2 Context

Cycling has evolved to become a practical, cost effective, environmentally sensitive and healthy mode of transportation for both recreation and utilitarian purposes across North America. It is recognized as an integral and necessary part of a city's transportation system in addition to being a viable alternative to automobile use.

The following provides a context for the growth and trends in cycling from a North American perspective and describes Windsor's experience.

"Across Ontario, recreational cycling is recognized as one of the top three recreational pursuits…"

2.1 North American Cycling Perspective

Across Ontario, recreational cycling is recognized as one of the top three recreational pursuits, having a 20% participation rate and an estimated annual growth rate of 2.3% (Ministry of Citizenship, Culture and Recreation, 1998). In the City of Toronto, approximately 20% of the city's population cycle for utilitarian purposes, for example to get to work, school, shopping and running errands, while 44% of the population cycle for recreational purposes, including leisure and fitness pursuits (Decima Research Inc., 1999).

The demand for cycling and walking facilities is high in communities across Ontario. Municipalities in the Greater Toronto Area, as well as Ottawa, London, Kitchener-Waterloo, Milton and Brampton, to name a few, are actively developing networks to encourage cycling and walking, and to lower reliance on the personal automobile. At the provincial level, the Ontario Trails Council is promoting the integration of community and regional trail systems into a province-wide system to be known as the Ontario Trillium Trails Network. At the same time, the Trans Canada Trail Foundation opened the Trans Canada Trail on September 9, 2000.

Photo: Riverfront Trail entrance at Riverside Drive and Lincoln Road – Windsor, Ontario

"The demand for cycling and walking facilities is high in communities across Ontario."

"Cycling and walking can enhance one's mental outlook and well being, improve self-image, social relationships and increase self-reliance by instilling a sense of independence and freedom."

According to David Foot, author of Boom, Bust & Echo, and his American counterparts, significant changes are occurring in recreation as a result of demography. In short, a large proportion of our population is ageing and looking for different types of recreational opportunities than were typical in the past. The following general trends have been observed, all of which have implications for cycling network development:

- there is a renewed interest in spending "quality time" with family and friends, while pursuing high quality recreational experiences;
- staying healthy through active recreational pursuits is viewed as important;
- there is a strong interest in tourism and recreational activities that respect the natural and cultural environments, and also offer educational opportunities; and
- there is a pervasive interest in getaway travel where the goal is to obtain a high quality recreational experience at a reasonable cost.

The promotion of cycling has significant individual, societal, environmental and economic benefits.

Recreation, Health and Fitness Benefits

Cycling and walking enhance fitness and provide 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.

Photo: Ganatchio Trail – Windsor, Ontario

Trails that pass though a variety of neighbourhoods help to unite the community.

In Ottawa, two-thirds of 1700 commuter cyclists surveyed in 1991 ranked health and fitness as the primary reason for cycling to work.

Cycling and walking can enhance one's mental outlook and sense of well being, improve self-image, social relationships and increase self-reliance by instilling a sense of independence and freedom.

"In Edmonton, a survey of 2,400 cyclists in 1989 showed that 75% of the reported bicycle trips were for reasons other than recreation. Almost 20% of the cyclists surveyed rode all year round, indicating that winter cycling is viable."

Trails that pass though a variety of neighbourhoods help to unite communities. They act as meeting places, and provide for informal interaction between people from a variety of backgrounds.

Trail projects (construction, operation, maintenance and promotion) can help to foster partnerships among individuals, government, local business and various interest groups. There are many examples of successful private and public-sector partnerships that have emerged as a result of the development of trails across the country, such as the Chrysler Greenway through Essex County.

The focus of our health system is shifting from protecting people from hazards in the environment to developing healthy environments in which people live. Evidence suggests that improved cycling and walking facilities lead to higher participation rates. Increased physical activity such as walking, cycling and other trail related actives could help to reduce the risk of coronary heart disease. A more active population can, in turn, reduce the cost of medical care, decrease workplace absenteeism and help to maintain the independence of older adults, thereby reducing the cost of institutional care.

Encouraging people to cycle and walk can reduce urban and suburban dependence on the automobile, a target in healthy cities.

Transportation Efficiency Benefits

Cycling and walking are a means of transportation that are efficient, affordable and accessible. For distances up to 10 km in downtown areas, cycling is the fastest of all modes from door to door. The National Bicycle and Walking Study: Final Report (1994) noted that in U.S. cities, 25% of all trips are 1.5 km or less, and over two-thirds are 8 km or less. In the U.S., 20% of all cycling trips involve travel to and from work. This demonstrates the potential for increasing the number of cycling trips.

Photo: Typical bike lane pavement marking – Toronto, Ontario

Cycling is becoming a mode of choice for commuting and utilitarian purposes as an alternative to the automobile.

In Edmonton, a survey of 2400 cyclists in 1989 showed that 75% of the reported bicycle trips were for reasons other than recreation. Almost 20% of the cyclists surveyed rode all year round, indicating that winter cycling is viable.

