



The Corporation of the Municipality of Port Hope

Active Transportation and Trails Master Plan

Draft Report

January 2011 Amended

Compiled by Trow & Associates in Consultation with Municipal Staff,
Waterfront and Trail Advisory Committee and Stakeholders

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1. INTRODUCTION

Trow Associates Inc. was retained in September 2010 to prepare an Active Transportation and Trails Master Plan (study) for the Municipality of Port Hope [the Municipality]. The scope of the study is to provide an innovative approach for the future of both the active transportation routes and the integrated trail system within the Municipal boundaries. The study is to provide the necessary framework to manage and develop an active community in a cost effective manner, consistent with leading industry practices.

Downtown Port Hope is well-known for its charm and nationally acclaimed for its downtown designated heritage conservation district. The municipality has over 280 heritage designated buildings and has a higher per capita rate of preservation than any other town or city in Canada.

Port Hope has experienced steady population and commercial growth, largely as a result of the close proximity to Toronto. The business community includes a diverse mix of new and established large- and medium-sized businesses that support the community and surrounding areas.

Port Hope is well known for its shopping, live theatre and many outdoor activities such as fishing, hiking and golf. The Municipality currently offers a variety of interesting walking and hiking trails for all degrees of difficulty. Local hiking attractions include the Ganaraska Forest, the Ganaraska Hiking Trail, the Ganaraska Millennium Trail, the Waterfront Regeneration Trail as well as connections to the Oak Ridges Moraine.

2. DEFINITION

Active Transportation is any form of transportation that is human powered. The benefits of active transportation touch every aspect of society: from an individual's health, lifestyle and connection to his/her community, to the environment's state of being and longevity, to local sustainability, economic viability and land use functionality.

There is great value in promoting active transportation, trail development and utilization. With vehicle trips being the dominant form of transportation, drivers are subsidized by public funding. Auto dependency has social, environmental and economic costs, from health care to roadway maintenance and land use implications. By creating a liveable and sustainable community today, we provide the necessary foundation for a liveable and sustainable community tomorrow.

3. OBJECTIVE AND GOALS

The goal of the study is to provide the necessary framework to develop and manage a more physically active transportation community in a cost effective manner. Another goal of the study is to create a more sustainable community by reducing the carbon footprint for the Municipality. The recommendations provided in this report are intended to connect, integrate, enhance and expand existing facilities. Throughout meetings and discussions with the Municipal staff and local stakeholders, the following specific objectives have been identified:

- ✓ Compile and digitally map the existing and planned active transportation and trail system for the Municipality of Port Hope, including connections to adjacent municipalities;
- ✓ Prepare a map of the Municipality illustrating the upgrades recommended to improve conditions for active transportation, including technical design recommendations;

- ✓ Develop an implementation strategy which will define a process, set priorities, provide promotional and educational techniques, recommend policy amendments, estimate the associated cost and provide funding opportunities; and
- ✓ Propose a maintenance strategy with a defined set of responsibilities that the Municipality can lead, or partner with other stakeholder groups.

4. STRATEGY

Creating an active community requires the coordination of various elements: a meaningful plan that speaks to all citizens; quality amenities; a commitment to foster active transportation and trails through development patterns and resource support; and public awareness. An active transportation and trails network starts first with municipal leadership to provide quality infrastructure, which in turn generates interest as citizens feel comfortable and safe in using this infrastructure.

Planning for active transportation focuses on building upon existing on- and off-road infrastructure to create a network of corridors that encourages users to choose alternative modes of transportation for health, recreation, tourism and commuting purposes.

Meetings with local stakeholder groups have provided excellent insight into the challenges and opportunities for the Plan. These groups will play an important role in the development, implementation and maintenance of the future active transportation and trail systems.

The study must incorporate and address local issues, policies and legislation. A number of related studies have been recently commissioned or completed including: Consolidated Waterfront Master Plan, Economic Development Strategic Plan, Growth Management Strategy and Leisure Services Master Plan. Prior to the initiation of the Active Transportation & Trails Master Plan the Municipality had commissioned a Consolidated Waterfront Master Plan (Meridian Planning Consultants Inc., January 2009) to set out how and in what order the waterfront would be enhanced and developed. A Leisure Services Master Plan (Monteith & Brown Planning Consultants, adopted by Council in July 2010) provided a strategy to identify and address the current and future needs related to parks, recreation and cultural services. The Municipality had completed their Official Plan for the consolidated areas of ward 1 and 2 in July 2007 to provide a framework for the physical development of the Municipality over a 20-year period. The Official Plan takes into consideration important social, economic and environmental matters. Incorporating the recommendations and goals of these related reports has been a focus throughout the preparation of the Plan in order to provide seamless policies, objectives and strategies.

Planning for future development and demand is important aspect of the study. An example of the importance of this is the Port Hope Area Initiative currently being planned with clean up activities projected to begin in 2011. This effort to cleanup historic low-level radioactive waste is expected to take 10 years. Upon completion some of the lands may become parkland. Consideration has been given to this and the projects to ensure that the proposed ATTMP incorporates and addresses the anticipated future requirements.

The approach taken to develop the ATTMP included the following phases:

4.1: INVENTORY AND ANALYSIS

This phase included a review of local Municipal Official Plans, policies, studies, plans, programs, by-laws, standards etc. at a cursory level to determine potential linkages to support the vision, goals and objectives of the ATTMP. A review of the existing trails and active transportation system was completed for the Municipality of Port Hope and immediate surrounding municipalities to identify opportunities for connections. A set of key features were identified to be connected to the active transportation system (e.g. residential, institutional, commercial, employment, and public facilities). This information was compiled and digitally mapped to show all existing and previously planned trails and active transportation systems. Municipal staff assisted in identifying existing organizations involved in promoting or maintaining trails use and/or active transportation. A consultation meeting was conducted with community groups, organizations and partners in a roundtable style meeting to develop goals and objectives for the study. The intention of this consultation was to define a vision for the desired active transportation environment for the Municipality and include specific examples of what that environment would look like. This meeting allowed our team the opportunity to compile an inventory of available resources and increase networking opportunities for interested parties. Maps were prepared to show potential opportunities for trails and active transportation in the Municipality. Recommendations were prepared related to the specifics of the route (e.g. signed only, dedicated lane, paved shoulder, off-road multi-use trail). The mapping indicates whether the route was to be located in a utility, roadway or greenway corridor.

4.2: ATP IMPLEMENTATION GUIDELINES AND STANDARDS

This phase of the project involved providing a recommended active transportation and trails plan, an up-to-date active transportation and trail routes and features map guidelines and standards. An implementation strategy was prepared which provided a set of priorities for the recommended improvements to the network. A strategy and framework was created for a public education and promotion campaign. Our analysis included a review of the existing policies, standards, and bylaws and provided recommendations for augmentation to promote the development and use of trails and promote active transportation. Recommendations have been provided to outline how the planning of trails and active transportation can be integrated into future developments. A preliminary cost estimate for implementation and operation is included and a recommended funding strategy which highlights how funds from future developments may be utilized to support the trails and active transportation infrastructure. The funding strategy includes potential sources of additional funding. Finally, a maintenance strategy has been provided for Municipal staff.

