 !)1,16 *)- 2 .0* !( ) 2)- !(* ,- - *) , . + ,!*2)!(), !(:+ . 1 - . , ,),

/)- 2 .0**(1;.- / 8 1@)- - 1, /1!(*)- *16 !). ,- 71.. 711 1 -* ,- 1, *)- 16.17. 1 -*1 ** !1;!), , 2)!: 16 +)!1, *)- 2 .0 81.)7:

7 (2)- !(16 8;/.)78 - *!), 2 .02 :*!1 8 0* ,- !((:- 1 71)-1 *(.. / 16 *;66)7), ,!2)- !(!1 771+ + 1- ! ; !)))!) * 8 1@)- - H; ! @)*)/))!: 6 1+ !(*! ! ,- 8 1+ 1 ! 8;/.)7 * 6 !: ,- *(.. / - ! +), - 8)1 !1 - 6!8. , 88 1@.

- 71,!), ;1;* /)7:7. !) *:*! + *(.. /)- ,!)) - * 8 ! 16 !(! !*7 8 ,; .), 7!)1, $ (/)7:7. !) *:*! + *(..),7.;- /1!(1,>*! ! ,- 166>*! ! 1;! *.),0), !(8 0* ,- 71+ + ; ,)!: 6 7)))!) * 66>*! ! 1;! * 2). ;* 8;/.)718 , *8 7 . ,-*),7.;-), *7(11. *)! * ,- 81! ,!). 1;! .1, !((:- 1 71)-1

B.3.5.7 Public Transportation

11- ! ,*)! * @)7)* , ** ! !1 .. 71+ + ; ,)!) * (/))!: !1 *; 881 ! 8 ; /.)7 ! ,*)!)* . .: - 8 ,- ,! ; 81 , !(- ,*)!: ,- , + ,! 16 . ,- ;* * * 2 .. * !(- *) , 16 !(*! !*7 8 ,- !(. !)1 , *( )8 16 -A7 , ! / ;) -), * !1 !(*! !

1 ; , 7) *(.. ,*; !(- *) , 16 !(:+ . 1 - . , ,),), 7. ; -), !(.17 !)1 , 16 ( ) (- ,*)!: . ,- ;* * ,- !(*! !*7 8 - *) , 2). 8 1@)- 61 !(/))!: !1 771+ + 1- ! 6 ; !; 8 ; /.)7 ! ,*81 ! !)1 , ! , .: *!), !(- @ .18+ ,! 16 !(71+ + ; ,)!: ,- !(.1 , ! + 81 ! , !) . 61 ( ) (1 - ! ,*)! *; 7(* =8 **/ ; ** @)7 .1 , !(!) . 1 -*

/) (/1 ; (11- - *) , *(1 ; .- +),)+)B 8 - *!) , 2 .0), -)*! ,7 !1 ! ,*)! * @)7 3)!( ), !(:+ . 1 - . , ,), D%M 16 .. *)- , !) . -2 ..), **(.. / 2)!( ), 88 1=)+ ! .: #%%+ ! *16 81 ! , !) . ! ,*)! *118

7 (! ,*)! *: *! + + ; *! /), ! ! -), !1 !(71+ + ; ,)!: - *) , ,- / 0 : 71+ 81 , , !16 71+ + ; ,)!: 617 . 81), !*), 7. ; -), 71+ + 7) . *

B.3.6 UTILITIES

(: - 1 71)-1 / ; !* !(*1 ; !(, /1 ; , - : 16 !(:+ . 1 - . , ,), ( )!: *(.. 21 0), 71 , *; .! !)1 , 2)!(:- 1 , 1)!* *; 77 **1 71+ 8 , :), 1 - !1 *! /.)*(8 - *!) , L /)7 : 7. 8 !(L!) .), 0 * .1 , !( )* 71)-1 ,- 71 , !), ; 1 ; * *)-2 *!8 - *!) , .), 0 61 !(. , ,),

/ + 8 1@ + ,!* 2)!( ), !( )* 71)-1 *(.. / *; /A7! !1 !(88 1@ . 16 :- 1 , 1)!* *; 77 **1 71+ 8 , :

7 -), ,- -), 16 . ,- * 2)!( ), ,- L1 -A7 , ! !1 !( )* 71)-1 *(.. / - *) , - !1 ,*; !(,1 -@ *)+ 8 7!* 1 , !(* . ,- * ,- *(.. (@ - 61 71+ + ,!*6 1+ !(88 18) ! ,7) *

- 3)), 61 . 7!)7 . 812 -)*!)/ ; !)1 , ! . 8 (1 , * 7 /. ! . @)*)1 , ,- ,: *)+) *: *! + * *(.. / .17 ! - ; ,- 1 ; ,- =7 8 ! .1 , =)*!), !) . 1 -*

B.3.7 IMPLEMENTATION

B.3.7.1 *Urban Design Guidelines*

1+ 8 (,*)@ ; / , - *) , ;)- .), * *(.. / 8 8 - 61 !(,!) :+ . 1 - . , ,), (8), 7)8. * ,- 1 /A7!)@ *), 7!)1 , .1 , 2)!(1 !(81.)7) *16 !( )* . , 8 1@)- , 1@ .. ;)-), 6 + 21 0 61 !(8 8 !)1 , 16 ; / , - *) , ;)- .), * (/ , *) , ;)- .), * *(.. / 71 , *)*! , ! 2)!(!( )*6 + 21 0 ,- *(.. / 8 8 - / : !(. ,-12 , * !1 !(* !)*6 7!)1 , 16 !( )!: (* ;)- .), * + : / 8 8 -)!(1 , *), . 71+ 8 (,*)@ / *)*61 !(,!) 71 ,- : . , 1 1 , *; /> / *)* 8)1 !1 !(88 1@ . 16 ,: - @ .18+ ,! 88.)7 !)1 , *61

6 ! . , 88 1@ . 1 + , - + , !* !1 !(O1 ,), :>. 2 !1)+ 8. + , ! !( )* . , 2)!( ), !(*8 7!)@ 1 *; /> ; /> * !(1* /.170*16 . , - * * 8 ! - / : !(,1 !(> *1 ; !(71.. 7!1 1 - *

B.3.7.2 *Phasing of Development*

@ .18+ , ! 2)!( ), :+ . 1 - . , ,), *(.. / 8(* - 771 -), !1 !(7 8 7)!: 16 !( ),6 *! ; 7!; * @), !(:+ . 1 - . , ,), , - .) - 1 , / : !(6 ; !; *)- , !* 16 !(@ .18+ , ! + : .*1 / 8(* - !1 @1)- 81 ! , !) . . , - ; * 71 ,6.)7!*

B.3.7.2.1 *Transportation Phasing*

(6 ;.. - @ .18+ , ! 16 !(:+ . 1 - 71 , - : . , 2). .: 1 , !(! , *81 ! !)1 , 7 8 7)!: 8 1@)- - / : !(61..12), 1 -)+ 8 1@ + , !*
)} 71 , *! ; 7!)1 , 16 !(-). 0 =8 **2 : 2)!(61 ; . , * 8. ; * , - -)!)1 , . ; 8/1 ; , - ! ; 70 . ,
))} 2)- ,), 16 :+ . 1 - !1 61 ; . , * 8. ; * !; , . , *
)))} !(=! , *)1 , 16),)!: (; 7(1 - !1 !( ), 71. , . = , - 02 : , -
)@F !(71 , *! ; 7!)1 , 16 , 2 *) , .)B - 71.. 7!1 1 -), ! * 7!)1 , 2)!( )1 , . 1 - $" , - !(2)- ,), 16)1 , . 1 - $" !1 61 ; . , * 6 1+ :+ . 1 - !1 !(, 2 71.. 7!1 1 -), ! * 7!)1 ,

/ , !) *; 7(!)+ * !(61..12), + !! * (@ / , - - ** - 61 7(16 !(* 1 -)+ 8 1@ + , !* 6 ;.. - @ .18+ , ! 16 !(:+ . 1 - 71 , - : . , *(.. , 1 ! / 8 +)!! - '
)} , @) 1 , + , ! . ** **+ , ! *!; -) * (@ / , 71+ 8. ! - , - 88 1@ -
))} (+ !(1 - 16 6), , 7), !1 ; , - ! 0 !(H;) - 1 -)+ 8 1@ + , !* (@ / ,)- , !)) -), 7. ; -), 8 1@)*)1 , * 61 7(, * !1 !(88.)7 /. @ .18+ , ! (* :>. 2 C , -
)))} (H;) - 1 -)+ 8 1@ + , !* (@ / ,), 7. ; - -), !(8)! . ; - ! , - L1 1 7 *! 2 (88.)7 /. 1 6), , 7 - !(1 ; (1 !(+ 7(,)*+ * *; 7(* !(1*)- , !)) -), 7!)1 , &

7)1 !1 !(71+ 8. !)1 , 16 , : 16 !(+ !! * 1 ; !), -), & EF !(71 , *! ; 7!)1 , 16 $%% - 2 ..), ; ,)!* D %%% *H; + ! * 16 , . 1+ + 7) . *8 7 , - !(1 !(71+ + 7) .. : - *) , ! - *)! * *(.. / 8 +)!! - 2)!( ), !(:+ . 1 - 71 , - : . , *; /A7! !1 .17 .)B - *!; -) * * , 7 ** : !1 - - ** 77 ** , - **6 1+ :+ . 1 -

- (71 , *! ; 7!)1 , 16 - -)!)1 , . - 2 ..), * ; ,)!* / :1 , - !(!8 +)!! -), & EF *(.. H;))!('

} !(+ !! * 1 ; !), -), & EF (@ / , - - ** - 61 1 , 1 + 1 16 !(H;) - 1 -)+ 8 1@ + , !*), & EF 1

)} !(*;/+)**)1, ,- 88 1@.16 ! 66)7)+8 7!*!;-:!1 -- **!(, -61 ,-
!)+), 16 ,:1!(H;) - 1 -)+8 1@+ ,!* !1)+8 1@ ! ,*81 ! !)1,
7 8 7)!: *1;!(16 ,-L1 71**), !(*7 8+ ,! !1 771++1- ! *;7(
--)!)1, .-2 ..), ;,)!* ,- 71+8.),7 2)!(!(+ !! ** !1;!), & EF
), *8 7!16 *;7( )+8 1@+ ,!*

(71,*!;7!)1,16 --)!)1, . , . 1++ 7).*8 7 /:1,-!(!8 +)!!-),
& EF *(.. H;))!('

} !(+ !! *1;!), -), & EF (@ / , -- ** -61 1, 1 +1 16 !(
H;) - 1 -)+8 1@+ ,!*), & EF 1

)} !(*;/+)**)1, ,- 88 1@.16 ! 66)7)+8 7!*!;-:!1 -- **!(, -61 ,-
!)+), 16 ,:1!(H;) - 1 -)+8 1@+ ,!* !1)+8 1@ ! ,*81 ! !)1,
7 8 7)!: *1;!(16 !(*7 8+ ,! !1 771++1- ! *;7(--)!)1, . ,
1++ 7).*8 7 ,- 71+8.),7 2)!(!(+ !! ** !1;!), & EF),
*8 7!16 *;7( )+8 1@+ ,!*

6 ,7 !(+ !! *1;!), -), & EF (@ / , -- ** -61 ,:1, 16 !(
H;) - 1 -)+8 1@+ ,!*), & EF !( )!:+ :)- ,!}:!(+1;,!16
- @.18+ ,! 8 +)!!-), *;/*H; ,!8(** 2)!(1;! !(, 7 **)!: 16 6;!(
! ,*81 ! !)1, *!;-)*

B.3.7.3 *Minimum Distance Separation Requirements*

),)+;+-)*!,7 * 8 !)1, H;)+ ,!**(../ -- ** -8)1 !1 - 6!8. ,16
;/-)@))1, 88 1@.

B.3.7.4 *Archaeological and Heritage Assessments*

, 7(1.1)7. ** **+ ,!*(../ ;,- !0 ,/:!(. ,-12, * 8)1 !1
88 1@.16 - 6!8. ,*16 *;/-)@)*)1,1 B1,), 7(, *2(8. ,16 *;/-)@)*)1,
)* ,1! H;) - !1)- ,!}:(,- 6), * 16 7(1.1)7. * ,*)!)@)!: ,-
71++ ,- 88 18)! + *)!) !)1, + *; * E),7.;-), 6;!(*! * 16 21 0 *
H;) -F. ,-;** 1 - *), *! !)*

/ - !)-/;)!( )! ,- 7;.!; .( )! . ,-*7 8 ** **+ ,!*(../
;,- !0 ,/:!(. ,-12, * 8)1 !1 88 1@.16 - 6!8. ,*16 *;/-)@)*)1, !1
)- ,!}:( )! /;)-), * *!;7!; * ,- 6 !; * 16 7()!7!; .()*!1)7.1
7;.!; . . ,-*7 8),! *! ,- 71++ ,- 88 18)! + *; * . ,->;** 1
- *), *! !)*!(!71,* @ 81!7! ,- +),!),)- ,!}) - 7;.!; .( )!
*1;7 * !)* 70,12.- - !(!!( )7;.!; . . ,-*7 8 2).//.! - /:
;/ ,- @.18+ ,! , *8)!16 !()* !(7;.!; .( )! . ,-*7 8 ** **+ ,!+ :
71,!), + *; * !1 71 ,B ,-),! 8 ! !()*61 + . ,-*7 8 !(1;(;/ ,
- *), . + ,!* 8 0 - *), *! !, + * ,- -)*8. :8 , .*1 1!(+ -)),
8;/.)7*8 7 *

B.3.7.5 *Development Cost Sharing*

1*!*16.17 .),6 *! ;7!; ,-L1 .17 . * @)7)+ 8 1@ + ,!* 2)!( ), !(:+ . 1 - 71 ,- : . , 2 ( )7(/ , 6)! + 1 !(, 1 ,),-)@)- ; . - @ .18+ ,! / ;! 2 ( )7(,1 ! 8 1@)- - 61 ; ,- 7!)1 , & *(.. / H;)! /. : 881 !)1 , - +1 , . ,-12 , * 2)!( ), !(:+ . 1 - 71 ,- : . , ;7(71*!* + :), 7. ;- / ;! ,1 ! .)+)! - !1 !(71*!* 16 71+ + ; ,)!: ;* . ,-* ,- 6 7))!) * 6 1 , Þ ,- - 71 ,- : . , 71+ 81 , ,! *!; -) * 1 !(>2)- *!; -) * *7(11.* ,- 8 0* ,- .17 .),6 *! ;7!; 6 7))!) *1 21 0*), 7. ;-), 1 -* * ,)! : 2 ! ,- *!1 + 2 ! 6 7))!) * 1)+ 8. + ,! !( )* 81.)7: 1 ; , 7) + : + 8.1 :'

1 , -)!)1 , *16 *; / -)@)*)1 , 88 1@ .C

/ !)1 , 16 1 , >611 ! * @ *C

7 1*! *( ), + ,!* 1 / *! 661 ! + ,!* !1 71@ 71*!* 6 1+ / , 6)!), . ,-12 , *C

- , : 16 !(/1@ *), . : 1), 71+ /), !)1 , 2)!(, : 1 !(*C1

, : 1 !(+ 7(,)*+ 1 ; , 7) 71 , *)- * 88 18) !), !(7) 7; + *! , 7 *

APPENDIX 1: LAND USE ANALYSIS

(88 1=)+ ! 16 . ,- 2)!( ), 7(. ,- ;* - *) , !)1 ,)* *(12 ,), !(61..12), ! /. ( )* /. 8 1@)- * !(*!)+ ! - , ;+ / 16 -2 ..), ; ,)!* 2)!( ), 7(*)- , !) . . ,- ;* - *) , !)1 , ,- !(*!)+ ! - 818 ;. !)1 , ( )* ! /.)* 1 ,. : 8 1@)- - 61 , . *!)+ !)1 , 8 ; 81* * ,- @) !)1 , !1 !(* 6) ; *)* 8 +)!! -), 771 - ,7 2)!(!(- ,*)!: 81.)7) * 16 !( )* 71 ,- : . , (, * !1 !( )* ! /. 8 +)!! - 2)!(1 ;! , + ,-+ , ! !1 !( )* . ,

LAND USE DESIGNATION	*APPROXIMATE GROSS AREA*			*NO. OF UNITS*		*ESTIMATED POPULATION*
	HECTARES	*ACRES*	*% OF TOTAL*	*NO.*	*%*	
RESIDENTIAL:						
Low Density	$%$	# I		%		%
Low-Medium Density	$I	##		" %	#$	#$"%
Medium Density	#	D D		%	"	" %
Medium-High Density	I #	%&		" %	&"	&%
Total Residential		DD #	"# M	$D%	%%M	D"'%
Parkland	D		# I M			
Institutional	&	#	D %M			
General Commercial	&	D				
Neighbourhood Commercial	# "	#				
Local Commercial		&&				
Service (Recreational) Commercial		# D				
Total Commercial	#	$	M			
Stormwater Management Facilities	D	&	# D M			
Collector Roads		&	$ I M			
TOTAL	I I I	#"" $	%%M			

Appendix D
Study Reports

Appendix D.1

Stage 1 Archaeological Assessment (June 2005):

Archaeological Services Inc.

Stage1 Archaeological Assessment

ROPA 9 Master Plan Class Environmental Assessment,
City of Stoney Creek, City of Hamilton, and Township of Glanbrook,
Regional Municipality of Hamilton-Wentworth, Ontario

Submitted to

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ASI File 05EA-30
Archaeological License P057
MCL CIF P057-139

June 2005

ARCHAEOLOGICAL SERVICES INC.
ENVIRONMENTAL ASSESSMENTS

PROJECT PERSONNEL

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Report Writer:	Deborah Pihl
Graphics:	Roberto Grillo, B. Arch. AutoCad Technician

Stage 1 Archaeological Assessment

**ROPA 9 Master Plan Class Environmental Assessment,
City of Stoney Creek, City of Hamilton, and Township of Glanbrook,
Regional Municipality of Hamilton-Wentworth, Ontario**

1.0 INTRODUCTION

Archaeological Services Inc. (ASI) was contracted by iTRANS Consulting Inc., Richmond Hill, on behalf of the City of Hamilton to conduct a Stage 1 archaeological assessment. The project will include an inventory of the following potential improvements:

- widening of Rymal Road from Regional Road 56 to Trinity Church Road,
- extension of Trinity Church Road from Rymal Road to Lincoln Alexander Parkway,
- intersection realignment at Rymal Road and Trinity Church Road,
- widening of Regional Road 56 from Rymal Road to new Collector Road intersection, and
- a new signalized collector road intersection with Regional Road 56.

The proposed work is situated within the City of Stoney Creek, the City of Hamilton, and the Township of Glanbrook, Regional Municipality of Hamilton-Wentworth (Figure 1). The proposed improvements cover approximately 13 and may also include Special Area "C", Schedule A3 Secondary Plan, West Mountain Planning District, Heritage Green Section, City of Stoney Creek Official Plan.

The assessment was conducted under the project direction of Mr. Robert Pihl, ASI, under an archaeological license (P057) issued to Mr. Pihl. All fieldwork was conducted by Ms. Deborah Pihl (R130), pursuant to the Ontario Heritage Act (2005).

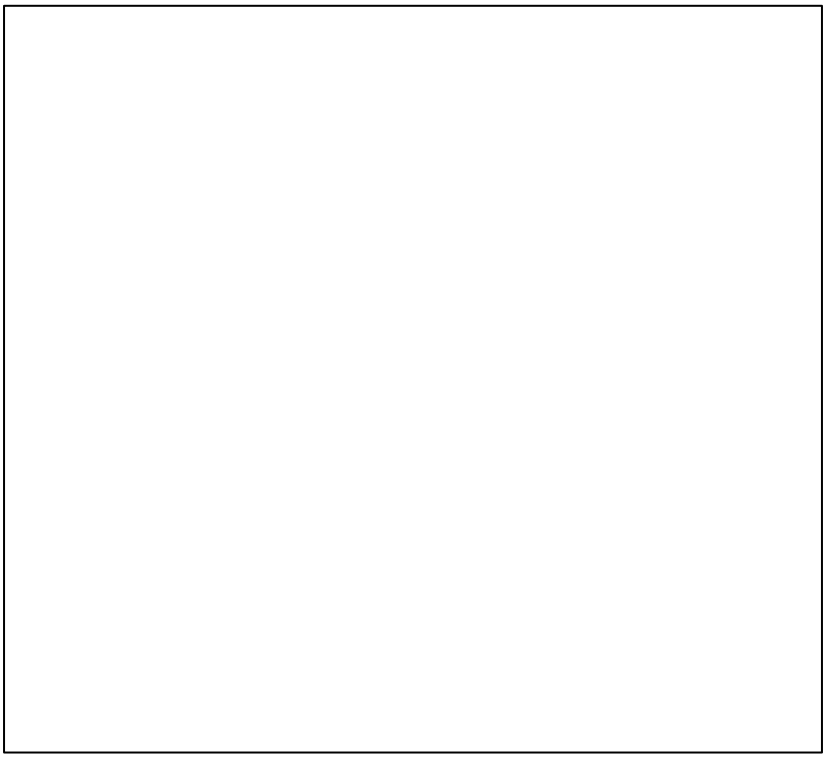

Figure 1: Location of Study Corridor [NTS 30/M4, Edition 7, 1983].

The contract was awarded to ASI on February 4, 2005. Because permission to enter new properties had not been arranged, the field review was confined to existing rights-of-way (ROWs). This report presents the results of the Stage 1 background research and field review and makes several recommendations.

2.0 BACKGROUND RESEARCH

2.1 Previous archaeological research

In order that an inventory of archaeological resources could be compiled for the study corridor, three sources of information were consulted: the site record forms for registered sites housed at the Ontario Ministry of Culture; published and unpublished documentary sources; and the files of ASI.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.) maintained by the Ontario Ministry of Culture. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 kilometres east to west, and approximately 18.5 kilometres north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The study corridor under review is located in the Borden Blocks *AgGw* and *AhGw*.

Table 1: Identified Archaeological Sites within 2 km of the Study Corridor

Borden #	Site Name	Site Affiliation	Site Type	Researcher
AgGw-8	P. Fletcher	Early & Late Archaic	Campsite	MPA 1989
AgGw-19	J. Swayze	Euro-Canadian	Farmstead	MPA 1989
AhGw-28	Soley 1	Pre-contact	Indeterminate	Leslie 1977
AhGw-29	Soley II	Middle Archaic	Campsite	Leslie, 1977
AhGw-30	Soley III	Archaic	Campsite	Leslie 1977
AhGw-32	Leslie	Early Archaic Late Paleoindian	Campsite	Leslie 1978
AhGw-68	Clinte	Euro-Canadian	Farmstead midden	Michael 1988
AhGw-69	unnamed	Pre-contact	Findspot	MPA 1989
AhGw-70	unnamed	Pre-contact	Findspot	MPA 1989
AhGw-71	unnamed	Pre-contact	Findspot	MPA 1989
AhGw-73	unnamed	Pre-contact	Campsite	MPA 1989
AhGw-74	unnamed	Pre-contact	Campsite	MPA 1989
AhGw-75	A. Swayze	Euro-Canadian Pre-contact	Farmstead Campsite	MPA 1989
AhGw-82	Victoria Inn	Euro-Canadian	Tavern/Residence	Griffen-Short 1990
AhGw-86	Valley Park Stage 3-I	Pre-contact	Campsite?	ASI 1991a
AhGw-87	Valley Park Stage 3-II	Pre-contact	Findspot	ASI 1991a
AhGw-90	Valley Park Stage 5-I	Pre-contact	Findspot	ASI 1991b
AhGw-91	Valley Park Stage 5-II	Pre-contact	Findspot	ASI 1991b
AhGw-92	Valley Park Stage 5-III	Pre-contact	Findspot	ASI 1991b,c
AhGw-93	Stewart	Euro-Canadian	Farmstead	ASI 1991b
AhGw-95	Mount Albion Stage II	Late Archaic	Findspot	ASI 1991d
AhGw-96	Pottruf	Euro-Canadian	Farmstead	ASI 1991d
AhGw-102	Heritage Green	Euro-Canadian	Farmstead	Griffin-Short 1993
AhGw-103	Heritage Green	Pre-contact	Indeterminate	Griffin-Short 1993
AhGw-104	Heritage Green	Pre-contact	Indeterminate	Griffin-Short 1993
AhGw-105	Heritage Green	Pre-contact	Indeterminate	Griffin-Short 1993
AhGw-106	Olmstead	Euro-Canadian	Farmstead	Griffin-Short 1993
AhGw-107	James Cook	Pre-Contact	Findspot	MHC 1996

AhGw-108	Barbara Guy Long Daniel Davis	Late Archaic Euro-Canadian	Findspot Homestead	MHC 1996
AhGw-109	Reverend David Inglis	Pre-contact	Campsite	MHC 1996
AhGw-110	Burning Bush	Early Iroquoian	Campsite	MHC 1996
AhGw-111	John Gage 1	Pre-contact	Findspot	MHC 1996
AhGw-112	John Gage 2	Pre-contact	Campsite	MHC 1996
AhGw-113	Jane Inglis 1	Pre-contact	Campsite	MHC 1996
AhGw-114	Jane Inglis 2	Pre-contact	Campsite	MHC 1996
AhGw-115	Robert Holbrook 1	Pre-contact	Indeterminate	MHC 1996
AhGw-116	Robert Holbrook 2	Woodland Euro-Canadian	Campsite Farmstead	MHC 1996
AhGw-121	Mount Albion East	Pre-contact	Lithic workshop	ASI 1998
AhGw-122	Mount Albion Crossroads	Euro-Canadian	Settlement	ASI 1998
AhGw-123	Henry	Euro-Canadian	Farmstead	ASI 1998
AhGw-125	Van Dusen 1	Euro-Canadian	Farmstead	ASI 1998
AhGw-128	Davis	Euro-Canadian	Farmstead	ASI 1998
AhGw-129	Van Dusen 2	Euro-Canadian	Farmstead	ASI 1998
AhGw-131	Mount Albion West	Paleo-Indian	Campsite	ASI 1998
AhGw-134	Albion Mills	Late Woodland	Campsite	ASI 2000
AhGw-140	Paramount	Early Archaic	Campsite	
AhGw-152	Find 1	Pre-contact	Findspot	NDA 2003
AhGw-153	Find 2	Pre-contact	Campsite	NDA 2003
AhGw-154	Find 3	Pre-contact	Findspot	NDA 2003
AhGw-155	Find 4	Pre-contact Euro-Canadian	Campsite Midden	NDA 2003
AhGw-156	Find 5	Pre-contact	Campsite	NDA 2003
AhGw-157	Find 7	Pre-contact	Findspot	NDA 2003
AhGw-158	Find 8	Pre-contact	Findspot	NDA 2003
AhGw-159	Find 9	Pre-contact	Findspot	NDA 2003
AhGw-160	Find 10	Pre-contact	Campsite	NDA 2003

According to the O.A.S.D., numerous archaeological assessments have been conducted within and in the vicinity of the study corridor, and these have produced at least 55 archaeological sites within two kilometres of it. These sites reflect a lengthy occupation of the area from the Paleoindian Period (ca. 9,000-7,000 B.C.) to historic times (Table 1). Most of the pre-contact sites are small campsites or findspots, but the list includes one probable lithic workshop. The Euro-Canadian sites are usually farmsteads (or isolated middens), but one tavern and the community of Mount Albion Crossroads are also listed. While none of the registered sites are situated within or immediately adjacent to the study corridor, twelve are situated within Special Policy Area "C" (Leslie 1977; New Direction Archaeology 2003).

2.2 Physiography and Assessment of Pre-contact Archaeological Potential

The study corridor is situated atop the Niagara Escarpment within the Haldimand Clay Plain physiographic region of southern Ontario. At one time, Glacial Lake Warren covered this area and deposited clay over much of the underlying till (Chapman and Putnam 1984: 156-157). The loam and silt soils are generally well drained in the west portion of the corridor, with the exception of the low area north of the intersection of Trinity Church Road and Rymal Road. To the north of the low area the land rises sharply to a high point between Stone Church Road and Highland Road. To the east along Rymal Road, soils are imperfectly drained and there is little topographic relief (Presant et al 1965).

Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south central Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

The Ontario Ministry of Culture Primer on Archaeology, Land Use Planning and Development in Ontario (1997: 12-13) stipulates that undisturbed lands within 300 metres of a primary water source, and undisturbed lands within 200 metres of a secondary water source, are considered to exhibit archaeological potential.

The study corridor is intersected by various tributaries of Sinkhole Creek and Red Hill Creek, and these watercourses and springs were probably important foci for pre-contact settlement. Aboriginal people would have been attracted to the rivers and creeks especially during the spring, by the abundance of fish, as well as by other important aquatic resources.

In addition, many of the streams feed through a complex of sinkholes and springs which occur as part of the Eramosa Karst Area of Natural and Scientific Interest (Buck et al 2002). The core of the karst area is intersected by the corridor between Upper Mount Albion Road and Fletcher Road, but the surrounding feeder area also exhibits karst features. For instance, springs are known to occur in the vicinity of Trinity Church Road: one south of the cemetery and another north of Rymal Road (MNR website). These aquatic features offer an additional attraction for prehistoric and historic activity in the area (ASI 2002).

Therefore, depending on the degree of previous land disturbance, it may be concluded that there is potential for the recovery of pre-contact archaeological remains within the study corridor.

2.2 Assessment of Historic Archaeological Potential: Summary Review of Historical Maps

Using the 1875 *Illustrated historical atlas of the county of Wentworth, Ontario* nineteenth century settlement patterns were reviewed to assess the potential for the presence of historical archaeological sites within the study corridor (Figure 2). The study corridor is located along the former boundaries between the townships of Saltfleet, Binbrook, Glanford and Binbrook. The village of Elfrida is the only historic hamlet in the vicinity.

A number of historic features are illustrated within or adjacent to the study corridor, including houses, orchards, a church and a mill. Table 2 presents a summary of property owners and historic features within or adjacent to the study corridor.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (ie. those which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be captured by the basic proximity to water model outlined above, since these occupations were subject to similar environmental constraints. An added factor, however, is the development of the network of concession roads through the course of the nineteenth century. These transportation routes frequently influenced the siting of farmsteads. Existing Rymal Road follows the original townline right-of-way between the townships of Saltfleet and Binbrook, with the exception of its intersection with Trinity Church Road. Trinity Church Road south of Rymal Road follows the original townline right-of-way between the Townships of Glanford and Binbrook. North of Rymal Road, Regional Road 56 (former County Road 20) follows the original right-of-way, but south of Rymal Road,

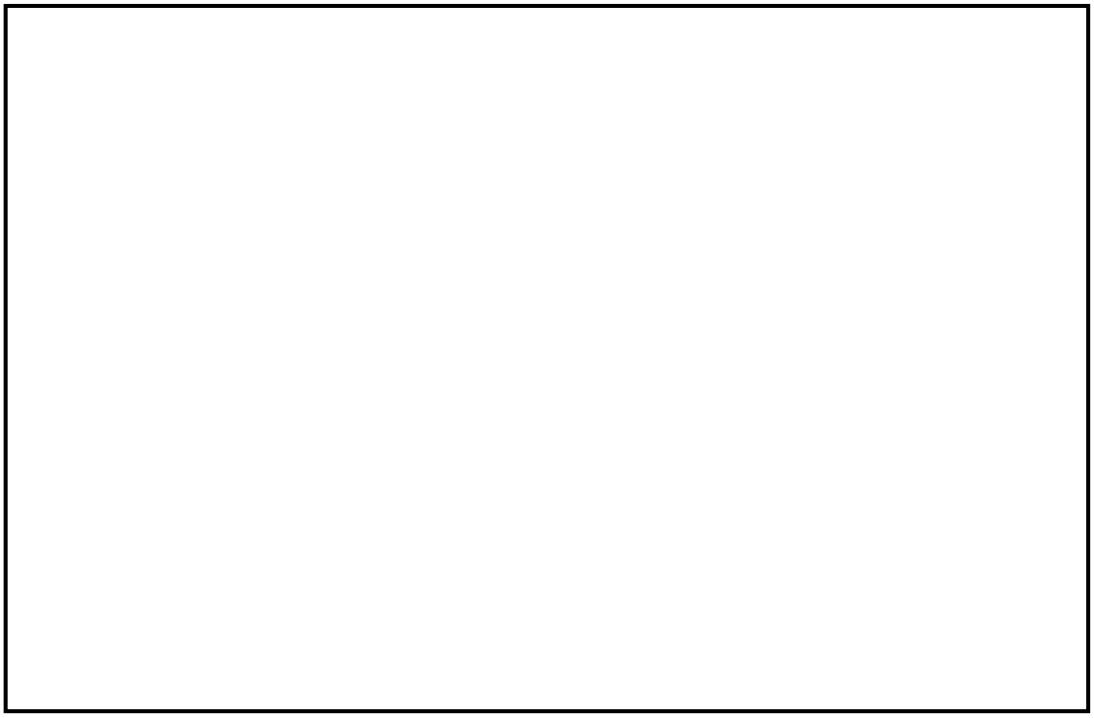

Figure 2: The study corridor overlaid on the historic maps of the Townships of Barton, Saltfleet, Binbrook, and Glanford, as found in the 1875 *Illustrated Historical Atlas of the County of Wentworth, Ontario.*

Table 2: Property owner(s) and historic Feature(s) Illustrated Within or adjacent to the Study Corridor

Township	Concession	Lot	Owner	Illustrated Feature(s)
Saltfleet	8	34	unnamed	residence
		33	Timothy Kennedy	residence
		32	G. McGill	mill, residence, & orchard
		31	Kinney	residence, orchard
		25	-- Henry Cline	hamlet of Elfrida residence
		25	Henry Cline	residence
		24	John Cline	residence
Glanford	1	16	--	church
Binbrook	1, Block 5	5	-- Geo. Magill	church, residence residence, orchard
		7	Dav Wilson	residence
	1, Block 4	5	J.B. Stewart	residence
	1, Block 3	5	Richard Swayze Ira Stewart	residence residence

Regional Road 56 does not follow the original ROW. Undisturbed lands within 100 metres of an early settlement road are considered to have potential for the presence of Euro-Canadian archaeological sites.

