

## 5. Cycling Policies

### 5.1 Background

Cycling is generally recognized as a viable mode of transportation that is environmentally sound and supportive of healthy lifestyles. In 2001, cycling accounted for 1.0% of all trips in Ontario and 1.2% nationally<sup>1</sup> but is expected to grow with increased awareness of health and environmental issues, and need to reduce green house gases.

#### 5.1.1 Recreational / Utilitarian Cycling

Cycling is used for both utilitarian and recreational purposes. Recreational cycling is typically associated with the personal enjoyment of the cycling experience including health and wellness benefits. As a result, recreational cyclists are often less concerned with the directness of the route as they are with the safety, amenities and enjoyment provided by the route. In contrast, utilitarian cycling has transportation as the primary objective with a focus of traveling from one point to the other for specific purposes. The trip purposes for utilitarian cycling typically include commuting from home to work, school, shopping centres or other destinations. While the majority of utilitarian cycling trips will be in urban areas, some will be on rural roads. Generally these cyclists will take the most direct route to their destination, which may include travel on major (arterial) roadways. Safety concerns and individual lack of confidence in their ability to cycle these routes may deter some from making utilitarian cycling trips due to the arterial nature of the roads on their route. More utilitarian cycling trips might be made if alternate routes of similar length on quieter roads were identified and publicized.

From a travel demand management perspective, the utilitarian cyclist is of greatest interest as these cyclists have the potential to reduce the number of motor vehicles on the roadway system during peak periods of travel. However, the County recognizes the numerous benefits of cycling and would like to promote and enhance cycling as a means of transportation for both recreational and utilitarian purposes.

#### 5.1.2 Why Cycling?

Although most jurisdictions have in the past focused on construction of facilities for motor vehicles, scarcity of available resources has led to the realization that building a multi-modal transportation network better satisfies the overall mobility requirements and thereby provides a greater return on investment. Multi-modal networks that can be used by non-motorized modes like cyclists and pedestrians as well as motor vehicles contribute to greater transportation choices, less traffic congestion, cleaner air, healthier citizens, stronger communities, a more sustainable economic climate and a higher quality of life for its residents.

Cycling usage has grown in the last decade and is expected to continue to grow. The growth in cycling demand is attributed to increased awareness of the health, environmental and other

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<sup>1</sup> *Cycling Trends and Policies in Canadian Cities, Victoria Transport Policy Institute Publication, 2005*

advantages of cycling. Moreover, people have become aware that cycling is a more efficient means of travel for short distance trips than any other mode. For example, recent studies have shown that for distances up to 10 km in downtown/urban cores, cycling is the fastest of all modes from door to door.

These findings are supported by recent studies that show cycling is predominantly used for trip lengths of up to 10 km. A recent study in Kingston, Ontario shows that distances of up to 10 km account for close to 85% of all cycling trips made, as shown in **Table 5.1**.

**Table 5.1: Distribution of Cycling Trip Lengths<sup>2</sup>**

Distance	% Use
Less than 5 km	58.50%
5 to 10 km	25.60%
10 to 15 km	6.40%
15 to 20 km	2.50%
20 to 25 km	1.00%
25 to 30 km	0.90%
Greater than 30	5.10%

Residents of Oxford County also recognize the importance of cycling and would support initiatives to promote it. From Public Information Centre #1 held in 2005, participants generally agreed that transportation planning and future roadway designs should provide for on street cycling infrastructure such as bike lanes, etc. Moreover, residents would like some funding to be included in all transportation projects for cycling/pedestrian facilities. In particular, the majority felt that that more money should be spent on cycling facilities, but also note that cycling is unlikely to grow significantly in popularity. However, less than 50% think that there is a need to provide inter-connected cycling facilities that connect the constituent municipalities throughout the County.

## 5.2 Goals and Objectives of Policy

The goal of this document is to provide policy direction to guide the County in moving forward with its cycling agenda. Specifically, the document provides policy directions on cycling network development and ways to encourage and promote cycling in the County.

To achieve these goals and objectives the report will address the following:

- Review the existing policies of the County and constituent municipalities to understand existing conditions surrounding cycling;
- Identify existing opportunities and constraints associated with the provision of cycling facilities and programs and explore ways of harnessing or addressing them; and
- Recommend suitable strategies for encouraging and promoting cycling activities in the County.

