The Town of The Blue Mountains Comprehensive Transportation Strategic Plan

Final Report

Project #: 104393

The Blue Mountains
Ministry of Transportation
Grey County

March 2010

AECOM

C.F. Latham & Associates Ltd.

The Town of The Blue Mountains

Comprehensive Transportation Strategic Plan

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March 2010

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This Statement of Qualifications and Limitations is attached to and forms part of the Report.

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Executive Summary

Introduction

The Town of The Blue Mountains' (Town) healthy economy is founded on its four season recreation and tourism industry as well as its strong agricultural base. However, as a result of the rapidly growing recreation and tourism markets, the Town is experiencing ever increasing transportation challenges. AECOM in partnership with C.C. Tatham and Associates Ltd., was retained by the Town, the Ministry of Transportation of Ontario (MTO) and the County of Grey (County) to prepare a *Comprehensive Transportation Strategic Plan* that addresses the short, medium and long-term transportation needs for all levels of road infrastructure. An important aspect of this study was the development of a *Highway Access Management Plan* (HAMP) that will help to maintain and/or improve the safety, mobility and Level of Service along the Highway 26 corridor within the Town's boundaries.

Some of the key objectives of the *Comprehensive Transportation Strategic Plan* are outlined below.

- Identify the impacts of existing and future development on all major roads and on local roads intersecting these major roads within the study area.
- Conduct a traffic operational review within the Craigleith area (including the area at the base of Blue Mountains) to analyze and recommend the collector and arterial road network to support existing and proposed development.
- Prepare a Highway 26 traffic engineering analysis to identify the impacts of existing operational concerns along Highway 26 and provide recommendations to address these concerns.
- Develop a HAMP for the Highway 26 corridor, which identifies access alternatives and preferred methods to maintain or improve the safety, mobility and Level of Service along the existing corridor.
- Identify alternative transportation modes (eg. transit and cycling), travel demand management tools (eg. commuter parking and carpooling) and related strategies consistent with Provincial policies and initiatives to reduce the impacts of new development.
- Review the Town's road hierarchy and provide recommendations as to roads which should be upgraded or downgraded with respect to their hierarchy/classification and jurisdiction.
- Develop capital cost estimates and time schedule for the recommended improvements.

A stakeholder consultation plan was prepared to support and encourage stakeholder participation and to ensure opportunities for the stakeholders to express their views on transportation issues and to become active participants in the decision making process. Public Information Centres (PIC's) were held in July of 2008 and October of 2009 to allow all interested parties an opportunity to review the material presented and provide appropriate comments.

Current State of the Transportation System

There are approximately 268 kilometres of municipal roads (local, collector and arterial), 77 kilometres of County roads and 17 kilometres of Provincial roads (Highway 26) within the Town limits. The majority of Town and County roads serve a mainly rural population. The only Provincial Highway (Highway 26) cuts across the northerly boundary of the Town and accommodates the majority of inter-regional traffic flow.

Although the Town does not operate a public transit service, taxi services as well as inter-county and inter-regional bus services are available.

Based on the Town's Leisure Activities Plan, leisurely walking and bicycling were the top two favoured activities, with 46% of households favouring "walking for leisure" and 40% favouring biking/cycling. There are 130 kilometres of trails and sidewalks within the Town limits. The three main trail systems are the Georgian Trail, the Bruce Trail and the Kolapore Uplands Wilderness Trail systems. The Georgian and Bruce Trail systems also provide good venues for leisure cycling and for inter-community bicycle travel.

Transportation Needs Assessment

The study addresses the Town's short, medium and long-term transportation needs/requirements (5, 10 and 20-year development horizons). In considering the historic volumes, a background growth rate of 2% per year was employed, for both summer and winter conditions, over the period 2008 to 2028. In addition to this growth, 52 future developments (approximately 5000 new residential units) were considered in the preparation of the future traffic projections. As well, a review of the "Georgian Triangle Area Transportation Paper" (RJ Burnside, January 2008) was carried out to verify the potential impacts of the recommended interim Highway 26/Collingwood alternative route option on the existing road network.

Based on the future traffic projections, the following were identified as transportation needs:

Highway 26

The following is a summary of the Highway 26 capacity and operational deficiencies:

- sections of Highway 26 are expected to reach or exceed their operational capacity by 2028;
- a number of intersections along Highway 26 will operate at or beyond capacity by 2028 or sooner, and
- public road spacing and private access densities along Highway 26 currently exceed MTO guidelines within the Craigleith area.

County Roads

The following is a summary of capacity and operational deficiencies of the County Road network within the Town:

- future traffic volumes on Grey Road 19 will exceed the road's capacity;
- future traffic volumes on Grey Road 19 from Mountain Road to Simcoe County Road 32 will exceed the road's capacity; and
- key intersections on Grey Road 19 will reach their capacity at or just beyond 2028:
  - Grey Road 19/ Grey Road 21
  - Grey Road 19/ Jozo Weider East

Town Roads

The following Town roads are expected to operate near their capacities by 2028:

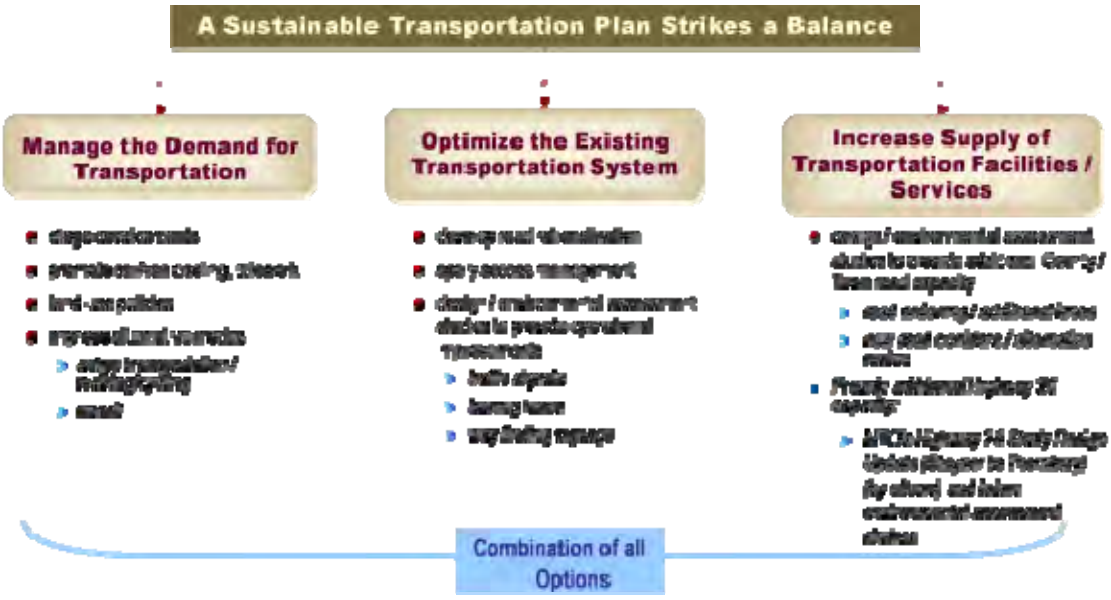
- Jozo Weider Boulevard (entire road)
- Arthur Street/Bridge Street/ King Street (Highway 26 connecting link) in Thornbury

Other localized operational issues include the following:

1. **Clark Street /Grey Road 2**: This intersection is located at the end of a horizontal curve and is in close proximity to the intersection of Highway 26 with Grey Road 2, and thus there is the potential for operational and queuing issues.
2. **Georgian Trail Crossing of Highway 26**: The existing trail crossing is uncontrolled, on a skew angle and located just east of a horizontal curve, all of which pose concerns with respect to the safety of the trail users.
3. **Thornbury**: There is a potential bottleneck on the westbound approach of the Arthur Street/ Bridge Street intersection as a result of the narrow 2-lane bridge located about 50 metres east of the intersection. The bridge structure could potentially restrict future intersection widening that is necessary to provide additional turning lanes on the westbound approach.
4. **Clarksburg**: There are potential safety/operational issues due to the existing single-lane bridge structures along 10th Line south of Clark Street and on Clark Street west of Grey Road 13.

Developing Transportation Improvement Strategies

The report reviewed three basic strategies to address the growing demands for transportation which are:
1. manage or reduce the demand for transportation;
2. optimize the existing transportation system; and/or
3. increase the supply of transportation infrastructure and services.



A sustainable transportation strategy attempts to strike a balance between these strategies in recognition of the fact that implementation of only one of these approaches will not achieve the sustainability objectives, while attempting to service a growing population.

The *Comprehensive Transportation Strategic Plan* includes a series of recommendations and strategic policies based on a multi-modal approach to transportation that considers existing and future transportation needs. It provides a balance of transportation choices required to address future travel demands in the Town, and can be characterized as a first step in the process of changing the way road users think about and use their

transportation system. However, the promotion and implementation of non-auto modes of transportation (such as walking, cycling, ridesharing and public transit) are usually only achieved over a long period of time (10+ years). Given the rural nature of the study area, it is not expected that the auto-based travel demand can be reduced by more than 5% following consideration for such measures. Accordingly, the recommended approach for addressing future operational deficiencies is a combination of all options.

Recommended Road Network Improvements

Please refer to Figure 6.6, 6.7 and 6.8 in Section 6.3 of the main report for illustration of the following recommendations.

Craigleith Area

A summary of the recommended improvements for the Craigleith Area under the future traffic conditions include:

- widen the following roads to 4-lanes:
  - *Grey Road 19:* within the section from Grey Road 21 and the east end of Jozo Weider Boulevard (2013)
  - *Grey Road 19:* within the section from the east end of Jozo Weider Boulevard to Highway 26 (2018)
- provide exclusive turning lanes at the following intersections:
  - *Grey Road 19 / Jozo Weider Boulevard (east junction):* add an exclusive left turn lane on the southbound approach and provide additional through lanes on the northbound and southbound approaches (2013)
  - *Grey Road 19 / Grey Road 21:* provide additional through lanes on the eastbound and westbound approaches (2013)
  - *Grey Road 19 / Grey Road 21:* add an exclusive left turn lane on the eastbound approach (2018)
  - *Grey Road 19/Jozo Weider Boulevard (west junction):* add additional through lanes on the westbound and eastbound approaches (2018)
  - *Grey Road 19/Jozo Weider Boulevard (east junction):* add an exclusive left turn lane on the eastbound approach (2028)
  - *Grey Road 19 / Grey Road 21:* add an exclusive left turn lane on the westbound approach (2028)

Under the Highway 26/Collingwood alternative route scenario the following additional improvements are recommended:

- *Grey Road 19:* four-lane widening within the section from Mountain Road to Simcoe County Road 32 to facilitate the associated diverted traffic (2013)
- *Grey Road 19/Grey Road 21 Intersection*:
  - channelized eastbound right turn lane to minimize / remove impediments to the right turn flow (2013)
  - add an exclusive left turn lane on the westbound approach (2018)
  - add an exclusive right turn lane on the southbound approach (2018)
  - exclusive westbound right turn lane (2028)
  - double left turn lanes on the northbound approach (2028) or roundabout geometry (2028)

Highway 26 Corridor

MTO's "Highway 26 Study Design Update" will review and address traffic congestion issues along Highway 26 through the intersected municipalities in a comprehensive manner and will outline the proposed scope for any subsequent MTO Class Environmental Assessments for Provincial Transportation Facilities that may be required. It is expected that these studies will identify and assess a number of transportation improvement solutions that may include the implementation of new road infrastructure or enhancing the existing road system. In consideration of this, and to ensure a non-partisan approach to the future works, the widening of Highway 26 to accommodate future traffic volumes cannot be confirmed as the most appropriate solution, with any assurance, until completion of MTO's Study Design Update.

Notwithstanding, the following improvements are recommended along Highway 26 to mitigate the operational problems under the future traffic conditions:

- two-way-left-turn (TWLT) centre lane to promote safety and to facilitate the high density private access movements off Highway 26 between the intersections of Grey Road 21 and Grey Road 19 (2013)
- additional through lanes and/or exclusive turning lanes are recommended at the following Highway 26 intersections:
  - *Christie Beach Road:* add an exclusive left turn lane on the eastbound approach (2013)
  - *35 Sideroad:* add an exclusive left turn lane on the westbound approach (2013)
  - *Lora Bay Drive:* add an exclusive left turn lane on the westbound approach (2013)
  - *Grey Road 113*: add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Peel Street:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - ***Victoria Street*:*** add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - ***Bruce Street*:*** add exclusive left turn lanes on the eastbound, westbound and northbound approaches (2013)
  - ***Elgin Street*:*** add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Grey Road 2/Lake Shore Road:* add exclusive left turn lanes on the northbound and eastbound approaches (2013)
  - *Grey Road 40/ Lakewood Drive:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Camperdown Road:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Wards Road:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Hidden Lake Road:* add an exclusive left turn lane on the westbound approach (2013)
  - *Arrowhead Road:* add an exclusive left turn lane on the westbound approach (2013)
  - *Lakeshore Road East/Fraser Crescent:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Hope Street:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Grey Road 21/ Long Point Road:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *11th Line/ Lora Bay Drive:* 4-lane widening of Highway 26 through the intersection, add exclusive left turn lanes on the northbound and southbound approaches and an exclusive right turn lane on the westbound approach (2028)
  - *Grey Road 2:* 4-lane widening of Highway 26 through the intersection and add an exclusive right turn lane on the eastbound (2028)
  - *Grey Road 40/ Lakewood Drive:* 4-lane widening of Highway 26 through the intersection (2028)

- *Arrowhead Road:* add an exclusive left turn lane on the eastbound approach (2028)
- *Grey Road 19:* 4-lane widening of Highway 26 through the intersection (2028)
- *Hope Street:* 4-lane widening of Highway 26 through the intersection (2028)
- *Grey Road 21/ Long Point Road:* 4-lane widening of Highway 26 through the intersection, add exclusive left turn lanes on the northbound and southbound approaches and exclusive right turn lanes on the eastbound and westbound approaches (2028)
- Closure of existing residential commercial access connections within the Village of Craigleith that have a "Backdoor" access to existing Town roads (i.e. Blue Mountain Drive on Fraser Crescent).

**** Victoria Street, Bruce Street and Elgin Street are under Town's jurisdiction***

- implement traffic signals at Highway 26 intersections with:
  - Grey Road 2 (2013)
  - Grey Road 21/ Long Point Road (2013)
  - Peaks Road (2013)
  - Hope Street/ Blue Mountain Drive (2018)
  - Lora Bay Drive (2028)
  - Grey Road 113 (2028)
  - Grey Road 40 (2028)

Following consideration for the Highway 26 Collingwood Alternative Route option and the diversion of traffic volumes that would occur under the future traffic conditions, the following improvements will also be required at the intersection of Grey Road 21 with Highway 26:

- add an exclusive left turn lane on the northbound approach (2013)
- add an exclusive right turn lane on the eastbound approach (2018)
- channelize the exclusive right turn lane on the eastbound approach (2028)

Other Localized Improvements

Improvements of the Clark Street

Given the current alignment of Grey Road 2 at its intersection with Highway 26 and the proximity of this intersection with that of Clark Street (which may limit the ability to accommodate northbound traffic queues at the highway), intersection improvements are recommended at each location. This would include the provision of turn lanes and traffic signals at Highway 26 and the potential realignment of Clark Street to increase the intersection spacing.

Georgian Trail Crossing at Highway 26

The Georgian Trail crossing at Highway 26 was identified as deficient from a safety standpoint given the sharp angle of the crossing and lack of an appropriate traffic control device. Hence, as part of this study, it was recommended that the trail be realigned from its current location westerly to the intersection at Grey Road 2. Moreover to improve the safety, the provision of traffic signals at this location is also recommended (in conjunction with future area development) which will provide protected crossings for trail users.

Clarksburg Single Lane Bridges

The single-lane bridge structures along 10th Line south of Clark Street and on Clark Street west of Grey Road 13 are of potential hazard concern and operational deficiency concern and hence need to be widened. The structural widening will however need to follow the requirement of an Environmental Assessment Study procedure. A thorough operational and safety assessment will constitute the Phase 1 of the Environmental Assessment planning process.

Thornbury Bridge

There is a potential bottleneck concern on the westbound approach of Highway 26 intersection at Bruce Street as a result of the narrow bridge located about 50 metres east of the intersection. Alternatives to offset this deficiency include:

- structural widening / replacement; or
- Highway 26 by-pass which will be determined by the "Highway 26 Study Design Update" which is currently being undertaken by MTO to address adequate Highway 26 through-capacity traffic for inter-regional east-west traffic from east of Stayner to west of Thornbury.

Preliminary Capital Cost Estimates and Suggested Time Schedule

The capital costs and time schedule for implementing the road improvements within the Craigleith Area and the Highway 26 corridor are summarized as follows:

Preliminary Capital Cost and Suggested Time Schedule for Recommended Road Improvements

Improvement	Road Section / Intersection	Implementation	Estimated Cost** ($)	MTO/ County/ Town
Craigleith Area				
4-lane Widening	Grey Road 19 - Grey Road 21 to east end of Jozo Weider Boulevard	2013	4,500,000	County
SB Left Turn	Grey Road 19/ Jozo Weider Boulevard (east junction)	2013	35,000	Town/ County
Widening at Intersection	Along Grey Road 19 at Grey Road 19/ Jozo Weider Boulevard (east junction)	2013	710,000	County
Widening at Intersection	Along Grey Road 19 at Grey Road 19/ Grey Road 21	2013	710,000	County
Channelized EB Right Turn	Grey Road 19/ Grey Road 21	2013 (Highway 26 alternative route option)	60,000	County
4-lane Widening	*Grey Road 19 - east end of Jozo Weider Boulevard to Highway 26*	*2018*	8,720,000	County
EB Left Turn	*Grey Road 19/ Grey Road 21*	*2018*	35,000	County
SB Right Turn	*Grey Road 19/ Grey Road 21*	*2018 (Highway 26 alternative route option)*	60,000	County
WB Left Turn	*Grey Road 19/ Grey Road 21*	*2018 (Highway 26 alternative route option)*	35,000	County
EB Left Turn	Grey Road 19/ Jozo Weider Boulevard (east junction)	2028	80,000	Town/ County
WB Left Turn	Grey Road 19/ Grey Road 21	2028	35,000	County
WB Right Turn	Grey Road 19/ Grey Road 21	2028 (Highway 26 alternative route option)	60,000	County

Improvement	Road Section / Intersection	Implementation	Estimated Cost** ($)	MTO/ County/ Town
NB Left Turn (double left)	Grey Road 19/ Grey Road 21	2028 (Highway 26 alternative route option)	100,000	County
Highway 26 Corridor				
Two-way-left-turn lane	Between Grey Road 21 and Grey Road 19	2013	3,355,000	MTO
EB Left Turn	At Christie Beach Road Intersection	2013	130,000	MTO
WB Left Turn	35 Sideroad Intersection	2013	130,000	MTO
WB Left Turn	Lora Bay Drive/ 11th Line Intersection	2013	130,000	MTO
EB Left Turn	Grey Road 113 Intersection	2013	130,000	MTO
WB Left Turn	Grey Road 113 Intersection	2013	130,000	MTO
EB Left Turn	Peel Street Intersection	2013	130,000	MTO
WB Left Turn	Peel Street Intersection	2013	130,000	MTO
EB Left Turn	Victoria Street Intersection*	2013	90,000	Town***
WB Left Turn	Victoria Street Intersection*	2013	95,000	Town***
EB Left Turn	Bruce Street Intersection*	2013	85,000	Town***
WB Left Turn	Bruce Street Intersection*	2013	60,000	Town***
NB Left Turn	Bruce Street Intersection*	2013	90,000	Town***
EB Left Turn	Elgin Street*	2013	90,000	Town***
WB Left Turn	Elgin Street*	2013	90,000	Town***
EB Left Turn	Grey Road 2 (Lake Shore Road) intersection	2013	130,000	MTO
NB Left Turn	Grey Road 2 (Lake Shore Road) intersection	2013	95,000	MTO
Signalization	Grey Road 2 (Lake Shore Road) intersection	2013	230,000	MTO
EB Left Turn	Grey Road 40 (Lakewood Drive) Intersection	2013	135,000	MTO
WB Left Turn	Grey Road 40 (Lakewood Drive) Intersection	2013	150,000	MTO
EB Left Turn	Camperdown Road Intersection	2013	170,000	MTO
WB Left Turn	Camperdown Road Intersection	2013	135,000	MTO
Signalization	Peaks Road	2013	230,000	MTO
EB Left Turn	Wards Road	2013	170,000	MTO
WB Left Turn	Wards Road	2013	135,000	MTO
WB Left Turn	Hidden Lake Road Intersection	2013	135,000	MTO
WB Left Turn	Arrowhead Road Intersection	2013	135,000	MTO
EB Left Turn	Lakeshore Road East (Fraser Crescent) Intersection	2013	135,000	MTO
WB Left Turn	Lakeshore Road East (Fraser Crescent) Intersection	2013	135,000	MTO
EB Left Turn	Hope Street Intersection	2013	110,000	MTO
WB Left Turn	Hope Street Intersection	2013	110,000	MTO
EB Left Turn	Grey Road 21 (Long Point Road) Intersection	2013	100,000	MTO
WB Left Turn	Grey Road 21 (Long Point Road) Intersection	2013	100,000	MTO
Signalization	Grey Road 21 (Long Point Road) Intersection	2013	230,000	MTO
NB Left Turn	Grey Road 21 (Long Point Road) Intersection	2013 (Highway 26 alternative route option)	130,000	MTO
Signalization	*Hope Street Intersection*	*2018*	230,000	MTO
EB Right Turn	*Grey Road 21 (Long Point Road) Intersection*	*2018 (Highway 26 alternative route option)*	75,000	MTO
Widening at Intersection	Lora Bay Drive/ 11th Line Intersection	2028	1,495,000	MTO
NB Left Turn	Lora Bay Drive/ 11th Line Intersection	2028	55,000	MTO
SB Left Turn	Lora Bay Drive/ 11th Line Intersection	2028	70,000	MTO
WB Right Turn	Lora Bay Drive/ 11th Line Intersection	2028	95,000	MTO
Widening at Intersection	Grey Road 2 (Lake Shore Road) intersection	2028	1,565,000	MTO
EB Right Turn	Grey Road 2 (Lake Shore Road) intersection	2028	95,000	MTO
Widening at Intersection	Grey Road 40 (Lakewood Drive) Intersection	2028	1,665,000	MTO
EB Left Turn	Arrowhead Road Intersection	2028	135,000	MTO
Widening at Intersection	Grey Road 19 Intersection	2028	1,655,000	MTO
Widening at Intersection	Hope Street Intersection	2028	1,495,000	MTO
Widening at Intersection	Grey Road 21 (Long Point Road) Intersection	2028	1,660,000	MTO

Improvement	Road Section / Intersection	Implementation	Estimated Cost** ($)	MTO/ County/ Town
NB Left Turn	Grey Road 21 (Long Point Road) Intersection	2028	110,000	MTO
SB Left Turn	Grey Road 21 (Long Point Road) Intersection	2028	95,000	MTO
EB Right Turn	Grey Road 21 (Long Point Road) Intersection	2028	75,000	MTO
WB Right Turn	Grey Road 21 (Long Point Road) Intersection	2028	75,000	MTO
Signalization	Lora Bay Drive/ 11th Line Intersection	2028	230,000	MTO
Signalization	Grey Road 113 Intersection	2028	230,000	MTO
Signalization	Grey Road 40 (Lakewood Drive) Intersection	2028	230,000	MTO
Channelized EB Right Turn	Grey Road 21 (Long Point Road) Intersection	2028 (Highway 26 alternative route option)	75,000	MTO
Total Cost			**$34,315,000**	

** - Intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

*** - All cost in 2008 dollars, including engineering design cost and 15% contingency*

****- Connecting Link Funding Program*

Cost Breakdown by Agency

Agency	Cost Estimate
MTO	$19,175,000
County	$15,025,000 - $15,140,000*
Town	$0 - $115,000*

** - Range subject to cost sharing on intersection improvements*

1. Introduction

1.1 Background

The Town of The Blue Mountains (Town) is located on the shore of Georgian Bay and shares borders with the municipalities of Collingwood, Meaford, Clearview and Grey Highlands (see **Figure 1.1).** The Town is Ontario's number one designated four-season destination with its abundance of natural and leisurely amenities, which include ski resorts, beaches, boating opportunities, trail networks, parkland and much more. Not surprisingly, the Town's largest industry is recreation, driven by a number of private sector interests that provide a variety of engaging activities that consistently draw visitors and seasonal residents to the area. The Town also has a strong agricultural base.

The Town was formed in 1998, following the amalgamation of the former Town of Thornbury and the Township of Collingwood. The 2001 Census reported the permanent population in the Town to be 6,115 persons, while the number of part time residents is expected to be similar. Since amalgamation, all physical assets of leisure and recreation purposes and all public open space holdings have been consolidated within the Town. The consolidation of responsibilities created by the amalgamation, increasing population rates, the changing demographic composition of the community and emerging leisure needs and expectations have created the need to integrate and update the Town's transportation strategies, policies and programs.

The Town is a rapidly growing four-season recreational area and, as a result, is experiencing current and ever increasing transportation difficulties. The existing road infrastructure is administered and maintained by the Ministry of Transportation of Ontario (MTO), the County of Grey (County) and the Town. In response to this, AECOM in partnership with C.C. Tatham and Associates Ltd., has been retained by the Town, County and MTO to prepare a *Comprehensive Transportation Strategic Plan* which will address the short, medium and long-term transportation needs for all levels of road infrastructure within the Town limits including plans for active and public transportation.

Several issues and recent events have brought the need for developing a Town-wide transportation plan to the forefront, as noted below:

- The Town and County wish to ensure the safety and functionality/Level of Service on roads under their jurisdiction. Rapid growth and development in the Town and within surrounding areas give rise to the following concerns:
  - traffic congestion on Grey Road 19, Jozo Weider Boulevard, Grey Road 21, Mountain Drive, Scenic Caves Road/Grey Road 119 and other roads in the vicinity of the Craigleith Village area and in the vicinity of the Blue Mountain Resort and Ski Hills Area (the "Craigleith Area"), particularly during winter weekends;
  - increased residential, commercial, tourist and through traffic within the Highway 26 corridor;
  - limited/restricted intersection capacity due to high turning volumes at the intersections of Highway 26 with Grey Road 21 in Craigleith and Grey Road 21 with Grey Road 19;
  - diversion of traffic onto County and Town roads between Stayner and into the Craigleith Area to avoid congestion on Highway 26;
  - congestion in Thornbury on the Highway 26 Connecting Link due to traffic volumes and the capacity restrictions of the Bruce Street and Bridge Street intersection;

- difficulty in accessing Highway 26 from intersecting County and Town roads during periods of high traffic volumes; and
- increasing traffic volumes may result in an increase in the number of collisions on the various road systems.

- In addition to addressing existing traffic concerns, this *Comprehensive Transportation Strategic Plan* is intended to support the recently approved and adopted Official Plan and related amendments which extend future growth patterns.
- The Town, County and MTO wish to prepare a *Highway Access Management Plan* (HAMP) to maintain or improve the safety, mobility and Level of Service along the Highway 26 corridor within the Town's boundaries.
- MTO is currently conducting the *Highway 26 Study Design Update* which extends from east of Stayner westerly into the Town to the west side of Thornbury. The Highway 26 Study Design Update is required to technically support the identification of a study area for future environmental Assessment (EA) studies and/or municipal road improvements and future municipal studies.

Figure 1.1. Study Area

1.2 Purpose & Objectives

The purpose of the *Comprehensive Transportation Strategic Plan* study is to examine transportation capacity and operations in the short, medium and long-term and provide recommendations for the existing and future transportation system and infrastructure to ensure that a safe and efficient means of travel is provided to all users.

The objectives of the study are as follows:

- Develop an overall transportation infrastructure strategic plan for the full developed community as defined in the Town's Official Plan and companion amendments with identifiable targets, cost sharing arrangements and implementation requirements in 5 year increments (as part of the Development Charges Report).
- Maintain or improve the functionality/Level of Service, mobility and safety of all roads within the Town to at least minimally accepted standards.
- Identify the impacts of existing and future development on all major roads and on local roads intersecting these major roads within the study area.
- Conduct a traffic operational review within the area bounded by Grey Road 19, Jozo Weider Boulevard, Grey Road 21, Highway 26 and Mountain Drive, referred to as the Craigleith area, to analyze and recommend the collector and arterial road network which can support existing and proposed development.
- Prepare a Highway 26 engineering analysis in order to identify the impacts of existing operational concerns along Highway 26 and to provide recommendations to address these concerns.
- Develop a Highway Access Management Plan for the Highway 26 corridor, which identifies access alternatives and preferred methods to maintain or improve the safety, mobility and Level of Service along the existing corridor.
- Identify alternative transportation elements wherever feasible such as transit, cycling, commuter parking, carpooling, and related strategies to reduce the impacts of new development consistent with Provincial policies and initiatives.
- Review the Town's road hierarchy and provide recommendations as to roads which should be upgraded or downgraded with respect to their hierarchy/classification and jurisdiction.
- Develop capital cost estimates and implementation plan for recommended improvements.

1.3 Study Area

While the study will focus on the transportation system and needs within the Town, the area of study extends beyond the Town limits to include consideration for the immediate surrounding areas, given that transportation growth and impacts associated with both current and future development do not recognize municipal boundaries. This is particularly true given the continuity and connectivity of the Provincial and County road systems throughout the area. The overall study area as considered is illustrated in **Figure 1.1**.

2. Stakeholder Consultation

Consultation with interested parties early in and throughout the process, such that the planning process is a co-operative venture, is one of the key principles of successful transportation planning.

2.1 Stakeholder Consultation Plan

As part of The Town of The Blue Mountains Comprehensive Transportation Strategic Plan, a stakeholder consultation plan was prepared to support and encourage stakeholder participation and to ensure opportunities for the stakeholders to express their views on transportation issues and to become active participants in the decision making process.

2.1.1 Objectives of Stakeholder Consultation

One important objective of a good stakeholder involvement process is the extent to which the process builds consensus on the path to decision making. In exchange for participation in a fair and open process, stakeholders often are willing to support the outcome of the process even if their preferred alternative is not selected. This result, sometimes known as "informed consent," is the desired outcome on highly controversial projects. It allows that the project to move forward even though all stakeholder desires are not accommodated. Involving stakeholders without informing them is not prudent.

In addition, a good stakeholder involvement process must have as an objective the incorporation of stakeholders input into the decision process. A "black box" that has stakeholder involvement inputs but no clear effect on the outputs is not a successful stakeholder involvement program. The decision-making process must be open and clear and must reflect stakeholder's input.

The vision for the stakeholders participation plan is that the stakeholders are provided clear and concise information on the project development in a convenient and timely manner. To this end, the following goals and policies have been established as part of the stakeholder consultation plan:

Goal 1: Actively engage the stakeholders in the transportation planning process

a) Maintain an up-to-date database of contacts including at a minimum the following:

- Elected Officials
- Town Staff
- Transportation Agencies
- Representatives of Users of Pedestrian and Bicycle Transportation
- Local Media
- Special Interest Groups
- Individuals expressing an interest in transportation planning activities.

b) Send mail and/or e-mails to the study contact list / targeted groups to announce meetings /invitations for upcoming activities.

c) Employ visualization techniques to depict transportation plans. Examples of visualization techniques include: charts, graphs, photo interpretation, maps, use of GIS, artist's renderings, physical models, and/or computer simulation.

Goal 2: Keep the stakeholders informed of on-going project status on a continuous basis.

a) All publications and work products should be made available to the stakeholders via Internet, staff office, and employ visualization techniques to describe transportation actions as part of the Comprehensive Transportation Strategic Plan.

b) Project Team shall be available to provide general and project specific information during normal business hours.

c) Maintain a project specific web site as part of the Town's website (section/link) allocated to this project.

d) The website shall be updated and maintained to provide the most current information available and as a minimum shall contain the following information:

- Current Project Team contact information (i.e. name, title, mailing address, phone, fax, and e-mail)
- Brief descriptions of this undertaking
- Work products and publications (Notices, Reports, PIC Materials and etc.)
- Comment/Question form
- Links to related agencies (County, MTO, etc.)

Goal 3: Encourage the participation of all stakeholders in the transportation planning process.

a) Hold stakeholder meetings at a scheduled time, location, and building facility convenient to potentially affected stakeholders.

b) Provide an additional opportunity for stakeholder's comments, particularly if the final study recommendations significantly differ from the version that was initially made available for stakeholders comment.

Goal 4: Strive to continuously improve stakeholders participation.

a) Continuously evaluate stakeholders participation techniques, according to the procedures contained in this Stakeholder Participation Plan.

2.1.2 Stakeholder Participation Techniques

An effective stakeholder participation process is characterized by techniques and procedures that enable stakeholders to become well informed. As part of encouraging more cooperative planning, consultation was made, with interested agencies and officials responsible for other planning activities that are affected by this undertaking within the study area.

An open consultation policy, whereby any stakeholder or entity responsible for transportation in the study area was given opportunity to contact and be included in the consultation process through the following tools:

I. Master Database

Consultant team maintained a master database of all contacts, both business and stakeholders, on a continuous basis. The database included, mailing information, phone numbers, fax numbers, and e-mail addresses.

II. Press Releases

Formal press releases were sent to local media (newspaper, and etc.) to announce upcoming special meetings and activities and to provide information on specific issues being considered by the project team or committees. The project team worked with the media to let people know about the study.

Local newsletters within the study area include:

- The Blue Mountains Courier Herald
- Collingwood Enterprise Bulletin

III. Direct Mailings

Direct mailings were used to announce upcoming meetings or to provide information to a targeted area, group of people, or the media. Groups were targeted that may have an interest in a specific issue, for example avid cyclists and pedestrians may be targeted for pathways and trail projects.

IV. E-mail Announcements

Meeting announcements and information were also e-mailed to interested persons that have submitted their e-mail addresses to the study team.

V. Project-Specific Website

The project website was developed as part of the Town's website to provide basic information about the study process and staff contact information. Project web sites contained study area maps, descriptions of potential alternatives, comment forms, user surveys and project team contact information. Study publications and work products, such as the reports were made available for downloading from the site. Also, stakeholders were able to submit comments and sign up to be added to the distribution lists maintained by the project team.

VI. Public Informational Centres

These are stakeholder meetings that are generally open and informal in which the project team members can interact with the stakeholders on a one-on-one basis. The purpose of public information meetings is to provide up-to-date project information to the interested parties and to solicit their comment.

Two rounds of stakeholder consultations were held during the study. Recognizing the significant number of part-time residents in the Town, each Public Information Centre (PIC) was conducted on a week day evening and the adjacent Saturday morning.

PIC Display Materials: All PIC display boards and material were prepared by the consultant team and electronic copies in PDF format were provided to the Town to post on the project website.

Prepare Stakeholder Consultation Summaries: The Consultant team provided summaries of stakeholder consultation subsequent to each of the PIC meetings including a review and assessment of all comments received.

VII. Public Notices

Public notices include: Project Initiation, and Public Information Centres (PIC) and Project Completion.

Notice of Study Commencement and Invitation for Comments: Phase I Stakeholder Consultation - A "Notice of Study Commencement" providing a summary of the study, establishing the study area, and listing key Consultant contacts was prepared and published in the Enterprise Bulletin and Courier Herald newspapers and posted on the project website. The Consultant team prepared the notice of commencement.

Notice of Public Consultation Centre 1 & 2 (PIC1 & 2): The Consultant team prepared the required notices for posting in local newspapers / Town website. The Town co-ordinated the publication of the PIC notices in the local media. The Consultant arranged for a suitable venue for both PIC sessions and also prepared a mail out to all stakeholders on the study mailing list.

VIII. Comment Forms

Comment forms were used to solicit stakeholder's comments on specific issues being presented at a workshop or other stakeholder meeting. Comment forms included a range of very specific planning alternatives being considered during the study, and also very general issues related to the project. Comment forms were also included in publications and on the project specific website to facilitate stakeholders input.

IX. Visualization

An important element to stakeholder participation is to provide the stakeholders, when possible, visual as well as written descriptions of transportation projects. Through visual imagery, the complex features of proposed transportation plans, policies, and programs were portrayed at appropriate scales, and from different points of view. To this end, various visual and graphic design techniques were utilized; including:

- Drawings
- Aerial photography
- Mapping
  - GIS based scenario planning tools
  - Photo manipulation and computer simulation

2.2 Notification of Project Commencement

2.2.1 Project-Specific Website

A project specific website was developed within the Town's website, under the Municipal Government Page: "The Blue Mountains Transportation Plan" (http://www.thebluemountains.ca/Blue-Mountain-Transportation-Plan.cfm). The site provided basic information about the study process and staff contact information and was used as a means of dissemination of study publications and deliverables, as they were completed. Also, stakeholders were able to submit comments and sign up to be added to the distribution lists maintained by the

project team. The site also provided links to other transportation related sites and was maintained and updated by the project team.

2.2.2 Notice of Commencement

A contact list database was prepared to identify relevant stakeholder groups and to subsequently track agency, stakeholder, and other interest group comments. A "Notice of Study Commencement" providing a summary of the study, establishing the study area, and listing key Consultant contacts was prepared and published in the Enterprise Bulletin and Courier Herald on Friday, May 16th, 2008. A copy of the Notice of Study Commencement is included in **Appendix** A (Stakeholder Consultation).

2.3 Public Information Centre 1

Public Information Centre (PIC) 1 was held to allow all interested parties an opportunity to review the material presented and provide appropriate comments. Recognizing the significant number of part-time residents in the Town, and in order to capture the increased population in summer and activities around Thanksgiving, the first PIC was held in two sessions on a week day evening and the adjacent Saturday morning:

- Thursday July 24th, 2008 at Beaver Valley Community Centre (20 people in attendance)
- Saturday July 26th, 2008 at Craigleith Community Centre (24 people in attendance)

The meetings were held in an informal drop-in style as an open forum to provide information to the general public and interested agencies, present the study findings to date, highlight the problems and opportunities and present possible alternative solutions. Consulting team staff was available to meet with agencies and property owners that may be affected / impacted by the project.

All attendees were asked to sign-in and were encouraged to provide comments so that input could be incorporated into the study process.

2.3.1 Notice of Public Information Centre 1

Notice of Public Consultation Centre 1 was prepared for posting in local newspapers and on the Town's website to notify the interested parties about the event venue / timing and a brief description of the undertaking. The Town co-ordinated the publication of the PIC notices in the local media including the Enterprise Bulletin and Courier Herald two weeks in advance of the PIC 1 meetings (on June 10-12th, 2008). Moreover invitation letters to attend the PIC 1 were also mailed out to all agencies identified on the study mailing list. Copies of the Notice of PIC 1 and invitation letters are included in **Appendix** A**.**

2.3.2 PIC Display Materials

At the PIC meeting, people were given the opportunity to review a series of display boards and discuss them with representatives from the Town, County, MTO and the Consultant. PIC display materials were also made available on-line / electronically as part of the project specific website in PDF format for people's easy access. The PIC display boards included summaries of the following topics / information:

- Study overview;
- Existing & future (2018) traffic operation summary;

- Future development Potential;
- Highway access management alternatives; and
- Collision summary.

A copy of the PIC1 materials is provided as part of **Appendix** A**.**

2.3.3 Summary of Comments Received

In total, 44 persons attended PIC 1, out of which, 18 provided comment sheets (representing 41% of those in attendance). These comments, along with those received from review agencies were reviewed and taken into account to:

- identify key transportation related concerns/issues
- identify and evaluate improvement strategies
- confirm recommended access closures/ realignments alternatives

Generally most of the respondents expressed concerns with regards to the following:

- the proposed closure of Lakeshore Road East at Highway 26
- congestion / sight line issues at the intersection of Lakeshore Road East with Grey Road 19 and the insufficient distance between this intersection and Highway 26
- the need for alternative modes of transportation (transit, walking, cycling, etc.)
- safety and speeding concerns
- the need for turning lanes along Highway 26
- the associated impacts of widening Highway 26 on tourism, quality of life and abutting properties

2.4 Public Information Centre 2

The second PIC was held to allow all interested parties an opportunity to review the material presented and provide appropriate comments. Recognizing the significant number of part-time residents in the Town, the second Public Information Centre (PIC) was held on Saturday, October 3rd, 2009 at Georgian Peaks.

The meeting was held in an informal drop-in style as an open forum to provide information to the general public and interested agencies, to present the study findings and to present recommended solutions. Consulting team staff was available to meet the property owners that may be affected / impacted by the project.

All attendees were asked to sign-in and were encouraged to provide comments so that their input could be incorporated into the study process.

2.4.1 PIC Display Materials

The PIC display boards included summaries of the following topics / information:

- Study Overview;

- Road Network Deficiencies
- Transportation Strategy;
- Highway Access Management Plan; and
- Potential Traffic Operational/Capacity Improvements.

A copy of the PIC2 materials is provided as part of **Appendix** A

2.4.2 Summary of Comments Received and Their Consideration in the Project

In total, 22 persons attended PIC 2 and written comments were received from 7 individuals. These comments, along with those received from review agencies were reviewed and taken into account to:

- address key transportation related concerns/ issues
- make final recommendations on improvement strategies
- confirm recommended access closures/ realignments

Generally most of the respondents expressed concerns with regards to the following:

- the proposed closure of Lakeshore Road East at Highway 26
- congestion / sight line issues at the intersection of Lakeshore Road East with Grey Road 19 and the insufficient distance between this intersection and Highway 26
- the need for alternative modes of transportation (transit, walking, cycling, etc.)
- safety and speeding concerns
- the need for turning lanes along Highway 26
- any road widening along Highway 26 and the associated impacts of such on tourism, quality of life and abutting properties
- the safe movement of agricultural equipment on the local and county roads especially with regard to parked vehicles and bicycle traffic and the need for truck climbing lanes on certain County roads

3. Current State of the Transportation System

3.1 Background

The southeastern Georgian Bay area, locally known as the Georgian Triangle, is a major four season tourist destination for domestic and international travellers. Its two principal tourist features; the largest alpine ski area in eastern Canada/U.S.A. and the world's largest fresh water beach, are within a short driving distance of millions of people. The principal mode of transportation to/from the area is by automobile.

3.2 Transportation and Economy

The healthy economy in the Town is based primarily on the "all season" tourism industry. The recreation and tourism industries of the Southern Georgian Bay region exhibit their primary presence in the Town in a variety of forms. Extensive downhill ski resort/club facilities and related housing developments have occurred in association with Niagara Escarpment features in the Craigleith and Camperdown areas. Substantial cottage development has occurred along the shores of Georgian Bay. Extensive public owned lands provide a significant base for outdoor recreational pursuits.

The year round recreational aspect of the Town has led to significant recreational resort development pressure. The importance of the four seasons to the Craigleith, Camperdown and Castle Glen Recreation Areas to the tourism sector of Ontario's economy is also recognized under the Niagara Escarpment Plan and the Grey County Official Plan.

3.3 Overview of Existing Transportation Modes

3.3.1 Transit Service

The Town does not operate a public transit service and nor is the area served by transit services from area municipalities (i.e. Collingwood or Wasaga Beach). However, taxi services are available from Thornbury, Clarksburg, Meaford and Collingwood.

Greyhound/PMCL Transportation Corporation provides inter-county, inter-regional bus services and also bus routes that serve Thornbury, Craigleith, and the Blue Mountain Resort within the Town. The Town's residents may catch the bus at Blue Mountain Resort or choose to travel to nearby Thornbury or Collingwood for PMCL bus service.

Shuttling is provided within the Blue Mountains Resort and ski hill area by Blue Mountain Resorts Limited. The shuttle buses operate 7 days a week with 15 to 20 minutes interval during the winter season. Moreover, shuttle service is available within the resort area year-round by requesting an on-demand shuttle. The resort also operates a shuttle service for staff, serving the area of Wasaga Beach, Collingwood, Thornbury and Meaford.

Public Vehicle Charter Service is provided within the Town by primary private service providers, Parkview Transit, which offers bus service for different communities, with their main specialization in operating school bus service within Simcoe Area. Hewgill Bus Lines also provides school and charter buses.
Withano Coaches provide charter bus & shuttle service for groups of up to 24 passengers. Georgian Bay Direct shuttle service is also available from Toronto Pearson International to Grey County.

3.3.2 Trail Systems

Although bicycling and walking are limited as modes of long distance transportation, they are important parts of sustainable and efficient local transportation systems and appear to function effectively in the individual communities and along the waterfront. The opportunities for four-season recreational activities have placed increased pressures upon the Town's trails and waterfront, and trends do not indicate nor anticipate any signs of reduced usage.

Though people over the age of 55 continue to pursue active lifestyles, it is in a more passive manner (e.g. walking is replacing jogging for many individuals). Trails are an especially flexible and responsive type of facility as they permit "spontaneous" fitness or "active living" opportunities for both older adults and the young. The Town has a great network of trails, most notably the Georgian Trail and the Bruce Trail, although connections remain an obstacle in some areas. Sidewalks are also important in the context of the trail system, as they connect the urban pedestrian infrastructure to the trail network, thus sidewalks should be considered to be a part of all new plans of subdivision. The provision of public pathways is addressed in the Town's Official Plan which states that:

> *"the municipality will establish a system of public pathways designed to provide a practical recreational facility for walking, skiing and biking trails, and to facilitate pedestrian access between major recreational activities associated with the Niagara Escarpment and Nottawasaga Bay, and the major residential and commercial centres in the planning* area."

There are 130 kilometres of trails and sidewalks in the Town (designated as linear parkland). Based on the Town's Leisure Activities Plan, leisurely walking and bicycling were the top two activities that favoured by people, with 46% of households "walking for leisure" and 40% also biking / cycling – other trail-related uses such as hiking, cross country skiing and snowshoeing were favoured leisure pursuits as well.

Statements in the Official Plan regarding public pathways indicate the importance of a connected network of paths. Such an interconnected system allows for a greater degree of accessibility to leisure activities, and in some cases, provides "active" transportation options that assist in non-leisure pursuits. The establishment of trail connections and sidewalks is primarily driven by new residential or commercial development, something which is currently being experienced in the Town. While trail connectivity has traditionally been a focus of much research, equally important to a successful trails system are suitable access points. The development of adequate staging locations and trailheads should incorporate the facilities dictated by the types of use allowed by the specific trail.

The following is a brief description of the major trails within the Town that are graphically illustrated in **Figure** 3.1.

The Georgian Trail: is the main public recreational feature in the study area. It is a 32 kilometre, multi-purpose, shared-use trail (accommodates walking, cycling and cross-country skiing) that follows the former 1872 Northern Railway Company Line and runs parallel to Highway 26 between Meaford and Collingwood. The trail is managed and maintained by the Georgian Trail Board of Management and owned by the Municipalities.

Georgian Trail is recognized as a regionally significant trail link and appropriate access points and staging areas should be encouraged in the long term development of the Town. Along its length, the Georgian Trail

crosses numerous Town and County roads, most of which occur at or near intersections (but sufficiently removed such that the crossing does not form part of the intersection itself). The most significant crossing is that of Highway 26, located approximately 200 metres west the Lakeshore Road intersection and at Grey Road 19.

This trail is very good for children and wheelchairs, owing principally to the excellent surface. The section between Thornbury and Meaford has only a few minor crossings. In Thornbury, the trail is near the bridge over the Beaver River.

The trail can be accessed at any cross road along its length and there are several parking lots available for trail users including Peaks Ski Club and Lora Bay parking lots. There is a small lot at Beaver River in Thornbury and shopping centre lots adjacent to the trail head in Collingwood. A new lot at Peel Street will also be constructed by MTO. Should the parking lots be full, trail users typically parking along the cross streets.

The residents at Lora Bay have a new linkage access to the Georgian Trail from Holdship Court which encourages safe, walk-on only access, clear lines of sight, and no impediment to drainage along the trail.

The Bruce Trail: is a multi-use trail in southern and central Ontario. It follows the edge of the Niagara Escarpment, one of the thirteen UNESCO World Biosphere Reserves in Canada, for more than 800 kilometres (extending well beyond the Town limits). The land the trail traverses is owned by the Government of Ontario, upper and lower tier municipalities, private landowners and the Bruce Trail Conservancy (BTC).

The existence of provincially, nationally and even internationally known trails such as the Bruce Trail (providing access to the Niagara Escarpment, a UNESCO World Biosphere Reserve) draws users from areas far beyond the boundaries of the Town.

Kolapore Uplands Wilderness Trail: is a walking/hiking, cross-country skiing, cycling, snowshoeing trail with wilderness features including natural rock gardens, cliff and crevasse climbing Metcalfe's Rock, hardwood/softwood forests and incredible rock formations abound. There is a good network of trails and mountain biking opportunities in Kolapore, through the County forest, private lands and property owned by the GSCA. The Uplands Wilderness Ski Trails consist of a number of marked trails designed primarily for the intermediate to advanced cross-country skiers. The trails are carefully marked and cleared, but not groomed, with many trails quite winding, especially through the forested areas. Access is provided via Grey Road 2 south of Ravenna or off 10th Line parking area.

Figure 3.1. Trail System within the Town

3.3.3 Cycling

Cycling has consistently been a popular activity in North America, both in terms of leisure and for transportation purposes. Cycling activities include BMX/trick biking, mountain biking, leisure cycling, competitive cycling, commuting and regular non-motorized transport. Mountain biking is a popular activity for many youth and young adults in the western part of the country and its popularity is spreading to Ontario.

The Georgian and Bruce Trails provide good venues for leisure cycling and for inter-community bicycle travel. There are also on-street bicycle lanes in certain parts of the Town, primarily on Grey County roads (the mandate of Grey County is to implement bike lanes on all County roads as the roads are improved). The Town also offers the ideal hilly terrain that caters to mountain bike riders and the Village at Blue Mountain has a mountain biking centre which offers day and season passes to its gondola and many trails.

It is noted that many of the trails used for cycling, are also used for cross-country skiing during the winter months. As such, there may be an opportunity for cross country associations such as the Toronto Ski Club and the Mountain Biking Coalition to form a joint association to promote trail interests and co-operatively use and maintain the trails year-round.

3.3.4 Road Network

There are approximately 268 kilometres of Town roads (local, collector and arterial), 77 kilometres of County roads and 17 kilometres of Provincial Highways (Highway 26) within the Town limits. The majority of Town and County roads serve a mainly rural population. The only Provincial Highway (Highway 26) cuts across the northerly boundary of the Town and accommodates the majority of inter-regional traffic flow.

3.3.4.1 Craigleith Area

A description of the road network in the Craigleith Village area and in the vicinity of the Blue Mountain Resort and Ski Hills Area (the “Craigleith Area”) includes:

Grey Road 21 (Osler Bluff Road) is a two-lane arterial road under the jurisdiction of the County. It extends southerly from Highway 26 to Grey Road 19 and provides connectivity to the adjacent residential, recreational and tourist areas. The speed limit along Grey Road 21 is currently posted at 60 km/hr.

Grey Road 19 is also a two-lane arterial under the jurisdiction of the County, with a 60 km/hr posted speed limit. It provides north-south and east-west connectivity and serves as the main road throughout the Blue Mountain Resort and ski area. To the east, Grey Road 19 extends to Mountain Road. Combined, this corridor (Grey Road 19 in The Blue Mountains and Mountain Road in Collingwood) is one of the key travel routes to/from the Blue Mountain Resort and ski area for visitors from the east and south (including Collingwood, Barrie and the GTA). The other key route is the continuation of Grey Road 19 south beyond Mountain Road to Poplar Sideroad (within Collingwood boundary). Both of these routes ultimately connect with major County and/or Provincial roads serving the overall Georgian Triangle area.