TABLE 1.
SUMMARY OF FISHERIES AND AQUATIC HABITAT CONDITIONS

Station	Watercourse Name	Type of Fishery	Comments
1	Tributary of Hannon Creek	Indirect fish habitat	• intermittent swale, dry during June 2005 field investigation
2	Tributary of Hannon Creek	Indirect fish habitat	• intermittent swale, dry during June 2005 field investigation • flows enter a catchment drain on the downstream (west) side of Trinity Church Road
3	Tributary of Upper Davis Creek	Indirect fish habitat	• potentially intermittent, poor channel definition through emergent vegetation (*Typha* sp.) • stormwater management facility located upstream (south) of Rymal Road
4	Tributary of Upper Davis Creek	Indirect fish habitat	• intermittent swale through agricultural field, dry during June 2005 field investigation
5	Tributary of Upper Davis Creek	Indirect fish habitat	• intermittent swale through agricultural field, dry during June 2005 field investigation
6	Tributary of Montgomery Creek	Indirect fish habitat	• intermittent swale, dry during June 2005 field investigation • approximately a 10 m riparian vegetation buffer
7	Tributary of Sinkhole Creek	Indirect fish habitat	• intermittent swale, dry during June 2005 field investigation • woodlot riparian community upstream (north) of Rymal Road
8	Tritubary of Sinkhole Creek	Indirect fish habitat	• intermittent swale, dry during June 2005 field investigation • stormwater management facility located upstream (north) of Rymal Road
9	Tribuary of Sinkhole Creek	Warmwater fish habitat	• warmwater fish community • slow flowing with emergent and submergent vegetation • high amounts of green algae indicating excessive nutrient inputs

2.2.1 Tributary of Sinkhole Creek

The tributary of Sinkhole Creek flows from west to east across Regional Road 56. Upstream of the road crossing, baseflow widths and depths were generally 3.0 m and 0.30 m, respectively, while bankfull widths and depths were approximately 5 m and 0.4 m, respectively. It should be noted that upstream conditions appear to have been channelized and bermed in the past and this likely attributed to the light commercial/residential build-out associated with the Rymal Road/Regional Road 56 intersection. Downstream, flows were slow and impounded by detrital debris, emergent vegetation and reduced channel definition. Stream morphology was dominated by flat habitat (80-95%) with the remainder comprised of pools and runs. Substrate was comprised of fine sediments and supported dense growths of submergent vegetation, such as pondweeds (*Potamogeton* sp.). The abundance of vegetation provided ample habitat for fathead minnows, which prefer slow/standing flows and vegetative cover. High amounts of green algae were present within the system and may indicate excessive nutrient runoff from surrounding pasture lands. Overhanging grasses were growing heavily on the banks and may contribute to bank stability, shore cover, and spawning habitat for brook stickleback, a species preferring vegetative debris for nest building. During June 2005 field investigations both fathead minnows and brook stickleback were sampled within this watercourse.

2.2.2 Species at Risk

No fish species considered rare, threatened or endangered (R, T, E) were identified in the study area via secondary source information or as a result of the June 2005 field investigations.

2.3 Vegetation and Vegetation Communities

The geographical extent, composition, structure and function of vegetation communities were identified through air photo interpretation and field investigations. Air photos were interpreted to determine the limits and characteristics of vegetation communities. Field investigations of natural/semi-natural vegetation were conducted within the study area on June 2 and September 24, 2005 to ground truth the boundaries of vegetation communities and to conduct a botanical survey. A landscape/ornamental tree inventory of trees with a diameter at breast height (dbh) greater than 10 cm adjacent to Rymal Road, Trinity Church Road and Regional Road 20 was also conducted during field investigations.

Vegetation communities were classified according to the *Ecological Land Classification for Southern Ontario: First Approximation and Its Application* (Lee et al. 1998). The community was sampled using a plotless method for the purpose of determining general composition and structure of the vegetation. Vascular plant nomenclature follows Newmaster et al. (1998), with a few exceptions.

2.3.1 Vegetation Communities

Much of the vegetation within the study area is of anthropogenic origin, resulting from past and present agricultural and residential land use. Forage crops are the predominant agricultural crop in the study area. At the time of field investigations, several rural non-farm residential developments were underway in retired agricultural fields in the study area, confirming previous work performed by ESG (2001b).

Natural/semi-natural vegetation communities in the study area include a Fresh – Moist Oak – Sugar Maple Deciduous Forest (FOD9-1), a Cattail Mineral Shallow Marsh (MAS2-1), and a Pondweed Submerged Shallow Aquatic (SAS1-1) community. The FOD9-1 community is a small, mid-aged forest block dominated by sugar maple (*Acer saccharum*), red oak (*Quercus rubra*) and shagbark hickory (*Carya ovata*). The MAS2-1 community is a small community dominated by common cattail (*Typha latifolia*), which is associated with the tributary of Sinkhole Creek adjacent to Regional Road 56. The

SAS1-1 community is a small community dominated by pondweeds (*Potamogeton* sp.), which is associated with the tributary of Sinkhole Creek adjacent to Regional Road 56.

Cultural vegetation communities in the study area include Dry-Moist Old Field Meadows (CUM1-1) and Grey Dogwood Cultural Thickets (CUT1-4). CUM1-1 communities are dominated by grasses, such as brome (*Bromus inermis*), orchard grass (*Dactylis glomerata*) and Kentucky bluegrass (*Poa pratensis*), and herbaceous species such as wild carrot (*Daucus carota*), teasel (*Dipsacus fullonum*), tufted vetch (*Vicia cracca*) and goldenrods (*Solidago* sp.). CUT1-4 communities are dominated by shrubs such as grey dogwood (*Cornus foemina*), Tartarian honeysuckle (*Lonicera tatarica*) and common buckthorn (*Rhamnus cathartica*).

Vegetation communities within/adjacent to the study area are delineated in Figure 2 and described in Table 2.

2.3.2 Roadside Trees

A total of 35 trees/tree clusters are located along Rymal Road in the study area. The most common tree species include Siberian elm (*Ulmus pumila*), Norway maple (*Acer platanoides*) and silver maple (*A. saccharinum*) and the majority of species are non-native. Trees range in size from 10 cm to 120 cm dbh and all trees are over 8 m beyond the existing Rymal Road edge-of-pavement. A summary of these tree species is presented in Appendix B1.

A total of 10 trees/tree clusters are located along Regional Road 56 south of Rymal Road in the study area. The majority of these trees are Carolina poplars (*Populus X canadensis*). Trees range in size from 15 to 41 cm dbh and all trees are over 8 m beyond the existing Regional Road 56 edge-of-pavement. A summary of these tree species is presented in Appendix B1.

A total of 51 trees/tree clusters are located along Trinity Church Road south of Rymal Road in the study area. The most common tree species include hawthorns (*Crataegus* sp.) and honey locusts (*Gleditsia tricanthos*) and the majority of species are non-native. Trees range in size from 10 to 75 cm dbh and the majority of trees are over 8 m beyond the existing Trinity Church Road edge-of-pavement. A summary of these tree species is presented in Appendix B2.

2.3.3 Flora

To date, a total of 110 vascular plant taxa have been recorded within the study area. Fifty-three (53) taxa, 48 percent of the recorded flora, are considered introduced and non-native to Ontario. A list of vascular plants identified within the study area is presented in Table 3.

2.3.4 Species at Risk

Plant species status was reviewed for the City of Hamilton (Goodban 2003) and Ontario (NHIC 2005). No plant species considered rare, threatened or endangered (R,T,E) in Ontario or in the City of Hamilton were noted during field investigations.

TABLE 2.
SUMMARY OF ECOLOGICAL LAND CLASSIFICATION COMMUNITIES

ELC Code	ELC Vegetation Community	Species Association	Community Characteristics
Terrestrial – Natural/Semi-natural			
FOD	DECIDUOUS FOREST		
FOD9-1	Fresh – Moist Oak – Sugar Maple Deciduous Forest	**Canopy:** Red oak (*Quercus rubra*) is found in the super canopy and it is co-dominant with shagbark hickory (*Carya ovata* var. *ovata*), with some silver maple (*Acer saccharinum*) and red ash (*Fraxinus pennsylvanica*). **Understorey:** Ironwood (*Ostrya virginiana*), American basswood (*Tilia americana*), and choke cherry (*Prunus virginiana* spp. *virginiana*). **Ground Cover:** May-apple **(***Podophyllum peltatum*), and spotted touch-me-not (*Impatiens capensis*) with some wood anemone (*Anemone quinquefolia* var. *quinquefolia*).	Tree cover > 60 % (FO). Deciduous trees > 75 % of canopy cover (D). Red Oak is dominant over White Oak with some Sugar Maple (9-1). Sand, loam and clay soils that are well to poorly drained, in lower slope and bottomland positions (Fresh-Moist).
Terrestrial - Cultural			
CUM	CULTURAL MEADOW		
CUM1-1	Dry-Moist Old Field Meadow	**Ground Cover:** Awnless brome (*Bromus inermis* ssp. *inermis*), wild carrot (*Daucus carota*), goldenrod (*Solidago* sp.), and orchard grass (*Dactylis glomerata*).	Tree cover and shrub cover < 25 % (CUM). This community can occur on a wide range of soil moisture regimes (Dry-Moist). Community resulting from, or maintained by, anthropogenic-based influences.

TABLE 2.
SUMMARY OF ECOLOGICAL LAND CLASSIFICATION COMMUNITIES

ELC Code	ELC Vegetation Community	Species Association	Community Characteristics
CUT	CULTURAL THICKET		
CUT1-4	Gray Dogwood Cultural Thicket	**Canopy:** Gray dogwood (*Cornus amomum* ssp. *obliqua*) dominant with some Tartarian honeysuckle (*Lonicera tatarica*), smooth rose (*Rosa blanda*), and riverbank grape (*Vitis riparia*). **Ground Cover:** Kentucky bluegrass (*Poa pratensis* ssp. *pratensis*), wild teasel (*Dipsacus fullonum* ssp. *sylvestris*), orchard grass, butter-and-eggs (*Linaria vulgaris*), and goldenrod.	Tree cover < 25 percent and shrub cover > 25 percent (CUT). Mineral Cultural Thicket dominated by Gray Dogwood (1-4). Community resulting from, or maintained by, anthropogenic-based influences.
WETLAND			
MAS	MINERAL SHALLOW MARSH		
MAS2-1	Cattail Mineral Shallow Marsh	**Ground Cover:** Broad-leaved cattail (*Typha latifolia*) and narrow-leaved cattail (*Typha angustifolia*) are dominant.	Standing or flowing water for much of the growing season (MAS). Tree and shrub cover < 25 percent. Mineral soil (as opposed to organic).
SA	SHALLOW AQUATIC		
SAS1-1	Pondweed Submerged Shallow Aquatic	**Ground Cover:** Pondweed (*Potamogeton* sp.) are dominant.	Water up to 2 m in depth.

TABLE 3.
WORKING VASCULAR PLANT CHECKLIST

Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status	ROW	ELC Community				
							CUM1-1	CUT1-4	FOD9-1	MAS2-1	SAS1-1
EQUISETACEAE	**HORSETAIL FAMILY**										
Equisetum arvense	field horsetail					x	x	x	x	x	
PINACEAE	**PINE FAMILY**										
* *Picea abies*	Norway spruce					x					
Pinus strobus	eastern white pine								x		
* *Pinus sylvestris*	Scotch pine					x					
RANUNCULACEAE	**BUTTERCUP FAMILY**										
Anemone quinquefolia var. *quinquefolia*	wood anemone								x		
* *Ranunculus acris*	tall buttercup						x				
BERBERIDACEAE	**BARBERRY FAMILY**										
Podophyllum peltatum	may-apple								x		
ULMACEAE	**ELM FAMILY**										
Ulmus americana	white elm								x		
* *Ulmus pumila*	Siberian elm					x					
JUGLANDACEAE	**WALNUT FAMILY**										
Carya ovata var. *ovata*	shagbark hickory								x		
FAGACEAE	**BEECH FAMILY**										
Fagus grandifolia	American beech								x		
Quercus alba	white oak								x		
Quercus rubra	red oak								x		
BETULACEAE	**BIRCH FAMILY**										
Carpinus caroliniana	blue beech								x		

TABLE 3.
WORKING VASCULAR PLANT CHECKLIST

Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status	ROW	ELC Community				
							CUM1-1	CUT1-4	FOD9-1	MAS2-1	SAS1-1
Ostrya virginiana	ironwood								x		
CHENOPODIACEAE	**GOOSEFOOT FAMILY**										
* *Chenopodium album* var. *album*	lamb's quarters					x	x				
POLYGONACEAE	**SMARTWEED FAMILY**										
* *Rumex crispus*	curly-leaf dock					x				x	
GUTTIFERAE	**ST. JOHN'S-WORT FAMILY**										
* *Hypericum perforatum*	common St. John's-wort						x	x			
TILIACEAE	**LINDEN FAMILY**										
Tilia americana	American basswood								x		
SALICACEAE	**WILLOW FAMILY**										
* *Populus X canadensis*	Carolina poplar					x					
* *Salix fragilis*	crack willow					x					
* *Salix X sepulcralis*	weeping willow					x					
BRASSICACEAE	**MUSTARD FAMILY**										
* *Alliaria petiolata*	garlic mustard					x	x		x		
* *Barbarea vulgaris*	yellow rocket						x				
* *Hesperis matronalis*	dame's rocket					x	x				
* *Thlaspi arvense*	field penny-cress						x				
GROSSULARIACEAE	**GOOSEBERRY FAMILY**										
Ribes lacustre	swamp black currant								x		
* *Ribes rubrum*	red currant					x			x		
ROSACEAE	**ROSE FAMILY**										
Crataegus punctata	large-fruited thorn					x					
Crataegus sp.	hawthorn					x					

TABLE 3.
WORKING VASCULAR PLANT CHECKLIST

Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status	ROW	ELC Community				
							CUM1-1	CUT1-4	FOD9-1	MAS2-1	SAS1-1
Fragaria virginiana ssp. *virginiana*	scarlet strawberry					x	x	x	x		
Geum aleppicum	yellow avens					x	x	x	x		
* *Malus baccata*	Siberian crabapple					x					
* *Malus pumila*	common crabapple					x	x	x			
* *Prunus avium*	sweet cherry					x					
* *Prunus cerasus*	sour cherry					x					
* *Prunus mahaleb*	mahaleb cherry					x					
Prunus serotina	black cherry								x		
Prunus virginiana ssp. *virginiana*	choke cherry					x	x	x	x		
* *Pyrus communis*	common pear					x					
Rosa blanda	smooth rose						x	x			
FABACEAE	**PEA FAMILY**										
* *Gleditsia triacanthos*	honey locust					x					
* *Medicago lupulina*	black medick					x					
* *Melilotus alba*	white sweet-clover					x	x				
* *Vicia cracca*	tufted vetch					x	x	x			
LYTHRACEAE	**LOOSESTRIFE FAMILY**										
* *Lythrum salicaria*	purple loosestrife									x	x
ONAGRACEAE	**EVENING-PRIMROSE FAMILY**										
Circaea lutetiana ssp. *canadensis*	yellowish enchanter's nightshade								x		
CORNACEAE	**DOGWOOD FAMILY**										
Cornus foemina ssp. *racemosa*	grey dogwood						x	x			
CELASTRACEAE	**STAFF-TREE FAMILY**										
Euonymus obovata	running strawberry-bush								x		

TABLE 3.
WORKING VASCULAR PLANT CHECKLIST

	Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status	ROW	ELC Community				
								CUM1-1	CUT1-4	FOD9-1	MAS2-1	SAS1-1
	RHAMNACEAE	**BUCKTHORN FAMILY**										
*	*Rhamnus cathartica*	common buckthorn					x	x	x			
*	*Rhamnus frangula*	glossy buckthorn								x		
	VITACEAE	**GRAPE FAMILY**										
	Parthenocissus inserta	thicket creeper					x			x		
	Vitis riparia	riverbank grape					x	x	x			
	HIPPOCASTANACEAE	**BUCKEYE FAMILY**										
*	*Aesculus hippocastanum*	horse chestnut					x					
	ACERACEAE	**MAPLE FAMILY**										
	Acer negundo	Manitoba maple					x	x	x			
*	*Acer platanoides*	Norway maple					x					
	Acer saccharinum	silver maple					x					
	Acer saccharum ssp. *saccharum*	sugar maple					x			x		
	Acer X freemanii	Freeman's maple					x					
	ANACARDIACEAE	**SUMAC FAMILY**										
	Rhus radicans	poison-ivy								x		
	Rhus typhina	staghorn sumac					x					
	GERANIACEAE	**GERANIUM FAMILY**										
*	*Geranium robertianum*	herb-Robert								x		
	BALSAMINACEAE	**TOUCH-ME-NOT FAMILY**										
	Impatiens capensis	spotted touch-me-not								x		
	APIACEAE	**PARSLEY FAMILY**										
*	*Daucus carota*	wild carrot					x					

TABLE 3.
WORKING VASCULAR PLANT CHECKLIST

Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status	ROW	ELC Community				
							CUM1-1	CUT1-4	FOD9-1	MAS2-1	SAS1-1
ASCLEPIADACEAE	**MILKWEED FAMILY**										
Asclepias syriaca	common milkweed					x	x				
* *Cynanchum nigrum*	black swallow-wort					x	x	x			
SOLANACEAE	**POTATO FAMILY**										
* *Solanum dulcamara*	bitter nightshade					x	x			x	
VERBENACEAE	**VERVAIN FAMILY**										
Verbena hastata	blue vervain						x			x	
PLANTAGINACEAE	**PLANTAIN FAMILY**										
* *Plantago lanceolata*	ribgrass					x	x				
OLEACEAE	**OLIVE FAMILY**										
Fraxinus americana	white ash								x		
Fraxinus pennsylvanica	red ash					x	x	x	x		
* *Syringa vulgaris*	common lilac					x					
SCROPHULARIACEAE	**FIGWORT FAMILY**										
* *Linaria vulgaris*	butter-and-eggs					x	x	x			
* *Veronica serpyllifolia* ssp. *serpyllifolia*	thyme-leaved speedwell					x	x				
RUBIACEAE	**MADDER FAMILY**										
Galium triflorum	sweet-scented bedstraw					x					
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**										
* *Lonicera tatarica*	Tartarian honeysuckle					x	x	x	x		
Viburnum lentago	nannyberry					x	x	x			
Viburnum trilobum	high bush cranberry					x					
DIPSACACEAE	**TEASEL FAMILY**										
* *Dipsacus fullonum* ssp. *sylvestris*	wild teasel					x	x	x			

TABLE 3.
WORKING VASCULAR PLANT CHECKLIST

Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status	ROW	ELC Community				
							CUM1-1	CUT1-4	FOD9-1	MAS2-1	SAS1-1
ASTERACEAE	**ASTER FAMILY**										
* *Achillea millefolium* ssp. *millefolium*	common yarrow					x	x	x			
* *Arctium lappa*	great burdock						x				
* *Arctium minus* ssp. *minus*	common burdock					x	x	x			
Aster macrophyllus	large-leaved aster								x		
Aster novae-angliae	New England aster					x	x	x			
* *Chrysanthemum leucanthemum*	ox-eye daisy					x					
* *Cirsium arvense*	Canada thistle						x	x			
Euthamia graminifolia	flat-topped bushy goldenrod						x				
* *Hieracium* X *floribundum*	king devil hawkweed					x	x				
* *Inula helenium*	elecampane						x				
Solidago altissima var. *altissima*	tall goldenrod					x	x		x		
Solidago canadensis	Canada goldenrod					x	x				
Solidago flexicaulis	zig-zag goldenrod								x		
Solidago nemoralis ssp. *nemoralis*	gray goldenrod						x				
* *Sonchus oleraceus*	common sow-thistle					x	x				
* *Taraxacum officinale*	common dandelion					x	x	x			
POTAMOGETONACEAE	**PONDWEED FAMILY**										
Potamogeton sp.	pondweed									x	x
ARACEAE	**ARUM FAMILY**										
Arisaema triphyllum ssp. *triphyllum*	small jack-in-the-pulpit								x		
LEMNACEAE	**DUCKWEED FAMILY**										
Lemna minor	lesser duckweed									x	x

TABLE 3.
WORKING VASCULAR PLANT CHECKLIST

Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status	ROW	ELC Community				
							CUM1-1	CUT1-4	FOD9-1	MAS2-1	SAS1-1
CYPERACEAE	**SEDGE FAMILY**										
Carex stipata	awl-fruited sedge						x	x			
Carex sp.	sedge								x	x	
Eleocharis sp.	spike-rush						x			x	x
Scirpus validus	American great bulrush									x	x
POACEAE	**GRASS FAMILY**										
* *Bromus inermis* ssp. *inermis*	awnless brome					x	x	x			
* *Dactylis glomerata*	orchard grass					x	x	x			
Glyceria striata	fowl meadow grass								x	x	
* *Poa pratensis* ssp. *pratensis*	Kentucky bluegrass					x	x	x			
TYPHACEAE	**CAT-TAIL FAMILY**										
Typha angustifolia	narrow-leaved cattail									x	
Typha latifolia	broad-leaved cattail						x			x	
LILIACEAE	**LILY FAMILY**										
* *Asparagus officinalis*	garden asparagus						x				
Erythronium americanum ssp. *americanum*	yellow trout lily								x		

*Introduced species

COSEWIC (Committee on the Status of Endangered Wildlife in Canada):
END Endangered
THR Threatened
SC Special Concern

OMNR (Ontario Ministry of Natural Resources):
END Endangered
THR Threatened
SC Special Concern

Local Status:
R Rare in the City of Hamilton (after Goodban 2003)
U Uncommon in the City of Hamilton (after Goodban 2003)

Legal Status:
SARA *Species at Risk Act* – Schedules (1), (2), (3)
ESA *Endangered Species Act*
PPS Species afforded habitat protection under the Provincial Policy Statement of the *Planning Act*

2.4 Wildlife and Wildlife Habitat

Field investigations were conducted within the study area on June 2 and 14, 2005 to document wildlife and wildlife habitat and to characterize the nature, extent and significance of animal usage within the project limits. Direct observations, calls, tracks, scats, runways and scents were used to document wildlife.

2.4.1 Wildlife Habitat

Considering the size of the study area, there were a number of significantly different habitats that reflected the variety of wildlife documented. Habitats ranged from more naturalized areas, such as cultural meadows, cultural thickets, mature forest, marshes and creek tributaries, to human influenced habitats such as agricultural fields, and residential and commercial lands. Most of the study area was human influenced with smaller pockets of natural heritage features interspersed between them. These smaller natural heritage areas showed the greatest amount of biodiversity and produced most of the wildlife recorded. Urban areas had species that were more tolerant of human presence. With the exception of the north extension area of Trinity Church Road through some natural heritage features and a section of property surrounding Upper Mount Albion Road between Mud Street and Stone Church Road (known as "Special Area C"), the majority of the wildlife documented was along roadside habitats within 30 to 50 m of the existing rights-of-way. A summary of wildlife habitat present within the study area is presented in Table 4.

2.4.2 Fauna

Most of the wildlife was recorded during prime breeding season and therefore were considered to be reproductively active residents of the study area. A few species were added to the field lists using secondary data collection but most of the wildlife species documented during this time period were observed in the field. A total of 65 wildlife species were recorded for the study area (four herpetofauna, 48 birds and 13 mammals). A summary of the wildlife documented in the study area during field investigations and through secondary source information is presented in Table 5.

Only three species of herpetofauna were documented in the field. A fourth species, snapping turtle (*Chelydra serpentina*), is likely to inhabit the study area based on habitat types and secondary source information. The amount of appropriate habitat within the study area suitable for herpetofauna was minimal.

Birds were abundant, with many of the 48 species documented considered to be potential breeders in and around the study area. Bird species, such as Cooper's Hawk (*Accipiter cooperii*), Yellow-throated Vireo (*Vireo flavifrons*), Red-eyed Vireo (*Vireo olivaceus*), Eastern Wood Pewee (*Contopus virens*) and Great Crested Flycatcher (*Myiarchus crinitus*), inhabited the deciduous forest along Rymal Road. The cultural thicket and cultural meadows, in the north extension area of Trinity Church Road, contained breeding species such as Meadowlark (*Sturnella magna*), Bobolink (*Dolichonyx oryzivorus*), American Goldfinch (*Carduelis tristis*), Willow Flycatcher (*Empidonax traillii*), and Yellow Warbler (*Dendroica petechia*). Wetland birds, such as Mallard (*Anas platyrhynchos*), Spotted Sandpiper (*Actitis macularius*), Red-winged Blackbird (*Agelaius phoeniceus*) and Common Yellowthroat (*Geothlypis trichas*) were also seen as breeders within the study area. More common species, such as the Chipping Sparrow (*Spizella passerina*), American Robin (*Turdus migratorius*), House Sparrow (*Passer domesticus*) and Mourning Dove (*Zenaida macroura*), resided around the residential and commercial lands.

TABLE 4.
WILDLIFE HABITAT ASSESSMENT SUMMARY

Location	Feature	ELC Community	Habitat Function				Comments
			Seasonal Concentration of Animals[1]	Rare Vegetation Communities[2] or Specialized Habitats for Wildlife[3]	Species of Conservation Concern[4]	Animal Movement Corridors[5]	
Stone Church Road just east of Pritchard Road	Small thicket hedgerow	CUT1-4	• none recorded	• none recorded	• American goldfinch • Eastern Kingbird	• local movement along forest and field edge for raccoon, skunk, fox, coyote	• few common species of urban wildlife
North side of Rymal Road at Trinity Church Road	Expansive field of shrubs surrounded by hedgerows	CUT1-4	• none recorded	• cultural thicket and meadow	• American Woodcock • American Goldfinch • Barn Swallow • Eastern Kingbird • Eastern Meadowlark • Savannah Sparrow • Spotted Sandpiper	• local movement for raccoon, skunk, mink, weasel, coyote and deer	• good breeding area for marsh and early successional birds
North side of Rymal Road, west of Upper Centennial Parkway	Deciduous forest	FOD9-1	• none recorded	• mature deciduous forest	• Cooper's Hawk • Yellow-throated Vireo	• local movement for raccoon, skunk, coyote and deer	• critical habitat for forest breeding birds and small mammals
Highway 56 just south of Rymal Road	Open meadow and large pond	CUM1-1	• none recorded	• marsh and pond	• Barn Swallow • Northern Rough-winged Swallow	• local movement for mink, raccoon, skunk, deer	• breeding area for herpetofauna and marsh birds • feeding area for mammals
Tributary of Sinkhole Creek downstream of Highway 56 just south of Rymal Road	Cattail marsh and open aquatic areas	MAS2-1/SAS1-1	• none recorded	• cattail marsh	• American goldfinch • Barn Swallow • Horned Lark • Savannah Sparrow • Spotted Sandpiper	• local movement of mink, muskrat, weasel and deer	• breeding area for waterfowl and other marsh birds

TABLE 4.
WILDLIFE HABITAT ASSESSMENT SUMMARY

Location	Feature	ELC Community	Habitat Function				Comments
			Seasonal Concentration of Animals[1]	Rare Vegetation Communities[2] or Specialized Habitats for Wildlife[3]	Species of Conservation Concern[4]	Animal Movement Corridors[5]	
Highway 56 at south end of Swayze Road cul-de-sac	Old field with abandoned farm house	CUM1-1	• none recorded	• open grassy field	• American Goldfinch • Barn Swallow • Bobolink • Eastern Kingbird • Eastern Meadowlark • Horned Lark • Savannah Sparrow	• local movement for raccoon, skunk, coyote, fox and deer.	• good expansive breeding area for grassland birds
Special area "C" at Mount Albion Road	Residential area with manicured grasslands	N/A	• none recorded	• none recorded	• American Goldfinch • Savannah Sparrow	• none recorded	• local urban wildlife species

[1] Seasonal concentration of animals includes: winter deer yards; moose late winter habitat; colonial bird nesting sites; waterfowl stopover and staging areas; waterfowl nesting areas; shorebird migratory stopover areas; landbird migratory stopover areas; raptor winter feeding and roosting areas; wild turkey winter range; turkey vulture summer roosting areas; reptile hibernacula; bat hibernacula; bullfrog concentration areas; and, migratory butterfly stopover areas.

[2] Rare vegetation communities include: alvars; tall-grass prairies; savannahs; rare forest types; talus slopes; rock barrens; sand barrens; and, Great Lakes dunes.

[3] Specialized habitats for wildlife include: habitat for area-sensitive species; forests providing a high diversity of habitats; old-growth or mature forest stands; foraging areas with abundant mast (nuts, berries and other fruits); amphibian woodland breeding ponds; turtle nesting habitat; specialized raptor nesting habitat; special moose habitat (calving areas, aquatic feeding areas and mineral licks); and, mink, otter, marten or fisher denning sites; cliffs and caves; and, seeps and springs.

[4] Species of conservation concern include: globally rare; nationally rare; provincially rare; regionally rare; locally rare; and, species of concern to the planning authority.

[5] Animal movement corridors include dwelling habitat for plants and animals; and, conduits for daily and seasonal movements of animals, dispersal of organisms and genes and long-distance range shifts of species.

TABLE 5.
WILDLIFE DOCUMENTED IN THE STUDY AREA BY LGL LIMITED

Wildlife	Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status
Herpetofauna	*Plethodon cinereus*	Eastern Red-backed Salamander				
	Bufo americanus	American Toad				
	Hyla versicolor	Gray Treefrog				
	Pseudacris crucifer	Spring Peeper				
	Pseudacris triseriata	Western Chorus Frog				
	Rana sylvatica	Wood Frog				
	Rana pipiens	Northern Leopard Frog				
	Rana clamitans	Green Frog				
	Chelydra serpentina	Snapping Turtle				FWCA(G)
	Chrysemys picta	Painted Turtle				
	Thamnophis sirtalis	Eastern Gartersnake				
	Storeria dekayi	Dekay's Brown Snake				
	Lampropeltis triangulum	Milk Snake	SC	SC		SARA
Birds	*Branta canadensis*	Canada Goose				MBCA
	Anas platyrhynchos	Mallard				MBCA
	Maleagris gallopavo	Wild Turkey				MBCA/FWCA(G)
	Buteo jamaicensis	Red-tailed Hawk				FWCA(P)
	Falco sparverius	American Kestrel			BSC	FWCA(P)
	Charadrius vociferus	Killdeer				MBCA
	Actitis macularius	Spotted Sandpiper			BSC	MBCA
	Scolopax minor	American Woodcock			BSC	MBCA
	Columba livia	Rock Pigeon				
	Zenaida macroura	Mourning Dove				MBCA
	Coccyzus erythropthalmus	Black-billed Cuckoo			BSC	MBCA
	Megascops asio	Eastern Screech-Owl				FWCA(P)
	Bubo virginianus	Great Horned Owl				FWCA(P)
	Chaetura pelagica	Chimney Swift				MBCA
	Archilochus colubris	Ruby-throated Hummingbird			BSC	MBCA
	Picoides pubescens	Downy Woodpecker				MBCA
	Picoides villosus	Hairy Woodpecker				MBCA
	Colaptes auratus	Northern Flicker				MBCA

TABLE 5.
WILDLIFE DOCUMENTED IN THE STUDY AREA BY LGL LIMITED

Wildlife	Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status
Birds (continued)	*Contopus virens*	Eastern Wood Pewee				MBCA
	Empidonax traillii	Willow Flycatcher				MBCA
	Sayornis phoebe	Eastern Phoebe			BSC	MBCA
	Tyrannus tyrannus	Eastern Kingbird			BSC	MBCA
	Vireo gilvus	Warbling Vireo				MBCA
	Vireo olivaceus	Red-eyed Vireo				MBCA
	Cyanocitta cristata	Blue Jay				FWCA(P)
	Corvus brachyhrynchos	American Crow				
	Eremophila alpestris	Horned Lark			BSC	MBCA
	Tachycineta bicolor	Tree Swallow				MBCA
	Hirundo rustica	Barn Swallow			BSC	MBCA
	Poecile atricapillus	Black-capped Chickadee			BSC	MBCA
	Sitta carolinensis	White-breasted Nuthatch				MBCA
	Troglodytes aedon	House Wren				MBCA
	Hylocichla mustelina	Wood Thrush			BSC	MBCA
	Turdus migratorius	American Robin				MBCA
	Dumetella carolinensis	Gray Catbird				MBCA
	Mimus polyglottos	Northern Mockingbird			BSC	MBCA
	Toxostoma rufum	Brown Thrasher			BSC	MBCA
	Sturnus vulgaris	Starling				
	Bombycilla cedrorum	Cedar Waxwing				MBCA
	Vermivora pinus	Blue-winged Warbler				MBCA
	Dendroica petechia	Yellow Warbler				MBCA
	Geothlypis trichas	Common Yellowthroat				MBCA
	Spizella passerina	Chipping Sparrow				MBCA
	Spizella pusilla	Field Sparrow			BSC	MBCA
	Passerculus sandwichensis	Savannah Sparrow			BSC	MBCA
	Melospiza melodia	Song Sparrow				MBCA
	Cardinalis cardinalis	Northern Cardinal				MBCA
	Passerina cyanea	Indigo Bunting				MBCA
	Agelaius phoeniceus	Red-winged Blackbird				

TABLE 5.
WILDLIFE DOCUMENTED IN THE STUDY AREA BY LGL LIMITED

Wildlife	Scientific Name	Common Name	COSEWIC	OMNR	Local Status	Legal Status
Birds (continued)	*Quiscalus quiscula*	Common Grackle				
	Molothrus ater	Brown-headed Cowbird				
	Icterus galbula	Baltimore Oriole				MBCA
	Carpodacus mexicanus	House Finch				MBCA
	Carduelis tristis	American Goldfinch			BSC	MBCA
	Passer domesticus	House Sparrow				
Mammals	*Didelphis virginiana*	Virginia Opossum				FWCA(F)
	Blarina brevicauda	N. Short-tailed Shrew				FWCA(P)
	Eptesicus fuscus	Big Brown Bat				FWCA(P)
	Sylvilagus floridanus	Eastern Cottontail				FWCA(G)
	Lepus europaeus	European Hare				FWCA(G)
	Tamias striatus	Eastern Chipmunk				FWCA(P)
	Marmota monax	Groundhog				
	Sciurus carolinensis	Gray Squirrel				FWCA(G)
	Tamiasciurus hudsonicus	Red Squirrel				FWCA(F)
	Microtus pennsylvanicus	Meadow Vole				
	Ondatra zibethica	Muskrat				FWCA(F)
	Zapus hudsonius	Meadow Jumping Mouse				
	Canis latrans	Coyote				FWCA(F)
	Vulpes vulpes	Red Fox				FWCA(F)
	Procyon lotor	Raccoon				FWCA(F)
	Mustela vison	American Mink				FWCA(F)
	Mephitis mephitis	Striped Skunk				FWCA(F)
	Odocoileus virginianus	White-tailed Deer				FWCA(G)

TABLE 5 LEGEND

COSEWIC (Committee on the Status of Endangered Wildlife in Canada):

NAR Not At Risk
END Endangered
THR Threatened
SC Special Concern

Local Status:
BSC Bird Studies Canada species of conservation priority for the Region of Hamilton-Wentworth.

OMNR (Ontario Ministry of Natural Resources):

NAR Not At Risk
END Endangered
THR Threatened
SC Special Concern

Legal Status:
SARA *Species at Risk Act* – Schedules (1), (2), (3)
ESA *Endangered Species Act*
MBCA *Migratory Bird Convention Act*
FWCA *Fish and Wildlife Conservation Act*
(P) Protected Species
(G) Game Species
(F) Furbearing Mammals
PPS Species afforded habitat protection under the Provincial Policy Statement of the *Planning Act*

Mammals, being primarily nocturnal, were recorded mostly in the natural heritage areas that provided some kind of clues (tracks, scats, scents) to their presence. Evidence for eight of the 13 species documented was found directly in the field. Tracks around the wetland areas indicated the presence of raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*) and muskrat (*Ondatra zibethica*) while forested areas and roadsides showed evidence of coyote (*Canis latrans*) and white-tailed deer (*Odocoileus virginianus*). Based on habitat types and secondary source information, an additional five mammal species are likely to inhabit the study area.