<sup>2</sup> Source: *Kingston Whig Standard*, February 2003

### **5.3 Policy Development Process**

In creating this follow-on chapter to the Oxford County Transportation Master Plan, staff engaged the services of a cycling consultant to seek further public input specific to cycling. Two public input sessions were held in April and May 2012. The first was a workshop with participants invited from County and local municipal staffs, the local cycling community, local bicycle merchants and both police forces. The second was a Public Information Centre (PIC) that was open to the general public.

The results of the workshop were used to develop the content of the PIC which was held two weeks later. It was well attended with 23 residents dropping in and many of them staying for the duration of the event.

The feedback from both of these events had a number of common themes:

- Expand the white edge line painting program;
- Continue the hard surface widening during resurfacing projects;
- Install “Share the Road” signage along County roads;
- Cycling infrastructure should be required in new subdivisions and on new roads;
- The routes out of Woodstock, County Roads 59, 4 and 12, be looked at as a priority to ameliorate shortcomings; and
- Education and training for both cyclists and motorists is very important.

Some of the input provided more detail than is appropriate for a policy document and will be reviewed as part of a Cycling Master Plan. Other input, such as the installation of bike racks on City buses, was specific to the local municipalities,

The input has been categorized and is summarized in this document. The more detailed and specific suggestions are being retained for consideration in the Master Plan, should one be carried out. The input specific to the local municipalities has been communicated to them.

### **5.4 Existing Policies and By-laws – County of Oxford**

The County of Oxford Official Plan sets out the objective of the County’s transportation policy as: “The provision of a safe and efficient multi-modal transportation system capable of moving people and goods into and through the County both at the present and in the future”.

In keeping with this objective, the County recognizes the viability of cycling as a mode of transportation and the environmental and social benefits of cycling. As such, the County commits to encouraging its use. Specifically, the County has been considering preparation of a Bicycling Plan to determine priorities for cycling facilities that could be implemented in cooperation with initiatives on the part of the constituent municipalities as part of its continuous program of transportation network improvement. The Cycling Policy document forms an initial step in the preparation of the Plan.

## 5.5 Existing Policies and By-laws – Constituent Municipalities

The transportation requirements of the constituent municipalities of Woodstock, Ingersoll and Tillsonburg are included in the County of Oxford Official Plan. The Official Plan policies echo the County's objectives outlined above and recommend preparation of a comprehensive Bicycling Plan in collaboration with the area municipalities. Moreover, the policy recommends provision of adequate parking facilities for bicycles as a condition of development approval in the respective municipalities. The respective municipalities are expected to lead by example by providing accessible and sufficient bicycle parking at all municipal owned and operated facilities in order to promote the use of bicycles.

The City of Woodstock has recently completed a Transportation Master Plan that addresses cycling in one of the sections of the study. This document has incorporated all of the applicable parts of that cycling section. The City is undertaking a Cycling Master Plan and the County will ensure that their proposed Cycling Master Plan is drafted taking the City's plan into account.

The municipalities also have a number of trails around parks and popular recreational facilities that would provide starting points in the development of comprehensive cycling networks within each of the municipalities. These trails are discussed in **Section 5.8– Opportunities and Constraints**.

## 5.6 Provincial and National Guidelines

The Federal Government has no involvement at all in cycling policies or funding. That derives from its likewise very limited role in urban transport in general, including public transport. With the exception of Transport Canada's modest funding of occasional research and education programs, urban transport is left to the provinces and cities.

The Province of Ontario provides guidelines on bicycle safety including bicycle handling and cycling skills. The safety guidelines cover helmet usage and regulations as to which highways cycling is permitted on in accordance with the Highway Traffic Act. Ontario provides virtually no funding, planning or program coordination for cycling.

## 5.7 Types of Cycling Facilities

Bicycle facilities can be provided either on-road where cyclists share the road space with motor vehicles, or off-road on separate paths or trails. The off-road paths and trails may be available for the exclusive use of cyclists or as shared multi-use pathways and trails that are usually shared with pedestrians. Cycling facilities options are illustrated in **Figure 5.1 in Appendix 1**. The choice of what facility to provide at any given location depends on a number of factors including traffic volumes, the location of the road, the posted speed limit, road width, available right-of-way

and possibilities of retrofitting. The various types of cycling facilities and where they may be used are discussed further below.