Trail systems can have varied levels of tourist attraction. They can be travel destinations in themselves, encourage visitors to extend their stay in the area or enhance business and pleasure visits.

Road improvements to increase the safety of cyclists can and should enhance the safety of other road users. For example, the U.S. Federal Highway Administration reports that paved shoulders on two-lane, rural roads have been shown to reduce run-off-the-road, head-on and sideswipe collisions by 30% to 40%. In addition, several municipalities have found that paved shoulders reduce maintenance costs related to shoulder deterioration, grading and snow plowing.

Two major surveys conducted in the U.S., one in 1994 (Richelieu Valley Tourism) and one in 1997 (Survey of Delaware Bicyclists) showed that 99% of all respondents said they cycled for recreation, fitness and health, 65% to 90% used their bicycle for touring and vacationing, and 40% to 50% cycled for basic transportation purposes. Many who have had a positive recreational cycling experience try cycling for utilitarian purposes.

Environmental Benefits

Cycling and walking are energy-efficient, non-polluting modes of travel. Short distance, motor-vehicle trips are the least fuel-efficient, and generate the most pollution per kilometre. These trips have the greatest potential to be replaced by cycling and walking trips as well as integrated walking-cycling-transit trips. Shifting to these modes can reduce ozone depletion, the greenhouse effect, ground-level air pollution, photochemical smog, acid rain and noise pollution. Bicycles take up fewer resources in their production, maintenance and storage than motor vehicles, thereby reducing the demand on materials and energy resources. Encouraging bicycle use and reducing the dependence on the automobile is also consistent with current Provincial Policy initiatives regarding "Smart Growth".

Economic Benefits

Following significant investment in bicycle facilities, cities in industrialized countries have experienced dramatic increases in the level of cycling. For example, Copenhagen experienced a cycling increase of 50% in five years, while both Eugene, Oregon and Toronto experienced an increase of 75% (New York City Bicycle Master Plan, 1997).

Photo: Riverfront Trail – Windsor, Ontario

There is ample evidence that trails can provide a tourist draw to a community.

There is ample evidence that trails provide significant economic benefits for adjacent landowners and local businesses. Trails provide benefits to the local economy during both construction and operation. Trail construction results in direct benefits such as jobs, including the supply and installation of materials. Following construction, benefits emerge in the form of expenditures by trail users. A few examples include:

- trails in New Brunswick employ around 1500 people for an average of six months per year;
- 70% of trail users of the Bruce Trail cite the trail as the main reason for visiting the area, and they spend an average of about $20.00 per user, per visit, within a 10 kilometre corridor on either side of the trail;
- the San Antonio Riverwalk is considered the anchor of the tourism industry in San Antonio, Texas and contributes $1.2 billion annually into the local economy;
- in 1988, users of the Elroy-Sparta Trail in Wisconsin averaged expenditures of $25.14 U.S. per day for trip-related expenses (over $1.2 million annually);
- more than 600,000 Americans took a bicycle vacation in 1985, and when travelling in a group, spent $17 per day camping or $50 per day staying in motels. Cyclists travelling alone spent an average of $22 per day camping or $60 per day staying in motels; and
- in Ontario, the Eastern Ontario Trails Alliance estimated that at the end of a ten year build-out period, 320 kilometres of their system, constructed at a cost of $5.4 million will generate approximately $36 million in *annual* economic benefits in the communities through which it passes, and create or sustain over 1100 jobs.

"The Ontario Ministry of Transportation reported that touring cyclists spend an average of $130 per day in Ontario, and the bicycle retail and tourist industry contributes a minimum of $150 million a year to the Ontario economy."

Trail systems can have varied levels of attraction for tourists. They can be travel destinations in themselves, encouraging visitors to extend their stay in the area or enhancing business and pleasure visits. By increasing the "level of tourist draw", travellers can be expected to stay longer, resulting in an additional night's lodging and meals, a major direct new benefit to local businesses.

A 1997 survey of Canadian tourists active in the outdoors showed that 30% of Ontario tourists cycled on at least one occasion while on vacation. The Ontario Ministry of Transportation reported that touring cyclists spend an average of $130 per day in Ontario, and the bicycle retail and tourist industry contributes a minimum of $150 million a year to the Ontario economy. Bed and breakfast

operators between Ottawa and Kingston report that the majority of their business is from touring cyclists. Cyclists in Vermont spend an average of $180 US per day, the same amount expected of someone travelling by car.

Bicycle manufacture, sales and repairs, as well as bicycle tourism, recreation and delivery services contribute to the economy with little to no public investment or subsidy. The Worldwatch Institute reported in 1987 that 1.2 million bicycles were produced in Canada compared to 0.8 million automobiles. The small size of the bicycle results in infrastructure costs for bikeways and bicycle parking that are 10 to 20 times less than for the same quantity of automobiles.

"Windsor residents clearly expressed their desire to complete the implementation of the cycling network through the extensive public consultation forums associated with the community strategic plan."