5. EXISTING ACTIVE TRANSPORTATION AND TRAILS NETWORK

This section of the ATTMP involved the compilation of all existing active transportation and trail facilities in the Municipality. This was the first Municipal-wide compilation of this data, therefore required a collaboration of a variety of consultants, reports and information from past related studies, Municipal staff and stakeholders.

The Land Use and Transportation Schedules for the Official Plan (September 2006) were used as base maps. The schedule illustrates the residential, business, institutional and recreational open space as well as the existing land use and road network. The transportation schedule provided some basic trail information and illustrated the future planned road connections, also identified are the local, collector and arterial roads.

The Ganaraska Region Conservation Authority provided GIS mapping data for the trail system in the Central and East Forest and the Millennium Conservation Area. Data identifying the individual trail type was not available; consequently all trails have been shown on a single layer.

A PDF version of the Consolidated Waterfront Master Plan was provided by the Municipality of Port Hope. The Municipality also provided a hard copy map showing some of the existing and planned trails in the Municipality of Port Hope. The Pine Ridge Hiking Club provided PDF maps showing the Ganaraska Hiking Trail.

In addition to the above noted information, our team completed a review of the local trail system to categorize the existing trails into four categories: on-street, sidewalk, off-street gravel and off-street paved. Members of the stakeholder group provided valuable input related to sections of the existing trail where mapped data was lacking.

Consultations were completed with key staff from the immediate surrounding municipalities to determine existing and planned points of connection between the municipalities. A PDF version of the Durham Trails Guide and the Durham Regional Trail Network was provided by the Municipality of Clarington for connections to the west. The Municipality of Clarington also expressed interest in converting the existing on-street Waterfront Trail into an off-street trail and road shoulder along the water. At the present time, the Municipality of Clarington did not have plans in place; however their long-term goal was to move the trail to the waterfront, through the Municipality.

Representative from Hamilton Township were consulted. Currently, there are no plans for trail improvements within this Township. Existing connections to the east include the Waterfront Trail on Highway 2 (Peter Street) and the Oak Ridges Moraine Trail on 9th Line.

Due to the close proximity between the downtown core areas of Port Hope and Cobourg, a consultation meeting with representatives from the Town of Cobourg was held. Cobourg is very interested in the opportunity to connect the existing off-street trail along the lake in Port Hope with the existing off-street trail along the lake in downtown Cobourg known as the Waterfront Trail.

The Ganaraska Forest spans across the entire northern portion of the Municipality. Consequently, connections to the north should be coordinated through the Ganaraska Forest Representatives at the GRCA.

5.1. ATTRACTIONS AND DESTINATIONS

An effective active transportation system provides network connections between all key destinations within the study area. Active transportation includes two basic trip categories: recreational and utilitarian. Therefore, both types of destination must be taken into consideration. Major recreational destinations include parks, open spaces, recreational centres, beaches, harbours, conservation areas, and lookouts. Utilitarian destinations include major commercial, employment/business centres, schools, places of worship, municipal offices and transportation points.

Using the Official Plan, the above noted areas were highlighted as critical access locations. This information was used to identify potential routes which would service the highest number of existing or future active transportation users. This gap analysis highlighted missing links as well as routes that should be upgraded in the existing active transportation and trail system.

5.2. GATEWAYS

Following our review of the attractions and destinations within the Municipality, a number of gateways were identified. Gateways are significant geographical locations that act as access points to the Municipality and larger trail routes. These locations are significant as there is both a need and opportunity to inform the user about the upcoming active transportation and trail system. Gateways often provide information on locations of facilities, promote attractions, and remind users of local rules and codes of conduct.

Seven gateways have been identified in Ward 1:

- ✓ On Waterfront Trail at the west edge of Ward 1;
- ✓ On Waterfront Trail at the east edge of Port Hope Ward 1;
- ✓ On Marsh Road adjacent to the future sports fields, near the northwest corner of Ward 1;
- ✓ On the south side of the Highway 401 bridge on Cavan Street;
- ✓ On Jocelyn Street at the access point to 'Monkey Mountain Trails';
- ✓ At the start of the Ganaraska Hiking Trail, east of the Dorset Street / Queen Street intersection;
and
- ✓ At the VIA Rail Station on Hayward Street.

Six gateways have been identified in Ward 2:

- ✓ On 10th Line at the Ganaraska Forest Centre;
- ✓ On 10th Line / Walker Road at the west trailhead to the Ganaraska East Forest;
- ✓ On Beatty Line west of Mill Street at the south trailhead to Ganaraska East Forest;
- ✓ On Beatty Lane (Line Road 9) at County Road 28;
- ✓ On County Road 9 at Richardson's Lookout;
- ✓ On County Road 9 at the trailhead for the Garden Hill Conservation Area; and
- ✓ On the south side of the Highway 401 bridge on Cavan Street (as per Ward 1).

5.3. BARRIERS AND PROBLEM AREAS

The existing active transportation and trail system has a number of barriers and problem areas which deter potential users and decrease the safety and satisfaction for current users. Two types of barriers were identified in our review: physical barriers and social barriers. The physical barriers for the existing systems include:

- ✓ The CN Railway Tracks;
- ✓ Highway 401;
- ✓ Existing wetlands and watercourses; and
- ✓ Ravines and rapid elevation changes.

There are also other physical barriers related to the various forms of active transport including:

- ✓ Lack of connectivity of trails;
- ✓ Trail grade (incline/decline);
- ✓ Trail surface type; and
- ✓ Use of narrow rural highway or busy arterial / collector roads (deters less experienced users).

The social barriers for the existing system include:

- ✓ Lack of awareness of available routes for utilitarian and recreational purposes;
- ✓ Lack of necessary facilities, including bike racks, lockers and showers at employment centres;
- ✓ Perceived risk as a result of drivers' lack of awareness of rules and etiquette; and
- ✓ Cultural dependency on automobiles.

The physical barriers can be addressed through planning and appropriate design of the active transportation and trail system. Social barriers require adjusting the way active transportation is viewed. This can be achieved through programs and incentives to educate and promote utilization of the available facilities, infrastructure and resources.

6. RECOMMENDED ACTIVE TRANSPORTATION AND TRAIL NETWORK

Throughout our preparation of this study our goal has been to build upon the existing and planned system to provide a complete network for both the urban and rural areas. The previous sections of this report provided an inventory of the existing routes, located key destinations, recommended gateway locations and identified physical and social barriers. The purpose of this section is to provide the recommended active transportation and trail network that will enhance existing routes, connect key locations and overcome physical barriers. The system was reviewed and refined to address issues identified by the Municipal staff, stakeholders and public during various meetings and consultations as well as issues identified through our review of background documents and our team's individual assessment.

6.1. WARD 1

An overall lack of connectivity was identified as the major physical barrier and shortfall of the urban system. The existing system has many valuable attributes however these assets are not being fully utilized.