Jozo Weider Boulevard is a two-lane facility designed as an urban collector under the jurisdiction of the Town. This road provides local access to abutting residential areas but more importantly provides direct access to the Blue Mountain Resort and ski area and surrounding accommodations. The posted speed limit is 50km/hr reflective of the local road status.

Mountain Drive is a two-lane rural local under the jurisdiction of the Town and provides access to public ski facilities at the Blue Mountain Resort (multiple parking areas have direct access to Mountain Drive). As such, during peak ski periods (ie. end of day skiing/beginning of night skiing) traffic volumes on Mountain Drive are significant and lead to considerable delays extending along Mountain Drive to Grey Road 19. Moreover, the recent construction of roundabout has improved the operation significantly. The speed limit is currently posted at 50 and 40 km/hr.

Scenic Caves Road has recently been conveyed from the Town to the County and is otherwise referred to as Grey Road 119. It provides a means of connectivity between the top and base of the Blue Mountain Resort and areas beyond. As with other roads in the area, the speed limited is currently posted at 60 km/hr.

Figure 3.2 shows the road network within the Craigleith Area.

Figure 3.2. The Craigleith Area Road Network

Key Intersections

The corresponding key intersections in the Craigleith Area are noted below:

- Highway 26 & Grey Road 19;
- Highway 26 & Lakeshore Road East / W. Jct. Fraser Crescent;
- Highway 26 & E. Jct. Fraser Crescent;
- Highway 26 & W. Jct. Timmons Street;
- Highway 26 & Blue Mountain Drive;
- Highway 26 & Hope Street;
- Highway 26 & Brophy's Lane;
- Highway 26 & E Jct. Timmons Street;
- Highway 26 & Grey Road 21(Osler Bluff Road);
- Grey Road 19 & Grey Road 21(Osler Bluff Road);

- Grey Road 19 & Jozo Weider Boulevard (2 intersections); and
- Mountain Drive & Scenic Caves Road

At each intersection, the corresponding intersection control type (i.e. traffic signal, stop control, etc.) and geometric configurations were determined through site visits, the results of which are provided in **Figure** 3.3. Currently, the intersections of Highway 26 and Grey Road 19, Grey Road 19 and Jozo Weider Boulevard (both the east and west junctions) and Grey Road 19 and Grey Road 21(Osler Bluff Road) are signalized. All other intersections operate under stop control. It is noted that the intersections of Highway 26 with Hope Street and Blue Mountain Drive are indicated as a single 4-leg intersection in consideration of the current development proposal on the north side of Highway 26 and the intent to realign Blue Mountain Drive.

3.3.4.2 Highway 26 Corridor

Highway 26 is a major east-west highway of intra-municipal and inter-regional importance located along the south shore of Georgian Bay extending from Highway 400 in Barrie to Highway 6/10 in Owen Sound. In addition to providing a route for east-west through travel, Highway 26 provides access to numerous communities, towns and built areas along its length. The importance of Highway 26 is growing as a result of year-round tourist industry expansion and population growth in the area.

The Highway 26 corridor through the Town is classified as an Arterial highway under MTO's Functional Classification System with a design speed classification of RAU 100 (Rural Arterial Undivided Design Speed 100 km/h) with a posted speed of 80 km/h. Highway 26 is also classified as a Class III Special Controlled Access Highway and was designated a controlled-access highway under the *Public Transportation and Highway Improvement Act* circa January 1989. With this designation, MTO has placed additional access controls to accommodate both high-speed and high-volume traffic while providing limited opportunities for new entrances to abutting land. Land use along the corridor within the Town limits ranges from strip commercial, recreational (ski hills and golf courses) and residential (both full-time and part-time dwellings) along segments in Craigleith and Thornbury, to large expanses of agricultural and undeveloped sections in between. Overall, it has the following general characteristics:

- 1 lane per direction;
- under the jurisdiction of MTO with the exception of the section within Thornbury where it is designated a Connecting Link and thus under the jurisdiction of the Town;
- the corridor is typically rural, with gravel shoulders and open roadside ditches within the study area although development pressures are occurring which may result in urbanization (ie. curb and gutter);
- the existing right-of-way is typically 26 to 36 metres wide;
- the speed limit is currently posted 80 km/h throughout the project limits except within Thornbury and Craigleith, where it is posted at 50 and 60 km/h respectively;
- there are no continuous sidewalks along the corridor; and
- the Georgian Trail runs parallel to Highway 26 with a crossing approximately 200 metres west of the intersection of Highway 26 with Lakeshore Road at the east end of Thornbury.

The typical hierarchy of a provincial highway / municipal road network is made up of local municipal roads, connecting to collector/arterial municipal roads which in turn connect to a provincial highway. Because of the unique geography between the Niagara Escarpment and Georgian Bay, the provincial highway / municipal road network in the current Highway 26 corridor from Collingwood to Thornbury is missing a parallel collector/arterial municipal road component. This results in virtually the entire local municipal road grid in the area relying totally

on Highway 26 for local east-west connectivity. As a result, Highway 26 from Collingwood to Thornbury performs the dual role of both a provincial highway and a municipal collector/arterial municipal road.

This situation poses a unique challenge for MTO/Town/County in coordinating their respective transportation roles and responsibilities, more specifically, in ensuring safe and adequate access to continued/ongoing land use development and associated peak weekend/seasonal tourist travel.

There are three components to these transportation challenges on Highway 26:

1. Adequate Highway 26 through-capacity for inter-regional east-west traffic from east of Stayner to west of Thornbury;
2. Adequate Highway 26 through-capacity for local east-west traffic in the Collingwood to Thornbury area; and
3. Adequate safety and operation associated with Highway 26 turning movements for land access at intersections and private entrances.

These transportation challenges on Highway 26 are being addressed through the following coordinated study framework:

- MTO's *Highway 26 Study Design Update* (Stayner to Thornbury) is intended to address item 1 above;
- The Town's *Comprehensive Transportation Strategic Plan* is in part, intended to address items 2 and 3 above, with respect to the existing two-lane Highway 26.

MTO's "Highway 26 Study Design Update" will review and address traffic congestion issues throughout the intersecting municipalities in a comprehensive manner. The MTO Highway 26 Study Update will outline the proposed scope for a subsequent MTO Class Environmental Assessment for Provincial Transportation Facilities. Four laning of Highway 26 cannot be determined, with any assurance, until completion of MTO's Study Design Update.

Key Intersections

The corresponding key intersections along Highway 26, including the section within Thornbury (which is a connecting link under the control and jurisdiction of the Town) include those with the following side streets (signalized as noted, otherwise stop controlled on the side street) as illustrated in **Figure** 3.4:

- Christie Beach Road;
- 35 Sideroad;
- 11th Line / Lora Bay Drive;
- Grey Road 113 / 10th Line;
- Peel Street;
- Victoria Street*;
- Bruce Street (signalized)*;
- Elgin Street*;
- Grey Road 2;
- Lakeshore Road;
- W. Jct. Lakewood Drive/Woodland Park Road;
- Grey Road 40 / E. Jct. Lakewood Drive;
- Hoover Lane;
- Camperdown Road;
- Gibson Way;

- Peaks Road;
- Wards Road;
- Hidden Lake Road;
- Arrowhead Road;
- Grey Road 19 (signalized);
- Lakeshore Road East / W Jct. Fraser Crescent;
- E. Jct. Fraser Crescent;
- W. Jct. Timmons Street;
- Blue Mountain Drive;
- Hope Street;
- Brophy's Lane;
- E. Jct. Timmons Street, and
- Grey Road 21 (Osler Bluffer Road/Long Point Road).

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

Figure 3.3 shows the existing lane configurations of the study intersections and **Figure** 3.4 illustrates the key intersections being studied as part of this assessment. It is noted that the intersections of Highway 26 with Hope Street and Blue Mountain Drive were considered in this study as a single 4-leg intersection. While these are currently 2 exclusive 3-leg intersections, realignment of these intersections is expected as development on the north side of Highway 26 proceeds.

Figure 3.3. Existing Lane Configuration

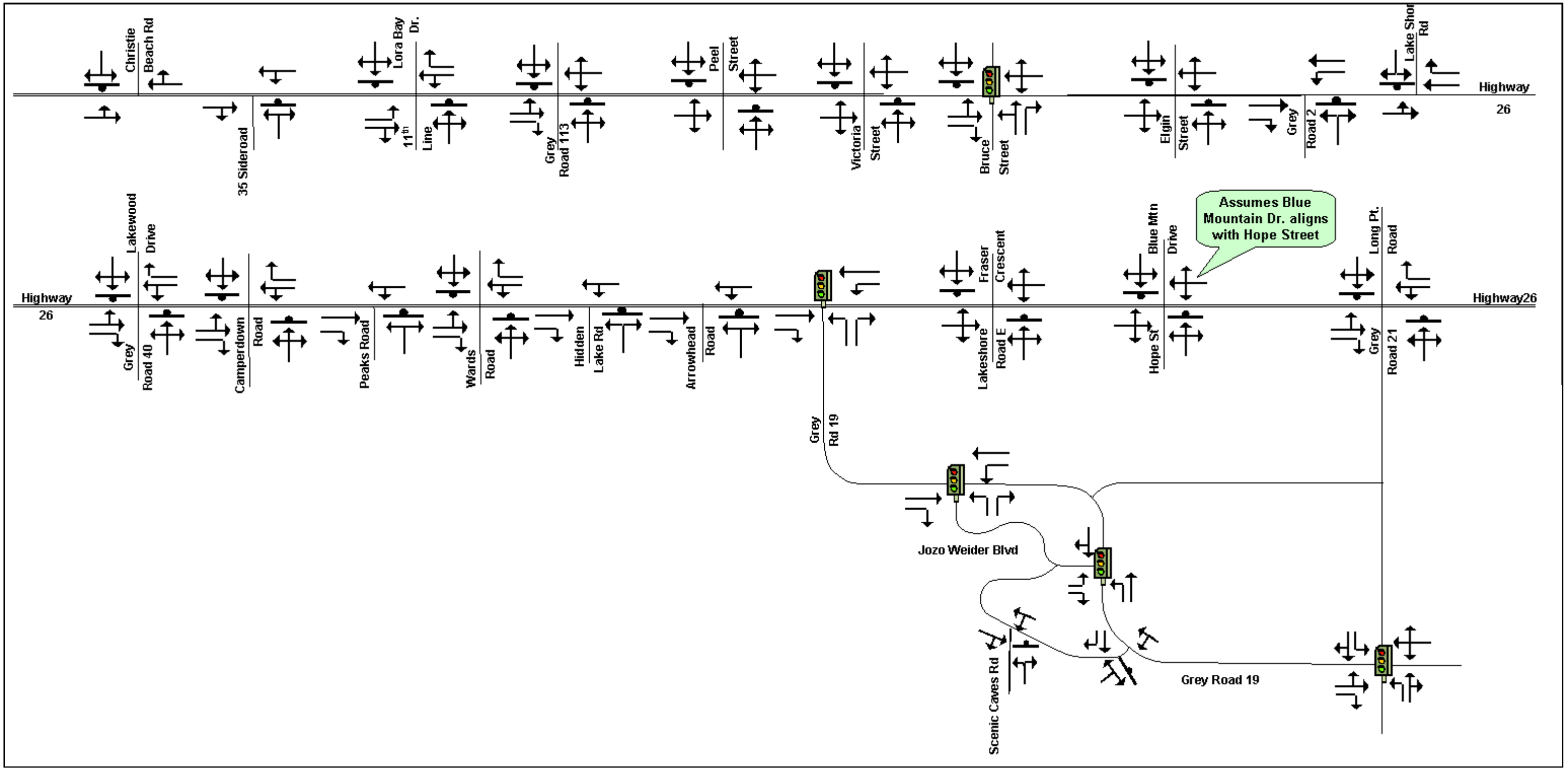


Figure 3.4. Study Area Key Intersections

3.3.5 Road Capacity

For purposes of this study, the planning capacities of the key roads within the study area were assumed as per the information provided in **Table** 3.1. The noted planning capacities are comparable to those capacities used in other similar jurisdictions in Ontario, as outlined in **Table** 3.2.

Table 3.1. Roadway Capacity by Type

Road Type	Hourly Lane Capacity (vehicles/ lane)
Rural Highways/ Major County Roads	1000
Arterials	800

Table 3.2. Roadway Capacity Comparison with Other Jurisdictions[1]

Road Type/ Jurisdiction	City of Brantford	City of Peterborough	City of Greater Sudbury
Highway/ Expressway/ Controlled Access or Rural Highway	1000	1000	-
Major Arterials/ Rural Highways	900	800-900	900-1000
Medium Capacity Arterials	-	700-800	800
Minor Arterials/ CBD Arterials	700-800	600	700

3.3.6 Traffic Volumes

Traffic data at key intersections and along the key roads within the study area (as noted in the previous sections), was compiled from a number of sources, including:

- MTO;
- County;
- Town; and
- development specific traffic studies.

Upon review of the available data, additional counts were undertaken to ensure a comprehensive dataset representative of current conditions and more importantly to ensure representation of the appropriate periods of operations within Craigleith Area and along Highway 26 corridor (both on a link basis and at on an intersection basis where turning movements are critical). As such, additional counts were undertaken in February 2008 and again in May 2008 at selected locations, which are considered representative of winter and average conditions.

3.3.6.1 Intersection Counts

A summary of the available intersection count data, from all sources compiled, is provided in **Table** 3.3, whereas additional details are provided in **Appendix** B (Traffic Data).

1. *City of Brantford Transportation Master Plan Update, City of Brantford, December 2006*

Table 3.3. Intersection Traffic Counts

Intersection	Year of Traffic Count					
	2003	2004	2005	2006	2007	2008
Highway 26 & Christie Beach Road		June				May
Highway 26 & 35 Sideroad						May
Highway 26 & 11th Line / Lora Bay		June				May
Highway 26 & Grey Road 113 / 10th Line		June				May
Highway 26 & Peel Street						May
Highway 26 & Victoria Street*						May
Highway 26 & Bruce Street*						Feb
Highway 26 & Elgin Street*						May
Highway 26 & Grey Road 2		July		Sept		Feb
Highway 26 & Lakeshore Road						May
Highway 26 & Grey Road 40 / Lakewood Dr						Feb
Highway 26 & Camperdown Road						May
Highway 26 & Hidden Lake Road					June	
Highway 26 & Arrowhead Road					June	May
Highway 26 & Grey Road 19		July		Sept		Feb
Highway 26 & Lakeshore Road E / Fraser Cr						May
Highway 26 & Blue Mountain Drive						Feb
Highway 26 & Hope Street						Feb
Highway 26 & Grey Road 21(Osler Bluffer Road/Long Point Road)	Aug	Aug				Feb
Grey Road 19 & Jozo Weider Boulevard W						Feb
Grey Road 19 & Jozo Weider Boulevard E						Feb
Grey Road 19 & Mountain Drive						Feb
Grey Road 19 & Grey Road 21						Feb
Mountain Drive & Scenic Caves Road						Feb

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

3.3.6.2 Link Counts

Further to the intersection counts noted above, link counts were also undertaken at a number of locations in February 2008. As such, variations throughout the day (or count period should it extend over the course of several days), can be determined, as can the extent of the peak hour volumes in context of the daily volumes.

Link counts were also provided by MTO and the County at a number of locations throughout the study area, capturing volumes on Highway 26, the County roads and several of the side streets that otherwise intersection with Highway 26. Additional details of these counts are provided in **Appendix** B.

3.3.6.3 Peak Periods & Peak Hours

It is noted that the counts undertaken in February 2008 were completed over the Family Day long weekend (Friday, February 15 to Monday, February 18) and thus represent winter weekend conditions. The counts undertaken in May 2008 were completed during the week and thus are considered representative of typical weekday operations (as opposed to weekend operations).

In considering peak hour volumes upon which operational assessments are conducted, it is desired to employ peak hours which are representative of typical conditions, as opposed to peak hours resulting from extreme conditions.

3.3.6.4 Winter Peak Hour

Given the winter weekend counts were conducted during the Family Day long weekend, additional investigations were undertaken to address the extent to which they reflect the typical weekend peak (while the weekend peak itself is somewhat atypical, as compared to the weekday peaks, it has nonetheless been considered given that it does occur with some regularity during the ski season (December to March). Based on information provided by Blue Mountain Resort with respect to ski visits to the hill, it was determined that visitation to the ski resort for the 2007/08 ski season peaked on Saturday, February 16, 2008 with approximately 16,800 visits (it is noted however that statistics were not provided for the March break period, which is typically a busy period, albeit towards the end of the ski season). In relation to visitation during the remainder of the long weekend, the Saturday figures were 50 to 65% greater than the Sunday (February 17) and Monday (February 18) figures and 33% greater than the average over the long weekend (it is noted that weather conditions on the Sunday and Monday were not as favourable as they were on the Saturday). The Saturday visitation was also 9% greater than the average of the top 6 busiest days as reported by Blue Mountain Resort. In this regard, the activity at Blue Mountain Resort is considered to represent the seasonal peak for the 2007/08 season. It is recognized however that visitations in excess of 18,000 skiers per day have been noted in the past on occasion.

Further to the Blue Mountain Resort visitation figures (which reflect daily visitation over the 14 hour ski period 8:00 to 20:00), the resulting daily traffic volumes as recorded over the Family Day long weekend were reviewed. Overall the Saturday daily volumes were 13% greater than the average daily volumes over the long weekend, whereas the peak hour volume was 22% higher than the average peak volumes. In this regard, the Saturday traffic volumes were somewhat greater than the average volumes over the course of the weekend, although the extent of which was not as significant as with the ski visitation figures.

Lastly, consideration was also given to peak hour volumes as observed in previous years within the same area. Such data was available from 1999, 2004 and 2005, from which typical growth rates were determined and 2008 projections established. The actual 2008 peak hour counts were subsequently compared to the 2008 projections and deemed to be approximately 7% greater.

Based on the above, while the Saturday was the busiest day at the Blue Mountain Resort, this did not translate to the same peak hour variations in the traffic volumes. While the Saturday peak hour volumes as observed may be greater than the average winter Saturday, they were nonetheless employed in consideration of expected peak operations in the area and the repeated occurrences of such throughout the course of the winter. As such, this information was used to analyze the road network within the Craigleith Area as described

in **Section 3.3.7**. On an anecdotal note, there were no significant parking problems observed over the course of the weekend, as observed at other times - which is considered an indicator of peak activity.

3.3.6.5 Summer Peak Hour

Similar to how volumes peak in the winter time around the Blue Mountain Resort and ski area, volumes on Highway 26 typically peak during the summer months, given the extent of recreational activities and tourism in the area (although with the introduction of 4-season activities, this peaking is becoming less distinct). In this regard, traffic volumes employed to address the Highway 26 operations should reflect peak summer conditions. As summer (July or August) traffic counts were not available for all intersections of interest, the respective counts were adjusted to reflect summer conditions. Adjustments were based on MTO Seasonal Variation curves which provide the relationship between monthly volumes and average annual daily traffic volumes over the course of the year, for various traffic patterns (there are 14 such classifications, including urban commuter, suburban commuter, low tourist, tourist, high tourist, etc.). For Highway 26, which is deemed to have a "commuter tourist recreation" designation, the following monthly variations were determined and applied accordingly:

- July = 1.25 × average annual daily traffic (AADT) volumes;
- August = 1.25 × AADT;
- June = 1.10 × AADT;
- May = 1.05 × AADT; and
- September = 1.00 x AADT.

Additional adjustments have been employed to factor counts from previous years to 2008 conditions (based on a 2% per annum growth as discussed further in this report) and to ensure a relative degree of balance between volumes at consecutive intersections.

While the summer weekend volumes are often higher than weekday volumes, in considering peaks, the weekend demands are usually spread throughout the day and thus do not incur the same extent of peaks. In this regard, summer weekday peaks have been addressed, as opposed to weekend peaks, which is in accordance with MTO standard procedures.

Further to consideration for summer peak hour volumes, the extent of the peak hour volumes in context of the daily volumes was also reviewed. Based on the projected 2008 summer weekday peak hour volumes for various sections along Highway 26, and in considering the 2008 Average Annual Daily Traffic Volumes for the same, the AM peak hours identified represent 8 to 12% of the daily volumes, whereas the PM peak hour represents 10 to 15%. MTO typically recommends the use of Design Hour Volumes (DHV), which represent the 30th highest hour volumes observed over the course of a year. Based on MTO statistics, the DHV for the section of Highway 26 in question ranges from 9.8 to 11.4% and thus is comparable to the peak hour percentages noted. In this regard, the peak hour intersection counts, as adjusted for summer conditions, are considered a reasonable representation of the peak periods and thus have been employed for this study. Furthermore, they provide the detailed information with respect to turning activities during both the AM and PM periods, which are otherwise required to establish intersection needs.

3.3.6.6 2008 Peak Hour Volumes

The resulting traffic volumes for the Craigleith Area (winter peak period) and the Highway 26 corridor (summer peak period) are illustrated in **Figure** 3.5 and **Figure** 3.6 respectively.

For the section of Highway 26 which is common to both areas, the resulting operations and need for improvements will only consider the summer period. As per the traffic counts, peak hour volumes along Highway 26 between Grey Road 21 and Grey 19 are somewhat comparable between the winter peak and summer PM peak: westbound peaks of 560 to 660 in the summer versus 555 to 625 in the winter; and eastbound peaks of 675 to 730 in the summer and 785 to 830 in the winter.

3.3.7 Year 2008 Traffic Operations - Craigleith Area

3.3.7.1 Intersection Operations

An existing Level of Service (LOS) assessment was performed for the study intersections under the current traffic/geometric conditions (winter peak hour volume) using Synchro/SimTraffic 7 based on the methodology outlined in the Transportation Research Board's "*Highway Capacity Manual, HCM 2000'* and *"Highway Capacity Software, HCS 2000"*, to identify operational/capacity deficiencies that may currently exist within the study area. The (LOS) criteria used in this study is defined as follows (further definitions are provided in **Appendix** C):

- at signalized intersections, the levels of service are based on the overall intersection delay experienced by all motorists on all approaches; whereas
- at stop controlled intersections, the levels of service are based on delay associated with the critical movements (i.e. those required to stop).

In addition to the LOS (which reflects overall intersection delay), the intersection capacity utilization (ICU) is also provided. This is a measure of the extent to which the available capacity of the intersection (which is dependent upon the number of lanes, intersection configuration and control) is utilized. ICU measures of 90% or greater suggest that the intersection is operating near its capacity and thus additional capacity, through the implementation of intersection improvements, should be considered.

The key findings of the operational analyses are summarized in **Table 3.4** whereas detailed information is provided in **Appendix** D.

Figure 3.7 provides a graphic summary of the operational deficiencies in the study area under the existing traffic conditions.

Table 3.4. Intersection Traffic Operations (2008) – Craigleith Area

Intersection	Winter Peak Hour Operations	
	Level of Service	ICU (%)
Grey Road 19 & Grey Road 21 (signalized)	B - very little congestion/overall	73
Grey Road 19 & Jozo Weider Boulevard West (signalized)	B - very little congestion/overall	51
Grey Road 19 & Jozo Weider Boulevard East (signalized)	C - minimal congestion/overall	59
Mountain Drive & Grey Road 19	F - Eastbound left/right turn over capacity	>100
Mountain Drive & Scenic Caves Road	C - minimal congestion/overall	70

ICU - intersection capacity utilization

Note: The section of Highway 26 within the Craigleith Area is analysed under the Highway 26 Corridor section.

3.3.7.2 Traffic Signal Warrants

Signal warrant analyses were completed for the unsignalized study intersections using technical warrants established by MTO, as per the Ontario Traffic Manual, Book 12 released in November, 2007.

The signal warrant analysis was based on the available 3-hour traffic counts with the data being interpolated for the remaining five hours using hourly variations and relationships as derived from adjacent link volumes. Details of the signal warrant assessment are included in **Appendix** E**.**

3.3.7.3 Link Operations

The majority of road sections along Highway 26, Grey Road 19 and Grey Road 21 in the vicinity of the Craigleith Area are currently operating below capacity during the winter peak period, assuming road capacities of 1000 vphpl (vehicles per hour per lane) on Highway 26 and 800 vphpl on Grey Roads 19 and 21. However, both eastbound and westbound traffic along Grey Road 19 operate near capacity between Mountain Drive and Grey Road 21. Accordingly, additional capacity will be required in the near future as the traffic demand in the area further increases.

3.3.7.4 Key Findings

The findings of the operational assessment for the Craigleith Area based on the 2008 volumes and existing road and intersection configurations and control indicate that:

- eastbound and westbound Grey Road 19 operates near capacity (Mountain Drive to Grey Road 21); and
- the Grey Road 119 and Mountain Drive intersection operates poorly with the eastbound turning movements (unsignalized) at or exceeding their capacities.

Other intersections within the study limit are currently operating within acceptable limits.

3.3.8 Year 2008 Traffic Operations – Highway 26 Corridor

3.3.8.1 Intersection Operations

As with the traffic operations in the Craigleith Area, operations of the Highway 26 corridor key intersections were investigated employing the Synchro/SimTraffic 7 software and the Level of Service definitions described in

Appendix C. The analysis was based on summer peak hour volumes. The resulting operations are noted in **Table** 3.5, whereas detailed worksheets are provided in **Appendix** D.

It is noted that the intersections of Highway 26 with Hope Street and Blue Mountain Drive were analyzed as a single 4-leg intersection. While these are currently 2 exclusive 3-leg intersections, realignment of these intersections is expected as development on the north side of Highway 26 proceeds.

Table 3.5 provides a summary of the operational deficiencies along the Highway 26 corridor under the existing traffic conditions.

Table 3.5. Intersection Traffic Operations (2008) - Highway 26 Corridor

Intersection	Summer AM Peak Hour Operations	AM ICU	Summer PM Peak Hour Operations	PM ICU
	Level of Service	(%)	Level of Service	(%)
Highway 26/ Christie Beach Road	A - no/ minimal congestion/ overall	32	A - no/ minimal congestion/ overall	30
Highway 26/ 35 Sideroad	A - no/ minimal congestion/ overall	30	A - no/ minimal congestion/ overall	39
Highway 26/ Lora Bay Drive	A - no/ minimal congestion/ overall	32	A - no/ minimal congestion/ overall	38
Highway 26/ Grey Road 113	A - no/ minimal congestion/ overall	43	A - no/ minimal congestion/ overall	42
Highway 26/ Peel Street	A - no/ minimal congestion/ overall	34	A - no/ minimal congestion/ overall	35
Highway 26/ Victoria Street*	A - no/ minimal congestion/ overall	31	A - no/ minimal congestion/ overall	42
Highway 26/ Bruce Street (signalized)*	A - no/ minimal congestion/ overall	64	A - no/ minimal congestion/ overall	69
Highway 26/ Elgin Street*	A - no/ minimal congestion/ overall	46	A - no/ minimal congestion/ overall	34
Highway 26/ Grey Road 2	A - no/ minimal congestion/ overall	44	A - no/ minimal congestion/ overall	50
Highway 26/ Lake Shore Road	A - no/ minimal congestion/ overall	43	A - no/ minimal congestion/ overall	44
Highway 26/ Grey Road 40	A - no/ minimal congestion/ overall	49	C - minimal congestion/overall	71
Highway 26/ Camperdown Road	A - no/ minimal congestion/ overall	41	A - no/ minimal congestion/ overall	47
Highway 26/ Hidden Lake Road	A - no/ minimal congestion/ overall	29	A - no/ minimal congestion/ overall	46
Highway 26/ Arrowhead Road	A - no/ minimal congestion/ overall	40	A - no/ minimal congestion/ overall	53
Highway 26/ Grey Road 19 (signalized)	B - very little congestion/overall	52	B - very little congestion/overall	52
Highway 26/ Fraser Crescent.	A - no/ minimal congestion/ overall	38	A - no/ minimal congestion/ overall	43
Highway 26/ Blue Mountain Drive	A - no/ minimal congestion/ overall	44	A - no/ minimal congestion/ overall	52
Highway 26/ Long Point Road/ Grey Road 21	B - very little congestion/overall	63	D - Southbound/ Northbound experience moderate congestion	81

ICU - intersection capacity utilization

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

3.3.8.2 Traffic Signal Warrants

Signal warrant analyses were completed for the unsignalized study intersections using MTO warrant sheets and the noted volumes (projected to 8 hours of data as required). The results of the signal warrant assessment suggest that traffic signals are currently warranted at the intersection of Highway 26 with Grey Road 21, and it has also been verified by MTO's latest 2009 traffic counts at the intersection. The completed warrant assessment is included in **Appendix** E.

3.3.8.3 Link Operations

All of the road sections along Highway 26 within the study area are currently operating satisfactorily with sufficient residual capacities during the summer AM and PM peak periods assuming a road capacity of 1000 vehicles per hour per lane (vphpl) for Highway 26[2].

3.3.8.4 Key Findings

The findings of the intersection operational assessment under the existing traffic volume and control plan indicate:

- all intersections along Highway 26 are operating at good Level of Service 'C' or better during both the weekday AM and PM peak hours, except for the intersection of Highway 26 and Grey Road 21;
- the northbound left/through/right movement (shared movement in a single lane) at the intersection of Highway 26 with Grey Road 21 reaches capacity during the PM peak hour due to the heavy volumes of the traffic along Highway 26;
- summer traffic volumes at the intersection of Highway 26 with Grey Road 21 satisfy the minimum requirements for the installation of traffic signals; and
- the northbound left/right movement (shared movement in a single lane) at the intersection of Highway 26 with Grey Road 2 reaches capacity during the PM peak hour due to the heavy traffic turning volumes from the minor street.

3.4 Highway 26 Access

The Highway 26 corridor through the Town is classified as an Arterial highway under MTO's Functional Classification System with a design speed classification of RAU 100 (Rural Arterial Undivided Design Speed 100 km/h). Arterials such as Highway 26, together with freeways, serve as the major routes in the province's highway network which connect major economic regions and centres such as cities, towns, agricultural areas and recreational areas. The primary considerations of an Arterial such as Highway 26 are traffic movements and travel speeds, with land access being a secondary consideration.

Highway 26 is also classified as a Class III Special Controlled Access Highway and was designated a controlled-access highway under the *Public Transportation and Highway Improvement Act* circa January 1989. With this designation, MTO has placed additional access controls to accommodate both high-speed and high-volume traffic while providing limited opportunities for new entrances to abutting land. Consequently, access to abutting property is subordinate to the goal of traffic movement and subject to necessary management of entrances.

2. Please refer to Table 3-1 and Table 3-2 for more details

The posted speed limit on Highway 26 is typically 80 km/h (design speed of 100 km/h) with the exception of the built-up areas of Thornbury and Craigleith, through which the speed is reduced to 50 and 60 km/h respectively, or through speed transition zones where a 70 km/h limit applies.

The highway has become a significant travel corridor connecting the cities of Owen Sound and Barrie and serving those areas in between. The highway serves some of Ontario's key tourism destinations including the Blue Mountains, Collingwood and the Bruce Peninsula, and the route is used by tourists as well as local, long-distance, and commercial traffic year-round for travel from southern and eastern Ontario to Grey County.

As tourism and development along Highway 26 continue to expand westward from Barrie and Collingwood, traffic volumes are likely to continue to increase, creating a need for safety and operational improvements to address geometrics and predicted future traffic volumes. In addition, the number of private access connections (i.e. residential and commercial) and public road connections is having a direct effect on the safety and operations along the corridor, particularly between Thornbury and Collingwood, which is deteriorating the ability of Highway 26 to function as an arterial highway.

Land uses along the corridor range from strip commercial and residential along segments in Craigleith and Thornbury, strip residential and cottage properties along segments that have frontage along Georgian Bay, to large expanses of agricultural and undeveloped land in between. Commercial development within the urban areas and residential/cottage development in the rural areas has largely occurred without adequate access management, and has resulted in numerous driveways that have adversely affected the safety, efficiency and character of this important arterial highway.

The corridor is typically rural within the study area although development pressures are occurring. It is the desire of MTO, the Town and the County to establish a proactive and mutually acceptable highway access management plan for this segment of the corridor. The purpose of the effort is to protect traffic movement along the Highway 26 corridor while still supporting growth and land use development within the Town. A highway access management plan while help avoiding a proliferation of access connections that would adversely impact the corridor and the character of the area.

3.4.1 Access Density

Along its approximately 19 kilometre length (from Collingwood Town limits to Meaford Town limits), there are 35 intersections (3-leg configuration, 4-leg configurations, stop control and signal control). In addition to these, there are numerous driveways, all of which result in potential conflicts and impacts to through operations along the highway.

Access density refers to the number of private access connections per kilometre on each side of a highway. The higher the access management classification of the highway, the lower the access density permitted. The access density calculation determines the maximum number of private access connections permitted per kilometre on each side of the highway.

A review of MTO's Draft 'Highway Access Management Guidelines' recommends the following access density requirements:

- 4 private access connections allowed per kilometre per side;
- minimum spacing between public road intersections is 1600 metres desirable / 800 metres minimum; and
- minimum spacing between commercial and private road access connections is 1600 metres desirable / 800 metres minimum.

Subsequently, the number and location of the existing intersections and driveways along Highway 26 were identified and reviewed in context of their operational impacts and potential safety concerns, and where appropriate, improvements identified (i.e. elimination of intersections, realignment of off-set streets to replace two 3-leg intersections with a single 4-leg intersection, convergence of private driveways, consideration for alternative means of access, etc.). The corresponding inventory of the existing accesses is included in **Appendix F**.

Actual access densities were calculated between public road intersections, based on the total number of existing commercial/private access connections on each side of the highway (access density reflects the number of access points per side over a certain distance, in this case, the distance between consecutive road intersections). It is noted that field and temporary access points were excluded for the purpose of the density calculations given their limited and seasonal use.

Table 3.6 provides a summary of the access density calculations and comparison to the MTO guidelines, whereas **Figure** 3.8 illustrates the plotted densities along both sides of the highway. In cases where the maximum number of private access connections is exceeded, MTO will typically decline an entrance permit application (although it may consider alternative access options, i.e. a mutual access).

3.4.1.1 Key Findings

As per the information presented, it is evident that east of Thornbury, the number of access points generally exceeds MTO guidelines while west of Thornbury, densities fall below the guidelines.

Figure 3.5. Existing Traffic Volumes (Year 2008, Winter Saturday Peak Hour) – Craigleith Area

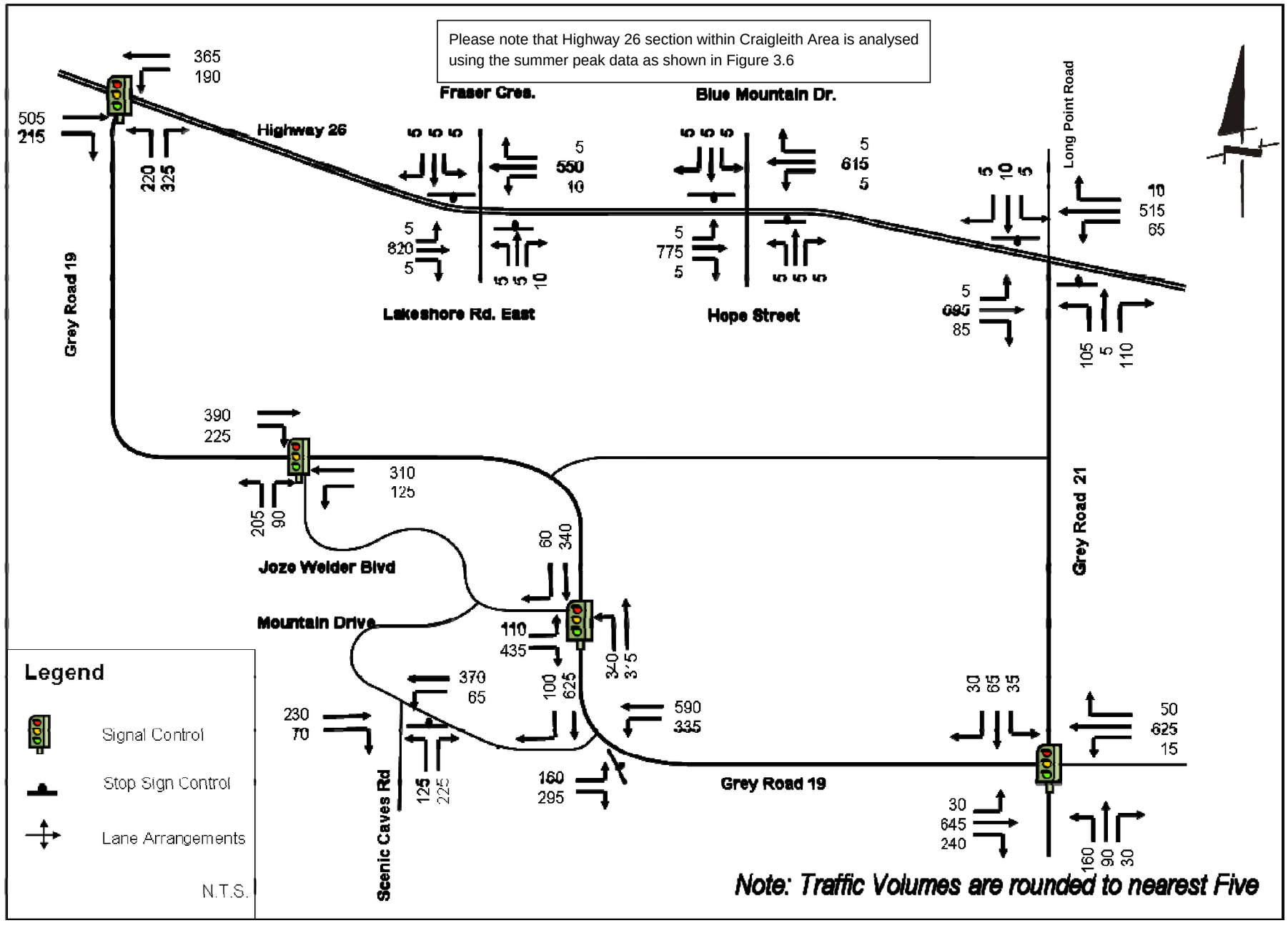


Figure 3.6. Existing Traffic Volumes (Year 2008, Summer Weekday AM & PM Peak Hours) - Highway 26 Corridor

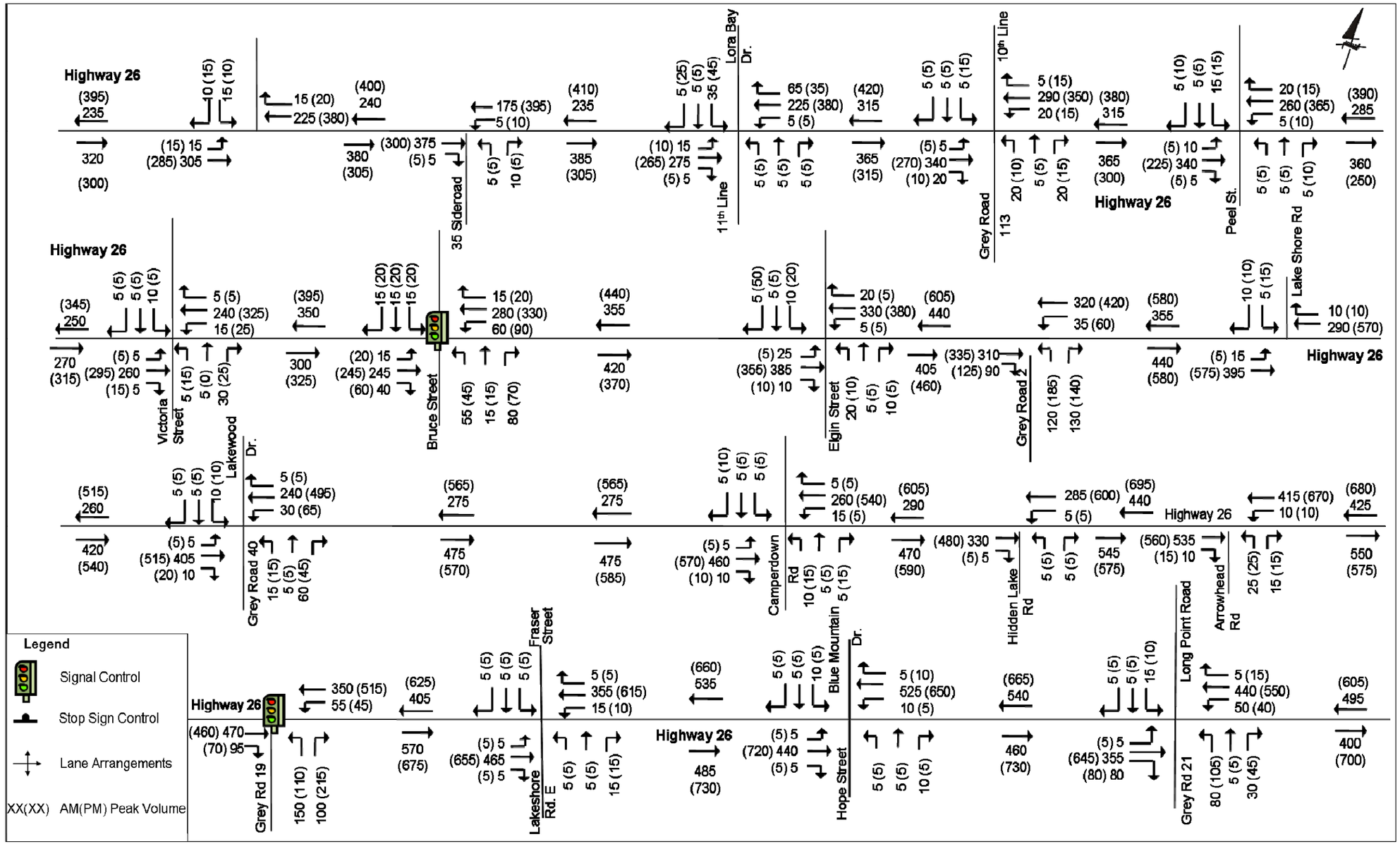


Figure 3.7. Existing Traffic Operation Summary (Year 2008) (Craigleith Area: Winter Saturday Peak Hour; Highway 26 Corridor: Summer Weekday AM & PM Peak Hours)

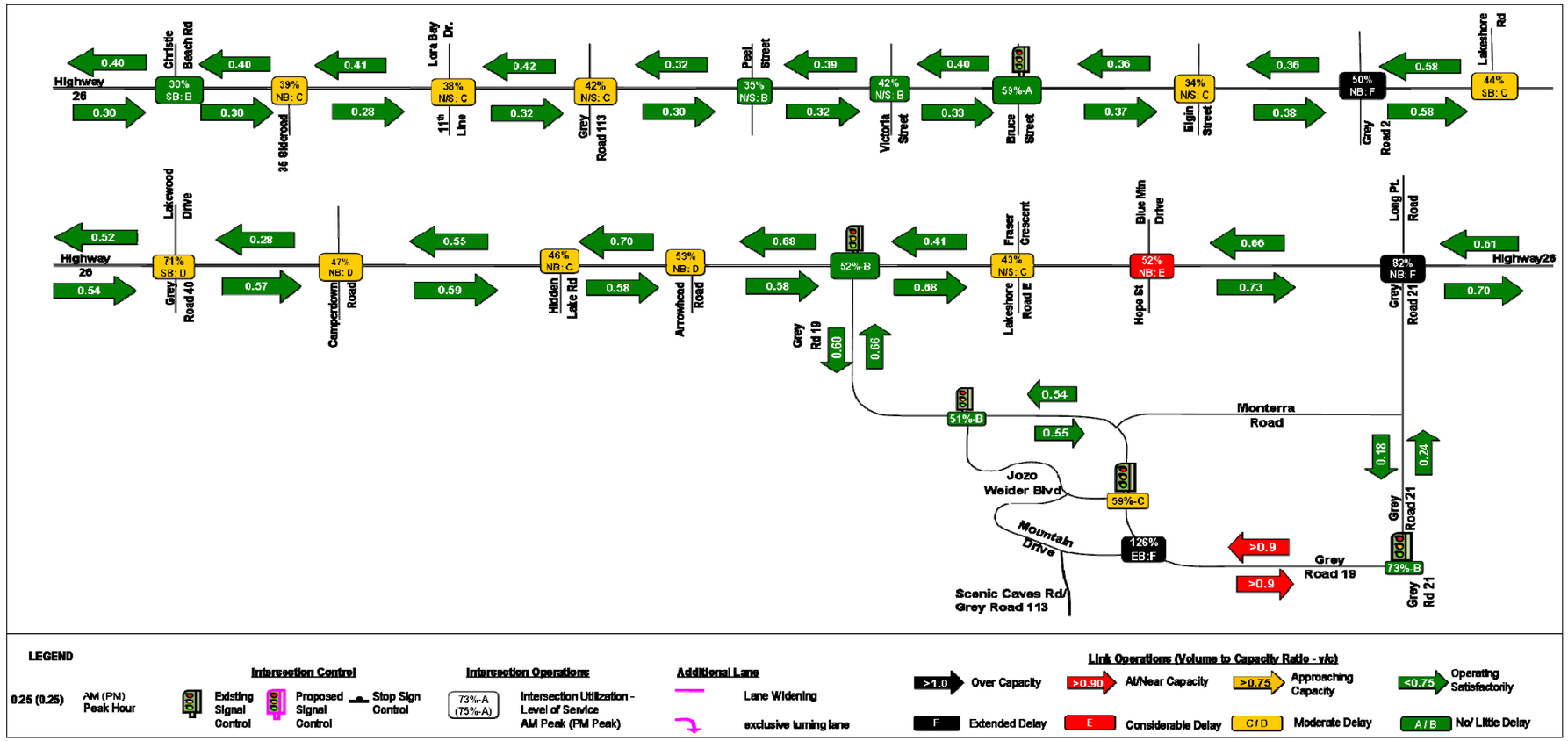
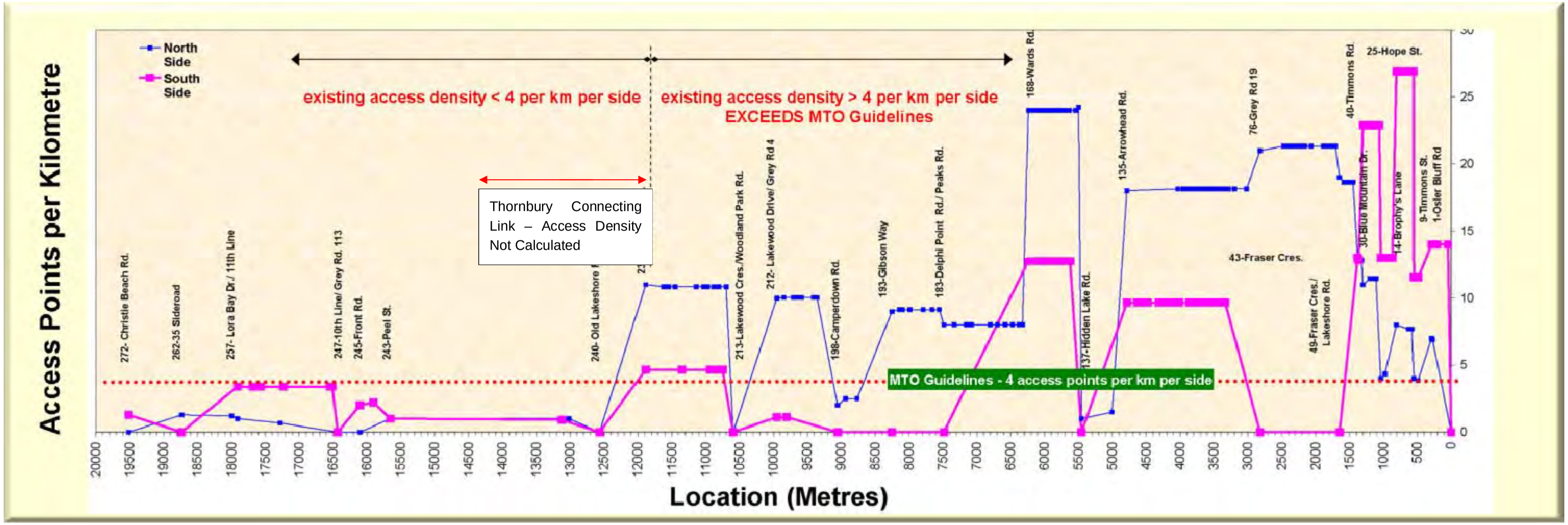


Table 3.6. Highway 26 Access Summary

Access	Location	Cumulative Distance (m)	Distance btwn Public Roads (m)	Meets the Desirable / Minimum Intersection Spacing Req'm. (desirable 1600 m min. 800 m)	No. Accesses btwn Public Rds.		No. of Permitted Access between Public Roads / side	No. of Accesses in Excess		Actual Access Density Factor		Meets MTO Access Density Requirement (Density <= 4)	
					North	South		North	South	North	South	North	South
1	Grey Road 21	0	0			0	0	0	0	0	0		
9	Timmons Street	290	290	No	2	4	1	1	3	7	14	No	No
14	Brophy's Lane	550	260	No	1	3	1	0	2	4	12	Yes	No
25	Hope Street	810	260	No	2	7	1	1	6	8	27	No	No
30	Blue Mountain Drive	1040	230	No	1	3	1	0	2	4	13	Yes	No
40	Timmons Road	1302	262	No	3	6	1	2	5	11	23	No	No
43	Fraser Crescent	1380	78	No	1	1	0	1	1	13	13	No	No
49	Fraser Crescent/Lakeshore Road	1648	268	No	5	0	1	4	0	19	0	No	Yes
76	Grey Road 19	2820	1172	Yes	25	0	4	21	0	21	0	No	Yes
135	Arrowhead Road	4785	1965	Yes	36	19	7	29	12	18	10	No	No
137	Hidden Lake Road	5455	670	No	1	0	2	0	0	1	0	Yes	Yes
168	Wards Road	6239	784	No	19	10	3	16	7	24	13	No	No
183	Delphi Point Road(New)/Peaks Road	7487	1248	Yes	10	0	5	5	0	8	0	No	Yes
193	Gibson Way	8253	766	No	7	0	3	4	0	9	0	No	Yes
198	Camperdown Road	9055	802	Yes	2	0	3	0	0	2	0	Yes	Yes
212	Lakewood Drive/Grey Road 4	9951	896	Yes	9	1	3	6	0	10	1	No	Yes
213	Lakewood Cres/Woodland Park Road	10595	644	No	0	0	2	0	0	0	0	Yes	Yes
239	Lakeshore Road	11885	1290	Yes	14	6	5	9	1	11	5	No	No
240	Old Lakeshore Road/ Grey Road 2	12567	682	No	0	0	2	0	0	0	0	Yes	Yes
243	Peel Street	13653	1086	Yes	1	1	4	0	0	1	1	Yes	Yes
245	Front Road	14103	450	No	0	1	1	0	0	0	2	Yes	Yes
247	10th Line/ Grey Road 113	14431	328	No	0	0	1	0	0	0	0	Yes	Yes
257	Lora Bay Drive/11th Line	15909	1478	Yes	1	5	6	0	0	1	3	Yes	Yes
262	35 Sideroad	16735	826	Yes	1	0	3	0	0	1	0	Yes	Yes
272	Christie Beach Road	17515	780	No	0	1	3	0	0	0	1	Yes	Yes

Figure 3.8. Access Assessment Summary - Highway 26



3.5 Collision Assessment

Collision records were reviewed for the Highway 26 corridor as well as key County arterials within the Town limits to identify locations with high collision records and to review collision trends and characteristics

3.5.1 Highway 26 Collision Review

Collision data for the 10-year period 1996 to 2005 was provided by MTO for the subject length of Highway 26, as provided in **Appendix** G. From this information**,** collision rates (expressed as collisions per million vehicle kilometres of travel) were determined for the overall Highway 26 section, in addition to individual sections as referenced by MTO. The collision trends and characteristics were reviewed at high collision locations to determine if there was any existing road geometry or operational deficiencies that exist and pose a concern from a traffic safety perspective.