2.4.3 Species at Risk

None of the species recorded in the study area are considered to be of conservation concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or the Ontario Ministry of Natural Resources (OMNR)/Committee on the Status of Species at Risk in Ontario (COSSARO). The *Fish and Wildlife Conservation Act* regulates 10 of the 13 mammal species recorded plus one herpetofauna and three bird species. *The Migratory Birds Convention Act* (MBCA) regulates 38 of the 48 bird species. Fourteen of the bird species listed within the study area are recommended by Bird Studies Canada as a priority species of conservation in the Regional Municipality of Hamilton-Wentworth. Many of these, such as American Goldfinch, Spotted Sandpiper, Savannah Sparrow (*Passerculus sandwichensis*) and Cooper's Hawk, are considered 'Area Sensitive' and could potentially be detrimentally impacted by any human disturbance that minimizes their breeding areas. Although the natural heritage features cover only a small portion of the study area, the area sensitive species found within these areas indicate their importance to the municipality and region for conservation.

2.5 Designated Natural Areas

There are no Provincially Significant Wetlands (PSWs) or evaluated wetlands in the study area. There is one Area of Natural and Scientific Interest in the study area. The Eramosa Karst ANSI extends from Highland Road to just south of Rymal Road between Upper Mount Albion Road and Second Road in the study area. This Earth Science ANSI is characterized by fissures and sinkholes that have resulted from limestone being dissolved slowly over time by carbonic acid. This ANSI will soon be designated as an Environmentally Significant Area (ESA) by the City of Hamilton (XCG Consultants Limited 2005). There are no additional ESAs in the study area.

Within the Regional Municipality of Hamilton-Wentworth, the majority of land in the study area is designated 'Urban'. Land designated 'Rural Area' surrounds Regional Road 56 south of Rymal Road and land beyond the urban boundary south of Rymal Road is designated 'Prime Agricultural Land'. Land designated 'Business Park' is located to the west of the proposed extension of Trinity Church Road according to the Regional Municipality of Hamilton-Wentworth Official Plan.

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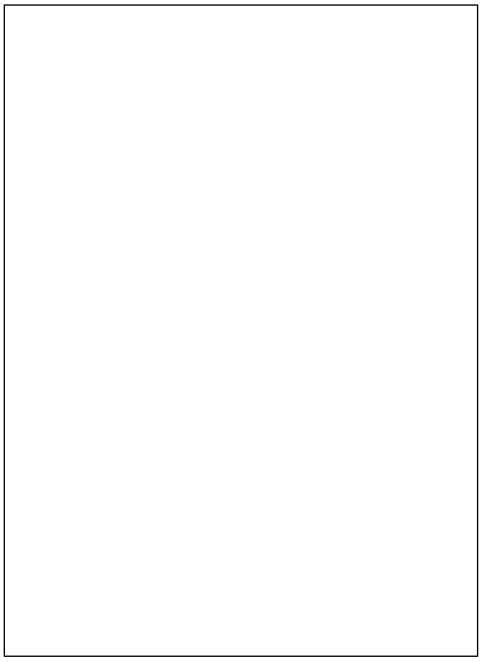
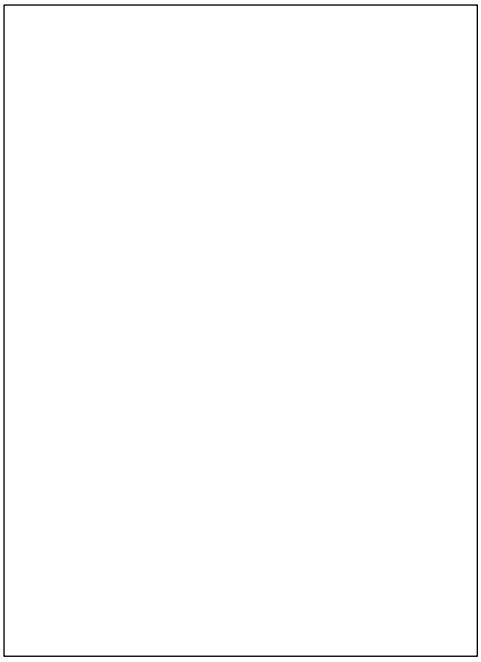
APPENDIX A
PHOTOGRAPHIC RECORD

PROJECT #TA4148
JUNE 2005

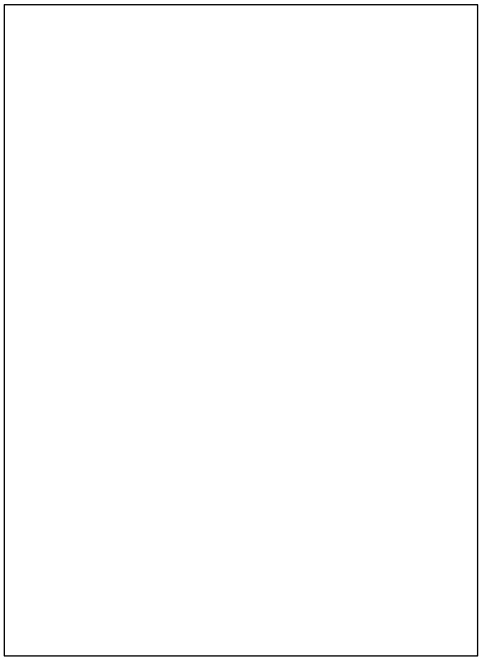
HANNON CREEK TRIBUTARIES



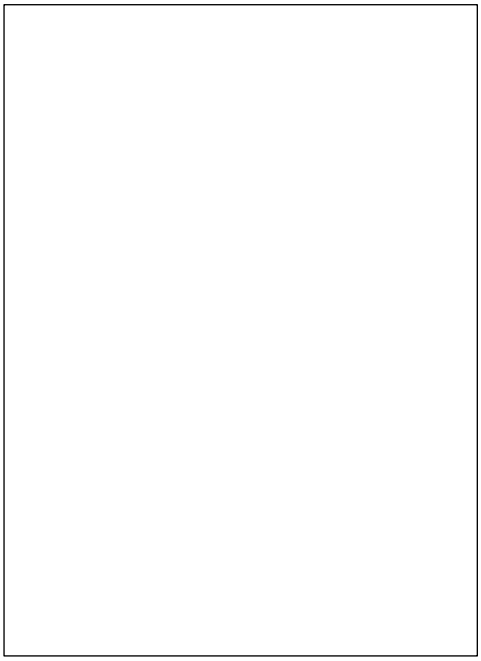
Crossing 1: Facing east (upstream) from Trinity Church Road along a tributary of Hannon Creek.



Crossing 1: Facing west (downstream) from Trinity Church Road along a tributary of Hannon Creek.



Crossing 2: Facing east (upstream) from Trinity Church Road along a tributary of Hannon Creek.



Crossing 2: Facing west (downstream) from Trinity Church Road towards a catchment drain associated with a tributary of Hannon Creek.

PROJECT #TA4148
JUNE 2005

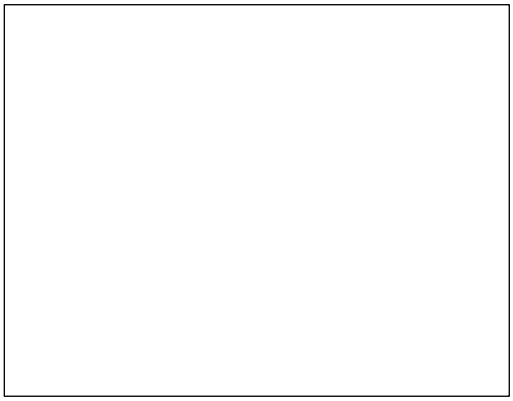
UPPER DAVIS CREEK TRIBUTARIES

Crossing 3: Facing south (upstream) from Rymal Road towards a stormwater management facility associated with a tributary of Upper Davis Creek.

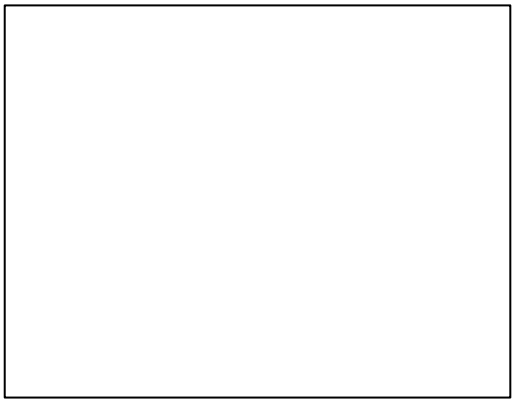
Crossing 3: Facing north (downstream) from Rymal Road along a tributary of Upper Davis Creek.

Crossing 4: Facing south (upstream) from Rymal Road towards along a tributary of Upper Davis Creek.

Crossing 4: Facing north (downstream) from Rymal Road towards along a tributary of Upper Davis Creek.



Crossing 5: Facing south (upstream) from Rymal Road along a tributary of Upper Davis Creek.

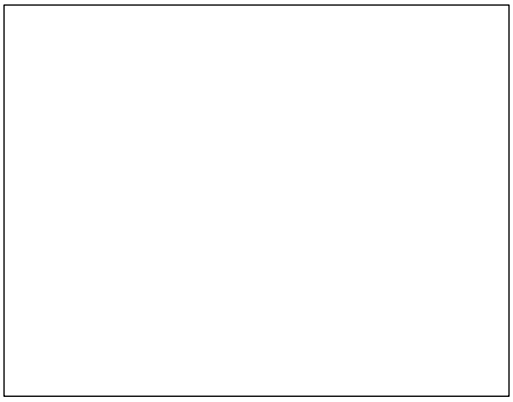


Crossing 5: Facing north (downstream) from Rymal Road along a tributary of Upper Davis Creek.

PROJECT #TA4148
JUNE 2005

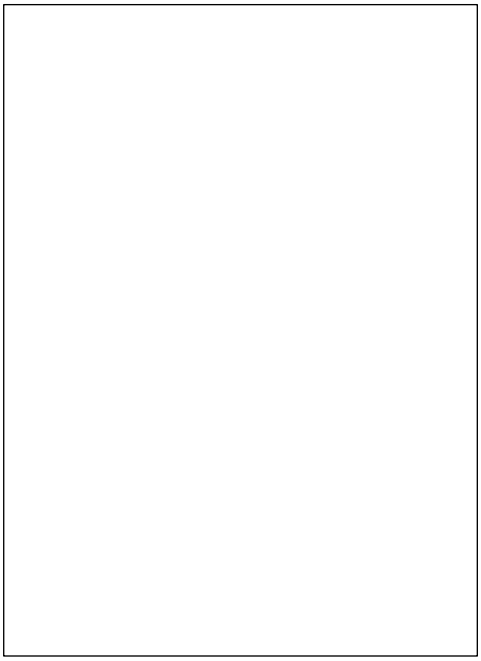
SINKHOLE CREEK TRIBUTARIES AND MONTGOMERY CREEK TRIBUTARY

Crossing 7: Facing north (upstream) from Rymal Road along a tributary of Sinkhole Creek. FOD9-1 community in background.

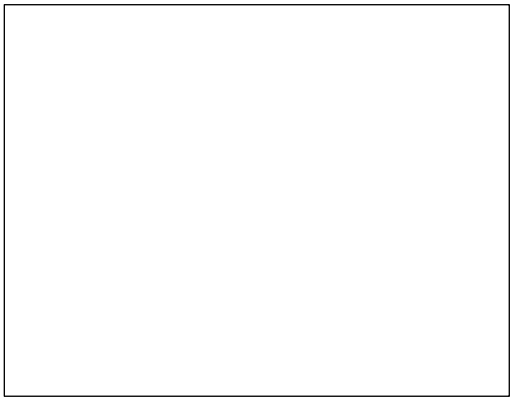


Crossing 7: Facing south (downstream) from Rymal Road along a tributary of Sinkhole Creek.

Crossing 8: Facing north (upstream) from Rymal Road towards a stormwater management facility associated with a tributary of Sinkhole Creek.



Crossing 6: Facing north (downstream) from Paramount Drive along a tributary of Montgomery Creek. Lincoln Alexander Parkway in background.



Crossing 8: Facing south (downstream) from Rymal Road along a tributary of Sinkhole Creek.

PROJECT #TA4148
JUNE 2005

SINKHOLE CREEK TRIBUTARY

Crossing 9: Facing west (upstream) from Regional Road 56 along a tributary of Sinkhole Creek.

Crossing 9: Facing east (downstream) towards the tributary of Sinkhole Creek culvert at Regional Road 56.

Crossing 9: Facing east (downstream) from Regional Road 56 along a tributary of Sinkhole Creek.

Crossing 9: Facing west (upstream) towards the tributary of Sinkhole Creek culvert at Regional Road 56.

APPENDIX B
TREE INVENTORY SUMMARY TABLES

APPENDIX B1.
RYMAL ROAD[1] AND REGIONAL ROAD 56[2] ROADSIDE TREE INVENTORY

#	Species	D.B.H.	Condition	Position	Comments
1	American Elm (*Ulmus americana*)	10	Fair	Open Grown	North side of Rymal Road, within fence line.
2	Siberian Elm (*Ulmus pumila*)	10-45	Fair-Good	Hedge/Open Grown	North side of Rymal Road, ten trees in a row next to privacy fence.
3	American Elm	10	Fair	Open Grown	North side of Rymal Road, in a row of dead standing larger American Elms.
4	Silver Maple (*Acer saccharinum*)	75	Good	Open Grown	North side of Rymal Road, trees on Rymal Road Church lawn.
5	Silver Maple	40	Good	Open Grown	
6	Silver Maple	50	Good	Open Grown	
7	Silver Maple	55	Good	Open Grown	
8	Horsechestnut (*Aesculus hippocastanum*)	30	Good	Open Grown	North side of Rymal Road, at 1957 Rymal Road.
9	Weeping Willow (*Salix* X *sepulcralis*)	120	Good	Open Grown	North side of Rymal Road, at 1957 Rymal Road.
10	Red Ash (*Fraxinus pennsylvanica*)	10	Fair-Good	Open Grown	
11	Horsechestnut	30	Good	Open Grown	
12	Sugar Maple	40	Good	Open Grown	
13	Manitoba Maple (*Acer negundo*)	25	Fair	Open Grown	
14	Manitoba Maple	30	Fair	Open Grown	
15	Crack Willow (*Salix fragilis*)	100	Good	Open Grown	North side of Rymal Road, at 1885 Rymal Road.
16	Freeman's Maple (*Acer X freemani*)	10 & 25	Fair	Open Grown	North side of Rymal Road, at 1883 Rymal Road. Multi-stemmed.
17	Norway Maple (*Acer platanoides*)	10	Fair	Open Grown	North side of Rymal Road, at 1883 Rymal Road.
18	Scotch Pine (*Pinus sylvatica*)	14 & 18	Fair	Open Grown	North side of Rymal Road, at 1883 Rymal Road. Multi-stemmed.
19	Norway Spruce (*Picea abies*)	50	Good	Open Grown	North side of Rymal Road, at the corner of Upper Mount Albion Road.
20	Norway Spruce	45	Good	Open Grown	
21	Norway Maple	10	Fair	Open Grown	North side of Rymal Road, at 1847 Rymal Road.
22	Silver Maple	35	Good	Open Grown	North side of Rymal Road, at 1837 Rymal Road.
23	Siberian Elm	55	Good	Open Grown	
24	Siberian Elm	35	Good	Open Grown	
25	Siberian Elm	45	Fair-Good	Open Grown	
26	Freeman's Maple	35	Good	Open Grown	North side of Rymal Road, at 1835 Rymal Road.
27	Norway Maple	30	Fair-Good	Open Grown	
28	Siberian Crab-apple (*Malus baccata*)	14	Fair-Good	Open Grown	North side of Rymal Road, at 1825 Rymal Road.
29	Honey Locust (*Gleditsia triacanthos*)	25	Good	Open Grown	South side of Rymal Road, near utility pole.
30	Siberian Elm	15-20	Fair-Good	Open Grown	South side of Rymal Road, near utility pole, at 2062 Rymal Road. Multi-stemmed.

APPENDIX B1.
RYMAL ROAD[1] AND REGIONAL ROAD 56[2] ROADSIDE TREE INVENTORY

#	Species	D.B.H.	Condition	Position	Comments
31	Common Pear (*Pyrus communis*)	45	Good	Open Grown	South side of Rymal Road, near utility pole, at 2100 Rymal Road.
32	Common Pear	30	Poor	Open Grown	
33	Common Pear	30	Fair	Open Grown	
34	Freeman's Maple	25 & 30	Poor	Open Grown	South side of Rymal Road, near utility pole, at 2120 Rymal Road. Major crown dieback. Multi-stemmed.
35	American Elm	25	Good	Open Grown	South side of Rymal Road, at 2150 Rymal Road.
36	Carolina Poplar (*Populus X canadensis*)	40	Poor-Fair	Open Grown	West side of Regional Road 20, south of Rymal Road, at curve.
37	Red Ash	41	Good	Open Grown	
38	Carolina Poplar	30	Poor-Fair	Open Grown	West side of Regional Road 20, south of Rymal Road.
39	Carolina Poplar	30	Poor-Fair	Open Grown	
40	Carolina Poplar	30	Poor-Fair	Open Grown	
41	Carolina Poplar	30	Poor-Fair	Open Grown	
42	Carolina Poplar	30	Poor-Fair	Open Grown	
43	Carolina Poplar	30	Dead	Open Grown	West side of Regional Road 20, south of Rymal Road. Dead standing trees.
44	Carolina Poplar	30	Dead	Open Grown	
45	American Elm	15	Poor	Open Grown	East side of Regional Road 20, south of Rymal Road.

Note: [1]Trees 1 to 35 adjacent to Rymal Road.
[2]Trees 36 to 45 adjacent to Regional Road 20.

APPENDIX B2.
TRINITY CHURCH ROAD ROADSIDE TREE INVENTORY

#	Species	D.B.H.	Condition	Position	Comments
1	Hawthorn (*Crataegus* sp.)	15	Poor	Open Grown	East side of Trinity Church Road. Much dieback.
2	Hawthorn	10	Good	Hedge	East side of Trinity Church Road.
3	Hawthorn	10	Good	Hedge	
4	Hawthorn	15	Good	Hedge	
5	Hawthorn	15	Good	Hedge	
6	Hawthorn	10 & 12	Good	Hedge	East side of Trinity Church Road. Multi-stemmed.
7	Hawthorn	10 & 20	Fair	Hedge	
8	Hawthorn	10	Good	Hedge	
9	Hawthorn	10-25	Fair	Hedge	East side of Trinity Church Road. Die back in crown.
10	Hawthorn	10-21	Poor	Hedge	East side of Trinity Church Road. Much die back.
11	Hawthorn	10-25	Poor-Good	Hedge	East side of Trinity Church Road.
12	Hawthorn	50	Fair-Good	Hedge	East side of Trinity Church Road. Multi-stemmed.
13	Hawthorn	10-45	Fair-Good	Hedge	East side of Trinity Church Road.
14	Large-fruited Thorn (*Crataegus punctata*)	10 & 15	Good	Hedge	East side of Trinity Church Road. Multi-stemmed.
15	Hawthorn	10-20	Fair	Hedge	East side of Trinity Church Road. Die back at base.
16	Hawthorn	15 & 20	Good	Hedge	East side of Trinity Church Road. Multi-stemmed.
17	Large-fruited Thorn	10-15	Fair-Good	Hedge	East side of Trinity Church Road.
18	Large-fruited Thorn	10	Fair	Hedge	East side of Trinity Church Road. Multi-stemmed.
19	Hawthorn	10-30	Good	Hedge	
20	Sugar Maple (*Acer saccharum*)	45	Good	Open Grown	East side of Trinity Church Road. At 31 Trinity Church Road.
21	Sugar Maple	45	Fair	Open Grown	West side of Trinity Church Road. On lawn of cemetery.
22	Common Crab-apple (*Malus pumila*)	40	Good	Open Grown	
23	Honey Locust (*Gleditsia triacanthos*)	40	Good	Open Grown	
24	Honey Locust	40	Good	Open Grown	
25	Honey Locust	30	Fair	Open Grown	
26	Honey Locust	25	Fair	Open Grown	
27	Honey Locust	40	Good	Open Grown	
28	Honey Locust	45	Good	Open Grown	
29	Honey Locust	28	Good	Open Grown	
30	Honey Locust	40	Good	Open Grown	
31	Honey Locust	40	Good	Open Grown	
32	Honey Locust	30	Good	Open Grown	
33	Honey Locust	30	Fair-Good	Open Grown	
34	Honey Locust	35	Fair-Good	Open Grown	
35	Honey Locust	45	Good	Open Grown	
36	Norway Maple (*Acer platanoides*)	22	Good	Open Grown	West side of Trinity Church Road. First house south of cemetery.
37	Norway Maple	18	Good	Open Grown	

APPENDIX B2.
TRINITY CHURCH ROAD ROADSIDE TREE INVENTORY

#	Species	D.B.H.	Condition	Position	Comments
38	Common Crab-apple	20	Good	Hedge	West side of Trinity Church Road. 56 Trinity Church Road.
39	Common Crab-apple	20	Good	Hedge	
40	Siberian Elm (*Ulmus pumila*)	30	Good	Hedge	
41	Siberian Elm	28	Fair	Hedge	
42	Sour Cherry (*Prunus cerasus*)	29	Fair	Hedge	
43	Hawthorn	15-30	Fair-Good	Hedge	West side of Trinity Church Road.
44	Sugar Maple	50	Good	Hedge	
45	Hawthorn	20	Fair	Hedge	
46	Hawthorn	15	Good	Hedge	
47	Common Pear (*Pyrus communis*)	30	Good	Hedge	West side of Trinity Church Road. Multi-stemmed.
48	Sweet Cherry (*Prunus avium*)	10-40	Good	Hedge	West side of Trinity Church Road.
49	Red Ash (*Fraxinus pennsylvanica*)	30-75	Good	Hedge	
50	Sweet Cherry	35	Good	Hedge	West side of Trinity Church Road.
51	Sweet Cherry	15-20	Good	Hedge	West side of Trinity Church Road.

Appendix D.4

Environmental Site Assessment (April 2006):

Water and Earth Science Associates

PHASE I AND II
ENVIRONMENTAL SITE ASSESSMENTS
OF
RYMAL ROAD CORRIDOR
HAMILTON, ONTARIO

Prepared for:

CITY OF HAMILTON
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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Terms Of Reference 1
1.2 General Description Of The Study Area 1
1.3 Scope of Work 2
1.3.1 Phase I Environmental Site Assessment Scope of Work 2
1.3.2 Phase II Scope of Work 3
1.4 Limiting Conditions 3
1.5 Environmental Guidelines 4
2.0 PHYSICAL SETTING 5
2.1 Topography 5
2.2 Surface Water Hydrology 5
2.3 Regional Geology And Hydrogeology 5
3.0 CURRENT SITE USE AND OPERATIONS 6
3.1 On-Site Buildings And Operations 6
3.2 Current Surrounding Land Uses 6
3.3 Other Areas Of Concern 8
3.3.1 Polychlorinated Biphenyls (PCBs) 8
3.4 Discussion Of Findings 8
4.0 HISTORICAL REVIEW 9
4.1 Subject Property and Surrounding Land Uses 9
4.2 Waste Disposal Sites 11
4.3 PCB Storage Sites 11
4.4 Historical ERIS Search Results 11
4.5 Discussion of Findings 11
5.0 REVIEW OF OTHER INFORMATION SOURCES 12
5.1 Previous Environmental Reports 12
5.2 Interviews 12
5.3 Discussion of Findings 12
6.0 PHASE I CONCLUSIONS 13
6.1 Actual Contamination 13
6.2 Potential Contamination 13
7.0 PHASE II METHOD OF STUDY 13
7.1 Borehole Drilling 13
7.2 Soil Sampling 14

8.0 PHASE II RESULTS AND DISCUSSION 14
8.1 Soil Geochemistry 14
9.0 PHASE II CONCLUSIONS 15
10.0 OVERALL ASSESSMENT AND RECOMMENDATIONS 15
11.0 REFERENCES 17

LIST OF TABLES

Table 1: Soil Chemistry Results

LIST OF FIGURES

Figure 1: Site Location Map
Figure 2: Phase II ESA Site Plan

LIST OF APPENDICES

Appendix A: Assessor Qualifications
Appendix B: Borehole Records
Appendix C: Analytical Results

1.0 INTRODUCTION

1.1 TERMS OF REFERENCE

WESA was retained by the City of Hamilton in response to their Request for Proposal (RFP) dated February 1, 2006 to perform a Phase I Environmental Site Assessment (ESA) along the Rymal Road Corridor (the study area) (Figure1). A Phase II ESA was then to be completed along the road corridor if the preliminary results of the Phase I ESA indicated potential or actual environmental concerns in the study area. The Rymal Road corridor extends along Rymal Road East from Regional Road 56 to 300 meters (m) west of Glover Road and along Regional Road 56 from Rymal Road East 900 m south.

The objective of this ESA work was to identify potential or actual areas of environmental concern in the study area that may affect the progress of the proposed construction activities along the road corridor. The focus of the investigation was on actual or potential areas of environmental concern along the corridor that may affect worker health and safety or material management during construction.

1.2 GENERAL DESCRIPTION OF THE STUDY AREA

The study area encompasses a corridor bordering Rymal Road East in the City of Hamilton, Ontario (Figure1). The segment of Rymal Road East examined extends from the intersection of Rymal Road East and Regional Road 56 to 300 m west of the intersection of Rymal Road East and Glover Road. This study also includes the examination of approximately 900 m of Regional Road 56 south of the intersection of Regional Road 56 and Rymal Road East. The study area is primarily occupied by paved portions of Rymal Road East and Regional Road 56. The western end of the study area is bordered to the north and south by residential and agricultural properties. The eastern end of the study area and the western side of the section of Regional Road 56 included in the study area is bordered by primarily commercial land uses. The eastern side of the 900 m section of Regional Road 56 is primarily utilised for agricultural purposes.

1.3 SCOPE OF WORK

1.3.1 Phase I Environmental Site Assessment Scope of Work

The following tasks were completed in the performance of the updated Phase I ESA.

Site Visit

A site visit to the study area was conducted on February 21, 2006. The weather conditions during the site visit were clear and sunny, with no snow cover.

WESA staff commenced the corridor inspection from the west end at the intersection of Rymal Road East and Dartnell Road. The inspection followed Rymal Road East to the intersection of Rymal Road East and Regional Road 56.

Interviews

Interviews were conducted with the employees of Brian's Tire on February 21, 2006. Brian's Tire is located on the north side of Rymal Road East at Swayze Road.

Records Review

The following mandatory and optional records were requested and reviewed:

- Air photos from 1943, 1960,1978, 1988, 1999 and 2002;
- Historical reports provide by the City of Hamilton
- CGI Group Inc. (formerly Insurance Advisory Organization (IAO) Inc.) (ERIS) records were requested on February 20, 2006;
- The following topographical and geological maps were consulted:
    - Ontario Ministry of Northern Development and Mines, Bedrock Geology of Ontario: Southern Sheet – Map 2544, 1:1,000,000, 1991.
    - Energy, Mines and Resources Canada, Hamilton-Grimsby,
    - Ontario – Map 30 M/4, 1:50,000, 1984.
    - Ontario Division of Mines-Quaternary Geology of Grimsby
    - Area- Map P.993, 1:50,000, 1975.
- MOE documents entitled "Waste Disposal Site Inventory" 1991 and "Ontario Inventory of PCB Storage Sites" 1995 were reviewed;

All tasks were completed by Karen Greer, Melanie MacKinnon, Ian Benger and Ron Donaldson of WESA. Assessor qualifications are provided in Appendix A.

1.3.2 Phase II Scope of Work

Based on the preliminary results of the Phase I ESA, the following tasks were completed as part of the Phase II investigation. The study area for the Phase II ESA is shown in Figure 2.

Service Locates

Prior to the drilling activities, all buried utilities were located at the site. WESA contacted Ontario One Call to determine the location of buried services in the vicinity of potential drilling locations.

Drilling Investigation

Six (6) boreholes were drilled in the area around the intersection of Rymal Road East and Swayze Road (Figure 2). Three boreholes were drilled on the north side of Rymal Road East (BH1 to BH3) and three were drilled on the south side (BH4 to BH6). The boreholes were spaced to cover approximately 100 m on each side of the intersection. Four boreholes were located on the east side of the intersection and two were located on the west side of the intersection of Rymal Road East and Swayze Road. The boreholes were advanced to a depth of approximately 3 metres below ground surface (m bgs) to determine the soil quality with respect to petroleum hydrocarbon compounds.

The boreholes were drilled by Aardvark Drilling of Guelph, Ontario under WESA supervision on March 7, 2006.

1.4 LIMITING CONDITIONS

The Phase I ESA portion of this project was performed in accordance with the substance and intent of the Phase I ESA guideline document produced by the Canadian Standards Association (CSA Z768-01). As such, it is based on visual observations made during a site visit, interviews with persons familiar with the study area, a review of historical records concerning the current and past land-use within the study area and requests for information filed with regulatory agencies.

The Phase II ESA portion of the project involved with the drilling of boreholes and the collection of soil samples for geochemical analyses. The soil conditions encountered represent the condition at the sampled locations only. Conditions away from the sampled locations may be different from those encountered during this study.

The Phase I and Phase II ESA did not include the collection of sufficient data for the preparation of a record of site condition.

The conclusions presented in the above captioned report represent our professional opinion, in light of the terms of reference, scope of work, and any limiting conditions noted herein. It is not intended to be a definitive investigation of contamination or other environmental concerns at the property.

The conclusions presented herein are based on information obtained up to and including the submission date of this document. Any site operations or land uses that may have changed since this submission may render the conclusions invalid. This document and the information contained herein have been prepared solely for the use of the City of Hamilton. No other party may use or rely upon the above captioned report or any portion thereof without the express written consent of WESA.

1.5 ENVIRONMENTAL GUIDELINES

The document "*Soil, Groundwater and Sediment Standards for Use under Part XV.I of the Environmental Protection Act*" (MOE, 2004) (Standard) defines generic soil and groundwater quality criteria depending on land use and whether the groundwater in a particular area is considered to be potable or non-potable. The selected Guideline criteria for the Hamilton area are presented in Table 2: Soil Standards for Industrial/Commercial/Community Property Use in a Potable Groundwater Condition, of this document.

2.0 PHYSICAL SETTING

2.1 TOPOGRAPHY

Ground elevation at the site is approximately 210 m above sea level. The study area is relatively flat lying, with less than one metre of relief. The surrounding area is gently sloping to the north, with a less than approximately 5 metres of relief.

2.2 SURFACE WATER HYDROLOGY

The study area is located approximately 8 kilometres (km) south of Lake Ontario. There are many water ways in the area including the Twenty Mile Creek and other small tributaries that drain into Lake Ontario just north of the study area.

Surface run-off from precipitation falling on the study area is collected in storm water catchments located along Rymal Road East.

2.3 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Rymal Road corridor is situated within the Haldimand Clay Plain physiographic region (Chapman and Putnam, 1984). The clay plain is located between the Niagara Escarpment and the Lake Erie covering an area of approximately 3500 square kilometres. The plain is composed interstratified of clays and silts. Clay and silt were deposited as lacustrine sediments associated with the proglacial Lake Warren. These sediments thicken southwards to a maximum thickness of over 20 m (ODM, 1975). The clay and silt is underlain by a clayey silt-clay till known as the Halton Till. The till is found at the surface in the form of Niagara Falls Moraine. The moraine trends parallel to the Rymal Road approximately 1 km north of the study area. A review of drift thickness maps for the study area (ODM 1968), indicates the overburden thickness in the vicinity of Rymal Road is generally less than 7.6 m and may be as thin as 1.8 metres in places.

The underlying bedrock in the area consists of dolostone from the Lockport formations deposited during Middle and Lower Silurian.

Based on the topography in the vicinity of the study area and the proximity to Lake Ontario the regional groundwater flow would be expected to be northwards towards Lake Ontario.

3.0 CURRENT SITE USE AND OPERATIONS

3.1 ON-SITE BUILDINGS AND OPERATIONS

The study area encompasses a corridor bordering Rymal Road East in the City of Hamilton, Ontario. The study area is primarily occupied by paved portions of Rymal Road East and Regional Road 56. The western end of the study area is bordered to the north and south by residential and agricultural properties. The eastern end of the study area is bordered by primarily commercial land uses as is the western side of the section of Regional Road 56, included in this study. The eastern side of the 900 m section of Regional Road 56 is primarily utilised for agricultural purposes.

City services such as hydro, gas, water and sewer run along both sides of Rymal Road East along the study area.

3.2 CURRENT SURROUNDING LAND USES

The current surrounding land uses were noted as follows by WESA staff. An abandoned quarry located approximately 20 m north of Rymal Road East and 300 m east of Dartnell Road was noted. The quarry appeared to have been abandoned for a long period of time. No mining equipment or structures were observed in the quarry or surrounding it. Further east an abandoned residential structure was located on the north side of the intersection of Glover and Rymal Road East. A small sign located above the garage attached to the east side of the home advertised "stone cutting" services, but both structures appeared to have been abandoned for some time. A large building supply and brick sales business was located further east on Rymal Road; number 1549 Rymal Road East. This business was identified as Ferrell Landscape Supplies Inc. The south side of Rymal Road East in this area was found to be occupied by residential structures and agricultural uses.

The property east of Ferrell Landscaping, 1565 Rymal Road East, was occupied by a residential structure that was found to be surrounded with non-operative motor vehicles of various ages.

An abandoned Ontario Hydro transformer station, identified as Hamilton Highlands Station, is located on the south side of Rymal Road East opposite side of Pritchard Road, just east of 1565 Rymal Road East. The station is located on a topographic high approximately 100 m from Rymal Road East. This station was found to currently contain three small transformers and appeared to have housed more when it was in service. Two driveways were also located in this area on the north side of Rymal Road East, slightly east of Prichard Road. These driveways appear to have been linked by a semi circular paved area.

Moving east on Rymal Road East both north and south sides of the corridor were found to be occupied by a mix of residential and agricultural land uses. A large residential development was observed to be under construction on the south side of the road opposite the terminus of Upper Mount Albion Road. An above ground fuel storage tank (AST) was observed beside the construction office area but was not closely inspected.

A large storm water retention pond, on the south west corner of Rymal Road East and Fletcher Road, was observed. A church with an attached cemetery was located on the north side of Rymal Road East slightly east of the storm water retention pond. A small fenced off parking area was also located near the church on the west side of the cemetery. The next feature observed was Farmer Al's Market located at 2070 Rymal Road East. A small golf course was also located in this area adjacent to Farmer Al's. A small potable water hauling firm was also found to be located on the south side of Rymal Road East slightly east of the golf course.

A second large area under development was located on the south side of Rymal Road East opposite the intersection of Whitedeer Road. This development project was observed to extend Swayze Road and included a recently opened Wal-Mart Store. A portable AST was observed near the intersection of Whitedeer Road and Rymal Road East; no staining was observed under the tank. The zone extending from the intersection of Swayze Road to the end of the study area at Regional Road 56 was found to be the most developed area within the corridor.