2.2 The Windsor Experience

The following provides a brief overview of various municipal initiatives that have identified the demand for cycling facilities within Windsor and assisted in the development of the existing off-road trail system. Information and trends specific to Windsor identified through the BUMP study process are also reviewed.

Previous Municipal Initiatives

Residents of Windsor have long expressed the desire for an interconnected cycling network for both recreation and utilitarian purposes. In 1989, the Culture and Recreation Master Plan identified 90 percent of respondents as being supportive of the development of a network of linear parks and trails throughout Windsor for cycling, walking, running and skiing. Responding to this public interest and enthusiasm, the City, with the assistance of a consulting team, followed up with the Bicycle Use Development Study (BUDS), which was adopted by Council in 1991.

Photo: BUMP Public Meeting #1 at the Main Library – Windsor, Ontario

Through the BUMP process, residents were able to express their opinions on the direction for cycling in Windsor.

In summary, the BUDS was based on the four E's for improving cycling – engineering, education, enforcement and encouragement. Some of the major recommendations of the BUDS included:

- creating opportunities for new cyclists to have a positive first cycling experience;
- actively promoting municipal programs, events and the benefits of cycling;

- supporting all forms of recreational and utilitarian cycling;
- promoting the implementation of high standard and highly visible facilities for cycling use; and
- mapping a proposed cycling and recreation network.

"The Windsor Area Long Range Transportation Study and Official Plan processes further confirmed the public's desire to complete the cycling network for both recreational pursuits and as a means of supporting the development of a balanced transportation system."

The BUDS laid the foundation for the 40+ km of cycling and multi-use trails that exist in Windsor today that are illustrated on **Map 1**. This network includes:

- the College Avenue and West Recreationway through west and south Windsor;
- the Ambassador/Assumption/Centennial Recreationway along the Detroit River;
- the Roseville Garden Park Trail in the Forest Glade Planning District;
- the Little River Corridor and Ganatachio Trails through the Riverside and East Riverside Planning Districts;
- on-road bicycle routes along Raymond and Edgar Avenues;
- the Walker Homesite and Devonwood Trail through the Devonshire Planning District; and
- the Southwood Lakes Trail in the Roseland Planning District.

Through the planning approval process, lands have also been reserved for bikeways and recreationways in East Riverside, Devonshire Heights, North Roseland, South Cameron and along the Lauzon Parkway in accordance with the BUDS. In addition, several Environmental Study Reports (ESR's) have begun to implement the proposed BUDS network such as the bikeway under construction on the west side of the Lauzon Parkway from Matthew Brady Boulevard to Tecumseh Road, and the identification of a preferred east-west bikeway connection between Memorial Park and Jackson Park.

Photo: Riverfront Trail – Windsor, Ontario

The Riverfront Trail was a result of the direction established by the Bicycle Use Development Study.

CITY OF DETROIT

DETROIT RIVER

BLACK OAK PRAIRIE HERITAGE

LASALLE

MALDEN PARK

FORD TEST TRACK

CONNECTION TO TECUMSEH

W OF TECUMSEH

Paradigm

Stantec

The community's continued support of cycling network development was affirmed through the 1996 Community Strategic Plan (CSP) process. The CSP provides an overall guide for all municipal initiatives. The plan established a community vision, municipal mission statement and several strategic themes and objectives.

Residents clearly expressed their desire to complete the implementation of the cycling network through the extensive public consultation forums associated with the CSP. This resulted in the following cycling supportive statements being included in the document:

"Central to the BUMP study was the need to determine from stakeholders and Windsor residents the type and form of cycling network they wanted."

- develop an "adopt a" program for parks, natural areas, sections of waterfront, bikeways, etc.;
- develop an improved signage system to educate the public about trails and the natural environment;
- implement the Bikeway Plan;
- provide transportation systems that enhance physical mobility and better serve the economic and social needs of the community; and
- develop an overall urban transportation system plan for Windsor.

The WALTS and Official Plan (OP) processes completed in 1999 further confirmed the public's desire to complete the cycling network for both recreational pursuits and as a means of supporting the development of a balanced transportation system.

WALTS established a 20-year transportation master plan for Windsor. Its goal was to create a transportation system that balances the use of private automobiles, public transit, walking and cycling.

WALTS supported the development of a cycling and recreationway network, in addition to placing an emphasis on completing the on-road sections of the network.

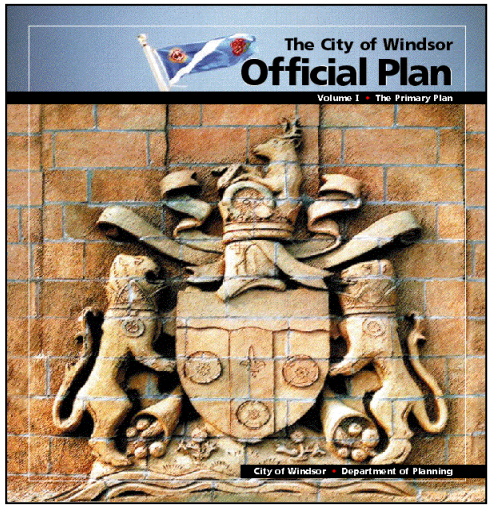


Photo: City of Windsor Official Plan, 2000

"The City's new Official Plan supports the development of recreational and commuter cycling facilities."