Location on the Ontario highway network is specified using two reference numbers:

- linear highway reference System (LHRS) section number; and
- offset distance

The average numbers of collisions per year over the length of Highway 26 are illustrated in **Figure** 3.9**,** whereas the ensuing collision rates are provided in **Table** 3.7.

Table 3.7. Highway 26 Collision Rates (1996 to 2005)

Highway Section	Collisions per Year	AADT	Section Length	AVKM	Collision Rate
Grey Road 21 to Grey Road 19	6.8	8025	2.8	8.2	0.8
Grey Road 19 to Grey Street	21.3	7140	10.3	26.8	0.8
Peel Street to Christie Beach Road	12.5	5885	4.2	9.0	1.4
Grey Road 21 to Christie Beach Road (full length)	41	6979	17.3	44.1	0.9

The Provincial average collision rate for King's Highways is 0.7 collisions per million vehicle kilometres of travel. For the subject length of Highway 26, an average collision rate of 0.9 collisions per million vehicle kilometres of travel has been determined, which exceeds the Provincial average. Likewise, the collision rates determined for the exclusive sections of Highway 26 (0.8 to 1.4 collisions per million vehicle kilometres of travel) also exceed the Provincial average.

To identify potential areas of concern, collision rates were calculated on a 500 metre rolling average, as illustrated in **Figure** 3.10.

3.5.1.1 Collision Characteristics

Table 3.8 provides a summary of the collision characteristics and trends along Highway 26 within the study limits. As shown, approximately 70% of the collisions that occurred within the study area over the period 1996 to 2005 are non-intersection related and 66% of the total collisions involved only a single vehicle.

Further to these findings, the collision data was reviewed to further analyze the collision characteristics and to determine their possible cause. Accordingly, a break-down of the single vehicle collisions was undertaken as illustrated in **Figure** 3.11.

Table 3.8. Highway 26 Collision Characteristics (1996 to 2005)

Initial Impact Type	At Intersection	Intersection Related	Non Intersection	Private Access	Grand Total	Percentage
Angle	7	1	-	1	9	2%
Approach	1	1	7	-	9	2%
Other	-	1	1	-	2	0%
Rear End	12	19	27	17	75	16%
Side Swipe	1	1	17	5	24	5%
Single Vehicle	13	13	266	14	306	66%
Turning	15	8	-	14	37	8%
Grand Total	49	44	318	51	462	100%
Percentage	11%	10%	69%	11%	100%	

As shown in **Figure** 3.11, the majority of the single vehicle collisions involve animals (64%) while 17% of the collisions occurred as result of improper driving or driving violations. Moreover 13% of the single vehicle collisions occurred under ice/snow/slush conditions.

The collision data was also summarized based on the month of the year as per **Figure 3.12.** The results show that the majority of the collisions occurred mostly in the first (January - March) and last quarters (October - December) during the ten (10) year recorded period.

To further supplement the analysis of the monthly variation, an assessment of the road surface conditions was also undertaken, the results of which suggest that 45% of the collisions occurred under ice/snow/slush conditions (see **Table** 3.9).

Table 3.9. Highway 26 Collision Road Conditions (1996 to 2005)

Surface Conditions	Dry	Ice	Loose Snow	Pack Snow	Slush	Wet
Number of Collisions	256	25	34	23	21	103
% Collisions	55%	5%	7%	5%	5%	22%
Total	55%	45%				

Furthermore, in total, based on the 10-year data, only 2 collisions involved fatalities whereas 89 involved some type of injury and the majority (371) reported property damage (PD Only). **Figure** 3.13 provides a summary of the total number of collision related to various collision classes.

3.5.1.2 Key Findings

The following key findings were identified as part of the collision assessment:

- almost 70% of the collisions are non-intersection related;
- 66% of the total collisions involved only single vehicles, of which:
  - 64% of single vehicle collisions involved animals;
  - 17% of the collisions were due to improper driving / driving violation;
  - 13% occurred under ice/loose snow /packed snow/slush/wet conditions.

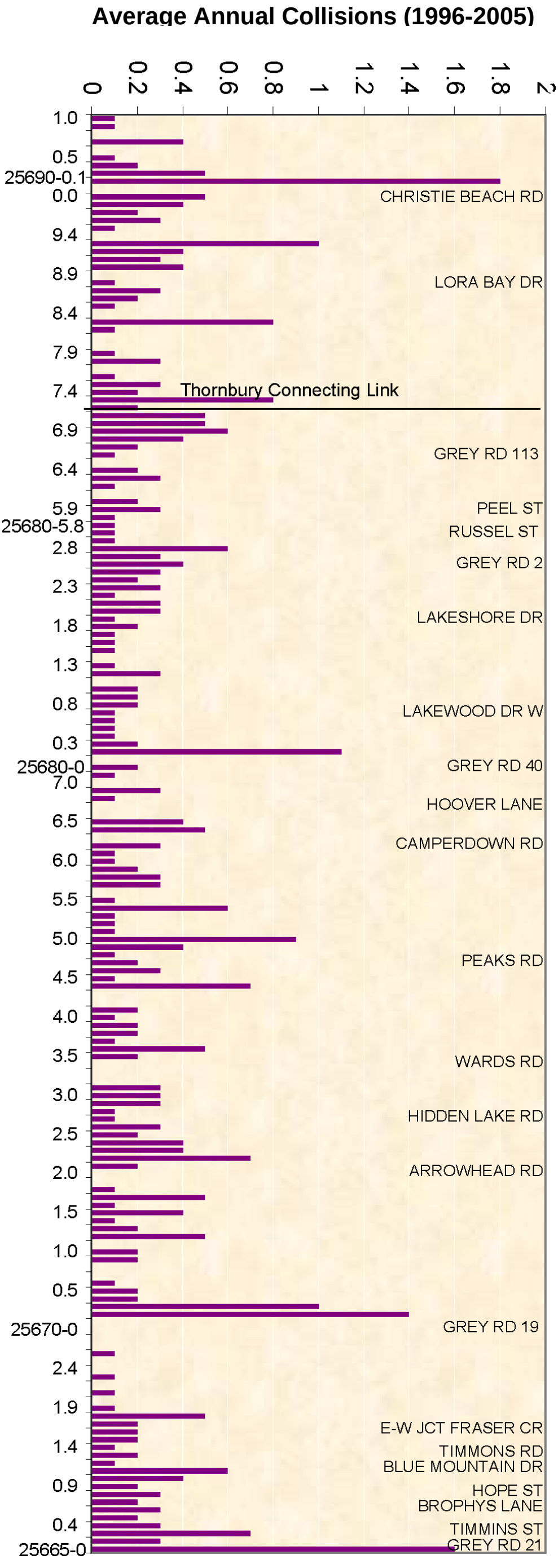
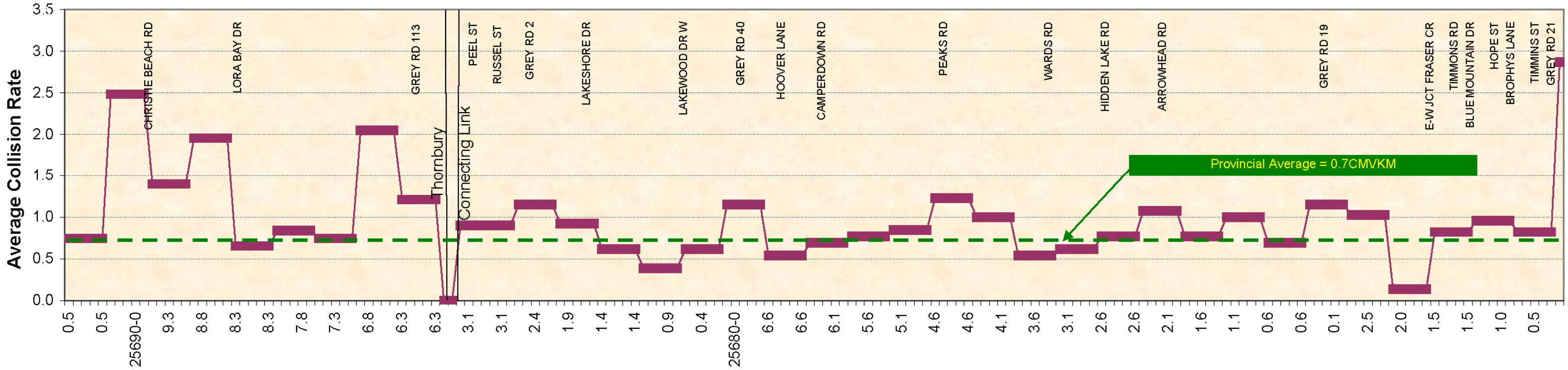


Figure 3.9. Annual Collisions (1996 to 2005) - Highway 26

Figure 3.10. Annual Collision Rates (1996 to 2005) - Highway 26



CMVKM: Collisions per million vehicle kilometres of travel

Figure 3.11. Cause of Single Vehicle Collisions (1996 to 2005) - Highway 26

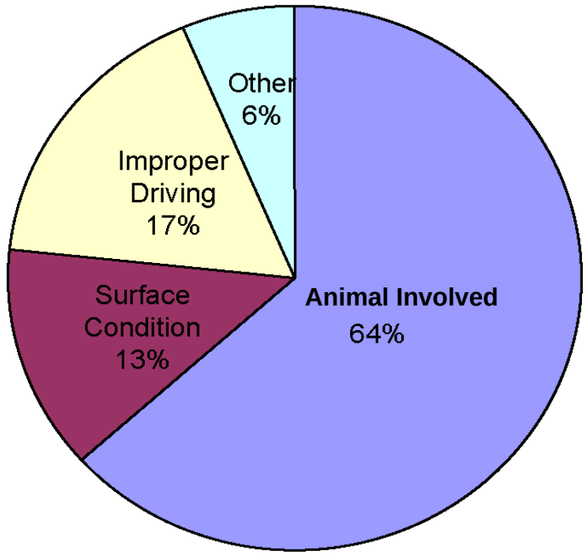


Figure 3.12. Collisions per Month (1996 to 2005) - Highway 26

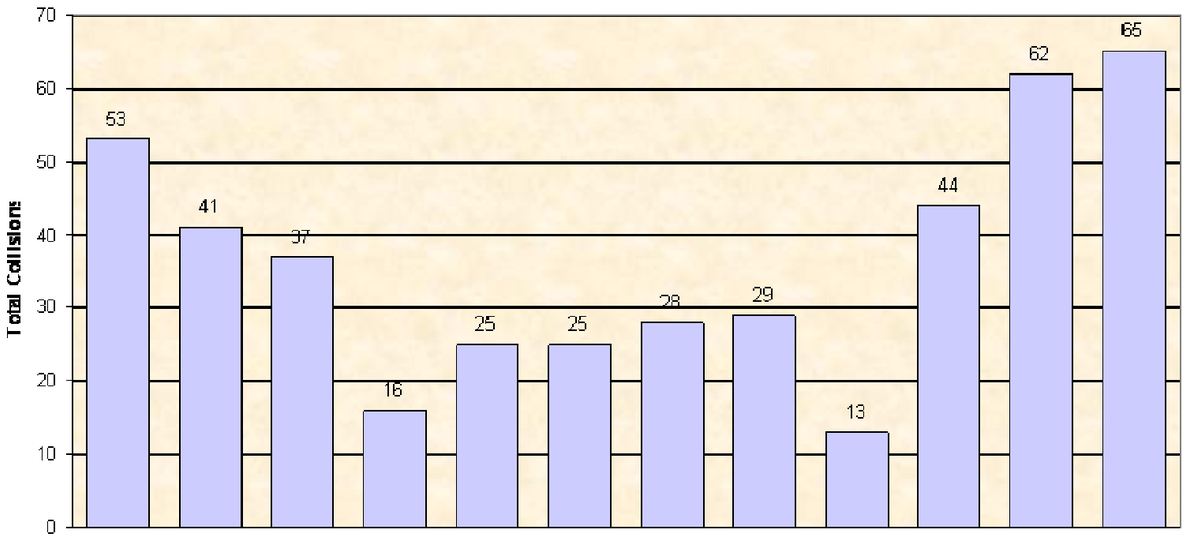
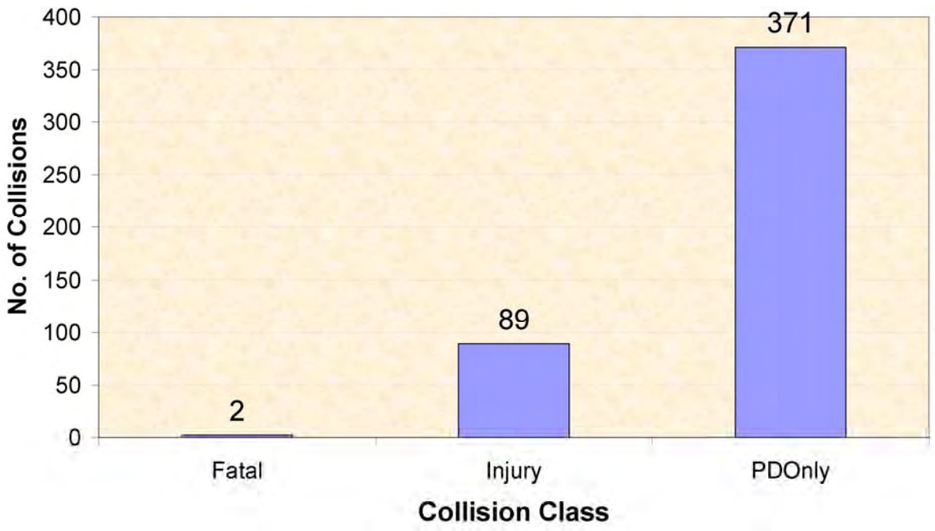


Figure 3.13. Collisions by Class (1996 to 2005) - Highway 26



Accordingly, the results of the assessment suggest that there is no apparent road design issues that could result in unsafe driving conditions as the majority of the single vehicle accidents seem to have occurred under normal driving conditions. In light of the high number of animal hits it is recommended that additional deer warning signs be erected mainly in the apple orchard areas between Christie Beach Rd and Grey Road 113.

3.5.2 Grey County Roads Collision Review

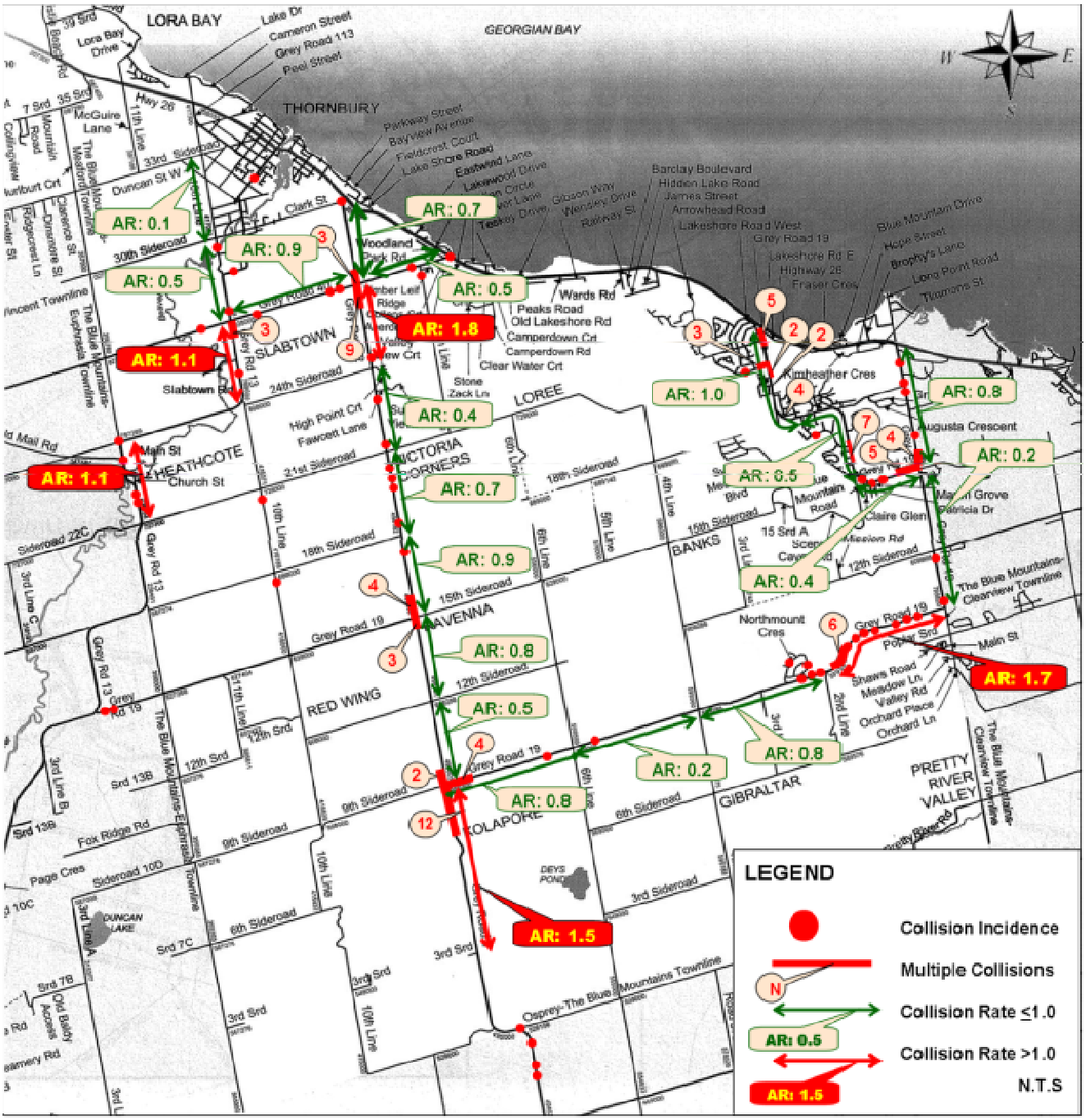
Collision records for the period 2000 to 2005 were also provided by Grey County. A review of these records was undertaken within the Town limits and collision rates were calculated along the major routes for which traffic data (average annual daily traffic volumes) was available. A summary of the collision rates and identification of high collision areas are noted in **Figure 3.14**.

3.5.2.1 Key Findings

The findings of our analysis of the Grey County collision records suggest the following:

- collision rates vary from 0.2 to 1.8 collisions per million vehicle kilometres of travel for different locations;
- the average collision rates for Provincial highways is 0.7 collisions per million vehicle kilometres whereas for all roads within the province it is 1.9 collisions per million vehicle kilometres - typically, collisions along the County roads within the Town limits are below the Provincial average for all roads; and
- higher number of collisions were recorded at the following locations:
  - at or in the vicinity of the intersection of Grey Road 2 and Grey Road 40 (14 collisions);
  - at or in the vicinity of the intersection of Grey Road 2 and Grey Road 19 intersection (18 collisions); and
  - along Grey Road 19 from Castleglen to Grey Road 21/ Osler Bluff Road (12 collisions).

Figure 3.14. Annual Collision Rates (2000 to 2005) - Grey County Roads



4. Impact of Future Growth

4.1 Planning Horizons

The study addresses the short, medium and long-term transportation needs/requirements of the study area. In this regard, 5, 10 and 20-year development horizons have been adopted. This also allows for the timing of specific improvements to be investigated with respect to a staged approach for implementation.

4.2 Background Growth

Traffic volumes are anticipated to grow in concert with the overall general growth within the Town and abutting development areas as well as outside influences which are based on historic growth patterns realized from past traffic data.

For the purposes of this study, MTO historic traffic data along several sections of Highway 26 which represented Average Annual Daily Traffic (AADT), Summer Average Daily Traffic (SADT) and Winter Average Daily Traffic (WADT) was analyzed. A summary of this data is provided in **Table** 4.1

The analysis concluded that, for the period 1996 to 2005, the AADT volumes increased in the order of 1.7 to 2.4% per year. Growth in the summer and winter volumes were generally in the same range for the noted period - 1.4 to 2.6% per year. Similarly, for the past 5 years (2000 to 2005), annual growth rates were in the order of 1.5 to 2.2%.

Further to the historic traffic data analysis, various background reports were reviewed in order to identify assumptions used. These included the *Georgian Triangle Area Transportation Study* (GTATS) and several development specific traffic impact studies at various locations along the Highway 26 corridor. The traffic studies typically employed growth rates of 1 to 2% per annum along Highway 26, which were established from historic counts (similar process as per above, albeit focused on a particularly area/section of Highway 26). Traffic volumes presented in the GTATS report were reviewed at a number of locations within the study area, for both winter and summer conditions for the 2000, 2010 and 2020 time frames. Along Highway 26, the annual predicted volumes increased in the order of 5 to 9% per year for winter conditions and 5 to 8% per year for summer conditions, over the period 2000 to 2010, whereas, over the period 2010 to 2020, a 2% growth rate was predicted for both winter and summer conditions. The increased growth rates of 5 to 9% are the result of additional consideration for specific development growth and resulting volumes, and thus are not strictly an indication of general background growth.

Table 4.1. Historic Highway 26 Traffic Counts

Road Section & Year of Data		Traffic Volumes			Annual Growth from 1996		
		AADT	SADT	WADT	AADT	SADT	WADT
Grey Road 21 to Grey Road 19	1996	7,450	9,250	6,550	-	-	-
	1997	7,500	9,600	6,300	0.67%	3.78%	-3.82%
	1998	7,550	9,600	6,350	0.67%	1.87%	-1.54%
	1999	7,600	9,600	6,400	0.67%	1.25%	-0.77%
	2000	7,950	10,000	6,700	1.64%	1.97%	0.57%
	2001	8,100	10,200	6,800	1.69%	1.97%	0.75%
	2002	8,450	10,700	7,150	2.12%	2.46%	1.47%
	2003	8,400	10,600	7,150	1.73%	1.97%	1.26%
	2004	8,550	10,600	7,250	1.74%	1.72%	1.28%
	2005	8,700	10,800	7,400	1.74%	1.74%	1.36%
Grey Road 19 to Thornbury E Limits	1996	6,400	8,200	5,400	-	-	-
	1997	6,550	8,400	5,500	2.34%	2.44%	1.85%
	1998	6,650	8,450	5,600	1.93%	1.51%	1.84%
	1999	6,700	8,450	5,650	1.54%	1.01%	1.52%
	2000	7,100	8,950	6,000	2.63%	2.21%	2.67%
	2001	7,250	9,150	6,100	2.53%	2.22%	2.47%
	2002	7,450	9,400	6,300	2.56%	2.30%	2.60%
	2003	7,550	9,500	6,400	2.39%	2.12%	2.46%
	2004	7,850	9,750	6,650	2.59%	2.19%	2.64%
	2005	7,900	9,800	6,700	2.37%	2.00%	2.43%
Thornbury W Limits to TOBM W Limits	1996	5,400	7,300	4,100	-	-	-
	1997	5,550	7,500	4,200	2.78%	2.74%	2.44%
	1998	5,650	7,550	4,250	2.29%	1.70%	1.81%
	1999	5,650	7,500	4,250	1.52%	0.91%	1.20%
	2000	5,850	7,850	4,400	2.02%	1.83%	1.78%
	2001	5,950	7,950	4,450	1.96%	1.72%	1.65%
	2002	6,050	8,150	4,550	1.91%	1.85%	1.75%
	2003	6,150	8,250	4,600	1.88%	1.76%	1.66%
	2004	6,250	8,300	4,750	1.84%	1.62%	1.86%
	2005	6,350	8,400	4,750	1.82%	1.57%	1.65%

AADT: Average Daily Traffic; the average 24 hour, two way traffic for the period January 1 to December 31.

SADT: Summer Average Daily Traffic; the average 24 hour, two way traffic for the period July 1 to August 31.

WADT: Winter Average Daily Traffic; the average 24 hour, two way traffic for the period January 1 to March 31 & December 1 to 31.

In considering the historic volumes, a background growth rate of 2% per year has been employed, for both summer and winter conditions, over the period 2008 to 2028. This growth was applied to the Highway 26 corridor and to all Grey County roads within the Town limits, reflective of the higher order service that they provide (i.e. the role of such roads is to provide through service for higher volumes, with less emphasis on service to local areas or development). For the remaining roads within the study area (i.e. Town roads), a 1% annual growth rate was assumed per annum reflective of the local nature of these roads, the maturity of the built areas that they serve (although not in all cases) and the fact that they do not serve through traffic to the same extent as County roads and Highway 26.

4.3 Development Growth

4.3.1 Identification of Development

Additional developments that have been considered in the preparation of the future traffic projections were determined from the Town Development Summary dated May 2008 as shown in **Figure** 4.1. From this, a total of 52 future developments were identified within the Town limits, in accordance with the following stage and type of development:

- draft plan/site plan approval;
- designated with application - residential;
- designated with application - commercial;
- designated with application - mixed;
- designated with concept - residential;
- designated with concept - commercial; and
- designated with concept - mixed.

The development summary provided further details with respect to the number of residential units planned or proposed and the overall land use. This information was further cross-referenced with the Town's Official Plan and determination of the maximum unit yields (i.e. the greatest level of development permissible) and permitted land uses as per current zoning designation. Lastly, in several instances, development specific traffic impact studies had been prepared and these were further reviewed with respect to the type and size of development contemplated.

An overall inventory of the future developments that have been identified and considered in this study is provided in **Appendix** H. In the instance where a traffic impact study was available, it was assumed to reflect the most current development statistics and thus employed accordingly. As noted, approximately 5000 new residential units have been considered.

4.3.2 Development Trip Estimates

In consideration of the varying peak hour periods throughout the week, trip estimates for each of the 52 noted developments were determined for the weekday AM and PM peak hours (summer conditions), in addition to the weekend peak hour (winter conditions). The former will be utilized in the assessment of traffic operations along the Highway 26 corridor (summer) whereas the latter will be utilized in the assessment of operations in the Craigleith Area (winter). The Highway 26 corridor within the Craigleith Area will only be analysed under summer conditions as noted in **Section 3.3.6.5.**

The corresponding trip estimates were based on the following:

- site specific traffic impact studies (as available);
- land use(s) and development size; and
- trip generation rates as per the *ITE Trip Generation Manual, version 7*.

Of the 52 noted developments, 15 were otherwise addressed through site specific traffic studies, from which the development traffic volumes were obtained. In some instances, the respective traffic studies provided estimates for only the PM or weekend peak hour - data for the remaining peak hours was then estimated based on the ITE trip generation rates for the same land uses applied in the respective studies. In this regard, the overall approach to estimating site specific volumes is in concert with the individual traffic studies.

For those developments for which a traffic study was not available, the trip estimates were based on the expected land uses (as per the development proposal and/or land use designations as per the Town's Official Plan) and the following land use categories as per the *ITE Trip Generation Manual*:

- primary residential and residential with less than 25 units per hectare - corresponding to ITE land use code 210 for "single-family detached housing" land use;
- residential with 25 – 40 units per hectare and medium density residential - corresponding to ITE land use code 230 for "residential condominium/townhouse" land use; and

- shoreline residential, recreational residential, land lease community, estate residential and secondary residential - corresponding to ITE land use code 260 for "recreational homes" land use.

In many cases, the land use has been identified as "secondary residential" or "recreational residential", which are intended to reflect part-time, recreational residences as opposed full-time residences. As such, appropriate trip generation rates have been applied in consideration of the part-time nature of use, and hence the reduced traffic volumes that such developments will generate in relation of full-time users. This is consistent with several of the traffic studies that were prepared for similar uses.

The following development sites will be commercially oriented (reference number corresponds to the number on the Development Summary):

- 39. Von Teichman (0.05 ha development site);
- 40. Applewood (0.58 ha);
- 41. CarQuest (0.19 ha); and
- 51. Park Lee Choi Yun (1.09 ha).

In consideration of the uncertainty of the end uses, limited development size of a number of the parcels, their location (all are located within the built area of Thornbury and thus will serve a local function), and propensity for pass-by trips for highway-related commercial, trip estimates for such were not specifically addressed. This is not considered critical in that significant trips are not otherwise anticipated for any of the noted commercial developments (not otherwise possible given the site area or supported by their location). Rather, as noted, these developments are likely to serve the local, neighbourhood markets thus having little additional impacts to increasing volumes along Highway 26.

A summary of the peak hour trip estimates considered for the identified development is provided in **Table** 4.2 whereas additional details are provided in **Appendix I.**

Table 4.2. Future Development Trip Estimates

Weekday AM Peak Hour			Weekday PM Peak Hour			Weekend Peak Hour		
in	out	total	in	out	total	in	out	total
710	1286	1996	1545	1181	2726	1713	1610	3323

As noted, the additional development identified is expected to generate in the order of 2000 to 2700 trips during the summer weekday peak hours. During the winter weekend peak hour, in the order of 3300 trips are estimated - the increase over summer volumes is largely attributed to the additional development at the Blue Mountain Resort (expansion of the ski hills and development of an additional lodge at the south end).

4.3.3 Development Phasing

For those developments for which a traffic impact study was prepared, most employed a 5-year development horizon given the overall size of development and anticipated rate of growth. For several of the larger developments, a longer implementation was identified, extending over 10 to 15 years. Specifically, the following were noted (reference number corresponds to number of the Development Summary):

- 3. Trailwoods 10 year build-out;
- 27. Lora Bay Phase 2 10 year build-out; and
- 32. George Fleming 15 year build-out.

However, as confirmed development timelines were not provided for each development, it was not possible to confirm which would proceed and be completed within each horizon period. Rather, a generalized approach was adopted in accordance with overall residential growth projections within the Town.

Forecasts of development growth (ie. number of residential units completed) were provided by the Town for the various defined service areas within the Town (ie. Craigleith, Camperdown, Castle Glen, Swiss Meadows, Lora Bay, Clarksburg, Osler, Thornbury East and Thornbury West) for the period 2009 to 2028 (forecasts from 2009 to 2018 inclusive and 2028 were provided). From these forecasts, the rate of growth within each service area was determined for the 5, 10 and 20 year projections. For example, in the Craigleith area, a total of 2263 new units are anticipated over the period 2009 to 2028, with 15% complete within 5 years, 43% within 10 years and 100% within 20 years. The rate of growth or staging of each of the 52 developments was then determined based on the service area in which it is located (ie. all developments located within Craigleith were assumed to occur at the noted rates).

While this approach may not accurately reflect all developments plans (as some may be built out before 10 years and others may be built out between 10 and 20 years), on an overall basis and in absence of defined and committed stages for each development, it was considered the most appropriate method. On average, in the order of 175 to 275 units per year are expected to be complete over the next 20 years, with a total unit count of 5000 additional units by 2028.

Additional details with respect to the assumed service area projections and growth rates, and the resulting staged implementation and associated traffic volumes for each development, for each of the 5, 10 and 20 year horizons, are presented in **Appendix** I. It is noted that this is only a reflection of the current developments either planned or proposed and does not necessarily reflect future development proposals not otherwise identified.

4.3.4 Development Trip Assignment

The assignment of the specific development trips to the area road system (that is, the identification of travel routes to/from the development site) was based on information provided in the respective traffic studies. Where such studies were not prepared, the assignment was based on the nearest development for which information was available and in consideration of the proposed land uses and area road system. Developments with similar land uses and locations should have similar assignments to the road system.

Recognizing that the specific traffic studies typically have limited study areas, the assignment was subsequently extended as necessary, to encompass the Town study area. It is neither feasible nor necessary to consider the assignment of traffic to each possible local road or travel route given the significant number of roads within the Town and possible travel routes between origins and destinations. Rather, the extended assignments (i.e. those beyond the assignments illustrated in the traffic studies) were focused on the key area roads.

Development volumes along Highway 26 were distributed to the side-roads at the major intersections namely: Grey Road 21, Grey Road 19, Grey Road 2 and Bruce Street based on the existing traffic patterns at these intersections and in consideration of the overall development patterns in the area. The resulting distributions are as follows:

- Highway 26 at Grey Road 21:
  - 10% to the south / 90% to the east; 15% from the south / 85% from the east

- Highway 26 at Grey Road 19:
  - AM: 15% to the south / 85% to the east; 30% from the south / 70% from the east;
  - PM: 15% to the south / 85% to the east; 20% from the south / 80% from the east;
  - Saturday: 30% to the south / 70% to the east; 38% from the south / 62% from the east;
- Highway 26 at Grey Road 2:
  - for developments located on the east side of Grey Road 2: 5% to the south / 95% to the west; 5% from the south / 95% from the west
  - for developments located on the west side of Grey Road 2: 20% to the south / 80% to the east; 10% from the south / 90% from the east
- Highway 26 at Bruce Street:
  - for developments located on the east side of Grey Road 13: 20% to the south / 80% to the west; 30% from the south / 70% from the west
  - for developments located on the west side of Grey Road 13: 20% to the south / 80% to the east; 10% from the south / 90% from the east

Similarly, development volumes along Grey Road 19 were distributed to Jozo Weider Boulevard, Mountain Drive and Grey Road 21 in accordance with the following:

- Grey Road 19 at Jozo Weider Boulevard west:
  - 35% to the south / 65% to the east; 40% from the south / 60% from the east
- Grey Road 19 at Jozo Weider Boulevard east:
  - 15% to the west / 85% to the south; 25% from the west / 75% from the south
- Grey Road 19 at Mountain Drive:
  - 15% to the west / 85% to the south-east; 25% from the west / 75% from the south-east
- Grey Road 19 at Grey Road 21:
  - 30% to the south / 70% to the east; 15% from the south / 85% from the east

4.4 Future Traffic Volumes

The resulting future traffic volumes in the Craigleith Area (winter) and along the Highway 26 corridor (summer) were subsequently determined from the existing volumes, overall general growth through the area and additional traffic resulting from the planned and/or proposed area developments.

Moreover, as part of this study, a Highway Access Management Plan (HAMP) for Highway 26 is to be developed to identify long term access concepts and to provide guidance for existing and future public road access. Existing public road accesses along Highway 26 within the study section were reviewed and considered for closure or realignment under the guidance of MTO, in an attempt to better service the future land use planning and development objectives surrounding the highway as well as the highway users. With the potential new access configurations, alternative access options will be required and the related traffic volumes will need to be redirected to other routes/intersections in order to access Highway 26.

Accordingly, traffic volumes were modified to account for the related redirection of traffic assuming the recommended horizon year for implementation of the HAMP alternatives for each location along Highway 26. Further discussion in relation to HAMP can be found in **Section 6-2** of this report.

The resulting future traffic volumes are illustrated in **Figure** 4.2 to **Figure** 4.4 for the Craigleith Area (winter) and in **Figure** 4.5 to **Figure** 4.7 for the Highway 26 corridor (summer). These figures also show the estimated diverted trips due to the Highway 26 alternative route around Collingwood as recommended in “Georgian Triangle Area Transportation Paper”.

Moreover, in order to identify the Town's long range transportation needs in a strategic and area-wide standpoint, screen line traffic projections were developed for the Craigleith Area on its boundaries with adjacent municipalities. **Figure** 4.8 shows the estimated future 2028 traffic volumes along the key corridors at the Town screen lines.

4.4.1 Highway 26 Alternative Route Around Collingwood

A review of the "Georgian Triangle Area Transportation Paper" was carried out as part of this study to verify the potential impacts of the recommended interim Collingwood alternative route option on the Town's transportation system.

The following roads were recommended as the preferred interim Highway 26 alternative route:

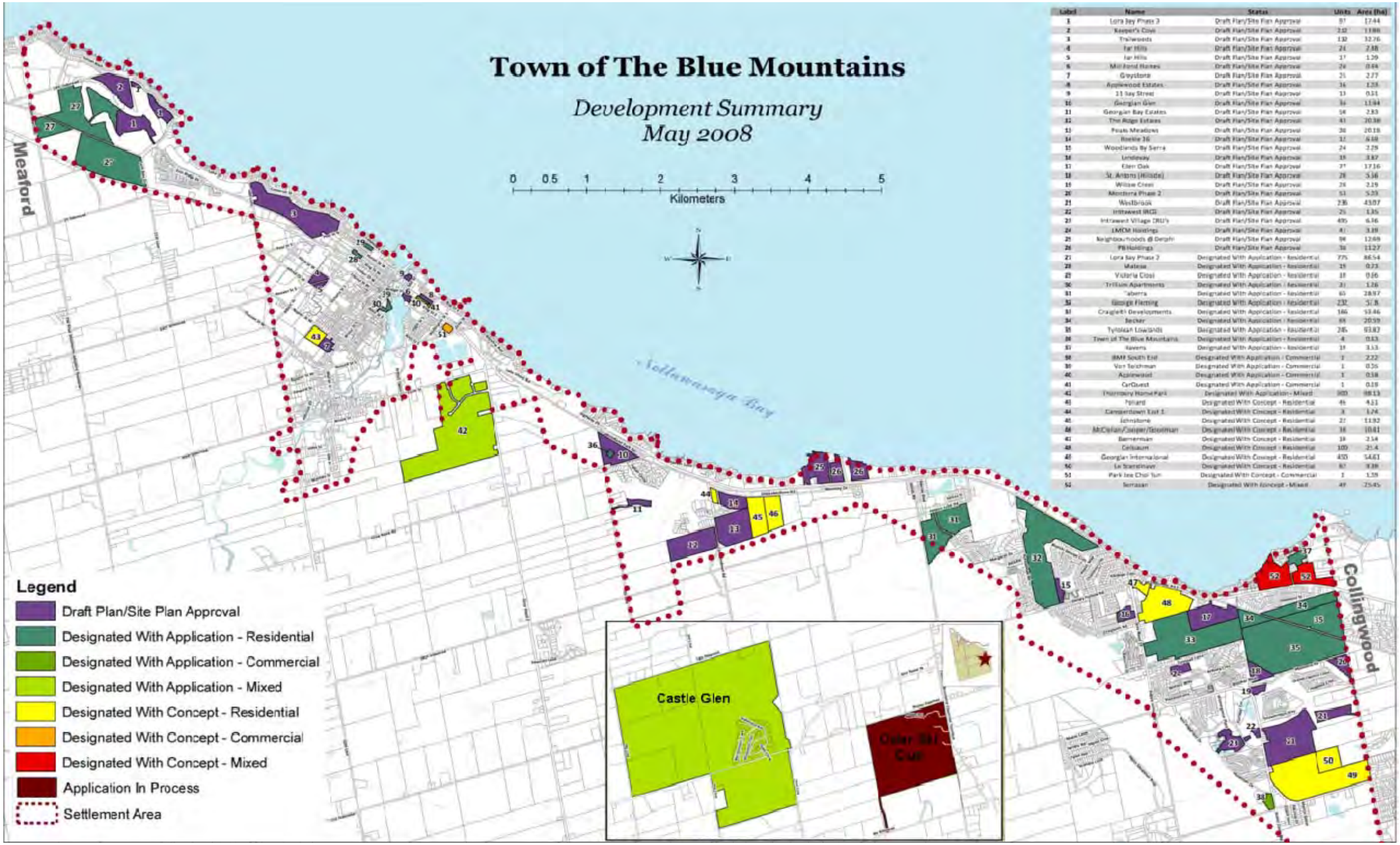
- Poplar Sideroad (Collingwood / Clearview);
- 10th Line (Collingwood);
- Simcoe Road 32;
- Grey Road 19; and
- Grey Road 21 (shared boundary Simcoe/ Grey)

There is considerable variation between the existing/future traffic volumes shown in this report's figures (**Figure** 3.5**, Figure** 3.6**, Figure** 4.2 to **Figure** 4.8) compared to the volumes presented in the "Georgian Triangle Area Transportation Paper". This can be explained as follows:

- The "Georgian Triangle Area Transportation Paper" traffic data were compiled from various sources collected at different dates. A growth rate of 5.2 to 5.4 was applied to project the future 2014 traffic volumes from the base 2007 traffic counts.
- For this report, more up-to-date traffic counts were obtained from the Town, County and MTO. Moreover detailed trip generation, distribution and assignment were conducted for the purpose of future projections based of the Town's Development Plans for future horizon years 2013, 2018 and 2028 (5, 10 and 20 year horizons) as described in **Section** 4 of this report.

In view of this, the projected values for the traffic diversions related to the recommended alternative route around Collingwood, as shown in Figure 4 of the "Georgian Triangle Area Transportation Paper" report, were slightly revised to better fit the assessment as shown in **Figure** 4.2 to **Figure** 4.4**.** The impact of this traffic diversion is significant. The traffic volumes along Grey Road 21 from Grey Road 19 to Highway 26 as well as Grey Road 19 from Simcoe County Road 32 to Grey Road 21 will increase substantially, while there will be no/minimal impact on Highway 26 within the Town given that the majority of the traffic (+ 80%) destined to the Craigleith Area was originally assumed to access the area via Mountain Road. The "Georgian Triangle Area Transportation Paper" study assumes that a higher proportion of traffic destined to the Craigleith Area would access the area via Highway 26.

Figure 4.1. Future Development Potential - 20 Year Development Growth



Label	Name	Status	Units	Area (ha)
1	Lora Bay Phase 3	Draft Plan/Site Plan Approval	97	17.44
2	Keeper's Cove	Draft Plan/Site Plan Approval	102	11.86
3	Trailwoods	Draft Plan/Site Plan Approval	132	32.76
4	Tar Hills	Draft Plan/Site Plan Approval	24	2.88
5	Tar Hills	Draft Plan/Site Plan Approval	17	1.29
6	Midland Homes	Draft Plan/Site Plan Approval	24	0.84
7	Greystone	Draft Plan/Site Plan Approval	25	2.77
8	Applewood Estates	Draft Plan/Site Plan Approval	36	1.25
9	11 Bay Street	Draft Plan/Site Plan Approval	13	0.31
10	Georgian Glen	Draft Plan/Site Plan Approval	36	11.94
11	Georgian Bay Estates	Draft Plan/Site Plan Approval	58	2.83
12	The Ridge Estates	Draft Plan/Site Plan Approval	43	20.38
13	Peaks Meadows	Draft Plan/Site Plan Approval	30	20.19
14	Roelie 16	Draft Plan/Site Plan Approval	12	6.58
15	Woodlands By Serra	Draft Plan/Site Plan Approval	24	2.29
16	Lindesay	Draft Plan/Site Plan Approval	19	3.87
17	Glen Oak	Draft Plan/Site Plan Approval	37	17.16
18	St. Antoni (Hillside)	Draft Plan/Site Plan Approval	28	5.56
19	Willow Creek	Draft Plan/Site Plan Approval	28	2.29
20	Monterra Phase 2	Draft Plan/Site Plan Approval	53	5.29
21	Westbrook	Draft Plan/Site Plan Approval	736	43.07
22	Intowest IRGI	Draft Plan/Site Plan Approval	25	1.35
23	Intowest Village CRU's	Draft Plan/Site Plan Approval	495	6.36
24	LMDM Holdings	Draft Plan/Site Plan Approval	41	3.39
25	Neighbourhoods @ Delphi	Draft Plan/Site Plan Approval	98	12.69
26	PB Holdings	Draft Plan/Site Plan Approval	36	11.27
27	Lora Bay Phase 2	Designated With Application - Residential	775	86.54
28	Matese	Designated With Application - Residential	19	0.73
29	Victoria Crest	Designated With Application - Residential	18	0.86
30	Trillium Apartments	Designated With Application - Residential	21	1.26
31	Taberra	Designated With Application - Residential	65	28.97
32	George Fleming	Designated With Application - Residential	237	5.78
33	Craigleith Developments	Designated With Application - Residential	186	53.46
34	Becker	Designated With Application - Residential	69	20.59
35	Tyrolean Lowlands	Designated With Application - Residential	285	93.82
36	Town of The Blue Mountains	Designated With Application - Residential	4	0.63
37	Ravens	Designated With Application - Residential	19	3.53
38	BMF South Est	Designated With Application - Commercial	1	2.22
39	Von Teichman	Designated With Application - Commercial	1	0.26
40	Applewood	Designated With Application - Commercial	1	0.58
41	CarQuest	Designated With Application - Commercial	1	0.19
42	Thornbury Home Park	Designated With Application - Mixed	303	98.13
43	Pollard	Designated With Concept - Residential	46	4.11
44	Clearbrown East 1	Designated With Concept - Residential	3	1.24
45	Johnstone	Designated With Concept - Residential	27	11.92
46	McClellan/Cooper/Steinman	Designated With Concept - Residential	38	10.41
47	Barrerman	Designated With Concept - Residential	19	2.14
48	Celsium	Designated With Concept - Residential	100	21.4
49	Georgian International	Designated With Concept - Residential	450	54.61
50	Le Stanislaus	Designated With Concept - Residential	67	9.39
51	Park lea Choi Tun	Designated With Concept - Commercial	1	1.39
52	Terrasan	Designated With Concept - Mixed	49	25.45

Figure 4.2. Future 2013 Traffic Volumes in Craigleith Area (Winter Saturday Peak Hour)

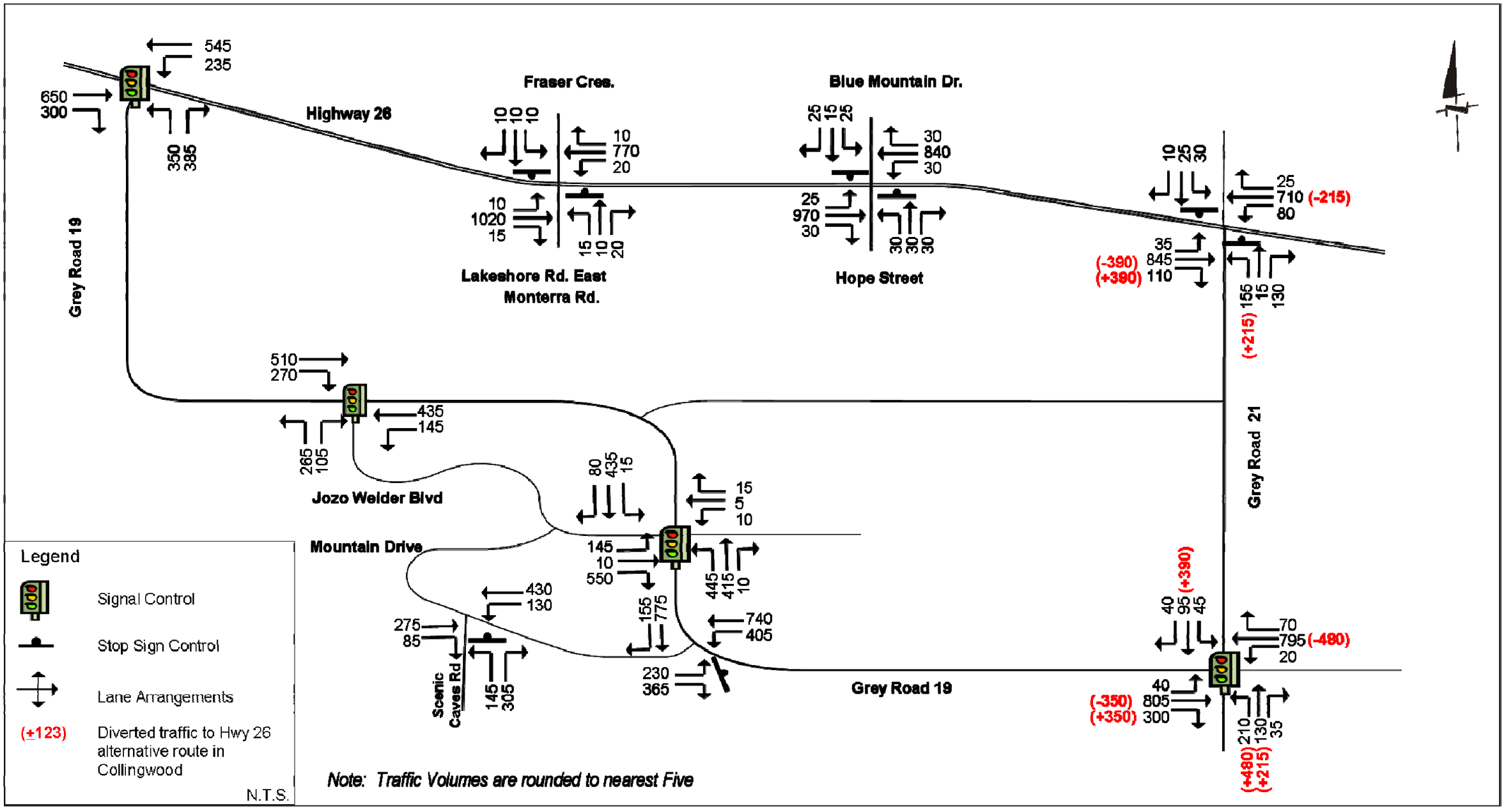


Figure 4.3. Future 2018 Traffic Volumes in Craigleith Area (Winter Saturday Peak Hour)

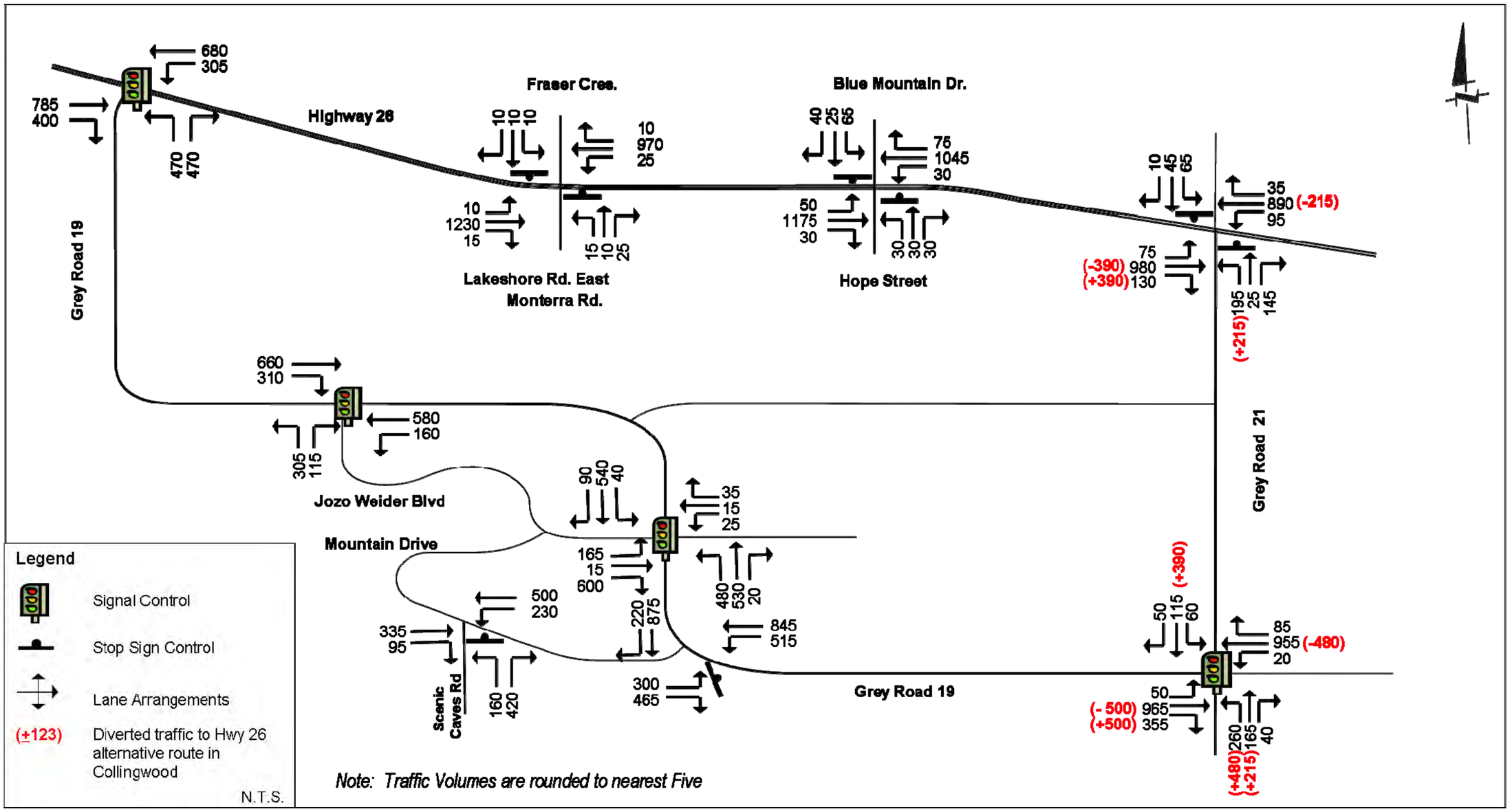


Figure 4.4. Future 2028 Traffic Volumes in Craigleith Area (Winter Saturday Peak Hour)