The recommended concept includes a hierarchy of routes including a "core" or "spine" system and a "neighbourhood" system. The spine system is intended for utilitarian use and connects residential, commercial and employment centres. It also provides direct access to high profile attractions (such as the waterfront, Ganaraska River and Historic Downtown Port Hope).

The neighbourhood system provides a tertiary network that feeds into the spine routes. These trails are typically more scenic with travel through open space and quieter/less busy streets. These trails connect to schools, parks and recreation areas.

An efficient Active Transportation and Trails Network makes use of a variety of facility types which can take advantage of a range of user skill and confidence levels. It is also important to include options for a range of accessibility levels

6.1.1 WARD 1 NETWORK UPGRADES

The following existing system improvements are recommended:

- ✓ Lakeshore Road is viewed as a temporary portion of the Waterfront Trail in Ward 1. Eventually, a neighbourhood level route will be constructed along the water. The Lakeshore Road portion of this trail should remain as a future spine route to provide direct access to the downtown core and connect to Ward 2. Future road improvements along this road should incorporate a painted bike lane and sidewalk to connect to the existing sidewalk east of Shortt Street;
- ✓ Future road improvements along Sherbourne Street between Victoria Street and Bramley Street are recommended to incorporate sidewalk improvements along the south side of the road to provide a continuous pedestrian route;
- ✓ Maintain (widen if necessary to provide a Level 1 multi-use trail [according to section 6.7]) the existing paved trail along Lent Lane between Augusta Street and Walton Street (Level 1). Pave the existing granular trail (to Level 1 multi-use) south of Augusta Street past Dorset Street to Hayward Street. This will provide access to the future harbour improvements according to the Consolidated Waterfront Master Plan;

- ✓ Pave the existing granular trail (to Level 1 multi-use) along the west bank of the Ganaraska between Ontario Street and Walton Street. This will connect the existing hardened surface trail from Robertson Street up to Walton Street;
- ✓ Repaving and widening (to Level 1 multi-use) of the existing paved sidewalk along the west side of Mill Street is recommended. Ideally a secondary trail should be located to the west side of the Bargain Shop property and connect with the constructed trail south of Peter Street;
- ✓ Pave the existing granular trail (to Level 1 multi-use) on the east side of the Ganaraska River between Peter Street and the future harbour trail;
- ✓ Similar to Lakeshore Road in Ward 1, Peter Street is viewed as a temporary portion of the Waterfront Trail. Eventually, a neighbourhood level route will be constructed along the water and extended to the east. The Peter Street portion of this trail should remain as a future spine route to provide direct access to the downtown core. A painted bike lane should be provided along this road for east/west access;
- ✓ The existing trail along the east and west side of the Ganaraska River, north of Highland Drive up to Molson Street requires maintenance. It is recommended that this section of the trail provide a Level 2 - walking trail; and
- ✓ It is recommended that future road improvements on Cavan Street, north and south of Jocelyn Street include a paved shoulder to provide additional space for active transportation.

6.1.2 WARD 1 NETWORK IMPROVEMENTS

Based on our discussions with Municipal staff, the following improvements are already planned:

- ✓ A granular trail is proposed as part of the AON development which will connect the existing granular trail east of Rapley Boulevard to the Lakeshore Road / Strachan Street on-street trail;
- ✓ A granular trail is proposed to extend east from the southeast corner of Fenton Lane which will extend through the Port Hope Golf and Country Club to Victoria Street at Trafalgar Street;
- ✓ A granular trail is proposed to extending from Victoria Street south to connect with the future Waterfront Trail. The proposed trail will to cross two railway lines; and
- ✓ The Consolidated Waterfront Master Plan includes a number of upgrades to the harbour as well as a new trail that extends along the proposed water's edge at the harbour.

6.1.3 WARD 1 SPINE ROUTE IMPROVEMENTS

Based on the input obtained through our consultation with the Municipal staff and the stakeholder group, the following improvements are recommended:

- ✓ Construction of a sidewalk on Ward Street between Rose Glen Road and the private roadway east of Deblaquire Street North;
- ✓ Construction of a sidewalk on Rose Glen Road; and
- ✓ Signed and painted bicycle lanes for all spine routes.

6.1.4 WARD 1 NEIGHBOURHOOD TRAIL IMPROVEMENTS

Based on the input obtained through our consultation with the Municipal staff and the stakeholder group, the following improvements are recommended:

- ✓ As part of the construction of the future sport fields on the Baulch road, it is recommended that a granular trail be constructed to connect the sports fields to Marsh Road.
- ✓ It is anticipated that Marsh Road will be upgraded as part of the above noted sports fields. During the road reconstruction, it is recommended that a granular boulevard trail be constructed to connect the granular trail to the sports fields with the existing trail east of Rapley Boulevard.
- ✓ According to the Official Plan, it is understood that Lavinia Street is to be extended west to connect to Rapley Boulevard. It is recommended that this road be considered a spine route. It is recommended that the new section be constructed with a sidewalk and a designated bike lane.
- ✓ The VIA Rail Station on Hayward Street has been designated as a gateway. Sidewalk and line painting designating a bicycle lane is recommended on Hayward Street from the VIA Rail Station to John Street. At this location, the bike lane will connect to the future green ribbon.
- ✓ A sidewalk is recommended on Hayward Street, linking the extension of the proposed multi-use Lent Lane Trail to the trail along the west side of the Ganaraska River.
- ✓ Construction of a Level 1 multi-use trail along the east boulevard of Queen Street between Robertson Street and Hayward Street to connect to the future harbour trail.
- ✓ Paving the shoulders or providing a bicycle lane and sidewalk (where the road is upgraded to an urban cross-section) along Hamilton Road between Peacock Boulevard and Peter Street is recommended to enable access from the residential area to the employment areas to the south.
- ✓ A bicycle lane is also recommended on Peacock Boulevard starting at Hamilton Road and extending west and north to Arthur Mark Drive.
- ✓ It is recommended that a granular trail be constructed through the school yard and the adjacent park to connect with the existing trail extending southwest from Croft Street.
- ✓ Croft Street is planned to be connected to Highland Drive. As part of the planned road construction works, it is recommended that a granular boulevard trail (Level 2) be constructed along Croft Street to the east bank of the river. It is further recommended that an active transportation crossing be provided as part of the bridge design. Bike route signage is recommended along Croft Street, east of Ontario Street.
- ✓ A signed bike lane is recommended on Centennial Drive starting west of Hewson Drive and extending to Vaughn Drive, then east on Vaughn Drive to Victoria Street. The signed bike lane is also recommended north on Spicer Crescent to the northeast corner.
- ✓ There is a planned future secondary access to the business park on the west side of Victoria Street, just north of Klein Street. A signed bike lane is recommended on Victoria Street between Vaughn Street and the future access to the Business Park to provide access between the residential and business areas.

- ✓ As part of the business park development, it is recommended that a boulevard trail is constructed across the development to provide access using active transportation. The boulevard trail should connect the proposed bike lane on Victoria Street to the future sports fields on the west side of Toronto Road.