The OP established a 20-year planning framework to manage the physical growth and development of Windsor. The plan was aimed at strengthening the City through its neighbourhoods. Key to this strategy is improving the character of, and connections within and between, neighbourhoods.

Cycling policies in the OP relate to:

- the identification of a cycling and recreation network;
- requiring that all proposed developments and infrastructure undertakings provide facilities for cycling movement and storage wherever appropriate; and
- requiring the installation of cycling supportive facilities, such as bicycle racks, as a part of the development of major employment, commercial and institutional uses.

Windsor residents identified a number of opportunities to improve cycling at the public open houses.

The BUMP study is intended to build on the success of these studies through the research and input collected and analyzed over the course of the study.

BUMP Initiatives

Central to the BUMP study was the need to determine from stakeholders and Windsor residents the type and form of cycling network they wanted. Through the process of developing Windsor's BUMP, information was collected and analyzed related to cycling barriers, issues and opportunities. This information was obtained through a number of mechanisms including cycling tours, public open houses, meetings with stakeholders, user and public attitude surveys, written and verbal input provided by the public, plus the knowledge and experience of the Steering Committee and consulting team. The key findings of this review are summarized in the following section.

Map 2 illustrates some of the major cycling barriers and destinations within Windsor.

The barriers include those that restrict or prohibit cycling use, such as the E.C. Row Expressway and rail lines. There are also those roads that discourage cycling for all but the most experienced cyclist because of the traffic volumes, such as Huron Church Road, Tecumseh Road and the intersections of Howard Avenue and Division Road.

Major destinations include recreational, employment and institutional centres such as the University of Windsor, St. Clair College, the Riverfront, City Centre, the various automotive and employment areas, Tecumseh, Devonshire and University Malls plus various City parks.

CITY OF DETROIT

BELLE ISLE

DETRO1T RIVER

LAKE ST. CLAIR

DETROIT P

MIC MAC PARK

MALDEN PARK

BLACK OAK PRAIRIE HERIT.

SPRING GARDEN ANSI

JACKSON

OPTIMIST

DEVONWOOD

FORD TEST TRACK

PECHE ISLAND

RIVERSIDE KIWANIS PARK

TOWN OF LASALLE

DIFFICULT AREAS

1. VERY BUSY CROSSING (6 LANES PLUS 2-3 TURNING LANES). MAIN ACCESS TO AMBASSADOR BRIDGE.

2. DIFFICULT CROSSING ZONE AROUND HURON CHRUCH ROAO ON/OFF RAMPS TO E.C. ROW EXPRESSWAY. HIGH TRAFFIC VOLUME, SPEED AND HIGH NUMBER OF TURNING MOVEMENTS.

3. RAIL CROSSING IS REQUIRED \\HERE IHERE IS NO MUNICIPAL RIGHT-OF-WAY AND CROSSING PRIVATE LANDS.

4. NARROW UNDERPASS OF CN RAILWAY. IMPROVEMENTS REQUIRED TO ACCOMODATE CYCUNG FACILITIES.

5. RELATIVELY NARROW BRIDGE UNDERPASS 'MIH A NUMBER OF ON/OFF RAMPS TO E.C. ROW HOWARD AVENUE. IT IS A TOTAL OF SIX LANES 'MDE - 8 V\11H TURNING LANES.

6. VERY DIFFICULT INTERSECTION \\HERE IHE INTERSECTION IS AT APPROXIMATELY 50", IMMEDIATELY AOJACENT TO DOUBLE RAILWAY TRACKS AND STOP CONTRO\.IED GOING EAST BOUND. DEVONSHIRE MALL IS A MAJOR DESTINATION; HO\\f:VER, IHE RAIL LINE IS VERY BUSY. IHIS INTERSECTION AND HOWARD ARE VERY BUSY.

7. IHIS CROSSING POINT IS NOT AT A SIGNALIZED INTERSECTION.ONE EXISTS TO IHE \\EST OF THE LITTLE RIVER FOR CANADIAN TIRE). TECUMSEH HAS 4-5 LANES AND IS VERY BUSY.

8. WALKER ROAO, MEMORIAL AVENUE AREA: DIFFICULT CROSSING OF WALKER ROAO DUE TO HIGH TRAFFIC VOLUME AND RAILWAY TRACKS. POINT OF CONVERGENCE FOR VEHICULAR TRAFFIC, RAILWAY AND OFF ROAO TRAILS (EXISTING AND DESIRED TRAILS).

9. DIFFICULT CROSSING OF HOWARD AVENUE NEAR INTERSECTION 'MIH MEMORIAL CONNECTION TO JACKSON PARK REQUIRED.

1O. DIFFICULT CROSSING OF E.C. ROW EXPRESSWAY NEAR WALKER ROAO DUE TO HIGH TRAFFIC VOLUMES, SPPED AND HIGH NUMBER OF TURNING MOVEMENTS.