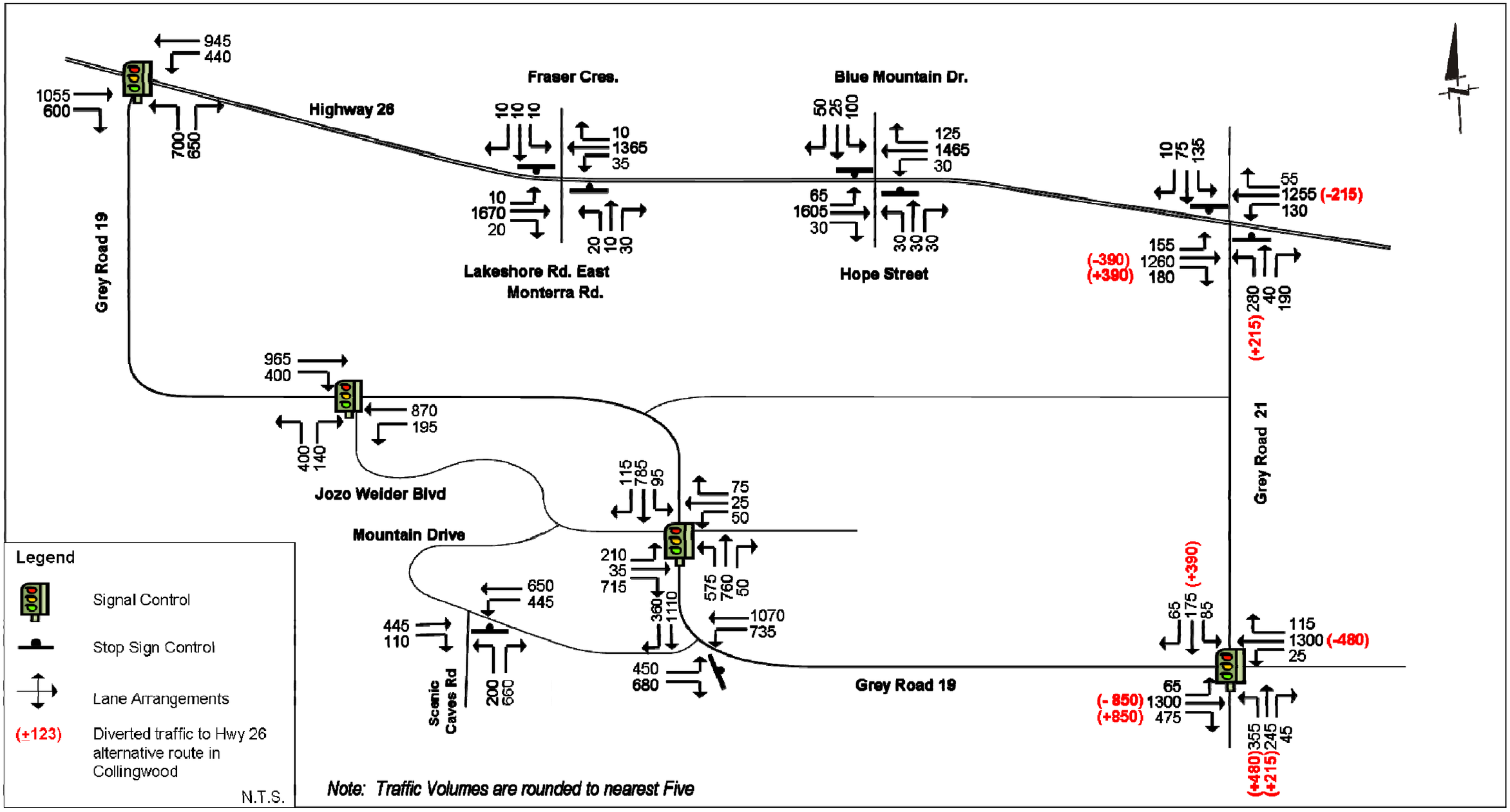


Figure 4.5. Future 2013 Traffic Volumes along Highway 26 Corridor (Summer Weekday AM & PM Peak Hours)

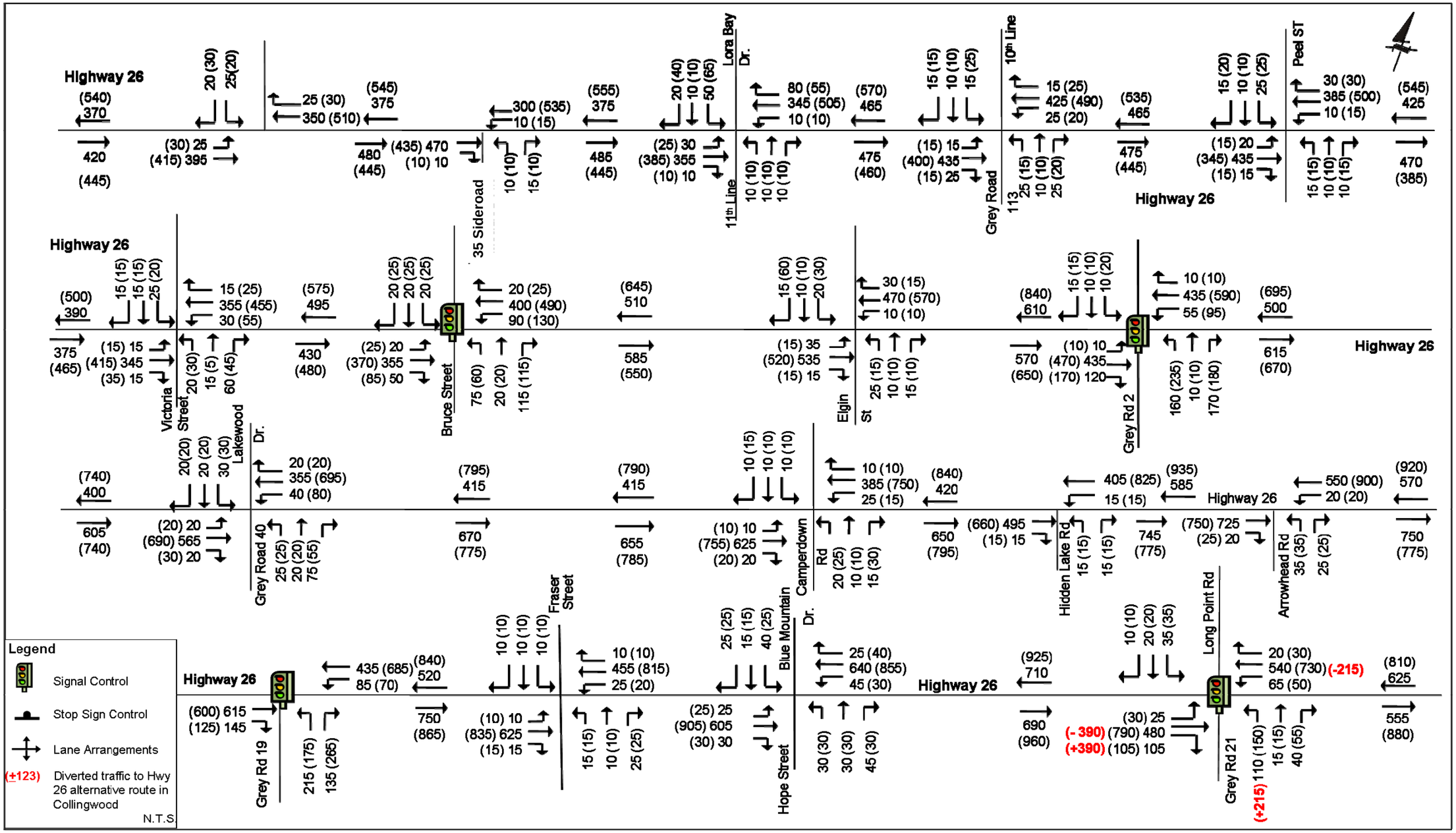


Figure 4.6. Future 2018 Traffic Volumes along Highway 26 Corridor (Summer Weekday AM & PM Peak Hours)

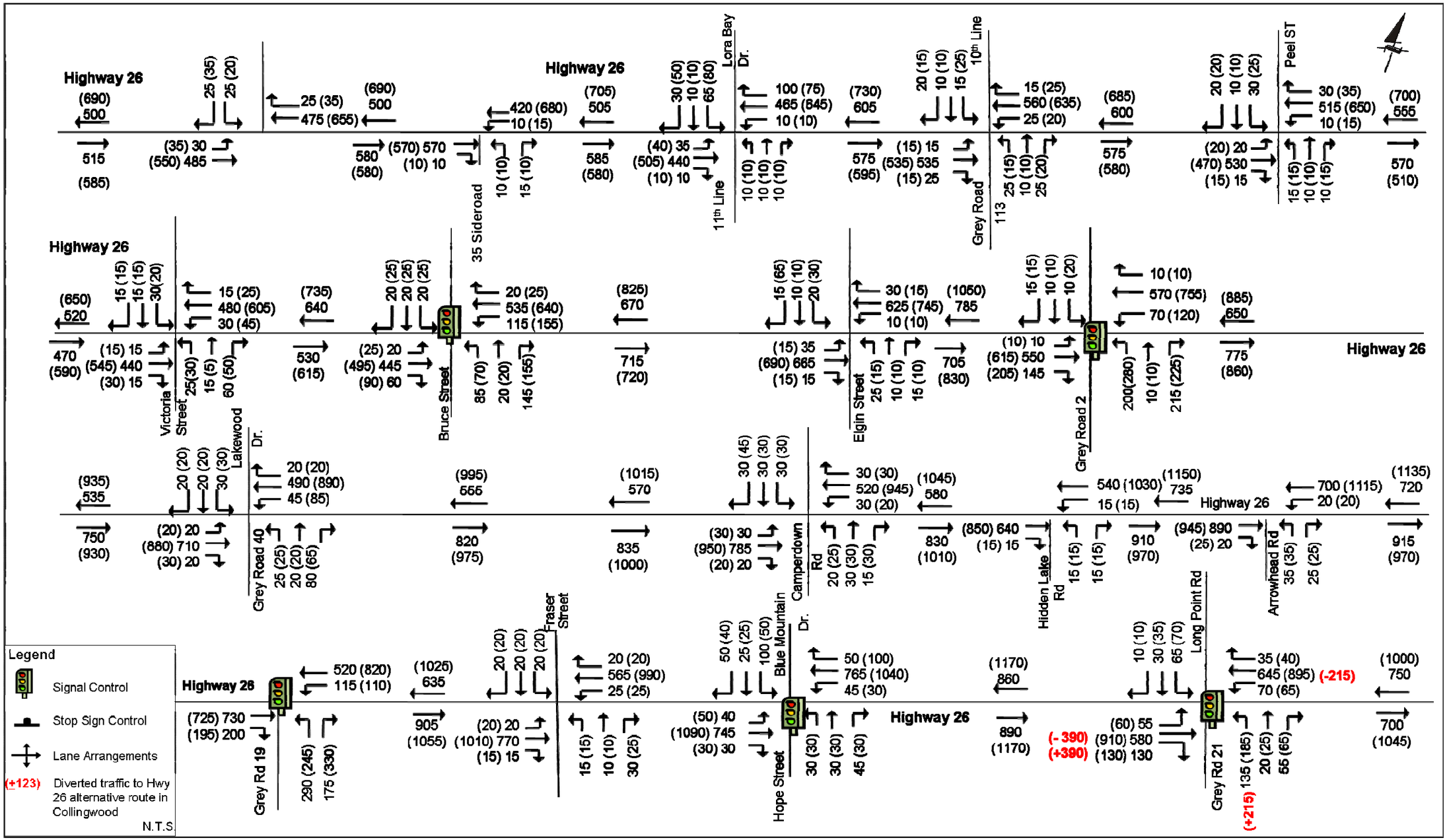


Figure 4.7. Future 2028 Traffic Volumes along Highway 26 Corridor (Summer Weekday AM & PM Peak ours)

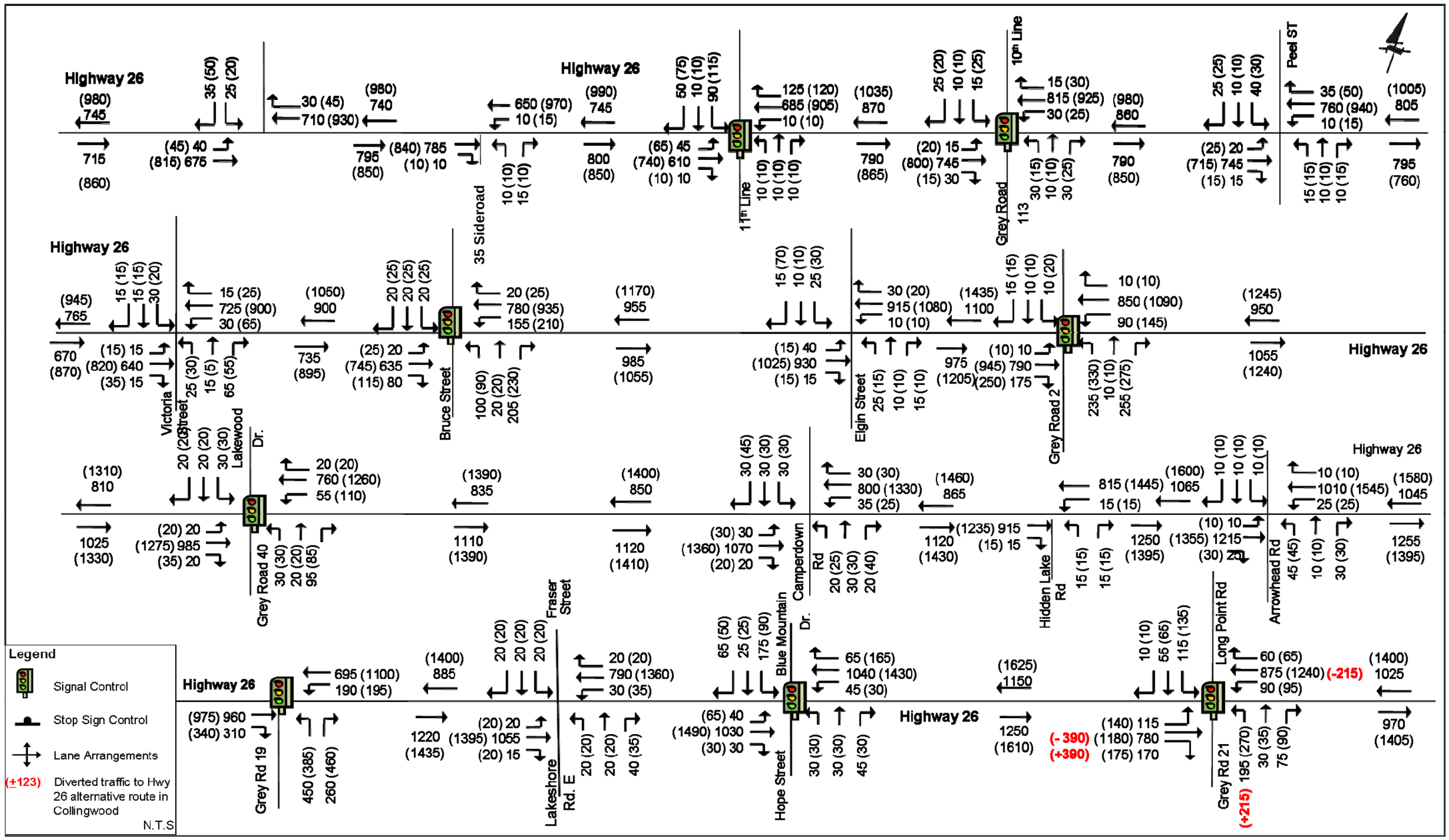
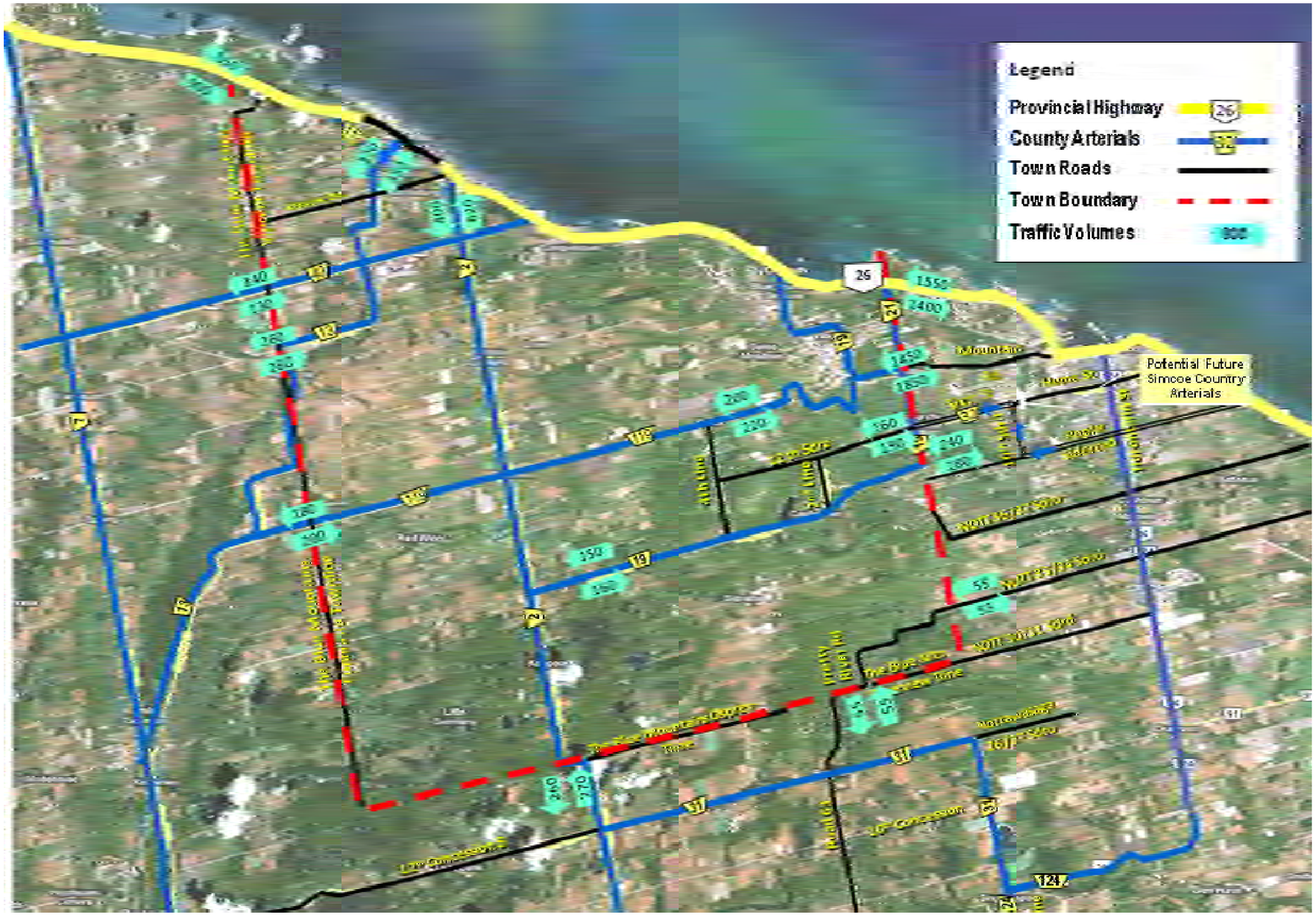


Figure 4.8. Future 2028 Traffic Volumes Within Key Corridors & Arterials Within the Town



5. Transportation Needs Assessment

The operational analyses performed under the 2013, 2018 and 2028 traffic conditions will be discussed in detail under **Section 6**. To deal with intersections and road sections capacity deficiencies, improvement strategies will be recommended. In this section, a high order assessment was conducted in terms of link capacity deficiencies within the Town under the future 2028 projected traffic volumes. Other localized operational issues will also be discussed and identified.

5.1 Transportation System Deficiencies

5.1.1 Highway 26

A high level corridor assessment was carried out to identify potential capacity deficiencies of the key corridors within the Town under the future 2028 traffic conditions. **Figure** 5.1 presents a summary of this corridor assessment and identified road deficiencies. As noted, key study corridors are expected to face capacity deficiencies in 2028 due to traffic growth / developments, as further discussed below.

The following is a summary of the Highway 26 capacity and operational deficiencies within the Town:

- sections of Highway 26 are expected to reach or exceed their operational capacity (resulting from peak hour volumes in excess of 1000 vehicles per hour per lane) in 2028;
- a number of intersections along Highway 26 will operate at or beyond capacity, and
- public road spacing and private access densities along Highway 26 currently exceed MTO guidelines within the Craigleith area.

Figure 5.1 presents a summary of these deficiencies.

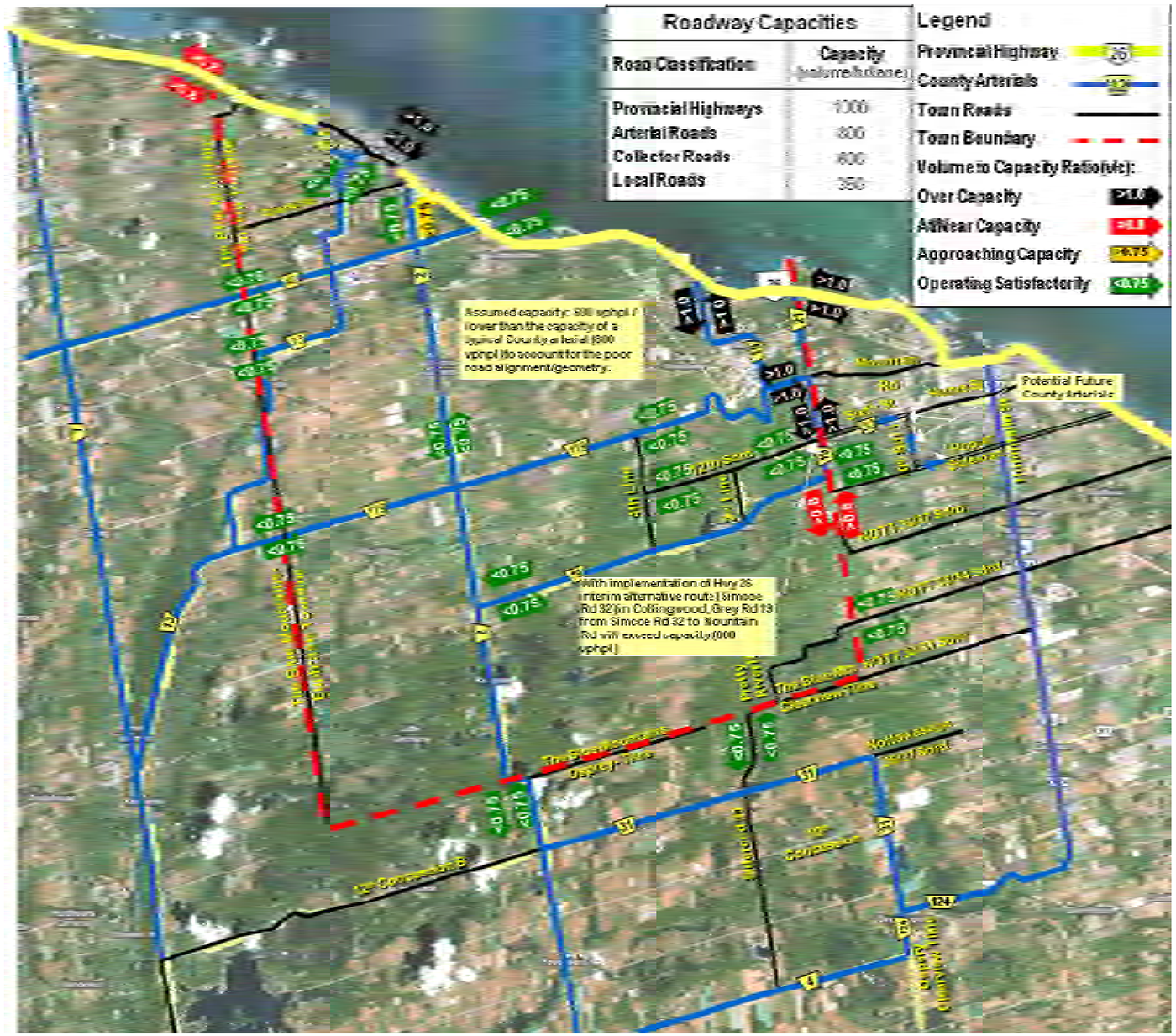
5.1.2 County Roads

Capacity and operational deficiencies of the County Road network within the Town include:

- traffic volumes on Grey Road 19 will exceed the road's capacity of 800 vehicles per hour per lane;
- traffic volumes on Grey Road 19 from Mountain Road to Simcoe County Road 32 will exceed the road's capacity of 800 vehicles per hour per lane; and
- key intersections on Grey Road 19 will reach their capacity at or just beyond 2028:
  - Grey Road 19/ Grey Road 21
  - Grey Road 19/ Jozo Weider East

Figure 5.1 presents a summary of these deficiencies.

Figure 5.1. Key Transportation Corridor Deficiencies Within The Town (Year 2028)



5.1.3 Town Roads

The following Town roads are expected to operate near their capacities in 2028:

- Jozo Weider Boulevard (entire road)
- Arthur Street/Bridge Street/ King Street (Highway 26 connecting link) in Thornbury

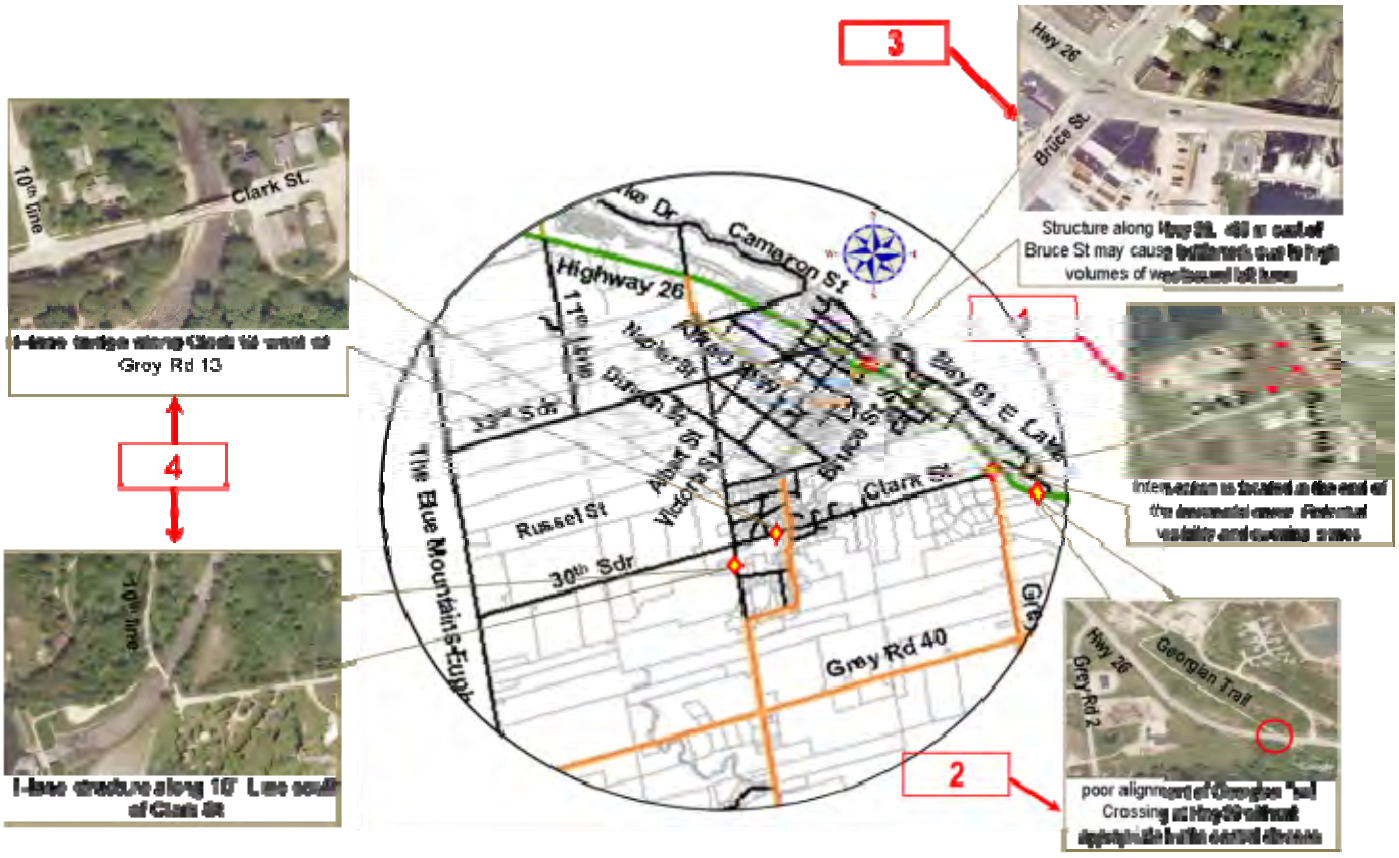
A number of intersections along King Street/Bridge Street/ Arthur Street will face operational deficiencies if no improvements are made. Other collector/local Town roads are expected to operate with considerable reserve capacity beyond 2028.

5.2 Other Localized Operational Issues:

Beyond the capacity deficiencies noted above, a number of additional issues have been identified as they relate to traffic operations. They are as follows and illustrated in **Figure** 5.2:

1. **Clark Street /Grey Road 2**: this intersection is located at the end of a horizontal curve and is in close proximity to the intersection of Highway 26 with Grey Road 2, and thus there is the potential for operational and queuing issues
2. **Georgian Trail Crossing of Highway 26**: the crossing is uncontrolled, on a skew angle and located just east of a horizontal curve, all of which are a concern with respect to the safety of the trail users
3. **Thornbury**: there is a potential bottleneck on the westbound lane of the Arthur Street/ Bridge Street intersection as a result of the narrow 2-lane bridge located about 50 metres east of the intersection that can potentially pose a restriction on intersection widening to provide additional lanes on the westbound approach
4. **Clarksburg**: there are potential safety/operational issues due to the existing single-lane bridge structures along 10th Line south of Clark Street and on Clark Street west of Grey Road 13

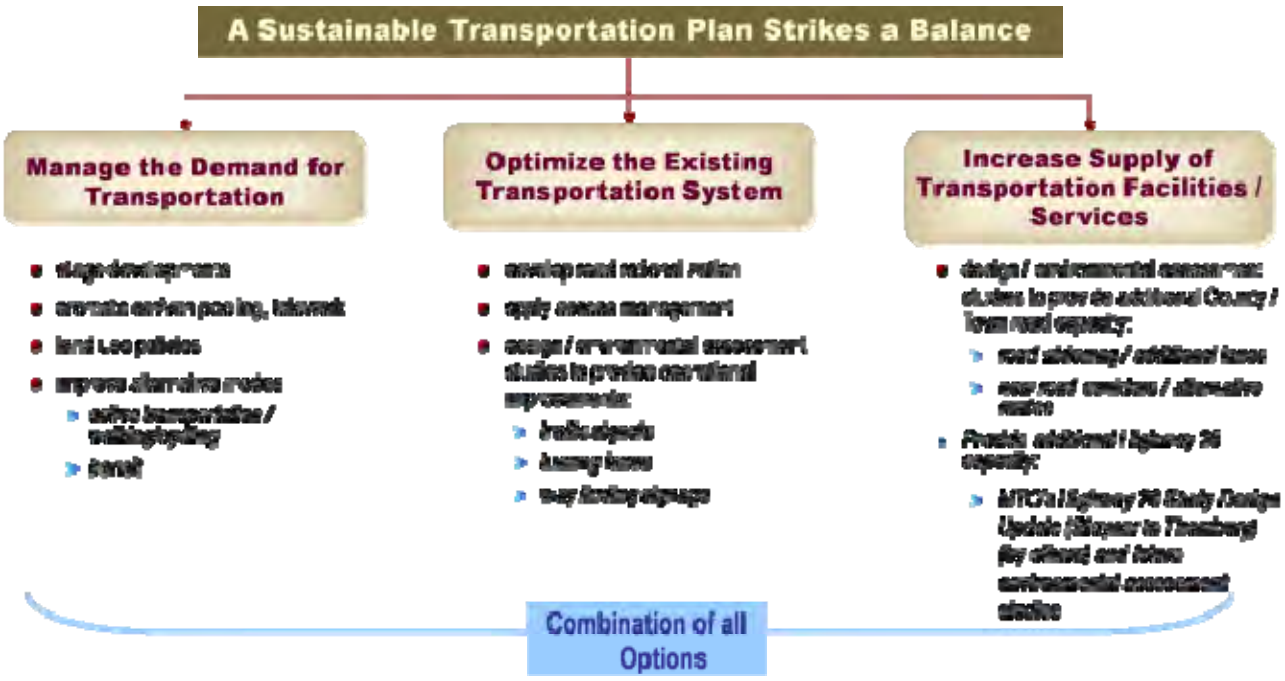
Figure 5.2. Summary of Other Localized Operational Issues



6. Transportation Improvement Strategies

There are three basic strategies to address the growing demands for transportation. A municipality can attempt to:

- manage or reduce the demand for transportation;
- optimize the existing transportation system; and/or
- increase the supply of transportation infrastructure and services.



An effective and sustainable transportation system attempts to strike a balance between the economic and social benefits of transportation with the need to protect the environment[3]. A sustainable transportation strategy therefore, attempts to strike a balance between these strategies in recognition of the fact that implementation of only one of these approaches will not achieve the sustainability objectives, while attempting to service a growing population.

Why is Balance Important?

⇒ *A transportation strategy must be achievable – otherwise the system can be over designed or over capacity*

⇒ *The transportation system should improve mobility and accessibility for all residents regardless of car availability*

⇒ *An effective transportation system and high quality of life are key factors in business location / retention*

⇒ *Alternative transportation modes, such as walking and cycling, offer significant health / quality of life benefits*

⇒ *An active and mobile community is a vibrant community*

⇒ *A more balanced transportation system can reduce adverse environmental impacts from road widening / construction, air quality, etc*

3. Strategies for Sustainable Transportation Planning: A Review of Practices and Options, Transport Canada, September 2005

The implementation of Transportation Demand Management (TDM) measures, and promotion of non-auto modes (such as walking, cycling, ridesharing and public transit) are usually only achieved over a long period of time (10+ years). Given the rural nature of the study area, it is not expected that the auto-based travel demand could be reduced by more than 5% following consideration for such measures.

A recent study, undertaken as part of the City of London Transportation Master Plan, found that arterial road optimization (eg. localized intersection improvements and signal system coordination/optimization) and access management could increase the capacity of an arterial road by up to 10%.

To this end, the provision of operational improvements in combination with appropriate Transportation Demand Management measures may result in a 15% improvement (5% reduction in travel demands and 10% increase in road capacity) , which is not considered sufficient to accommodate the 2028 projections.

Accordingly, the recommended approach for addressing future operational deficiencies is a combination of all options, the application of which are discussed in the following sections, including:

- **Managing transportation demand** (i.e. promoting active modes/walking/cycling, transit, ridesharing, telework, way finding signage)
- **Operational improvements** (i.e. localized intersection improvements, signal system coordination/ optimization, access management plans)
- **Provide additional capacity** (i.e. road widening / alternative routes)

With regard to the provision of additional capacity, it is to be noted that MTO is currently undertaking the Highway 26 Study Design Update to address adequate Highway 26 through-capacity traffic for inter-regional east-west traffic from east of Stayner to west of Thornbury. Accordingly, it is premature for this study to consider any additional widening of Highway 26 as a viable option until completion of the MTO's Highway 26 Study Design Update. Therefore this study only considers operational improvements that optimize the existing traffic flow capacities through the provision of traffic signals, turning lanes and access management initiatives.

6.1 Managing the Demand for Transportation

Over the past 10 to 15 years, the concept of Transportation Demand Management (TDM) has emerged. TDM is described as a series of initiatives and policies designed to reduce or control the increase in the overall demand for vehicular travel within a community. TDM emphasizes the movement of people and goods, rather than motor vehicles, and therefore gives priority to public transit, ridesharing and non-motorized travel, particularly in congested urban conditions.

This section includes the recommended strategies and infrastructure improvements to promote non-auto traffic and active transportation modes (for more detailed discussions on the recommended transportation policies to promote TDM please refer to **Section** 7.1.

6.1.1 Increase Use of Transit Service

Improving Public Transit is one of the most significant transportation demand management strategies to be considered. It starts by building upon the existing available transit practices through improved coordination with

private sector transit providers within Grey County as well as adjacent municipalities. The Town of Collingwood has a well established public transit system and in July of 2008 the Town of Wasaga Beach instituted a public transit service in partnership with a private company (Georgian Coach Lines). They started with one bus and are currently running a trial route with a second bus. In recent years Collingwood was considering the extension of transit service to the Town of Wasaga Beach however, to date, there have been no discussions between the two municipalities about consideration of an inter municipal public transit service. Opportunities for the creation of a transit linkage to the Town should be reviewed with the Town of Collingwood and the Town of Wasaga Beach. Extending the regular service of the neighbouring municipalities would provide residents in both the Town and the adjacent areas with improved access to services and amenities in other municipalities, and would provide the area with alternative travel options.

Transit is most effective for moderate and long-distance trips on busy corridors, while cycling is effective for shorter-distance trips with multiple stops. Combining transit and cycling can provide a high level of mobility comparable to automobile travel. A transit stop normally draws riders within a 10-minute walking distance. At a modest riding speed, a cyclist can travel three or four times that distance in the same time, thus increasing the transit catchment area significantly. Bicycle access tends to be particularly important in suburban areas where densities are moderate and destinations are dispersed.

Extending the regular service of the neighbouring municipalities would provide residences in both the Town and the adjacent areas with improved access to services in the more urbanized municipalities, and would provide the area with alternative travel options.

Given the recreational nature of the study area, the key focus of the Transportation Demand Management should be Tourist Transport Management (also called Resort Community Transport Management) which involves improving transportation options for recreational travel and reducing automobile traffic in resort areas. Tourist Transport Management can preserve the amenities that attract visitors to an area, whether it is an historic Town center or a pristine natural environment.

Tourist Transport Management programs can include a variety of specific strategies to improve transport options, integrate alternative transportation into tourist activities, provide disincentives to drive, and promote alternative modes.

Traffic to the Blue Mountain Resort and ski hill area peaks during the winter weekends and holidays. Visitors have particular mobility needs (e.g. travel between transport terminals, accommodations, restaurants and shops, tourists attractions, etc.) and baggage requirements (skis, golf clubs, gifts to carry home). Tourist Transport Management must take these travel patterns and needs into account.

Many resort visitors will use alternative modes if they are convenient, enjoyable and affordable. Tourist TDM programs can involve developing car-free travel options and packages. This requires coordination to insure that visitors' mobility needs are served, and that such travel options are well marketed. When planning a trip, potential visitors must be assured that they can arrive at their accommodations, access local activities and attractions, and carry any baggage they need, reliably and in comfort without a car.

Since TDM programs essentially try to invoke change at an individual level, all successful TDM programs rely on a partnership between public sector agencies, private sector businesses and community interest groups. Getting the message out is a key part of any program that seeks to invoke change.

6.1.1.1 Key Recommendations

There is a need to target and reach out to employers, residents and environmental groups to market the benefits of TDM. The initial strategy for the Town to lead by example will help the Town recognize the challenges and issues associated with getting employees to change modes of travel and for the Town to use this knowledge to deliver information to employers.

For more detailed discussion on the recommended transportation policies to promote transit please refer to **Section** 7.3.

In general, it is recommended to extend the regular service of the neighbouring municipalities to provide residences in both the Town and the adjacent areas with improved access to services in the more urbanized municipalities, and to provide the area with alternative travel options.

To this end the Town should work with local communities, business owners, adjacent municipalities, transit authorities and pursue the following key recommendations:

- Initiate discussions with adjacent municipalities to implement the inter-regional/ inter-city transit service areas and establish service levels and performance measures for each service area that reflect funding considerations, potential ridership, and required infrastructure.
- Discuss with Collingwood transit, Wasaga Beach transit and local providers within the Grey County transit about extending transit services into the Blue Mountains Resort and ski hill area and Thornbury. The availability of local transit system will assist in servicing inter-regional commuters, and contribute to funding a share of the capital costs associated with the provision of new buses required to implement the service, and the provision of transit stops/shelters in the local communities.
- Partner with private sector and local demand-response transit providers to provide wider transit coverage within the Town as well as inter-city bus services (such as Greyhound/PMCL Transportation Corporation). This service provides a backbone that could be used to provide more frequent service and/or more direct service between the local communities to benefit Town residents.
- Include policies in the Official Plan that support the provision of local transit service within the Town.
- Establish a local transit reserve fund within the Town's annual budgeting process and contribute a percentage of annual allocation of the roads budget to fund the capital costs associated with the initial purchase and ongoing maintenance cost and infrastructure required to deliver the service.
- Coordinate with public sector agencies, private sector businesses and community interest groups to develop car-free travel options and packages to insure that visitors' mobility needs are served, and that such travel options are well marketed. This will assist potential visitors to be assured that they can arrive at their accommodations, access local activities and attractions, and carry any baggage they need, reliably and in comfort without a car.

6.1.2 Promote Active Transportation (Walking/Cycling)

While trail connectivity has traditionally been a focus of much research, equally important to a successful trails system are suitable access points. The development of adequate staging locations and trailheads should incorporate the facilities dictated by the types of use allowed by the specific trail.

Walking and cycling infrastructure should be designed to:

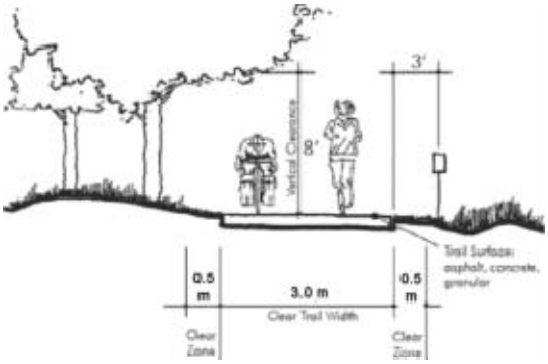
- connect to the existing trails network,

- provide access to local commercial areas or new development areas,
- encourage increased walking and cycling for local short trips, and
- provide safe walking and cycling routes to neighbourhood schools and community centres.

To this end, the Town needs to develop design standards for cycling facilities and trails within the Town roads rights of way.

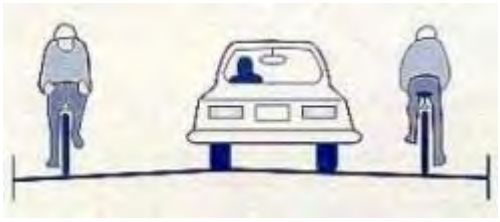
There are various types and design options for the provision of bike lanes including:

Off-Street Bike Lanes:



- Multi-Use Trail/off-street bicycle facilities: provides separation from traffic, typically 2.5-3.0 m wide and preferably paved.
- In some cases, extra wide or dual pathway systems may be appropriate for multifunctional purposes (6.0 m), i.e. walking, cycling and cross-country skiing.

Shared Roadways (On-street bicycle facilities)**:**



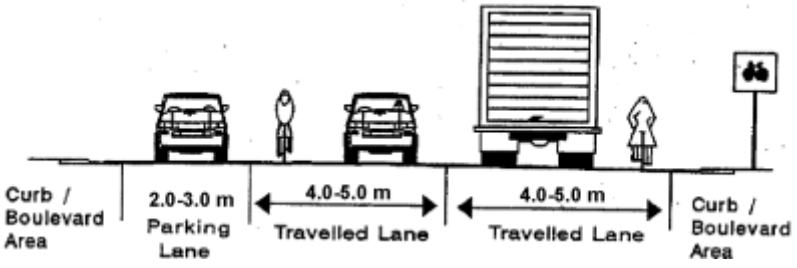
- Generally, all roads are technically classified as "shared roadways" (with the exception of controlled-access freeways).
- Most shared roadways have no provisions for bicycle travel and are therefore, perceived as unsafe by many bicyclists.
- Design measures can be taken to ensure that shared roadways accommodate bicyclists safely and efficiently.

Design options for shared roadways:

- **On-Road Bicycle lanes**: exclusive lanes designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists. Exclusive bicycle-lanes required on roadways with:
  - high volumes of vehicular traffic (>3000 AADT);
  - high volume of truck traffic (>12%); or
  - high vehicular speed (>75 km/hr).

In rural areas, the minimum bike lane width of 1.2 m is typically required, while in urban areas the minimum width would be 1.5 m from the gutter line.

- **Wide outside lanes** (4-5 m): shared roadways with low traffic volumes (3000 AADT) and/or low motor vehicle speeds (40km/hr) which do not need special bicycle accommodations.



- **Striped shoulders:** used on rural roads /highways and may have minimum width of 1.0 m. A width of 1.5 m or greater would be preferable. Additional width including an offset zone for the aerodynamic effect are desirable (0.5 to 1.5 m) where substantial truck traffic is present, or vehicle speed is high (>75 km/hr).
- **Shared use pavement markings** (Sharrows): A new Pavement Marking for shared lanes (lane width ≥ 4m), applicable for:
  - roadways that bike lane is desired but cannot be implemented due to insufficient roadway width, demand for street parking or other constraints;
  - on roadways where traffic is relatively heavy, with moderate speed;
  - for route continuity between sections of roadway where a more desirable facility can't be implemented; and
  - within a shared bus/bicycle lane.

In general, on low volume Town/County roads, with traffic volumes of less than 3000 vehicles per day, on-road cycling facilities could be provided by paving the shoulder. For higher volume roads, off-road facilities could be provided beyond backslope of the ditch.

However, given the rural nature and typically low volume of traffic (below 3000 vehicles per day) along most of the key arterials within the Town, the preferred strategy is to emphasize the development of an integrated on-road cycling system using paved shoulders to connect communities across the Town. The trail system should build upon the existing system established by local communities and trail associations, and should incorporate facilities and utilize infrastructure to fill in the missing and complete connections to local communities and to other trails.

Generally, collector and arterial streets should have a minimum of a 1.2 m wide striped bicycle lane, however wider lanes are often necessary in locations with parking, curb and gutter, heavier and/or faster traffic. Additional width including an offset zone for the aerodynamic effects are desirable (0.5 to 1.5 m) where substantial truck traffic is present, or vehicle speed is high (>70 km/hr). Rural arterials should have a minimum of a 1.2 m paved shoulder, however wider shoulders (or marked bike lanes) and accessible sidewalks and crosswalks are necessary within rural communities and where traffic volumes and speeds increase. **Figure** 6.1 shows a typical cross section for collector/arterial roads with shoulder bike lane.

With respect to sidewalks, collector and arterial streets should have a minimum of a 1.5 m sidewalk preferably on both sides of the street, however wider sidewalks and landscaped buffers are necessary in locations with higher pedestrian volumes and/or higher vehicle speeds. At intersections, sidewalks may need to be wider to accommodate accessible curb ramps.

For more detailed discussion on the recommended transportation policies to promote Active transportation please refer to **Section** 7.2.

6.1.2.1 Key Recommendations

Opportunities to promote active transportation (walking / cycling) within the Town include:

1) provide sidewalks on the existing / future roadways in the developed areas at least on one side
2) provide a continuous network of bike friendly streets
3) provide bike lanes on all County arterial roads
4) provide appropriate trail signage on all routes/ key destinations
5) plan trail / sidewalk facilities to encourage crossing locations at intersections rather than mid block
6) provide safe / appropriate traffic control devices on trails crossings with roads

As mentioned above given the rural nature and typically low volume of traffic (below 3000 vehicles per day) along most of the key arterial roads within the Town, on-road cycling system is the preferred option of cycling within the Town, using paved shoulders. The trail system should build upon the existing system established by local communities and trail associations, and should incorporate facilities and utilize infrastructure to fill in the missing and complete connections to local communities and to other trails.

Figure 6.1 illustrates a typical cross section for a shoulder bicycle- suitable for roads with a low traffic volume (<3000 AADT) and/ or low speed traffic speed (<75 km/hr).

Figure 6.1. Typical Shoulder Bike-Lane Infrastructure – Rural Roads

Figure 6.2 illustrates a typical cross section for off-road trail facilities suitable for roads with a high volume of traffic (≥3000 AADT) and/ or high traffic speed (≥75 km/hr).