6.2 WARD 2

The major physical barriers facing the Ward 2 portion of the trail network involves land ownership and dedication of on-road facilities. The existing designated trail network is generally well connected according to the trail data and the information provided through consultation. This trail network also has an extensive number of trails within the Municipality and access to many major trail systems outside the immediate area.

Along the Ganaraska Trail, there are four areas where the trail crosses private property. It is understood that currently there are no issues with the land owners, and these portions of the trail are some of the most scenic and enjoyable along the route. Although there are no current land owner issues, it is prudent to have a contingency plan in place, in the event that land ownership or other factors change, which may cause a change in the current understanding. Schedule A illustrates the existing Ganaraska Hiking Trail and the sections which cross private property. The schedule also shows recommended alternative routes which utilize public roadways.

In order to enhance the existing on-road system, it is recommended that paved shoulders be included as part of any planned improvements to the roads along the existing or contingency trail system.

It is understood that the existing MTO right-of-way for Highway 401 at the Ganaraska River is preventing a trail connection between the Ganaraska Region Conservation Authority Millennium Trail and the Ward 1 network. It is recommended that the Municipality attempt to enter into a temporary agreement with the MTO whereby the ministry would permit the Municipality to construct, maintain and utilize a granular trail under the Highway 401 bridge.

It is also understood that a similar situation has occurred at the north end of the Ganaraska Conservation Area, where a portion of preferred trail route is outside the Conservation Authority's lands. A similar agreement with the land owners is recommended.

There are two extensions of the existing trail network that are intended to provide access to three key locations. It is recommended that the trail network signage be extended to include County Road 9 from County Road 10, past the Garden Hill Conservation Area to Richardson's Lookout Conservation Area. It is recommended that the trail network signage be extended on Oak Hill Road from Walker Road to the trail head for the central Ganaraska Forest across from Hillcrest Road.

To summarize, the recommendations related to the Ward 2 Trail network are:

- ✓ Prepare a contingency trail network on public road allowances
- ✓ Future road improvements to any of the identified trail roads should include paved shoulders.
- ✓ Prepare an agreement with MTO regarding the Highway 401 bridge crossing at the Ganaraska River
- ✓ Prepare an agreement with GRCA and the private land owner to the north of the Ganaraska Conservation Area to access landlocked property.
- ✓ Extend the trail network signage along County Road 9 from County Road 10 to Richardson's Lookout Conservation Area and on Oak Hill Road from Walker Road to Hillcrest Road.

6.3 ACCESSIBILITY

Accessibility is an important component of an ATTMP, as with any municipal service, it is imperative that the plan include provisions for all levels of accessibility. Practically, it is not possible to design every route and trail within the system to be accessible to everyone. In order to provide service in the area where there is demand for accessible routes, the active transportation and trail system within the downtown core, along the waterfront at the harbour and along the Ganaraska River from the lake up to Ontario Street, has a focus on providing a high level of accessibility. This level of accessibility is termed Level 1. It is recommended that the trail systems outside of those noted above, but within the Ward 1 area provide moderate accessibility with level natural or granular trails. This level of accessibility is termed Level 2. Trails leading up to and including those north of highway 401 would permit narrower single track trails with a higher tolerance for uneven surface and steeper grades. This level of accessibility is termed Level 3.

Design guidelines for each accessibility level, where possible have been included in Table 6.3.1:

Table 1 – Trail Accessibility Criteria

Accessibility	Grade Range	Surface	Trail Characteristic	Minimum Trail Width	ATTMP Trail Type	Location
Level 1	0-8%	hardened, level	double track	3.0m	Multi-use Trail	Off road only
Level 2	8-12%	hard packed gravel or natural	double track where possible	1.5m	Walking Trail	On road where necessary
Level 3	12+%	natural undulating surface	single track	0.5m	Hiking Trail	On road permitted

Schedule T and T-1 illustrate the recommended accessibility level for each of the existing and proposed routes. The legend denotes the routes where upgrades are recommended.

6.4 TRAIL DESIGN

In the preparation of a trail design, there are a number of important factors that must be considered:

- ✓ Horizontal clearance – consideration must be given to the potential trail users and the related requirements of those groups.
- ✓ Vertical clearance – similar to the horizontal clearance, consideration must be given to the potential trail users and the related requirements of those groups.
- ✓ Surface type – the type of material used for the trail surface has a significant impact on the way in which the trail can be used. Surface type also has a significant impact on the trail cost and environmental impact.
- ✓ Trail configuration – the location of the trail within the right-of-way can have a significant impact on the safety and efficiency.
- ✓ Allowable grades – trail grades have a significant impact on the accessibility of trails. Reasonable grade changes can provide a more interesting route. Design control over surface grades can be difficult depending on the surrounding topography.
- ✓ Route – trails should attempt to take advantages of the natural geographic formations, to provide a more interesting route;
- ✓ Trail Signage – on-road signs should comply with provincial guidelines and standards. Signs should be conspicuous and comprehensible. Signs that require a change in behaviour, should provide adequate reaction. Over use of signs can dilute the effectiveness of any given sign.
- ✓ Pavement Marking – on-road pavement markings should comply with provincial guidelines. Off-road markings should be visible and comprehensible.
- ✓ Illumination – requirements for lighting should be assessed on a case by case basis. Unnecessary illumination can cause undesired environmental impacts.
- ✓ Trail crossing signage and signals – safe and efficient street crossings are an important component of trails continuity. Typically crossings are located at intersections, however, mid block crossing are sometimes required. Signal timing for pedestrian phases should follow provincial standards.

It is recommended that the facility design for the study follow the guidelines specified in the Waterfront Trail – Design, Signage & Maintenance Guideline Update (MMM, 2007). Related cross-section figures have been included in the Appendix ‘E’ of this report.

7 IMPLEMENTATION

The following implementation strategy is intended to provide a flexible framework outlining the steps necessary to adopt and incorporate the recommended active transportation and trail improvements discussed in this study. Providing a flexible framework allows the Municipality to make necessary adjustments to the program to account for unforeseen constraints and take advantage of realized opportunities as they arise. The recommended implementation strategy defines a process; sets priorities; provides promotional and educational techniques; identifies policy and technical recommendations; estimates the associated cost; and provides funding opportunities.

7.1 IMPLEMENTATION STRATEGY

The implementation of the strategy will be based upon developments, road construction, bridges, budgets and priorities of the Municipality.