11. BUSY INTERSECTION AT CABANA ROAO AND DOUGALL AVENUE, HIGH TRAFFIC VOLUME AND SPEEDS.

LEGEND

- D PARKS AND OPEN SPACE
- CJ INSTITUTIONAL LAND
- CJ GOVERNMENT OWNED LAND
- CITY LIMITS
- MAJOR ROAD
- HIGHWAYS
- RAILWAY CORRIDORS
- DIFFICULT AREAS (REFER TO NOTES)

@NTS

Marsh.all Macklin Monaghan
PROJECT MNWERS • ENOINEERS • SURtE10RS • PLNNERS
ao cormwce Valley Dr. Eoat. Ihomhu. Ontario (905) aa2-1100

FEBRUARY 28, 2001

CITY OF WINDSOR

BICYCLE USE MASTER PLAN

MAP 2: MAJOR BARRIERS

Through the BUMP process, a number of cycling barriers were identified.

Photo: Rail underpass on Dougall Avenue – Windsor, Ontario

Public Open Houses and Bicycle Tours

A series of public open houses and bicycle tours were held throughout the BUMP study. The purpose of these events was to involve the public in determining the direction and programs recommended in this report.

"The overall objective of the Decima Survey was to measure the prevalence of cycling in Windsor with a focus on utilitarian trips."

Cycling issues that emerged through discussions with the public at the open houses and bicycle tours included:

- *Road Conditions* such as uneven, cracked or potholed road surfaces, catch basins and debris such as sand, gravel and litter;
- *Traffic Controls* such as the duration of signal timings and the indiscriminate use of all-way stops;
- *Signage* such as the visibility, location and lack of network signage;
- *Cycling along Riverside Drive East* being desired by the broader community, and the neighbourhood's desire to maintain a quiet residential character;
- *Trail Use Conflicts* between cyclists, walkers and in-line skaters along various recreationways, especially along Ambassador/Assumption/Centennial and Ganatchio Trails;
- *Traffic Volume and Speed* along certain roads within Windsor such as Huron Church Road, Tecumseh Road and portions of Riverside Drive;
- *On-street Parking* along various streets combined with the monthly alternating arrangement from one side to another;
- *Cost/funding* issues related to the City's ability to establish particular routes or connections given the cost of design, right-of-way acquisition, construction and long-term maintenance;

Photo: Public Meeting #2 at Malden Park – Windsor, Ontario

- *Law* Enforcement as it applies to both cyclists and motorists; and
- *Education and Awareness* of safe cycling practices, cycling as an alternative to automobile use and Windsor's cycling network.

Cycling opportunities that emerged through discussions with the public and Steering Committee, as well as the study team's investigation include:

- *Existing Trail System* is well established, used and maintained, particularly along the riverfront and in East Riverside and West Windsor;
- *Topography* is relatively flat for cycling;
- *Attractiveness* of various areas for cyclists such as along the Detroit River, Riverside Drive and in old Walkerville;
- *Directness* of the grid road pattern for moving cyclists across the city;
- *Momentum* created by the City through the continued support and development of the cycling network;
- *Mild Climate* creating a longer, if not year round, cycling season; and
- *Flexible Rights-of-Way* that can accommodate either on-street cycling lanes or paths within the boulevards.

Approximately 47% or 113,000 Windsor residents over the age of 15 are cyclists.

In addition to the public events, the study team conducted two surveys.

Public Attitude Survey

Decima Research conducted a statistically valid public attitude survey over the telephone to a random sample of Windsor, LaSalle and Tecumseh households.

The objectives of the survey were to:

- estimate bicycle ownership among households, and the number of utilitarian and recreational cyclists;

"The analysis reveals that age is a primary factor in contrasting the different types of cycling groups, such that when age increases the prevalence of cycling decreases."

- establish a profile of Windsor area residents with regard to their use of the bicycle both as a mode of transportation and a recreational vehicle;
- determine barriers to utilitarian cycling, current transportation modes used and opportunities to encourage cycling;
- estimate the percentage of cyclists who use their bicycle in conjunction with public transit, and the potential to increase this activity;
- identify any concerns the public may have about cycling or cyclists in the Windsor area;
- gauge the public's perception of the overall quality of cycling facilities available, and options on possible mechanisms for improvement; and
- obtain information on the public's perception of atmospheric smog and the aggressive behaviour of cyclists and motorists.

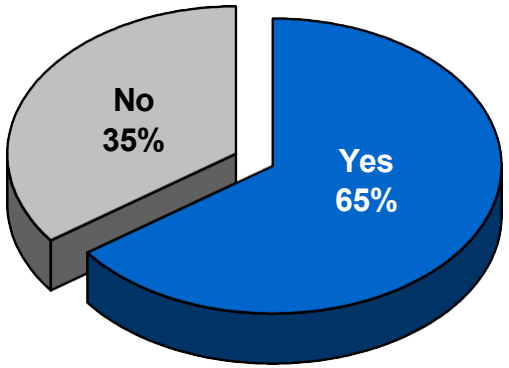
A total of 501 interviews were completed as a part of the survey, and the results had a margin of error of less than 4.8% within Windsor.