Figure 6.2. Typical Off-Road Trail – Rural Roads

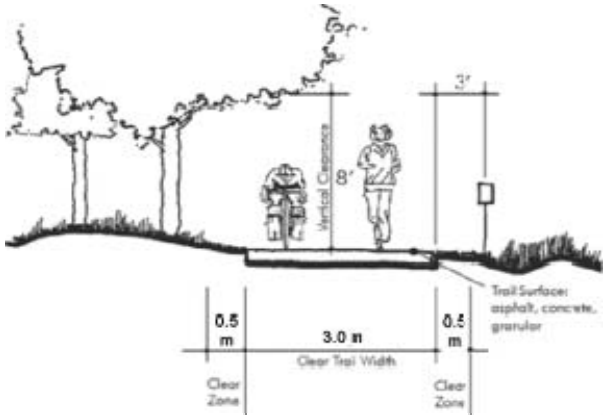
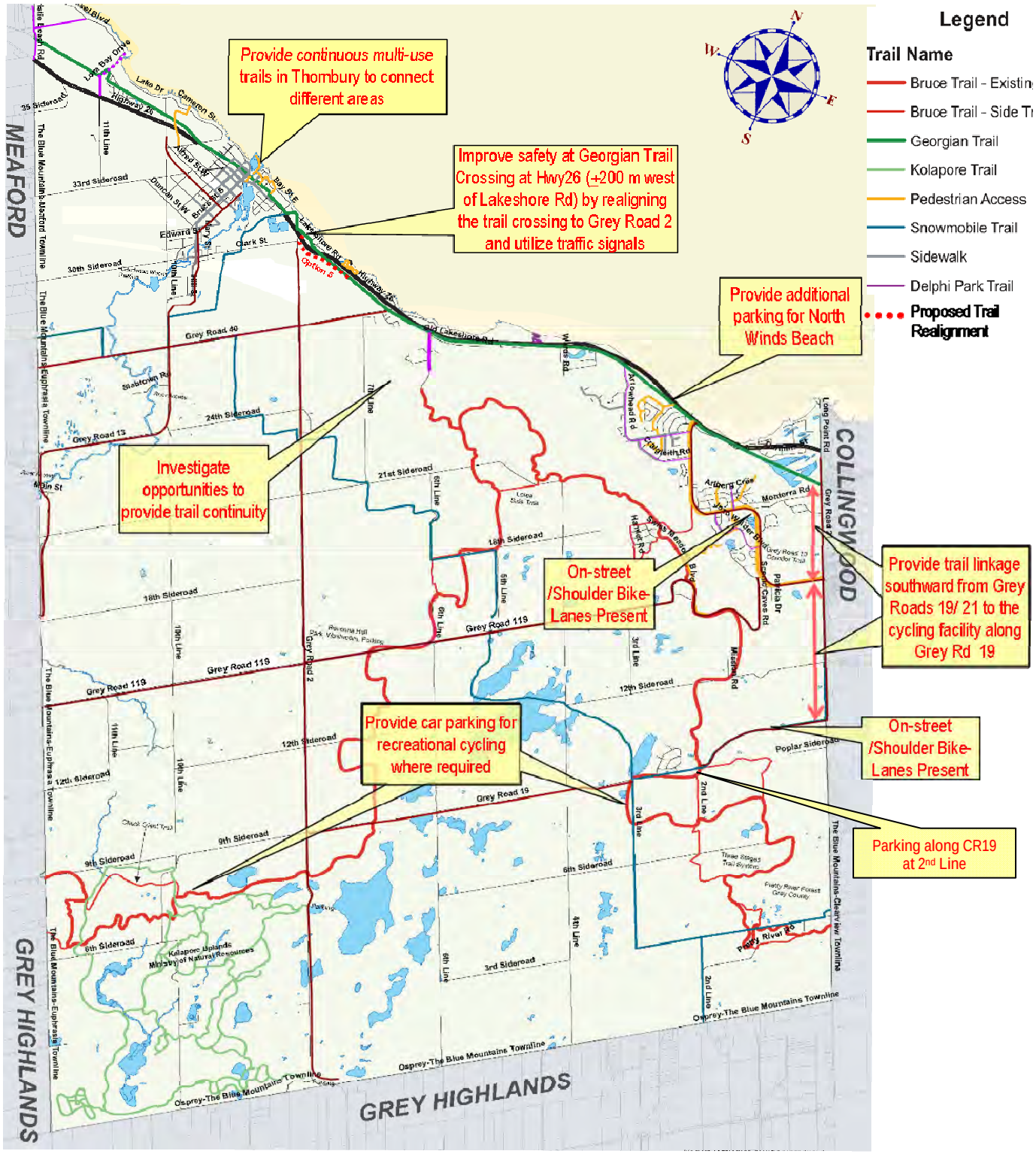


Figure 6.3 illustrates a graphic summary of the recommended improvements to the trail network within the Town limits.

Figure 6.3. Recommended Improvements on Trail Network



6.2 Optimizing the Existing Transportation System

The need for optimization of the existing transportation network is a key requirement for any municipality in times of fiscal restraint. Optimization of the existing transportation system includes maximizing the capacity of existing facilities, improving the performance and reliability of existing services, and making minor operational improvements to improve system performance.

Operational improvements can include a combination of localized intersection improvements, signal system coordination/optimization, way finding signage and access management plans. One very effective optimization strategy is to construct turning lanes at key intersections with heavy turning volumes. Not only do turning lanes remove left or right turning vehicles from the through lanes, the use of left turning lanes at key intersections can allow for specialized traffic signal phasing such as advance green arrows, to address left turn capacity issues.

6.2.1 Access Management

A key component of this study is to develop a Highway Access Management Plan (HAMP) for the section of Highway 26 within the study section, which can be used to guide MTO as well as the Town/County in addressing future requests for direct highway access.

Access management is the process that manages entrances onto provincial highways and onto roads in the vicinity of provincial highways. For the safe and efficient movement of traffic, access management is particularly important along freeways and arterial highways. Entrance connections to property are typically secondary to mobility.

Poorly implemented highway access management typically impacts the provincial highway network, the municipal road system and the land use developments they service. This can affect the long-term economic viability of the development itself and the quality of life for area residents. Correction of poorly implemented highway access management practices “after the fact” is typically more difficult, more disruptive and costly, and must compete with other provincial highway and municipal road improvement projects.

A HAMP is a comprehensive “master plan” for managing access to all or part of a provincial highway corridor. A HAMP’s aim is to achieve the optimum balance between transportation and planning objectives and preservation of the current and future function of the highway.

In addition, a HAMP identifies long-term access concepts, including access locations, and/or local service road concepts. This plan can be used as a guide for MTO/Town/County to address the requests for access from development/redevelopment of properties.

6.2.1.1 Need for Access Management

On the one hand, MTO’s mandate is to preserve the safety and efficiency of the provincial highway network. On the other hand, MTO’s goal is to do this in a way that supports economic development. The result is a balancing act to try and achieve the optimal balance between preserving the highway network and enabling development.

In principle, Highway 26 is intended to balance the need to provide for long distance travel on the highway and reasonable access to abutting properties while at the same time preserving the safety and efficiency of MTO/Town/County roadways. Consequently, access to abutting property is subordinate to the goal of traffic movement and subject to necessary management of entrances and exits.

In context of the above, the development of a comprehensive HAMP along this section of Highway 26 is fundamental, given the fact that safety is closely linked to the number of access points provided and the ability for motorists to safely manoeuvre between the highway and abutting development.

6.2.1.2 Access Density

As mentioned previously, a review of MTO's Draft 'Highway Access Management Guidelines', identified that Highway 26 should try and achieve/maintain the following access density requirements:

- 4 private access points allowed per kilometre per side;
- minimum spacing between public road intersection = 1600 m desirable/800 m minimum; and
- minimum spacing between commercial and private road access = 1600 m desirable/800 m minimum.

The access density calculations suggested that the number of existing access points along Highway 26 east of Thornbury generally exceeds MTO Guidelines while west of Thornbury densities fall below the MTO Guideline value.

6.2.1.3 Access Management Options

To reduce the number of intersections along Highway 26, the potential closure and/or realignment of some existing public/private roads was considered. The proposed future road closures and/or realignments are in keeping with currently accepted access management practices to protect existing and future traffic operations and improve safety along the Highway 26 corridor. In all cases, proposed road closures or realignments involve either new road connections or alternate routes along existing road networks to provide for the continuation and continuity of access to the Highway 26 corridor.

The following intersections are being reviewed for potential closure; involving either new road connections or alternate routes along existing road networks (proceeding from west to east):

- Woodland Park Road (west end);
- Lakewood Drive (west end);
- Hoover Lane;
- Gibson Way;
- Fraser Crescent (west end);
- Timmons Street (west end);
- Brophy's Lane; and
- Timmons Street (east end).

The following intersections have been reviewed for potential realignment:

- Blue Mountain Drive (realign opposite Hope Street);
- Lakeshore Road E. (realign opposite Fraser Crescent east end)
- entrance to Craigleith Provincial Park (realign opposite Arrowhead Road); and
- Lake Shore Road (realign opposite Grey Road 2).

The preliminary access reconfiguration schemes were presented as part of PIC 1. Following a review of public/agency comments, major issues / concerns were identified and further investigations and site visits were conducted to determine the viability of these access realignment options. To that end, appropriate modifications were made to the plans to address these issues, as required.

The following revised options were considered for potential closure/ realignment:

- Brophy's Lane's will potentially be closed at Highway 26 and associated traffic will be reassigned to the Grey Road 21/Long Point Road intersection;
- Timmons Street access to Highway 26 will potentially be closed on both ends and the associated traffic volumes will be reassigned to the future 4-legged intersection at Hope Street/Blue Mountain Drive;
- the west junction of Lakewood Drive and Woodland Park Road will potentially be closed at Highway 26 and the related traffic will be reassigned to the intersection at Grey Road 40;
- the Lakeshore Road west connection at Highway 26 will potentially be closed and realigned to the intersection of Highway 26 / Grey Road 2 to create a 4-legged intersection aligning with Grey Road 2 to the south;
- access at the west junction of Fraser Crescent with Highway 26 will potentially be closed and the related traffic will have access to Highway 26 via its easterly junction;
- the Lakeshore Road east connection at Highway 26 will potentially be closed and realigned easterly to create a new 4-legged intersection with the Fraser Crescent east junction;
- the Craigleith Provincial Park access to Highway 26 will potentially be realigned to the intersection of Highway 26 at Arrowhead Road to create a 4-legged intersection aligning with Arrowhead Road on the south side; and
- Gibson Way and Hoover Lane intersections at Highway 26 will potentially be closed and the related traffic will be reassigned to the Camperdown Road intersection.

6.2.1.4 Access Management Evaluation

The road closures and realignment have been evaluated based on the following:

- assessment of traffic volumes and ability of associated changes to travel routes to be adequately accommodated via alternative routes;
- safety implications associated with the closures/realignments and/or alternative routes;
- assessment of general growth and development growth within the study area;
- impacts to local property owners;
- feasibility of implementing alternative routes given physical constraints (i.e. presence of wetlands, escarpment, etc.); and
- cost of implementation and overall cost-benefit.

6.2.2 Implementation

The access management improvements are likely to be justified and triggered by (but not limited to) any of the following circumstances, and would be subject to future Class Environmental Assessment for Provincial Transportation Facilities (MTO Class EA) and/or Municipal Class Environmental Assessments:

- timing of future MTO work projects, subject to availability of funding;
- timing of future Town or County work projects, subject to availability of funding;
- increase in traffic volumes;
- timing of future development/infilling;

- safety and traffic operational concerns determined by MTO;
- Town request, and/or
- Public request.

It is assumed that the proposed access realignments/consolidations will be in implemented in concert with future development in the area.

6.2.2.1 Key Findings & Recommendations

As per the information presented, it is evident that east of Thornbury, the number of access points generally exceeds MTO Guidelines while west of Thornbury densities fall below the MTO guideline value. To ensure the integrity of the highway is preserved to the extent possible as future development continues, recommendations are required as to how access is to be provided and controlled. While the number of private access points are significant, and exceed the MTO guidelines, no changes to private access are being considered in this study given property and access implications that cannot otherwise be readily remedied. As such, access modifications will focus on public road access points. Recommendations may include:

- access closure;
- access consolidation;
- access realignment;
- provision of service roads for access;
- Town and County land-use planning decisions which discourage creation of new lots of record requiring direct highway access connection, and
- Town and County land-use planning decisions which discourage conversion of residential/rural lands to commercial designation which require either a direct new highway access connection or upgrading of existing access connection/

Recommended access realignment options in the 2013 horizon include:

- Brophy's Lane's will potentially be closed at Highway 26 and associated traffic will be reassigned to the Grey Road 21/Long Point Road intersection and potentially to the 4-legged intersection at Hope Street Street/Blue Mountain Drive;
- Timmons Street access to Highway 26 will potentially be closed on both ends, and the associated traffic volumes will be reassigned to the future 4-legged intersection at Hope Street Street/Blue Mountain Drive;
- West junction of Lakewood Drive will potentially be closed at Highway 26 and the related traffic will be reassigned to the intersection at Grey Road 40/Lakewood Drive;
- West junction of Woodland Park Road will potentially be closed at Highway 26 and the related traffic will be reassigned via a new road through the Georgian Glen subdivision lands to the intersection of Grey Road 40/Indian Circle. Existing Woodland Park Road will also potentially be closed at Grey Road 40 and an emergency will remain;
- Lakeshore Road west connection at Highway 26 will potentially be closed and realigned to the intersection of Highway 26 / Grey Road 2 to create a new 4-leg intersection; and
- Potential realignment of Georgian Trail to Grey Road 2 intersection.

Recommended access realignment options in the 2018 horizon include:

- Access at west junction of Fraser Crescent with Highway 26 will potentially be closed and the related traffic will have access to Highway 26 via easterly junction*; and

- Lakeshore Road east connection at Highway 26 will potentially be closed and realigned easterly to create a new 4-leg intersection with Fraser Crescent east junction.

*Two responses to the PIC #2, identified concerns from two local developers whose properties, they felt, would be adversely impacted by the closing of Lakeshore Road East at Highway 26. As a result, Town staff will be meeting with the affected property owners to identify a mutually satisfactory solution.

Recommended access realignment options in the 2028 horizon include:

- Craigleith Provincial Park access to Highway 26 will potentially be realigned to the intersection of Highway 26 at Arrowhead Road to create a new 4-leg intersection; and
- Gibson Way and Hoover Lane intersections at Highway 26 will potentially be closed and the related traffic will be reassigned to the Camperdown Road intersection as infilling and development occurs.

A graphic summary of the final recommended access options is provided in **Figure** 6.4.

Figure 6.4. Recommended Access Realignment Alternatives- Highway 26

6.2.3 Road Rationalization

Roads are grouped according to the type of service they provide. The classification of roads assists in establishing road design features, land use planning policy, traffic density, mobility, safety and access requirements. A balance of all road types is needed to achieve mobility for all users. This includes the rationalization of truck routes, transit routes, designated bicycle network links, parking and loading restrictions, and snow route restrictions

6.2.3.1 The Town's Road Classification System

The Town's Official Plan (Appendix Map G – Roads Plan) includes the Town's road classification system (as amended by OPA 4). The road classification categories are generally designed to provide for a functional hierarchy of roads, with appropriate standards applied to each category to ensure efficient circulation functions. Road Classifications are described as follows:

Provincial Highway: Highway 26 traverses the Town and is designed as a long distance, high speed traffic corridor. Under the jurisdiction of MTO, it is designated as a Special Controlled Access highway intended to carry through traffic with limited direct land access.

County and Arterial Roads: County and arterial roads are designed to collect and carry traffic to the Provincial Highway, other arterial roads, and collector roads. Arterial roads consist primarily of Grey Roads 2, 13, 19, 21, 40, 113 and 119, as well as some Town roads which are considered to be primary traffic arterials including Bridge Street which functions as the Highway 26 connecting link through Thornbury. Existing arterial roads that generally have a right-of-way width of lower than 30 metres are not wide enough to provide for shoulder bike-lanes. County arterial roads and new arterial roads will require a minimum of 30 metres right-of-way to be able to accommodate shoulder bike-lanes. Road widening to a 30 metre right-of-way may also be considered desirable for some existing Arterial roads, subject to the requirements of the applicable road authority.

Collector Roads: Collector roads are designed to collect and carry local traffic to the Provincial Highway, arterial roads, and other collector roads, or to distribute traffic to local roads, as well as provide limited access to abutting properties. Existing collector roads generally have a right-of-way width of 20 metres, however where possible, they should be expanded to 26 metres. New collector roads should have a right-of-way width of 26 metres. To ensure the integrity of the collector roads function, new individual lot access should be discouraged. Where appropriate common access and service lanes should be encouraged.

Local Roads: The remaining roads under the Town's jurisdiction are classified as local roads. Existing and future local roads are generally intended to provide access to abutting properties. They are not designed for through traffic. Existing rights-of-way are normally 20 metres in width. The minimum right-of-way width for all new local roads shall generally be 20 metres.

6.2.3.2 Grey County Road Rationalization Process

Grey County completed a road rationalization study in 2006 to review and address the substantial changes to traffic pattern and characteristics of the road system within the County as a result of the population growth caused by increased commercial / industrial / tourism activities. The first challenge in updating the Road Classification System was to decide what key criteria should be used to differentiate a County Road from a Town road. As part of this study technical criteria were used to rationalize the road network and to determine which roads serve which functions.

Road rationalization review identifies some sections of County roads that may need to be transferred to the local municipality and similarly parts of the lower tier roads that may also need to be transferred to the County with an intent to facilitate efficient /effective delivery of the roads service and reduce the overall costs.

Road systems within the County include:

- Provincial Highways:
  - intended to move large volumes of traffic at high speeds
  - connect major economic regions and centres such as cities, towns, agricultural areas and recreational areas
- County roads are upper tier transportation corridors:
  - provide a major inter-centre connector in a reduced scale
  - connect smaller centers of population / provide a "farm to market" road link
  - serve as the continuous transportation network throughout the corridor
  - capable of being upgraded to a reasonable standard consistent to its function
  - shortest practicable route existing along roads / streets.
- Local municipal road system:
  - acts as the final link in the system
  - provide access to the abutting properties & subdivisions
  - primarily serve the local population

Road Rationalization Criteria

Criteria 1:	*Urban center connector*	*(3 points)*
Criteria 2:	*King's Highway/Upper Tier Connector*	*(3 points)*
Criteria 3:	*Heavy Industry Service*	*(2 points)*
Criteria 4:	*Barrier Service*	*(0.5 point)*
Criteria 5:	*Resort Criterion*	*(1 point)*
Criteria 6:	*Urban arterial extension*	*(3 points)*
Criteria 7:	Rural Cell Service	*(0.5 point)*
Criteria 8:	*Traffic Speed*	*(1 points)*
Criteria 9:	*Road Surface*	*(0-1 point)*
Criteria 10:	*Traffic Volumes*	*(0-3.5 points)*
Criteria 11:	*Road Right-of-Way*	*(1 point)*

In general:

- Roads that serve as a continuous transportation network should be transferred to the County / upper tier road system
- Roads that primarily serve a local function to be transferred to the Town

Each of the criteria were assigned a weighting factor, to reflect the relative importance placed on the individual criteria relative to the role a County Road plays in the overall transportation system. A scoring system was developed to determine a minimum threshold for a roadway to be considered as County Road.

In order to simplify the rationalization process, letters were sent to the local municipalities requesting their input and to provide a list of roads in their jurisdictions that serve through traffic and they deem as appropriate for transferring to the County.

County Road Classification	***Score***
Controlled Access	20+
Primary Arterial Road	10-19
Secondary Arterial Road	6-9
Consider Transfer to local	<6

Subsequently a screening was performed on these recommended roads based on a Criteria Guideline for an Upper

Tier County Road Systemic Grey County and roads which scored over six (6) points (total cut-off weight) against the criteria were considered for re-designation.

In reply to the County's request, the Town recommended the following road links for transferring to the County:

Scenic Caves Road & 15/16 Side Road to Ravenna:

- it provides connection to the communities of Ravenna, Banks, Swiss Meadows and Blue Mountain Resort and ski hill area.
- it connects two major County Roads 2 & 19
- it provides barrier service across Niagara Escarpment
- serves 500 to 1000 vehicles per day during peak winter season
- has hot mix asphalt / surface treatment
- has a right-of-way width of 20 metres
- provides upper tier service near Blue Mountain Resort and ski hill area to/from the west
- improves the rural cell service in the area

On May 1st 2008, 15 Side Road / Scenic Caves Road was transferred to the Grey Country and its name was changed to Grey Road 119.

Based on the County's evaluation / rating this stretch was identified as a special case road and was transferred to the County in May 2008. Its name was changed to Grey Road 119.

Clark Street (Clarksburg) East of Grey Road 13 (former Grey Road 33):

- it is an urban connector from Clarksburg population center with residential / commercial / industrial development to Highway 26 via the short length of Grey Road 2
- has a right-of-way width of 20 metres
- has hot mix asphalt / surface treatment
- has an AADT of over 1500 vehicles

The result of evaluation suggested that Clark Street did not score sufficiently against the criteria for transferring purposes. However, given all above and in light of its role and potential function as an alternative route around Thornbury, as a minimum, considerations should be given to designate it as a collector road.

6.2.3.3 Key Findings & Recommendations

As noted, despite the fact that Clark Street did not satisfy the minimum warrant values for an upper tier county road against the Grey County's criteria, in light of its role / general condition and potential function as an alternative route around Thornbury, it is recommended to be designated as a collector road.

The following local roads are also recommended to be designated as collector roads given the abutting road systems and/or future development plans:

- ***Victoria Street***
- ***Duncan Street***
- ***Napier Street***
- ***Monterra Road***
- ***10th Line***
- ***Albert Street***
- ***Peel Street***
- ***Beaver Street***
- ***Clark Street***

As illustrated in the Town's Official Plan (Appendix Map G – Roads Plan), the road section on the east side of Jozo Weider Boulevard and Grey Road 19 intersection opposite to the roundabout at Grey Road 19 / Mountain Drive is designated as a future collector road by the Town's Official Plan. However, given that this road passes through a residential development with both ends tying into Grey Road 19, a local road designation is deemed more appropriate for its expected function. Accordingly it is recommended that this road to be designated as a future local road versus a collector road so that will not function as a through road or alternative to Grey Road 19 to address operational issues in the area.

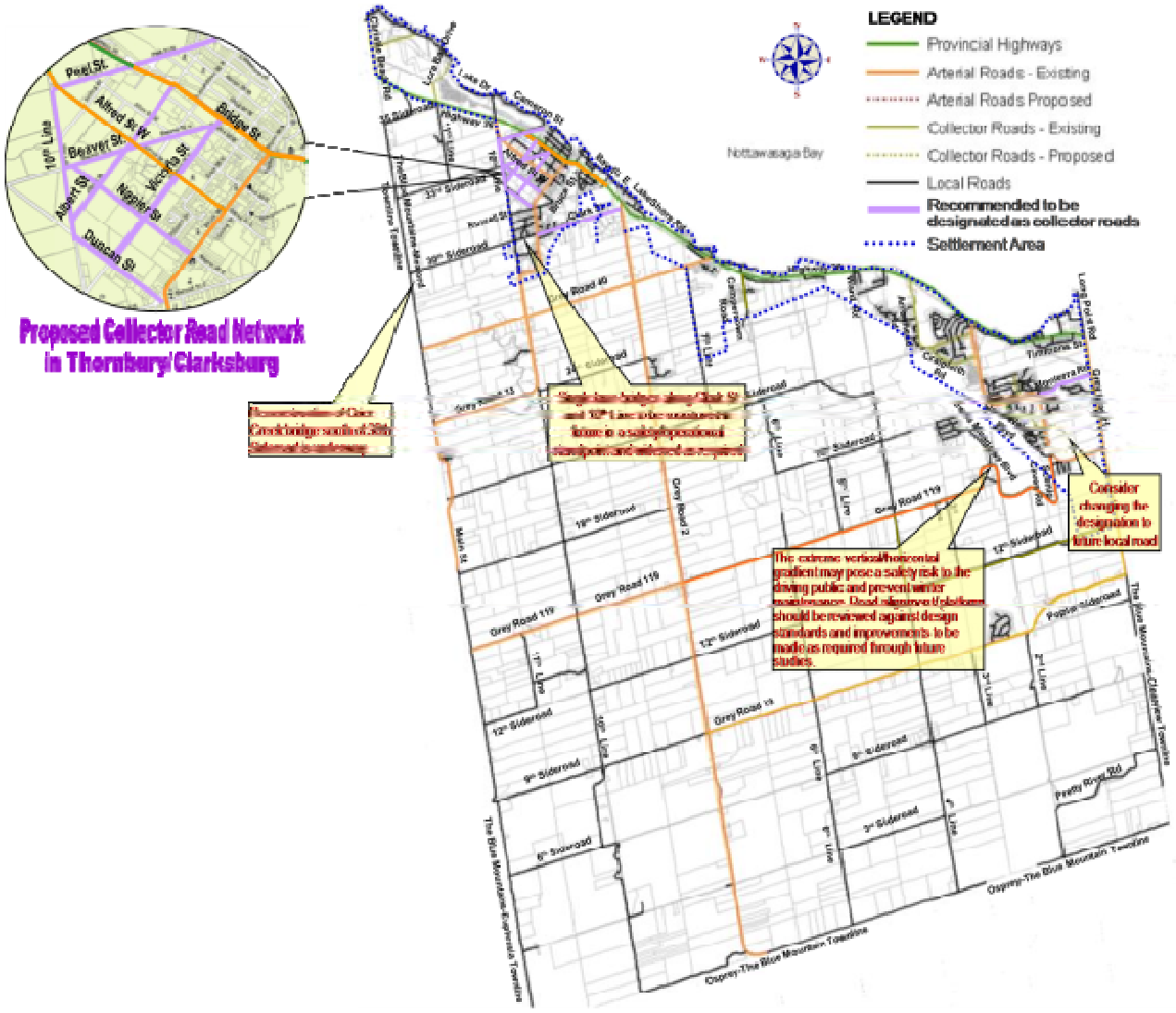
Table 6.1 is recommended to be used as a guideline for road classifications purposes.

Table 6.1. Characteristics of Roads

Functional Classification	Freeways	Arterials	Collectors	Locals
Traffic Service	optimum mobility	traffic movement primary consideration	traffic movement and land access equal importance	traffic movement secondary consideration
Land Service	no access	land access secondary consideration	traffic movement and land access equal importance	land access primary consideration
Range of Traffic Volume AADT	more than 10,000	1,000 – 20,000	200 – 10,000	not applicable
Traffic Flow	free flow	uninterrupted flow except at signals	interrupted flow	interrupted flow
Design Speed	100 – 120 km/h	80 – 100 km/h	60 – 100 km/h	50 – 80 km/h
Average Running Speed	80 – 120 km/h	60 – 100 km/h	60 – 100 km/h	40 – 80 km/h
Vehicle Type	all types of heavy trucks average 20 – 30%	all types up to 20% trucks	all types up to 30% trucks mostly single unit type	predominantly passenger cars and light to medium trucks, and occasional heavy trucks
Percentage of Total Length	up to 5	5 – 10	10 – 20	75 approximately
Connects to…	freeways, arterials, collectors	all classifications	all classifications	arterials, collectors, locals

Figure 6.5 presents an updated version of the road classification map based on the Town's Official Plan including the recommended changes outlined above.

Figure 6.5. Recommended 2031 Road Classification



6.3 Increase Supply of Transportation Facilities

Widening of existing roads can mean increasing the number of through lanes or widening to implement continuous turning lanes, commonly known as Two Way Left Turn Lanes (TWLTL). Widening existing roads can often reduce the need to build new roads through undeveloped lands and "greenspace" areas, and is therefore considered to be somewhat more environmentally friendly than building new roads. However, in some areas, widening of an existing roadway can have significant social and cultural impacts to neighbourhoods or can result in economic impacts to businesses along the route.

This section presents the findings of the traffic analysis carried out for the transportation network within the Craigleith Area under the 5, 10 and 20-year horizon periods. The traffic analysis was based on the peak hours which are representative of the typical conditions, the recommended access configurations along Highway 26 corridor and the operational/geometric improvements required to facilitate future planned growth and enhance traffic operations of the transportation system.

6.3.1 Craigleith Area, Traffic Operation Analysis (Future Traffic Conditions)

6.3.1.1 Do Nothing Traffic Analysis (Year 2013)

Intersection Traffic Operations (Year 2013/ Do Nothing)

This section reviews the traffic operations of the key intersections within the Craigleith Area under the projected 2013 winter weekend peak traffic conditions. Intersection Level of Service analyses were performed under the future 2013 traffic condition (5 year horizon) using the Craigleith Area Synchro model to identify operational/capacity deficiencies that will occur under such traffic demands. **Table 6.2** summarizes the results of the intersection LOS analyses assuming the existing road system configurations remain, with the exception of the roundabout at Grey Road 19/Mountain Drive/Scenic Caves Road. The need for additional improvements to the road system will be identified based on the results of the level of service analyses. The corresponding detailed intersection capacity worksheets are provided in **Appendix J.**

For the intersection of Grey Road 21 with Grey Road 19, additional analyses were completed to investigate the potential impacts of the traffic diversion related to the Highway 26 alternative route around Collingwood as noted earlier, the results of which are shown in **Table 6.2.**

Table 6.2. Intersection Traffic Operations (2013) - Craigleith Area/Existing Highway 26 Access Configurations

Intersection	Winter Peak Hour Operations	
	Level of Service	ICU (%)
Grey Road 19 & Grey Road 21 (signalized)	E - Westbound over capacity and congested	93
	F- capacity is exceeded with long delays/ queues*	>100
Grey Road 19 & Jozo Weider Boulevard West (signalized)	B - very little congestion/overall	61
Grey Road 19 & Jozo Weider Boulevard East (signalized)	E - Eastbound, Northbound left and Southbound close to capacity and congested	100
Mountain Drive & Grey Road 19 & Scenic Caves Road (roundabout)	A - no/ minimal congestion/ overall	-

ICU - intersection capacity utilization

** LOS results assuming traffic diversions related to Highway 26 alternative route in Collingwood*

The intersections of Grey Road 19 at Grey Road 21 and Jozo Weider Boulevard east junction are expected to experience poor operations and long delays under the future 2013 traffic conditions if no operational /infrastructural enhancement is introduced.

Traffic Signal Warrant Assessment (Year 2013/ Do Nothing)

Signal warrant analysis was carried out for the unsignalized study intersections in the Craigleith Area under the future 2013 traffic conditions using MTO warrant sheets. The justification for the installation of traffic signals was based on the technical warrant criteria established by MTO's, Ontario Traffic Manual, Book 12. Details of the signal warrant assessment are included in **Appendix** K.

Link Operations (Year 2013/ Do Nothing)

It is anticipated that Grey Road 21 will continue to operate below its capacity with link volumes of less than 500 vphpl (vehicles per hour per lane) under the future 2013 traffic demands during the winter peak hour period. However, traffic volumes along Grey Road 19 are anticipated to reach or exceed the respective lane capacities. - within the section from Grey Road 21 and Jozo Weider Boulevard, volumes are estimated in the order of 1150 vphpl per direction, which exceed the assumed planning capacity of 800 vphpl.

Moreover, there will be capacity deficiencies along Mountain Road (Town of Collingwood jurisdiction) in both directions of travel due to the high volumes of traffic demands destined for the Craigleith Area. Should the Highway 26 alternative route around Collingwood and the resulting traffic diversions be realized, this capacity deficiency is expected to shift to Grey Road 19 within the section from the north junction of Grey Road 19 southerly to Simcoe County Road 32 in both directions.

6.3.1.2 Recommended Improvements (Year 2013)

This section reviews the traffic operations of the key roads/intersections within the Craigleith Area under the projected 2013 winter weekend peak traffic conditions with recommended road improvements in place. Intersection Level of Service analyses were performed under the future 2013 traffic condition (5 year horizon).

In order to improve the link and intersection operations within the Craigleith Area under the future 2013 winter peak traffic conditions, the following improvements are recommended:

- 4-lane widening is recommended along the following roads:
  - *Grey Road 19*: within the section from Grey Road 21 and the east end of Jozo Weider Boulevard
  - *Mountain Road:* As discussed before, capacity deficiencies are expected along Mountain Road (Town of Collingwood) in both directions due to the high volume of traffic destined to the Craigleith Area. As such, a four-lane widening of this corridor will be required by 2013. However, with the possibility of the implementation of the Highway 26 alternative route around Collingwood and the resulting traffic diversions, this capacity deficiency could shift to Grey Road 19 within the section from Mountain Road to Simcoe County Road 32 (Sixth Street) in both directions. Accordingly, under such a scenario, a four-lane widening will be required along Grey Road 19 within this section to accommodate the associated diverted traffic.

In addition to the above noted road widening enhancements, the following operational improvements at intersections are also recommended to enhance the traffic operations under the future 2013 traffic conditions within the Craigleith Area:

- exclusive turning lanes at the following intersections:
  - *Grey Road 19 / Jozo Weider Boulevard (east junction):* add an exclusive left turn lane on the southbound approach and provide additional through lanes on the northbound and southbound approaches
  - *Grey Road 19 / Grey Road 21*: provide additional through lanes on the eastbound and westbound approaches

- As per current road improvement plans being undertaken by the Town and Grey County, the intersections of Grey Road 19 with Mountain Drive and Mountain Drive with Scenic Caves Road are to be replaced by a 4-leg roundabout with the following characteristics:
  - 40 metre inside island diameter;
  - 10 metre circulating roadway (sufficient to accommodate 2 circulating lanes);
  - 60 metre outside diameter; and
  - 2 entry lanes/2 exit lanes on the Grey Road 19 and 1 entry lanes/1 exit lanes on Mountain Drive and Scenic Caves Road approaches/departures.

To ensure appropriate operations at the roundabout, the Mountain Drive and Scenic Caves Road approaches to the roundabout should be flared to provide 2 entry lanes (thus allowing full use of the 2-lane circulatory road width). With this improvement, the roundabout will operate at an overall Level of Service A.

Under the Highway 26 alternative route scenario the following improvements are recommended:

- *Grey Road 19*: four-lane widening within the section from Mountain Road to Simcoe County Road 32 to facilitate the associated diverted traffic
- *Grey Road 19 and Grey Road 21:* provide a channelized eastbound right turn lane to minimize / remove impediments to the right turn flow.

The results of the level of service assessments suggested that after implementing the recommended improvements, the majority of the intersections will operate at an overall Level of Service 'C' or better; the roundabout will operate at a level of service 'A'. **Figure** 6.6 illustrates a summary of the Craigleith Area recommended operational improvements under the projected Saturday Winter Peak Hour. The details of the Level of Service calculations under the future 2013 traffic conditions with the recommended improvements are included in **Appendix** L and the key finding of the analysis are summarized in **Table** 6.3.

Table 6.3. Intersection Traffic Operations (2013) - Craigleith Area, Improved Scenario

Intersection	Winter Peak Hour Operations	
	Level of Service	ICU (%)
Grey Road 19 & Grey Road 21 (signalized)	C - minimal congestion/overall	93
	D - restricted flow and considerable delays/ queues*	>100
Grey Road 19 & Jozo Weider West (signalized)	B - very little congestion/overall	61
Grey Road 19 & Jozo Weider East (signalized)	C - minimal congestion/overall	86
Mountain Drive & Grey Road 19 & Scenic Caves Road (roundabout)	A - no/ minimal congestion/ overall	-

ICU - intersection capacity utilization

** LOS results assuming traffic diversions related to Highway 26 alternative route in Collingwood*

6.3.1.3 Recommended Improvements (Year 2018)

Level of Service analysis was performed under the future 2018 peak winter traffic condition (10 year horizon) for the key roads and intersections within the Craigleith Area.

In addition to the previously recommended improvements for the year 2013 traffic conditions, the following improvements are recommended:

- 4-lane widening along the following roads by 2018:
  - *Grey Road 19*: within the section from Jozo Weider Boulevard to Highway 26
- Intersection improvements are recommended as follows:
  - *Grey Road 19 / Grey Road 21*: add an exclusive left turn lane on the eastbound approach (a westbound left turn lane would also be required to maintain lane balance)
  - *Grey Road 19/Jozo Weider Boulevard (west junction):* add additional through lanes on the westbound and eastbound approaches
- under the Highway 26 alternative route scenario in addition to the above noted improvements for the intersection of *Grey Road 19 with Grey Road 21*, the following additional improvements will be required:
  - add an exclusive left turn lane on the westbound approach
  - add an exclusive right turn lane on the southbound approach

After implementing the recommended improvements, the majority of the intersections will operate at an overall Level of Service 'D' or better. With the 2013 roundabout improvement at the Mountain Drive and Scenic Caves Road intersection, the roundabout will operate at an overall Level of Service A.

Figure 6.7 illustrates a summary of the recommended operational improvements under the projected Saturday winter peak hour. The details of the Level of Service calculations under the future 2018 traffic conditions with the recommended improvements are included in **Appendix** N and the key findings of the analyses are summarized in **Table 6.4.**

Table 6.4. Intersection Traffic Operations (2018) - Craigleith Area, Improved Scenario

Intersection	Winter Peak Hour Operations	
	Level of Service	ICU (%)
Grey Road 19 & Grey Road 21 (signalized)	B - minimal congestion/overall	79
	D - restricted flow and considerable delays/ queues*	>100
Grey Road 19 & Jozo Weider West (signalized)	B - very little congestion/overall	66
Grey Road 19 & Jozo Weider East (signalized)	D - restricted flow and considerable delays/ queues	95
Mountain Drive & Grey Road 19 & Scenic Caves Road (roundabout)	A - no/ minimal congestion/ overall	-

ICU - intersection capacity utilization

** LOS results assuming traffic diversions related to Highway 26 alternative route in Collingwood*

6.3.1.4 Recommended Improvements (Year 2028)

Level of Service analyses were performed under the future 2028 winter peak traffic condition (20 year horizon) for the key roads and intersections within the Craigleith Area. In addition to the previously recommended improvements for the year 2013 and 2018 the following improvements are also recommended to enhance the traffic operations under the future 2028 traffic conditions within the Craigleith Area:

- **Grey Road 19 / Grey Road 21:**

- add an exclusive left turn lane on the westbound approach;
- due to the diverted traffic under the Highway 26 alternative route option, an exclusive westbound right turn lane and northbound double left turn lanes will also be required.

- **Grey Road 19 / Jozo Weider Boulevard (east junction):**
  - add an exclusive right turn lane on the eastbound approach.

The results of the level of service assessment for the Craigleith Area under the future 2028 winter peak condition suggest that the majority of intersections/roads are expected to operate satisfactorily with sufficient reserve capacities given the recommended improvements for the year 2018 traffic conditions including road widening along Grey Road 19. However, the anticipated eastbound and westbound traffic volumes along Grey Road 19 east of Mountain Drive are expected to exceed the available lane capacity (800 vphpl). Given that the analysis of the Craigleith Area is based on the winter weekend peak period and is representative of the highest peak period of the year, no further capacity / operational improvements are recommended as part of this study. Moreover, it is expected that motorists would likely reroute to access the ski area (i.e. Grey Road 21 / Monterra Road) as they incur excessive/unacceptable delays along Grey Road 19 during the unusual and exceptional high traffic period of Saturday Long Weekend. Notwithstanding, traffic operations along Grey Road 19 from Mountain Drive to Grey Road 21 should be monitored and further improvements considered as required.

Jozo Weider Boulevard within the section from Mountain Drive to Grey 19 west junction is expected to reach the operational capacity of 600 vphpl (typical collector road). A 4-lane widening may be considered along this section. As an alternative, an additional road connection to Grey Road 19 can be considered to ease the congestion throughout the west sections of Jozo Weider Boulevard. As an option, opportunities can be investigated to connect Wintergreen Place and Drakes Path. If such a connection is feasible it is expected that the traffic volumes along the west section of Jozo Weider Boulevard would be reduced to half.

In consideration of the diverted traffic from the Collingwood interim alternative route, the intersection of Grey Road 19 with Grey Road 21 is expected to operate satisfactorily with all the recommended improvements in place.

Figure 6.8 summarizes the recommended operational improvements required to accommodate the projected future 2028 winter weekend peak traffic assuming that road and intersection improvements recommended by year 2028 are in place. Detailed intersection capacity worksheets are provided in **Appendix** P and the key finding of the analysis are summarized in **Table** 6.5.

Table 6.5. Intersection Traffic Operations (2028) –Craigleith Area, Improved Scenario

Intersection	Winter Peak Hour Operations	
	Level of Service	ICU (%)
Grey Road 19 & Grey Road 21 (signalized)	C - minimal congestion/overall	97
	C - minimal congestion/overall *	96
Grey Road 19 & Jozo Weider West (signalized)	B - very little congestion/overall	70
Grey Road 19 & Jozo Weider East (signalized)	D - restricted flow and considerable delays/ queues	96
Mountain Drive & Grey Road 19 & Scenic Caves Road (roundabout)	C - minimal congestion/overall	-

ICU - intersection capacity utilization
** LOS results assuming traffic diversions related to Highway 26 alternative route in Collingwood*

Roundabout Option at Grey Road 19/ Grey Road 21 intersection

As an alternative to the above mentioned recommendations at the Grey Road 19/ Grey Road 21 intersection, the implementation of a roundabout was also examined and the analysis results are summarized as follows:

- Assuming no Highway 26 alternative route will be implemented in Collingwood, the level of service of a roundabout operation is expected to be 'A'; and
- Assuming Highway 26 alternative route will be implemented in Collingwood and traffic diversion occurs, the level of service of a roundabout operation is expected to be 'B', provided an exclusive EB right turn channel movement is provided (thereby allowing these movements to proceed without having to pass through the roundabout).

The details of roundabout analysis calculation at Grey Road 19/ Grey Road 21 intersection in year 2028 can be found in **Appendix P**.

6.3.1.5 Summary

In summary, the results of the Level of Service assessments suggests that all intersections are expected to operate at acceptable levels of service 'D' or better with or without diversion of traffic related to Highway 26 interim alternative route in Collingwood as proposed in the "Georgian Triangle Area Transportation Paper", provided that all recommended improvements are in place. Roundabout geometry was also investigated as an alternative option at the intersection of Grey Road 19/ Grey Road 21. The analysis results indicate an improved level of service operations than the existing 4-leg geometry.

6.3.2 Highway 26 Traffic Operation Analysis (Future Traffic Conditions)

6.3.2.1 Intersection Traffic Operations (Year 2013/ Do Nothing)

Table 6.6 presents the key findings of the intersection Level of Service (LOS) analyses for the projected 2013 summer weekday AM/PM peak hour traffic along the Highway 26 corridor assuming the existing road system/access configuration, with the exception of the realignment of Blue Mountain Drive opposite Hope Street. Detailed intersection capacity calculation sheets are provided in **Appendix J.**

The results of the Level of Service assessment indicate the following:

- at numerous unsignalized intersections along Highway 26 (Grey Road 21, Grey Road 2, Camperdown Road, Lora Bay Drive, Grey Road 40, Grey Road 113, Arrowhead Road, Fraser Crescent and Blue Mountain Drive), the minor street traffic movements will incur excessive delays in order to complete turning manoeuvres, particularly during the weekday PM peak hour; and
- all other key intersections are expected to operate satisfactorily or acceptably with sufficient reserve capacities and with no further need for improvements

Table 6.6. Intersection Traffic Operations (2013) - Highway 26 Corridor, Existing Access Configurations

Intersection	Summer AM Peak Hour Operations	AM ICU	Summer PM Peak Hour Operations	PM ICU
	Level of Service	(%)	Level of Service	(%)
Highway 26/ Christie Beach Road (unsignalized)	B - very little congestion on the Southbound	51	D - moderate congestion on the Southbound	57
Highway 26/ 35 Sideroad (unsignalized)	B - very little congestion on the Northbound	35	C - little congestion on the Northbound	50
Highway 26/ Lora Bay Drive (unsignalized)	C - little congestion on the Northbound / Southbound	40	F - Southbound over capacity	52
Highway 26/ Grey Road 113 (unsignalized)	D - moderate congestion on the Northbound	54	F - Southbound over capacity	55
Highway 26/ Peel Street (unsignalized)	C - little congestion on the Northbound / Southbound	44	C - little congestion on the Northbound / Southbound	45
Highway 26/ Victoria Street* (unsignalized)	C - little congestion on the Northbound / Southbound	40	D - moderate congestion on the Southbound	63
Highway 26/ Bruce Street* (signalized)	B - very little congestion/overall	74	B - very little congestion/ overall	85
Highway 26/ Elgin Street* (unsignalized)	D - moderate congestion on the Northbound / Southbound	57	E – significant congestion on the Northbound / Southbound	50
Highway 26/ Grey Road 2 (unsignalized)	F – Northbound congested / at capacity	54	F - Northbound over capacity	64
Highway 26/ Lake Shore Road (unsignalized)	B - very little congestion on the Southbound	54	F - Southbound over capacity	58
Highway 26/ Grey Road 40 (unsignalized)	C - little congestion/ overall	65	F - Southbound/ Northbound over capacity	94
Highway 26/ Camperdown Road (unsignalized)	F – Southbound/ Northbound over capacity	50	F - Northbound / Southbound over capacity	64
Highway 26/ Hidden Lake Road (unsignalized)	C - little congestion on the Northbound	43	D - moderate congestion on the Northbound	65
Highway 26/ Arrowhead Road (unsignalized)	E – significant congestion on the Northbound	55	F - Northbound over capacity	74
Highway 26/ Grey Road 19 (signalized)	B - very little congestion/overall	62	B - very little congestion/ overall	60
Highway 26/ Fraser Crescent (unsignalized)	D - moderate congestion on the Northbound / Southbound	49	F -Northbound over capacity	66
Highway 26/ Blue Mountain Drive (unsignalized)	F - Southbound over capacity	54	F - Northbound / Southbound over capacity	67
Highway 26/ Grey Road 21 (unsignalized)	F – Northbound / Southbound over capacity	80	F - Northbound / Southbound over capacity	>100

ICU - intersection capacity utilization

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

Traffic Signal Warrants (Year 2013/ Do Nothing)

The results of the traffic signal warrant assessment indicated that traffic control signals will be warranted by the year 2013 at the intersections of Highway 26 with:

1) Grey Road 2; and
2) Grey Road 21/Long Point Road

Details of the signal warrant assessment are included in **Appendix** K**.**

Link Operations (Year 2013/ Do Nothing)

Heavy traffic flow is projected along Highway 26 within the section between Grey Road 21 and Hidden Lake Road particularly during the summer PM peak hour period. The two-way traffic volumes are projected at 1885 vehicles per hour. The eastbound peak traffic volume (960 vphpl) is approaching the assumed lane capacity of 1000 vphpl. The rest of Highway 26 will continue to operate satisfactory with sufficient reserve capacity.

6.3.2.2 Recommended Improvements (Year 2013)

As mentioned before, as part of this study, the Highway Access Management Plan (HAMP) for Highway 26 is to be developed to maintain a sustainable transportation network for the movement of people and goods as well as preserving/enhancing the safety and efficiency of the provincial highway corridor. To account for the potential access closures/realignments, traffic volumes originally associated with those closures/realignments were reassigned to alternative routes along the existing road networks or proposed new public roads.

Since most of the roads subject to closure / realignment are minor side road facilities, with minimal traffic volumes, and given that no traffic data was available at many of these locations, traffic volumes were estimated based on traffic data on adjacent roads and/or the level of development along the road.

Table 6.7 summarizes the results of the intersection Level of Service analyses for the projected 2013 weekday PM peak hour traffic along the Highway 26 corridor assuming the proposed access modifications for 2013 future horizon but without any operational/geometric improvements. Detailed intersection capacity calculation sheets are provided in **Appendix** L.

Table 6.7. Intersection Traffic Operations (2013), Base Scenario

Intersection	Summer PM Peak Hour Operations	
	HCM Level of Service	ICU (%)
Highway 26/ Christie Beach Road	D - Southbound: restricted flow and considerable delays/ queues	57
Highway 26/ 35 Sideroad	C - Northbound: stable traffic flow with short delays/ queues	50
Highway 26/ Lora Bay Drive	F – Southbound: capacity is exceeded with extreme delays/ long queues	52
Highway 26/ Grey Road 113	F – Southbound: capacity is exceeded with extreme delays/ long queues	55
Highway 26/ Peel Street	C - Southbound/ Northbound: stable traffic flow with short delays/ queues	45
Highway 26/ Victoria Street*	D – Southbound: restricted flow and considerable delays/ queues	63
Highway 26/ Bruce Street (signalized)*	B – somewhat restricted traffic flow with negligible delays/ queues	86
Highway 26/ Elgin Street*	E - Southbound/ Northbound: capacity is reached with substantial delays/ long queues	50
Highway 26/ Grey Road 2	F – Southbound/ Northbound. Northbound Left: capacity is exceeded with extreme delays/ long queues	87
Highway 26/ Grey Road 40	F - Southbound/ Northbound.: capacity is exceeded with extreme delays/ long queues	95
Highway 26/ Camperdown Road	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	64
Highway 26/ Hidden Lake Road	D – Northbound: restricted flow and considerable delays/ queues	65
Highway 26/ Arrowhead Road	F – Northbound: capacity is exceeded with extreme delays/ long queues	74
Highway 26/ Grey Road 19 (signalized)	B – somewhat restricted traffic flow with negligible delays/queues	60
Highway 26/ Fraser Crescent	F – Southbound/ Northbound : capacity is exceeded with extreme delays/ long queues	66
Highway 26/ Hope Street	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	74
Highway 26/ Grey Road 21	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	>100

ICU - intersection capacity utilization

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

As per the Level of Service assessments for Highway 26 corridor under the future 2013 horizon assuming the existing and proposed Highway access configurations, the following operational issues will remain:

- at the majority of the unsignalized intersections along Highway 26 (Grey Road 21, Grey Road 2, Camperdown Road, Lora Bay Drive, Grey Road 40, Grey Road 113, Arrowhead Road, Fraser Crescent and Blue Mountain Drive), the minor street movements will operate poorly and drivers will incur excessive delays as they attempt to carry out turning manoeuvres, particularly during weekday PM peak hour; and
- all other key intersections are expected to operate satisfactorily with sufficient reserve capacities without the need for any further improvements.

Accordingly, it is evident that implementation of the access management alternatives will not remarkably enhance the traffic operations at the key intersections. However, access consolidations would increase the side-road traffic volumes which may result in triggering the need for provision of traffic signals at some unsignalized intersections earlier than forecasted (i.e. Highway 26 / Blue Mountain Drive / Hope Street intersection in 2018 horizon). This can be very beneficial from several standpoints:

- improving traffic operations at these intersections and offsetting the anticipated excessive side-road delays;
- reducing the access densities along the Highway 26 within the study area; and
- improving safety for all transportation modes along Highway 26 within the study area.

The following intersection operational improvements are recommended to mitigate the operational problems under the 2013 traffic conditions:

- two-way-left-turn (TWLT) centre lane to promote safety and to facilitate the high density private access movements off Highway 26 between the intersections of Grey Road 21/ Highway 26 and Grey Road 19 / Highway 26;
- exclusive turning lanes on Highway 26 at the following intersections:
  - *Christie Beach Road:* add an exclusive left turn lane on the eastbound approach
  - *35 Sideroad:* add an exclusive left turn lane on the westbound approach
  - *Lora Bay Drive:* add an exclusive left turn lane on the westbound approach
  - *Grey Road 113*: add exclusive left turn lanes on the eastbound and westbound approaches
  - *Peel Street:* add exclusive left turn lanes on the eastbound and westbound approaches
  - ***Victoria Street*:*** add exclusive left turn lanes on the eastbound and westbound approaches
  - ***Bruce Street*:*** add exclusive left turn lanes on the eastbound, westbound and northbound approaches
  - ***Elgin Street*:*** add exclusive left turn lanes on the eastbound and westbound approaches
  - *Grey Road 2/Lake Shore Road:* add exclusive left turn lanes on the northbound and eastbound approaches
  - *Grey Road 40/ Lakewood Drive:* add exclusive left turn lanes on the eastbound and westbound approaches
  - *Camperdown Road:* add exclusive left turn lanes on the eastbound and westbound approaches
  - *Hidden Lake Road:* add an exclusive left turn lane on the westbound approach
  - *Arrowhead Road:* add an exclusive left turn lane on the westbound approach
  - *Lakeshore Road East/Fraser Crescent:* add exclusive left turn lanes on the eastbound and westbound approaches
  - *Hope Street:* add exclusive left turn lanes on the eastbound and westbound approaches
  - *Grey Road 21/ Long Point Road:* add exclusive left turn lanes on the eastbound and westbound approaches

**** Victoria Street, Bruce Street and Elgin Street intersections are under the Town's jurisdiction (Connecting Link)***

- traffic control signals at Highway 26 intersection with:
  - Grey Road 2
  - Grey Road 21/ Long Point Road
- Due to the anticipated diverted traffic, as identified under the Highway 26 alternative route option in the "Georgian Triangle Area Transportation Paper", in addition to the improvements required under 2013 traffic conditions, the following improvement will also be required for the intersection of Grey Road 19 with Highway 26:
  - add an exclusive left turn lane on the northbound approach

Even though in some cases a left turn lane may only be required on one approach, in order to maintain lane balance, a turn lane should be considered on both approaches at 4-leg intersections (i.e. if a westbound left turn lane is to be constructed, an offsetting eastbound left turn lane is to be provided also).