### 5.7.1 On-Road Cycling Facilities

**Bike Lanes:** Bike lanes are provided for the exclusive use of cyclists within a roadway that is being used by vehicular traffic. A bicycle lane can be provided when the available pavement width is sufficient to accommodate separate lanes for motor vehicles and bicycles. They are separated from the other travel lane(s) on the road with paint lines or other delineators. Some urban County roads would have space if the on-street parking were eliminated. This possibility was one of the recommendations in the cycling section of the City of Woodstock's recent Transportation Master Plan.

**Shoulder Bikeway:** These are paved shoulders on a roadway that provide a suitable area for cycling away from motor vehicles. They are particularly suited for rural roads with relatively high vehicular speeds. Bicycle traffic on a shoulder is always one way in the same travel direction as the adjacent outside travel lane. Some County roads have shoulders with sufficient width and, given additional funding, such facilities could be provided. During rural road rehabilitation, where there is sufficient width between ditches, the hard surface is being widened to 8.7 metres. This provides 3.35 metre driving lanes and at least an additional 1.0 metres of hard surface outside the white line. The painting of white road edge lines is being expanded to cover the entirety of the County road system. The cycling community has provided positive feedback on these initiatives at the Public Information Centre and through other correspondence.

**Bicycle Routes:** Bicycle routes are usually marked by signage. They are characterized by having bicycles share the travel lane with motor vehicles. The shared lane could be a typical lane with a standard width or a wider lane. Signs are required to mark the street as a bicycle route and to act as a constant reminder to motorists that the roadway is shared. Sharrows might also be used in some areas to further reinforce the message that the roadway is shared. Bicycle routes are suitable for low volume roads or local residential streets. This is more applicable to the roads of the local municipalities as the urban County roads are generally arterial in nature.

### 5.7.2 Off-Road Cycling Facilities

As these are separate from the road, the County would not likely initiate them.

**Cycling Path:** Cycling paths are one or two-way facilities that are provided for the exclusive use of cyclists. They can be located within a road's right-of-way or in corridors not served by roadways. Within a road's right-of-way, they generally run parallel to the roadway with geometry that is strongly influenced by the road characteristics and are physically separated from the travel lanes used by motor vehicles, by a boulevard or barrier. The County would encourage such facilities by permitting them in the County road allowances, as it does with sidewalks.

**Multi-Use Pathways:** Multi-use pathways are facilities that are intended for use by both cyclists and pedestrians. For that reason, they are usually wide enough to provide sufficient space to

mitigate potential conflicts between cyclists and pedestrians. Like the cycling paths, they can be provided within a road's right-of-way or in other corridors to serve any two origin and destination points. These facilities would often comprise a widening of the existing sidewalk system.

**Trails (Cycling or Multi-Use):** Trails are similar to cycling paths or multi-use pathways, but are usually provided in wooded nature parks and other recreational facilities where they serve primarily recreational purposes. The County right of ways purchased from the rail companies could be used, most likely through an agreement with a local trails council to construct, operate and maintain.

## 5.8 Design Considerations

Cycling facilities should be designed to be consistent with the prevailing roadway design guidelines such as the MTO Geometric Design Guidelines or Geometric Design Guide for Canadian Roads (TAC). The practical requirements for an effective bikeway includes space to ride including the width of the bike lane or path and lateral clearances, nature of the riding surface, the capacity to maintain a certain travel speed and connectivity to the desired travel destination.

Generally, the width of bike lanes or paths should be a minimum of 1.5 metres for one-way or 3.0 metres for two-way facilities. Likewise, multi-use pathways should be 2.0 metres to 4.0 metres in width depending on whether they are one or two-way facilities. In addition, a minimum vertical clearance of 2.5 metres should be provided for trails and other cycling facilities for underpasses or low bridges. It should be noted that these dimensions represent minimums and additional width should be provided where the expected intensity of usage warrants and space and budget permits. Conversely, space or budget constraints may preclude provision of these minimums. In these cases, a narrower facility may be provided rather than providing nothing at all. Facilities such as these would be assessed and decided on a case by case basis.

Furthermore, suitable pavement markings and road signs are necessary to delineate bike lanes and show bicycle routes. Signed bicycle routes should typically have a route identifying sign placed at regular intervals on roads with low traffic volumes and in residential areas. Where traffic volumes are higher, it is common practice to augment the route identifier signs with "share the road signs". Pavement marking should typically follow TAC guidelines or Ontario Traffic Manual, Book 11 guidelines and include the diamond reserve symbol. Further information regarding design guidelines is included in subsequent sections.