The first structure of interest within the Swayze Road area was located on the north side of intersection of Rymal Road East and Swayze Road. This structure was identified as Brian's Tire and Auto Repairs (Figure 2). The size, shape and exterior appearance of the structure closely resemble that commonly observed in historical fuel dispensing stations. The pavement surrounding the structure also appeared to have recently been disturbed. The property immediately to the east was observed to be currently occupied by an OLCO gas station (Figure 2). The pump island was estimated to be within 15 m of the north side of Rymal Road East.

The lands to the south, 2200 Rymal Road East, were observed to be occupied by a small shopping plaza (Figure 2). An ESSO gas station was located on the eastern side of the plaza approximately 20 m from the south side of Rymal Road East. The remainder of the lands bordering the south side of the road in this area were under development with the parcel at the intersection of Rymal Road East and Regional Road 56 occupied by a large car dealership. The lands located to the north of Rymal Road East were observed to be occupied by a historical church structure, currently occupied by a food service business, and a mix of retail and service based businesses.

The last area of the corridor to be investigated was the area surrounding Swayze Road and the northern end of Regional Road 56. The area enclosed by these two streets was found to be occupied by various automotive mechanical and body repair shops as well as a variety of light industrial establishments. A school bus depot was located at the southern end of Swayze Road This bus depot was observed to contain three ASTs, but the presence or absence of any soil staining could not be observed from outside the fenced yard. A medium sized AST was also observed beside the structure at 151 Swayze Road. An assortment of metal 225 L drums was also located in the area surrounding the AST. The lands to the east of Regional Road 56 were observed to be undeveloped agricultural land.

3.3 OTHER AREAS OF CONCERN

3.3.1 Polychlorinated Biphenyls (PCBs)

Hamilton Highlands Ontario Hydro transformer station is located on the south side of Rymal Road East just east of 1565 Rymal Road East along the corridor (as noted above). The station is currently inactive, but was found to currently contain three small transformers. Transformer stations are known to be sources of PCBs, but the current condition and status of PCBs at this location is unknown and therefore presents a moderate level of concern.

3.4 DISCUSSION OF FINDINGS

The current gas station and auto body shop located adjacent to the study area in the Rymal Road East and Swayze Road area present a moderate level of concern. The concern is a result of the potential for USTs to be located on the properties.

No details or documentations regarding to the condition of the tanks or conditions of the soil or groundwater on these properties was reviewed for the purpose of this report and are therefore unknown. A moderate level of concern is also present in the vicinity of the former Ontario Hydro transformer. The concern is due to the potential for PCBs contamination of the soil and groundwater in the area. The threat of impact on the study area due to the storage of PCBs on this site is reduced to low based on the geology in the area and the legal requirements for PCB storage and reporting.

4.0 HISTORICAL REVIEW

Historical aspects of the subject and nearby properties were reviewed during the Phase I by examining the following records:

- Historical air photo
- Interviews with persons knowledgeable about the subject property
- Ministry of the Environment "Waste Disposal Inventory" 1991
- Ministry of the Environment "Ontario Inventory of PCB Storage Sites" 1995
- CGI (ERIS) search results

4.1 SUBJECT PROPERTY AND SURROUNDING LAND USES

Historical air photos from 1943, 1960, 1978, 1988, 1999 and 2002 were reviewed as part of the Phase I. The air photos show the development and construction of the Rymal Road Corridor and the surrounding properties. A summary is presented below.

In 1943, Regional Road 56 ended at Rymal Road East where Swayze Road now joins Rymal Road East. A structure was visible in the location now occupied by Brian's Tire and Service. Based on the air photos a small area in front of structure can be seen that may be a former pump island. A medium sized pond can also be seen located behind the structure. A secondary structure is visible on the opposite side of Rymal Road East (south east side of Rymal Road East and Swayze Road). The structure appeared to have been connected to Rymal Road East by two separate driveways.

The central section of the study area appeared to be exclusively agricultural with some residential structures abutting Rymal Road East. At the time of the air photo, construction activity near Prichard Road at the western end of the study area was taking place. Also, the abandoned quarry identified on the western edge of the study area during the site visit was in operation.

The 1960 air photo showed that Regional Road 56 still ended at Rymal Road East where Swayze Road currently joins Rymal Road East. The property located on the south side of Rymal Road East just east of Swayze Road that is now operated as an ESSO gas station had a small structure that was visible. The property located northwest of the end of Swayze Road at Rymal Road East adjacent to the current Brian's Tire property showed star patterns in the field. The pattern appeared to be man made but was overgrown with grasses and weeds making identification difficult. The origin of the pattern is suspected to be a former municipal water works or storm water retention pond. The environmental concern is low. The air photo also showed numerous vehicles parked on the property that is now occupied by Brian's Tire. The quarry located on the western side of the study area appears in 1960 to be over grown with vegetation and therefore inactive at that time.

The Air Photo from 1978 revealed that Regional Road 56 had been re-aligned to meet Hwy 20 directly. Development and construction was taking place in the area. A new structure was visible between the current location of Brian's Tire and the church building, the current location occupied by the OLCO service station. A structure was also present in the area in which the current ESSO station is located. Further west along Rymal Road East development was occurring on the property now occupied by Farmer Al's Market. Construction activity appears to be ongoing on both sides of Rymal Road East just east of Pritchard Road at that time with the possible construction of that natural gas pipeline which runs through the area and the installation of high-tension hydro wire towers. The area north of Rymal Road East and east of Pritchard where the abandoned hydro sub station is located was under construction at the time of the air photo.

Observations obtained from the 1988 and 1999 air photos indicated that development and construction continued in the area. The lands adjacent to Swayze Road continued to be primarily agricultural to the west and light commercial to the east. The quarry and brick retailing locations west of Pritchard Road were developed and appeared as they do today. The hydro sub-station east of Pritchard Road had been abandoned by 1999. The current Wal-Mart property located east of Swayze Road was occupied by a house with detached barn. The properties now occupied by the OLCO and ESSO stations appeared as they do today in 1999.

The 2002 air photo showed little change in the area to what was observed during the site visit by WESA.

4.2 WASTE DISPOSAL SITES

A review of the MOE document entitled "Waste Disposal Site Inventory" 1991 was performed. There are no active or closed waste disposal sites within a one-kilometre radius of the study area.

4.3 PCB STORAGE SITES

A review of the MOE document entitled "Ontario Inventory of PCB Storage Sites" 1993 was performed. There was no PCB storage located within the study area. As noted above in section 3.3.1 of this report an Ontario Hydro transformer was noted within the study area. No record of the transformer was noted in the search.

4.4 HISTORICAL ERIS SEARCH RESULTS

An EcoLog ERIS search was requested for properties located within two kilometres of the Rymal Road corridor. The search results are as follows:

- One Automobile Wrecking and Supplies was reported between 2001 and June 2005;
- Four Certificates of Approval were issued between 1985 and September 2002;
- Ontario Regulation 347 Waste Generator Summary reported 21 registrations between 1986 and 2004;
- Occurrence Reporting Information System reported four spills between 1988 and 2002;
- Three Retail Fuel Storage Tanks were reported between 1989 and June 2005;
- Scott's Manufacturing Directory identified five manufactures between 1992 and 2003;

4.5 DISCUSSION OF FINDINGS

A review of the ERIS search results for properties within a 0.3 km of the study area presented the following results that maybe of a concern to the subject property.

- Three Underground Storage Tanks were noted within 0.3 km of the site. The underground fuel storage tanks (USTs) are located in the Rymal Road East and Swayze Road area;
- Four reportable spills were reported within 0.3 km of the study area between 1989 and 2000. The spills were reported to have occurred in the Rymal Road East and Swayze Road area. The most significant spill was reported in 1992 as a 15 litres of gasoline from a leaking fuel line at the corner Rymal Road East and Swayze Road.

The reported surrounding land uses pose a moderate to high potential for environmental impact to the study area in the vicinity of Rymal Road East and Swayze Road.

5.0 REVIEW OF OTHER INFORMATION SOURCES

5.1 PREVIOUS ENVIRONMENTAL REPORTS

Historical reports relating to activates within the study area were provided by the City of Hamilton. The reports were reviewed for the purposes of this report.

5.2 INTERVIEWS

WESA interviewed the staff of Brian's Tire on February 21, 2006. The employees indicated that before the current owner took possession of the property the previous owner had the USTs that were located on the property removed as well as a significant volume of soil. No documentation was provided with respect to the condition of the tanks, soil or groundwater at the time the tanks were removed.

5.3 DISCUSSION OF FINDINGS

A review of the historical reports revealed concentrations of Total Petroleum Hydrocarbons (TPH) heavy oils above the applicable guideline criteria in soil that originated from a water main trench in the area of Rymal Road East and Swayze Road (Landtek, 2002). No further investigations were done in the area and no other concerns were noted in the additional reports that were provided.

6.0 PHASE I CONCLUSIONS

6.1 ACTUAL CONTAMINATION

Actual contamination was noted in the area of Rymal Road East and Swayze Road by Landtek Limited Consulting Engineers in December 2002 as a result of water main work in the area. The source of the contamination at the time was unknown and no further investigations were performed.

6.2 POTENTIAL CONTAMINATION

Historical and current land uses within the Rymal Road East and Swayze Road region of the study area present potential areas of contamination. The land uses included both historical and current gas stations with three USTs noted and four reportable spills reported between 1989 and 2000 in the area.

In order to determine whether there is an actual concern in this area the Phase II portion of the project was completed.

7.0 PHASE II METHOD OF STUDY

The methods used in this study are presented below.

7.1 BOREHOLE DRILLING

Aardvark Drilling of Guelph, Ontario under WESA supervision drilled six (6) boreholes in the area around the intersection of Rymal Road East and Swayze Road on March 7, 2006. The boreholes were backfilled to surface with drill cuttings and bentonite well seal upon completion. Excess drill cuttings were stored on-site in a sealed, steel drum for later disposal. Borehole records are provided in Appendix B.

The six boreholes were located as follows:

- Two on the north side of Rymal Road East, east of Swayze Road (BH1 and BH2);
- One on the north side of Rymal Road East, west of Swayze Road (BH3);
- Two on the south side of Rymal Road East, east of Swayze Road (BH5 and BH6); and
- One on the south side of Rymal Road East, west of Swayze Road (BH4).

7.2 SOIL SAMPLING

Split spoon sampling techniques were used to collect soil samples for stratigraphic logging and field screening for geochemical sampling. Clean N-Dex Nitrile gloves were used, and were replaced between each sample. Duplicate, split soil samples were collected into clean glass jars with Teflon lined lids as well as clean, polyethylene, ziploc bags for detailed observation and field screening. An Eagle® combustible hydrocarbon monitor was used in the field to screen for petroleum hydrocarbon vapours from the soil samples from each location following MOE protocol. The samples were brought to room temperature (approx. 20°C) for a minimum of 2 hours prior to screening. The field screening results along with observations made in the field were used to assist in the selection of soil samples to be submitted to the laboratory. The samples selected for analysis were stored at approximately 4^0C and delivered to EnviroTest Laboratories of Waterloo, Ontario for testing.

The samples were analyzed for Petroleum Hydrocarbon Compounds (PHC) Fraction 1 (C_{6-10}), Fraction 2 (C_{10-16}), Fraction 3 (C_{16-34}) and Fraction 4 ($C_{>34}$) (F1-F4) plus benzene, toluene, ethyl-benzene and xylenes (BTEX).

8.0 PHASE II RESULTS AND DISCUSSION

The results of the investigation are presented and discussed below.

8.1 SOIL GEOCHEMISTRY

The soil geochemical results for the PHC (F1 - F4) and BTEX analysis are summarized in Table 1.

The results indicate that the selected Standards were met for all samples and all parameters collected from BH1, BH3, BH4, BH5 and BH6. Geochemical results for BTEX, F1 and F2 were below detection limit in the soil samples at these locations. The soil sample collected from the boreholes had very low concentrations of F3 and F4 PHC's, well below the selected Standard.

The analytical results for the soil samples collected from BH2 reported concentrations above the Standard. Sample BH2-SS2 exceeded the Standard for benzene. Sample BH2-SS3 exceeded the Standard for benzene, ethylbenzene and F1. The remainder of the parameters were above detection limit but below the Standard. These samples were collected between approximately 0.8 and 2.2 m bgs. Field observations indicated that the PHCs at this location did not likely continue deeper.

The original laboratory certificates of analyses are included in Appendix C.

9.0 PHASE II CONCLUSIONS

A Phase II environmental site assessment was completed to confirm suspected hydrocarbon contamination in the area of Rymal Road East and Swayze Road.

The soil geochemical results were compared to the selected Standard criteria in Table 2: Surface Soil Criteria for Industrial/Commercial/Community Property Use in a Potable Groundwater Condition of the MOE document *"Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act"* (MOE 2004). Based on this investigation the following summary and conclusions are presented:

- Groundwater was not encountered during the investigation.
- The soil geochemical results indicate that the selected Standard for petroleum hydrocarbon compounds F1 to F4 and BTEX were met in five of the six boreholes installed in the suspected areas of environmental concern.
- Analytical results from BH2 reported benzene, ethylbenzene and F1 concentrations above the Standard between 0.8 and 2.2 metres below ground surface.

10.0 OVERALL ASSESSMENT AND RECOMMENDATIONS

The potential for impacts to the study area is considered to be low from the historical and current land uses with the exception of the Rymal Road East and Swayze Road area.

The Phase II investigation reported hydrocarbon concentrations above the Standard in BH2 between approximately 0.8 and 2.2 metres below ground surface. The concentrations noted are consistent with gasoline contamination. It is recommended that the necessary precautions be taken by City staff and contactors when work occurs in the area. PHC containing soil removed from the area should be contained, handled and disposed of in accordance with Ontario Regulation 347 and 558 to insure no further environmental impacts occur.

Respectfully submitted,

Karen Greer, B.Sc., G.I.T.
Environmental Consultant

C. Ronald Donaldson, M.Sc., P.Geo.
Senior Hydrogeologist

PROFESSIONAL GEOSCIENTIST
C. RONALD DONALDSON
PRACTISING MEMBER
0642
ONTARIO

per Ian Benger BSc. EMPG
Environmental Specialist

11.0 REFERENCES

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TABLE 1
Summary of Soil Geochemistry Results- Petroleum Hydrocarbon Compounds
City of Hamilton, Rymal Road Corridor

Sample	Benzene	Toluene	Ethylbenzene	m+p Xylenes	o- Xylenes	Total Xylenes	F1 (C6-C10)	F2 (C10 - C16)	F3 (C16 - C34)	F4 (C34 - C50)
Standards	**0.24**	**2.1**	**0.28**	-	-	**25**	**(180) 230**	**(250) 150**	**(2500) 1700**	**(6600) 3300**
BH1-SS1	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15	<5	<5	36	28
BH2-SS2	***0.68***	<0.05	0.16	0.8	0.14	0.94	41	<5	95	33
BH2-SS3	***0.25***	0.74	***5.06***	14.3	4.06	18.4	***300***	33	11	8
BH3-SS2	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15	<5	<5	15	10
BH4-SS2	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15	<5	<5	22	7
BH5-SS3	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15	<5	<5	45	22
BH6-SS3	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15	<5	<5	34	35

Notes:

All units are in µg/g

Standards - Ontario Regulation 153/04 made under Part XV.1 of the Environmental Protection Act, Table 2 Potable Groundwater Situation Industrial/Commercial/Community Property Use

value in brackets indicates criteria for fine/medium textured soil conditions

5500 *Exceeds Standards*

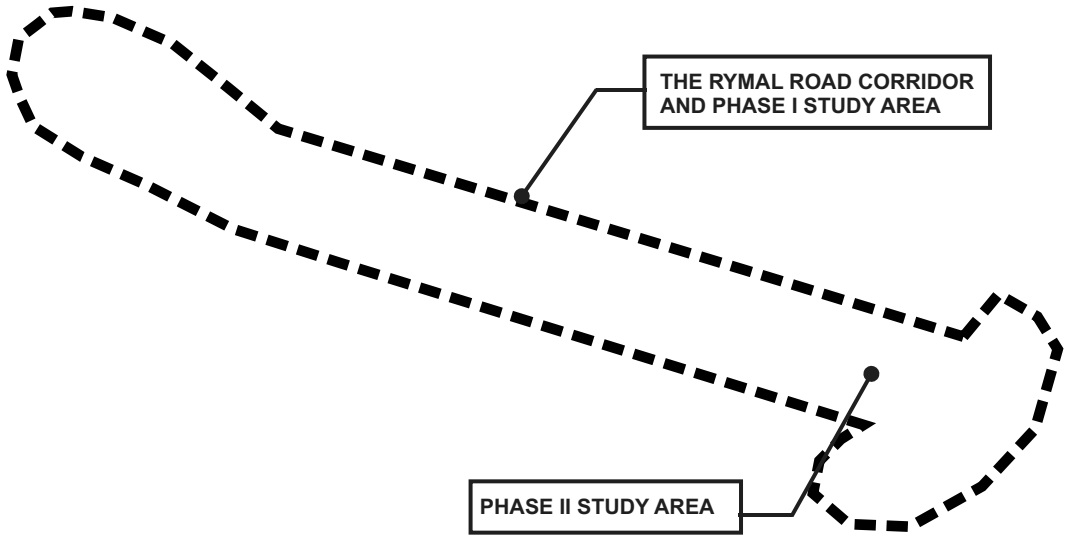
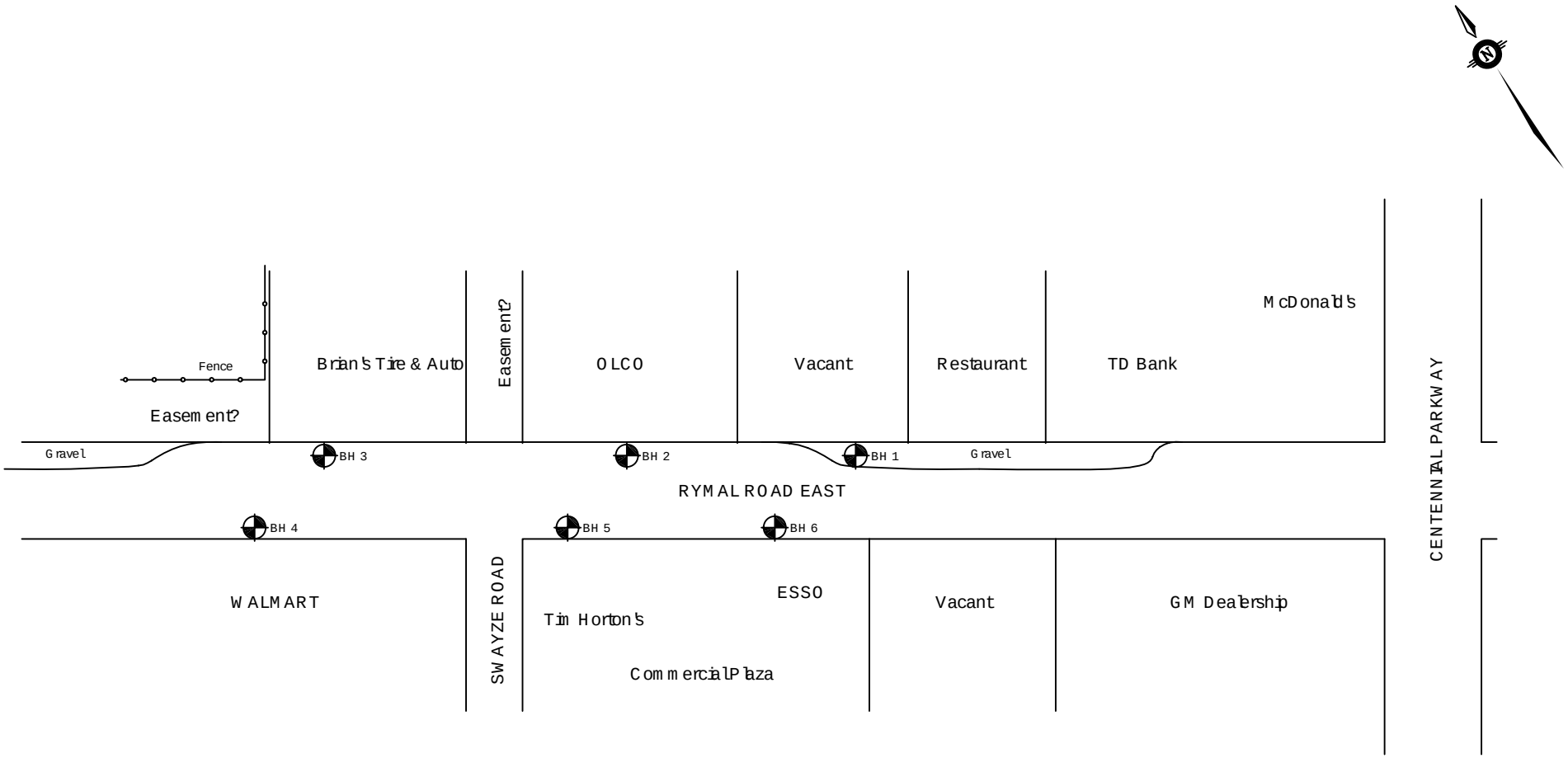


FIGURE: 1

SITE LOCATION MAP

THE RYMAL ROAD CORRIDOR - HAMILTON, ONTARIO



LEGEND

BH 1 Borehole Location

NOTE: Drawing is not to scale.

PROJECT NUMBER: W-B4908	DRAWN BY: M.M.	DESIGNED BY: M.M.
DATE: MARCH 2006	CHECKED BY: K.D.G.	
SCALE: NOT TO SCALE	CAD FILE NO.: W-B4908 SITE SKETCH.DWG	

PHASE II ESA SITE PLAN

CITY OF HAMILTON

RYMAL ROAD
HAMILTON, ONTARIO

WESA
A Better Environment For Business

APPENDIX A

Assessor Qualifications

KAREN GREER, B.SC., G.I.T

Position:	Project Hydrogeologist, 2003-present ➢ WESA Group Inc. ➢ Water and Earth Science Associates Ltd.
Role(s):	➢ Project Hydrogeologist ➢ Field Technician
Education:	➢ 2003, B.Sc., Hydrogeology, University of Waterloo Thesis Title: Effects of the Presences of BTEX-Ethanol in Groundwater on Biofilm Development
Languages:	➢ English ➢ French
Nationality:	➢ Canadian

Employment History:

2003-Present	WESA (Water and Earth Science Associates Ltd.), Project Hydrogeologist
Jan. to Sept. 2002	Environment Canada, Environmental Research Assistant
April to Sept. 2001	Aqua Terre Solutions Inc., Field Technician
Sept. to Dec. 2000	University of Waterloo - Dr. John Cherry, Hydrogeology Field Assistant
Jan. to April 2000	Natural Resources Canada-Continental Geosciences Division, Lab Assistant

PROFESSIONAL PROFILE

Karen Greer, B.Sc., is a Hydrogeologist and Geoscientist in Training at WESA's (Water and Earth Science Associates Ltd.) Kitchener office. She received her Bachelor of Science degree in Earth Science – Environmental Hydrogeology from the University of Waterloo. Ms. Greer's experience has focused on the physical and chemical characterization of hydrogeological sites, working primarily with chlorinated solvent and hydrocarbon contamination. She has worked extensively on projects detailing the hydrogeological properties of fractured bedrock using packer systems. Her work with packer systems ranges from the technical design and construction to the testing and ultimately the data analysis. Her experience also includes GUDI (Groundwater Under the Direct Influence of Surface water) investigations from a field collection of data to untimely the data analyses and report writing.

Ms. Greer's experience includes Phase I Environmental Site Assessments. Ms. Greer has been the project manager and principal researcher and author on Phase I for over two and a half years. The ESAs have included large industrial facilities, commercial, food processing, retail and residential properties and office buildings at site across southwestern Ontario.

Ms. Greer has experience with the installation of monitoring wells and with supervising the borehole drilling using numerous different drilling techniques including hollow-steam auger, fluid and air rotary and sonic. Ms. Greer has a strong ability to interpreted data and to assess the physical and chemical characteristics of hydrogeological sites. She is highly experienced with the analysis of pump and slug test data using the AquiferTest™ software. Ms. Greer is a Geoscientist in training and is gaining experience on many levels of project management. She is fluent in English and French.

REPRESENTATIVE EXPERIENCE

Physical Hydrogeology

- Physical and chemical characterization of hydrogeological sites
- GUDI investigations
- Experienced with both methods and techniques of well construction, aquifer testing, drilling, test pitting, and excavation
- Monitoring well installation, including water table and deep aquifer installations using many different drilling techniques
- Aquifer analyses and characterization from pump test, slug and bail test data
- Construction of piezometers and multilevel hydrogeological monitoring devices.
- Co-ordinated delivery and analysis of soil and water samples.
- Detailed hydrogeological properties of fractured bedrock using packer systems
- Experienced in operating and maintaining a pump and treat system as part of a remediation efforts in place
- Experienced with core logging, porosity, and permiameter testing, as well as profiling and surveying

Contaminant Hydrogeology

- Research focusing on the development of experimental methods to evaluated the effects of BTEX-ethanol on biofilms both in a lab and field setting
- Involved with the delineation and investigation of chlorinated solvent plumes in overburden and bedrock
- Extensive work regarding the implementation of Remediation by Natural Attenuation (RNA) for application on specific sites
- Experience with hydrocarbon remediation, from site assessment to clean up
- Highly involved with DNAPL (Dense Non-aqueous Phase Liquid) injection site at CFB Borden, constant monitoring, sampling, and data analysis for plum monitoring

Environmental Site Assessment

- Performed numerous Phase I and Phase II Environmental Site Assessments (ESAs) according to the CSA standard for land transactions.
- Conducted ESA at large industrial property with over 50 buildings with unique land uses and tenants.

MELANIE MACKINNON, A.Sc.T.

Position: Environmental Field Technologist
- Water and Earth Science Associates Ltd.

Role(s)
- Field Technologist
- Data Analysis and Interpretation
- Reporting

Expertise:
- Physical and Contaminant Hydrogeology
- Phase I and Phase II Environmental Site Assessments
- Municipal Water Supply Studies
- Groundwater Recovery and Remediation Systems
- Aquifer Tests including GUDI and well interference
- Soil Vapour Extraction Systems
- Decommission, excavation and verification sampling
- Investigative and confirmatory drilling supervision and well installation
- Environmental Waste Audits
- Well decommissioning
- Data logging programs and applications
- CAD drafting

Education:
- Sir Sandford Fleming College, Geotechnical Environmental Engineering Technologist, 1995
- WHMIS certification, Standard First Aid (St. John Ambulance), OSHA/NIOSH – Hazardous Materials & Site Investigations training and Operation of Small Drinking Water Systems Trained Person

Languages:
- English
- Basic French

Nationality:
- Canadian

Employment History:

2002 – Present WESA (Water and Earth Science Associates Ltd.), Environmental Technologist
1995 – 1999 Dames & Moore Canada, Environmental Technologist

Membership in Professional Societies:
- Ontario Association of Certified Engineering Technicians and Technologists; Applied Science Technologist (A.Sc.T.)

PROFESSIONAL PROFILE

Melanie MacKinnon is an Environmental Field Technologist with WESA in their Kitchener office. Ms. MacKinnon received her Environmental Engineering Geology Diploma from Sir Sanford Fleming College in 1995. She worked for several years as an Environmental Technologist with Dames & Moore Canada in their Cambridge office before coming to WESA. Ms. MacKinnon's project experience includes water resource assessment studies and contaminant impact studies at industrial sites such as chemical, automotive, appliance and paint manufacturing facilities, industrial and municipal landfill sites, public airports, hospitals and correctional centres, mines, quarries, fuel distribution facilities, and Brownfield development properties. Ms. MacKinnon has extensive experience supervising borehole drilling (hollow stem auger, split spoon, bedrock core and sonic rig drilling), test-pitting, monitoring and supply well installations and stratigraphic logging as well as soil, groundwater and air sampling. Ms. MacKinnon's experience has included numerous site remediation activities such as removal and treatment of surface and subsurface contamination (including soil, water and air) as well as on-going monitoring and verification sampling. Ms. MacKinnon's experience includes aquifer tests on both existing and potential water resource systems, including GUDI assessments and well interference studies. Ms. MacKinnon has a good working knowledge of AutoCAD. She coordinates directly with contractors and clients to insure that schedules, site safety and sampling protocols are all maintained.

REPRESENTATIVE EXPERIENCE

Monitoring and Sampling Procedures:

- supervision of borehole drilling and well installation, including water table and deep aquifer installations for both water supply and contaminant monitoring;
- split spoon and rock core sampling;
- simulprobe® soil/gas – soil/water sampling;
- site safety and headspace analyses with Photoionization detector and Gastechtor and RKI Eagle;
- develop and purge monitoring wells;
- sample groundwater, surface water and soil for most parameters in the MOE Guideline for Use at Contaminated Sites in Ontario;
- hydraulic testing;
- sediment sampling;
- test pit (in-situ) sampling;
- groundwater and surface water level monitoring; and various routine sampling and monitoring programs for MOE compliance.

Groundwater Resource Assessments:

- short and long term aquifer tests and analysis;
- GUDI studies; and
- well interference assessments

Remediation Methods:

- groundwater pump and treat system monitoring and sampling;
- soil vapour extraction system monitoring and sampling; and
- supervision of soil excavation and verification sampling.

Investigation and Delineation:
- shallow soil vapour surveys;
- extensive contaminant investigation drilling including simulprobe® soil/gas - soil/water sampling; and
- surface soil and test pit investigation.

Drilling Methods:
- bedrock coring, air rotary and fluid rotary;
- hollow stem/solid stem augering;
- decontamination procedures; and
- containment procedures.

Data Logger Programming and Application:
- familiar with use of various models including STARLOGGER (Unidata) and HANDAR logger, Solinst Levelogger and In-Situ MiniTROLL datalogger systems;
- groundwater level monitoring;
- stream flow velocity monitoring and calculation; and
- weather station monitoring including, temperature, humidity, barometric press, precipitation and rate of evaporation.

Surveying:
- leveling and elevation surveys; and
- GPS surveys.

Data Compilation and Presentation:
- data compilation and presentation using database, word processors and spreadsheet programs;
- data interpretation using geostatistical and mapping software;
- mapping, site plans and schematic drawing using AutoCAD;
- scheduling and flow chart preparation; and
- meeting and presentation preparation of slides, overheads and figures.

Health and Safety:
- compliance with generic and site specific health & safety plans; and
- understanding of hazardous materials handling procedures.

IAN BENGER, B.SC., EMPG

Position:

Environmental Specialist, 2004-Present
- WESA (Water and Earth Science Associates Ltd.)

Role(s):
- Environmental Specialist \ Environmental Field Technician
- Indoor Air Quality (IAQ)
- Business Development

Expertise:
- Air monitoring for variety of workplace contaminants
- Mould, asbestos and Indoor Air Quality (IAQ)
- Environmental soil, water sampling and monitoring
- Industrial waste assessments
- Sub-contractor administration and coordination
- Conducted air quality assessments.
- Conducted confined space entry assessment.
- Produced confined space entry and rescue procedures for large industrial clients.
- Conducted industrial storm water runoff sampling in compliance with municipal sewer use by-law.
- Conducted industrial air quality sampling assessments for a variety of potential contaminants.

Education:
- 2000, Niagara College, Postgraduate Environmental Management Program
- 1995, B.Sc., Geography and Anthropology, Trent University,

Training:
- Emergency Response Technician - Echelon Emergency Response and Training Inc. (2000-Present)
- Hazardous Materials Emergency Responder
- Spill containment and site remediation
- Safety Training: Confined Space Rescue
- Certificates: TDGA certification

Languages:
- English

Employment History:

2004-Present	WESA (Water and Earth Science Associates Ltd.), Environmental Specialist
2004-2004	Orser Environmental and Safety Inc.
2001-2002	R.V. Anderson Associates Ltd., Environmental Field Technician
2000-2001	Photech Environmental Solutions Inc., Field Technician

PROFESSIONAL EXPERIENCE

Orser Environmental and Safety Inc. (2002 - September 2004)

- Inspected and monitored industrial clients' operations for compliance with Environmental and Health and Safety legislation.
- Conducted pre- and post-remedial air and surface sampling for mould contamination
- Conducted asbestos surveys in industrial situations for regulatory compliance.
- Researched and completed Phase 1 site assessments for residential, commercial and industrial clients.
- Collected soil and ground water samples for laboratory analysis.
- Analyzed laboratory results and presented results to clients.
- Resolved waste management challenges for industrial clients. Found cost effective alternatives for industrial and commercial clients' hazardous waste.
- Constructed and maintained specialized environmental sampling equipment.
- Responded to client inquiries and produced quotations for approval.

R.V. Anderson Associates Ltd. (2001 - 2002)

- Investigated industrial waste systems and provided recommendations for improvement.
- Designed and implemented sewer connectivity assessments for local industrial facilities.
- Scheduled and supervised the activities of subcontractors and client union personnel.
- Modified blue prints to reflect undocumented changes to industrial structures.
- Collected drinking water samples for analysis.

Photech Environmental Solutions Inc. (2000 – 2001)

- Identified waste types and classifications under Ministry of the Environment waste codes
- Completed M.O.E. manifests and bills of lading in accordance with federal Transportation of Dangerous Goods legislation.
- Identified and categorized waste chemicals for safe transport as a "lab pack".

C. RONALD DONALDSON, M.SC., P.GEO.

Position: Principal and Vice President, South Western Ontario Operations

Role(s):
- Branch Manager, WESA Kitchener
- Project Manager / Project Team Leader
- Senior Peer Reviewer Expert Witness / Senior Advisor
- Senior Hydrogeologist / Environmental Impact Specialist

Expertise:
- Environmental Management, Best Practices and Pollution Prevention
- Industrial, Agricultural, Greenfield, Grey Field and Brownfield Property Impact Definition and Remediation (Soil, Sediment, Groundwater, Surface Water)
- Environmental Impact Analysis and Assessment, Hazardous and Non-Hazardous Waste Management, Petroleum Resource and Utilities Facilities and Corridors
- Municipal and Industrial Water Resource Development and Protection

Education:
- M.Sc. Hydrogeology (1992), B.Sc. Earth Sci. (1985), University of Waterloo

Employment History:

2001 - Present	WESA Group Inc., Vice President / Principal
1992 - 2001	Water and Earth Science Associates Ltd. (WESA), Branch Manager
1989 – 1992	University of Waterloo, Research Assistant / Principal Investigator
1985 – 1989	Canterra Energy Ltd., Calgary, Exploration Geologist

Membership in Professional Societies:
- Association of Professional Geoscientists of Ontario (P.Geo)
- Association of Professional Engineers, Geologists and Geophysicists of Alberta (P.Geol)
- National Ground Water Association

Affiliations:
- Chair (1993 to Present), Regional Municipality of Waterloo Ecological and Environmental Advisory Committee
- Steering Committee Member (1997 to 2003), CRESTech (Centre for Research in Earth and Space Technology), Land Resource Management Theme
- Environmental Technologies Committee Member (2003 to Present), CRESTech (Centre for Research in Earth and Space Technology) a member of Ontario Centre for Excellence Inc. (OCE Inc.)