Table 6.8 summarizes the results of the intersection LOS analyses under the projected future 2013 summer PM peak hour traffic assuming that recommended road / intersection improvements under 2013 traffic conditions are implemented. Detailed intersection capacity worksheets and signal warrant assessments are provided in **Appendix** L and **Appendix** M respectively.

Table 6.8. Intersection Traffic Operations (2013) - Highway 26 Corridor , Improved Scenario

Intersection	Summer PM Peak Hour Operations	
	HCM Level of Service	ICU %
Highway 26/ Christie Beach Road	D – Southbound: restricted flow and considerable delays/ queues	39
Highway 26/ 35 Sideroad	C – Northbound: stable traffic flow with short delays/ queues	38
Highway 26/ Lora Bay Drive	F – Southbound: capacity is exceeded with extreme delays/ long queues	48
Highway 26/ Grey Road 113	F – Southbound: capacity is exceeded with extreme delays/ long queues	38
Highway 26/ Peel Street	C - Southbound/Northbound: stable traffic flow with short delays/ queues	39
Highway 26/ Victoria Street*	D - Southbound: restricted flow and considerable delays/ queues	45
Highway 26/ Bruce Street (signalized)*	B - overall: somewhat restricted traffic flow with negligible delays/ queues	87
Highway 26/ Elgin Street*	E - Southbound/ Northbound: capacity is reached with substantial delays/ long queues	44
Highway 26/ Grey Road 2 (signalized)	B – overall: somewhat restricted traffic flow with negligible delays/ queues	90
Highway 26/ Grey Road 40	F - Southbound/ Northbound. Southbound: capacity is exceeded with extreme delays/ long queues	59
Highway 26/ Camperdown Road	F – Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	53
Highway 26/ Hidden Lake Road	D - Northbound: restricted flow and considerable delays/ queues	53
Highway 26/ Arrowhead Road	F - Northbound: capacity is exceeded with extreme delays/ long queues	58
Highway 26/ Grey Road 19 (signalized)	B - overall: somewhat restricted traffic flow with negligible delays/ queues	60
Highway 26/ Fraser Crescent	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	55
Highway 26/ Hope Street	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	62
Highway 26/ Grey Road 21 (signalized)	B – overall: somewhat restricted traffic flow with negligible delays/ queues	76
	C – overall: stable traffic flow with short delays/ queues**	90

ICU - intersection capacity utilization

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

*** LOS results assuming traffic diversions related to Highway 26 alternative route in Collingwood*

Figure 6.6 presents a summary of the recommended improvements under the future 2013 traffic conditions.

In general, once the recommended improvements are implemented, the majority of the study intersections are expected to operate at acceptable Levels of Service 'D' or better. Traffic volumes along Highway 26 are likely to operate with limited constraints. At the intersections of Elgin Street, Camperdown Road, Arrowhead Road and Lakeshore Road E/Fraser Crescent, the minor street traffic movements are expected to continue experiencing major delays due to the heavy volumes of through traffic on Highway 26. However, given the low volume of traffic along these minor roads and the fact that provisions of for traffic control signals at these intersections will not be warranted under the 2013 or 2018 traffic demands, it is recommended that the operational conditions at these intersections to be monitored and that traffic signal controls be provided as warranted.

6.3.2.3 Recommended Improvements (Year 2018)

Intersection Level of Service analyses was performed under the future 2018 traffic condition (10 year horizon) based on the assumption that recommended 2013 access closures/ realignment scenarios along Highway 26 corridor are implemented.

The following intersection operational improvements are recommended to mitigate the operational problems under the 2018 traffic conditions:

- signalization of the Highway 26 intersection with Hope Street/ Blue Mountain Drive; and
- under the Highway 26 alternative route option detailed in the "Georgian Triangle Area Transportation Paper", due to the diverted traffic in addition to the improvements required under 2013 traffic conditions, the following improvements will also be required for the intersection of Grey Road 21 with Highway 26:
  - add an exclusive right turn lane on the eastbound approach

Table 6.9 summarizes the results of the intersection LOS analyses under the projected future 2018 summer PM peak hour traffic assuming that recommended road / intersection improvements traffic conditions are being provided. **Figure** 6.7 illustrates the recommended improvements along the Highway 26 corridor for the horizon year 2018 traffic conditions. Detailed intersection capacity worksheets and signal warrant assessments are provided in **Appendix** N and **Appendix** O respectively.

Table 6.9. Intersection Traffic Operations (2018) - Highway 26 Corridor, Improved Scenario

Intersection	Summer PM Peak Hour Operations	
	HCM Level of Service	ICU (%)
Highway 26/ Christie Beach Road (unsignalized)	F – Southbound: capacity is exceeded with extreme delays/ long queues	47
Highway 26/ 35 Sideroad (unsignalized)	D – Northbound: : restricted flow and considerable delays/ queues	46
Highway 26/ Lora Bay Drive (unsignalized)	F - Southbound over capacity: capacity is exceeded with extreme delays/ long queues	59
Highway 26/ Grey Road 113 (unsignalized)	F - Southbound: capacity is exceeded with extreme delays/ long queues	46
Highway 26/ Peel Street (unsignalized)	E - Southbound: capacity is reached with substantial delays/ long queues	47
Highway 26/ Victoria Street* (unsignalized)	F - Southbound: capacity is exceeded with extreme delays/ long queues	53
Highway 26/ Bruce Street (signalized)*	B – overall: somewhat restricted traffic flow with negligible delays/ queues	96
Highway 26/ Elgin Street* (unsignalized)	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	54
Highway 26/ Grey Road 2 (signalized)	C – overall: stable traffic flow with short delays/ queues	>100

Intersection	Summer PM Peak Hour Operations	
	HCM Level of Service	ICU (%)
Highway 26/ Grey Road 40 (unsignalized)	F – Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	70
Highway 26/ Camperdown Road (unsignalized)	F - Northbound: capacity is exceeded with extreme delays/ long queues	64
Highway 26/ Hidden Lake Road (unsignalized)	F - Northbound: capacity is exceeded with extreme delays/ long queues	64
Highway 26/ Arrowhead Road (unsignalized)	F - Northbound: capacity is exceeded with extreme delays/ long queues	69
Highway 26/ Grey Road 19 (signalized)	C – overall: stable traffic flow with short delays/ queues	73
Highway 26/ Fraser Crescent (unsignalized)	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	65
Highway 26/ Hope Street (signalized)	C – overall: stable traffic flow with short delays/ queues	82
Highway 26/ Grey Road 21 (signalized)	C – overall: stable traffic flow with short delays/ queues / Northbound: capacity is reached with substantial delays/ long queues (E)	87
	C – overall: stable traffic flow with short delays/ queues**	94

ICU - intersection capacity utilization

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

*** LOS results assuming traffic diversions related to Highway 26 alternative route in Collingwood*

As illustrated in **Table** 6.9**,** all signalized intersections will operate at an overall level of service 'C' or better should all the above noted recommended improvements be implemented. Most of the unsignalized intersections will experience high delays in the northbound and southbound approaches.

6.3.2.4 Recommended Improvements (Year 2028)

In the year 2028, the majority of projected traffic volumes along Highway 26 will be higher than the operational capacity of 1000 vehicles per hour per lane between Grey Road 21 and Grey Road 2 during the PM peak hour. The highway section between Grey Road 2 and Victoria Street may operate slightly over capacity during PM peak hour. In general, it is expected that west of Grey Road 2, Highway 26 will continue operating at or below capacity in the 2028 horizon year, even with the implementation of the recommended operational/geometric improvements.

Table 5.10 summarizes the results of the intersection LOS analyses under the projected future 2028 summer PM peak hour traffic assuming the following road / intersection improvements:

- implement additional through lanes and/or exclusive turning lanes at the following intersections with Highway 26:
  - *11th Line/ Lora Bay Drive:* 4-lane widening at the intersection, add exclusive left turn lanes on the northbound and southbound approaches and an exclusive right turn lane on the westbound approach
  - *Grey Road 2:* 4-lane widening at the intersection and add an exclusive right turn lane on the eastbound
  - *Grey Road 40/ Lakewood Drive:* 4-lane widening at the intersection
  - *Arrowhead Road:* add an exclusive left turn lane on the eastbound approach
  - *Grey Road 19:* 4-lane widening at the intersection
  - *Hope Street:* 4-lane widening at the intersection

- *Grey Road 21/ Long Point Road:* 4-lane widening at the intersection, add exclusive left turn lanes on the northbound and southbound approaches and exclusive right turn lanes on the eastbound and westbound approaches

- The following intersections will warrant signalization by 2028:
  - Lora Bay Drive
  - Grey Road 113
  - Grey Road 40
- under the Highway 26 alternative route option, due to the diverted traffic in addition to the improvements required under 2013 traffic conditions, the following improvement will also be required for the intersection of Grey Road 21 with Highway 26:
  - channelized right turn lane on the eastbound approach

Figure 6.8 illustrates the recommended improvements along the Highway 26 corridor for the horizon year 2028 traffic conditions. Detailed intersection capacity worksheets and signal warrant assessments are provided in **Appendix** P and **Appendix** Q respectively.

Table 6.10. Intersection Traffic Operations (2028) - Highway 26 Corridor Improved Scenario

Intersection	Summer PM Peak Hour Operations	
	HCM Level of Service	ICU (%)
Highway 26/ Christie Beach Road (unsignalized)	F - Southbound: capacity is exceeded with extreme delays/ long queues	61
Highway 26/ 35 Sideroad (unsignalized)	F - Northbound: capacity is reached with long delays/ queues	59
Highway 26/ Lora Bay Drive (signalized)	B - overall: somewhat restricted traffic flow with negligible delays/ queues	68
Highway 26/ Grey Road 113 (signalized)	B – overall: somewhat restricted traffic flow with negligible delays/ queues	69
Highway 26/ Peel Street (unsignalized)	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	63
Highway 26/ Victoria Street* (unsignalized)	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	67
Highway 26/ Bruce Street (signalized)*	C – overall: stable traffic flow with short delays/ queues	>100
Highway 26/ Elgin Street* (unsignalized)	F - Southbound/ Northbound Left: capacity is exceeded with extreme delays/ long queues	70
Highway 26/ Grey Road 2 (signalized)	C - overall: stable traffic flow with short delays/ queues	89
Highway 26/ Grey Road 40 (signalized)	A - overall: traffic flow with minimal delays/ queues	79
Highway 26/ Camperdown Road (unsignalized)	F – Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	87
Highway 26/ Hidden Lake Road (unsignalized)	F - Northbound: capacity is reached with extreme delays/ long queues	83
Highway 26/ Arrowhead Road (unsignalized)	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	93
Highway 26/ Grey Road 19 (signalized)	C – overall: stable traffic flow with short delays/ queues	72
Highway 26/ Fraser Crescent (unsignalized)	F - Southbound/ Northbound: capacity is exceeded with extreme delays/ long queues	86
Highway 26/ Hope Street (signalized)	B - overall: somewhat restricted traffic flow with negligible delays/ queues	81
Highway 26/ Long Point Road/ Grey Road 21 (signalized)	C - overall: stable traffic flow with short delays/ queues	80
	C - overall: stable traffic flow with short delays/ queues **	90

ICU - intersection capacity utilization

** - intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

*** LOS results assuming traffic diversions related to Highway 26 alternative route in Collingwood*

6.3.2.5 Summary

Because of the unique geography between the Niagara Escarpment and Georgian Bay, the provincial highway / municipal road network in the current Highway 26 corridor from Collingwood to Thornbury is missing a parallel collector/arterial municipal road component. This results in virtually the entire local municipal road grid in the area relying totally on Highway 26 for local east-west connectivity. As a result, Highway 26 from Collingwood to Thornbury performs the dual role of both a provincial highway and a municipal collector/arterial municipal road.

This situation poses a unique challenge for MTO/Town/County in coordinating their respective transportation roles and responsibilities, more specifically, in ensuring safe and adequate access to continued/ongoing land use development and associated peak weekend/seasonal tourist travel.

There are three components to these transportation challenges on Highway 26:

1. Adequate Highway 26 through-capacity for inter-regional east-west traffic from east of Stayner to west of Thornbury;
2. Adequate Highway 26 through-capacity for local east-west traffic in the Collingwood to Thornbury area; and
3. Adequate safety and operation associated with Highway 26 turning movements for land access at intersections and private entrances.

MTO's "Highway 26 Study Design Update" will review and address traffic congestion issues throughout the intersecting municipalities in a comprehensive manner. The MTO Highway 26 Study Update will outline the proposed scope for a subsequent MTO Class Environmental Assessment for Provincial Transportation Facilities. Four laning of Highway 26 cannot be determined, with any assurance, until completion of MTO's Study Design Update.

In summary, the results of the Level of Service assessments suggests that all signalised intersections will operate at an overall level of service 'C' or better with the 4-lane road widening through the intersection and other noted road improvements implemented. Unsignalized intersections will deteriorate under the projected 2028 traffic conditions. The Highway 26 interim alternative route as proposed in the "Georgian Triangle Area Transportation Paper" is expected to operate satisfactorily at the intersections of Grey Road 21with Highway 26.

6.3.3 Highway 26/ Collingwood Alternative Route Options

The Town of Collingwood, Township of Clearview and the Town recently completed the Georgian Triangle Transportation Paper, Phase 2 Report[4]. This report was initiated due to the heavy influx of provincially significant tourist traffic predominately from the GTA destined for points west of Collingwood. The report identified an interim Highway 26 Alternate Route around Collingwood which would provide relief to the Highway 26 corridor (First Street) within Collingwood thus reducing the amount of traffic infiltration through the local neighbourhoods.

The proposed route consists of Poplar Sideroad, 10th Line, Simcoe Road 32 and Grey Road 21 connecting with Highway 26 at the terminal points. It was also identified that Poplar Sideroad and 10th Line will both need to be reconstructed to higher design standards in order to withstand the anticipated additional traffic volumes. Currently, these roads are under the control of different municipal jurisdictions. However, since this route is

4. Georgian Triangle Transportation Paper, Phase 2 Report, January 2008, R.J. Burnside & Associates Limited

expected to carry a significant increase in traffic volumes and will provide the connection with the Provincial highway system, it has been suggested that they be designated as County roads.

In summary, this option will result in the diversion of some 215 vehicles per hour per lane from Highway 26 to the Grey Road 19/21 corridor. Given the fact that Grey Road 19/21 corridor is already at capacity and more congested than Highway 26, the recommended by-pass option does not seem suitable for the Town and does not address the capacity issues in the Town, as more traffic will be diverted to Grey Road 19 and through its intersection with Grey Road 21, thereby increasing delays and reducing the level of service provided.

Figure 6.6. Recommended Improvements (2013 Traffic Conditions)

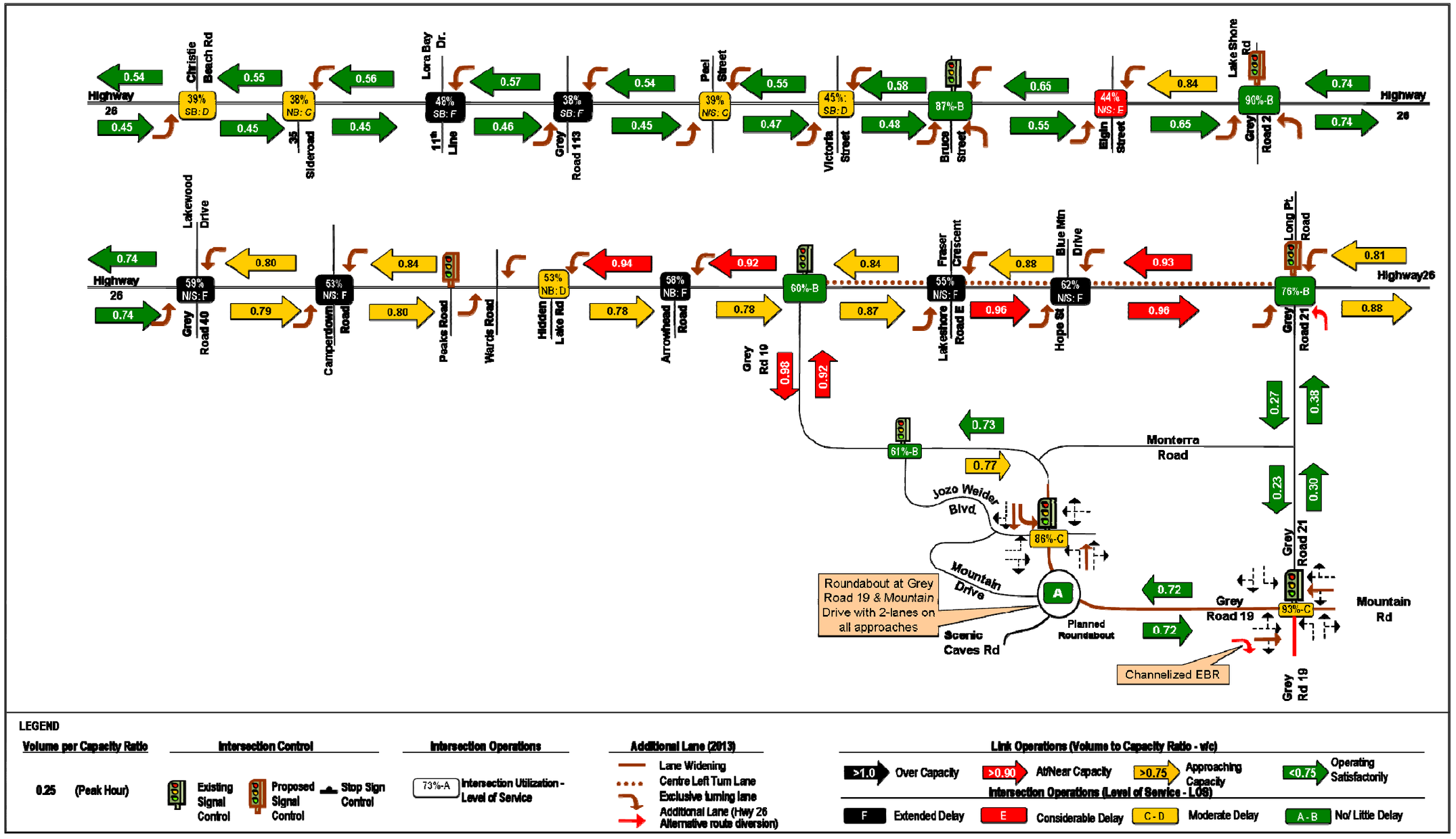


Figure 6.7. Recommended Improvements (2018 Traffic Conditions)

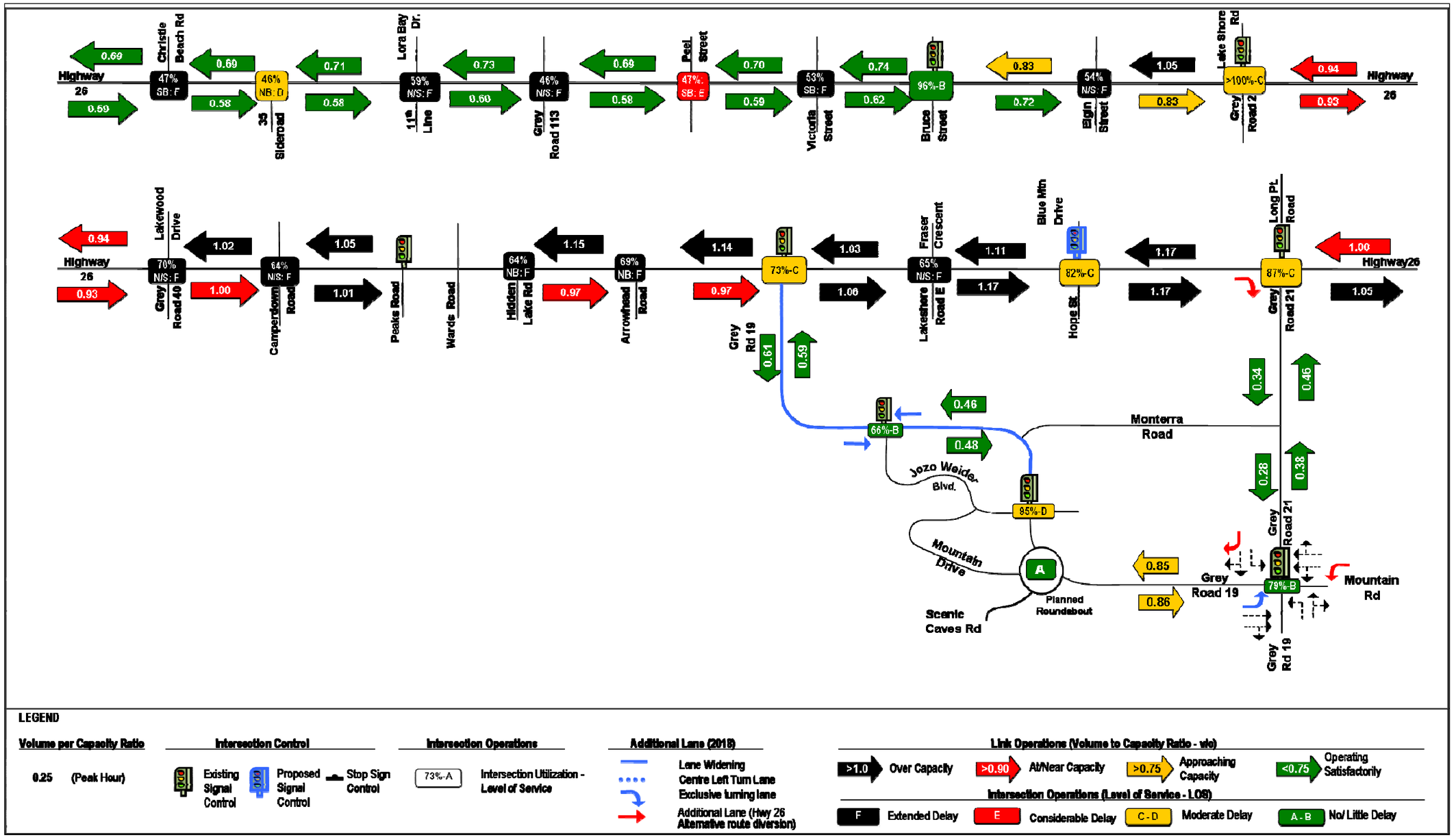
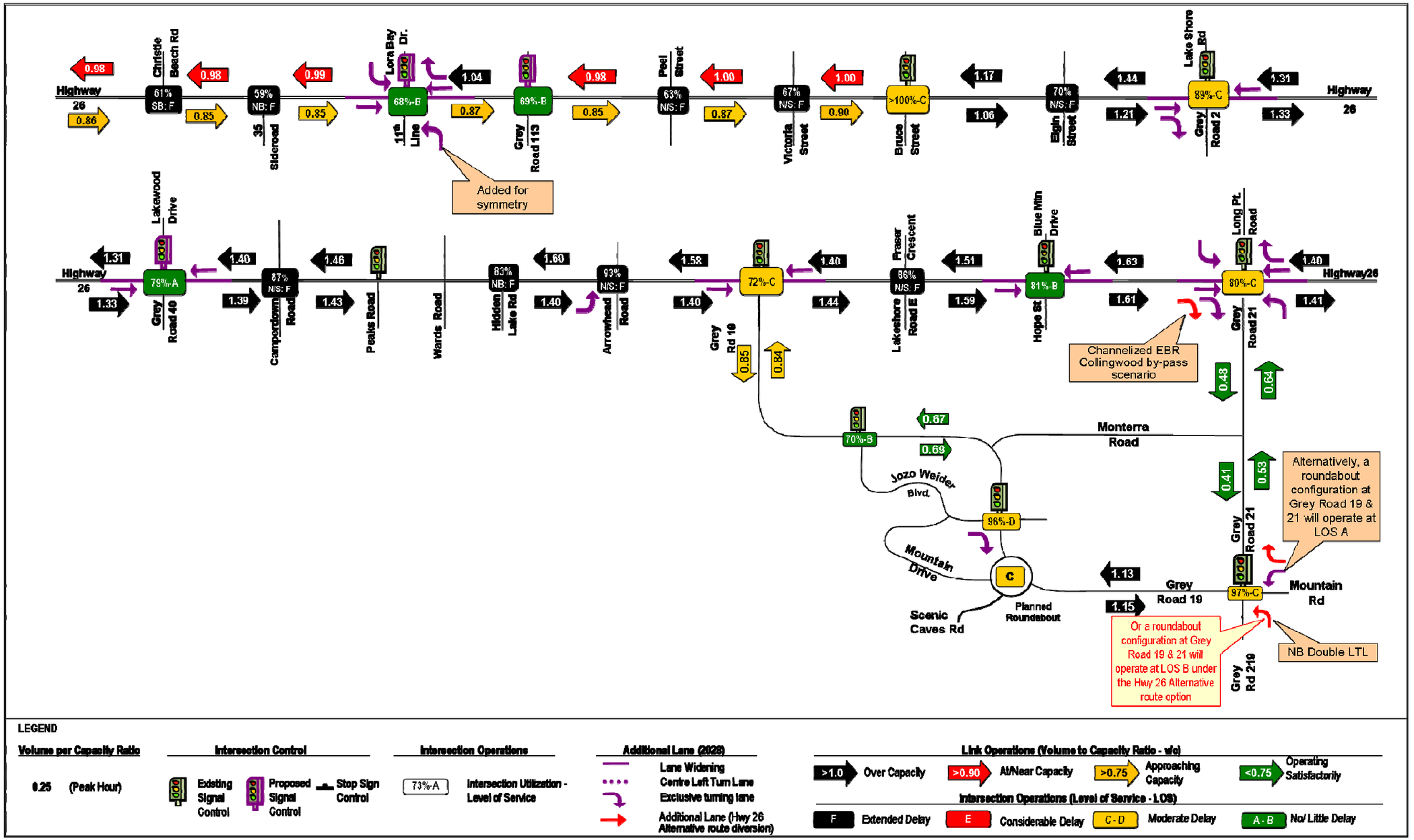


Figure 6.8. Recommended Improvements (2028 Traffic Conditions)



6.3.4 Other Localized Improvements

6.3.4.1 Highway 26/Thornbury Alternative Route Options

In concert with the desire to create a more pedestrian friendly environment along the Connecting Link within the built-up area of Thornbury, alternative routes around Thornbury were reviewed. The objective of such would be to reduce the volume of traffic, particularly truck traffic, passing through the core area of Thornbury. In considering alternatives, it is noted that while the Connecting Link is under the jurisdiction of the Town, the MTO will not permit the implementation of a ban on truck traffic within Thornbury. As such, any alternative route must have considerable merit for motorists to choose it over the more direct, Connecting Link route.

Figure 6.9 shows the routes that were considered for evaluation. It is to be noted that only the existing roads were considered and not new right-of-ways. Discussions with respect to each route are provided below.

Route A (Existing Route)
Definition
Route A is defined as:

- Highway 26 from Grey Road 7 to Grey Road 40

Distance
15.5 km total

Driving Time
13 to 13.5 minutes total includes:

- 5 to 5.5 minutes from Grey Road 7 to 35 Sideroad;
- 2 minutes from 35 Sideroad to Grey Road 113;
- 4 minutes from Grey Road 113 to Grey Road 2; and
- 2 minutes from Grey Road 2 to Grey Road 40.

Number of Stops
2 signalized intersections – one at Bruce Street, another at the bridge pedestrian crossing near the Town's Municipal Office in Thornbury.

Figure 6.9. Alternative Route Options in Thornbury

Other Concerns

This route goes through downtown commercial area of Thornbury.

Route B

Definition

Route B includes the following sections:

- Highway 26 from Grey Road 7 to Grey Road 113;
- Grey Road 113 from Highway 26 to Grey Road 13;
- Grey Road 13 from Grey Road 113 to Clark Street;
- Clark Street from Grey Road 13 to Grey Road 2;
- Grey Road 2 from Clark Street to Highway 26; and
- Highway 26 from Grey Road 2 to Grey Road 40.

Distance

17.5 km total includes:

- 6.8 km – Highway 26 from Grey Road 7 to 35 Sideroad;
- 2.4 km – Highway 26 from 35 Sideroad to Grey Road 113;
- 3.6 km – Grey Road 113 from Highway 26 to Grey Road 13, and Grey Road 13 from Grey Road 113 to Clark Street;
- 2.2 km – Clark Street from Grey Road 13 to Grey Road 2, and Grey Road 2 from Clark Street to Highway 26; and
- 2.5 km – Highway 26 from Grey Road 2 to Grey Road 40.

Driving Time
16 to 16.5 minutes total includes:

- 5 to 5.5 minutes from Grey Road 7 to 35 Sideroad;
- 2 minutes from 35 Sideroad to Grey Road 113;
- 5 minutes on Grey Road 113 from Highway 26 to Grey Road 13, and on Grey Road 13 from
- Grey Road 113 to Clark Street;
- 2 minutes on Clark Street from Grey Road 13 to Grey Road 2, and on Grey Road 2 from Clark Street to Highway 26; and
- 2 minutes from Grey Road 2 to Grey Road 40.

Numbers of Stops
5 stop control intersections, they are as follows:

- stop control on Grey Road 113 at Highway 26;
- stop control on Grey Road 113 at Grey Road 13;
- stop control on Clark Street at Grey Road 13;
- stop control on Clark Street at Grey Road 2; and
- stop control on Grey Road 2 at Highway 26.

Other Concerns
This route goes through residential areas of Thornbury and Clarksburg.
Comparison with Route A
Route B is 2 km longer. It takes 3 more minutes to drive. There are 3 more stops on the route.

Route C
Definition
Route C includes the following sections:

- Highway 26 from Grey Road 7 to Grey Road 113;
- Grey Road 113 from Highway 26 to Grey Road 13;
- Grey Road 13 from Grey Road 113 to Grey Road 40; and
- Grey Road 40 from Grey Road 13 to Highway 26.

Distance
19.8 km total includes:

- 6.8 km – Highway 26 from Grey Road 7 to 35 Sideroad;
- 2.4 km – Highway 26 from 35 Sideroad to Grey Road 113;
- 3.6 km – Grey Road 113 from Highway 26 to Grey Road 13, and Grey Road 13 from Grey Road 113 to Clark Street;

- 2.3 km – Grey Road 13 from Clark Street to Grey Road 40; and
- 4.7 km – Grey Road 40 from Grey Road 13 to Highway 26.

Driving Time
18 minutes total includes:
- 5 to 5.5 minutes from Grey Road 7 to 35 Sideroad;
- 2 minutes from 35 Sideroad to Grey Road 113;
- 5 minutes on Grey Road 113 from Highway 26 to Grey Road 13, and on Grey Road 13 from Grey Road 113 to Clark Street;
- 2 minutes on Grey Road 13 from Clark Street to Grey Road 40; and
- 3.5 to 4 minutes on Grey Road 40 from Grey Road 13 to Highway 26.

Numbers of Stops
4 stop control intersections, they are as follows:
- stop control on Grey Road 113 at Highway 26;
- stop control on Grey Road 113 at Grey Road 13;
- stop control on Grey Road 40 at Grey Road 2; and
- stop control on Grey Road 40 at Highway 26.

Other Concerns
This route goes through residential areas of Thornbury and Clarksburg. There is a steep grade (approximately 7 – 8%) on Grey Road 40 approximately 400 metres west of Highway 26.

Comparison with Route A
Route C is 4.3 km longer. It takes 4.5 to 5 more minutes to drive. There are 2 more stops on the route.

Route D
Definition
Route D includes the following sections:
- Grey Road 7 from Highway 26 to Grey Road 40; and
- Grey Road 40 from Grey Road 7 to Highway 26.

Distance
22.9 km total includes:
- 9.9 km – Grey Road 7 from Highway 26 to Grey Road 40;
- 5.6 km – Grey Road 40 from Grey Road 7 to the Town of The Blue Mountains – Meaford Townline;
- 2.7 km – Grey Road 40 from the Town of The Blue Mountains – Meaford Townline to Grey Road 13; and
- 4.7 km – Grey Road 40 from Grey Road 13 to Highway 26.

Driving Time
18.5 minutes total include:
- 8 minutes on Grey Road 7 from Highway 26 to Grey Road 40;
- 4 minutes on Grey Road 40 from Grey Road 7 to the Town of The Blue Mountains – Meaford Townline;
- 2.5 to 3 minutes on Grey Road 40 from the Town of The Blue Mountains – Meaford Townline to Grey Road 13; and

- 3.5 to 4 minutes on Grey Road 40 from Grey Road 13 to Highway 26.

Numbers of Stops

4 stop control intersections, they are as follows:

- stop control on Grey Road 40 at Grey Road 7;
- stop control on Grey Road 40 at Grey Road 13;
- stop control on Grey Road 40 at Grey Road 2; and
- stop control on Grey Road 40 at Highway 26.

Other Concerns

Both Grey Road 7 and Grey Road 40 are straight but rolling. There are 4 steep grades (approximately 7 – 8%) on the section of Grey Road 40 and 3 steep grades on the section of Grey Road 7. There are signs posted on Grey Road 7 indicated that the road may be closed due to winter conditions. There is a school fronting onto Grey Road 7 south of Highway 26.

Comparison with Route A

Route D is 7.4 km longer. It takes 5 to 5.5 more minutes to drive. There are 2 more stops on the route.

Table 6.11 presents a summary of Highway 23 alternative route options evaluation

Table 6.11. Highway 23 Alternative Route Options Evaluation summary

Criteria	Route A	Route B	Route C	Route D
Roads utilized	• Highway 26	• Highway 26 (67%) • Grey Rd113 • Grey Road 13 • Clark Street • Highway 26	• Highway 26 (46%) • Grey Road 113 • Grey Road 13 • Grey Road 40	• Grey Road 7 • Grey Road 40
Travel distance & time	• 15.5 km • 13 minutes	• 17.5 km • 16 minutes	• 20 km • 18 minutes	• 23 km • 18 minutes
Impacts to built areas	• Passes through Thornbury	• Through Bruce Street & Marsh Street residential areas • Through Clarksburg	• Through Bruce Street & Marsh Street residential areas • through Clarksburg	• Passes around Thornbury & Clarksburg • Short section in Meaford
Potential delays	• 1 traffic signal • 1 pedestrian signal	• 5 stop controlled intersections	• 4 stop controlled intersections	• 4 stop controlled intersections

Key Findings

1) The existing route, Route A (no change - use of Highway 26 and the Connecting Link) is the shortest and the most direct route and has the least travel time and number of stops required;

2) Routes B and C require travel through built-up residential areas (Thornbury and Clarksburg); and

3) Route D, while somewhat longer in distance and travel time, is the most readily signed and apparent as an alternative.

It is noted however, that while Route D may be the most suited as an alternative route (in that it has reduced impacts as compared to Routes B and C) it does extend significantly beyond the limits of Thornbury (in fact, the west limit extends into Meaford). In this regard, sufficient signage would be required to direct motorists to this

alternative (the use of the route as an alternative to travelling through Thornbury may not be obvious to motorists given its limits and the need to divert from Highway 26 well in advance of approaching Thornbury).

Conclusions

There are no viable alternative routes. The existing Route A is preferred as the shortest, most direct with least travel time and stops. MTO Highway 26 Study Update will address Highway 26 through-capacity for inter-regional east-west traffic from east of Stayner to west of Thornbury.

Recommendations

The Town should work with the local Downtown Business Association to determine the need and viability for a new east-west Town arterial road that would relieve the current through- traffic volumes on the current Highway 26 Connecting Link (Bridge Street/Arthur Street) through traffic route.

6.3.4.2 Realignment of Clark Street at Grey Road 2

Clark Street currently intersects Grey Road 2 approximately 100 metres south of Highway 26 and at the start of a horizontal curve (the curve commences on Grey Road 2 just north of Clark Street). As traffic volumes on Highway 26 and Grey Road 2 increase, so too will the likelihood of traffic queues on Grey Road 2 (as they await entry to Highway 26). Given the separation between intersections is only 100 metres, there is the potential for queues to extend beyond the Clark Street intersection.

Accordingly improvements of Clark Street are recommended as shown in **Figure** 6.10.

Figure 6.10. Improvements of the Clark Street

The benefits associated with the proposed improvements of Clark Street at intersection with Grey Road 2 include:

- allowing for potential future signalization of Clark Street / Grey Road 2 intersection as required;
- reducing the potential conflict between the intersections of Grey Road 2 with Clark Street and Highway 26;
- increasing the sight distance at the intersection of Grey Road 2 with Clark Street; and,
- enhancing the intersection geometry at Clark Street intersection with Grey Road 2.

The Town should proceed, in advance, with necessary approvals including an Environmental Assessment (EA) in order to coordinate the implementation of the proposed improvements with the site development.

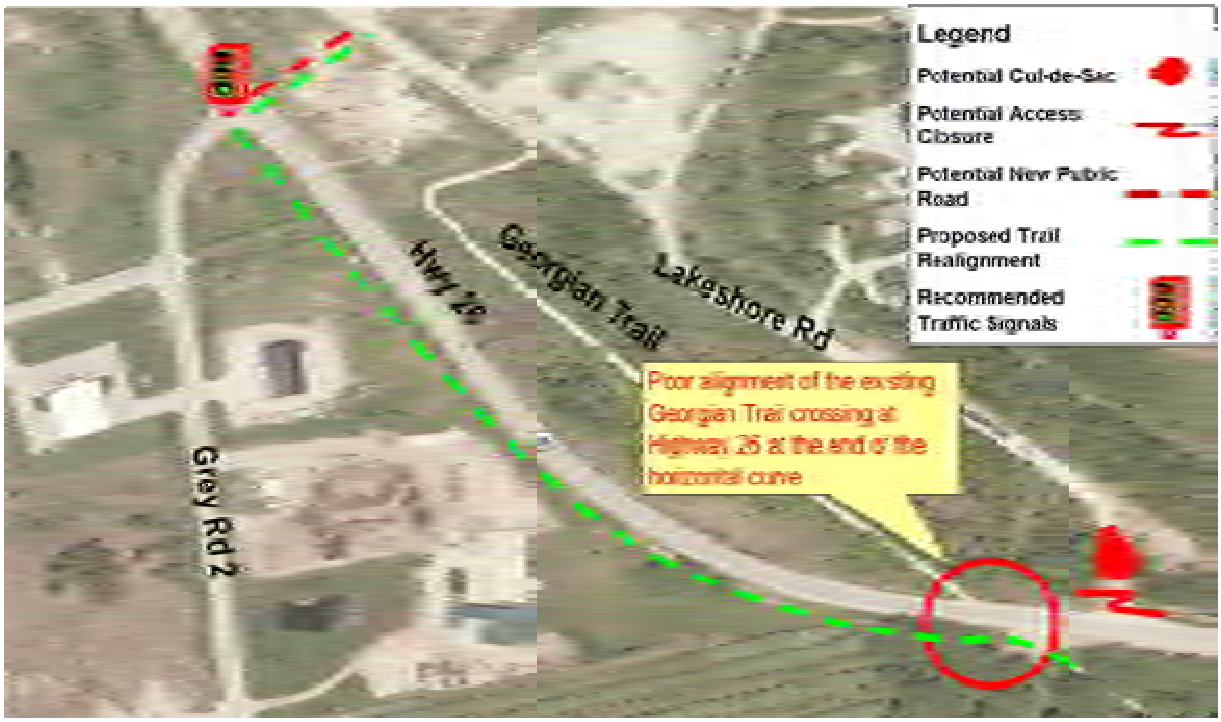
6.3.4.3 Georgian Trail Crossing at Highway 26

The current alignment of Georgian Trail crossing at Highway 26 approximately 200 m west of Lakeshore Road is problematic and may give rise to potential safety issues for trail users given that there is no appropriate traffic control device present, and the angle of the crossing is very sharp and located at the end of a horizontal curve in the eastbound direction.

In general, from a safety standpoint, it is more appropriate to locate a trail crossing at an intersection versus a mid block location between intersections particularly along a Highway given the high volume of traffic and speed.

Accordingly, the realignment of the Georgian Trail to the intersection of Highway 26 with Grey Road 2 is recommended as shown in **Figure** 6.11**.** This will provide an opportunity to integrate the trail crossing with the intersection and pedestrian facilities to be provided. As per the 2013 assessment, this intersection is recommended for signalization given the expected traffic volumes on Grey Road 2 and the highway, which would include appropriate pedestrian signals and crosswalk delineation.

Figure 6.11. Proposed Realignment of the Georgian Trail



6.3.4.4 Thornbury Bridge

As noted previously, there could be a potential bottleneck on the westbound approach of Highway 26 intersection at Bruce Street as a result of the narrow bridge located about 50 metres east of the intersection. Given the limited space available for the provision of a left turn storage lane on the westbound approach without a need for bridge widening, a bottleneck can be anticipated. The Town can undertake a Business Impact Assessment to possibly consider the implementation of alternative routes around the build area of Thornbury.

Alternatives to offset this deficiency may include:

- structural widening / replacement; or
- diversion of a portions of the traffic demands from Highway 26 to an alternative route around Thornbury as described in **Section** 0 or a Highway 26 bypass which will be determined by the "Highway 26 Study Design Update" which is currently being undergo by MTO to address adequate Highway 26 through-capacity traffic for inter-regional east-west traffic from east of Stayner to west of Thornbury.

6.3.4.5 Clarksburg Single Lane Bridges

There are single-lane bridge structures along 10th Line south of Clark Street and on Clark Street west of Grey Road 13, which are of potential hazard concern as well as operational deficiencies and hence need to be widened. The structural widening will however need to follow the requirement of an Environmental Assessment Study procedure and a thorough operational and safety assessment will constitute Phase 1 of the Environmental Assessment planning process.

6.3.4.6 Pedestrian Crossings on Arthur St.

During the PIC #2, concerns were expressed for pedestrian safety in crossing Arthur St. at Elma St which is a busy route especially for children on their way to the beach during the summer months. Staff are aware of this situation and will be investigating ways of improving pedestrian road crossing safety.

7. Recommended Transportation Policies

This study is comprehensive in nature and includes a series of detailed recommendations and strategic policies that can be implemented over time. It is based on a multi-modal approach to transportation that considers existing and future transportation needs. The Plan provides a balance of transportation choices required to address future travel demands in the Town, and can be characterized as a first step in the process of changing the way road users think about and use their transportation system.

The following sections highlight the key recommendations and policy directions of the Comprehensive Transportation Strategic Plan.

7.1 A Plan for Transportation Demand Management

A Transportation Demand Management (TDM) Program is an institutional framework for implementing a set of TDM policies or incentives to encourage residents to either reduce the amount they travel, shift their time of travel to avoid peak periods, or change their mode of travel.

There are many different TDM strategies with a variety of transportation impacts. Some improve the transportation options available to consumers. Some cause changes in trip scheduling, route, destination or mode. Others reduce the need for physical travel through more efficient land use, or transportation substitutes. Although most individual TDM strategies only affect a small portion of total travel, the cumulative impacts of a comprehensive TDM program can be significant.

Transportation Demand Management Strategies are generally classified under 3 general categories:

- Market Based
- Behaviour Based
- Land Use Based

Strategies to Manage Demand

Market Based	•User Pay •Parking Supply / Cost
Behavior Based	•Increase Use of Transit Service •Increase Walking / Cycling •Flexible Work Hours •Telecommuting (work from home) •Ridesharing (carpooling)
Land Use Based	•Increase Densities & Encourage Mixed Land Use •Neighbourhood Design to Support Transit / Cycling / Walking •Support Walking / Cycling / Transit at Key Destinations •Enhance Accessibility

Each of these strategies uses different types of incentives to encourage people to re-think their travel choices, including the need to travel at all. A listing of some of the most common Demand Management strategies that fall within each of the categories are summarized below.

7.1.1 Policy Directions

Based on best practices observed in other jurisdictions, it is recommended that the Town focus on policies and infrastructure to support ridesharing as the key focus of their Transportation Demand Management Program. The following key policy directions have been recommended in the Comprehensive Transportation Strategic Plan.

7.1.1.1 Tourist Transport Management

Tourist Transport Management (also called Resort Community Transport Management) involves improving transportation options for recreational travel and reducing automobile traffic in resort areas. Tourist travel has predictable patterns and needs, and often occurs in areas that have unique environmental and social features that are particularly sensitive to degradation by excessive automobile traffic. Tourist Transport Management can preserve the amenities that attract visitors to an area, whether it is an historic Town center or a pristine natural environment.

Tourist Transport Management programs can include a variety of specific strategies to improve transport options, integrate alternative transportation into tourist activities, provide disincentives to drive, and promote alternative modes. These can include:

- Transit Improvements
- Shuttle Services
- Taxi Service Improvements
- Cycling and Walking Improvements
- Public Bike Systems
- Bicycle Parking
- Parking Management
- Traffic Calming, Speed Reductions and Streetscape Improvements.
- Smart Growth, New Urbanism and Access Management
- Car-Free Planning and Vehicle Restrictions.
- Marketing to encourage visitors to arrive without a car.
- Commute Trip Reduction programs for staff.
- Freight Management to minimize truck traffic.
- Aviation Transport Management
- Transportation Access Guides, which provide concise directions to reach destinations by alternative modes.
- Equipment Rentals (Bikes, Scooters, Skies, etc.).

Traffic to the Craigleith Area often peaks during the winter weekends and holidays. Visitors have particular mobility needs (e.g., travel between transport terminals, accommodations, restaurants and shops, tourists attractions, etc.) and baggage requirements (skis, golf clubs, gifts to carry home). Tourist Transport Management must take these travel patterns and needs into account.

Many resort visitors will use alternative modes if they are convenient, enjoyable and affordable. Tourist TDM programs can involve developing car-free travel options and packages. This requires coordination to insure that visitors' mobility needs are served, and that such travel options are well marketed. When planning a trip, potential visitors must be assured that they can arrive at their accommodations, access local activities and attractions, and carry any baggage they need, reliably and in comfort without a car.

Tourist Transport Management programs are usually implemented by regional planning agencies, a parks agency, a TDM Program, a Transportation Management Association, tourist marketing organizations, tourist-related businesses (such as a large hotel), or by organizers of a Special Event (such as a major festival). These TDM programs are often initiated to deal with specific problems (such as inadequate parking or traffic congestion during peak periods), but may expand over time with more Comprehensive Transport Planning to deal with a broader range of problems and objectives. Parks agencies can establish transit services, bicycle rentals and guided tours, or help private companies provide suitable services. In more isolated areas it may be implemented as part of an overall Rural Community TDM program.

Tourist Transport Management may involve policies that Restrict Automobile Travel or favour alternative modes. For example, some cities, towns and parks prohibit or limit the number of private automobiles allowed in certain areas or at certain times, and provide visitor access by shuttle services, bicycle rentals and pedestrian facility improvements. Visitor organizations or private companies may organize and publicize new car-free tour options and packages.

7.1.1.2 Community Education and Awareness

Since TDM programs essentially try to invoke change at an individual level, all successful TDM programs rely on a partnership between public sector agencies, private sector businesses and community interest groups. Getting the message out is a key part of any program that seeks to invoke change. Some of the leading jurisdictions with successful TDM programs are using social or individualized marketing campaigns to encourage people to make more sustainable transportation choices. These programs recognize that each member of the public will have different motivations and reasons for the transportation choices they make, and the marketing programs need to reflect the benefits that matter most to each segment of the population.

There is a need to target and reach out to major employers such as ski resorts, school boards, health units and to environmental groups to market the benefits of TDM. The initial strategy for the Town to lead by example will help the Town recognize the challenges and issues associated with getting employees to change modes of travel and for the Town to use this knowledge to deliver information to employers.

7.1.1.3 Land Use Polices

The connection between land use, urban form and transportation choices is becoming more widely understood. The 'Places to Grow' legislation has implemented policies to encourage increased density and a broader mix of land uses within communities. In addition to density targets, the urban design and infrastructure of newly developed areas must also support alternatives to automobile use.

In this context, the Town should develop official plan policies that encourage pedestrian-friendly and transit supportive infrastructure and urban design principles for large developments and employer sites to encourage non auto modes of travel. This could include convenient/accessible transit stops, preferential parking for

carpools, flexible work hours, and telecommunication, building orientation to support transit, and other measures to create a pedestrian friendly environment.

7.1.2 Recommended Policies to Support TDM

The plan for Transportation Demand Management includes recommendations on policies, promotional considerations and recommendations on infrastructure. The following policy approaches are recommended:

One of the most effective ways to demonstrate the viability and benefits of TDM measures is to lead by example. Municipalities are large employers and thus generate significant commuting activity. They also operate facilities that act as major travel generators for the public, including administrative buildings, arenas, libraries, conference centres and entertainment venues. Leadership is required to proactively seek out potential partner organizations and coordinate activities to establish and maintain interest in the program. The following policies should be implemented by the Town and/or County:

1. Consider a TDM Coordinator, with the mandate to coordinate public and private sector TDM initiatives in the Town.
2. Develop a TDM program for municipal employees designed to achieve similar objectives as the broader Town –wide program.
3. Develop an employee survey for Town employees to identify travel needs and desires, identify common barriers to alternative modes of transportation, and seek feedback on potential incentives that may encourage change.
4. Based on the survey results, segment the respondents into homogenous categories based on their desires (i.e. want to spend more time with family, want to save money on auto costs, etc) or the barriers they most frequently cite with respect to TDM initiatives (i.e. need a car for daytime travel, need a car to pick up children, etc)
5. Develop marketing material aimed at each group to show how TDM activities can address their desires or remove the most common barriers to participation. Highlight the benefits that individuals can realize in terms that they feel are important (i.e. for those who want to spend more time with family – TDM can promote flexible work hours, which can reduce peak hour travel demands)
6. Develop internal policies to facilitate and/or enable participation in the types of TDM programs that will address the common objectives and remove barriers to participation and secure senior management support for implementation.
7. Undertake consultation with Municipal employees about the TDM program opportunities and communicate the specific policies and benefits that can be achieved. Encourage employees to formally enrol in the pilot program for an 8 week trial period and provide incentives to encourage participation (awards program, recognition, prizes, etc).
8. Establish a monitoring program to track employee and corporate progress and issues / benefits experienced (either through a diary system, a comment form system, on an online feedback tracking system).

9. Adjust the pilot program to address issues and use positive comments or statistics to market the program externally.
10. Call for the active support and participation of the Province of Ontario and the federal government in TDM initiatives, including financial assistance for pilot projects and legislative amendments to encourage employer-provided transit benefits. Work with adjacent municipalities, to implement consistent and mutually-supportive TDM initiatives on a regional level.

Dialogue & Education and Awareness Program

Advisory Committees, public information sessions, stakeholder workshops and outreach to school boards or business groups are critical measures to build awareness and encourage TDM programs that fit within the context of the everyday lives of residents. The following policies approaches should be considered:

1. Encourage and assist major employers in the development of TDM pilot programs in their workplaces.
2. Work with (and/or fund) community associations, interest groups and non-governmental organizations to develop and implement TDM-related marketing material, programs, and other initiatives, particularly those aimed at families and individuals.
3. Develop an Education and Awareness Program to promote alternative modes of transportation (transit/walking/cycling/carpooling) and provide information on the benefits that can be achieved for individual user groups or employers (individualized marketing)
4. Promote sustainable transportation choices through communications and outreach methods including Web sites, production of cycling route maps, cycling skills training and competitions, household flyers, media relations, and special events that raise the profile of sustainable transportation choices and encourage trial by individuals.
5. Participate in Clean Air Day or other Town wide/national challenges/ programs and encourage a healthy level of competition between employers and civic groups to post the best results.
6. Consider the use of a TDM program identifier to link initiatives and provide a recognizable platform (or “brand”) for TDM tools, services and communications.