## 5.9 Opportunities and Constraints

The following opportunities and constraints related to the provision of cycling facilities in the County have been identified:

- **Thames River** runs through Woodstock and Ingersoll as well as a number of smaller communities including Beachville and Thamesford and. The scenery provides an excellent opportunity for recreation cycling and is well suited for a cycling trail. On the other hand, it also provides a constraint on potential north-south routes;
- **401 and 403 Highways** traverse the County from East to West. They provide a constraint on north-south routes, limiting those routes to the existing grade separations.
- **Railways** traverse the county from east to west and from Tillsonburg to Ingersoll. They can pose a difficulty to cyclists, particularly when their alignment to the road is skewed. Education is required for motorists, indicating that cyclists try to cross tracks at a right angle.
- **Existing Trails:** A number of recreational trails exist in the County within the various constituent municipalities. The trails with provisions for cycling include Centennial Park/Victoria Park/Smith Pond and John Lawson Park and Trail in Ingersoll; The Pines Trail in Innerkip; Husky Trail, Millennium Trail System and Roth Park in the Town of Woodstock; and the Town of Tillsonburg trail system. In addition, there are camping grounds off Highway 59 in Northwest Woodstock;
- **The rural nature of the County** with spread out communities and low population will make it difficult to provide adequate cycling infrastructure for all communities. As such, consideration for cycling facilities must begin within the larger urban areas of Woodstock, Ingersoll and Tillsonburg. In the rural areas, there is a need to consider bicycle links between certain communities within the County;
- **Public perception of the automobile and cycling** hinders promotion of cycling for commuter purposes. The existing transportation network is based primarily on facilitating the movement of motor vehicles. Cycling is commonly portrayed as an unsafe means of transportation that should be used only for recreational purposes. Gaining public acceptance and championing of cycling as a viable mode of transportation requires a concerted effort to change the long-held perception. Since this requires a cultural shift, it will be necessary to undertake public education initiatives to inform the public of the benefits of cycling and to promote safe cycling practices;
- **Lack of awareness of alternate routes** between destinations can discourage utilitarian cycling. Less heavily trafficked routes should be identified and promoted to encourage an increase in cycling trips.
- **Lack of adequate funding** from other levels of government is also a factor that constrains the provision of cycling facilities and programs. The County also should seek external funding opportunities from the higher levels of government and partners; and
- **There are opportunities at both levels of municipal government** to retrofit existing roadways, pathways and trails with appropriate cycling facilities. In addition, there may be opportunities to utilize utility corridors, rail lines and watercourses to develop new cycling routes. Partnerships with utilities and other landowners should be sought to facilitate development of cycling routes.

## 5.10 Policies and Programs

It is recognized that a comprehensive bicycle network is best undertaken at the local municipal level; nevertheless, the County does have an important role in providing bicycle facilities on its

roads to integrate with those of the local municipalities. Based on a review of policies and practices in other jurisdictions as well as the above principles and the existing opportunities and constraints within the County, the following lists some of the policies, programs and action plans that the County could consider in accommodating cycling.

#### **5.10.1 A Cycling Advisory Committee**

Establishing a Cycling Advisory Committee could assist the County in the development and implementation of future cycling initiatives. The committee would coordinate and represent the interests of cyclists, focus on their needs and priorities and ensure that those interests are taken into consideration in any future cycling initiatives. The committee would likely be led by staff from the Public Health and Tourism departments and should include representation from County Council, other County departments, area municipal representatives and residents and representatives of the cycling community within the County.

#### **5.10.2 Educational and Promotional Materials / Programs**

- Publications, pamphlets, newsletters, maps, posters and other communication materials that provide information and promote cycling tourism, and encourage more cyclists to ride to work and school can be a useful tool in the promotion of safe cycling. The information should also be posted on the internet for ease of access;
- Provide and coordinate educational programs such as CAN-BIKE courses for children and adults to empower cyclists to ride more confidently and safely, and reinforce safe cycling practices including wearing helmets, and protective and reflective clothing;
- To remove potential barriers and highlight County leadership, provide end of trip facilities (bicycle locking stands) in front of all County-owned buildings and make available shower and change facilities for employees; and
- Work with the local police to enforce cyclists adherence to the Highway traffic Act and other legislation, proper usage of cycling facilities, and with local school boards to nurture responsible bicycle usage for school children; and
- Encourage or facilitate the formation of a group of local employees who are interested in commuting to work to learn from their more experienced commuting employees.