PROFESSIONAL PROFILE

Mr. C. Ronald Donaldson, M.Sc., P.Geo. Mr. Donaldson is a Principal of WESA, a privately owned, Canadian environmental, health and safety consulting firm founded in 1976. The firm's head office is situated in Ottawa (Carp) and currently operates from offices situated in Toronto, Burlington, Kitchener, Ottawa, Kingston, Sudbury, Montreal and Gatineau. He has been a groundwater specialist and the Manager of WESA's Kitchener office since 1992. Mr. Donaldson is a licensed Professional Geologist with the Association of Professional Geoscientists of Ontario and the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

Domestic Project Experience

As a company principal and senior hydrogeologist of WESA Mr. Donaldson has been involved in the planning and execution of over 1000 consulting assignments. He routinely supervises large multi-disciplinary investigations and complex multi-site consulting and remedial implementation assignments. A representative cross section of this work is presented below by discipline or assignment type.

Spill Abatement
Project Manager, Client Manager and Hydrogeologist. Spill abatment and clean-up activities for petroleum fuels, oils, and lubricants. These activities include include spill containment, liquid, gas and dissolved phase recovery and treatment from soil, groundwater, surface water and confined spaces. Recovery technologies included Soil Vapour extraction, groundwater purge and treat, vacuum enhanced product recovery, emplacement of impermeable barrier technologies, enhanced in-situ remediation. Technical services provided included problem definition, remedial alternative assessment and cost estimation, hydrogeologic analysis, environmental risk analysis, contaminant pathway analysis, product identification and fingerprinting (organic and isotope) alternate water service provision (infrastructure, water treatment).

Industrial Site Decommissioning and Brownfields Redevelopment
Project Manager, Client Manager and Hydrogeologist. Industrial Site Contamination Definition, Remedial Alternatives Assessment and Site Clean-up. Mr. Donaldson has been extensively involved with the provision of environmental services to industry as it relates to the identification, control and clean-up of contaminated industrial lands throughout Ontario. The primary objective of much of this work has been for the reintroduction of contaminated lands back into the market. Problems have involved a variety of contaminants including heavy metals, acids, bases, chlorinated organic solvents (Dense Non-Aqueaous Phase Liquids DNAPLs), hydrocarbon solvents (LNAPLs), fuels and lubricants. Complex environmental interactions relying on a variety of investigative and sampling techniques have been developed for each site. Project management of remedial projects in excess of $2.5 million.

Environmental Management Systems
Project Manager and Client Manager. EMS consultation and implementation was undertaken for an international automotive parts manufacturing company at 6 facilities in Ontario, Canada..

The services delivered included Phase 1 and 2 environmental site assessments and inter-site prioritization of environmental issues, remedial action planning, environmental abatement programs, spill and hazard response, environmental remediation, environmental compliance reporting to board of directors members charged with environmental reponsibility, implementation of EMS to the ISO 14001 standard, compilation and development of Best Management Practices for Pollution Prevention in in 34 industrial sectors. Functions also included the pre-aquisition and predivestiture environmental assessment of real estate. These EMS programs are ongoing and include waste auditing and recycling functions as well as staff training and procedure modification.

Soil and Groundwater Treatment, Research and Development

Project Manager, Primary Researcher Hydrogeologist. The development of innovative soil and groundwater treatment and decontamination methods has been the focus of much of WESA's efforts for site remediation, control and clean-up. Methods have included the utilization of emerging technology such as in-situ and ex-situ bioremediation of soils and groundwater, enhanced chemical degradation of chlorinated solvents, in conjunction with a variety of classical remedial tools such as pump and treat and excavation methods.

Environmental Forensics

Discipline Leader. Environmental Forensic is defined as a scientific methodology developed for identifying petroleum-related and other potentially hazardous environmental contaminants and for determining their sources and time of release. It combines experimental analytical procedures with scientific principles derived from the disciplines of organic geochemistry and hydrogeology. When applied to investigation of escaped petroleum products, Environmental Forensics provide a valuable tool for obtaining scientifically proven, court admissible evidence in environmental legal disputes. Mr. Donaldson has been involved in this evolving field since the mid-1980's when the tools were used to identify the source material for crude oils. Today, the tools employ information generated through Phase I ESAs, literature reviews, isotopic analyses, gas chromatography, mass spectrophotometry, and specialized organic compound analyses.

Environmental Impact Assessment

Project Manager, Client Manager, Hydrogeologist. Environmental impact and its assessment and mitigation form a substantial component of most of the project work undertaken by Mr. Donaldson. Results of these studies have been submitted in supporting documentation for the Solid Waste management sector (Public), land development sector, the energy sector (petroleum and electrical) and the agricultural and industrial sectors. Work experience has included site assessment for purposes of development or expansion, corridor assessment and has included the integration of financial and social environmental aspects.

Expert Testimony, Peer Review and Litigation Support

Expert opinion and litigation support has been rendered to tribunals and the courts in Canada including the Ontario Environmental Review Tribunal, the Ontario Municipal Borrad and Provincial Courts of Ontario. Areas of specialization include those listed above. Peer review services have been provided for the preparation of litigation and preparation of technical opinions based on the past performance of private industry in Civil Proceedings.

APPENDIX B

Borehole Records

Project No: W-B4908

Project: Rymal Road Corridor - Phase II ESA

Client: City of Hamilton

Location: Rymal Road

Log of Borehole: BH1

Supervisor: Mel MacKinnon

SUBSURFACE PROFILE				SAMPLE			Eagle ppm 125 250 375 / %LEL 25 50 75	Well Completion Details
Depth	Symbol	Description	Elev.	Number	Type	Recovery		
ft / m		Ground Surface						No well installation
0 / 0		***Fill*** sand and gravel, silty, brown		SS1				
3 / 1		***Clay*** dark brownish gray, soft, moist, rootlets		SS2				
6 / 2		trace silt, occassional gravel, brown, gray veins, firm, moist		SS3				
8		hard, dry		SS4				
10 / 3		very hard		SS5				
13 / 4				SS6				
15		End of Borehole						

Drill Method: Solid Stem Auger

Drill Date: March 7, 2006

Driller: Aardvark Drilling Inc.

Datum: NA

Checked by: K. Greer

Sheet: 1 of 1

WESA
182 Victoria St. South
Kitchener, Ontario
Canada N2G 2B9

Project No: W-B4908

Project: Rymal Road Corridor - Phase II ESA

Client: City of Hamilton

Location: Rymal Road

Log of Borehole: BH2

Supervisor: Mel MacKinnon

Depth (ft)	Depth (m)	Symbol	Description	Elev.	Sample Number	Sample Type	Recovery	Eagle ppm 125 250 375 / %LEL 25 50 75	Well Completion Details
0	0		Ground Surface						No well installation
0	0		***Asphalt***						
1			***Fill*** sand and gravel, silty, brown, damp to dry		SS1				
2			***Clay*** dark brownish gray, soft, wet, rootlets, wood fragments, sewage-like odour, trace hydrocarbon odour noted						
3	1				SS2				
4									
5			silty, brown/gray, soft, moist, strong hydrocarbon odour noted						
6			less hydrocarbon odour		SS3				
7	2								
8			brown with gray sandy veins, firm, moist		SS4				
9									
10	3		brown, firm, damp						
11					SS5				
12			End of Borehole						
13	4								
14									
15									

Drill Method: Solid Stem Auger

Drill Date: March 7, 2006

Driller: Aardvark Drilling Inc.

Datum: NA

Checked by: K. Greer

Sheet: 1 of 1

WESA
182 Victoria St. South
Kitchener, Ontario
Canada N2G 2B9

Project No: W-B4908

Project: Rymal Road Corridor - Phase II ESA

Client: City of Hamilton

Location: Rymal Road

Log of Borehole: BH3

Supervisor: Mel MacKinnon

SUBSURFACE PROFILE				SAMPLE			Eagle ppm 125 250 375 / %LEL 25 50 75	Well Completion Details
Depth (ft / m)	Symbol	Description	Elev.	Number	Type	Recovery		
0 / 0		Ground Surface						No well installation
		Asphalt						
1		***Fill*** sand and gravel, brown		SS1				
2								
3 / 1		***Clay*** dark brownish gray, soft, moist		SS2				
4								
5		trace silt, brown, gray veins, hard, dry		SS3				
6 / 2								
7								
8				SS4				
9								
10 / 3		End of Borehole						
11								
12								
13 / 4								
14								
15								

Drill Method: Solid Stem Auger

Drill Date: March 7, 2006

Driller: Aardvark Drilling Inc.

Datum: NA

Checked by: K. Greer

Sheet: 1 of 1

WESA
182 Victoria St. South
Kitchener, Ontario
Canada N2G 2B9

Project No: W-B4908

Project: Rymal Road Corridor - Phase II ESA

Client: City of Hamilton

Location: Rymal Road

Log of Borehole: BH4

Supervisor: Mel MacKinnon

SUBSURFACE PROFILE				SAMPLE			Eagle ppm 125 250 375 / %LEL 25 50 75	Well Completion Details
Depth (ft / m)	Symbol	Description	Elev.	Number	Type	Recovery		
0 / 0		Ground Surface						No well installation
0–2		***Fill*** sand and gravel, silty, brown, damp		SS1				
3 / 1 – 5		***Clay*** gray, firm, moist, trace sewage-like odour		SS2				
5 – 9 / 2		trace silt, brown, gray veins, firm to hard, dry		SS3, SS4				
10 / 3		End of Borehole						
11 – 15 / 4								

Drill Method: Solid Stem Auger

Drill Date: March 7, 2006

Driller: Aardvark Drilling Inc.

Datum: NA

Checked by: K. Greer

Sheet: 1 of 1

WESA
182 Victoria St. South
Kitchener, Ontario
Canada N2G 2B9

Project No: W-B4908

Project: Rymal Road Corridor - Phase II ESA

Client: City of Hamilton

Location: Rymal Road

Log of Borehole: BH5

Supervisor: Mel MacKinnon

SUBSURFACE PROFILE				SAMPLE			Eagle ppm 125 250 375 / %LEL 25 50 75	Well Completion Details
Depth (ft / m)	Symbol	Description	Elev.	Number	Type	Recovery		
0 / 0		Ground Surface						No well installation
0		***Asphalt***						
1		***Fill*** sand and gravel, brown		SS1				
2								
3 / 1		***Clay*** dark brownish gray, soft, moist, rootlets, sewage-like odour noted		SS2				
4								
5		trace silt, brown, gray veins, firm, damp						
6 / 2				SS3				
7								
8		hard		SS4				
9								
10 / 3		End of Borehole						
11								
12								
13 / 4								
14								
15								

Drill Method: Solid Stem Auger

Drill Date: March 7, 2006

Driller: Aardvark Drilling Inc.

Datum: NA

Checked by: K. Greer

Sheet: 1 of 1

WESA
182 Victoria St. South
Kitchener, Ontario
Canada N2G 2B9

Project No: W-B4908

Project: Rymal Road Corridor - Phase II ESA

Client: City of Hamilton

Location: Rymal Road

Log of Borehole: BH6

Supervisor: Mel MacKinnon

SUBSURFACE PROFILE				SAMPLE			Eagle ppm 125 250 375 / %LEL 25 50 75	Well Completion Details
Depth	Symbol	Description	Elev.	Number	Type	Recovery		
ft / m		Ground Surface						No well installation
0 / 0		***Asphalt***						
1		***Fill*** sand and gravel, brown		SS1				
2		***Clay*** dark brownish gray, soft, moist						
3 / 1		***Sand*** well graded, silty, trace clay, brown, loose		SS2				
4		***Clay*** dark brownish gray, soft, moist						
5								
6				SS3				
7 / 2		trace silt, occassional gravel, brown, gray veins, hard, dry						
8				SS4				
9								
10 / 3		End of Borehole						
11								
12								
13 / 4								
14								
15								

Drill Method: Solid Stem Auger

Drill Date: March 7, 2006

Driller: Aardvark Drilling Inc.

Datum: NA

Checked by: K. Greer

Sheet: 1 of 1

WESA
182 Victoria St. South
Kitchener, Ontario
Canada N2G 2B9

APPENDIX C

Analytical Results

ETL Enviro-Test LABORATORIES

ANALYTICAL REPORT

APR 0 3 2006

WESA / ENVIR-EAU
ATTN: KAREN GREER

WESA
KITCHENER ON N2G 2V9

Reported On: March 14, 2006

Lab Work Order #: L369006

Date Received: 08-MAR-06

Project P.O. #:
Job Reference: B4908
Legal Site Desc:
CofC Numbers:

Other Information:

Comments:

APPROVED BY: Wayne Smith

WAYNE SMITH, C.CHEM., C.E.T.
Project Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY. ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L369006-1	L369006-2	L369006-3	L369006-4	L369006-5	L369006-6	L369006-7
		Description	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled Date	07-MAR-06	07-MAR-06	07-MAR-06	07-MAR-06	07-MAR-06	07-MAR-06	07-MAR-06
		Sampled Time							
		Client ID	BH1 SS2	BH2 SS2	BH2 SS3	BH3 SS2	BH4 SS2	BH5 SS3	BH6 SS3
Grouping	Analyte	DL							
Individual Packages	Benzene (mg/kg)	0.05	<0.05	0.68	0.25	<0.05	<0.05	<0.05	<0.05
	Ethyl Benzene (mg/kg)	0.05	<0.05	0.16	5.06	<0.05	<0.05	<0.05	<0.05
	m+p-Xylenes (mg/kg)	0.1	<0.1	0.8	14.3	<0.1	<0.1	<0.1	<0.1
	o-Xylene (mg/kg)	0.05	<0.05	0.14	4.06	<0.05	<0.05	<0.05	<0.05
	Toluene (mg/kg)	0.05	<0.05	<0.05	0.74	<0.05	<0.05	<0.05	<0.05
	Xylene, (total) (mg/kg)	0.15	<0.15	0.94	18.4	<0.15	<0.15	<0.15	<0.15
	F1 (C6-C10) (mg/kg)	5	<5	41	300	<5	<5	<5	<5
	F1-BTEX (mg/kg)	5	<5	39	280	<5	<5	<5	<5
	F2 (C10-C16) (mg/kg)	5	<5	<5	33	<5	<5	<5	<5
	F3 (C16-C34) (mg/kg)	5	36	95	11	15	22	45	34
	F4 (C34-C50) (mg/kg)	5	28	33	8	10	7	22	35
	Total Hydrocarbons (C6-C50) (mg/kg)	5	64	169	350	25	29	67	69
	Chromatogram to baseline at nC50		yes	yes	yes	yes	yes	yes	yes
	Surrogate: Octacosane (%)	60-120	79	86	85	84	79	88	86
Individual Parameter	% Moisture (%)	0.5	21.1	19.5	17.5	20.9	23.3	16.2	19.3

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BTX-R153-WT	Soil	BTEX (O.Reg.153/04)		MOE DECPH-E3398/CCME
ETL-TVH,TEH-CCME-WT	Soil	CCME Total Hydrocarbons		CALCULATION

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-WT	Soil	F1 (O.Reg.153/04)		MOE DECPH-E3398/CCME
F2-F4-WT	Soil	F2-F4 (O.Reg.153/04)		MOE DECPH-E3398/CCME
MOISTURE-WT	Soil	% Moisture		GRAVIMETRIC

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS LABORATORY GROUP - WATERLOO (SENTINEL), ONTARIO, CAN		

Reference Information

GLOSSARY OF REPORT TERMS
Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in enviromental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.
The reported surrogate recovery value provides a measure of method efficiency. The Laboratory control limits are determined under column heading D.L.
mg/kg (units) - unit of concentration based on mass, parts per million
mg/L (units) - unit of concentration based on volume, parts per million
< - Less than
D.L. - Detection Limit
N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.
Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminery.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.

ALS Laboratory Group Quality Control Report

Workorder: L369006 Report Date: 14-MAR-06

Client: WESA / ENVIR-EAU
WESA 182 VICTORIA STREET, SOUTH
KITCHENER ON N2G 2V9

Contact: KAREN GREER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-R153-WT	**Soil**							
Batch R379235								
WG417867-1 CVS								
Benzene			99		%		63-138	09-MAR-06
Ethyl Benzene			102		%		63-138	09-MAR-06
m+p-Xylenes			104		%		63-138	09-MAR-06
o-Xylene			101		%		63-138	09-MAR-06
Toluene			102		%		63-138	09-MAR-06
WG417687-2 DUP		**L369006-1**						
Benzene		<0.05	<0.05	RPD-NA	mg/kg	N/A	65	09-MAR-06
Ethyl Benzene		<0.05	<0.05	RPD-NA	mg/kg	N/A	65	09-MAR-06
m+p-Xylenes		<0.1	<0.1	RPD-NA	mg/kg	N/A	65	09-MAR-06
o-Xylene		<0.05	<0.05	RPD-NA	mg/kg	N/A	65	09-MAR-06
Toluene		<0.05	<0.05	RPD-NA	mg/kg	N/A	65	09-MAR-06
WG417687-1 MB								
Benzene			<0.05		mg/kg		0.05	09-MAR-06
Ethyl Benzene			<0.05		mg/kg		0.05	09-MAR-06
m+p-Xylenes			<0.1		mg/kg		0.1	09-MAR-06
o-Xylene			<0.05		mg/kg		0.05	09-MAR-06
Toluene			<0.05		mg/kg		0.05	09-MAR-06
F1-WT	**Soil**							
Batch R379239								
WG417868-1 CVS								
TVH: (C6-C10 / No BTEX Correction)			91		%		65-130	09-MAR-06
WG417687-2 DUP		**L369006-1**						
TVH: (C6-C10 / No BTEX Correction)		<5	<5	RPD-NA	mg/kg	N/A	65	09-MAR-06
WG417687-1 MB								
TVH: (C6-C10 / No BTEX Correction)			<5		mg/kg		5	09-MAR-06
Batch R380274								
WG419028-1 CVS								
TVH: (C6-C10 / No BTEX Correction)			82		%		65-130	13-MAR-06
F2-F4-WT	**Soil**							
Batch R380072								
WG419433-1 CVS								
F2 (C10-C16)			102		%		70-130	10-MAR-06
F3 (C16-C34)			102		%		70-130	10-MAR-06
F4 (C34-C50)			104				70-130	

ALS Laboratory Group Quality Control Report

Workorder: L369006 Report Date: 14-MAR-06

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-WT	**Soil**							
Batch R380072								
WG419433-1 CVS								
F4 (C34-C50)			104		%		70-130	10-MAR-06
WG418145-3 DUP		**L369027-24**						
F2 (C10-C16)		<5	<5	RPD-NA	mg/kg	N/A	65	10-MAR-06
F3 (C16-C34)		17	20	J,G	mg/kg	2	2	10-MAR-06
F4 (C34-C50)		7	10	J,G	mg/kg	3	2	10-MAR-06
WG418145-2 LCS								
F2 (C10-C16)			73		%		60-130	10-MAR-06
F3 (C16-C34)			84		%		60-130	10-MAR-06
F4 (C34-C50)			83		%		60-130	10-MAR-06
WG418145-1 MB								
F2 (C10-C16)			<5		mg/kg		5	10-MAR-06
F3 (C16-C34)			<5		mg/kg		5	10-MAR-06
F4 (C34-C50)			<5		mg/kg		5	10-MAR-06
MOISTURE-WT	**Soil**							
Batch R378975								
WG417895-3 DUP		**L369006-7**						
% Moisture		19.3	19.6		%	1.5	26	09-MAR-06
WG417895-2 LCS								
% Moisture			100		%		66-126	09-MAR-06
WG417895-1 MB								
% Moisture			<0.5		%		0.5	09-MAR-06

ALS Laboratory Group Quality Control Report

Legend:

Limit	99% Confidence Interval (Laboratory Control Limits)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Qualifier:

RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
A	Method blank exceeds acceptance limit. Blank correction not applied, unless the qualifier "RAMB" (result adjusted for method blank) appears in the Analytical Report.
B	Method blank result exceeds acceptance limit, however, it is less than 5% of sample concentration. Blank correction not applied.
E	Matrix spike recovery may fall outside the acceptance limits due to high sample background.
F	Silver recovery low, likely due to elevated chloride levels in sample.
G	Outlier - No assignable cause for nonconformity has been determined.
J	Duplicate results and limit(s) are expressed in terms of absolute difference.
K	The sample referenced above is of a non-standard matrix type; standard QC acceptance criteria may not be achievable.

ETL

60 NORTHLAND ROAD, UNIT 1
WATERLOO, ON N2V 2B8
Phone: (519) 886-6910
Fax: (519) 886-9047
CANADA TOLL FREE: 1-800-668-9878

CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM

C of C # 37053

PAGE 1 OF 1

Service Requested:		
Date Required:	X	Regular (default)
		Priority (50% surcharge)
		Emergency (100% surcharge)

COMPANY NAME: WESA

PROJECT MANAGER: K. Greer

PROJECT #: B4908

PHONE: 742 6685

FAX: 742 9810

QUOTATION #: Standing PO#:

SAMPLING INFORMATION

CRITERIA: Criteria on report (y/n) N

Reg 153/04

Table 2

TCLP _____ MISA _____ PWQO _____

OTHER _____

REPORT DISTRIBUTION: ALL FINAL RESULTS WILL BE MAILED

EMAIL ✓ FAX _____

EMAIL1 kgreer@wesa.ca

EMAIL2 edonaldson@wesa.ca

SELECT: pdf _____ digital _____ both _____

ANALYSIS REQUEST

INDICATE BOTTLES FIELD FILTERED/ PRESERVED (F/P)

SUBMISSION #: L369006

ENTERED BY: KJ

DATE/TIME ENTERED: 8-3-06

BIN #: 837

Sample Date/Time: Date (yy/mm/dd)	Time (24 hr)	TYPE: COMP	GRAB	MATRIX: WATER	SOIL	OTHER	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	HOLD	BTEX	PHC (F1-F4)	COMMENTS	LAB ID
06/03/07					X		BH1 SS2	2		✓	✓		-1
"					X		BH2 SS2	2		✓	✓		-2
"					X		BH2 SS3	2		✓	✓		-3
"					X		BH3 SS2	2		✓	✓		-4
"					X		BH4 SS2	2		✓	✓		-5
"					X		BH5 SS3	2		✓	✓		-6
"					X		BH6 SS3	2		✓	✓		-7
~~"~~					X		~~BH5 SS2~~	~~2~~	~~HOLD~~	~~BTEX~~	✓	~~please hold analysis on request~~	

SPECIAL INSTRUCTIONS/COMMENTS

SAMPLE CONDITION

FROZEN

COOLED

AMBIENT ✓

MEAN TEMP: 10°

CONDITION ACCEPTABLE UPON RECEIPT (Y/N) Y

INIT: KJ

SAMPLED BY: M. MacKinnon	DATE & TIME: 06/03/07	RECEIVED BY:	DATE & TIME: 3-8-06 11:00
RELINQUISHED BY:	DATE & TIME	RECEIVED AT LAB BY: KJ	DATE & TIME: 8-3-06 12:45

NOTES AND CONDITIONS:

1. Quote number must be provided to ensure proper pricing.
2. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.
3. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.

White - report copy YELLOW - File copy PINK - Customer Copy

ETL

60 NORTHLAND ROAD, UNIT 1
WATERLOO, ON N2V 2B8
Phone: (519) 886-6910
Fax: (519) 886-9047
CANADA TOLL FREE: 1-800-668-9878

CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM

C of C # 17159
PAGE 1 OF 1

Service Requested:		
Date Required:		Regular (default)
		Priority (50% surcharge)
		Emergency (100% surcharge)

COMPANY NAME: WESA
PROJECT MANAGER: K. Garrett
PROJECT #: [illegible]
PHONE: [illegible]
FAX: [illegible]
QUOTATION #: [illegible]
PO#:

CRITERIA: Criteria on report (y/n) N
Reg 153/04
Table 2
TCLP _____ MISA _____ PWQO _____
OTHER _____
REPORT DISTRIBUTION: ALL FINAL RESULTS WILL BE MAILED
EMAIL ✓ FAX _____
EMAIL1 [illegible]
EMAIL2 [illegible]
SELECT: pdf _____ digital _____ both _____

SAMPLING INFORMATION

Sample Date/Time		TYPE		MATRIX			SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	ANALYSIS REQUEST										INDICATE BOTTLES FIELD FILTERED/ PRESERVED (F/P)	
Date (yy/mm/dd)	Time (24 hr)	COMP	GRAB	WATER	SOIL	OTHER													COMMENTS	LAB ID
07/02/01					X		BH1 SS2	2		✓	✓									
					X		BH8 SS9	2		✓	✓									
					X		BH2 SS3	2		✓	✓									
					X		BH3 SS2	2		✓	✓									
					X		BH4 SS2	2		✓	✓									
					X		BH5 SS2	2		✓	✓									
					X		BH6 SS3	2		✓	✓									
					X		BH5 SS2	2		✓	✓								Duplicate	

SPECIAL INSTRUCTIONS/COMMENTS

SAMPLE CONDITION

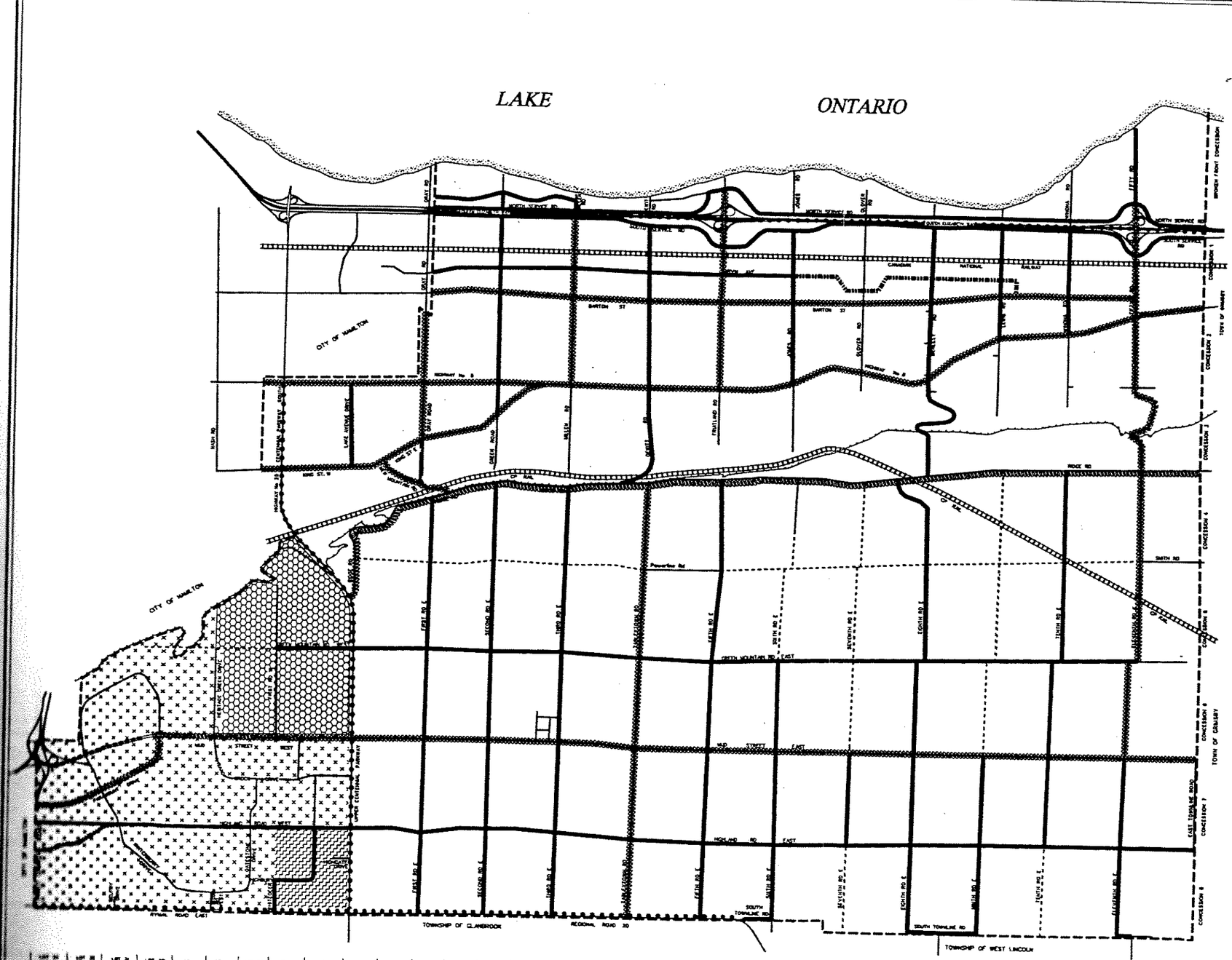
	MEAN TEMP
FROZEN	
COLD	
AMBIENT	
CONDITION ACCEPTABLE UPON RECEIPT (Y/N) ___	INIT

SAMPLED BY: K. McKinnon	DATE & TIME: 07/02/01	RECEIVED BY: [illegible]	DATE & TIME: [illegible]
RELINQUISHED BY:	DATE & TIME	RECEIVED AT LAB BY:	DATE & TIME

NOTES AND CONDITIONS:
1. Quote number must be provided to ensure proper pricing.
2. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.
3. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.

White - report copy YELLOW - File copy PINK - Customer Copy

5 22 , 3 4



CITY OF STONEY CREEK OFFICIAL PLAN

Schedule "D"

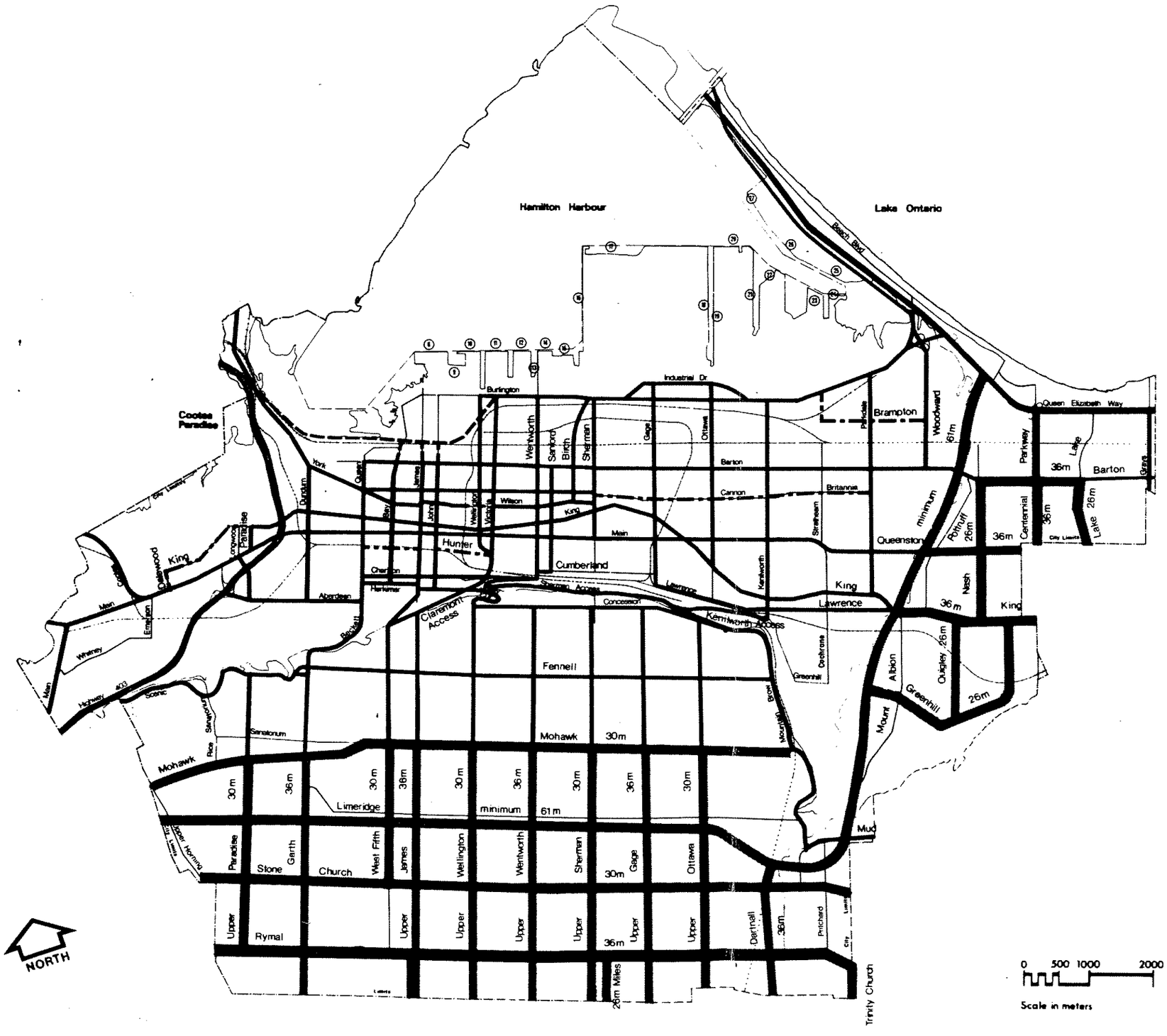
Functional Road Classification

Legend

- Special Policy Area "A"
- Special Policy Area "B"
- Special Policy Area "C"
- Municipal Boundary
- Collector Road
- Proposed Collector Road
- Arterial Road
- Proposed Arterial Road
- Inter Regional Highway

CITY OF STONEY CREEK
PLANNING DEPARTMENT

REVISED DECEMBER 15th, 2000



major roads

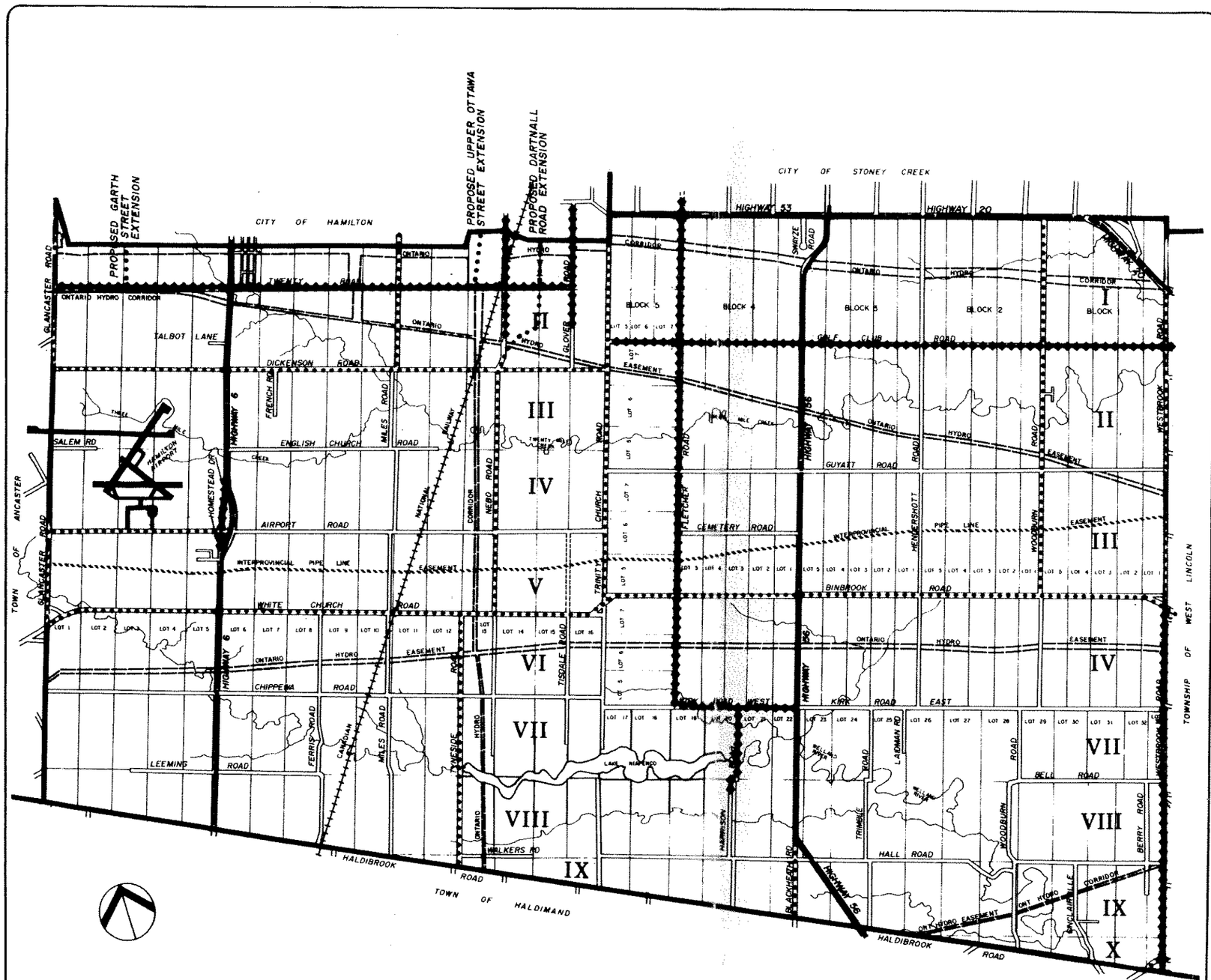
legend

- inter-regional highway
- arterial roads (regional)
- proposed arterial roads (regional)
- other roads
- 36m designated rights-of-way width

schedule F

to the official plan
for
the city of hamilton

JUNE 30, 1990



OFFICIAL PLAN FOR THE TOWNSHIP of GLANBROOK

SCHEDULE 'E' ROAD NETWORK PLAN

LEGEND

- PROVINCIAL HIGHWAY
- ARTERIAL ROADS
- COLLECTOR ROADS
- LOCAL ROADS

MAY, PIRIE & ASSOCIATES LIMITED
COMMUNITY PLANNING & DEVELOPMENT CONSULTANTS
330 SOUTH SERVICE ROAD BURLINGTON, ONTARIO L7N 3M6
(416) 632-6554

P.M.	27/08/87	metric 1:75 000
DRAWING BY	DATE	SCALE

NOTE: THIS SCHEDULE SHOULD BE READ IN CONJUNCTION WITH THE POLICIES AND OTHER SCHEDULES OF THIS OFFICIAL PLAN

Appendix F
Needs Assessment

Appendix F.1

MRC's memo on *Clarification of RRPA traffic data memo* dated June 13, 2005

McCORMICK
RANKIN
CORPORATION

2655 North Sheridan Way
Mississauga, Ontario, L5K 2P8
Tel: (905) 823-8500
Fax: (905) 823-8503
E-mail: mrc@mrc.ca
Website: www.mrc.ca

MEMO

TO:	Suzette Shiu / Ray Bacquie, iTRANS
FROM:	Alice Lee, MRC
DATE:	Monday, June 13, 2005
COPIES:	Gavin Norman, City of Hamilton Helene Tanguay-Ellermeyer, City of Hamilton Margaret Fazio, City of Hamilton Jack Thompson, MRC
OUR FILE:	W.O. 6011
SUBJECT:	RRPA Traffic Data

I:\Work Order File\6011 North Glenbrook Industrial Area-TMP\6011 500 Transportation\6011 505 Technical Report\6011 al-RRPA Traffic Data - rev june 12 05.doc

1. Request for Traffic Data

As per the memo provided by iTRANS dated March 21, 2005 traffic data was requested for the ROPA 9 Class EA study, also referenced as the Rymal Road Planning Area (RRPA). The request for data included the following:

- Updated traffic counts for the following intersections
  - Upper Mount Albion Road and Rymal Road
  - Fletcher Road and Rymal Road
  - 2nd Road West and Rymal Road
  - Upper Centennial Parkway and Rymal Road
  - Pritchard Road and Rymal Road
  - Dartnall Road and Pritchard Road

- Road link and intersection movement volumes for the AM and PM peak periods for the following scenarios:
  - Base year traffic forecasts
  - 2011 base road network with and without ROPA 9 developments
  - 2011 future road network with and without ROPA 9 developments
  - 2021 base road network with and without ROPA 9 developments
  - 2021 future road network with and without ROPA 9 developments

This memo provides a summary of the traffic count data (included in Appendix A) and road link volumes for the AM and PM peak period for the noted scenarios.