7.2 NETWORK IMPLEMENTATION PRIORITIES

- ✓ Apply to short/medium and long road projects that are already planned and/or scheduled for capital improvements, consideration should be given to improving active transportation facilities as outlined in the study. The most efficient way to implement active transportation infrastructure that involves road modifications, pavement markings or facilities located in the boulevard, is to implement these changes at the time the road is being constructed, resurfaced or reconstructed.
- ✓ A high priority should be given to maintenance of the existing systems. Throughout the consultation process concerns have been raised about the existing natural trail system within the Ward 1 area. Scheduled maintenance will ensure that the existing facilities are not lost while working on building a larger system. Typically on-street bicycle lanes, signed on-street trails and sidewalks do not require maintenance above and beyond what they typically receive. Localized grading and placement of additional granular material should be completed for granular trails, starting in the areas that service the highest demand. Natural trails require the cut-back of high vegetation, removal of fallen trees and additional granular material where necessary to provide dry, stable trails.
- ✓ Short term priority should be on focus on enhancing the spine routes to connect major nodes in the Ward 1 area. Signing the spine routes is relatively inexpensive and can be completed in a short time period. Roads that provide the necessary width to accommodate a bike lane should be painted as recommended in this report. Installation of sidewalk infrastructure requires a larger scope, however pedestrian facilities on the designated spine routes are the most important component of the active transportation and trail system.
- ✓ Short term priority should be given to locations where short gaps in the system disrupt the continuity of two or more larger systems. In these situations, relatively small projects can have a large impact on the functionality of the system.
- ✓ It is recommended the Municipality arrange formal discussions with MTO and the private land owner adjacent to Ganaraska Conservation Area to formalize agreements that will permit the construction, maintenance and utilization of a temporary trail across their property.
- ✓ Medium term priority should be given to construct gateway facilities, including maps showing the trail network and highlighting attractions and points of interest. Maps can also include information on local history or promote future active transportation and trail facility improvements. Information regarding trail rules/etiquette is also useful. Additional facilities can be added as part of later phases, including: washrooms, water fountains, bike racks, seating and sheltered areas, as necessary.
- ✓ Mid-term projects include road widening to provide bicycle lanes, planned trails to be constructed as part of future residential and commercial development, commencement of the extension of the waterfront trail along the lake to the west and construction of boulevard trails where land acquisition may be involved.

- ✓ Long-term projects include the connection of Highland Drive and Cavan Street across the Ganaraska River, completion of a waterfront trail along the lake within the municipality, construction of a pedestrian bridge over the CN and CP rail lines, completion of the works related to the Consolidated Waterfront Master Plan and completion of paved shoulders for all designated existing and contingency trails in the Ward 2 area.

7.3 EDUCATIONAL / PROMOTIONAL

The infrastructure improvements outlined in this study alone will increase the number of people using the active transportation and trail system, however, in order to realize the full potential of the network, an effective education and promotion campaign is required. The Municipality should work to inform residents about the benefits of the active transportation and trail system.

The following list provides recommendations on how to promote the trails to local residents:

- ✓ Contact the Northumberland School Board and promote information to local School Boards and Agencies. This may be facilitated by providing maps and by-law information so that teachers can inform students about the local facilities;
- ✓ Encourage schools, daycares, and parents to participate in the 'Active and Safe Routes to School' program which offers a wealth of information for schools and communities to create their own program (it is understood that some of the Catholic schools in the area are already members);
- ✓ Provide educational and promotional information regarding active transportation on the municipal website;
- ✓ Work with local stakeholder groups to develop promotional initiatives and partnerships;
- ✓ Provide 'Share the Road' signage and other educational tips to increase driver awareness;
- ✓ Liaise with the Port Hope Police Department and provide information to elementary and secondary school students and the safety aspects and opportunities related to the Active Transportation and Trails Master Plan;
- ✓ Coordinate local workshops on Active Transportation and Trails such as CAN-BIKE is one example of a program that offers educational courses.
- ✓ Provide useful and convenient facilities that make the active transportation and trail system more enjoyable to use such as bike roots;
- ✓ Promote existing active transportation initiatives such as 'Bike to Work Day';
- ✓ Promote the active transportation network by encouraging charity walks, runs ect.
- ✓ Provide incentives for schools to use the active transportation network for races, physical education and field trips;
- ✓ Provide information to Tourism and Economic Development to include in promotional activities;
- ✓ Host Active Transportation and Trails Events such as cycling and trails events;
- ✓ Provide trail signs to increase local awareness of routes;

- ✓ Issue active transportation and trail maps to local clubs and travel centres. Provide mapping information on the municipal website;
- ✓ Prepare a promotional campaign that identifies the benefits of active transportation in cooperation with Health Community Partners; Health Unit, HEART and others;

7.4 “SHARE THE ROAD” INITIATIVE

Share the Road Cycling Coalition and other related programs have been very successful in raising awareness and educating municipal staff, elected officials, policy makers and residents about methods to increase road safety. This coalition aims to make Ontario bicycle-friendly for everyone by:

- ✓ Enhancing access for bicycles on roads and trails.
- ✓ Improving safety for all bicyclists.
- ✓ Educating citizens on the value and importance of safe bicycling for healthy lifestyles and communities.

Involving grass roots organizations such as Share the Road is an excellent way to increase a community’s “cycling IQ”. These programs work with and on behalf of municipalities to enhance their ability to make their communities more bicycle-friendly. Encouraging Municipal staff as well as local residents to get involved in the program and associated events (such as the Ontario Bike Summit) can be invaluable to the development of a bicycle friendly Municipality.

7.5 POLICY RECOMMENDATIONS

It is recommended that:

- ✓ The Council adopt the study for the Municipality of Port Hope and incorporate it as a schedule in the next update to the Municipality’s Official Plan.
- ✓ The recommendations be reviewed by staff annually and the study should be formally updated through a public review process every five years.
- ✓ During the next update of the Development Charges Study, establish a baseline for bicycle facilities and trails as part of the Development Charge.

7.6 COST ESTIMATE

In order to execute the recommendations outlined in the ATTMP, the Municipality will need to include budgets for both infrastructure and operational costs. A preliminary cost estimate has been prepared for the recommendations outlined for the Ward 1 network. Schedule C-1 illustrates the required upgrades to the existing system that will produce the planned active transportation and trails network. Table 2 illustrates the preliminary cost estimate for each of the three terms.

Table 2 – Preliminary Cost Estimate for the Ward 1 Network

Facility	Estimated unit Cost / m	Preliminary Cost Estimate					
		Short Term (0-5yrs)		Mid Term (5-10yrs)		Long Term (11+yrs)	
		Distance	Estimated Cost	Distance	Estimated Cost	Distance	Estimated Cost
Sidewalks ¹	\$80	2,015	\$161,199	2,015	\$161,199	2,015	\$161,199
Signed Bicycle Lane ²	\$2	8,589	\$17,177	8,589	\$17,177	8,589	\$17,177
Bicycle Lane ³	\$10	5,726	\$57,257	5,726	\$57,257	5,726	\$57,257
Paved Trail ⁴	\$150	1,072	\$160,800	3,216	\$482,400	-	-
Gravel Trail ⁵	\$70	-	-	1,421	\$99,470	4,263	\$298,410
Signage ⁶	\$1	20,776	\$20,776	-	-	-	-
Maintenance of Hiking Trails ⁷		-	\$20,000	-	-	-	-
Ongoing Maintenance ⁸		-	\$5,000	-	\$15,000	-	\$15,000
Grade Separated Pedestrian Crossing over CNR and CPR ⁹	\$400,000	-	-	-	-	-	\$400,000
TOTAL		-	\$442,209	-	\$832,503	-	\$949,043