#### **5.10.3 Funding for Cycling Activities and Programs**

- Provide a line item in the County's annual budget for cycling initiatives and programs; and
- Explore funding from other levels of government under special projects recognizing the role cycling plays in Transportation Demand Management, sustainable transportation and environment friendly initiatives.

#### **5.10.4 Supporting Cycling Initiatives**

- Encourage employers in the County to promote and support bicycle commuting by providing information to employees;
- Continue to work with the local municipalities and support initiatives and programs aimed at encouraging cycling in those jurisdictions;



- Develop a program for the installation of “Share the Road” signage;
- Continue to expand the fog line painting program to provide fog lines the full length of the County road system by the fall of 2013; and
- Provide wider hard surface on County roads when carrying out resurfacing projects where the structure and width of the shoulders permit. The width would be 8.7 metres with 3.35 metre lanes delineated with white lines.

## 5.11 Design Guidelines

Design of cycling facilities takes into consideration various factors including information on cyclists, such as their abilities and needs as well as traffic volume and speed and the surrounding environment where the facility is to be located. As previously noted, practical requirements for an effective system include space to ride dictating the width of the bike lane or path and vertical clearances, nature of the riding surface, the capacity to maintain a certain travel speed and connectivity to the desired travel destination.

Because of physical, environmental and financial constraints, there is a need to retrofit existing roadways to accommodate cycling facilities. The cycling facilities can be accommodated in existing roadway systems within the road right-of-way either as separate pathways or on the available or expanded platform width. In such retrofit conditions, the design criteria include cyclist space cushion, escape routes and barrier, either physical or painted markings. The design is governed by a number of factors including:

- roadway section characteristics (rural or urban);
- right-of-way width;
- roadway width and number of lanes; and
- traffic volume, and posted speed.

The presence of heavy commercial vehicles affects safety and also must be considered in the facility design. **Table 5.2** provides proposed design guidelines that take those factors into consideration.

## 5.12 Next Steps

The success of the policies and recommendations outlined in this document will only be realized if they are implemented. It is therefore recommended that the County should consider:

- Facilitating the formation of a County wide Cycling Advisory Committee;
- Undertaking a Bicycle Master Plan Study in coordination with appropriate County departments and local municipalities. The study would guide the implementation of

bicycle policies, programs and networks. It would also be undertaken in coordination with the City of Woodstock's Bicycle Master Plan;

- Budgeting for and start installing "Share the Road" signage on County roads;
- Continuing the fog line painting program;
- Continuing to provide the wider hard surface in resurfacing projects where roadway width permits; and
- Including cycling facilities in future Class Environmental Assessments, such as the County road 4 corridor study.

