

# 1 Introduction

Encouraging more people in Toronto to cycle more often, especially for utilitarian reasons, will improve the health and the liveability of our City. The Toronto Bike Plan (TBP) has been prepared in response to this general principle. It will guide the City in the development and implementation of new programs and facilities to encourage people to cycle, and to reduce their dependence on the automobile. It is a Plan based on extensive public and staff consultation, and is designed to be flexible so it can evolve over time as it is implemented.

The Toronto Bike Plan is envisioned as a ten-year initiative. It will complement other planning efforts in the City, including the review of the City's Official Plan and the redevelopment of Toronto's waterfront.

The TBP establishes a vision for cycling. It sets out integrated principles, objectives and recommendations regarding safety, education and promotional programs as well as cycling related infrastructure, including a comprehensive bikeway network.



Taylor Creek Trail

## 1.1 Why a Bike Plan for Toronto?

The amalgamation of the former Cities of Toronto, Etobicoke, York, North York and Scarborough plus the Borough of East York has provided the impetus to develop a policy framework for the new City. Toronto, like other cities across North America, is also looking for ways to guide development in a way that is more environmentally, socially and economically sustainable.

The City is developing a new Official Plan which includes a vision for transportation in Toronto. This transportation vision focuses largely on reducing automobile dependence. It proposes fundamental changes in how the City will develop, and how it will plan and operate its transportation system.

This transportation vision is consistent with one developed by the Transportation Association of Canada (TAC) in 1993. It is based on the fundamental premise that current trends are leading to urban transportation "systems which do not meet all needs and which are not sustainable".<sup>1</sup> Six of the eight key attributes of the new transportation vision for Toronto will have a direct or indirect impact on cyclists. These are:

- 1) Integrated land use and urban design that lead to fewer and shorter vehicular trips for personal travel;
- 2) Improved accessibility in public transit service for all constituents. This service must also be competitive with the private automobile in terms of cost and convenience for most personal travel;
- 3) Traffic engineering and street design that encourage walking and cycling;

<sup>1</sup> Transportation Association of Canada, *A New Vision for Urban Transportation*, Ottawa: reprinted November 1999.

- 4) Less need to own an automobile or to use an automobile for most travel within the City;
- 5) Strong safeguards for the protection of the natural environment; and
- 6) Reduced air pollution and greenhouse gas emissions from transportation.

Achieving the City’s transportation vision will require a fundamental shift in how the transportation system is planned and operated. This means identifying areas in which pedestrians, cyclists and transit passengers can be given higher priority.

This won’t be easy. The City faces significant challenges in shifting gears towards a new way of thinking about transportation. Toronto’s transportation system has evolved gradually over the past several decades, influenced by the growth in automobile use and suburban sprawl after the Second World War. While the City has had long-standing policies that support walking, cycling and transit, there has not been sustained funding for major expansion of bicycle facilities and programs for encouraging and supporting cycling. The challenge, therefore, is to foster support for these and future policies so that they can turn into actions that can achieve change. The Toronto Bike Plan is an important step in moving this process of change forward.

Implementing the City’s vision will impact all users of Toronto’s transportation system. Achieving the vision will involve some difficult trade-offs, but will also yield significant environmental, economic, social equity and health benefits to individuals and to the City as a whole.

## **1.2 The Benefits of Cycling**

Bicycle transportation is a growing activity in Toronto and throughout North America, due in part because of the many benefits cycling offers. These benefits are highlighted below.

### **Transportation Efficiency**

- Transportation by bicycle is the most energy efficient mode of transportation, and generates no pollution, except in its manufacture.



*Cyclists on Bay Street*

- Cycling is often the fastest mode of transportation from door to door for distances up to 10 km in urban cores.<sup>2</sup>
- Ten bicycles can be parked in the space required for a single automobile.
- The cost of a typical car parking space in a parking structure can be up to \$10,000 compared to \$125 to manufacture and install a post-and-ring bike stand accommodating two bicycles, or \$1,000 for a high security bicycle locker.
- The addition of a through traffic lane on an existing road can cost from \$350,000 to \$500,000 per kilometre to design and construct in Toronto. This widening would provide an additional roadway capacity of 800 vehicles per hour. By comparison, the costs associated with the addition of a single 1.5 m bike lane, which can accommodate

<sup>2</sup> U.S. National Bicycle and Walking Study, 1994.

approximately 2,000 trips per hour<sup>3</sup>, can range from \$5,000 to \$10,000 for a simple restriping, or from \$35,000 to \$150,000 per kilometre where a road widening is required.<sup>4</sup>

### Environmental

- Short distance motor-vehicle trips are the least fuel-efficient and generate the most pollution per kilometre. These trips have the greatest potential for being replaced by cycling and walking.
- Reducing auto trips will mitigate ozone depletion, the greenhouse effect, ground-level air pollution, photochemical smog, acid rain and noise pollution.

### Health and Fitness

- Cycling contributes to personal health by enhancing fitness and providing an enjoyable, convenient and affordable means of exercise and recreation. The most effective fitness routines are moderate in intensity, individualized and incorporated into our daily activities. Cycling and walking can both accomplish this, and at the same time provide mobility.
- About two-thirds of Canadians are physically inactive, resulting in about \$2.1 billion of direct health care costs in Canada.<sup>5</sup> Increased physical activity, such as walking and cycling, can reduce the risk of coronary heart disease and the cost of medical care, decrease workplace absenteeism, and maintain the independence of older adults.