Decima's complete survey results are provided under separate cover as a technical appendix (Volume 2). The following summarizes the five major conclusions of the survey.

1. *Cycling is a critical mode of transportation and form of recreation for Windsor area residents*.

In total, approximately 23% of the population or 56,350 persons cycle for utilitarian purposes, including getting to work, school, shopping, running errands or visiting. Given that some of these utilitarian cyclists ride for more than one of these practical purposes, the more detailed

Households with Bicycles



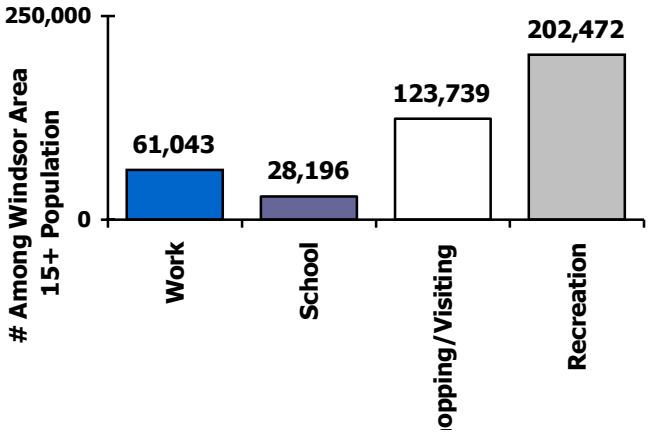
Decima asked: "Do you or does anyone in your household own a bicycle?"

estimates sum to greater than the total:

- almost 17,000 or 7% of cyclists ride to work. These cyclists make approximately 61,000 work trips per week. Almost half (47%) have a commute of less than 20 minutes, the average ride taking 19.5 minutes;
- almost 9,600 or 4% of cyclists bike to school. Just over half (51%) have a commute of less than 20 minutes; and
- almost 52,000 or 22% of cyclists ride to go shopping, run errands or go visiting, making almost 124,000 trips per week.

In total, there are approximately 106,000 recreational cyclists who ride for leisure or fitness, representing 45% of the population. Almost one-quarter of Windsor area residents can be classified as cyclists who ride for recreational and fitness purposes only.

The estimated number of cycling trips reveals the importance of cycling as a mode of transportation in Windsor.



Concerns About Windsor Area Cycling

	Total n=501 %	Non-Cyclist n=264 %	Recreational n=122 %	Utilitarian n=155 %
Careless cyclists	21	25	19	16
Nothing/No concerns	20	20	24	17
Worried about collisions	15	17	15	12
Lack of paths and trails	11	10	14	12
Lack of bike lanes	11	8	10	18
Careless drivers	11	7	15	13
Traffic Conditions	9	8	8	14
Narrow Streets	7	7	4	10
Road conditions	5	4	4	11
Safety gear/helmets etc	5	5	5	4
Bikes on sidewalks	5	7	1	3
Safety (general)	4	4	3	4
Lack of knowledge/education of CYCLISTS	3	3	1	3
Do not know/Did not say	3	4	1	2

Decima asked: "What concerns if any do you have about cycling or cyclists in Windsor?"

2. *Cyclists in Windsor are not a marginalized group.*

The profile identifies a group who tends to be mainstream residents with a skew to younger citizens with a moderate to high socio-economic status.

Those who are younger are more likely to be utilitarian cyclists than those who are older. It is also evident that as household income rises, so too does the probability that a member of the household is a utilitarian cyclist. Men (60%) are much more likely to be utilitarian cyclists than

women (40%). Further, nine-in-ten (91%) utilitarian cyclists also cycle for recreation or fitness.

Age also plays a role in defining recreational cyclists. Those who are younger are more likely to cycle for recreation or fitness than those who are older; however, recreational cyclists (median age 39.3) tend to be older than utilitarian cyclists (median age 30.3). It is also evident that as income rises, so to does the number of recreational cyclists. Considering that this fact is also true for utilitarian cyclists, it is apparent that higher income earners are more likely to be cyclists in general.

"Three-in-five or 60% of recreational cyclists name distance as the number one reason they do not cycle for utilitarian purposes."

Three-in-five or 60% of recreational cyclists name distance as the number one reason they do not cycle for utilitarian purposes. The next major concern is unsafe traffic conditions (18%). It is also apparent that some feel cycling to work is simply not feasible - "can't carry things on bike" (8%), "incompatible with work clothes" (7%), and "lack of secure bike parking" (7%) are the third, fourth and fifth most common barriers to utilitarian cycling.