Development of tools to support TDM at the local level and incentive programs to encourage use are both key to encouraging employers to implement and maintain effective TDM programs throughout the Town. The following policy approaches should be considered:

1. Partner with community groups/taxi companies and employers to apply Commute Trip Reduction tools (CTR) (Employee Trip Reduction/Vehicle Trip Reduction) programs and provide commuter resources and incentives to reduce their automobile trips, including:
    i) Commuter Financial Incentives (Parking Cash Out and Transit Allowances).
    ii) Develop or promote use of web based commercial ride matching service (carpool tool, carpool zone, etc) for use by the Town residents and employers for ride-matching services.
    iii) Identify locations for carpool lots at key strategic locations within the Town Roadways/along Highway 26 corridor

iv) Provide preferential parking locations for carpools in municipal parking lots.
v) Alternative Scheduling (Flextime and Compressed Work Weeks).
vi) Telework (allowing employees to work at home, and using telecommunications to substitute for physical travel in other ways)
vii) TDM Marketing and Promotion
viii) Provide a guaranteed ride home service for all registered carpoolers, or those signed up to regularly use alternative transportation modes (i.e. walking, transit).
ix) Walking and Cycling Improvements & Encouragement
x) Transit Encouragement programs
xi) Produce a Transportation Access Guide, which concisely describes how to reach a worksite by walking, cycling and transit.
xii) Worksite amenities such as on-site childcare, restaurants and shops, to reduce the need to drive for errands.
xiii) Company travel reimbursement policies that reimburse bicycle or transit mileage for business trips when these modes are comparable in speed to driving, rather than only reimbursing automobile mileage.
xiv) Company vehicles, to eliminate the need for employees to drive to work in order to have their cars for business travel.

2. Parking Management and Parking Pricing can be implemented as a mobility management strategy to reduce vehicle traffic in an area:
   i) Price parking for full cost recovery: at a minimum, all costs of building and operating parking facilities should recovered from users. Prices may be higher to reflect the opportunity cost of land and to provide profits.
   ii) Price the most convenient parking, such as on-street spaces, so occupancy averages 85-90%. Use variable fees, with higher rates during peak periods and lower rated during off-peak periods.
   iii) Dedicate some or all of the revenue from on-street parking to benefit local businesses and residents.
   iv) Unbundle parking from building rents, so occupants only pay for the number of parking spaces they want.
   v) Consider more flexible parking requirements and allow private developers and building managers to decide how many parking to provide as appropriate.

3. Provide funding and establish incentive programs to support TDM participation at the corporate level, and the individual level (i.e. ridesharing, alternative work hours and telecommuting to the employers).
   i) Development of financial or other incentives for existing employers to participate in TDM programs.
   ii) Provide awards or ways of recognizing employers with exceptional TDM programs.
   iii) Develop policies that allow for reduced parking requirements for larger employment land uses that incorporate TDM supportive infrastructure into their site plan.
   iv) Develop policies that encourage Development Charge credits for new developments that incorporate TDM supportive infrastructure into their development concept and can demonstrate potential reduction in auto demand as a result.

4. Require the consideration for TDM measures and plans as a part of the Site Plan approval process for large industrial or other employment based land uses to ensure that infrastructure to support TDM is incorporated into the site design process.
5. Actively support the development of carpool lots at key locations throughout the Town and at locations adjacent to Provincial Highway corridors. Develop policies that require future land proposals in these areas to examine opportunities to provide carpool lots as part of their development or provide lands to the Town for future carpool lot construction.
6. Work with the MTO to provide carpool lots at the key locations along the Highway 26 and develop policies in the Official Plan to protect these lands for future carpool lot construction.

7.2 A Plan for Active Transportation

The call for more walkable, liveable, and accessible communities, has seen bicycling and walking emerge as an "indicator species" for the health and well-being of a community. People want to live and work in places where they can safely and conveniently walk and/or bicycle and not always have to deal with worsening traffic congestion, road rage and the search for a parking space. Alternative transportation choices such as walking, biking, cross-country skiing are more affordable and sustainable and will increase efficiency and minimize barriers to accessing leisure opportunities. Establishing a continuous network of trails will promote healthy and active lifestyles and could make the town truly a destination point for bicycle riders and increases tourism activities/revenues.

The results of a household survey of the Town residents undertaken as part of the Leisure Activities Plan (March 2006) indicated that the top three leisure activities participated in were walking, biking and downhill skiing. The majority of the households surveyed indicated that they participated in outdoor activities, with walking, biking, and skiing at the top of the list.

Furthermore, as age increases, so too does the propensity to identify walking as a favourite leisure time activity. On the other hand, the existence of provincially, nationally and even internationally known trails such as the Bruce Trail (providing access to the Niagara Escarpment, a UNESCO World Biosphere Reserve) draws users from areas far beyond the boundaries of the Town.

Although bicycling and walking are limited as modes of long distance transportation, they are important parts of sustainable and efficient transportation systems and will function effectively in the individual communities and along the waterfront.

Trails are an especially flexible and responsive type of facility as they permit “spontaneous” fitness or “active living” opportunities for both older adults and the young. The Town has a great network of trails, most notably the Georgian Trail and the Bruce Trail, although connections remain an obstacle in some areas. Sidewalks are also important in the context of the trail system, as they connect the urban pedestrian infrastructure to the trail network, thus sidewalks should be considered to be a part of all new plans of subdivision.

The development of a waterfront trail network would likely be beneficial to the Town through the linkages and leisure opportunities created for residents and from the amenity value that would also contribute to tourism.

At the Province level, the Ontario Trail Council is promoting the integration of the community and regional trail system into a province-wide system to be known as the Ontario Trillium Trails. At the same time a national trail system is being developed through the Trance Canada Trail Initiative.

The following is a partial list of benefits of pedestrian/bike trails to drivers, bicyclists, and pedestrians:

1) ***Traffic Relief:*** reduce the auto-based travel demands thus easing congestion and on-street parking demand. Roadway capacity is improved and uniform speed is encouraged
2) ***Environmental Benefits:*** reduce auto emissions and the amount of air pollutants washing into the waterways
3) ***Economic Benefits****:* Bicycle friendly urban environments have various economical benefits including:
   - Bicycle travel can save a considerable amount of fuel consumption annually
   - Help improving the community image and this increases economic activity / development
   - Helps to bring tourist dollars into the Town
   - Paved shoulder bicycle lanes increase pavement life with a benefit-to-cost ratio of approximately 5 to 1 (Texas Transportation Institute, 1989).
4) ***Health Benefits*****:** improve the general health and help reduce heart disease, diabetes, obesity and other chronic illnesses
5) ***Safety Benefits*****:** more space is provided for bicycle / pedestrian use that improve safety of all road users.
6) ***Emergency Response Benefits:*** Space is provided for emergency vehicle access through congested areas as motorists pull into the bike lane or shoulder to allow emergency vehicles to pass
7) ***Emergency Stops***: provides better opportunity for stop partially or completely out of the travel lane because of mechanical difficulty, a flat tire, or other emergency

There are 130km of trails and sidewalks in the Town (designated as linear parkland). Based on the previous surveys it was identified that leisurely walking and bicycling were the top two activities that favoured by people, with 46% of households “walking for leisure” and 40% also biking / cycling – other trail-related uses such as hiking, cross country skiing and snowshoeing were favoured leisure pursuits as well.

7.2.1 Policy Directions

The provision of public pathways is addressed in the Town’s Official Plan as follows:

> *“the municipality will establish a system of public pathways designed to provide a practical recreational facility for walking, skiing and biking trails, and to facilitate pedestrian access between major recreational activities associated with the Niagara Escarpment and Nottawasaga Bay, and the major residential and commercial centres in the planning* area.”

Statements in the Official Plan regarding public pathways indicate the importance of a connected network of paths. Such an interconnected system allows for a greater degree of accessibility to leisure activities, and in some cases, provides “active” transportation options that assist in non-leisure pursuits. The establishment of

trail connections and sidewalks is primarily driven by new residential or commercial development, something which is currently being experienced in the Town.

While trail connectivity has traditionally been a focus of much research, equally important to a successful trails system are suitable access points. The development of adequate staging locations and trailheads should incorporate the facilities dictated by the types of use allowed by the specific trail.

Walking and cycling infrastructure should be designed in such a way as to connect to the existing trails network, provide access to local commercial areas or new development areas, encourage increased walking and cycling for local short trips, and provide safe walking and cycling routes to neighbourhood schools and community centres.

To this end the Town needs to develop standards to allow for infrastructure to accommodate cycling facilities and trails within the Town roads right of way built upon the current trail network.

7.2.1.1 Design Polices

In general on low volume Town/County Roads, with traffic volumes of less than 3000 vehicles per day, on-road cycling facilities could be provided by paving the shoulder. For higher volume roads, off-road facilities could be provided within the 30.5 m road right of way (R.O.W.) along the backslope of the ditch.

However, given the rural nature and typically low volume of traffic (below 3000 vehicles per day) in a Town wide basis, the preferred strategy for provision of future cycling facilities shifts to emphasize the development of an integrated on-road cycling system using paved shoulders to connect communities within the town. The town wide trail system should build upon the existing trail system established by local communities and trail associations, and incorporate facilities and utilize infrastructure to fill in the missing links in the trail system and complete connections to local communities and to other trails.

There are seven generally accepted principal to improve the pedestrian/cyclist environment:

1. **Safety:** reducing cyclist/pedestrian-vehicle conflicts
2. **Security:** improving observation and visibility
3. **Convenience:** facilitating pedestrian flow
4. **Continuity:** provide direct and consistent routing
5. **Comfort:** protection form or moderation of inclement weather
6. **Coherence:** clearly conveying direction, function and purpose
7. **Attractiveness:** creating and aesthetic and sensory pleasing experience

The design of trail system should ensure the safety of trail users. The following key policies should be taken into consideration in design and the development of trail network:

1) **Planning projects for long-term**: Transportation facilities are long-term investments that remain in place for many years. The design of new facilities should anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements. For example, a bridge that is likely to remain in place for 50 years, might be built with sufficient width for safe bicycle and pedestrian use in anticipation that facilities will be available at either end of the bridge even if that is not currently the case
2) **Addressing traveling / crossing needs of bicyclists/pedestrians**: Even where bicyclists and pedestrians may not commonly use a particular travel corridor that is being improved or constructed, they will likely need

to be able to cross that corridor safely and conveniently. Therefore, the design of intersections and interchanges shall accommodate bicyclists and pedestrians in a manner that is safe, accessible and convenient.

3) **Designing facilities to applicable standards/guidelines:** Manuals that are commonly used by highway designers should incorporate design information that integrates safe and convenient facilities for bicyclists and pedestrians, including people with disabilities into all new roadway construction and reconstruction projects. The design of facilities for bicyclists and pedestrians should follow design guidelines and standards that are commonly used (i.e. ITE Recommended Practice "Design and Safety of Pedestrian Facilities", etc...).
4) **Applying Engineering Judgment to Roadway Design**
In rewriting manuals and developing standards for the accommodation of bicyclists and pedestrians, there is a temptation to adopt "typical sections" that are applied to roadways without regard to travel speeds, lane widths, vehicle mix, adjacent land uses, traffic volumes and other critical factors. This approach can lead to inadequate provision on major roads and the over-design of local and neighbourhood streets (e.g. striping bike lanes on low volume residential roads).

- Pedestrian Design Guide should reduce the need for ad hoc decision by providing a published set of guidelines that are applicable to most situations.
- Provide flexibility to the designers so they can tailor the standards to unique circumstances.

This approach would allow the design engineers to achieve the performance goal of providing safe, convenient, and comfortable travel for bicyclists and pedestrians by other means. For example, in certain situations that it may be inappropriate to add width to an existing roadway to stripe a bike lane or widen a sidewalk, traffic calming measures can be employed to reduce motor vehicle speeds to levels more compatible with bicycling and walking.

Generally, collector and arterial streets shall typically have a minimum of a 1.2 m wide striped bicycle lane, however wider lanes are often necessary in locations with parking, curb and gutter, heavier and/or faster traffic. Additional width including an offset zone for the aerodynamic effect are desirable (0.5 to 1.5 m) where substantial truck traffic is present, or vehicle speed is high (>75 km/hr).

Collector and arterial streets shall typically have a minimum of a 1.5 m sidewalk preferably on both sides of the street, however wider sidewalks and landscaped buffers are necessary in locations with higher pedestrian or traffic volumes, and/or higher vehicle speeds. At intersections, sidewalks may need to be wider to accommodate accessible curb ramps.
Rural arterials shall typically have a minimum of a 1.2m paved shoulder, however wider shoulders (or marked bike lanes) and accessible sidewalks and crosswalks are necessary within rural communities and where traffic volumes and speeds increase.

7.2.1.2 Community Education and Awareness

There is a need to target and reach out to major employers such as ski resorts, school boards, health units and to environmental groups to market the health and economical benefits of walking and cycling. The initial strategy for the Town to lead by example will help the Town recognize the challenges and issues associated

with getting employees to change modes of travel and for the Town to use this knowledge to deliver information to employers.

7.2.1.3 Land Use Polices

The Town should develop official plan policies that encourage pedestrian & cycling friendly environment and urban design principles for large developments and employer sites to encourage active modes of travel. This could include providing convenient, accessible and continuous network of sidewalks/trails within the Town and implementing policies to require the provision of sidewalks and/or multi-use trails through all new development areas /subdivision plans and standards outlining a minimum number of development units for application of the policy.

7.2.2 Recommended Policies to Support Walking and Cycling

The Town/County needs to take a leadership role regarding the trails system within the Town. This role should include coordinating new town wide trails or linkages, gathering information about the trails system in the Town (such as identifying facility infrastructure along the routes), promoting the trail system and linking into tourist information, and provide way finding signs along the trails to help users of the facilities.

It is recommended to provide linkages where required to connect communities or existing trail systems

The plan for walking and cycling will be implemented primarily through policies that are incorporated into the Town's Official Plans. Ongoing program management for the on-street or off-road Trail System should be coordinated by the Town/County, in conjunction with other Town wide tourism and recreational initiatives. This will require an annual commitment to funding for this coordination effort.

The policy recommendations for Walking and Cycling cover the areas of Leadership, Development of Trail Networks, and Walking & Cycling Policies in local communities, and are detailed below:

1) The Town/County should assume a leadership role in the development and promotion of Active Transportation (human-powered non-motorized transportation) infrastructure within the Town. This leadership role should include:
    i. coordination of a Town-wide off road trail network
    ii. promotion of walking and cycling as a preferred mode of travel for short trips
    iii. funding support for active transportation infrastructure
    iv. development of Official Plan policies to promote walking and cycling in local communities
2) The Town needs to designate staff resources to take on a coordinating role with area and trail associations in implementing and monitoring the trail system.
3) As the owner and manager of a significant number of public facilities, the Town should ensure that all of its public facilities are pedestrian and bicycle friendly. This can encourage non-motorized travel to those facilities and set a leading example for other property owners for how to make their facilities accessible for pedestrians and cyclists. At a minimum this should include:

i. Provision of secure **bicycle racks/shelters/parking** and

ii. Provision of **direct sidewalk connections** between buildings, activity centres, and municipal sidewalks

4) The Town should actively promote cycling/walking through a series of initiatives, such as:

i. The development of an **active transportation system map** identifying existing/proposed sidewalks, multi-use trails, and associated facilities, including proposed connection to the entire municipal Trail System

ii. The development of **promotional information** for *residents* that highlight the personal benefits of walking and cycling. Information should be targeted to particular groups to help messages reach the residents who are most likely to walk or ride a bicycle.

iii. The development of **promotional information** for *schoolchildren* with a strong emphasis on safety and identifying safe routes to schools.

iv. Development of **promotional information** for *commuters* to identify cycling routes and public bicycle storage/locker facilities. Information to cyclists and drivers should focus on respect for other road users, and safety information about sharing road space with bicycles.

v. Update/improve the **Town Road Trail Map and Multi-Modal Access Guide** to include accurate and up to date maps and other information (i.e. type of trail, trail amenities, trail parking lots, etc), and on how to walk and cycle to a particular destination.

vi. Create **tourist promotion materials** highlighting cycling and walking facilities and access to key attractions in the Town.

vii. Development of a **walking and cycling safety guide**, covering general safety, rules of the road, trail courtesy, safety education, law enforcement and encouragement programs, etc.

viii. The **development / coordination of promotional campaigns** to encourage cycling and walking (i.e. Bike to Work week, Clean Air Day, etc).

5) Town Staff should facilitate ongoing **consultation** with local communities, conservation authorities, school boards, community/ trail advisory groups and other agencies and community groups (i.e. "Active and Safe Routes to School" (ASRTS)&"Walk to School Routes") to promote cycling awareness and opportunities

Development of Trail Networks

A barrier free and comprehensive network of trails, and bicycle lanes will make travel by foot and bicycle more attractive users of the system. To support the development of active transportation infrastructure the Town should provide sidewalks, shared use paths, street crossings (including over- and under-crossings), pedestrian signals, signs, street furniture, transit stops facilities and required linkages. All connecting pathways shall be designed, constructed, operated and maintained so that all pedestrians, including people with disabilities, can travel safely and independently. The design and development of the transportation infrastructure shall improve conditions for bicycling and walking.

The Town should:

1) Adopt design standards specifying the design parameters that should be used for new trails/sidewalks that reflect Ontario Provincial Standards, Accessibility Act requirements, and best practices as described previously.

   i) Adopt new manuals, or amend existing manuals, covering the geometric design of streets, the development of roadside safety facilities, and design of bridges and their approaches so that they comprehensively address the development of bicycle and pedestrian facilities as an integral element of the design of all new and reconstructed roadways.

   ii) Adopt stand-alone bicycle and pedestrian facility design manuals as an interim step towards the adoption of new typical sections or manuals covering the design of streets and highways.

2) Coordinate the development of a detailed Pedestrian and Cycling infrastructure plan, to identify and protect opportunities for new trail connections and supporting facilities throughout the Town. The Town/County should prepare and maintain a comprehensive map of the Town trail system and work in cooperation with adjacent municipalities to ensure that inter regional connections for pedestrians and cyclists are provided.

3) Where feasible, provide and/or fund the provision of pedestrian walkways, bicycle paths and/or mobility aid paths to link existing communities and/or trails and proposed activity centres throughout the Town. The linked system may be provided in parklands and open space in both new development and redevelopment areas.

4) Provide improved road, road shoulder and path Management and Maintenance.

5) Provide shoulder bike-lanes for all arterial roads and roadways used by more than 1,000 vehicles per day. Rumble strips are not recommended where shoulders are used by bicyclists unless there is a minimum clear path of 1.2 m in which a bicycle may safely operate.

6) Upon completion of a Town Wide Trail system, the Town should incorporate the proposed trail system into its Official Plan and develop policies requiring the dedication of lands through new development areas to complete future trail/sidewalk connections identified in the Official Plan.

7) The Town should coordinate with local communities and trail associations to:

   i. Provided improved Bike Parking

   ii. Establish public bike systems that provide convenient rental bicycles for short utilitarian trips.

   iii. Address Security Concerns of cyclists, correcting specific roadway hazards (potholes, cracks, narrow lanes, etc.).

   iv. Implement traffic calming, speed reductions, vehicle restrictions, and road space reallocation.

   v. Provide trail signage along each route, and key destinations that can be accessed from the trail should be signed at key staging areas, crossing or intersection locations, and at key trail links. Trails should have regular route marking along their length to provide assurance that users are still on the trail, particularly where the type of trail changes (i.e. multi-use trail transition to a municipal trail);

vi. Develop trail staging areas along the trail network and at key trail links that include parking facilities and basic user amenities such as trail maps, washrooms or portable toilets (where possible), secure bicycle racks, and shelters;

vii. Provide benches and rest stops at regular intervals throughout the system. Key locations could include trail staging areas, trail intersections/nodes, key parks or open spaces along a trail route, or at other points of interest along the trail;

viii. Provide appropriate traffic control devices on trails and off road cycling facilities where they cross existing roadways or other locations to direct pedestrians and cyclists, without conflicting with auto users. Traffic control (signs) for trail/pedestrian users are typically smaller but conform to standard traffic signs designs (colour, shape, etc). An inventory of trail related signing should be maintained and all signs should be inspected at regular intervals to ensure that signs remain visible over time.

ix. Policies requiring the provision of secure bicycle racks/shelters, showers and change rooms, and sidewalk connections between buildings and municipal sidewalks for all new community centres, schools and other public use buildings, meeting halls, and major employment land uses that meet a minimum floor space threshold (to be established by each municipality);

Walking/Cycling Policies in New Development Areas

Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas in order to develop a more connected street network. The Town's Official Plan may include:

i. Policies requiring the provision of sidewalks and/or multi-use trails through all new development areas /subdivision plans and standards outlining a minimum number of development units for application of the policy.

ii. Policies outlining the requirements and conditions related to the dedication of lands in new development areas to complete future trail/sidewalk connections identified in the Official Plan.

iii. In rural areas, paved shoulders should be included in all new construction and reconstruction projects on arterial roadways or roadways used by more than 1,000 vehicles per day.

iv. Policies outlining cycling and pedestrian safety measures to reduce injuries and fatalities associated with motor vehicle collisions (i.e. traffic calming, narrower streets, signage, cycling lanes, etc.);

v. Policies and plans that identify where new sidewalks and/or trails should be provided through existing built up areas;

vi. Trail and sidewalk facilities should be planned to encourage crossing locations at intersections rather than mid block.

7.3 A Plan for Transit Service

Reliable transportation is critical to helping communities and community members remain healthy and productive, it is what binds communities together and supports economic growth. Enhancing transportation opportunities can improve economic growth and community development that will ensure quality of life for residents in rural environments and also improve transport options, integrate alternative transportation into tourist activities, provide disincentives to drive, and promote alternative modes.

Transit service improvements and Encouragement Programs are usually implemented by transit agencies, often with support from the municipalities and businesses. Major transit investments sometimes require voter approval. Some improvements, such as Park-and-Ride facilities, are provided by roadway agencies. User comfort improvements and amenities on vehicles and at waiting areas (less crowding, more comfortable seats, washrooms, cleanliness, etc.) can increase improve transit service and attract riders.

7.3.1 Policy Directions

The main element of the plan for transit will be to invest and partner with existing transit operators to improve and expand local services in the Town and among the adjacent municipalities.

The key strategy plan for local transit is to build upon the existing available transit practices by coordinating private sector transit providers with the Grey County and Simcoe County transit providers, as well as the other adjacent municipalities, which may currently operate transit services to extend local transit services. For example, the Town of Collingwood is already looking into extending transit service into the Town of Wasaga Beach, recognizing the strong linkages between these communities for access to local services. Opportunities for extension of this potential transit linkage to the Town should be reviewed with the Town of Collingswood. Moreover, Town of Wasaga Beach has recently moved to put a transit system into place. At the same time the federal & provincial governments have expanded funding programs to communities that offer public transit.

Extending the regular service of the neighbouring municipalities would provide residences in both the Town and the adjacent areas with improved access to service in the more urbanized municipalities, and would provide the area with alternative travel options.

Top this end, the Town should:

- Includes policies in its Official Plan that support the provision of local transit service within the Town's local communities.
- Establish a local transit reserve fund within their annual budgeting process and contribute a percentage of annual allocation of the annual roads budget to fund the capital costs associated with the initial purchase and ongoing maintenance cost and infrastructure required to deliver the service.
- Initiate discussions with adjacent municipalities to implement the inter-regional/ inter-city transit service areas and establish service levels and performance measures for each service area that reflect funding considerations, potential ridership, and required infrastructure.

While the specific service delivery model for this type of transit service could vary in detail depending on the service area, the demands, and local needs, the concept includes the outsourcing or purchase of an external service through a competitive tendering process. Alternatively, the Town could choose to subsidize fares for specific services provided to users.

The Town would be responsible for defining the services to be delivered, the service levels that should be provided (i.e. # of buses per day, number of seats per bus, hours of service, number of routes, etc), and establishing the contract and administering the service. As part of the service offering, the Town would promote the service to local residents, provide route maps and schedules on their website and public buildings, and provide bus stops (with signs/shelters or other infrastructure) at convenient locations in each community.

The Town should initiate discussions with the private sector transit providers in the area to better understand their current service delivery framework, current ridership levels on existing private services, and to assess the potential risks and approaches to risk transfer that will provide the best value for money to Town residents.

The Town should adopt policies to allow integration of bike and transit systems. Transit is most effective for moderate- and long-distance trips on busy corridors, while cycling is effective for shorter-distance trips with multiple stops. Combining transit and cycling can provide a high level of mobility comparable to automobile travel.

A transit stop normally draws riders within a 10-minute (a half-mile) walking distance. At a modest riding speed a cyclists can travel three or four times that distance in the same time, increasing the transit catchments area about ten-fold. Bicycle access tends to be particularly important in suburban areas where densities are moderate and destinations are dispersed.

7.3.1.1 Public Transit Encouragement

There are various strategies that give discretionary travelers (those who have the option of driving) reasons to choose transit. These include:

- Commute Trip Reduction programs, Commuter Financial Incentives, and other TDM Programs that encourage use of alternative transportation modes.
- Improve Transit Service, including more service, faster service and more comfortable service.
- Improved Stops and Stations, including shelter (enclosed waiting areas, with heating in winter and cooling in summer), seating, transit user information and wayfinding guidance, washrooms, refreshments, Internet services, and other convenience and comfort features.
- Transit-Oriented Development, so a maximum amount of mixed development occurs within convenient walking distance of transit stations and stops.
- Reduce fares and offer discounts (such as lower rates for off-peak travel times, or for certain groups).
- More convenient fare structures and Payment Systems using electronic “smart cards.”
- Improve rider information and Marketing programs.
- Park & Ride facilities, including Bike Parking.
- Create information packages
- Parking and road pricing can provide financial incentives for transit use.

7.3.1.2 Land Use Polices

The Town should develop official plan policies that encourage pedestrian & cycling friendly environment and urban design principles for large developments and employer sites to encourage active modes of travel. This could include providing convenient, accessible and continuous network of sidewalks/trails within the Town and implementing policies to require the provision of sidewalks and/or multi-use trails through all new development areas /subdivision plans and standards outlining a minimum number of development units for application of the policy.

7.3.2 Recommended Policies to Support Transit

The policies within the transit section of the report outline specific services required to achieve the ridership increases outlined in the strategy.

Leadership

1. The Town should work with local communities, business owners, adjacent municipalities, transit authorities to:

   (i) Discuss with Collingwood Transit, Wasaga Beach transit and Grey County transit providers about extending transit services into the Blue Mountain Resort and ski hill area and Thornbury. The availability of local transit system will assist in servicing inter-regional commuters, and contribute to funding a share of the capital costs associated with the provision of new buses required to implement the service, and the provision of transit stops/shelters in the local communities.

   (ii) Partner with private sector and local demand-response transit provider such as Greyhound/PMCL Transportation Corporation to provide wider transit coverage within the Town as well as inter-city bus services. This service provides as a backbone that could be used to implement an improved service to enhance existing service through providing more frequent service or more direct service between the local communities to benefit Town residents.

   (iii) Provide incentives through:
   - Reduced bus fares,
   - Company travel reimbursement policies that reimburse bicycle or transit mileage for business trips when these modes are comparable in speed to driving, rather than only reimbursing automobile mileage.
   - Provision of company vehicles, to eliminate the need for employees to drive to work in order to have their cars for business travel or emergence ride home.
   - Commuter financial incentives (parking cash out and transit allowances).
   - Parking management and parking pricing.

2. The Town should work with the developers to follow Transit-Supportive Land Use Planning Guidelines (a copy of this document can be downloaded from Ontario Ministry of Municipal Affairs and Housing website: www.mah.gov.on.ca) in preparation subdivision plans, site plans and intensification of employment lands and residential uses, particularly in close proximity of transit routes. These guidelines should include a check list for site plan approvals that will ensure measures to encourage transit usage.

3. Specifically The Town should adopt policies requiring the provision transit friendly developments and bike/transit integration through all new development areas /subdivision plans.

4. Official Plan land use polices that encourages compact developments with a broad range and mix of uses that are compatible, pedestrian friendly, and transit supportive.

Marketing & Education

1) Create a Multi-Modal Access Guide, which includes maps, schedules, contact numbers, and other information on how to reach a particular destination by public transit

2) Ensure public participation in transit planning through public information sessions to obtain input from the public regarding service options and other transit initiatives early in the decision making process.

3) Undertake a marketing study to help develop marketing campaigns targeting current and potential customers, key influencers and specific groups (students, shoppers, business, etc.)
   - programs to change the public image of transit (e.g., elementary school education programs)
   - advertisement campaigns and promotions that target specific groups in an effort to increase ridership (i.e., high school students, seniors,)

4) Partner with local organizations, to develop marketing and advertising campaigns for the new transit services and consider enhancements to the Town Website to profile the transit services, provide information on routes, schedules, fares, specials and other initiatives under way.

7.4 A Plan for Network Optimization

This approach attempts to maximize the use and capacity of existing transportation assets to allow them to serve more demand and extend their service life. There are a number of different approaches that can be used to optimize the effectiveness of an existing transportation system, as outlined below.

Optimize Existing System	Operational Improvement to Existing Roads / Intersections Traffic Signal Coordination Access Management

The need for optimization of the existing transportation network is a key requirement for any municipality in times of fiscal restraint. Optimization of the existing transportation system includes maximizing the capacity of existing facilities, improving the performance and reliability of existing services, and making minor operational improvements to improve system performance.

Based on a review of the existing road network, opportunities available to enhance existing network capacity, and best practices used in other comparable jurisdictions, the *Comprehensive Transportation Strategic Plan* study has identified three key components of a Road Network Optimization Strategy. These components are an enhanced road network classification system, a strategy for optimizing the capacity of existing roads, and an access management framework to protect key upper tier roads / arterial roads from incompatible developments that would interfere with the inter-municipal function provided by the transportation network. The following sections outline the key policy directions in each area.

The strategy for road network optimization includes maintaining and enhancing the capacity of key arterial roads in the Town. This should be achieved through a combination of localized intersection improvements, signal system coordination/optimization, access management policies and improvements. This is expected to lead to an average of 10% capacity increase[5] [6] on key arterial facilities.

There are a number of sections along key arterial roads in the Town that could benefit from the installation of Two Way Left Turn Lanes (TWLTL) to improve through capacity. For example, the section of Highway 26 in Craigleith area was recommended for widening to a 3 lane cross section in the 2018 to improve capacity within the existing corridor.

7.4.1 Policy Directions

Transport network optimization can mean a multitude of things. It may be as practical a concept as managing the traffic signals in a municipality so that delays to motorists are minimized across the road network for getting the best or most effective use out of the road network. This means not just moving cars, but moving people and

5. *City of Brantford Transportation Master Plan Update, City of Brantford, December 2006*
6. *County of Simcoe Transportation Master Plan, County of Simcoe, July 2008*

freight safely and efficiently within economic, environmental and social constraints. A key component to a municipality's growth objectives is the sustainability of their transport network.

The plan for Road Network Optimization includes optimizing the capacity of the road network to make sure the existing road system works effectively. Since the operation of major intersections along a roadway often deteriorate before the roadway will reach its functional capacity, strategic improvements to these key intersections can defer the need for more costly widening or the construction of new roads. Localized improvements such as the construction of turning lanes at key intersections can increase the capacity of the through lanes, by removing turning vehicles from the through traffic flow. On busier roads with numerous entrances, two way left turn lanes can be implemented to achieve the same objectives. The key objective is to protect the integrity and function of the existing road network.

7.4.1.1 Access Management

Access management is a technique used in conjunction with land use policies to control the number of entrances that are permitted on key arterial road corridors. A recent study, undertaken as part of the City of London Transportation Master Plan, found that arterial road optimization and access management could increase the capacity of an arterial road by up to 5%. Within this context, the Town and Grey County should implement the access management policies into their site planning and development processes and policies.

Arterial roads are facilities where traffic movement is the primary consideration while land access is a secondary function. Urban arterials normally carry high traffic volumes and a high level of access control to be exercised along them. A high degree of access control should be exercised along arterial roads.

The Town's roadway network shall be based on a grid system and designed to maximize access and connectivity rather than vehicular speed. Access management policies overlap with a wide range of policy areas addressed in other policy papers including:

- Road Classification
- Traffic Operation & Level of Service Standards
- Urban Design

Access management is often a process involving trade-offs and balancing competing objectives between mobility and accessibility. While property access is obviously an important prerequisite to successful property development, it can be negated by congested arterial conditions that limit access and create a negative image of adjacent property development (i.e. commercial uses). Therefore, it is recommended that in the Town's access management policy, arterial roadway mobility and Level of Service should take first priority in the planning of access and intersection operations. This should be interpreted and applied as meaning that any proposed access or intersection treatment that is determined to be potentially detrimental to the operation of an arterial road can be denied.

When evaluating access and intersection operation proposals, the first priority in the Town's decision-making process will be to maintain and optimize mobility, safety and Level of Service on the arterial road network. The Town should have regards to land use and urban design objectives when applying access management principles. The Town's roadway classification system should be used to define the degree of access control applied to the arterial roadway network, including prohibited access and regulated access arterials.

7.4.1.2 Road Classification System

The development of a road classification system will assist the Town in prioritizing capital funding and maintenance programs. This classification system underpins the road network optimization as recommended in this Transportation Strategic Plan, and provides a framework to assist with day-to-day decision making, priority setting and policy management.

A road classification system addresses the absence or presence of truck routes, transit routes, designated bicycle network links, parking and loading restrictions, and snow route restrictions. The public should be able to determine the essential characteristics of the road on which they live, or on which they intend to live, through a transparent and simple process.

The classification of roadways by function is also important for assessing the applicability of design features during road re-construction or other planning processes.

The road categories are generally designed to provide for a functional hierarchy of roads, with appropriate standards applied to ensure efficient circulation functions. Road Classifications as per Map G includes:

Provincial Highway

(1) Provincial Highway No. 26 traverses the Town and is designed as a long distance, high speed traffic corridor. Under jurisdiction of MTO, it is designated as a Special Controlled Access highway intended to carry through traffic with limited direct land access.
(2) To maintain the primary traffic function, additional access points onto Highway 26 should be strictly limited. Access will be limited to those entrances that are acceptable for future road openings, wherever possible. Where new access is considered appropriate, however, it shall be subject to the approval of MTO.
(3) It is intended that intersections along the Highway 26 will be improved where necessary by means of realignment, provision of turning lanes, and the placing of traffic control signals, signs and other traffic control devices. Additional rights-of-way for such purposes may be required in accordance with MTO standards.
(4) Development within 800 metres of Highway 26 shall be subject to the review and approval of MTO and that, prior to any development or grading, the applicant must obtain the necessary permits from MTO under the *Public Transportation and Highway Improvement Act*.

County and Arterial Roads

(1) County and arterial roads are designed to collect and carry traffic to the Provincial Highway, other Arterial roads, and Collector roads. Arterial roads consist primarily of Grey County Roads 2, 13, 19, 21, 40, 113 and 119, as well as some Town roads which are considered to be primary traffic arterials including Bridge Street/ King Street/ Arthur Street which functions as Highway 26 connecting link throughout Thornbury. County arterial roads and new arterial roads will require a minimum of 30 metres right-of-way to be able to accommodate shoulder bike-lanes. Road widening to a 30 metre right-of-way may also be considered desirable for some existing Arterial roads, subject to the requirements of the applicable road authority. In particular, road widening to a 30 metre right-of-way width is considered desirable for that portion of County Road 19 between the Town line and the Provincial Highway.
(2) To ensure the maintenance of the Arterial functions of these roadways, new individual lot access onto

Arterial roads shall be strictly controlled and limited in number.

(3) Because of the extensive urbanization proposed, Grey County Road 19 will function as the primary Arterial within the Craigleith and Castle Glen areas, and provide a major transportation route throughout a significant portion of the Plan Area. It is therefore necessary that further direct access to that portion of County Road 19 between the 4th Line and the Provincial Highway be controlled and limited to intersecting collector or local Town roads. Minimum intersection spacing along this portion of County Road 19 shall generally be limited to the following:
   a) Collector to Collector - 600 metres
   b) Collector to Local - 300 metres
   c) Local to Local - 180 metres.

(4) The maximum number of private access points to that portion of County Road 19 shall generally be limited to the greater of one access per existing residential lot, or six access points per side per kilometre, unless additional access can be substantiated by a traffic study, to the satisfaction of Council, and the County to ensure the intent of the Plan is maintained.

Collector Roads

(1) Collector roads are designed to collect and carry local traffic to the Provincial Highway, Arterial roads, and other Collector roads, or to distribute traffic to local roads, as well as provide limited access to abutting properties. Existing Collector roads generally have an existing right-of-way width of 20 metres and expanded where possible. New Collector roads may be required to provide a wider right-of-way width of 26 metres, based on an established engineering standard that shall also incorporate design features.

(2) To ensure the maintenance of the Collector functions of these roadways, new individual lot access onto Collector roads shall be discouraged. Where appropriate, common access and service lanes shall be encouraged.

Local Roads

(1) The remainders of the roads in the Town under municipal jurisdiction are classified as Local roads. Existing and future Local roads are generally intended to provide access to abutting properties and to discourage through traffic. Existing rights-of-way are normally 20 metres in width. The minimum right-of-way width for all new local roads shall generally be 20 metres.

(2) Where an existing Local road serves a limited number of properties, Council may consider a request to transfer the existing road to all affected property owners under a Common Elements Condominium conditional upon Council be satisfied with the following:
   a) there is no potential of additional users or extensions to the road due to existing physical constraints;
   b) that it is in the public interest to stop up and close the Public Street;
   c) that the necessary process is followed under the Municipal Act, Condominium Act or other applicable legislation;
   d) all affected parties have consented to the process;
   e) other appropriate Town interests in the road allowance such as but not limited to walkways and service easements can be secured;
   f) a suitable Condominium Agreement is executed with the Town and all parties that address the interests of Town.

Private Roads

(1) Unless development is registered as a plan of condominium, development on private roads shall be

prohibited. The implementing Zoning By-law shall establish standards for lot frontage and access onto a year round appropriately maintained public road, and no new lot shall be created unless such frontage and access is provided.

(2) Where application is made for the public assumption of a private road, such road will be assumed only where:
   a) the right-of-way, construction and surfacing, is to a standard suitable to the Town; or
   b) the road is upgraded to acceptable standards by the owners, or through local improvements with costs being recovered through appropriate measures.

(3) Notwithstanding the provisions of paragraph (1), where exempted under the Zoning Bylaw on a site-specific basis, development on a private road may be permitted in the following situations:
   a) on an existing lot with an existing right-of-way with a minimum width of approximately 6 metres, provided Council is satisfied that such access is acceptable and leads directly to a public road maintained on a year round basis;
   b) for freehold multiple developments, new lots may be considered along a private access road under a Common Elements Condominium, as further provided under Section 9.6**.**

(4) Private road access and service lanes established under a Common Elements Condominium shall be encouraged where Council considers it appropriate to reduce the number of access points to a public street.

7.4.2 Recommended Policies to Support Road Network Optimization

The Town should implement the following optimization measures and policies:

1. The Town/County should develop an annual intersection improvement program that is tied to the road classification system. Funding for this program should be allocated in the annual budget process and should be targeted at between 10-15% of the capital budget for transportation, depending on identified needs. This allocation is in addition to funding for road reconstruction and rehabilitation, which is an important aspect of maintaining the existing road system and is driven by pavement conditions and/or structural bridge conditions and rehabilitation needs.

2. Consider intersection operational improvements, such as turning lanes, in major corridors as an initial improvement prior to widening. Separate left turn lanes should be considered where required

3. The Town/County should work with the MTO, Emergency Service Providers, and adjacent municipalities to develop Emergency Road Closure action plans to accommodate traffic that is re-routed to the County/local road network in the event of closures of the Provincial Highways in the Town. For example, when Highway 26 is closed, the roads through the adjacent municipalities are paralyzed and gridlock may ensue. A plan should outline what routes are to be used in case of emergency, what signing is required to guide motorists back to the Provincial Highway, and what improvements are required to enable these route to function more efficiently during major closures.

4. To protect the integrity of these Emergency Detour Routes, it is recommended that these routes to be assumed as County Roads in case that they are not already County facilities where they are outside of the existing built up areas. The County should also upgrade these routes to County Road Standards and apply the same access management policies that are applied to other County Roads.

5. The Town/County should establish and maintain guidelines for the preparation of transportation impact studies to be carried out to assess the impact on the road system and adjacent land uses from proposed

developments and land use changes that will result in a significant increase in traffic. MTO has a Traffic Impact Study Guideline available for development purposes.

6. For Controlled Access Roads, the Town/County should develop by-laws outlining policies for access controls on future Controlled Access Roads.
7. New entrances or alterations to existing entrances on Town/County roads should be in accordance with the applicable Entrance By-Laws. MTO has its own set of policies and standards for new entrances or alterations to existing entrances on Highway 26.
8. All arterial roadways should be given signal priority (where applicable) during peak hours regardless of increased delays to side road traffic.
9. Access to Town/County roads for major commercial or industrial developments that generate significant volumes of traffic should be treated the same as local/collector roads, and a spacing of 250-300 m should be required between access points/adjacent intersections, depending on the road classification. MTO has its own set of policies and standards for access to Highway 26 for major commercial or industrial developments (i.e. 1600 m desirable/800 m minimum).
10. A maximum volume to capacity ratio of 0.90 should be adopted as the relevant service target for overall signalized intersection performance before network improvements are required. At an intersection, a maximum volume to capacity ratio of 0.95 should be adopted for left turn movements, and a maximum volume to capacity ratio of 0.90 should be maintained for other individual movements.
11. Access management policies and associated warrants and design standards should be readily made available to the development industry. The Town/County/MTO should attempt to identify access management concerns early in the land use planning process (i.e. Official Plan updates, Official Plan Amendments, Zoning By-law Amendments, site plan applications, consent applications, etc.). Land owners and developers should be encouraged to consider access management practices during their site design process.
12. Access to moderate and large size properties should be via local/collector side roads where feasible. Direct access should be avoided where possible. Where a side road access is unavailable, careful consideration should be given to designing the entrance to ensure adequate spacing between adjacent entrances / signalized intersections. At the intersection of a two Arterial roads, a private entrance should be located on the road carrying the lesser volume of traffic. At the intersection of two major arterial roads with similar traffic volumes, a private entrance should be located on the facility that allows the maximum corner clearance (distance from the existing intersection).
13. Where safe access or intersection operations cannot be provided, or where a proposal either alone or in combination with existing conditions is deemed to be detrimental to the operation of a road, such access or intersection operation proposals may be denied. In these cases, the Town/County/MTO will endeavour to identify alternative solutions for consideration by the applicant, including:
    i. Use of mutually shared access arrangements with adjacent properties, (if land uses and projected traffic volumes are compatible and acceptable to the County).
    ii. Access consolidations for existing entrances.

iii. Other access restrictions including centre medians, right-in/right-out entrance designs, turning restrictions, etc

14. For arterial, collector and local roads passing through urbanized areas, Two Way Left Turn Lanes should be considered to improve capacity where the entrance density exceeds 25 commercial entrances per km (residential entrances should not be included in calculation of entrance density).

15. Ensure application of acceptable design guidelines (i.e. TAC standards, MTO's Geometric Design Standards for Ontario Highways manual) for geometric design components of driveways.

16. All driveways along arterials within 50 m of an intersection should be restricted to right-in-right-out. For commercial sites with direct access to an arterial road, the minimum distance back from the ultimate property line to the nearest parking stall or cross isle (clear throat distance) should be:
    - 6 m to 8 m for all developments with less than 50 parking stalls
    - 8 m to 15 m for developments with 50-199 parking stalls
    - 18 m for developments with 151-200 parking stalls
    - 15 m to 24 m for developments with over 200 parking stalls

7.5 A Plan for Traffic Calming

7.5.1 Overview of Traffic Calming

Traffic Calming (also called *Traffic Management*) refers to various design features and strategies intended to reduce vehicle traffic speeds and volumes on a particular roadway. Traffic Calming projects can range from minor modifications of an individual street to comprehensive redesign of a road network. *Home Zones* refers to an area with extensive Traffic Calming. Traffic Calming is becoming increasingly accepted by transportation professionals and urban planners.

Traffic Calming is one component of *Area Traffic Management*, which includes various strategies to control traffic volumes, control traffic speeds, manage transportation demand, educate and enforce traffic and pedestrian facility rules, improve the streetscape design, and improve street environments.

Traffic Calming changes streetscape design to give greater emphasis to pedestrians, cyclists and residents. It often involves Reallocating Road Space to increase the portion of right-of-way devoted to bicycle lanes, sidewalks and greenspace. Some features, such as wider sidewalks and improved crosswalks, support Universal Design objectives (making transportation systems accommodate people with disabilities and other special needs). Street Reclaiming emphasizes action by neighbourhood residents to change the way their streets are perceived and used to better accommodate non-motorized activities.

Some research indicates that improved roadway landscaping and tree planting encourages walking and reduces accident rates. Trees can be particularly beneficial in hot areas where they provide shade.

Most Traffic Calming projects are implemented on urban streets with low to moderate traffic volumes, but some strategies can reduce traffic speeds and improve pedestrian conditions on suburban streets, arterials and highways.

Road diets typically involve converting four traffic lanes to three traffic lanes, with a center turn lane and bicycle lanes, and various pedestrian and aesthetic improvements. This is suitable for roads with up to 20,000 average motor vehicles per day. Studies showed that conversion of four-lane undivided roadways to three-lane cross-sections in typical Iowa towns reduced crash frequency by 25% and crash injuries by 34%.

In previous decades many urban arterials were converted to one-way traffic to maximize traffic speeds and volumes. Some of these are now being converted back to two-way traffic in order to reduce traffic speeds and create more pedestrian-friendly streets. Converting to two-way traffic improved business activity, increased investment on the street, improved traffic distribution (more choices on how to get around), helped create a more pedestrian-friendly environment, and produced a general feeling of improved “liveability,” “quaintness” and “sense of community.” None reported significant negative effects or plans to convert back to one-way traffic.

Traffic Calming measures must be carefully designed and managed to avoid degrading travel conditions for cyclists and visually impaired pedestrians. Unnecessary stop signs are a hindrance to cycling. On arterials, curb extensions and chicanes should not intrude into bicycle travel lanes (regardless of whether they are officially designated as bike lanes) and force cyclists to compete for road space with higher speed traffic. Street closures should allow access to non-motorized modes. While small, slow speed, single lane traffic circles are easily negotiated by cyclists and people with visual disabilities, larger double-lane roundabouts with 20 km/h or higher traffic speeds can be difficult to negotiate.

Traffic calming takes many forms and has many definitions depending on the jurisdiction and its particular applications and policies. This stems from the fact that various aspects of education, enforcement and engineering have the potential to “calm” traffic. In 1997, a Subcommittee of the Institute of Transportation Engineers (ITE), after considerable debate, defined traffic calming as “the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for non-motorized street users.” Through this definition they separated traffic calming measures from other traffic control (stop signs, one-way designations), traffic management devices (partial and full road closures) and streetscaping.

In contrast, the Canadian Guide to Neighbourhood Traffic Calming, ITE 1998 (hereafter referred to as the Canadian Guide), includes both regulatory devices (stop signs, turn restrictions, one-way roads) and obstruction devices (diverters, full closures and right-in-right out islands) as potential remedial measures.

For the purposes of this policy review, traffic calming shall include all components of traffic management with the exception of the streetscaping component (e.g. street furniture, landscaping, trees, etc.), which is not typically considered a core component of traffic calming. This scope parallels that of the Canadian Guide definition. In addition, the policy paper on Urban Design Relationship addresses the issue of streetscaping.

General objectives of traffic calming include:

- To encourage citizen involvement in the traffic calming process by incorporating the preferences and requirements of the citizens,
- To reduce vehicular speeds,
- To promote safe and pleasant conditions for motorists, bicyclists, pedestrians, and residents,
- To improve the environment and liveability of neighbourhood streets

- To improve real and perceived safety for non-motorized users of the streets,
- To discourage use of residential streets by non-citizens cut through vehicular traffic.
- Implement crime prevention programs through access restriction methods such as road closures and one-way streets; and
- Promote urban redevelopment.

In summary, there are a number of negative traffic impacts in some communities that result from inappropriate use of neighbourhood streets by drivers as listed below. In general, these occur in older established neighbourhoods next to busy traffic areas. However, traffic issues may also occur in newer subdivisions depending on the road network and adjacent activities.

- Arterial road congestion results in motorists looking for parallel or alternative routes to reach their destinations;
- These parallel/alternative roads accommodate greater traffic volumes and begin to function as they were never intended. For example a local residential or collector roadway becomes a mid-block arterial road1.
- Motorists operate vehicles at speeds, which are not appropriate for the residential roadway and/or the roadside environment;
- The safety of all road users is decreased due to volume, speed and other compliance issues; and/or
- Enforcement resources are called upon to provide frequent enforcement of numerous problem areas and cannot sustain the level of enforcement to effectively address these traffic related issues.

Provided below is a summary of the general benefits and non-benefits of traffic calming, followed by an overview of available devices.

In the development of the Canadian Guide a detailed review of the potential benefits and non-benefits of traffic calming measures was undertaken to provide some guidance in terms of device application to specific types of roadways and their impacts. Provided in **Table** 7.1 are the major considerations in selecting applicable traffic calming devices.

Table 7.1. Potential General Benefits/Non-Benefits of Traffic Calming Measures

Factor	Benefits
Speed Reduction	Potential reduction in vehicle speeds along the traffic calmed street
Volume Reduction	Potential reduction in volume of through traffic on a street
Conflict Reduction	Potential reduction in road user conflicts
Factor	**Non benefits**
Local Access	Extent to which a measure restricts local traffic
Emergency Response	Potential delay as a result of slowing down to traverse a traffic calming measure and restriction of access
Enforcement	The need for police enforcement for a measure to be effective
Other Travel Modes	Access restrictions, safety implications or other non-benefit to pedestrians, bicycles, transit and service and delivery vehicles
Maintenance	Increase maintenance time for snow clearing, street sweeping, garbage collection, maintenance of landscaping, etc.

7.5.2 Canadian Guide to Neighbourhood Traffic Calming

In 1998, the Canadian Institute of Transportation Engineers joined with the Transportation Association of Canada to publish the *Canadian Guide to Neighbourhood Traffic Calming*. The guide's purpose is to help

practitioners understand traffic calming principles and applications and achieve some level of standardization, while minimizing liability and maximizing public safety.

The guide focuses on traffic calming measures for local and collector streets in established residential areas. It mainly addresses retrofit situations (i.e. traffic calming on existing streets, rather than streets in new developments), and takes a flexible approach that recognizes the need for traffic calming to reflect local conditions. The guide documents the effectiveness and recommended applicability of a wide range of traffic calming measures, and proposes a step-by-step process for involving affected communities in the development of traffic calming plans.

The Canadian Guide categorizes traffic calming devices into four broad categories. Provided below is an overall comparison of the devices in each category, their intended function/benefits and potential non-benefits. Detailed information on the benefits and non-benefits can be found in the Canadian Guide to Neighbourhood Traffic Calming.