<sup>3</sup> Ministry of Transportation of Ontario, *Ontario Bikeways Planning and Design Guidelines*, pg. 8-34, March 1996.

<sup>4</sup> All cost estimates are exclusive of land acquisition and major utility relocations.

<sup>5</sup> Canadian Medical Association Journal, Nov. 28, 2000.

- Cycling benefits one's health regardless of the age at which one takes up cycling.

### Economic and Social

- Cycling provides access and transportation to segments of the population who would not otherwise be able to travel independently. These segments include:
  - those who cannot or choose not to own a motor vehicle;
  - those who do not have access to a motor vehicle for the required period; and/or
  - those who cannot or choose not to use public transportation.
- Riding a bike instead of driving a car on short trips can save up to 18 to 24 cents per kilometre, which could in turn result in thousands of dollars saved per person per year.

## 1.3 Plan Development: What We Have Done

The Toronto Bike Plan Study was initiated in the Fall of 1999. Marshall Macklin Monaghan Limited, in association with ESG International and Stantec, were retained by the City of Toronto to assist City Staff in the development of a cycling master plan. A Study Team was formed that involved both City staff and consultants who then worked together, in consultation with the Toronto Cycling Committee, to undertake each phase of the study.

### Study Approach

The *study approach* that lead to the development of the "Toronto Bike Plan" was undertaken generally in four phases, as follows:

- 1) *Assessing Existing Conditions* involved undertaking an extensive inventory of existing bikeway facilities, digitally mapping existing and planned bikeways,

paths, major attractions and destinations, then identifying real or perceived barriers to cycling. This phase also included the development and execution of the 1999 Toronto Cycling Survey and an analysis of the results.

- 2) *Developing the Bikeway Network Plan* involved establishing a vision for the network, then identifying, evaluating, groundproofing and selecting bikeway routes, and confirming facility type by route. The facility options included on-street bike lanes, signed routes and off-road paths. This phase also involved conducting a very successful one-day *Bikeway Planning and Design Seminar* that saw staff from across the recently amalgamated City come together and participate in an intense practical training session.
- 3) *Reviewing and Assessing Cycling Policies and Programs* involved a comprehensive review of existing programs, policies and funding sources by both City Staff and the Consultant Team. This led to the development of the objectives and recommendations for each component of the Plan: safety and education, promotion, cycling and transit, bicycle parking and the concept of bicycle friendly streets.
- 4) *Documenting the Plan and Associated Implementation Strategy* involved synthesizing all the work that had been done as part of the study into a concise, informative and prescriptive “ten year plan of action” that will serve to guide the City in its efforts to improve the state of cycling in Toronto.

**Public and Staff Consultation**

A central premise in the development of the Toronto Bike Plan was to actively involve members of the public, staff from other City departments, the Toronto Cycling Committee

and key stakeholders in all phases of the study. Key activities or tasks included:

- Meetings with a Technical Steering Committee of City Staff created to provide input and guide the study;
- Bicycle Tours with stakeholders in November of 1999 in the former municipalities of North York, Scarborough, Etobicoke and Toronto (including York and East York);
- A formal Public Attitude Survey of over 1,000 Toronto residents to gather input on cycling related issues from both cyclists and non-cyclists;
- A one day Bikeway Planning & Design Seminar for City staff in December of 1999;
- An initial series of Public Workshops in December 1999 at four locations across the City to identify issues, and develop a vision and set of principles to guide the development of the proposed bikeway network;
- On-going meetings with key City staff from Traffic Operations, Right-of-Way Management, Transportation Planning, Urban Design and Parks Planning in each of the four Districts that comprise the new City of Toronto;
- A Second series of Public Workshops conducted in September 2000 at Civic Centres across the City to present the draft network plan, review key objectives and outline the next steps in the study;
- Development of literature for distribution, including a pamphlet on the results of the 1999 Toronto Cycling Survey, an article in *Cyclometer*, and the creation of a new newsletter, *Cycle Toronto*, by the Pedestrian and Cycling Infrastructure Unit (PCIU) of the Transportation Services Division. The

purpose of *Cycle Toronto* was to inform the public of the status of the Toronto Bike Plan as well as other City lead cycling related activities or actions; and

- Development of a web page on the City of Toronto Website:

<http://city.toronto.on.ca/cycling/cycling.htm>

A record of the major consultation activities is found in Appendix B.

The substantial input received from those who participated in the cycling master plan study was reviewed and taken into consideration in the development of the Plan. The TBP, therefore, is the product of an extensive study and consultation process which the City believes generally reflects the interests of all Toronto residents, and at the same time is a direct response to many of the needs and wishes of Toronto cyclists.

## **1.4 Toronto Bike Plan Organization**

The balance of this report describes the Toronto Bike Plan in detail. Chapter 2 sets the stage by briefly describing where we have come from and where we are today. It includes background information on Toronto's cycling history, the status of existing cycling programs and services, and some key demographic and cycling trend data. Chapter 3 points to the future, outlining the Plan's two primary goals, the "six spokes", and their guiding principles and objectives.

The next six chapters, 4 through 9, provide the details for the six spoke plan. Each chapter focuses on one of the six spokes, detailing a set of actions and recommendations for achieving the plan's primary goals. Chapter 10 pulls it all together with a comprehensive implementation strategy which addresses priorities, phasing, funding, monitoring and evaluation.

The technical appendices provide a listing of the streets and paths which comprise the proposed bikeway network, a summary of the public and

staff input from the workshops and open houses, and the results of the 1999 Cycling Survey.