2. MRC Modeling

2.1 Model Calibration

For purposes of estimating future volumes in the RRPA, the existing 2001 City of Hamilton EMME/2 model was used as a base. Prior to performing model runs for future network scenarios, the 2001 model was calibrated to provide a better representation of existing vehicle volume flows.

The calibration process included the following steps:

- Reviewed network to include current lane configurations
- Reviewed location of centroid connectors
- Reviewed assumed network speeds

Following the calibration process, a screenline analysis of the area bounded by the Lincoln M. Alexander Parkway / Mud Street to the north, Upper Centennial Parkway to the east and Upper Ottawa Street to the west was undertaken to determine the validity of modelled volumes. Screenline results shown in Tables 1 to 3 represent modelled auto volumes increased to account for trucks. In general, each screenline was within 10% of existing traffic volumes with the exception of the non-peak direction for the east-west screenline.

Table 1. North-South Screenline East of Upper Ottawa Street (Total Vehicles)

Street	Observed		Simulated	
	EB	WB	EB	WB
Lincoln Alexander Parkway	950	1496	1339	1798
Stone Church Road	515	351	51	260
Rymal Road	420	427	336	505
Total	1885	2274	1726	2563

Table 2. North-South Screenline: West of Upper Centennial Parkway (Total Vehicles)

Street	Observed		Simulated	
	EB	WB	EB	WB
Mud Street	1506	778	1484	933
Rymal Road	421	454	446	483
Total	1927	1232	1930	1416

Table 3. East-West Screenline: South of Mud Street / the LINC (Total Vehicles)

Street	Observed		Simulated	
	NB	SB	NB	SB
Upper Centennial Parkway	1011	538	1326	394
1st Road	66	37	38	0
Isaac Brock Road	372	149	507	110
Paramount Drive	196	113	89	310
Winterberry Drive	525	243	185	249
Pritchard Road	243	292	289	131
Dartnall Road	689	671	758	524
Upper Ottawa Street	518	561	541	344
Total	3620	2604	3732	2062

An assessment of individual link volumes on Rymal Road within the study area was also undertaken to verify that 2001 traffic count volumes were represented along Rymal Road.

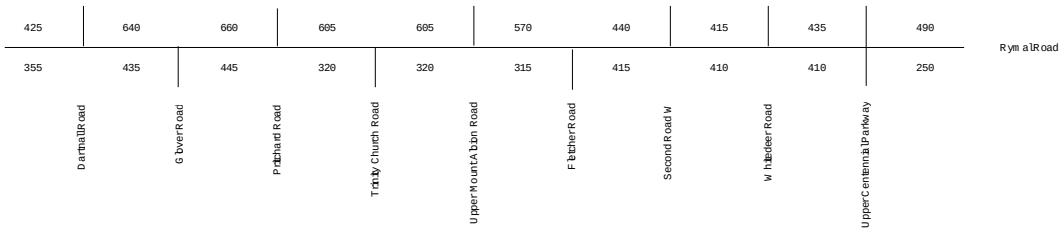
As indicated in Table 4, simulated vehicle volumes on Rymal Road entering and exiting the study area are similar in value to existing 2001 vehicle volumes. However, it is noted that non-peak direction volumes in the model are much lower than existing volumes. The discrepancy between these volumes may be due to the fact that the 2001 EMME/2 model does not account for non-work trips related to post-secondary schools, recreation, etc.

Table 4. Total Vehicle Link Volumes on Rymal Road

Street	Observed		Simulated	
	EB	WB	EB	WB
Rymal Road E of Trinity Church	607	639	346	675
Rymal Road W of Upper Centennial Parkway	421	454	446	483

A summary of the modelled auto volumes along the corridor for 2001 conditions is shown in Figure 1. A plot of the modelled volumes on Rymal Road and the surrounding area is attached in Appendix B.

Figure 1. Summary of 2001 EMME/2 Auto Volumes on Rymal Road



2.2 Future Model Assignments

As requested by iTRANS, various network and trip table scenarios were modelled in EMME/2 for the AM peak hour. A total of four main scenarios were evaluated in this process. Each of the scenarios was evaluated for the planning horizon years of 2011 and 2021. The scenarios included the following:

- Scenario 1: Future background growth, no RRPA development, existing road network
- Scenario 2: Future background growth, no RRPA development, future road network
- Scenario 3: Future background growth, RRPA development, existing road network
- Scenario 4: Future background growth, RRPA development, future road network

As a note, development and network improvements proposed for an adjacent study area, the North Glanbrook Industrial Business Park (NGIBP) and Heritage Green (HG) commercial development, is also included in the analysis of this study to ensure accurate representation of modelled volumes on Rymal Road and Trinity Church Road. A summary of the assumptions that were made with regards to future development, future trip generation and future network improvements as applicable to the respective scenarios is described below.

2011 Development Assumptions:

	Commercial (sq ft)	Residential (units)	Industrial (acres)	Manufacturing (acres)	AM Peak Hour Trips In	Out	Total
RRPA	761,845	3590	-	-	623	1516	2139
HG	300,300	-	-	-	111	71	182
NGIBP1	347,740	-	36	102	1071	180	1251

2021 Development Assumptions:

	Commercial (sq ft)	Residential (units)	Industrial (acres)	Manufacturing (acres)	AM Peak Hour Trips In	Out	Total
NGIBP2	284,500	-	38	116	1127	203	1330
NGIBP3	-	-	40	49	562	74	636

Future Trip Generation Assumptions:

1. For industrial and manufacturing landuses, 55% of available land was assumed to be developable.
2. 60% of developable land was assumed to be the GLA for RRPA (due to dispersal in study area).
3. 100% of developable land was assumed to be the GLA for HG (due to clustered commercial area).
4. 40% of commercial trips were assumed to be linked trips.
5. Residential units were assumed to be 50% single family dwellings and 50% townhomes.
6. Trips rates obtained from the ITE Trip Generation Manual 7th Edition for the following:
   - shopping centre (ITE Code: 820) for commercial development
   - industrial park (ITE Code: 130) for business industrial development
   - manufacturing (ITE Code: 140) for general industrial development
   - single family detached housing for single family dwellings
   - residential condo / townhouse for the townhomes
7. All RRPA and HG trips were assumed to occur by 2011.
8. NGIBP trips were split into three phases, with the assumption that Phase 1 would occur by 2011 and Phases 2 and 3 by 2021.
9. As a note, NGIBP trips assumed that only 50% of total developable land would be implemented by the noted horizon year of 2021.

2011 Network Assumptions:

1. Trinity Church Road extended as 4-lane arterial north of Rymal Road to RHCE
2. Rymal Road widened to 4 lanes between Upper Centennial Parkway and Trinity Church Road
3. ROPA 9 proposed local network included
4. Dartnall Road extended as a 4-lane arterial from Rymal Road to Twenty Road

2011 Network Assumptions:

1. Dartnall Road extended as a 4-lane arterial from Twenty Road to Dickenson Road
2. NGIBP proposed alternative 5 network included

Assignment Results:

The AM peak hour assignment results on Rymal Road for each of the scenarios and their respective horizon years are summarized in the following sheets. The plots of each of these assignment runs are included in Appendix C. As noted earlier, the non-peak direction modelled volumes are lower than existing volumes. As a result, to obtain more representative flows in the non-peak direction, the absolute growth in vehicle volumes between the future horizon year model volumes and the existing 2001 model volumes was applied to the existing (2005 synthesized) volumes to obtain adjusted future horizon year volumes. These adjusted volumes are also summarized in the following sheets.

Scenario 1: Future background growth, no RRPA, HG or NGIBP development, existing road network

Figure 2. 2001 AM Peak Hour Auto Volumes

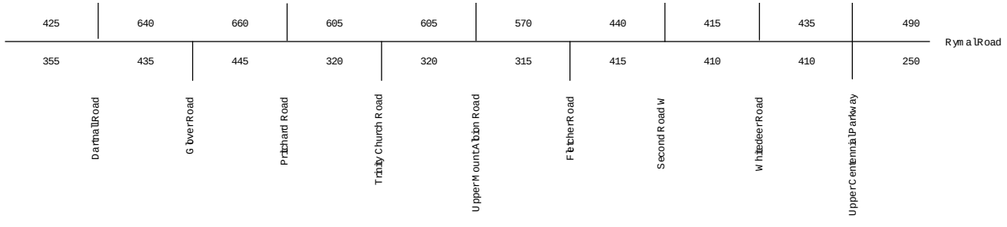


Figure 3. Existing (2005 Synthesized) AM Peak Hour Total Vehicle Volumes

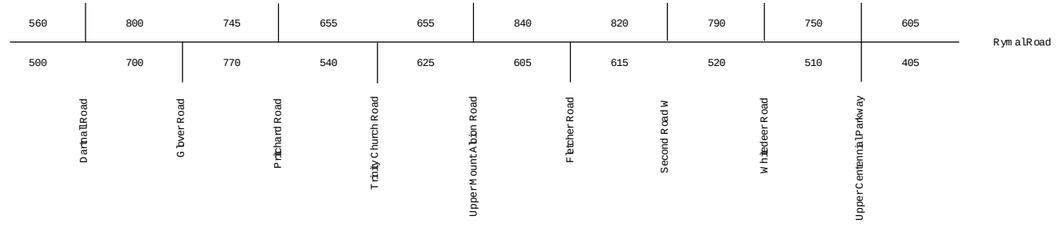
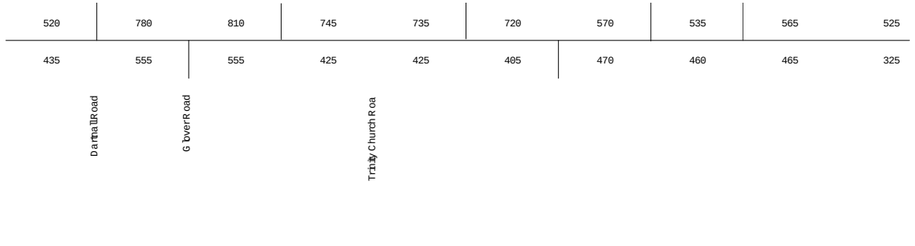
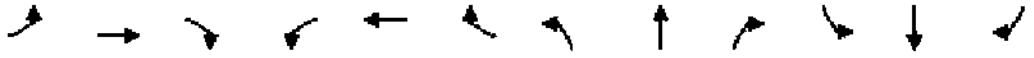


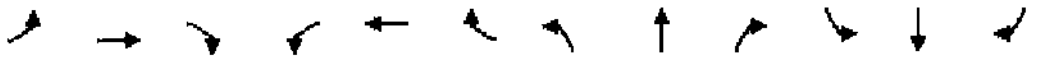
Figure 4. 2011 AM Peak Hour Auto Volumes





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.93		1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1733	3200		1733	3298		1733	1701		1733	1657	
Flt Permitted	0.16	1.00		0.20	1.00		0.69	1.00		0.65	1.00	
Satd. Flow (perm)	299	3200		368	3298		1263	1701		1184	1657	
Volume (vph)	22	860	58	24	989	23	166	85	69	44	35	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	24	956	64	27	1099	26	184	94	77	49	39	61
RTOR Reduction (vph)	0	8	0	0	3	0	0	49	0	0	34	0
Lane Group Flow (vph)	24	1012	0	27	1122	0	184	122	0	49	66	0
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	28.0	28.0		28.0	28.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	29.0	29.0		29.0	29.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.35	0.35		0.35	0.35	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	145	1547		178	1594		442	595		414	580	
v/s Ratio Prot		0.32			c0.34			0.07			0.04	
v/s Ratio Perm	0.08			0.07			c0.15			0.04		
v/c Ratio	0.17	0.65		0.15	0.70		0.42	0.20		0.12	0.11	
Uniform Delay, d1	8.7	11.7		8.6	12.1		14.8	13.7		13.2	13.2	
Progression Factor	1.00	1.00		0.56	0.45		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.4	2.2		1.5	2.2		2.9	0.8		0.6	0.4	
Delay (s)	11.2	13.9		6.4	7.7		17.7	14.4		13.8	13.6	
Level of Service	B	B		A	A		B	B		B	B	
Approach Delay (s)		13.8			7.6			16.1			13.7	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1733	3188		1733	3282		1733	1551		1733	1551	
Flt Permitted	0.21	1.00		0.20	1.00		0.69	1.00		0.74	1.00	
Satd. Flow (perm)	374	3188		364	3282		1268	1551		1350	1551	
Volume (vph)	43	804	103	14	833	60	97	0	23	55	0	86
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	893	114	16	926	67	108	0	26	61	0	96
RTOR Reduction (vph)	0	17	0	0	9	0	0	16	0	0	49	0
Lane Group Flow (vph)	48	990	0	16	984	0	108	10	0	61	47	0
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	27.0	27.0		27.0	27.0		21.0	21.0		21.0	21.0	
Effective Green, g (s)	28.0	28.0		28.0	28.0		22.0	22.0		22.0	22.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47		0.37	0.37		0.37	0.37	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	175	1488		170	1532		465	569		495	569	
v/s Ratio Prot		c0.31			0.30			0.01			0.03	
v/s Ratio Perm	0.13			0.04			c0.09			0.05		
v/c Ratio	0.27	0.67		0.09	0.64		0.23	0.02		0.12	0.08	
Uniform Delay, d1	9.8	12.4		8.9	12.2		13.2	12.1		12.6	12.4	
Progression Factor	0.36	0.30		1.00	1.00		1.89	1.00		1.00	1.00	
Incremental Delay, d2	3.1	1.9		1.1	2.1		1.2	0.1		0.5	0.3	
Delay (s)	6.6	5.7		10.0	14.3		26.0	12.2		13.1	12.7	
Level of Service	A	A		B	B		C	B		B	B	
Approach Delay (s)		5.7			14.2			23.3			12.9	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		5.0	5.0	5.0	5.0	5.0		3.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1733	3145		1733	3305	1551	1733	3416		1733	3214	
Flt Permitted	0.33	1.00		0.58	1.00	1.00	0.44	1.00		0.31	1.00	
Satd. Flow (perm)	606	3145		1058	3305	1551	805	3416		567	3214	
Volume (vph)	475	182	70	34	354	246	165	417	44	197	261	245
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	528	202	78	38	393	273	183	463	49	219	290	272
RTOR Reduction (vph)	0	33	0	0	0	214	0	7	0	0	145	0
Lane Group Flow (vph)	528	247	0	38	393	59	183	505	0	219	417	0
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt			Perm		Perm	Perm			pm+pt		
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	55.9	55.9		20.3	20.3	20.3	30.1	30.1		41.9	41.9	
Effective Green, g (s)	58.9	56.9		21.3	21.3	21.3	31.1	31.1		44.9	42.9	
Actuated g/C Ratio	0.54	0.52		0.19	0.19	0.19	0.28	0.28		0.41	0.39	
Clearance Time (s)	3.0	6.0		6.0	6.0	6.0	6.0	6.0		3.0	6.0	
Vehicle Extension (s)	2.0	3.5		3.5	3.5	3.5	3.5	3.5		2.0	3.5	
Lane Grp Cap (vph)	660	1630		205	641	301	228	968		325	1256	
v/s Ratio Prot	c0.24	0.08			0.12			0.15		c0.05	0.13	
v/s Ratio Perm	c0.19			0.04		0.04	c0.23			0.22		
v/c Ratio	0.80	0.15		0.19	0.61	0.20	0.80	0.52		0.67	0.33	
Uniform Delay, d1	17.9	13.8		37.0	40.5	37.1	36.5	33.1		23.4	23.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.5	0.1		0.5	1.8	0.4	18.6	0.6		4.3	0.2	
Delay (s)	24.4	13.9		37.5	42.3	37.5	55.1	33.7		27.7	23.6	
Level of Service	C	B		D	D	D	E	C		C	C	
Approach Delay (s)		20.8			40.2			39.3			24.8	
Approach LOS		C			D			D			C	

Intersection Summary					
HCM Average Control Delay	30.7	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.79				
Actuated Cycle Length (s)	109.8	Sum of lost time (s)		11.0	
Intersection Capacity Utilization	92.1%	ICU Level of Service		F	
Analysis Period (min)	15				

c Critical Lane Group

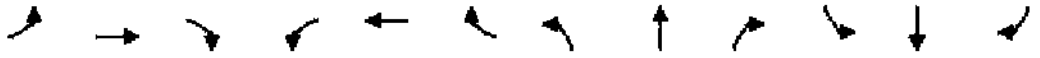
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1733	1551	1733	3466	3345	
Flt Permitted	0.95	1.00	0.51	1.00	1.00	
Satd. Flow (perm)	1733	1551	937	3466	3345	
Volume (vph)	133	112	27	493	280	85
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	148	124	30	548	311	94
RTOR Reduction (vph)	0	81	0	0	48	0
Lane Group Flow (vph)	148	43	30	548	357	0
Turn Type		Perm	Perm			
Protected Phases	4			2	6	
Permitted Phases			4	2		
Actuated Green, G (s)	20.0	20.0	28.0	28.0	28.0	
Effective Green, g (s)	21.0	21.0	29.0	29.0	29.0	
Actuated g/C Ratio	0.35	0.35	0.48	0.48	0.48	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Grp Cap (vph)	607	543	453	1675	1617	
v/s Ratio Prot	c0.09			c0.16	0.11	
v/s Ratio Perm			0.03	0.03		
v/c Ratio	0.24	0.08	0.07	0.33	0.22	
Uniform Delay, d1	13.9	13.0	8.3	9.5	9.0	
Progression Factor	1.27	2.10	1.00	1.00	1.00	
Incremental Delay, d2	0.9	0.3	0.3	0.5	0.3	
Delay (s)	18.5	27.6	8.6	10.0	9.3	
Level of Service	B	C	A	B	A	
Approach Delay (s)	22.6			10.0	9.3	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Appendix F.2.2

Detailed ROPA 9 level of service calculations for 2011 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1767	3466	1581	1767	3466	1581	1767	3535	1581	1767	3535	1581
Flt Permitted	0.09	1.00	1.00	0.09	1.00	1.00	0.59	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	165	3466	1581	165	3466	1581	1104	3535	1581	1767	3535	1581
Volume (vph)	31	1152	103	99	1111	451	88	256	82	490	243	26
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	1213	108	104	1169	475	93	269	86	516	256	27
RTOR Reduction (vph)	0	0	32	0	0	145	0	0	72	0	0	14
Lane Group Flow (vph)	33	1213	76	104	1169	330	93	269	14	516	256	13
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Prot		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4			8
Actuated Green, G (s)	47.0	42.0	42.0	47.0	42.0	42.0	19.0	19.0	19.0	36.0	58.0	58.0
Effective Green, g (s)	50.0	43.0	43.0	50.0	43.0	43.0	20.0	20.0	20.0	36.0	59.0	59.0
Actuated g/C Ratio	0.42	0.36	0.36	0.42	0.36	0.36	0.17	0.17	0.17	0.30	0.49	0.49
Clearance Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	6.0	6.0	6.0	3.0	6.0	6.0
Lane Grp Cap (vph)	136	1242	567	136	1242	567	184	589	264	530	1738	777
v/s Ratio Prot	0.01	c0.35		c0.03	0.34			0.08		c0.29	0.07	
v/s Ratio Perm	0.09		0.05	0.29		0.21	c0.08		0.01			0.01
v/c Ratio	0.24	0.98	0.13	0.76	0.94	0.58	0.51	0.46	0.05	0.97	0.15	0.02
Uniform Delay, d1	26.1	38.0	25.9	28.2	37.3	31.2	45.5	45.1	42.0	41.5	16.7	15.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.2	20.5	0.5	32.8	14.9	4.3	9.6	2.5	0.4	33.1	0.2	0.0
Delay (s)	30.3	58.5	26.4	61.0	52.1	35.5	55.1	47.6	42.4	74.6	16.9	15.7
Level of Service	C	E	C	E	D	D	E	D	D	E	B	B
Approach Delay (s)		55.3			48.2			48.2			54.1	
Approach LOS		E			D			D			D	

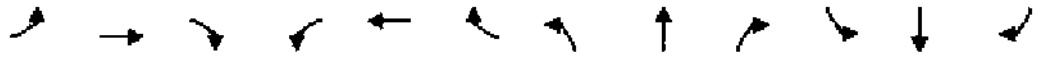
Intersection Summary			
HCM Average Control Delay	51.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.95		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	3413		1767	3420		1767	1771		1767	1682	
Flt Permitted	0.11	1.00		0.08	1.00		0.56	1.00		0.70	1.00	
Satd. Flow (perm)	198	3413		151	3420		1046	1771		1307	1682	
Volume (vph)	88	1422	186	37	1325	151	170	54	26	135	62	109
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	93	1497	196	39	1395	159	179	57	27	142	65	115
RTOR Reduction (vph)	0	11	0	0	10	0	0	19	0	0	49	0
Lane Group Flow (vph)	93	1682	0	39	1544	0	179	65	0	142	131	0
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	58.0	58.0		58.0	58.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	59.0	59.0		59.0	59.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.66	0.66		0.66	0.66		0.23	0.23		0.23	0.23	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	130	2237		99	2242		244	413		305	392	
v/s Ratio Prot		c0.49			0.45			0.04			0.08	
v/s Ratio Perm	0.47			0.26			c0.17			0.11		
v/c Ratio	0.72	0.75		0.39	0.69		0.73	0.16		0.47	0.33	
Uniform Delay, d1	10.1	10.5		7.2	9.7		31.9	27.5		29.7	28.7	
Progression Factor	1.00	1.00		0.83	0.83		1.00	1.00		1.00	1.00	
Incremental Delay, d2	28.5	2.4		10.1	1.6		17.7	0.8		5.0	2.3	
Delay (s)	38.5	12.9		16.1	9.6		49.6	28.3		34.7	31.0	
Level of Service	D	B		B	A		D	C		C	C	
Approach Delay (s)		14.2			9.8			42.8			32.6	
Approach LOS		B			A			D			C	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	106.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0	5.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3428		1767	3466	1767	1581
Flt Permitted	1.00		0.09	1.00	0.95	1.00
Satd. Flow (perm)	3428		163	3466	1767	1581
Volume (vph)	1441	132	72	1241	95	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1517	139	76	1306	100	53
RTOR Reduction (vph)	8	0	0	0	0	38
Lane Group Flow (vph)	1648	0	76	1306	100	15
Heavy Vehicles (%)	3%	1%	1%	3%	1%	1%
Turn Type			Perm			Perm
Protected Phases	2			6	4	
Permitted Phases			6			4
Actuated Green, G (s)	58.0		58.0	58.0	20.0	20.0
Effective Green, g (s)	59.0		59.0	59.0	21.0	21.0
Actuated g/C Ratio	0.66		0.66	0.66	0.23	0.23
Clearance Time (s)	6.0		6.0	6.0	6.0	6.0
Lane Grp Cap (vph)	2247		107	2272	412	369
v/s Ratio Prot	c0.48			0.38	c0.06	
v/s Ratio Perm			0.47			0.01
v/c Ratio	0.73		0.71	0.57	0.24	0.04
Uniform Delay, d1	10.3		10.0	8.6	28.0	26.7
Progression Factor	0.83		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5		32.9	1.1	1.4	0.2
Delay (s)	10.1		42.9	9.6	29.4	26.9
Level of Service	B		D	A	C	C
Approach Delay (s)	10.1			11.5	28.6	
Approach LOS	B			B	C	

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.99		1.00	0.95		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	3351		1767	3435		1767	1775		1767	1761	
Flt Permitted	0.15	1.00		0.53	1.00		0.69	1.00		0.70	1.00	
Satd. Flow (perm)	288	3351		994	3435		1287	1775		1309	1761	
Volume (vph)	61	259	87	33	1020	75	69	54	24	41	62	34
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	64	273	92	35	1074	79	73	57	25	43	65	36
RTOR Reduction (vph)	0	48	0	0	9	0	0	16	0	0	23	0
Lane Group Flow (vph)	64	317	0	35	1144	0	73	66	0	43	78	0
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	28.0	28.0		28.0	28.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	29.0	29.0		29.0	29.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.35	0.35		0.35	0.35	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	139	1620		480	1660		450	621		458	616	
v/s Ratio Prot		0.09			c0.33			0.04			0.04	
v/s Ratio Perm	0.22			0.04			c0.06			0.03		
v/c Ratio	0.46	0.20		0.07	0.69		0.16	0.11		0.09	0.13	
Uniform Delay, d1	10.3	8.8		8.3	12.0		13.4	13.2		13.1	13.3	
Progression Factor	1.00	1.00		0.65	0.63		1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.6	0.3		0.2	1.9		0.8	0.3		0.4	0.4	
Delay (s)	20.9	9.1		5.6	9.4		14.2	13.5		13.5	13.7	
Level of Service	C	A		A	A		B	B		B	B	
Approach Delay (s)		10.9			9.3			13.8			13.6	
Approach LOS		B			A			B			B	

Intersection Summary				
HCM Average Control Delay	10.4	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.47			
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0	
Intersection Capacity Utilization	75.7%	ICU Level of Service	D	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	3340		1767	3407		1767	1581		1767	1581	
Flt Permitted	0.25	1.00		0.14	1.00		0.73	1.00		0.73	1.00	
Satd. Flow (perm)	472	3340		266	3407		1356	1581		1360	1581	
Volume (vph)	119	885	337	38	726	108	359	0	38	50	0	41
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	125	932	355	40	764	114	378	0	40	53	0	43
RTOR Reduction (vph)	0	66	0	0	20	0	0	25	0	0	27	0
Lane Group Flow (vph)	125	1221	0	40	858	0	378	15	0	53	16	0
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	27.0	27.0		27.0	27.0		21.0	21.0		21.0	21.0	
Effective Green, g (s)	28.0	28.0		28.0	28.0		22.0	22.0		22.0	22.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47		0.37	0.37		0.37	0.37	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	220	1559		124	1590		497	580		499	580	
v/s Ratio Prot		c0.37			0.25			0.01			0.01	
v/s Ratio Perm	0.27			0.15			c0.28			0.04		
v/c Ratio	0.57	0.78		0.32	0.54		0.76	0.03		0.11	0.03	
Uniform Delay, d1	11.6	13.4		10.0	11.4		16.7	12.1		12.5	12.2	
Progression Factor	0.96	0.95		1.00	1.00		1.76	6.43		1.00	1.00	
Incremental Delay, d2	10.2	4.0		6.8	1.3		10.0	0.1		0.4	0.1	
Delay (s)	21.3	16.8		16.8	12.7		39.4	78.2		12.9	12.2	
Level of Service	C	B		B	B		D	E		B	B	
Approach Delay (s)		17.2			12.9			43.1			12.6	
Approach LOS		B			B			D			B	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		5.0	5.0	5.0	5.0	5.0		3.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	1.00	0.85	1.00	0.99		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	3318		1767	3466	1581	1767	3497		1767	3328	
Flt Permitted	0.44	1.00		0.51	1.00	1.00	0.31	1.00		0.44	1.00	
Satd. Flow (perm)	811	3318		947	3466	1581	576	3497		828	3328	
Volume (vph)	238	266	128	87	307	189	144	333	26	310	535	341
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	251	280	135	92	323	199	152	351	27	326	563	359
RTOR Reduction (vph)	0	45	0	0	0	154	0	5	0	0	99	0
Lane Group Flow (vph)	251	370	0	92	323	45	152	373	0	326	823	0
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt			Perm		Perm	Perm			pm+pt		
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	38.0	38.0		21.0	21.0	21.0	32.1	32.1		47.2	47.2	
Effective Green, g (s)	41.0	39.0		22.0	22.0	22.0	33.1	33.1		50.2	48.2	
Actuated g/C Ratio	0.42	0.40		0.23	0.23	0.23	0.34	0.34		0.52	0.50	
Clearance Time (s)	3.0	6.0		6.0	6.0	6.0	6.0	6.0		3.0	6.0	
Vehicle Extension (s)	2.0	3.5		3.5	3.5	3.5	3.5	3.5		2.0	3.5	
Lane Grp Cap (vph)	480	1331		214	784	358	196	1191		545	1650	
v/s Ratio Prot	c0.08	0.11			0.09			0.11		c0.07	0.25	
v/s Ratio Perm	c0.15			0.10		0.03	c0.26			0.23		
v/c Ratio	0.52	0.28		0.43	0.41	0.13	0.78	0.31		0.60	0.50	
Uniform Delay, d1	19.2	19.6		32.2	32.1	29.9	28.7	23.7		14.2	16.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.1		1.6	0.4	0.2	17.8	0.2		1.2	0.3	
Delay (s)	19.6	19.7		33.9	32.5	30.1	46.5	23.8		15.4	16.7	
Level of Service	B	B		C	C	C	D	C		B	B	
Approach Delay (s)		19.7			31.9			30.3			16.3	
Approach LOS		B			C			C			B	

Intersection Summary				
HCM Average Control Delay	22.6	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.63			
Actuated Cycle Length (s)	97.2	Sum of lost time (s)	11.0	
Intersection Capacity Utilization	92.4%	ICU Level of Service	F	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1767	1581	1767	3535	3405	
Flt Permitted	0.95	1.00	0.31	1.00	1.00	
Satd. Flow (perm)	1767	1581	569	3535	3405	
Volume (vph)	181	31	129	322	567	183
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	191	33	136	339	597	193
RTOR Reduction (vph)	0	22	0	0	52	0
Lane Group Flow (vph)	191	11	136	339	738	0
Turn Type		Perm	Perm			
Protected Phases	4			2	6	
Permitted Phases		4	2			
Actuated Green, G (s)	19.0	19.0	29.0	29.0	29.0	
Effective Green, g (s)	20.0	20.0	30.0	30.0	30.0	
Actuated g/C Ratio	0.33	0.33	0.50	0.50	0.50	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Grp Cap (vph)	589	527	285	1768	1703	
v/s Ratio Prot	c0.11			0.10	0.22	
v/s Ratio Perm		0.01	c0.24			
v/c Ratio	0.32	0.02	0.48	0.19	0.43	
Uniform Delay, d1	14.9	13.4	9.9	8.3	9.6	
Progression Factor	1.31	1.99	1.00	1.00	1.00	
Incremental Delay, d2	0.9	0.0	5.6	0.2	0.8	
Delay (s)	20.5	26.7	15.5	8.5	10.4	
Level of Service	C	C	B	A	B	
Approach Delay (s)	21.4			10.5	10.4	
Approach LOS	C			B	B	

Intersection Summary			
HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Appendix F.2.3