- Notes
- 1 Unit price per one side of the road. Distance estimate assumes that 33% of the total proposed sidewalk improvements will be completed in each Term.
 - 2 Unit price does not include road widening. Price reflects areas where the existing road width can support a bike lane. Distance estimate assumes 60% of all roads requiring bike lanes have adequate road width. Distance estimate assumes that 33.3% of the total proposed bike lanes will be completed in each term.
 - 3 Unit price includes cost for additional pavement. Price assumes that the bicycle lane will be completed during road resurfacing and only accounts for the additional cost of the lane. Distance estimate assumes 60% of all road requiring bike lanes have adequate road width. Distance estimate assumes that 33.3% of the total proposed bike lanes will be completed in each term.
 - 4 Assumes a Level 1 asphalt trail in boulevard or park. Distance estimate assumes 25% of all trails will be completed in the Short Term and 75% will be completed in the Mid Term.
 - 5 Assumes upgrading an existing natural trail to a Level 2 trail in boulevard or park. Distance estimate assumes that 25% will be completed in
 - 6 Includes trail signage. Does not include on-street signage for bike lanes (included in previous item).
 - 7 Based on first time maintenance required to repair existing trails
 - 8 Includes sign replacement, on-street paint markings, trail maintenance, excludes sidewalk repairs (assumed to be part of the existing capitol works budget)
 - 9 Preliminary estimate based on double track crossing

The cost estimate for the Ward 2 portion of the trail system will largely depend on the schedule for road resurfacing. It is also understood that a number of these roads are under the jurisdiction of the County and therefore subject to their maintenance schedule. The recommended improvements in the Ward 2 network include trail signage, shoulder paving and paint markings. In order to assist in the budgeting process, it is recommended that the Municipality assume a cost of \$175,000 - \$200,000/km for the construction of a paved shoulder when constructed in combination with road resurfacing works.

7.7 FUNDING STRATEGY

In order to progress with the development of an effective active transportation and trail system as outlined in this report, funding and staff resources will be required on an annual basis. A portion of the total funding should be generated by the Municipality. This funding could be available through Development Charges (DC) future DC updates should include provisions for active transportation and trail construction. Funding may be available through the general tax or the federal/provincial gas tax funds. There may be other sources of funds available such as

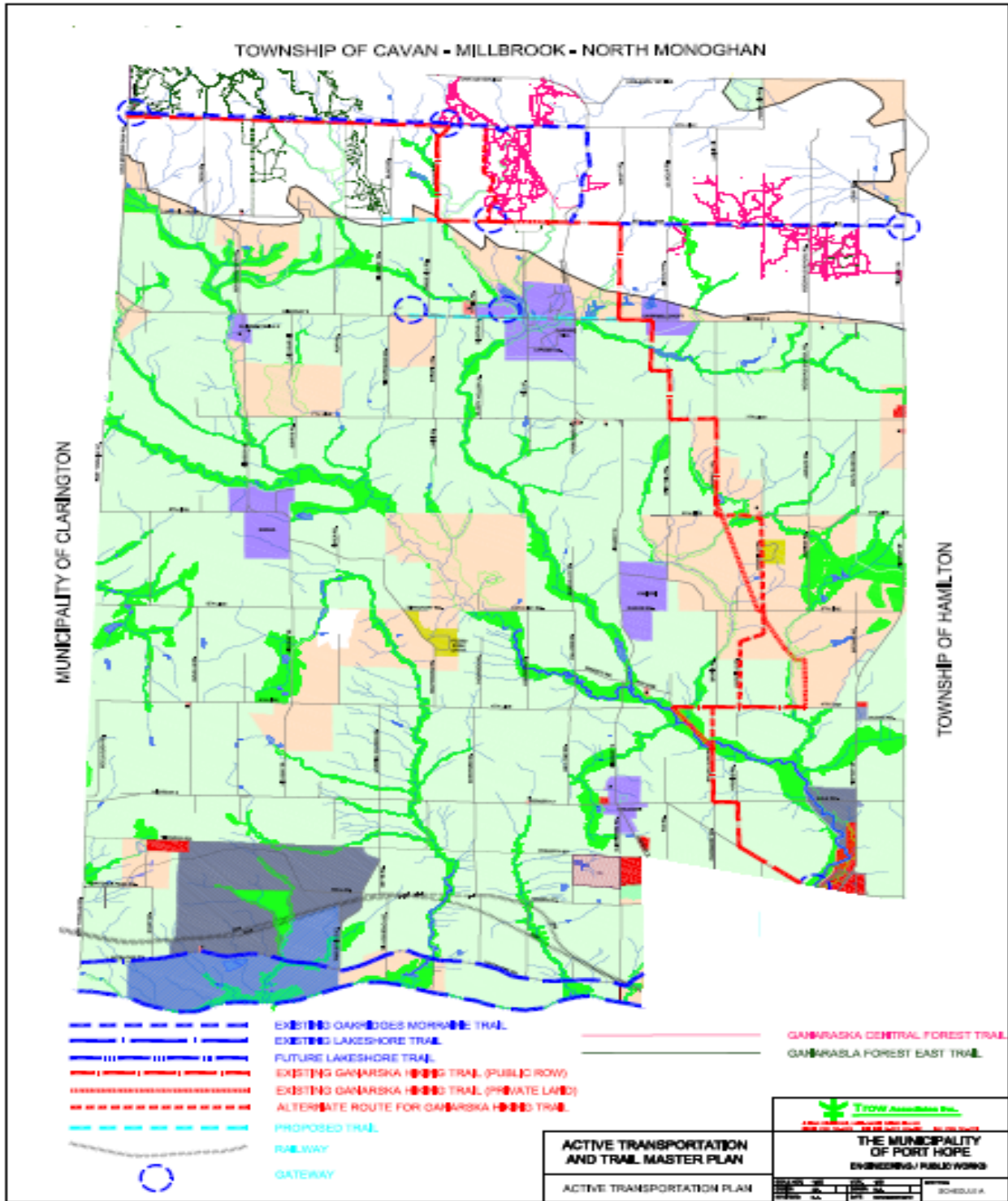
- ✓ Ontario Trillium Foundation;
- ✓ Ministry of the Environment – Community Go Green Fund;
- ✓ Ontario Power Generation;
- ✓ Shell Environmental Fund;
- ✓ Mountain Equipment Co-op;
- ✓ Corporate donations;
- ✓ Community groups/Service Club donation;
- ✓ Private donations.