When those mentioning distance (60%) as the cycling barrier were asked what steps could be taken to encourage them to begin cycling to work or school, 42% said "nothing". However, when prompted, 31% of those who said "nothing" said they would combine cycling with public transit if there was convenient and secure bike parking, and

3
8
%

w
o
u
l
d

"
b
i
k
e
-
n
-
r
i
d
e
"

i
f

t
h
e
r
e

w

ere bike racks attached to City buses.

The non-cyclist profile is essentially opposite from the recreational cyclist profile. For example, those who are older (50+) are less likely to cycle as are those who earn lower incomes. Further, women are more likely to be non-cyclists than are men.

3. *The overall perceptions of the quality of cycling routes and facilities in Windsor suggest there is significant opportunity for improvement.*

Despite the fact that 44% of Windsor area residents evaluate cycling routes and facilities as

Changes that would Improve Windsor Area Cycling

	Total n=501 %	Non-Cyclist n=264 %	Recreational n=122 %	Utilitarian n=115 %
More bike paths and trails (off-street)	28	24	35	27
More bike lanes (on-street)	26	24	23	33
Better education for cyclists	7	9	5	4
Better education for motorists	2	3	2	1
Enforce rules/regulations (give tickets/fines)	2	4	1	1
Repair potholes and bad pavement	2	2	2	2
Promote cycling	2	2	3	2
More bicycle parking	2	1	1	5
Cyclists SHOULD be on sidewalks	2	1	2	3
DK/NS	17	20	16	13

Decima asked: "What ONE thing do you feel the City or your employer or school could do to improve cycling in Windsor?"

at least "good", fewer than two-in-ten feel the quality of cycling facilities is "excellent" (4%) or very good (12%).

Almost three-quarters (72%) of Windsor area residents feel atmospheric smog is "a major problem" in the City. Cyclists are somewhat more likely to feel this way than non-cyclists are. Overall, one-quarter (24%) of respondents say they switch to a more environmentally friendly mode of transportation during smog alert days. However, utilitarian cyclists (34%) are significantly more likely to change their behaviour than recreational (20%) or non-cyclists (21%).

One-quarter (26%) of respondents feel adding more on-street bike lanes is the number one thing that would improve cycling in Windsor.

Based on residents' evaluations, there are considerable opportunities to improve the overall quality of cycling facilities and routes. Residents stated two key areas of improvement that would have the greatest impact on the overall quality of cycling facilities and routes in the Windsor area:

- more off-street bike paths or trails; and
- more on-street bike lanes.

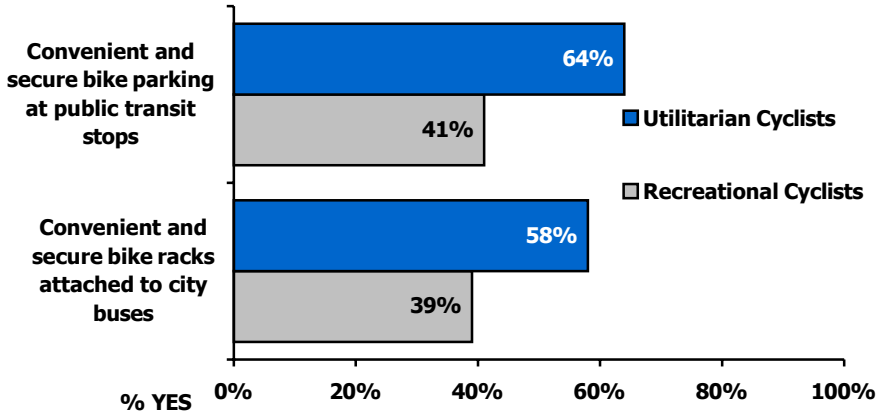
Almost three-in-ten or 28% of respondents volunteered that adding more off-street bike paths is the number one thing that would improve cycling in the Windsor area. An additional one-quarter (26%) feel that adding more on-street bike lanes is the number one thing that would improve cycling in Windsor.

4. *There is considerable opportunity to increase combined cycling and transit trips.*

Currently, 6% of all cyclists have combined cycling and public transit at some time. However, 9% of utilitarian cyclists have combined the two transportation modes compared to only 3% of recreational cyclists.

Of those cyclists who have combined cycling and public transit, 80% state they would be more

Ways to Stimulate NEW Combined Cycling and Public Transit Trips



Decima asked: "Would you consider combining cycling in the same trip if the following were provided? How about…"

likely to bike-n-ride more often if secure bike parking facilities were available. A similar proportion (49%) say they would be more likely to do it more often if there were bike racks attached to buses. These findings are similar among both recreational and utilitarian cyclists.

Of those cyclists who do not combine cycling with public transit, 52% would be more likely to try it if secure bike parking facilities were available. Slightly fewer (48%) say they would be more likely to try it if there were bike racks attached to buses. Both ideas appeal somewhat more to utilitarian cyclists that are not already combining cycling with public transit than recreational cyclists. They would be significantly more likely (58% versus 39%) than recreational cyclists to begin combining cycling and public transit if bike racks were attached to City buses.