Detailed ROPA 9 level of service calculations for 2021 AM

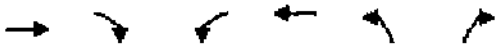
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1733	3216	1551	1733	3305	1551	1733	3466	1551	1733	3466	1551
Flt Permitted	0.19	1.00	1.00	0.25	1.00	1.00	0.45	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	346	3216	1551	448	3305	1551	815	3466	1551	1733	3466	1551
Volume (vph)	13	682	63	61	852	529	79	244	204	294	494	73
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	14	758	70	68	947	588	88	271	227	327	549	81
RTOR Reduction (vph)	0	0	31	0	0	202	0	0	152	0	0	45
Lane Group Flow (vph)	14	758	39	68	947	386	88	271	75	327	549	36
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Prot		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4			8
Actuated Green, G (s)	46.3	44.5	44.5	50.5	46.6	46.6	21.3	21.3	21.3	24.7	49.0	49.0
Effective Green, g (s)	49.3	45.5	45.5	53.5	47.6	47.6	22.3	22.3	22.3	24.7	50.0	50.0
Actuated g/C Ratio	0.44	0.40	0.40	0.48	0.42	0.42	0.20	0.20	0.20	0.22	0.44	0.44
Clearance Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	6.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174	1302	628	258	1400	657	162	688	308	381	1542	690
v/s Ratio Prot	0.00	0.24		c0.01	c0.29			0.08		c0.19	0.16	
v/s Ratio Perm	0.03		0.03	0.12		0.25	c0.11		0.05			0.02
v/c Ratio	0.08	0.58	0.06	0.26	0.68	0.59	0.54	0.39	0.25	0.86	0.36	0.05
Uniform Delay, d1	19.3	26.0	20.4	17.4	26.2	24.9	40.5	39.2	38.0	42.2	20.6	17.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	1.9	0.2	0.5	2.6	3.8	3.7	0.4	0.4	17.1	0.1	0.0
Delay (s)	19.5	28.0	20.6	17.9	28.8	28.7	44.2	39.5	38.4	59.3	20.7	17.8
Level of Service	B	C	C	B	C	C	D	D	D	E	C	B
Approach Delay (s)		27.2			28.3			39.8			33.7	
Approach LOS		C			C			D			C	

Intersection Summary				
HCM Average Control Delay	31.0	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.68			
Actuated Cycle Length (s)	112.4	Sum of lost time (s)	14.0	
Intersection Capacity Utilization	76.9%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.92		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1733	3193		1733	3240		1733	1686		1733	1675	
Flt Permitted	0.10	1.00		0.21	1.00		0.70	1.00		0.54	1.00	
Satd. Flow (perm)	180	3193		389	3240		1279	1686		990	1675	
Volume (vph)	73	907	94	29	1162	273	213	85	86	95	35	42
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	81	1008	104	32	1291	303	237	94	96	106	39	47
RTOR Reduction (vph)	0	9	0	0	23	0	0	41	0	0	36	0
Lane Group Flow (vph)	81	1103	0	32	1571	0	237	149	0	106	50	0
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	58.0	58.0		58.0	58.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	59.0	59.0		59.0	59.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.66	0.66		0.66	0.66		0.23	0.23		0.23	0.23	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	118	2093		255	2124		298	393		231	391	
v/s Ratio Prot		0.35			c0.49			0.09			0.03	
v/s Ratio Perm	0.45			0.08			c0.19			0.11		
v/c Ratio	0.69	0.53		0.13	0.74		0.80	0.38		0.46	0.13	
Uniform Delay, d1	9.7	8.2		5.8	10.4		32.5	29.0		29.6	27.3	
Progression Factor	1.00	1.00		0.47	0.36		1.00	1.00		1.00	1.00	
Incremental Delay, d2	27.9	1.0		0.7	1.7		19.4	2.8		6.4	0.7	
Delay (s)	37.6	9.1		3.5	5.5		51.9	31.8		36.1	27.9	
Level of Service	D	A		A	A		D	C		D	C	
Approach Delay (s)		11.0			5.4			42.9			32.4	
Approach LOS		B			A			D			C	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	102.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

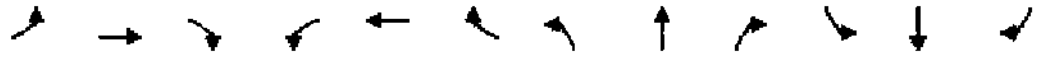


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↳		↰	↑↑	↰	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0	5.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3193		1733	3305	1733	1551
Flt Permitted	1.00		0.17	1.00	0.95	1.00
Satd. Flow (perm)	3193		301	3305	1733	1551
Volume (vph)	977	101	49	1225	237	136
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1086	112	54	1361	263	151
RTOR Reduction (vph)	8	0	0	0	0	62
Lane Group Flow (vph)	1190	0	54	1361	263	89
Heavy Vehicles (%)	11%	3%	3%	8%	3%	3%
Turn Type			Perm			Prot
Protected Phases	2			6	4	4
Permitted Phases			6			
Actuated Green, G (s)	51.0		51.0	51.0	27.0	27.0
Effective Green, g (s)	52.0		52.0	52.0	28.0	28.0
Actuated g/C Ratio	0.58		0.58	0.58	0.31	0.31
Clearance Time (s)	6.0		6.0	6.0	6.0	6.0
Lane Grp Cap (vph)	1845		174	1910	539	483
v/s Ratio Prot	0.37			c0.41	c0.15	0.06
v/s Ratio Perm			0.18			
v/c Ratio	0.64		0.31	0.71	0.49	0.18
Uniform Delay, d1	12.8		9.8	13.6	25.2	22.7
Progression Factor	1.34		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5		4.6	2.3	3.1	0.8
Delay (s)	18.7		14.4	15.9	28.3	23.5
Level of Service	B		B	B	C	C
Approach Delay (s)	18.7			15.9	26.6	
Approach LOS	B			B	C	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.93		1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1733	3201		1733	3297		1733	1701		1733	1652	
Flt Permitted	0.14	1.00		0.19	1.00		0.69	1.00		0.65	1.00	
Satd. Flow (perm)	256	3201		339	3297		1257	1701		1184	1652	
Volume (vph)	24	899	58	24	1053	25	166	85	69	48	35	59
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	27	999	64	27	1170	28	184	94	77	53	39	66
RTOR Reduction (vph)	0	8	0	0	3	0	0	45	0	0	27	0
Lane Group Flow (vph)	27	1055	0	27	1195	0	184	126	0	53	78	0
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	28.0	28.0		28.0	28.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	29.0	29.0		29.0	29.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.35	0.35		0.35	0.35	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	124	1547		164	1594		440	595		414	578	
v/s Ratio Prot		0.33			c0.36			0.07			0.05	
v/s Ratio Perm	0.11			0.08			c0.15			0.04		
v/c Ratio	0.22	0.68		0.16	0.75		0.42	0.21		0.13	0.13	
Uniform Delay, d1	9.0	11.9		8.7	12.6		14.8	13.7		13.3	13.3	
Progression Factor	1.00	1.00		0.54	0.42		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.0	2.5		1.7	2.7		2.9	0.8		0.6	0.5	
Delay (s)	12.9	14.4		6.5	8.0		17.8	14.5		13.9	13.8	
Level of Service	B	B		A	A		B	B		B	B	
Approach Delay (s)		14.4			7.9			16.2			13.8	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1733	3189		1733	3282		1733	1551		1733	1551	
Flt Permitted	0.18	1.00		0.18	1.00		0.69	1.00		0.74	1.00	
Satd. Flow (perm)	326	3189		336	3282		1259	1551		1350	1551	
Volume (vph)	46	841	103	14	891	65	96	0	23	59	0	93
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	51	934	114	16	990	72	107	0	26	66	0	103
RTOR Reduction (vph)	0	15	0	0	9	0	0	16	0	0	41	0
Lane Group Flow (vph)	51	1033	0	16	1053	0	107	10	0	66	62	0
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	27.0	27.0		27.0	27.0		21.0	21.0		21.0	21.0	
Effective Green, g (s)	28.0	28.0		28.0	28.0		22.0	22.0		22.0	22.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47		0.37	0.37		0.37	0.37	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	152	1488		157	1532		462	569		495	569	
v/s Ratio Prot		c0.32			0.32			0.01			0.04	
v/s Ratio Perm	0.16			0.05			c0.08			0.05		
v/c Ratio	0.34	0.69		0.10	0.69		0.23	0.02		0.13	0.11	
Uniform Delay, d1	10.1	12.6		9.0	12.6		13.2	12.1		12.7	12.5	
Progression Factor	0.37	0.33		1.00	1.00		1.84	116.08		1.00	1.00	
Incremental Delay, d2	4.6	2.1		1.3	2.5		1.2	0.1		0.6	0.4	
Delay (s)	8.3	6.2		10.3	15.1		25.4	1405.6		13.2	12.9	
Level of Service	A	A		B	B		C	F		B	B	
Approach Delay (s)		6.3			15.0			295.2			13.0	
Approach LOS		A			B			F			B	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		5.0	5.0	5.0	5.0	5.0		3.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1733	3146		1733	3305	1551	1733	3416		1733	3219	
Flt Permitted	0.30	1.00		0.57	1.00	1.00	0.43	1.00		0.29	1.00	
Satd. Flow (perm)	538	3146		1037	3305	1551	779	3416		527	3219	
Volume (vph)	486	196	75	36	382	265	177	450	48	213	282	255
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	540	218	83	40	424	294	197	500	53	237	313	283
RTOR Reduction (vph)	0	32	0	0	0	201	0	7	0	0	141	0
Lane Group Flow (vph)	540	269	0	40	424	93	197	546	0	237	455	0
Heavy Vehicles (%)	3%	11%	3%	3%	8%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt			Perm		Perm	Perm			pm+pt		
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	56.6	56.6		20.3	20.3	20.3	32.0	32.0		44.0	44.0	
Effective Green, g (s)	59.6	57.6		21.3	21.3	21.3	33.0	33.0		47.0	45.0	
Actuated g/C Ratio	0.53	0.51		0.19	0.19	0.19	0.29	0.29		0.42	0.40	
Clearance Time (s)	3.0	6.0		6.0	6.0	6.0	6.0	6.0		3.0	6.0	
Vehicle Extension (s)	2.0	3.5		3.5	3.5	3.5	3.5	3.5		2.0	3.5	
Lane Grp Cap (vph)	638	1609		196	625	293	228	1001		316	1286	
v/s Ratio Prot	c0.25	0.09			0.13			0.16		c0.06	0.14	
v/s Ratio Perm	c0.20			0.04		0.06	c0.25			0.25		
v/c Ratio	0.85	0.17		0.20	0.68	0.32	0.86	0.55		0.75	0.35	
Uniform Delay, d1	19.5	14.7		38.5	42.5	39.4	37.7	33.5		24.8	23.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.7	0.1		0.6	3.0	0.7	27.5	0.7		8.6	0.2	
Delay (s)	29.2	14.7		39.1	45.5	40.1	65.2	34.2		33.4	23.8	
Level of Service	C	B		D	D	D	E	C		C	C	
Approach Delay (s)		24.0			43.1			42.3			26.6	
Approach LOS		C			D			D			C	

Intersection Summary				
HCM Average Control Delay	33.5	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.84			
Actuated Cycle Length (s)	112.6	Sum of lost time (s)	11.0	
Intersection Capacity Utilization	92.8%	ICU Level of Service	F	
Analysis Period (min)	15			

c Critical Lane Group

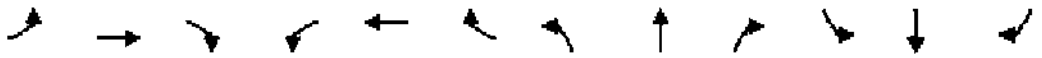
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1733	1551	1733	3466	3351	
Flt Permitted	0.95	1.00	0.50	1.00	1.00	
Satd. Flow (perm)	1733	1551	909	3466	3351	
Volume (vph)	170	114	27	505	306	87
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	189	127	30	561	340	97
RTOR Reduction (vph)	0	85	0	0	44	0
Lane Group Flow (vph)	189	42	30	561	393	0
Turn Type		Perm	Perm			
Protected Phases	4			2	6	
Permitted Phases		4	2			
Actuated Green, G (s)	19.0	19.0	29.0	29.0	29.0	
Effective Green, g (s)	20.0	20.0	30.0	30.0	30.0	
Actuated g/C Ratio	0.33	0.33	0.50	0.50	0.50	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Grp Cap (vph)	578	517	455	1733	1676	
v/s Ratio Prot	c0.11			c0.16	0.12	
v/s Ratio Perm		0.03	0.03			
v/c Ratio	0.33	0.08	0.07	0.32	0.23	
Uniform Delay, d1	15.0	13.7	7.8	8.9	8.5	
Progression Factor	1.24	1.93	1.00	1.00	1.00	
Incremental Delay, d2	1.5	0.3	0.3	0.5	0.3	
Delay (s)	20.0	26.7	8.0	9.4	8.8	
Level of Service	B	C	A	A	A	
Approach Delay (s)	22.7			9.4	8.8	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Appendix F.2.4

Detailed ROPA 9 level of service calculations for 2021 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1767	3466	1581	1767	3466	1581	1767	3535	1581	1767	3535	1581
Flt Permitted	0.08	1.00	1.00	0.08	1.00	1.00	0.46	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	155	3466	1581	155	3466	1581	862	3535	1581	1767	3535	1581
Volume (vph)	79	1223	123	105	1179	451	147	547	87	490	486	62
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	83	1287	129	111	1241	475	155	576	92	516	512	65
RTOR Reduction (vph)	0	0	36	0	0	137	0	0	57	0	0	35
Lane Group Flow (vph)	83	1287	93	111	1241	338	155	576	35	516	512	30
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Prot		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4			8
Actuated Green, G (s)	50.0	45.0	45.0	50.0	45.0	45.0	21.8	21.8	21.8	30.0	54.8	54.8
Effective Green, g (s)	53.0	46.0	46.0	53.0	46.0	46.0	22.8	22.8	22.8	30.0	55.8	55.8
Actuated g/C Ratio	0.44	0.38	0.38	0.44	0.38	0.38	0.19	0.19	0.19	0.25	0.47	0.47
Clearance Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	6.0	6.0	6.0	3.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	136	1331	607	136	1331	607	164	673	301	442	1647	736
v/s Ratio Prot	0.03	c0.37		c0.03	0.36			0.16		c0.29	0.14	
v/s Ratio Perm	0.24		0.06	0.33		0.21	c0.18		0.02			0.02
v/c Ratio	0.61	0.97	0.15	0.82	0.93	0.56	0.95	0.86	0.11	1.17	0.31	0.04
Uniform Delay, d1	26.1	36.2	24.2	27.3	35.4	28.9	47.9	46.9	40.1	44.9	20.0	17.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	17.9	0.5	30.0	13.1	3.7	53.8	10.4	0.2	97.3	0.1	0.0
Delay (s)	33.9	54.1	24.7	57.3	48.5	32.6	101.7	57.3	40.3	142.2	20.1	17.5
Level of Service	C	D	C	E	D	C	F	E	D	F	C	B
Approach Delay (s)		50.4			44.9			63.8			77.6	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM Average Control Delay	56.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	119.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

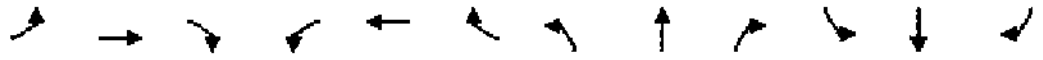
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.91		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	3416		1767	3418		1767	1689		1767	1680	
Flt Permitted	0.09	1.00		0.07	1.00		0.55	1.00		0.63	1.00	
Satd. Flow (perm)	170	3416		128	3418		1031	1689		1164	1680	
Volume (vph)	91	1492	186	37	1389	162	170	54	86	144	62	113
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	96	1571	196	39	1462	171	179	57	91	152	65	119
RTOR Reduction (vph)	0	11	0	0	10	0	0	33	0	0	42	0
Lane Group Flow (vph)	96	1756	0	39	1623	0	179	115	0	152	142	0
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	58.0	58.0		58.0	58.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	59.0	59.0		59.0	59.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.66	0.66		0.66	0.66		0.23	0.23		0.23	0.23	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	111	2239		84	2241		241	394		272	392	
v/s Ratio Prot		0.51			0.47			0.07			0.08	
v/s Ratio Perm	c0.56			0.30			c0.17			0.13		
v/c Ratio	0.86	0.78		0.46	0.72		0.74	0.29		0.56	0.36	
Uniform Delay, d1	12.3	11.0		7.7	10.2		32.0	28.4		30.4	28.9	
Progression Factor	1.00	1.00		0.82	0.80		1.00	1.00		1.00	1.00	
Incremental Delay, d2	54.7	2.8		15.3	1.8		18.6	1.9		8.1	2.6	
Delay (s)	67.0	13.8		21.6	9.9		50.6	30.3		38.5	31.5	
Level of Service	E	B		C	A		D	C		D	C	
Approach Delay (s)		16.6			10.2			41.4			34.6	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	108.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↳		↰	↑↑	↰	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0	5.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3429		1767	3466	1767	1581
Flt Permitted	1.00		0.07	1.00	0.95	1.00
Satd. Flow (perm)	3429		137	3466	1767	1581
Volume (vph)	1518	134	75	1300	96	86
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1598	141	79	1368	101	91
RTOR Reduction (vph)	7	0	0	0	0	31
Lane Group Flow (vph)	1732	0	79	1368	101	60
Heavy Vehicles (%)	3%	1%	1%	3%	1%	1%
Turn Type			Perm			Prot
Protected Phases	2			6	4	4
Permitted Phases			6			
Actuated Green, G (s)	58.0		58.0	58.0	20.0	20.0
Effective Green, g (s)	59.0		59.0	59.0	21.0	21.0
Actuated g/C Ratio	0.66		0.66	0.66	0.23	0.23
Clearance Time (s)	6.0		6.0	6.0	6.0	6.0
Lane Grp Cap (vph)	2248		90	2272	412	369
v/s Ratio Prot	0.51			0.39	c0.06	0.04
v/s Ratio Perm			c0.58			
v/c Ratio	0.77		0.88	0.60	0.25	0.16
Uniform Delay, d1	10.8		12.6	8.8	28.1	27.5
Progression Factor	0.87		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7		65.5	1.2	1.4	0.9
Delay (s)	11.1		78.1	10.0	29.5	28.4
Level of Service	B		E	B	C	C
Approach Delay (s)	11.1			13.7	29.0	
Approach LOS	B			B	C	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.95		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	3438		1767	3434		1767	1775		1767	1757	
Flt Permitted	0.14	1.00		0.14	1.00		0.69	1.00		0.70	1.00	
Satd. Flow (perm)	257	3438		257	3434		1284	1775		1309	1757	
Volume (vph)	66	1327	87	33	1064	80	69	54	24	44	62	36
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	69	1397	92	35	1120	84	73	57	25	46	65	38
RTOR Reduction (vph)	0	8	0	0	9	0	0	14	0	0	25	0
Lane Group Flow (vph)	69	1481	0	35	1195	0	73	68	0	46	78	0
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	28.0	28.0		28.0	28.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	29.0	29.0		29.0	29.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.35	0.35		0.35	0.35	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	124	1662		124	1660		449	621		458	615	
v/s Ratio Prot		c0.43			0.35			0.04			0.04	
v/s Ratio Perm	0.27			0.14			c0.06			0.04		
v/c Ratio	0.56	0.89		0.28	0.72		0.16	0.11		0.10	0.13	
Uniform Delay, d1	11.0	14.1		9.3	12.3		13.4	13.2		13.1	13.3	
Progression Factor	1.00	1.00		0.60	0.61		1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.8	7.7		4.4	2.2		0.8	0.4		0.4	0.4	
Delay (s)	27.8	21.7		10.0	9.7		14.2	13.5		13.6	13.7	
Level of Service	C	C		A	A		B	B		B	B	
Approach Delay (s)		22.0			9.7			13.9			13.7	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	3347		1767	3406		1767	1581		1767	1581	
Flt Permitted	0.23	1.00		0.14	1.00		0.73	1.00		0.73	1.00	
Satd. Flow (perm)	436	3347		257	3406		1352	1581		1360	1581	
Volume (vph)	128	948	337	38	774	117	359	0	38	54	0	44
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	135	998	355	40	815	123	378	0	40	57	0	46
RTOR Reduction (vph)	0	59	0	0	20	0	0	26	0	0	30	0
Lane Group Flow (vph)	135	1294	0	40	918	0	378	14	0	57	16	0
Heavy Vehicles (%)	1%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	28.0	28.0		28.0	28.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)	29.0	29.0		29.0	29.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.35	0.35		0.35	0.35	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	211	1618		124	1646		473	553		476	553	
v/s Ratio Prot		c0.39			0.27			0.01			0.01	
v/s Ratio Perm	0.31			0.16			c0.28			0.04		
v/c Ratio	0.64	0.80		0.32	0.56		0.80	0.03		0.12	0.03	
Uniform Delay, d1	11.6	13.1		9.5	11.0		17.6	12.8		13.2	12.8	
Progression Factor	0.13	0.06		1.00	1.00		1.78	5.69		1.00	1.00	
Incremental Delay, d2	7.4	2.2		6.8	1.4		12.3	0.1		0.5	0.1	
Delay (s)	8.9	3.0		16.3	12.3		43.6	72.8		13.7	12.9	
Level of Service	A	A		B	B		D	E		B	B	
Approach Delay (s)		3.6			12.5			46.4			13.4	
Approach LOS		A			B			D			B	

Intersection Summary			
HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	92.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

AUTO VOLUMES

emme/2

LINKS:
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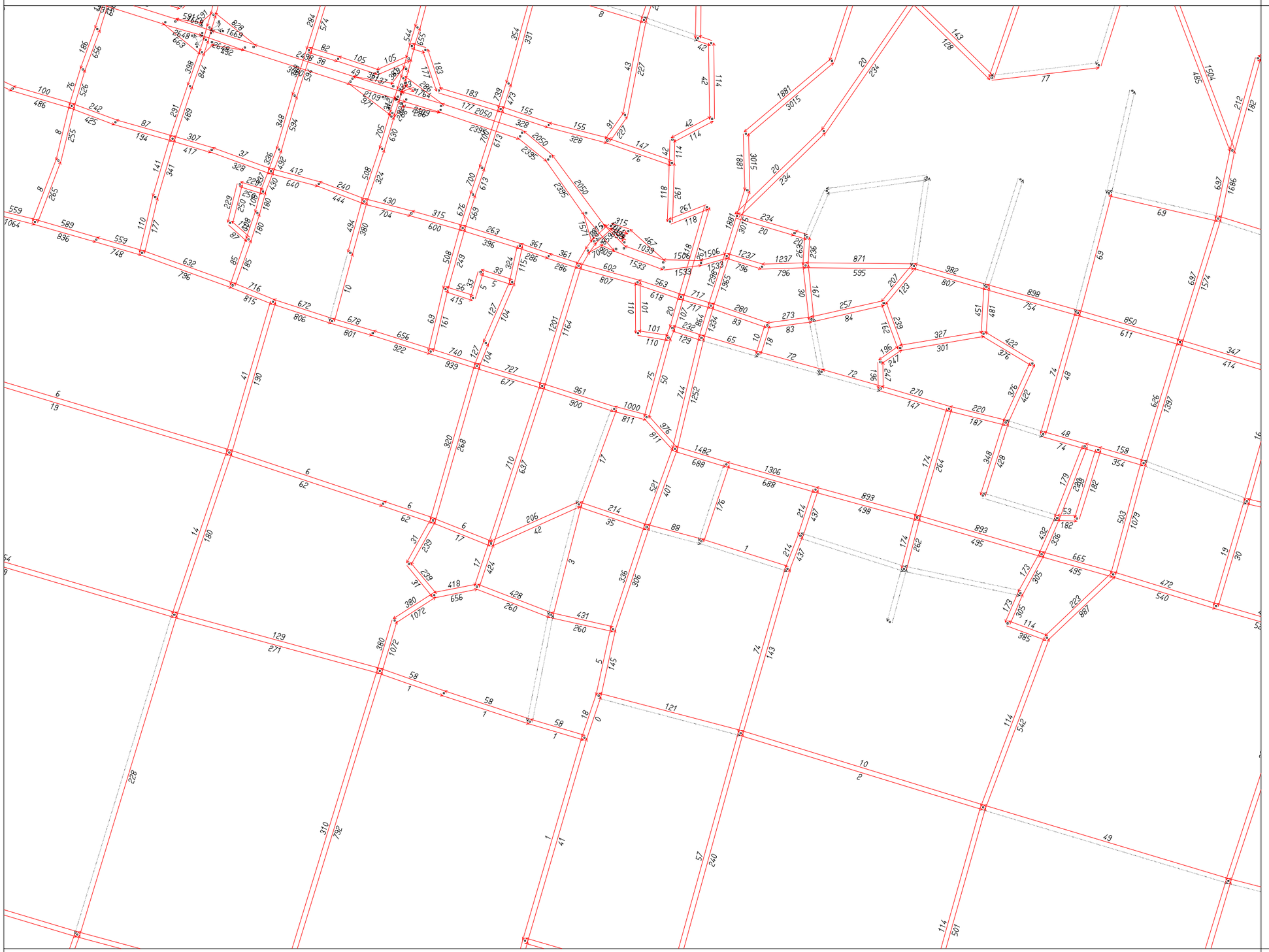


WINDOW:
590465/ 777777
600646/ 785413

EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20214: 20211 network + no UMA + TC ext

05-07-11 09:47
MODULE: 6.12
DMG.UTYU....al

APPENDIX B

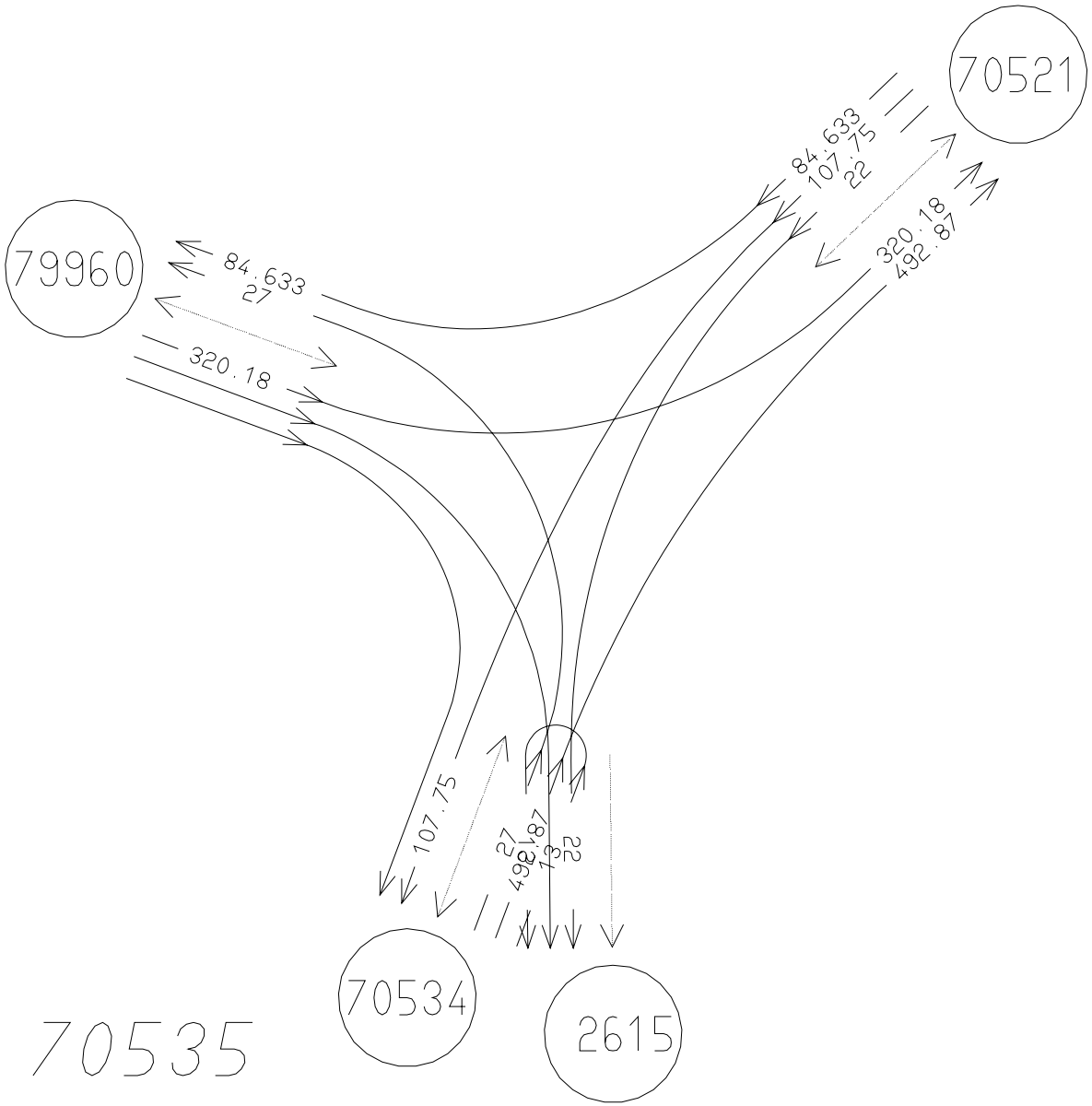
New Intersection Turning Movements

(EW Collector and Upper Centennial Parkway)

INTERSECTIONS

USER DEFINED TURN DATA 1

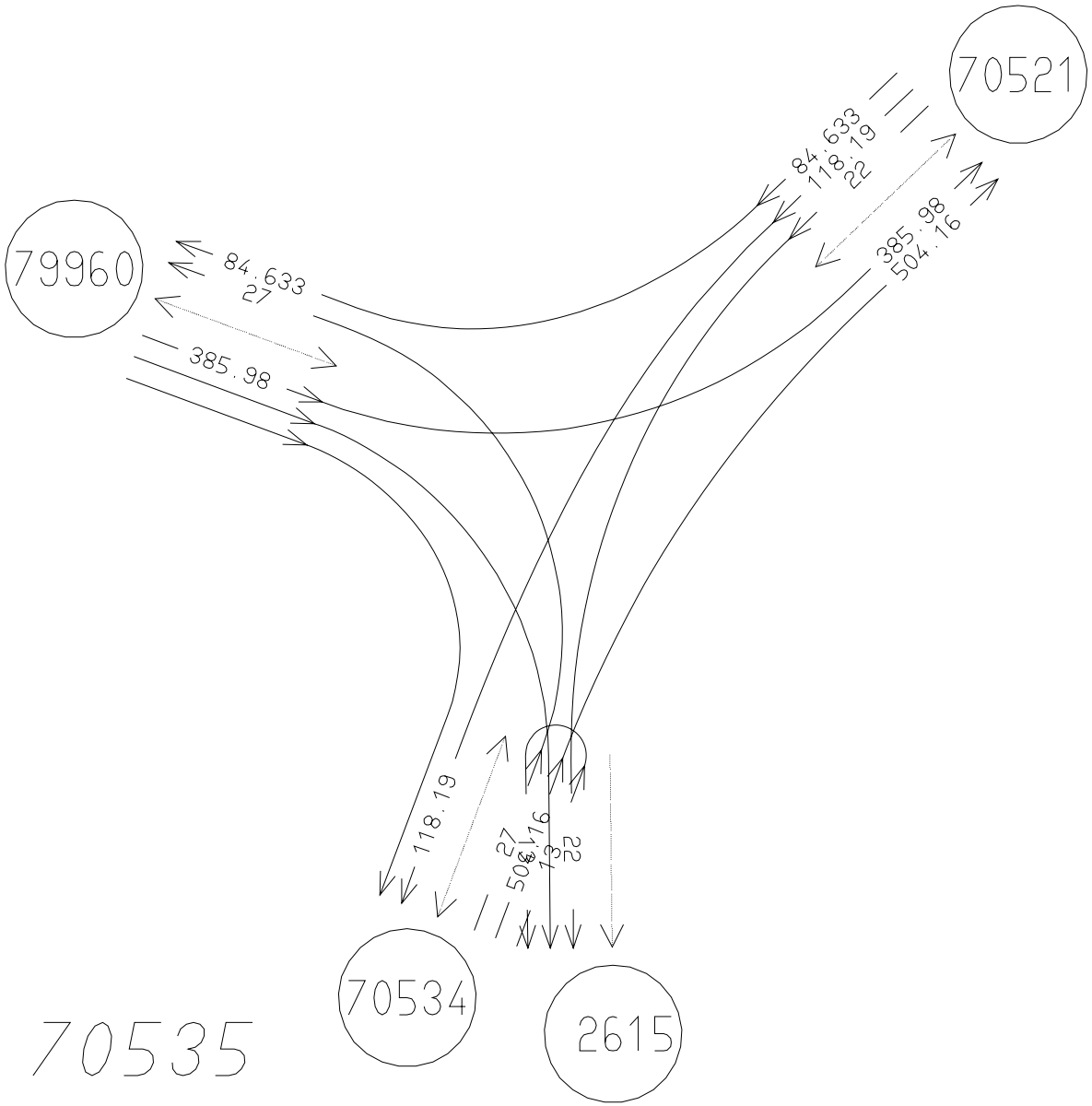
COL-IND: TPF



NODE 70535

EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20111: 2011-RRPAdev+TCext+RRwiden+DRext