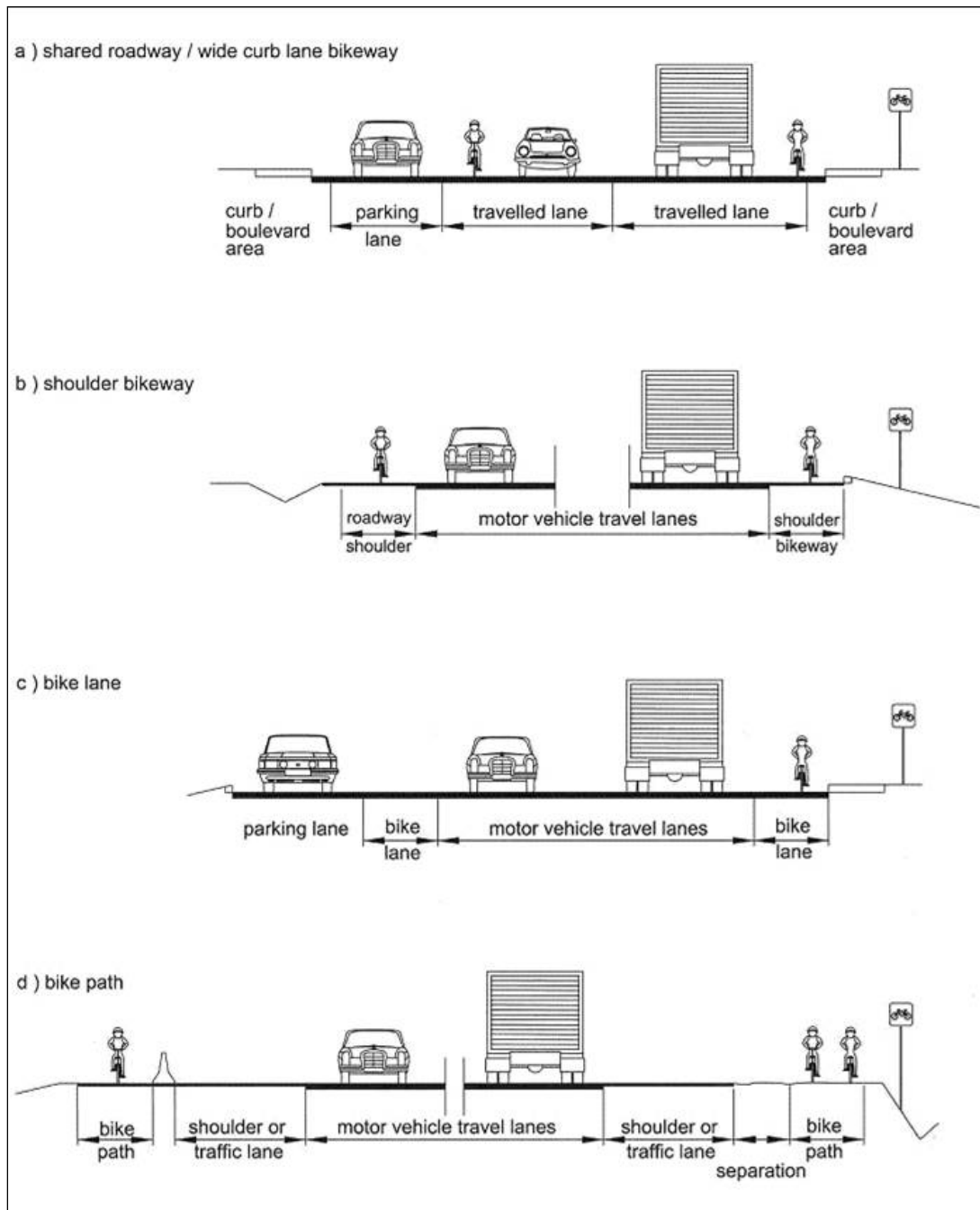


Figure 5.1: Typical Cycling Facilities<sup>3</sup>

<sup>3</sup> Source: TAC Geometric Design Manual

Facility Type and Characteristics	ROW	Posted Speed	Potential Cycling Facility	Design Volume	Cycling Facility width [m]
Provincial Highway	Established by province	N/A	Cycling not recommended		
Rural County Road	Varies	Up to 60	Signed Route	< 1200	Bike Route
		Up to 80	Paved Shoulder	<5000 >5000	2.0(1.5) <sup>1</sup> 2.0(2.0)
		> 80	Cycling not recommended		
Urban Arterial Road – 2/ 4 Lane roadway	Unconstrained ROW	N/A <sup>3</sup>	Off-Road Path	N/A	1-Way - 1.5(1.5) 2-Way - 3.0(3.0)
		N/A	Off-Road Multi-Use Path	N/A	1-Way - 2.0(1.5) 2-Way - 4.0(3.0)
Urban Arterial Road – 2/ 4 Lane roadway	Constrained ROW, adequate pavement width	< 50	On road curb <sup>2</sup> lane	<5000 >5000	4.3(4.0) 5.0 (4.5)
		50-80	On road curb lane	<5000 >5000	4.3(4.2) 5.0(4.5)
		> 80	Cycling not recommended		
Urban Collector – 2/ 4 Lane roadway	20-26 m	< 50	On road curb lane	<5000 >5000	4.3(4.0) 5.0(4.5)
		50-80	On road curb lane	<5000 >5000	4.3(4.0) 5.0(4.5)
Local Road – 2 Lane roadways	18-20 m	Up to 50	Signed bike Route	< 1000	Cycling route
<p>Notes: <sup>1</sup> 4.3 (4.0) – desirable (minimum).  Width should be increased by 0.5 m where traffic is composed of 10% or more commercial vehicles  <sup>2</sup> A travel lane width of at least 3.5 m must be maintained where cycling lane is provided on shoulder or curb lane. Curb lane width includes driving lane and widened portion to accommodate bicycles  <sup>3</sup> N/A – Not applicable.  Table assumes adequate pavement conditions</p>					

**Table 5.2: Design Guidelines for Cycling Facilities under Retrofit Conditions<sup>4</sup>**

<sup>4</sup> Source: TAC Geometric Design Manual