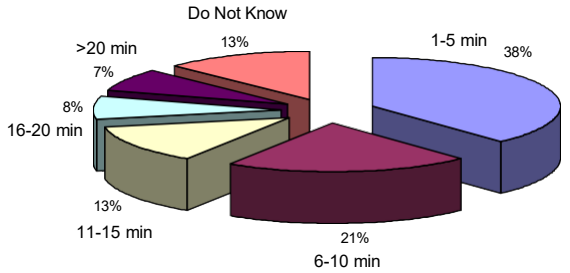
5. *Public education and communication are required to address concerns about cycling in Windsor.*

The Bicycle User Survey provided cyclists an opportunity to provide their opinions to the consulting team.

The principle issue is one of perceived carelessness, and the public seems to be engaged in a "he said, she said" debate. For example, one-in-five respondents say their number one concern about cycling in Windsor is cyclists who don't obey the rules and laws.

There is a perception of a decline in the general respect that motorists and cyclists have for each other. More than two-in-five (43%) of respondents feel motorists' respect for other road users has decreased in the past five years. A lesser proportion (23%) feel cyclists' respect for other road users has decreased. However, some Windsor residents have a somewhat more optimistic outlook – 13% feel motorists' respect for other users is increasing, and 18% feel cyclists' respect is increasing.

Travel Time to the Nearest Bike Path



User Survey question read: "How far in minutes do you live from the nearest major bike path or trail?"

These views are reflected in the public's views towards cycling on and off the road. More than nine-in-ten or 95% of Windsor area cyclists are comfortable cycling on bike trails or paths, and more than eight-in-ten (83%) on residential streets. Furthermore, almost six-in-ten (59%) believe they would be comfortable cycling on major roads with bike lanes. Less than two-in-ten or 17% of cyclists are comfortable cycling on

major roads without bike lanes. Utilitarian cyclists are more likely to be comfortable cycling in any of these areas than are recreational cyclists.

Bicycle User Survey

A second survey was developed for existing Windsor cyclists and recreationway users. Surveys were provided to municipal staff to circulate, and were also handed out at the cycling tours and the first public workshop. It was also posted on the BUMP website. Finally, direct interviews were conducted by the study team on the recreationway network.

"Interestingly, 67% of respondents to the Bicycle User Survey stated they would feel comfortable cycling on major roads with bike lanes."

The purpose of the user survey was to give cyclists a chance to offer their opinions to the consulting team on:

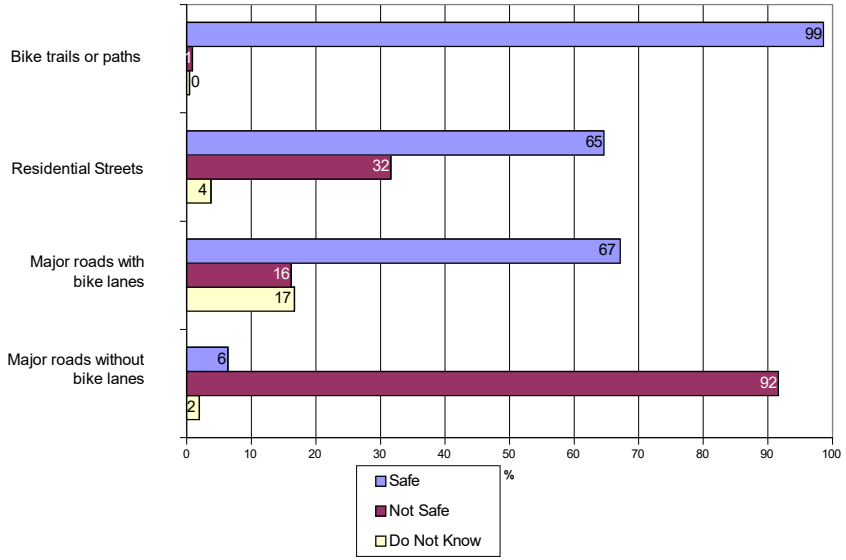
- where and how often they currently ride their bicycle;
- where they want to cycle; and
- what they think should be done to improve cycling in Windsor.

Over 225 cyclists responded to the User Survey, yielding some interesting results. The detailed analysis of the Bicycle User Survey is provided under separate cover as a technical appendix. The six key findings from this survey are as follows:

1. Cycling is a critical mode of transportation and form of recreation. Overall 40% of respondents indicated they ride to work between 5 to 7 days per week.

2. Respondents feel safest cycling on bike paths or trails. Interestingly, 67% indicated they would feel safe riding on major roads with bike lanes.

Safety for Cyclists



User Survey question asked: "Would you feel safe cycling on…"

3. Bike paths are generally within a convenient distance of residential areas, with 59% of respondents having a path within 10 minutes of their home.

4. There is interest in conducting cyclist training courses, such as CAN-BIKE.

5. When asked what they believe would improve cycling in Windsor, respondents showed a strong preference for more bike paths and trails, on-street bike lanes, pothole repair and motorist education.

6. Smog alert days do not appear to greatly influence people's choice to cycle, with 45% indicating that they still bike on these days.