05-07-12 15:41
MODULE: 2.31
DMG.UTYU....al

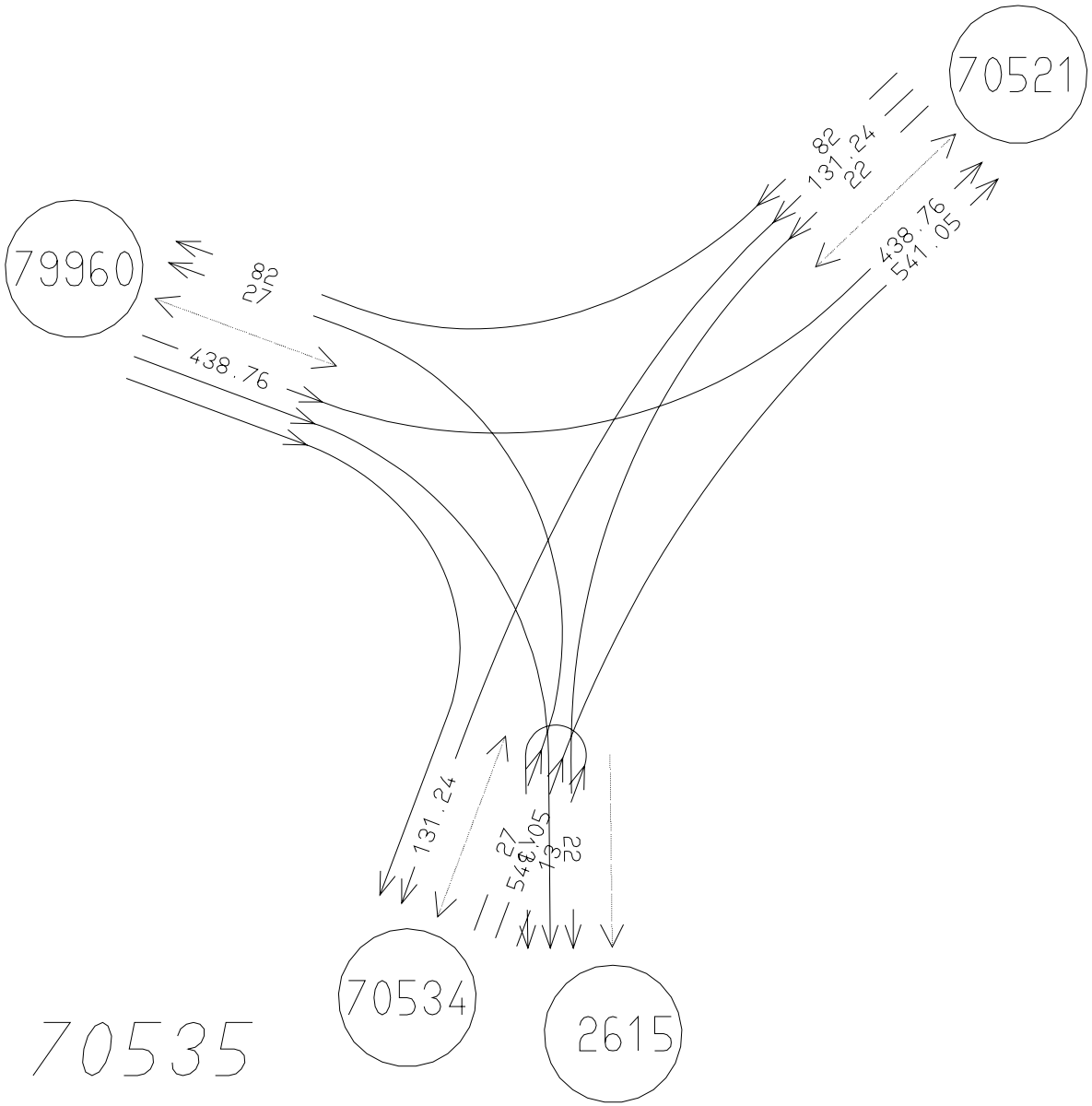


NODE 70535

INTERSECTIONS

USER DEFINED TURN DATA 1

COL-IND: TPF



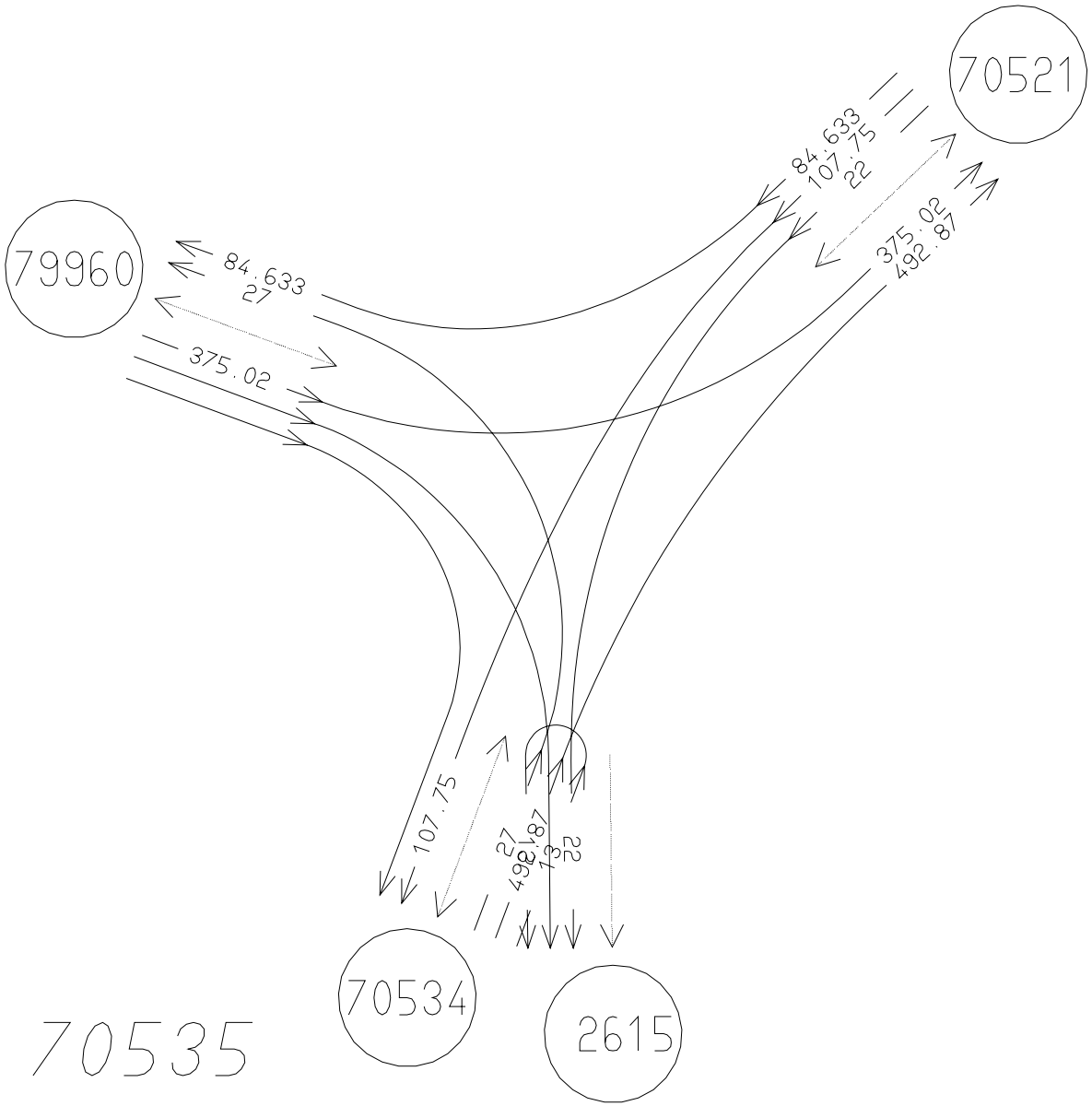
EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20113: 20111 network + no UMA + no TC ext

05-07-12 15:42
MODULE: 2.31
DMG.UTYU....al

INTERSECTIONS

USER DEFINED TURN DATA 1

COL-IND: TPF



EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20114: 20111 network + no UMA + TC ext

05-07-12 15:42
MODULE: 2.31
DMG.UTYU....al

INTERSECTIONS

USER DEFINED TURN DATA 1

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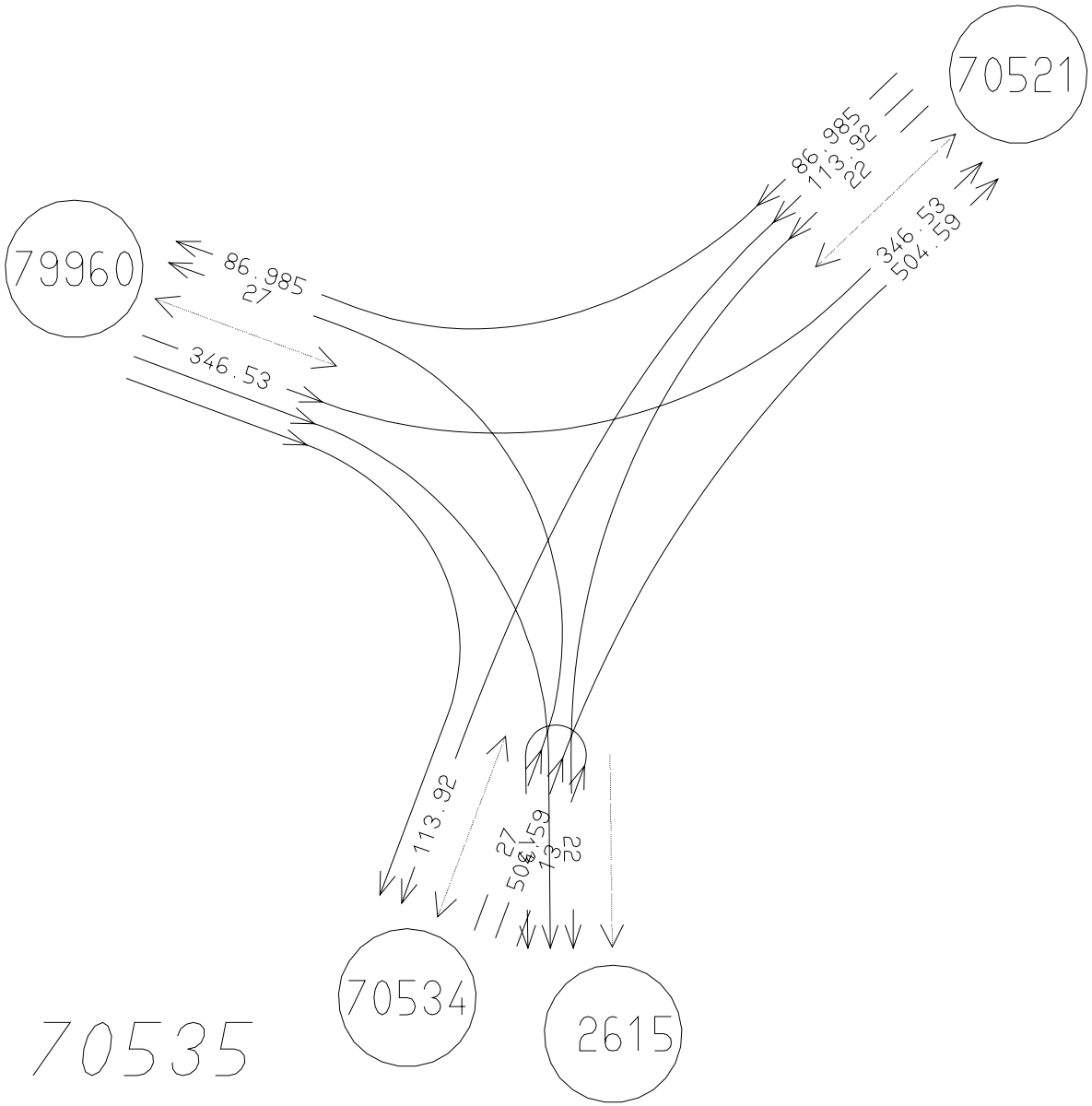


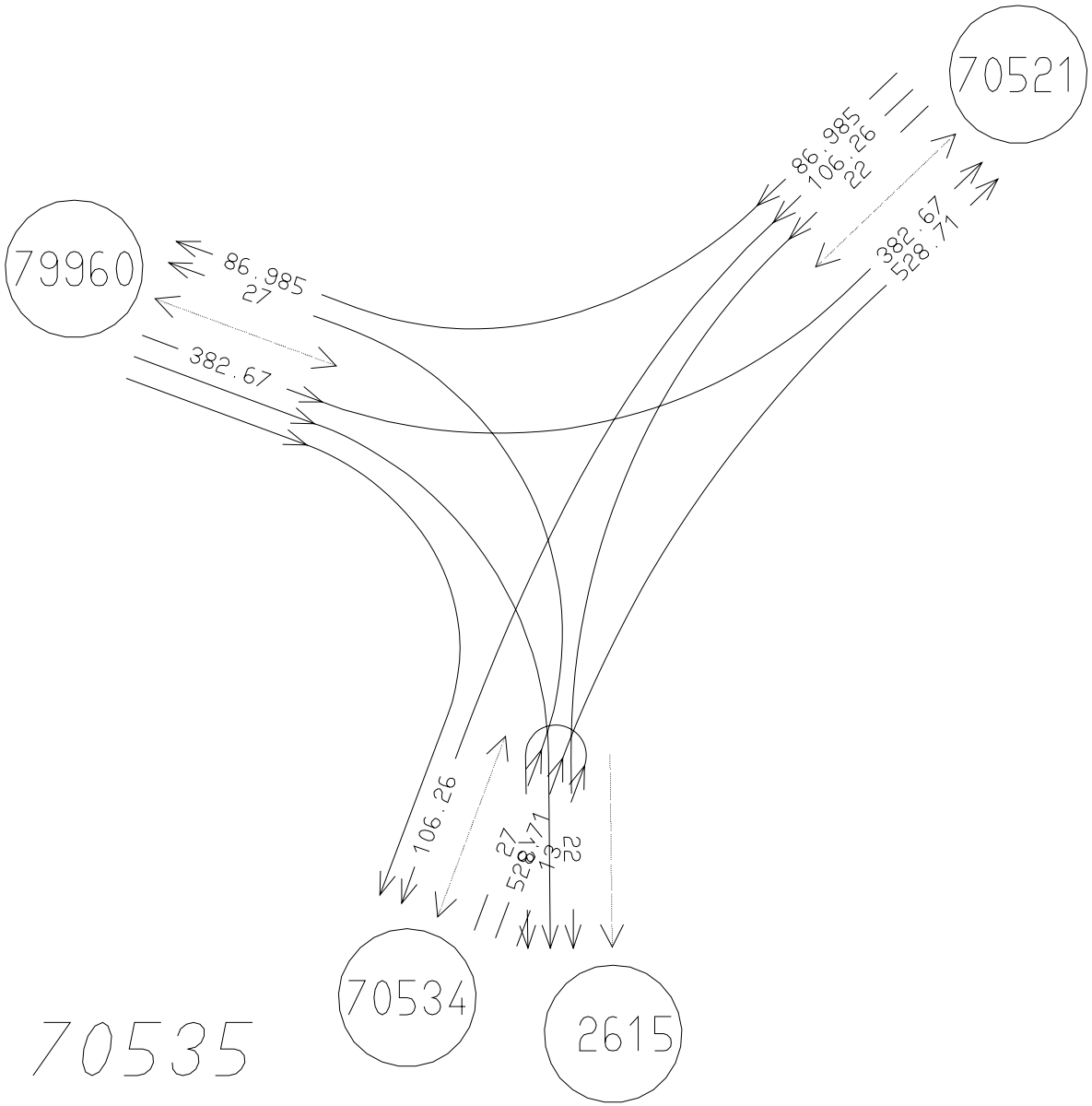
EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20211: 2021 alt 5+TC ext+RR widen+NGIBP(50)

05-07-12 15:43
MODULE: 2.31
DMG.UTYU....al

INTERSECTIONS

USER DEFINED TURN DATA 1

COL-IND: TPF



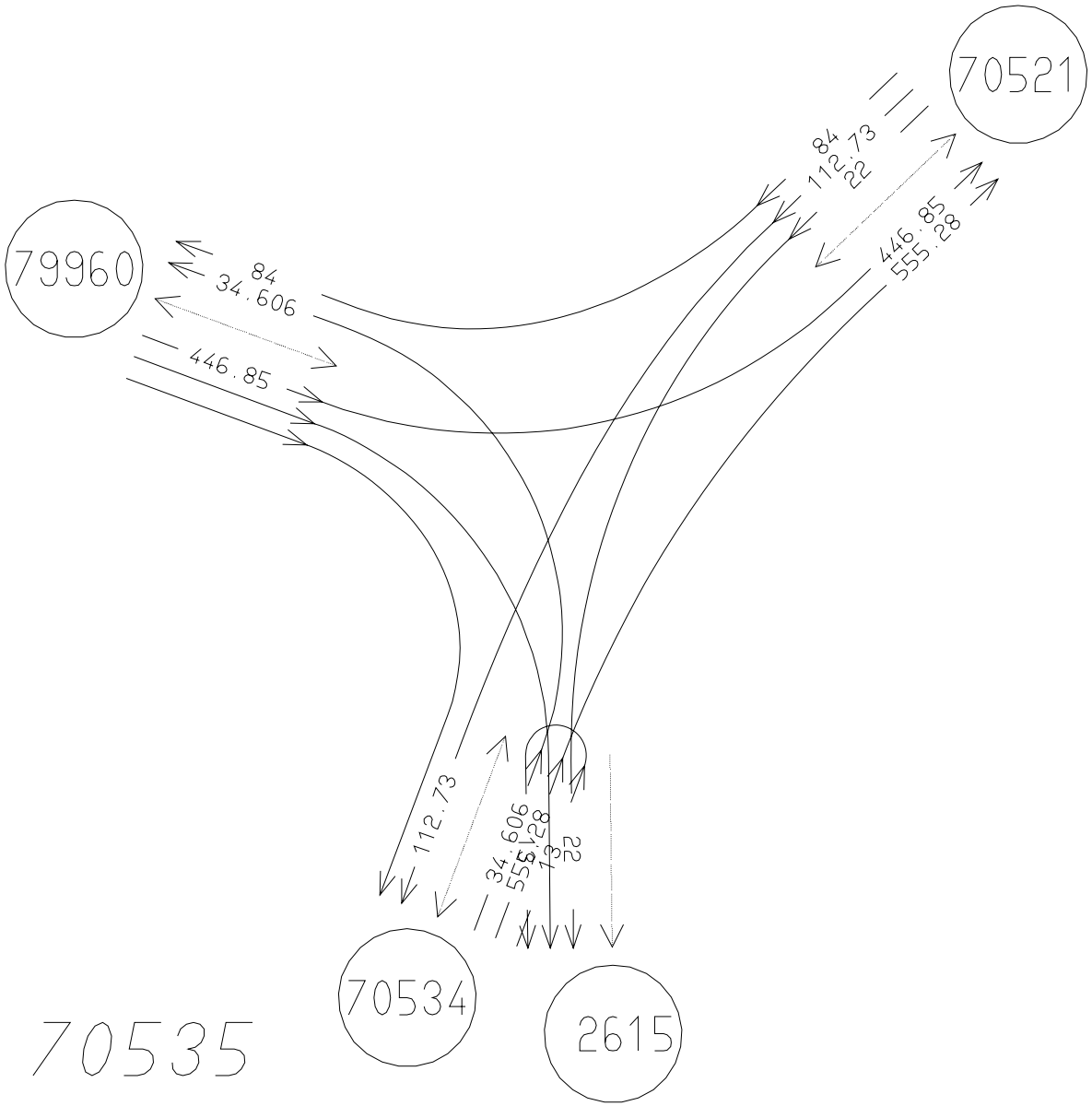
EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20212: 20211 network + UMA + no TC ext

05-07-12 15:44
MODULE: 2.31
DMG.UTYU....al

INTERSECTIONS

USER DEFINED TURN DATA 1

COL-IND: TPF



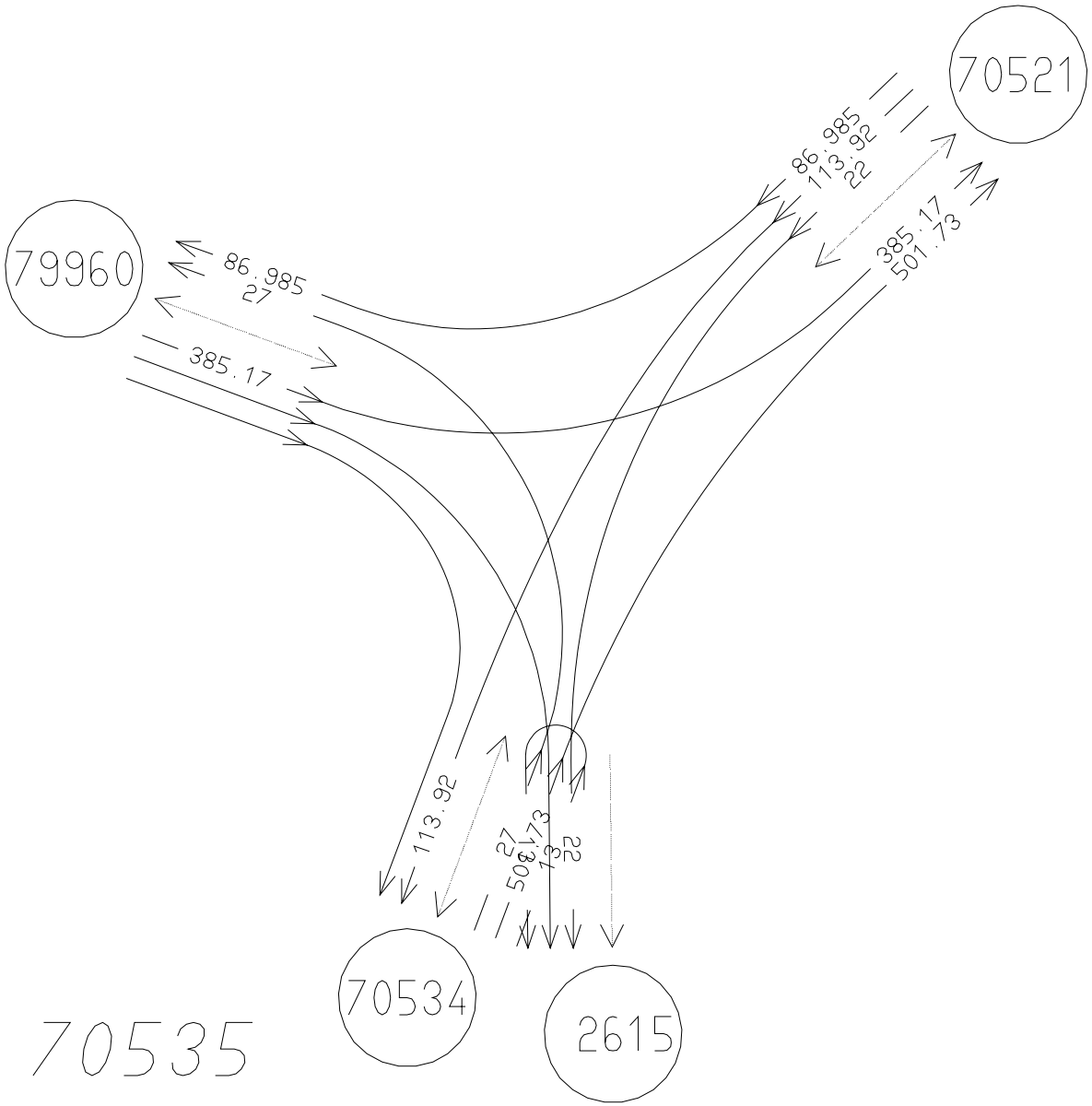
EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20213: 20211 network + no UMA + no TC ext

05-07-12 15:44
MODULE: 2.31
DMG.UTYU....al

INTERSECTIONS

USER DEFINED TURN DATA 1

COL-IND: TPF



EMME/2 PROJECT: City of Hamilton - NGIBP and RRPA EMME/2 Model
SCENARIO 20214: 20211 network + no UMA + TC ext

05-07-12 15:44
MODULE: 2.31
DMG.UTYU....al

Appendix F.4

Detailed SPA ‘C’
Level of Service Calculations

Appendix F.4.1

Detailed SPA ‘C’
Level of Service Calculations
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	3.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0	3.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1695	3362		1695	1784	1517	1695	3390	1517	3288	3390	1517
Flt Permitted	0.15	1.00		0.52	1.00	1.00	0.23	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	274	3362		926	1784	1517	408	3390	1517	3288	3390	1517
Volume (vph)	300	343	20	40	381	475	95	1130	50	155	903	226
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	373	22	43	414	516	103	1228	54	168	982	246
RTOR Reduction (vph)	0	5	0	0	0	32	0	0	34	0	0	131
Lane Group Flow (vph)	326	390	0	43	414	484	103	1228	20	168	982	115
Turn Type	pm+pt			Perm		pm+ov	Perm		Perm	Prot		Perm
Protected Phases	5	2			6	7		8		7	4	
Permitted Phases	2			6		6	8		8			4
Actuated Green, G (s)	38.0	38.0		21.0	21.0	25.0	32.0	32.0	32.0	4.0	40.0	40.0
Effective Green, g (s)	41.0	40.0		23.0	23.0	29.0	34.0	34.0	34.0	5.0	42.0	42.0
Actuated g/C Ratio	0.46	0.44		0.26	0.26	0.32	0.38	0.38	0.38	0.06	0.47	0.47
Clearance Time (s)	4.0	6.0		6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	346	1494		237	456	539	154	1281	573	183	1582	708
v/s Ratio Prot	c0.15	0.12			0.23	c0.05		c0.36		0.05	0.29	
v/s Ratio Perm	c0.28			0.05		0.27	0.25		0.01			0.08
v/c Ratio	0.94	0.26		0.18	0.91	0.90	0.67	0.96	0.04	0.92	0.62	0.16
Uniform Delay, d1	22.5	15.7		26.2	32.5	29.1	23.3	27.3	17.7	42.3	18.0	13.8
Progression Factor	1.00	1.00		1.00	0.99	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	35.7	0.4		1.5	23.1	19.2	10.5	16.1	0.0	47.9	0.8	0.1
Delay (s)	58.2	16.1		27.6	55.2	43.9	33.8	43.4	17.7	90.2	18.8	14.0
Level of Service	E	B		C	E	D	C	D	B	F	B	B
Approach Delay (s)		35.2			48.0			41.7			26.5	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM Average Control Delay	37.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	91.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.86		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1712	3367		1712	1799		1712	1591		1712	1802	1532
Flt Permitted	0.33	1.00		0.50	1.00		0.75	1.00		0.72	1.00	1.00
Satd. Flow (perm)	599	3367		895	1799		1352	1591		1305	1802	1532
Volume (vph)	76	360	45	22	639	6	121	10	36	28	10	91
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	391	49	24	695	7	132	11	39	30	11	99
RTOR Reduction (vph)	0	7	0	0	0	0	0	32	0	0	0	82
Lane Group Flow (vph)	83	433	0	24	702	0	132	18	0	30	11	17
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	64.6	64.6		64.6	64.6		13.4	13.4		13.4	13.4	13.4
Effective Green, g (s)	66.6	66.6		66.6	66.6		15.4	15.4		15.4	15.4	15.4
Actuated g/C Ratio	0.74	0.74		0.74	0.74		0.17	0.17		0.17	0.17	0.17
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	443	2492		662	1331		231	272		223	308	262
v/s Ratio Prot		0.13			c0.39			0.01			0.01	
v/s Ratio Perm	0.14			0.03			c0.10			0.02		0.01
v/c Ratio	0.19	0.17		0.04	0.53		0.57	0.06		0.13	0.04	0.06
Uniform Delay, d1	3.5	3.5		3.1	5.0		34.3	31.3		31.6	31.1	31.3
Progression Factor	1.30	0.79		1.31	1.18		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.1		0.1	1.3		3.4	0.1		0.3	0.0	0.1
Delay (s)	5.4	2.9		4.2	7.2		37.7	31.4		31.9	31.2	31.4
Level of Service	A	A		A	A		D	C		C	C	C
Approach Delay (s)		3.3			7.1			35.9			31.5	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1695	1784	1784	1517	1695	1517
Flt Permitted	0.49	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	876	1784	1784	1517	1695	1517
Volume (vph)	22	350	387	321	167	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	380	421	349	182	46
RTOR Reduction (vph)	0	0	0	92	0	38
Lane Group Flow (vph)	24	380	421	257	182	8
Turn Type	Perm			Perm		Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Actuated Green, G (s)	64.2	64.2	64.2	64.2	13.8	13.8
Effective Green, g (s)	66.2	66.2	66.2	66.2	15.8	15.8
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.18	0.18
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	644	1312	1312	1116	298	266
v/s Ratio Prot		0.21	c0.24		c0.11	
v/s Ratio Perm	0.03			0.17		0.01
v/c Ratio	0.04	0.29	0.32	0.23	0.61	0.03
Uniform Delay, d1	3.2	4.0	4.1	3.8	34.3	30.8
Progression Factor	0.65	0.90	0.90	0.82	1.00	1.00
Incremental Delay, d2	0.1	0.5	0.6	0.4	3.7	0.0
Delay (s)	2.2	4.1	4.3	3.5	37.9	30.8
Level of Service	A	A	A	A	D	C
Approach Delay (s)		4.0	3.9		36.5	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1695	3202	1495	1694	3181		1695	1713		1695	1784	1517
Flt Permitted	0.10	1.00	1.00	0.20	1.00		0.40	1.00		0.57	1.00	1.00
Satd. Flow (perm)	172	3202	1495	352	3181		722	1713		1022	1784	1517
Volume (vph)	148	1119	458	80	963	71	234	208	75	75	170	70
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	161	1216	498	87	1047	77	254	226	82	82	185	76
RTOR Reduction (vph)	0	0	221	0	6	0	0	15	0	0	0	61
Lane Group Flow (vph)	161	1216	277	87	1118	0	254	293	0	82	185	15
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	2%	8%	2%	2%	8%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6			8			4		4
Actuated Green, G (s)	48.0	48.0	48.0	35.4	35.4		30.0	30.0		16.3	16.3	16.3
Effective Green, g (s)	50.0	50.0	50.0	37.4	37.4		32.0	32.0		18.3	18.3	18.3
Actuated g/C Ratio	0.56	0.56	0.56	0.42	0.42		0.36	0.36		0.20	0.20	0.20
Clearance Time (s)	4.0	6.0	6.0	6.0	6.0		4.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	241	1779	831	146	1322		362	609		208	363	308
v/s Ratio Prot	0.06	c0.38			c0.35		c0.08	0.17			0.10	
v/s Ratio Perm	0.31		0.19	0.25			c0.17			0.08		0.01
v/c Ratio	0.67	0.68	0.33	0.60	0.85		0.70	0.48		0.39	0.51	0.05
Uniform Delay, d1	15.5	14.3	10.9	20.4	23.7		22.8	22.5		31.0	31.9	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.67	0.64		0.89	0.90	0.60
Incremental Delay, d2	6.8	2.2	1.1	16.7	6.8		5.9	2.6		5.4	4.9	0.3
Delay (s)	22.4	16.5	12.0	37.1	30.5		21.2	17.2		33.1	33.8	17.6
Level of Service	C	B	B	D	C		C	B		C	C	B
Approach Delay (s)		15.8			31.0			19.0			30.0	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

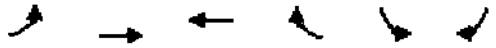
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85			0.98		1.00	1.00		1.00	0.95	
Flt Protected	0.95	1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1695	1518			1701		1695	1781		1695	1687	
Flt Permitted	0.75	1.00			0.78		0.65	1.00		0.65	1.00	
Satd. Flow (perm)	1335	1518			1363		1161	1781		1162	1687	
Volume (vph)	129	1	210	7	4	2	273	152	2	2	98	56
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	1	228	8	4	2	297	165	2	2	107	61
RTOR Reduction (vph)	0	188	0	0	2	0	0	0	0	0	13	0
Lane Group Flow (vph)	140	41	0	0	12	0	297	167	0	2	155	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	13.7	13.7			13.7		64.3	64.3		64.3	64.3	
Effective Green, g (s)	15.7	15.7			15.7		66.3	66.3		66.3	66.3	
Actuated g/C Ratio	0.17	0.17			0.17		0.74	0.74		0.74	0.74	
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	233	265			238		855	1312		856	1243	
v/s Ratio Prot		0.03						0.09			0.09	
v/s Ratio Perm	c0.10				0.01		c0.26			0.00		
v/c Ratio	0.60	0.15			0.05		0.35	0.13		0.00	0.12	
Uniform Delay, d1	34.3	31.5			30.9		4.2	3.4		3.1	3.4	
Progression Factor	1.00	1.00			1.00		0.68	0.72		1.00	1.00	
Incremental Delay, d2	4.3	0.3			0.1		0.9	0.2		0.0	0.2	
Delay (s)	38.6	31.8			31.0		3.7	2.6		3.1	3.6	
Level of Service	D	C			C		A	A		A	A	
Approach Delay (s)		34.4			31.0			3.3			3.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL 2	NBL	NBT	SEL	SER	SET
Lane Configurations												
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	764	6	13	419	8	4	0	12	0	0	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	830	7	14	455	9	4	0	13	0	0	96
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								0				
Upstream signal (m)		175			173							
pX, platoon unblocked	0.90			0.87			0.92	0.92	0.87	0.92	0.92	0.90
vC, conflicting volume	464			837			1317	1326	834	1335	1325	460
vC1, stage 1 conf vol							834	834				
vC2, stage 2 conf vol							484	492				
vCu, unblocked vol	402			813			1175	1185	809	1194	1183	397
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5				
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			97	100	96	100	100	84
cM capacity (veh/h)	1037			709			128	194	331	143	171	585

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SE 1
Volume Total	837	14	464	17	96
Volume Left	0	14	0	4	0
Volume Right	7	0	9	13	96
cSH	1700	709	1700	237	585
Volume to Capacity	0.49	0.02	0.27	0.07	0.16
Queue Length 95th (m)	0.0	0.5	0.0	1.8	4.4
Control Delay (s)	0.0	10.2	0.0	21.4	12.4
Lane LOS		B		C	B
Approach Delay (s)	0.0	0.3		21.4	12.4
Approach LOS				C	B

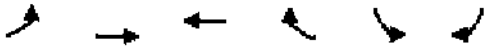
Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Volume (veh/h)	193	878	652	30	0	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	210	954	709	33	0	212
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (m)		232	157			
pX, platoon unblocked					0.97	
vC, conflicting volume	741				1622	371
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	741				1611	371
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	76				100	66
cM capacity (veh/h)	861				70	627

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	210	477	477	472	269	212
Volume Left	210	0	0	0	0	0
Volume Right	0	0	0	0	33	212
cSH	861	1700	1700	1700	1700	627
Volume to Capacity	0.24	0.28	0.28	0.28	0.16	0.34
Queue Length 95th (m)	7.3	0.0	0.0	0.0	0.0	11.3
Control Delay (s)	10.5	0.0	0.0	0.0	0.0	13.7
Lane LOS	B					B
Approach Delay (s)	1.9			0.0		13.7
Approach LOS						B

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

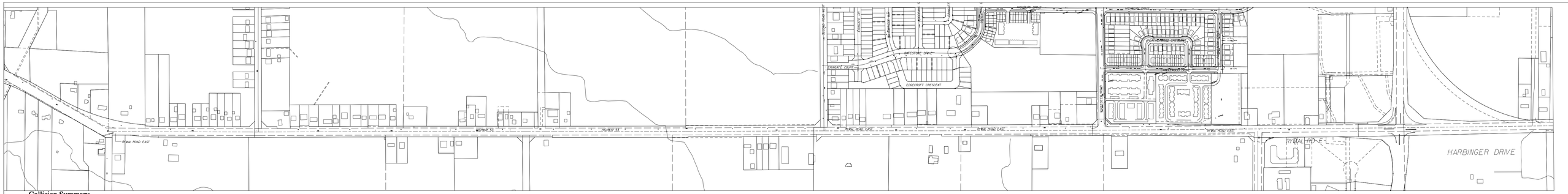


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Volume (veh/h)	0	1071	847	0	0	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1164	921	0	0	60
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (m)		118	270			
pX, platoon unblocked					0.88	
vC, conflicting volume	921				1503	460
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	921				1433	460
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	89
cM capacity (veh/h)	737				110	548

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	582	582	460	460	60
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	60
cSH	1700	1700	1700	1700	546
Volume to Capacity	0.34	0.34	0.27	0.27	0.11
Queue Length 95th (m)	0.0	0.0	0.0	0.0	2.8
Control Delay (s)	0.0	0.0	0.0	0.0	12.4
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.4
Approach LOS					B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix G
Collision Summary Diagram



Collision Summary

rd Road

Fatality
Injury
Property