The Canadian Guide to Neighbourhood Traffic Calming recommends that four stages are required for an effective neighbourhood traffic calming study process. These stages are:

Stage 1 - Initiate the Study
Stage 2 - Identify the Problems
Stage 3 - Develop a Plan
Stage 4 - Implement the Plan

7.5.3 Policy Directions

Roles and Responsibilities
Traffic Management Plans and neighbourhood traffic calming installations are typically undertaken by the Traffic Engineering and Operations Department of the Public Works Department.
In addition the Transportation Planning Section, in consultation with the Traffic Engineering and Operations Department, reviews development applications for traffic management and traffic calming opportunities. The review is generally aimed at highlighting potential “slow areas” and entrance features to create an improved community and walking environment.

Roadway Function
As described before, traffic calming can be used for volume reduction, speed reduction, increasing road user safety, crime prevention, improved quality of life and urban redevelopment.

While there are cases to be made for the latter two applications, the primary objective of traffic calming is to restore streets to their intended function (commonly referred to as Neighbourhood Traffic Management). The function of a roadway is to provide both access and mobility for all road users. The degree to which it provides these two functions is dependent on the classification of the road and the role it plays in the community.

The most familiar form of traffic calming action worldwide involves the use of physical roadway treatments at the neighbourhood street level. This is the case in North America where the primary application of traffic calming

has been on residential local and collector streets. Internationally, traffic calming has been applied to major collectors, arterials and highway facilities to address the competing functions of a roadway.

Local and collector neighbourhood streets are intended to provide access as a primary function with the needs of all road users generally given priority over moving traffic. When residential and collector roadways become cut-through routes, traffic volume, vehicle speed and road user safety become and issues. Given their lower operating speeds, all forms of traffic calming devices are recommended by the Canadian Guide for use on residential streets. Depending on the roadway design and posted speed, some abrupt horizontal and vertical devices are not recommended on collector street, i.e., speed humps, chicanes, etc.

Arterial roadways, highways and expressways are located and designed to provide mobility as a primary function. Traffic volumes and speeds on arterial roadways are typically higher than that of collector and local roadways. In North America, traffic calming is generally not recommended for arterials and expressways. There may be certain circumstances where less restrictive forms of traffic calming may be considered on higher-order roadways, where they traverse:

- Pedestrian oriented areas associated with retail areas with lower operating speeds and busy roadside environments;
- School, historic and community-based areas adjacent to the roadway; and
- Built-up areas and community-based areas in rural communities.
- In these cases, less restrictive forms of traffic calming may include on-street parking, curb extensions, textured pedestrian crosswalks, traffic circles, etc.

Retrofit Versus Planned

Neighbourhood traffic issues may arise from a number of sources including local land use, road network pattern and sudden changes in the nature of traffic demands in relation to transportation supply.

Traffic calming installations are typically associated with retrofitting in-service roadways to address existing traffic volume, speed and safety issues. At the neighbourhood subdivision or area planning stage, there are opportunities to produce a road user network within which traffic is dispersed and slowed naturally, i.e., narrower streets, shorter access locations, good connections to the arterial road network. There are many cases where traffic calming should be considered in new development areas:

- reduced street and right-of-way standards in new communities;
- Planned school areas, community-based facilities and primary intersection points of pedestrian routes with vehicular facilities (i.e., bike routes, bike lanes, greenways, etc.);
- parking delineation with curb extensions in future retail areas; Traffic circles versus traffic signals and all-way stop control within the community; and
- Proactively mitigating the impacts of infill developments and new developments adjacent to existing residential areas.

7.5.4 Recommended Policies to Support Traffic Calming

The Town does not currently have a formal policy for the implementation of traffic calming in the Town. Neighbourhood traffic management plans are undertaken through the Class Environmental Assessment process to ensure that any recommendations for major operational or physical changes can be implemented without further study.

The Town is a rapidly urbanizing area experiencing major growth rates as demonstrated by its ranking in the top fastest growing local municipality in Grey County. A fundamental shift in resident attitudes towards increasing negative impacts of vehicle traffic in their neighbourhoods coupled by their growing awareness of the implementation of traffic calming measures in areas abroad has provided the impetus to develop a policy that is comprehensive, flexible, equitable and effective in addressing a growing number of requests for traffic calming. The current population of the Town permanent residents is approximately 6,100 but the real population is closer to 16,000. It is anticipated that the population could increase to over 25,000 during the next 15 years.

The following general action items are recommended for the Town towards developing a traffic management plan. The Town Should:

i) establish a neighbourhood traffic management process to address transportation issues and concerns of residents and other stakeholders in a community.
ii) establish a traffic committee of residents from the streets or area of concern.

Provide education, give instructions to the residents on safe on-street vehicle travel.

iii) take a proactive approach to traffic calming and maintain a Town-wide list of neighbourhoods that could benefit from traffic calming devices.
iv) establish a ranking system and a primary (short-listing) screening process which is based on traffic speed and volume, followed by a detailed ranking system based factors including: speed, volume, pedestrian generators, routes and facilities, elementary schools and, bicycle and transit routes.
v) develop warrants for speed humps, raised intersections, curb extensions, road narrowing and chicanes, which are the primary types of installations used in their neighbourhoods.
vi) promote traffic circles, roundabouts, curb extensions, textured pavements and raised crosswalks in new development areas, to address anticipated traffic concerns, mitigate impacts of the development or for aesthetic reasons.
vii) consider improvements on the arterial road network prior to implementing neighbourhood traffic calming.
viii) promote the use of self-enforcing passive measures as opposed to regulatory signs and access restrictions.
ix) support the implementation of the traffic calming plan, or parts thereof, on a temporary basis to ensure that the desired result is achieved prior to constructing the devices.
x) consider all forms of traffic management including education, enforcement and engineering in developing an action plan to address neighbourhood concerns.
xi) once a traffic management plan is completed, present it to the neighbourhood. In order to be supported through a petition, 65% support of the landowners within the designated affected area will be required[7].

7. Peterborough Comprehensive Transportation Plan, City of Peterborough, April 2002

xii) The Town's should employs a full range of traffic calming devices as appropriate including speed humps, median islands and mini-roundabouts as the primary devices. Policies guidelines have been established relating to:

- Maintaining local and emergency services access
- Considering the impacts of a plan and "moving the problem" to adjacent neighbourhoods and streets
- Acceptable types of traffic calming measures for Town roadways; and
- Reviewing arterial road improvements prior to undertaking neighbourhood traffic management projects.

8. Recommended Capital Improvements

8.1 Craigleith Area

A summary of the recommended improvements for the Craigleith Area under the future traffic conditions include:

- widen the following roads to 4-lanes:
  - *Grey Road 19:* within the section from Grey Road 21 and the east end of Jozo Weider Boulevard (2013)
  - *Grey Road 19:* within the section from Jozo Weider Boulevard to Highway 26 (2018)
- provide exclusive turning lanes at the following intersections:
  - *Grey Road 19 / Jozo Weider Boulevard (east junction):* add an exclusive left turn lane on the southbound approach and provide additional through lanes on the northbound and southbound approaches (2013)
  - *Grey Road 19 / Grey Road 21:* provide additional through lanes on the eastbound and westbound approaches (2013)
  - *Grey Road 19 / Grey Road 21:* add an exclusive left turn lane on the eastbound approach (2018)
  - *Grey Road 19/Jozo Weider Boulevard (west junction):* add additional through lanes on the westbound and eastbound approaches (2018)
  - *Grey Road 19/Jozo Weider Boulevard (east junction):* add an exclusive left turn lane on the eastbound approach (2028)
  - *Grey Road 19 / Grey Road 21:* add an exclusive left turn lane on the westbound approach (2028)

Under the Highway 26 alternative route scenario the following additional improvements are recommended:

- *Grey Road 19:* four-lane widening within the section from new roundabout to Grey Road 21 to Simcoe County Road 32 to facilitate the associated diverted traffic (2013)
- *Grey Road 19/Grey Road 21 Intersection*:
  - channelized eastbound right turn lane to minimize / remove impediments to the right turn flow (2013)
  - add an exclusive left turn lane on the westbound approach (2018)
  - add an exclusive right turn lane on the southbound approach (2018)
  - exclusive westbound right turn lane (2028)
  - double left turn lanes on the northbound approach (2028) or roundabout geometry (2028)

8.2 Highway 26 Corridor

Because of the unique geography between the Niagara Escarpment and Georgian Bay, the provincial highway / municipal road network in the current Highway 26 corridor from Collingwood to Thornbury is missing a parallel collector/arterial municipal road component. This results in virtually the entire local municipal road grid in the area relying totally on Highway 26 for local east-west connectivity. As a result, Highway 26 from Collingwood to Thornbury performs the dual role of both a provincial highway and a municipal collector/arterial municipal road.

This situation poses a unique challenge for MTO/Town/County in coordinating their respective transportation roles and responsibilities, more specifically, in ensuring safe and adequate access to continued/ongoing land use development and associated peak weekend/seasonal tourist travel.

There are three components to these transportation challenges on Highway 26:

1. Adequate Highway 26 through-capacity for inter-regional east-west traffic from east of Stayner to west of Thornbury;
2. Adequate Highway 26 through-capacity for local east-west traffic in the Collingwood to Thornbury area; and
3. Adequate safety and operation associated with Highway 26 turning movements for land access at intersections and private entrances.

MTO's "Highway 26 Study Design Update" will review and address traffic congestion issues throughout the intersecting municipalities in a comprehensive manner. The MTO Highway 26 Study Update will outline the proposed scope for a subsequent MTO Class Environmental Assessment for Provincial Transportation Facilities. Four laning of Highway 26 cannot be determined, with any assurance, until completion of MTO's Study Design Update.

Based on the above the following improvements are recommended to mitigate the operational problems under the future traffic conditions:

- two-way-left-turn (TWLT) centre lane to promote safety and to facilitate the high density private access movements off Highway 26 between the intersections of Grey Road 21/ Highway 26 and Grey Road 19 / Highway 26 (2013)
- additional through lanes and/or exclusive turning lanes are recommended at the following Highway 26 intersections:
  - *Christie Beach Road:* add an exclusive left turn lane on the eastbound approach (2013)
  - *35 Sideroad:* add an exclusive left turn lane on the westbound approach (2013)
  - *Lora Bay Drive:* add an exclusive left turn lane on the westbound approach (2013)
  - *Grey Road 113*: add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Peel Street:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - ***Victoria Street*:*** add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - ***Bruce Street*:*** add exclusive left turn lanes on the eastbound, westbound and northbound approaches (2013)
  - ***Elgin Street*:*** add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Grey Road 2/Lake Shore Road:* add exclusive left turn lanes on the northbound and eastbound approaches (2013)
  - *Grey Road 40/ Lakewood Drive:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Camperdown Road:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Wards Road:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Hidden Lake Road:* add an exclusive left turn lane on the westbound approach (2013)
  - *Arrowhead Road:* add an exclusive left turn lane on the westbound approach (2013)
  - *Lakeshore Road East/Fraser Crescent:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Hope Street:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)
  - *Grey Road 21/ Long Point Road:* add exclusive left turn lanes on the eastbound and westbound approaches (2013)

- *11th Line/ Lora Bay Drive:* 4-lane widening of Highway 26 through the intersection, add exclusive left turn lanes on the northbound and southbound approaches and an exclusive right turn lane on the westbound approach (2028)
- *Grey Road 2:* 4-lane widening of Highway 26 through the intersection and add an exclusive right turn lane on the eastbound (2028)
- *Grey Road 40/ Lakewood Drive:* 4-lane widening of Highway 26 through the intersection (2028)
- *Arrowhead Road:* add an exclusive left turn lane on the eastbound approach (2028)
- *Grey Road 19:* 4-lane widening of Highway 26 through the intersection (2028)
- *Hope Street:* 4-lane widening of Highway 26 through the intersection (2028)
- *Grey Road 21/ Long Point Road:* 4-lane widening of Highway 26 through the intersection, add exclusive left turn lanes on the northbound and southbound approaches and exclusive right turn lanes on the eastbound and westbound approaches (2028)
- Closure of existing residential commercial access connections with the Village of Craigleith that have a "Backdoor" access to existing municipal roads (i.e. Blue Mountain Drive on Fraser Crescent).

**** Victoria Street, Bruce Street and Elgin Street are under Town's jurisdiction***

- implement traffic signals at Highway 26 intersection with:
  - Grey Road 2 (2013)
  - Grey Road 21/ Long Point Road (2013)
  - Peaks Road (2013)
  - Hope Street/ Blue Mountain Drive (2018)
  - Lora Bay Drive (2028)
  - Grey Road 113 (2028)
  - Grey Road 40 (2028)

Under the Highway 26 alternative route option, as per the "Georgian Triangle Area Transportation Paper", due to the diverted traffic in addition to the improvements required under future traffic conditions, the following improvements will be required at the intersection of Grey Road 21 with Highway 26:

- add an exclusive left turn lane on the northbound approach (2013)
- add an exclusive right turn lane on the eastbound approach (2018)
- channelize the exclusive right turn lane on the eastbound approach (2028)

The capital costs and time schedule for implementing the road improvements within the Craigleith Area and the Highway 26 corridor are summarized in **Table 8.1**and **Table 8.2** below. Detail cost calculation for each of the road improvements can be found in **Appendix R**.

Table 8.1. Cost and Time Schedule for Recommended Road Improvements

Improvement	Road Section / Intersection	Implementation	Estimated Cost** ($)	MTO/ County/ Town
Craigleith Area				
4-lane Widening	Grey Road 19 - Grey Road 21 to east end of Jozo Weider Boulevard	2013	4,500,000	County
SB Left Turn	Grey Road 19/ Jozo Weider Boulevard (east junction)	2013	35,000	Town/ County
Widening at Intersection	Along Grey Road 19 at Grey Road 19/ Jozo Weider Boulevard (east junction)	2013	710,000	County
Widening at Intersection	Along Grey Road 19 at Grey Road 19/ Grey Road 21	2013	710,000	County
Channelized EB Right Turn	Grey Road 19/ Grey Road 21	2013 (Highway 26 alternative route option)	60,000	County
4-lane Widening	*Grey Road 19 - east end of Jozo Weider Boulevard to Highway 26*	*2018*	8,720,000	County
EB Left Turn	*Grey Road 19/ Grey Road 21*	*2018*	35,000	County
SB Right Turn	*Grey Road 19/ Grey Road 21*	*2018 (Highway 26 alternative route option)*	60,000	County
WB Left Turn	*Grey Road 19/ Grey Road 21*	*2018 (Highway 26 alternative route option)*	35,000	County
EB Left Turn	Grey Road 19/ Jozo Weider Boulevard (east junction)	2028	80,000	Town/ County
WB Left Turn	Grey Road 19/ Grey Road 21	2028	35,000	County
WB Right Turn	Grey Road 19/ Grey Road 21	2028 (Highway 26 alternative route option)	60,000	County
NB Left Turn (double left)	Grey Road 19/ Grey Road 21	2028 (Highway 26 alternative route option)	100,000	County
Highway 26 Corridor				
Two-way-left-turn lane	Between Grey Road 21 and Grey Road 19	2013	3,355,000	MTO
EB Left Turn	At Christie Beach Road Intersection	2013	130,000	MTO
WB Left Turn	35 Sideroad Intersection	2013	130,000	MTO
WB Left Turn	Lora Bay Drive/ 11th Line Intersection	2013	130,000	MTO
EB Left Turn	Grey Road 113 Intersection	2013	130,000	MTO
WB Left Turn	Grey Road 113 Intersection	2013	130,000	MTO
EB Left Turn	Peel Street Intersection	2013	130,000	MTO
WB Left Turn	Peel Street Intersection	2013	130,000	MTO
EB Left Turn	Victoria Street Intersection*	2013	90,000	Town***
WB Left Turn	Victoria Street Intersection*	2013	95,000	Town***
EB Left Turn	Bruce Street Intersection*	2013	85,000	Town***
WB Left Turn	Bruce Street Intersection*	2013	60,000	Town***
NB Left Turn	Bruce Street Intersection*	2013	90,000	Town***
EB Left Turn	Elgin Street*	2013	90,000	Town***
WB Left Turn	Elgin Street*	2013	90,000	Town***
EB Left Turn	Grey Road 2 (Lake Shore Road) intersection	2013	130,000	MTO
NB Left Turn	Grey Road 2 (Lake Shore Road) intersection	2013	95,000	MTO
Signalization	Grey Road 2 (Lake Shore Road) intersection	2013	230,000	MTO
EB Left Turn	Grey Road 40 (Lakewood Drive) Intersection	2013	135,000	MTO
WB Left Turn	Grey Road 40 (Lakewood Drive) Intersection	2013	150,000	MTO
EB Left Turn	Camperdown Road Intersection	2013	170,000	MTO
WB Left Turn	Camperdown Road Intersection	2013	135,000	MTO
Signalization	Peaks Road	2013	230,000	MTO

Improvement	Road Section / Intersection	Implementation	Estimated Cost** ($)	MTO/ County/ Town
EB Left Turn	Wards Road	2013	170,000	MTO
WB Left Turn	Wards Road	2013	135,000	MTO
WB Left Turn	Hidden Lake Road Intersection	2013	135,000	MTO
WB Left Turn	Arrowhead Road Intersection	2013	135,000	MTO
EB Left Turn	Lakeshore Road East (Fraser Crescent) Intersection	2013	135,000	MTO
WB Left Turn	Lakeshore Road East (Fraser Crescent) Intersection	2013	135,000	MTO
EB Left Turn	Hope Street Intersection	2013	110,000	MTO
WB Left Turn	Hope Street Intersection	2013	110,000	MTO
EB Left Turn	Grey Road 21 (Long Point Road) Intersection	2013	100,000	MTO
WB Left Turn	Grey Road 21 (Long Point Road) Intersection	2013	100,000	MTO
Signalization	Grey Road 21 (Long Point Road) Intersection	2013	230,000	MTO
NB Left Turn	Grey Road 21 (Long Point Road) Intersection	2013 (Highway 26 alternative route option)	130,000	MTO
Signalization	*Hope Street Intersection*	*2018*	230,000	MTO
EB Right Turn	*Grey Road 21 (Long Point Road) Intersection*	*2018 (Highway 26 alternative route option)*	75,000	MTO
Widening at Intersection	Lora Bay Drive/ 11th Line Intersection	2028	1,495,000	MTO
NB Left Turn	Lora Bay Drive/ 11th Line Intersection	2028	55,000	MTO
SB Left Turn	Lora Bay Drive/ 11th Line Intersection	2028	70,000	MTO
WB Right Turn	Lora Bay Drive/ 11th Line Intersection	2028	95,000	MTO
Widening at Intersection	Grey Road 2 (Lake Shore Road) intersection	2028	1,565,000	MTO
EB Right Turn	Grey Road 2 (Lake Shore Road) intersection	2028	95,000	MTO
Widening at Intersection	Grey Road 40 (Lakewood Drive) Intersection	2028	1,665,000	MTO
EB Left Turn	Arrowhead Road Intersection	2028	135,000	MTO
Widening at Intersection	Grey Road 19 Intersection	2028	1,655,000	MTO
Widening at Intersection	Hope Street Intersection	2028	1,495,000	MTO
Widening at Intersection	Grey Road 21 (Long Point Road) Intersection	2028	1,660,000	MTO
NB Left Turn	Grey Road 21 (Long Point Road) Intersection	2028	110,000	MTO
SB Left Turn	Grey Road 21 (Long Point Road) Intersection	2028	95,000	MTO
EB Right Turn	Grey Road 21 (Long Point Road) Intersection	2028	75,000	MTO
WB Right Turn	Grey Road 21 (Long Point Road) Intersection	2028	75,000	MTO
Signalization	Lora Bay Drive/ 11th Line Intersection	2028	230,000	MTO
Signalization	Grey Road 113 Intersection	2028	230,000	MTO
Signalization	Grey Road 40 (Lakewood Drive) Intersection	2028	230,000	MTO
Channelized EB Right Turn	Grey Road 21 (Long Point Road) Intersection	2028 (Highway 26 alternative route option)	75,000	MTO
Total Cost			**$34,315,000**	

** - Intersections within the Thornbury Connecting Link – under control and jurisdiction of the Town*

*** - All cost in 2008 dollars, including engineering design cost and 15% contingency*

****- Connecting Link Funding Program*

Table 8.2. Cost Breakdown by Agency

Agency	Cost Estimate
MTO	$19,175,000
County	$15,025,000 - $15,140,000*
Town	$0 - $115,000*

** - Range subject to cost sharing on intersection improvements*

8.3 Other Localized Improvements

8.3.1 Realignment of the Clark Street

Given the current substandard alignment of Grey Road 2 at intersection with Highway 26 and the insufficient northbound queue length, the realignment of Clark Street is recommended as shown in **Figure 6.10.**

Clark Street currently intersects Grey Road 2 approximately 100 metres south of Highway 26 and at the start of a horizontal curve (the curve commences on Grey Road 2 just north of Clark Street). As traffic volumes on Highway 26 and Grey Road 2 increase, so too will the likelihood of traffic queues on Grey Road 2 (as they await entry to Highway 26). Given the separation between intersections is only 100 metres, there is the potential for queues to extend beyond the Clark Street intersection.

Accordingly improvements of Clark Street are recommended as shown in **Figure 6.10.**

8.3.2 Georgian Trail Crossing at Highway 26

The Georgian Trail crossing at Highway 26 was identified deficient and from a safety standpoint given the sharp angle of the crossing and lack of an appropriate traffic control device. Hence, as part of this study it was recommended that the trail be realigned from it's current location, westerly to the intersection at Grey Road 2 as shown in **Figure 6.11**. Moreover to improve the safety, provision of traffic signals at this location is also recommended once the Horse Park development is in place which will provide protected crossings for trail users.

8.3.3 Clarksburg Single Lane Bridges

The single-lane bridge structures along 10th Line south of Clark Street and on Clark Street west of Grey Road 13, are of potential hazard concern / operational deficiencies and hence need to be widened. The structural widening will however need to follow the requirement of an Environmental Assessment Study procedure and a through operational and safety assessment will constitute the Phase 1 of the Environmental Assessment planning process.

8.3.4 Thornbury Bridge

There is a potential bottleneck concern on the westbound approach of Highway 26 intersection at Bruce Street as a result of the narrow bridge located about 50 metres east of the intersection.

Alternatives to offset this deficiency include:

- structural widening / replacement; or
- Highway 26 by-pass which will be determined by the “Highway 26 Study Design Update” which is currently being undertaken by MTO to address adequate Highway 26 through-capacity traffic for inter-regional east-west traffic from east of Stayner to west of Thornbury.

Appendices

Appendix A – Stakeholder Consultation

PUBLIC CONSULTATION PLAN

INTRODUCTION

As part of the Town of the Blue Mountains Comprehensive Transportation Strategic Plan (BMTP), this public consultation plan is prepared to support and encourage public participation and to ensure opportunities for the public to express its views on transportation issues and to become active participants in the decision-making process.

OBJECTIVES OF PUBLIC CONSULTATION

Consultation with affected parties early in and throughout the process, such that the planning process is a co-operative venture, is one of the key principles of successful environmental assessment planning.

One important objective of a good public involvement process is the extent to which the process builds consensus on the path to decision. In exchange for participation in a fair and open process, stakeholders often are willing to support the outcome of the process even if their preferred alternative is not selected. This result, sometimes known as "informed consent," is the desired outcome on highly controversial projects. It allows that the project to move forward even though all stakeholder desires are not accommodated. Involving stakeholders without informing them is not prudent.

In addition, a good public involvement process must have as an objective the incorporation of citizen input into the decision process. A "black box" that has public involvement inputs but no clear effect on the outputs is not a successful public involvement program. The decision-making process must be open and clear and must reflect citizen input.

The vision for the public participation plan is that the public will be provided thorough information on the project development in a convenient and timely manner. To this end, the following goals and policies have been established as part of the public consultation plan:

Goal 1: Actively engage the public in the transportation planning process

a) Maintain an up-to-date database of contacts including at a minimum the following:

- ➔ Elected Officials

- ➔ Municipal Staff
- ➔ Transportation Agencies
- ➔ Representatives of Users of Public Transportation
- ➔ Representatives of Users of Pedestrian and Bicycle Transportation
- ➔ Local Media
- ➔ Special Interest Groups
- ➔ Individuals expressing an interest in transportation planning activities.

b) Send mail and/or e-mails to the study contact list / targeted groups to announce meetings /invitations for upcoming activities.

c) Employ visualization techniques to depict transportation plans. Examples of visualization techniques include: charts, graphs, photo interpretation, maps, use of GIS, artist's renderings, physical models, and/or computer simulation.

Goal 2: Keep the public informed of on-going project status on a continuous basis.

a) All publications and work products should be made available to the public via internet, staff office, and employ visualization techniques to describe transportation actions as part of the Comprehensive Transportation Strategic Plan.

b) Project Team shall be available to provide general and project-specific information during normal business hours.

c) Maintain a project specific web site as part of the Town's website (section/link) allocated to this project.

d) The website shall be updated and maintained to provide the most current information available.

e) The website shall, at a minimum, contain the following information:

- ➔ Current Project Team contact information (i.e. name, title, mailing address, phone, fax, and e-mail)
- ➔ Brief descriptions of this undertaking
- ➔ Work products and publications (Notices, Reports, PIC

Materials and etc.)
- ➔ Comment/Question form
- ➔ Links to related agencies (County, MTO, etc..)

Goal 3: Encourage the participation of all stakeholders in the transportation planning process.

a) Hold public meetings at a scheduled time, location, and building facility convenient to potentially affected stakeholders.

b) Provide an additional opportunity for public comments, particularly if the final study recommendations significantly differ from the version that was initially made available for public comment.

Goal 4: Strive to continuously improve public participation.

a) Continuously evaluate public participation techniques, according to the procedures contained in this Public Participation Plan.

PUBLIC PARTICIPATION TECHNIQUES

An effective public participation process is characterized by techniques and procedures that enable stakeholders to become well informed. As part of encouraging more cooperative planning, consultation will be made, as appropriate, with agencies and officials responsible for other planning activities that are affected by this undertaking within the study area. To coordinate the planning function to the maximum extent practicable, such consultation will entail comparing LRTPs (Long Range Transportation Plans) and TIPs (Transportation Improvement Plans) as they are developed with the plans, maps, inventories, and planning documents developed by other agencies.

An open consultation policy, whereby any private citizen or entity responsible for transportation in the study area may contact and be included in the consultation process may be achieved through the following tools:

I. Master Database

Consultant team will maintain a master database of all contacts, both business and public, on a continuous basis. The database includes, mailing information, phone numbers, fax numbers, and e-mail addresses.

II. Display Ads

These ads are used to promote specific meetings, workshops, open houses or hearings that are not regularly scheduled, as required. The ads provide a description of the study, purpose of the meeting/workshop as well as the study contact information. They are published in the local section of the newspaper in order to reach a larger audience than those that typically read legal ads.

III. Press Releases

Formal press releases are sent to local media (newspaper, TV and radio) to announce upcoming special meetings and activities and to provide information on specific issues being considered by the project team or committees. The Project team will work with the media to let people know about the study.

Local newsletters within the study area include:

- The Blue Mountains Courier Herald
- Collingwood Enterprise Bulletin

IV. Direct Mailings

Direct Mailings are used to announce upcoming meetings or activities (specific meetings, workshops, open houses, etc.) or to provide information to a targeted area, group of people, or the media. Direct mailings are usually letters, but can be post cards or fliers. An area may be targeted for a direct mailing because of potential impacts from a project. Groups are targeted that may have an interest in a specific issue, for example avid cyclists and pedestrians may be targeted for pathways and trail projects.

V. E-mail Announcements

Meeting announcements and information can be e-mailed to interested persons that have submitted their e-mail addresses to the study team.

VI. Project-Specific Website

The project website will be developed as part of the TOBM website, under the link "Comprehensive Transportation Strategic Plan". The site will need to provide basic information about the study process and staff contact information. Project web sites can contain study area maps, descriptions of potential alternatives, comment forms, user surveys and project team contact information. Study publications and work products, such as the reports will be made available for downloading from the site. Also, stakeholders are able to submit comments and sign up to be added to the distribution lists maintained by the project team. The site (www.thebluemountains.ca/bmtp.cfm) will provide many links to other transportation related sites and will be maintained and updated by the project team.

VII. Public Informational Centres

These are public meetings that are generally open and informal, with project team members interacting with the public on a one-on-one basis. The purpose of public informational meetings is to provide project information to the public and to solicit public comment.

Two rounds of public consultations will be held during the study. Recognizing the significant number of part-time residents in the Town, each Public Information Centre (PIC) will be conducted on a week day evening and the adjacent Saturday morning. In order to capture the increase in population related to summer activities in the area and increases activities surrounding Thanksgiving, it is suggested that the PIC's be scheduled in July and around the Thanksgiving weekend.

The approximate timing for the PIC's:

- ➔ PIC 1– Last week of July
- ➔ PIC 2 – Second week of October

PIC Display Materials: All PIC display boards and material will be prepared by the consultant Team and electronic copies in PDF format will be provided to the Town to post on the project website.

Prepare Public Consultation Summaries: The Consultant team will provide Public Consultation Summaries subsequent to PIC meetings, a review/assessment of comments received.

VIII. Public Notices

Including Project Initiation, and Public Information Centres (PIC) and Project Completion.

Notice of Study Commencement and Invitation for Comments: Phase I Stakeholder Consultation - A "Notice of Study Commencement" providing a summary of the study, establishing the study area, and listing key Consultant contacts will be prepared and published in a *local newspaper* and posted on the project website The Consultant team will prepare the notice of commencement.

*Notice of Public Consultation Centre 1 & 2 (PIC1 & 2)***:** The Consultant team will prepare the required notices for posting in local newspapers / Town website. The Town will co-ordinate the publication of the PIC notices in the local media. The Consultant will arrange for a suitable venue for both PICs, and as required, will also prepare a mail out to all stakeholders on the study mailing list.

IX. Agency Meetings

The consultant team will arrange to meet with other relevant agencies as required. These may include: the Town of Collingwood, Township of Clearview, Municipality of Grey Highlands, Municipality of Meaford and County of Simcoe.

X. Comment Forms

Comment forms are often used to solicit public comment on specific issues being presented at a workshop or other public meeting. Comment forms can be very general in nature, or can ask for very specific feedback. For example, a comment form may ask for comments on specific planning alternatives being considered during the study, or may ask for a person's general feelings about any aspect of the project. Comment forms can also be included in publications and on websites to solicit input regarding the subject of the publication and/or the format of the publication or website.

XI. Visualization

An important element to public participation is to provide the public, when possible, visual as well as written descriptions of transportation projects. Through visual imagery, the complex features of proposed

transportation plans, policies, and programs can be portrayed at appropriate scales, and from different points of view. To this end, various visual and graphic design techniques will be utilized; some of which may include:

- Drawings
- Aerial photography
- Mapping
- Interactive geographical information system (GIS)
- GIS-based scenario planning tools
- Photo manipulation and computer simulation

XII. Surveys

Surveys are used when very specific input from the public is desired. A survey can be used in place of comment cards to ask very specific questions such as whether a person supports a specific alignment in a corridor study. Surveys are also used to gather technical data during corridor and planning studies. For example, participants may be asked about their daily travel patterns.

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NOTICE OF COMMENCEMENT
TOWN OF THE BLUE MOUNTAINS
COMPREHENSIVE TRANSPORTATION STRATEGIC PLAN

THE STUDY

The Town of the Blue Mountains (TOBM), through their consultants Earth Tech Canada Inc. and C.C. Tatham & Associates Ltd. has initiated a Comprehensive Transportation Strategic Plan to address the short, medium and long-term transportation needs for all the TOBM, County of Grey (County) and the Ontario Ministry of Transportation (MTO) roads within the Town's limits. The purpose of this project is to examine the need for improvements to roadway capacity and operations or new infrastructure, and to ensure that transportation system within the TOBM provides a safe and efficient means of travel to all users.

Key components of the study will include:

- An assessment of the road system operations around the base of Blue Mountains, given the continued development of Intrawest, Blue Mountains Resort and the Villages, particularly during the peak winter periods;
- Supporting analysis for Development Charges, based on the information regarding growth related roads to document need for new roads/ road improvement, related costs and the share split between the current and growth related deficiencies;
- An assessment of the typical weekday operations along Highway 26 and the need for improvements to accommodate future travel demands; and
- Development of a Highway Access Management Plan (HAMP) for Highway 26, to identify long term access concepts as a guide for MTO, County, TOBM, local agencies, property owners and developers. The HAMP will provide guidance for existing and future public road access to support land use planning and development objectives and in addressing requests for private property access.

THE PROCESS

As part of the study, two Public Information Centres (PICs) will be held. The first PIC will provide an opportunity for agencies and the public to review and comment on the preliminary results to date, including the problem and study area considerations. A second PIC will present the alternative solutions, the evaluation process and the recommended solutions and comments. Notices providing the date, time and location of these PICs will be published in local news papers closer to the meeting dates. Notices will also be mailed to those who have expressed an interest in being kept informed of the project.

COMMENTS

You are encouraged to provide your comments so that they may be included in the study.

For more information on the study or to be added to the project mailing list please view the project specific website at (http://www.thebluemountains.ca/bmtp.cfm) or contact the undersigned:

Jamie Powell
Project Manager
Earth Tech Canada Inc.
105 Commerce Valley Dr. W.,
7th Floor
Markham, Ontario
L3T 7W3
Tel: 905.747.7582
Fax: 905.886.9494
Jamie.Powell@earthtech.ca

Michael Cullip
Deputy Project Manager
C.C. TATHAM & ASSOCIATES LTD.
115 Sandford Fleming Drive, Suite 200
Collingwood, Ontario
L9Y 5A6
Tel: (705) 444-2565
Fax: (705) 444-2327
mcullip@cctatham.com

Town of the Blue Mountains

INFORMATION REPLY FORM

Comprehensive Transportation Strategic Plan

1. Do you have any issues or concerns with the proposed project?

Yes____ No _____

2. If yes, what are they?

_____

_____

_____

_____

_____

_____

_____

3. Do you want to be notified of future project activities?

Yes____ No _____

Name of Organization: _____

Name of Representative: _____

Please fill out and either mail or fax before **June 18, 2008** to:

Jamie Powell
Project Manager
Earth Tech Canada Inc.
105 Commerce Valley Dr. W., 7th Floor
Markham, Ontario
L3T 7W3
Tel: 905.747.7582
Fax: 905.886.9494
Jamie.Powell@earthtech.ca

Michael Cullip
Deputy Project Manager
C.C. TATHAM & ASSOCIATES LTD.
115 Sandford Fleming Drive, Suite 200
Collingwood, Ontario
L9Y 5A6
Tel: (705) 444-2565
Fax: (705) 444-2327
mcullip@cctatham.com

Comments and information regarding this study are being collected to assist the study team in the study process and identifying the transportation deficiencies and needs. This material will be maintained on file for use during the study and may be included in study documentation. With the exception of personal information, all comments will become part of the public record.

May 7, 2008 Project No. 104393

«Title» «First_Name» «Last_Name»
«Job_Title»
«Company»
«Address_1»
«City_», «Prov» «PostalCode»

Subject: Notice of Study Commencement
Town of the Blue Mountains Comprehensive Transportation Strategic Plan

Dear «Title_2» «Last_Name»:

The Town of the Blue Mountains (TOBM), through their consultants Earth Tech Canada Inc. and C.C. Tatham & Associates Ltd. has initiated a Comprehensive Transportation Strategic Plan to address the short, medium and long-term transportation needs for all the TOBM, County of Grey (County) and the Ontario Ministry of Transportation (MTO) roads within the Town's limits. The purpose of this project is to examine the need for improvements to roadway capacity and operations or new infrastructure, and to ensure that transportation system within the TOBM provides a safe and efficient means of travel to all users.

Key components of the study will include:

- An assessment of the road system operations around the base of Blue Mountains, given the continued development of Intrawest, Blue Mountains Resort and the Villages, particularly during the peak winter periods;
- Supporting analysis for Development Charges, based on the information regarding growth related roads to document need for new roads/ road improvement, related costs and the share split between the current and growth related deficiencies;
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As part of the study, two Public Information Centres (PICs) will be held. The first PIC will provide an opportunity for agencies and the public to review and comment on the preliminary results to date, including the problem and study area considerations. A second PIC will present the alternative solutions, the evaluation process and the recommended solutions and comments. Notices providing the date, time and location of these PICs will be published in local news papers closer to the meeting dates. Notices will also be mailed to those who have expressed an interest in being kept informed of the project.

You are encouraged to provide your comments so that they may be included in the study. To this end, we have attached an Information Reply Form for receiving any comments that you may have about this study by May 30, 2008.

Further to your written comments, we would be pleased to meet with you to discuss your comments, ideas and concerns to further ensure that they can be appropriately considered as the study progresses. Should you have any questions on the study or require further information, please do not hesitate to contact the undersigned or visit the project specific website at http://www.thebluemountains.ca/bmtp.cfm:

Jamie Powell
Project Manager
Earth Tech Canada Inc.
105 Commerce Valley Dr. W., 7th Floor
Markham, Ontario
L3T 7W3
Tel: 905.747.7582
Fax: 905.886.9494
Jamie.Powell@earthtech.ca

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115 Sandford Fleming Drive, Suite 200
Collingwood, Ontario
L9Y 5A6
Tel: (705) 444-2565
Fax: (705) 444-2327
mcullip@cctatham.com

Very truly yours,

Earth Tech Canada Inc.

Jamie Powell
Project Manager

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INFORMATION REPLY FORM

Town of the Blue Mountains
Comprehensive Transportation Strategic Plan

1. Do you have any issues or concerns with the proposed project?

Yes____ No _____

2. If yes, what are they?

_____

_____

_____

_____

_____

_____

3. Do you want to be notified of future project activities?

Yes____ No _____

Name of Organization: _____

Name of Representative: _____

Please fill out and either mail or fax before **May 30, 2008** to:

Jamie Powell
Project Manager
Earth Tech Canada Inc.
105 Commerce Valley Dr. W., 7th Floor
Markham, Ontario
L3T 7W3
Tel: 905.747.7582
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Company	Title	Title 2	First Name	Last Name	Job Title	Address 1	City	Prov.	Postal Code	Phone	Fax	Email
Municipality of Grey Highlands						PO Box 409	Markdale	Ontario	N0C 1H0	Administration: 519-986-2811 Toll Free: 1-888-342-4059	519-986-3643	
Municipality of Grey Highlands, Planning	Sir/Madam Ms.	Ms.	Deborah	Crawford		PO Box 409	Markdale	Ontario	N0C 1H0	519-986-1216 Ext 240	519-986-3643	planning@greyhighlands.ca / crawfordd@greyhighlands.ca
Municipality of Grey Highlands, Public Works & Waste Management	Mr.	Mr.	Geoff	Aitken		PO Box 409	Markdale	Ontario	N0C 1H0	519-986-1216 ext 225 or 519-372-8448 (cell)	519-986-3643	publicworks@greyhighlands.ca / aitkeng@greyhighlands.ca
Blue Mountain Resorts Limited	Mr.	Mr.	Dan	Skelton	Director of Operations	108 Jozo Weider Blvd	Collingwood	Ontario	L9Y 3Z2	705.445.0231 (Collingwood)	705.444.1751	DSkelton@bluemountain.ca
Blue Mountain Resorts Limited	Ms.	Ms.	Lindsay	Ayers		108 Jozo Weider Blvd	Collingwood	Ontario	L9Y 3Z2	705.445.0231 (Collingwood)	705.444.1751	LAyers@bluemountain.ca
Town of Collingwood, Engineering & Public Works		Sir/Madam				97 Hurontario St.	Collingwood	Ontario	L9Y 3Z5	705-445-1030	705-445-2448	
Town of Collingwood, Engineering & Public Works	Mr.	Mr.	Brian	MacDonald	Manager, Engineering Services, Municipal Utility Services	97 Hurontario St.	Collingwood	Ontario	L9Y 3Z5			
Town of Collingwood	Mr.	Mr.	Ed	Houghton	Executive Director	43 Stewart Road, P.O. Box 189	Collingwood	Ontario	L9Y 3Z5	705-445-7885 Ext. 2222	705-445-0791	
Town of Collingwood	Mr.	Mr.	Gordon	Russell	Director, Planning Services	97 Hurontario St., P.O. Box 157	Collingwood	Ontario	L9Y 3Z5	705-445-1290 Ext.3240	705-445-4704	
Municipality of Meaford						21 Trowbridge St. West	Meaford	Ontario	N4L 1A1	519-538-1060	519-538-1556	info@meaford.ca
Municipality of Meaford, Planning Department	Mr. Sir/Madam	Mr.	Gerry	Murphy	Director, Development Services	21 Trowbridge St. West	Meaford	Ontario	N4L 1A1	519-538-1060, Ext. 1118	519-538-1556	gmurphy@meaford.ca
Municipality of Meaford, Environmental & Transportation Services	Mr.	Mr.	Stephen	Vokes	Director of Operations	21 Trowbridge St. West	Meaford	Ontario	N4L 1A1	519 538-1060 Ext 1303	519 538-5599	
Township of Clearview						Box 200, 217 Gideon Street	Stayner	Ontario	LOM 1SO	(705) 428-6230	705) 428-0288	
Township of Clearview, Planning and Development Department	Mr. Sir/Madam	Mr.	Michael	Wynia	Director of Planning and Development	Box 200, 217 Gideon Street	Stayner	Ontario	LOM 1SO	(705) 428-6230, Ext. 240		

Company	Title	Title 2	First Name	Last Name	Job Title	Address 1	City	Prov.	Postal Code	Phone	Fax	Email
Township of Clearview, Public Works	Mr.	Mr.	Richard	Spraggs	Director of Public Works	Box 200, 217 Gideon Street	Stayner	Ontario	LOM 1SO	(705) 428-6230 Ext 243		
County of Simcoe, Administration Centre						1110 Highway 26	Midhurst	Ontario	L0L 1X0	(705) 726-9300, 1-(866) 893-9300		
County of Simcoe, Administration Centre	Sir/Madam	Mr.	Ian	Bender	Director of Planning	1110 Highway 26	Midhurst	Ontario	L0L 1X0	(705) 726-9300, 1-(866) 893-9300		ian.bender@simcoe.ca
County of Simcoe, Administration Centre	Mr.	Mr.	Jim	Hunter	Transportation Construction Manager	1110 Highway 26	Midhurst	Ontario	L0L 1X0	(705) 726-9300, 1-(866) 893-9300		jim.hunter.simcoe.ca
Alpine Ski Club	Mr.	Mr.	Bill	Williams	General Manager	242 Arrowhead Rd, RR 3	Collingwood	Ontario	L9Y 3Z2	(705) 445-0339	(705) 445-3247	info@alpineskiclub.com
Craigleith Ski/Tennis Club	Mr.	Mr.	Jeff	Courtemanche	General Manager	164 Craigleith Rd, RR 3	Collingwood	Ontario	L9Y 3Z2	(705) 445-3847 (416) 690-7000, Ext. 231	(705) 444-2234	
Craigleith Ski/Tennis Club	Ms.	Ms.	Natalie	Davidson	Assistant General Manager	164 Craigleith Rd, RR 3	Collingwood	Ontario	L9Y 3Z2	(705) 445-3847 (416) 690-7000, Ext. 222	(705) 444-2234	
Osler Bluff Ski Club Ltd	Mr.	Mr.	Andrew	Hill	General Manager	RR 1	Collingwood	Ontario	L9Y 3Y9	(705) 445-4507	(705) 445-6260	obsc@oslerbluff.com
Craigleith Provincial Park						R.R.#3	Collingwood	Ontario	L9Y 3Z2	705-445-4467		
Georgian Peaks Club [The]	Sir/Madam Mr.	Mr.	Rick	Trumble	General Manager	104 Wensley Dr., PO Box 400	Thornbury	Ontario	N0H 2P0	(519) 599-6771 1-800-461-9723. Ext. 269	(519) 599-6451	marg@georgianpeaks.com
Lora Bay Club	Mr.	Mr.	Jim	Wilkinson	President and CEO	102 Hoggard Court	Thornbury	Ontario	N0H 2P0	(519) 599-1900	(519) 599-1086	jwilkinson@lorabay.com
The Georgian Bay Club	Mr.	Mr.	Steve	Prest	General Manager	P.O. Box 40	Collingwood	Ontario	L9Y 3Z4	519.599.9949	519.599.9969	sprest@georgianbayclub.com
Georgian Cycle & Ski Trail Association	Mr.	Mr.	Murray	Harvey		PO Box 151	Collingwood	Ontario	L9Y 3Z5			mharvey@rjburnside.com
The Trails of Georgian Bay Area	Ms.	Ms.	Nancy	Kindler		30 Mountain Road	Collingwood	Ontario	L9Y 5H7	(705)445-7722 1-888-227-8667	(705)444-6158	nancykindler@georgiantriangle.com

Company	Title	Title 2	First Name	Last Name	Job Title	Address 1	City	Prov.	Postal Code	Phone	Fax	Email
Clarksburg Business Association	Ms.	Ms.	Linda	Wykes		158 Clarke St	Thornbury	Ontario	N0H 2P0	519-599-3344		linda@riversidegraphics.net
Thornbury BIA	Mr.	Mr.	John	Bailey	President	Box 550	Thornbury	Ontario	N0H 2P0			jdbailey@georgian.net
Blue Mountain Chamber of Commerce	Mr.	Mr.	George	Matamaros	President	P.O. Box 477	Thornbury	Ontario	N0H 2P0	519-599-1200	519-599-3971	info@thebluemountainschamber.ca
Grey Sauble Conservation Authority	Mr.	Mr.	James	Manicom	CAO	#237897 Inglis Falls Road, R.R. #4	Owen Sound	Ontario	N4K 5N6	(519) 376-3076, Ext. 223	(519) 371-0437	admin@greysauble.on.ca
Blue Mountain Ratepayers Association	Mr.	Mr.	John	Tineo	President	PO Box 405	Collingwood	Ontario	L9Y 3Z7	(705) 445-5447		
Georgian Triangle Development Institute	Mr.	Mr.	Chris	Crozier	President	4-115 First St, Suite 414	Collingwood	Ontario	L9Y 4W3	(705) 446-3510		ltalbot@cfcrozier.com
PMG Planning Consultants	Mr.	Mr.	Peter	Swinton	Manager of Urban Design	227 Bridgeland Ave.	Toronto	Ontario	M6A1Y7	(416) 787-4935 Ext. 32	(416) 787-0004	
Travis & Associates Inc.	Ms.	Ms.	Eva	Jozefow	Planning Technician	304-391 First St.	Collingwood	Ontario	L9Y 1B3			
Mr. Martin Chasson	Mr.	Mr.	Martin	Chasson		[redacted]	[redacted]	[redacted]	[redacted]			[redacted]
Village Association			D.	Braden								Dbraden@intrawest.com
Georgian Trail Board of Management	Sir/Madam		M.	Harvey								mharvey@rjburnside.com

Sir/Madam

ORG_LEVEL_1	STREET_ADDRESS	ADDRESS	CITY	PROV	POSTAL_CODE	OFFICE_PHONE	FAX	E_MAIL	WWW_ADDRESS	CONTACT 1	TITLE	Ext	CONTACT_2	TITLE	Ext
Alpine Ski Club	242 Arrowhead Rd	RR 3	Collingwood	ON	L9Y 3Z2	(705) 445-0339	(705) 445-3247	info@alpineskiclub.com	www.alpineskiclub.com	Bill Williams	General Manager				
Craigleith Ski/Tennis Club	164 Craigleith Rd	RR 3	Collingwood	ON	L9Y 3Z2	(705) 445-3847 (416) 690-7000	(705) 444-2234		www.craigleith.com	Jeff Courtemanche	General Manager	231	Natalie Davidson	Assistant General Manager	222
Osler Bluff Ski Club Ltd		RR 1	Collingwood	ON	L9Y 3Y9	(705) 445-4507	(705) 445-6260	obsc@oslerbluff.com		Andrew Hill	General Manager				
Craigleith Provincial Park			Collingwood	ON	L9Y 3Z2	705-445-4467				Sir/Madam					
Georgian Peaks Club [The]	104 Wensley Dr	PO Box 400	Thornbury	ON	N0H 2P0	(519) 599-6771 1-800-461-9723	(519) 599-6451	marg@georgianpeaks.com	www.georgianpeaks.com	Rick Trumble	General Manager	269			
Lora Bay	102 Hoggard Court		Thornbury	ON	N0H 2P0	(519) 599-1900	(519) 599-1086	jwilkinson@lorabay.com	http://www.lorabay.com/	Wilkinson	President and CEO				
Georgian Bay Club	The Georgian Bay Club	P.O. Box 40	Collingwood	ON	L9Y 3Z4	519.599.9949	519.599.9969	sprest@georgianbayclub.com	http://www.georgianbayclub.com/	Steve Prest	General Manager				
Georgian Cycle & Ski Trail Association	601 First Street R.R.#5		Collingwood	ON	L9Y 4L2			mharvey@rjburnside.com	Jim	Murray Harvey					
The Trails of Georgian Bay Area	30 Mountain Road		Collingwood	ON	L9Y 5H7	(705)445-7722 1-888-227-8667	(705)444-6158	nancykindler@georgiantriangle.com	www.georgiantriangle.org	Nancy Kindler					
Clarksburg Business Association	158 Clarke St		Thornbury	ON	N0H 2P0	519-599-3344		linda@riversidegraphics.net		Linda Wykes					
Thornbury BIA		Box 550	Thornbury	ON	N0H 2P0			jdbailey@georgian.net		John Bailey	President				
Blue Mountain Chamber of Commerce		P.O. Box 477	Thornbury	ON	N0H 2P0	519-599-1200	519-599-3971	info@thebluemountainschamber.ca		George Matamaros	President				
Grey Sauble Conservation Authority	#237897 Inglis Falls Road	R.R. #4	Owen Sound	ON	N4K 5N6	(519) 376-3076	(519) 371-0437	admin@greysauble.on.ca		James Manicom	CAO	223			
Thornbury BIA		Box 550	Thornbury,	ON,	N0H 2P0			info@thornbury.ca		John Bailey	President				

NOTICE OF PUBLIC INFORMATION CENTRE
TOWN OF THE BLUE MOUNTAINS
COMPREHENSIVE TRANSPORTATION STRATEGIC PLAN

THE STUDY

The Town of The Blue Mountains (TOBM), Grey County and the Ministry of Transportation have initiated a Comprehensive Transportation Strategic Plan Transportation through their consultants Earth Tech Canada Inc. and C.C. Tatham & Associates Ltd. to address the short, medium and long-term transportation needs within the Town of The Blue Mountains and provide recommendation such as roadway capacity / operational improvements and new infrastructure to ensure that transportation system within the TOBM provides a safe and efficient means of travel to all users.

As part of the study, the first of two Public Information Centres (PICs) is being held in two sessions as follows:

Session 1:

DATE:	**Thursday July 24**
TIME:	**4:00 p.m. to 7:00 p.m.**
	Public Drop-in and Informal Discussion
LOCATION:	**Beaver Valley Community (small hall), 81 Victoria St S.**

Session 2:

DATE:	**Saturday July 26**
TIME:	**12:00 a.m. to 3:00 p.m.**
	Public Drop-in and Informal Discussion
LOCATION:	**Craigleith Community Centre, 132 Lakeshore Rd**

This first PIC is an open forum for you to:

- Become informed about the study;
- Learn about the traffic and related issues that have been identified and provide comments / input;
- Learn about the recommended solutions being considered and provide comments / input;
- Learn about the next steps in the study and how you can keep informed.

At the PIC, you will be able to review a series of displays and discuss them with representatives from the Town, County, MTO and the Project Team.

COMMENTS

You are encouraged to provide your comments so that they may be included in the study. Should you have any questions or require further information, please do not hesitate to contact the undersigned or visit the project specific website at http://www.thebluemountains.ca/Blue-Mountain-Transportation-Plan.cfm:

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