8 MAINTENANCE STRATEGY

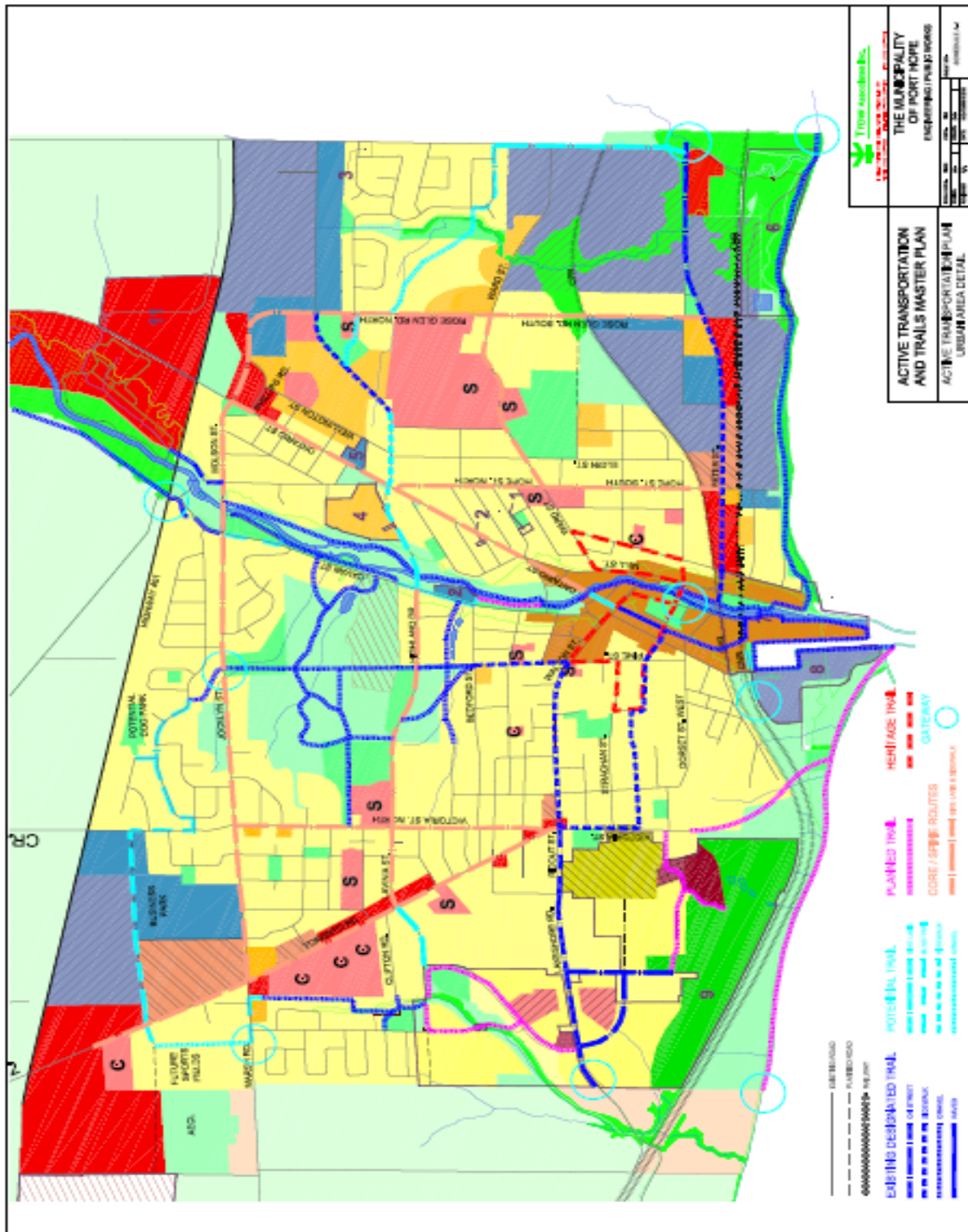
As part of the study, digital maps have been created which identify existing, planned and recommended routes within the system. It is understood that the Municipality does not have a GIS specialist on staff. Therefore, in order to make revisions to the map an AutoCAD version has been provided.

Annual maintenance is required to protect the infrastructure and to keep the network in working order. Maintenance includes snow removal, street cleaning for on-street facilities, additional granular for trails; trimming of vegetation; removal of fallen trees; re-grading of granular trails to prevent washout or wet areas; garbage pick-up; repairs to benches, signs and line painting.

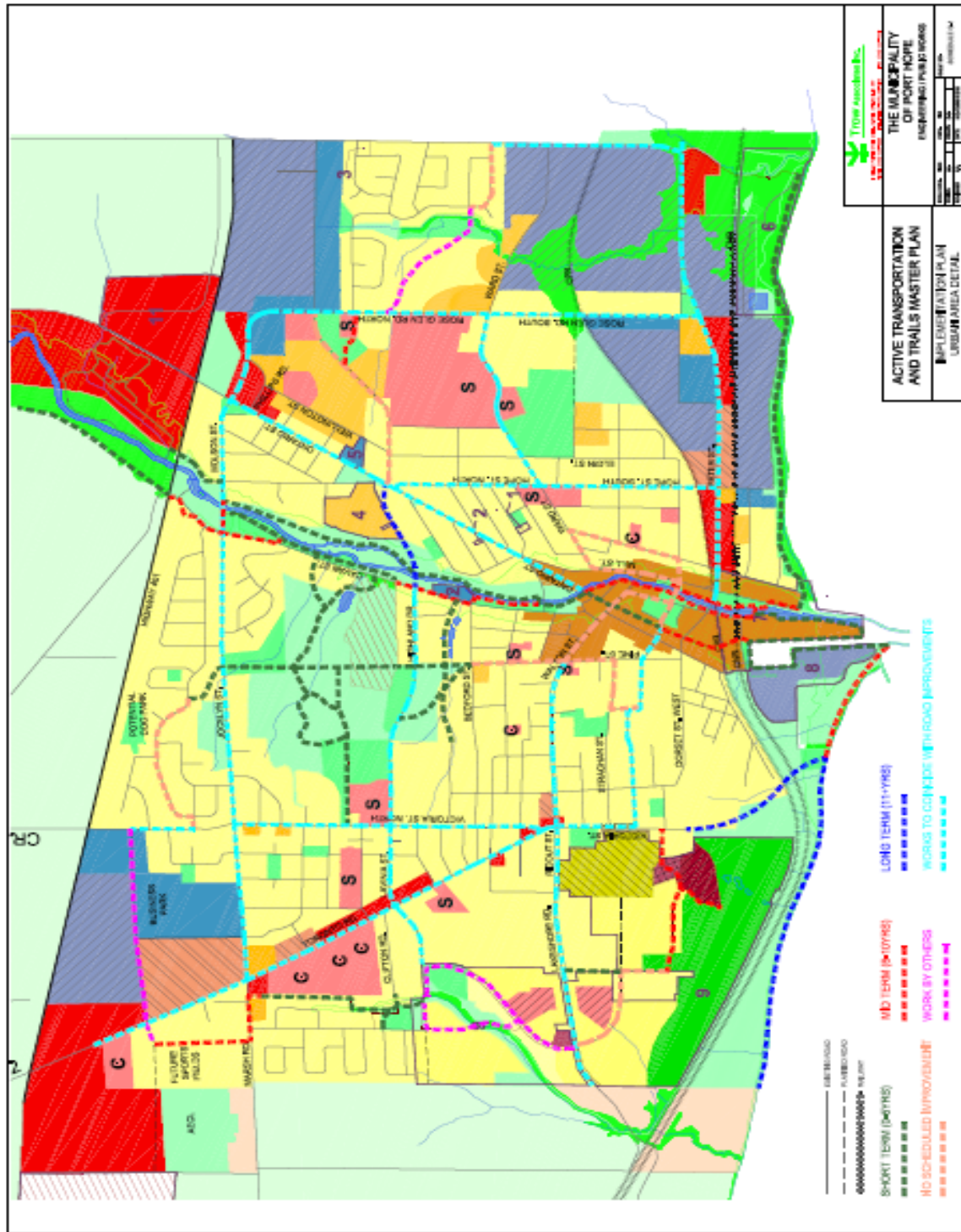
Appendix 'A' – Active Transportation and Trail Network



Appendix 'A - 1' – Active Transportation and Trail Network



Appendix 'C' – Implementation Plan



Appendix 'E' – Standard Trail Sections

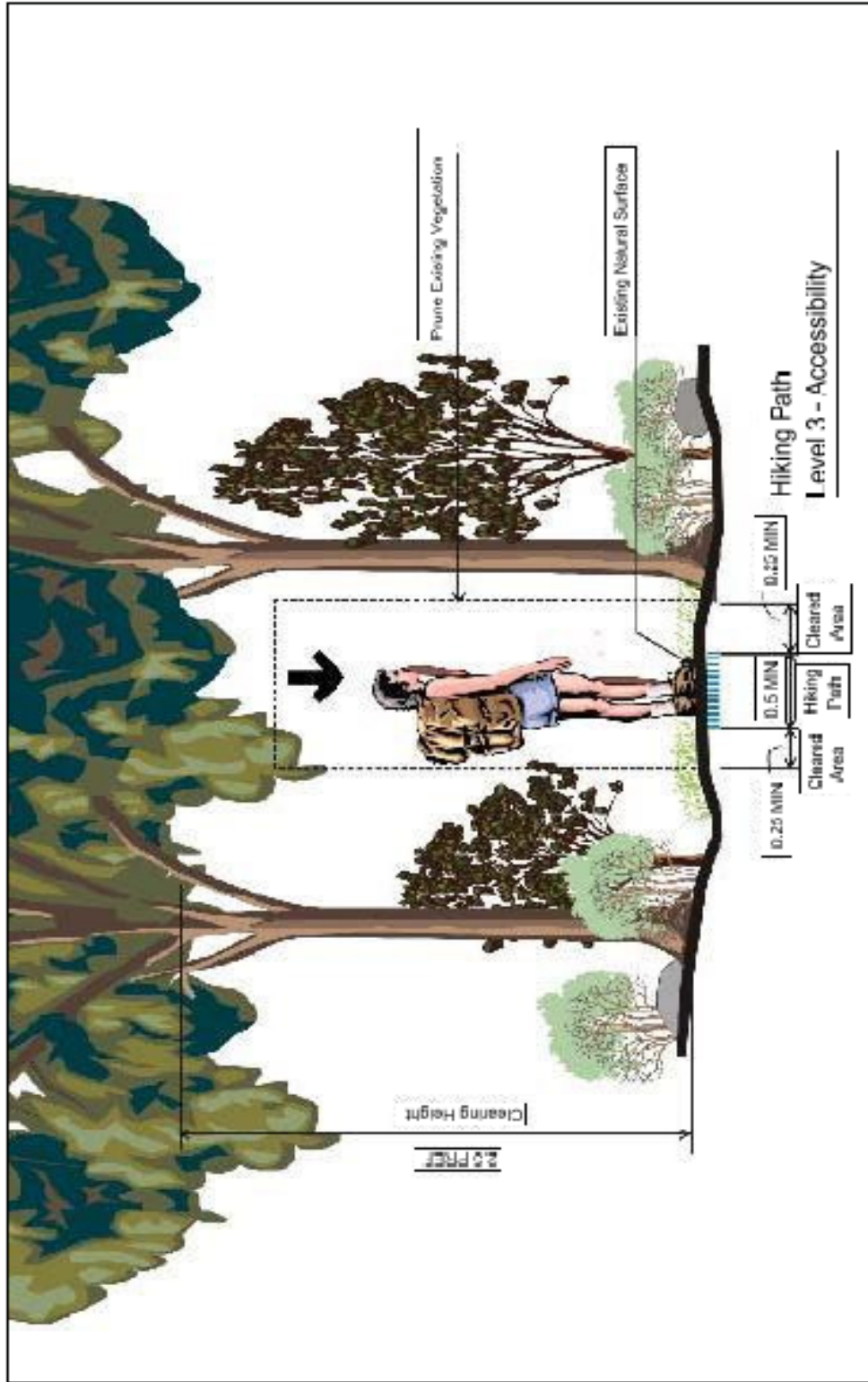


Figure 3-7: Hiking Path

Appendix 'F' – Consultation Record/List of Stakeholders/Consulting Team & Municipal Staff

Active Transportation and Trails Master Plan Stakeholder Meeting - Thursday October 21, 2010, 7:00 p.m. List of Attendees

1. William Jackson - Waterfront & Trail Adv
2. Andrea Patterson - Economic Development and Tourism, Municipality of Port Hope
3. Eugene Todd – CAO, Municipality of Port Hope
4. Marlaine Koehler - Waterfront Regeneration Trust
5. George Elgear - Ganaraska Region Conservation Authority
6. Selena Forsyth - Accessibility Advisory Committee, Municipality of Port Hope
7. Jeanette Davidson – Public Works, Municipality of Port Hope
8. Liz Stewart - Waterfront & Trail Advisory Committee
9. Faye Langmaid - Waterfront & Trail Advisory Committee
10. Ted Watts - Waterfront & Trail Advisory Committee and Council Representative
Municipality of Port Hope
11. Doreen Boville - HKPR Health Unit
12. Trevor Clapperton - Parks Department, Municipality of Port Hope
13. Petra Hartwig - ORTA & Cobourg to Port Hope Waterfront Trail & Parks
Committee
14. Dave Lawrence - Port Hope Area Initiative
15. Karen Sharpe - Parks, Recreation and Culture – Municipality of Port Hope
16. Eugene Todd - Chief Administrative Officer – Municipality of Port Hope

Appendix 'F' continued...

**Active Transportation and Trail Master Plan
Public Meeting – Thursday December 2, 2010
Presented by John Northcote – Trow & Associates
List of Attendees**

Jack Goering

Barry Walker

David Beevis

Chris Wallace

John Kurowski

Debbie Beattie

Frances Clancy

Barb Pemberton

Rick Brooks

Beatrice Makepeace

Peter Huffman

Paul Laing

Liz Stewart

Karen Sharpe

Patricia Sinnott

Trevor Clapperton

Faye Langmaid

Greg Burns

Jon Rafter