

APPENDIX F3
Transportation Demand Management

The Road to *Change*

Halton Region Transportation Master Plan



Transportation Demand Management



Contents

Page

1.	PURPOSE OF REPORT.....	1
1.1	What Is TDM?	1
1.2	Rationale For TDM In Halton Region.....	2
2.	INTRODUCTION	3
3.	GUIDING DOCUMENTS.....	6
3.1	The Greater Toronto and Hamilton Area (GTHA) Smart Commute Initiative.....	6
3.2	Regional Official Plan Amendment 38	7
3.3	Legislative Requirements.....	8
4.	CURRENT TDM PRACTICES IN HALTON REGION.....	9
4.1	Smart Commute Halton.....	9
5.	FUTURE DIRECTIONS.....	10
5.1	Performance Indicators for TDM	10
5.2	TDM in Design Guidelines	10
6.	IMPLEMENTATION, ACTION, AND MONITORING.....	12
6.1	Business Engagement Plan	12
6.1.1	Business Engagement	12
6.1.2	Marketing TDM.....	12
6.1.3	Business Actions For TDM	14

Appendices

Appendix A: Terminology

Appendix B: Relevant Experience

1. Purpose of Report

This report documents the main intents of the Transportation Demand Management (TDM) program for Halton Region, mainly to:

- Support the economic, social and, environmental objectives of the Regional Official Plan and Regional Official Plan Amendment 38 ,which incorporates the results of the Sustainable Halton process and a comprehensive review of the Official Plan;
- Define a preliminary business engagement plan, which is designed to engage local businesses and to market TDM and its financial and social benefits to businesses; and
- Act as a resource for Halton Region, Local Municipalities, and employers in demonstrating leadership in trip reduction initiatives.

1.1 What is TDM?

Transportation Demand Management (TDM) can be defined as:

“strategies that result in more efficient use of transportation resources” – Victoria Transport Policy Institute;

“A program of incentives which influence whether, when, where and how people travel, and encourage them to make more efficient use of the transportation system” – Metrolinx;

“a wide range of policies, programs, services and products that influence how, why, when and where people travel to make travel behaviours more sustainable” – Transport Canada;

“variety of strategies that reduce single-occupant car trips in order to ease congestion and achieve a more sustainable transportation system” – Ontario Ministry of Transportation.

It is with respect to these foregoing industry accepted definitions, that we can bring forward the definition of travel demand management contained in Regional Official Plan Amendment 38 and use it to define TDM in the context of the Halton Region Transportation Master Plan as:

“the application of a range of measures aimed at influencing travel patterns by reducing the amount of travel and shifting to non-peak periods or more efficient travel modes.”

TDM initiatives are aimed at influencing travel patterns by affecting the demand to travel; distinct from Transportation System Management (TSM) measures, which are complementary initiatives that use operating strategies for transportation infrastructure elements to achieve similar goals (such as designating road lanes for high occupancy vehicles, implementing transit priority, and others). TDM initiatives typically include such broad strategies as measures designed to promote walking, cycling, public transit, and carpooling as preferred travel choices.

TDM is at the forefront of decision making and planning practices in Halton Region. The Region launched Smart Commute Halton in 2006. This initiative aims to reduce traffic congestion and take action on climate change through changes in transportation modal choice. Smart Commute offers services, such as ride matching programs, to help local employers and commuters explore alternative commuter choices. Since its inception, Smart Commute Halton has brought awareness to the Smart Commute initiative as well as encouraging employees to try alternative travel modes.

1.2 Rationale for TDM in Halton Region

Over the past couple of decades it has become apparent that simply improving and adding transportation infrastructure will not be enough to curb congestion in rapidly growing areas like Halton Region. Infrastructure improvements in the short term will mitigate congestion, but it is changes in travel patterns and travel habits that are going to provide significant long term results. Improving the capacity of a road, over time, will invite more motorists to choose that route over others, in effect reallocating congestion as opposed to decreasing it. Currently, Halton Region has a 73% (Transportation Tomorrow Survey 2006) Single Occupant Vehicle (SOV) mode split. TDM assists in the efforts to use infrastructure as efficiently and sustainably as possible. For example, flexible work hours will help spread traffic out on the Region's road network more evenly over the course of the day resulting in enhanced mobility and a reduced need for future infrastructure.

Halton Region has shown that it has the desire and commitment to be a leader in sustainability. It is imperative that effective TDM is implemented to achieve a more balanced transportation system, maintain economic competitiveness and continuously improve quality of life. Halton Region and the Local Municipalities will be the leaders and set an example for employers to follow. Smart Commute Halton will promote and engage employers regarding TDM.

2. Introduction

This is one of a series of technical references to support the objectives and guiding principles of the Halton Region Transportation Master Plan. In particular, this report supports the following Master Plan Guiding Principles:

- Balanced Needs;
- Healthy Communities;
- Economic Vitality;
- Sustainability; and
- Well Maintained Infrastructure.

The following tasks were undertaken in the development of this report:

- Conducted a review of the guiding documents, including Regional Official Plan Amendment 38 and Provincial legislation in support of TDM;
- Undertook a review of current TDM activities and supporting policies in Halton Region;
- Prepared a series of performance indicators and design guidelines for TDM;
- Linked TDM to other guiding documents;
- Created a Business Engagement Plan;
- Established recommendations; and
- Conducted best practices review through Canadian municipalities.

A fundamental concept in TDM is that the characteristics of any particular trip are dictated by a series of decisions made by the traveler. This is sometimes referred to as the hierarchy of travel choice (or hierarchical model of travel choice). The decisions are typically made sequentially and they represent a number of opportunities to influence the traveler's ultimate trip.

Table 1 presents the hierarchy of travel choice, the trip characteristics that can be influenced, and the resulting effect on the transportation system. There are six distinct potential opportunities to influence the decision to travel, including:

- Trip elimination;
- Trip reassignment;
- Trip scheduling;
- Trip linking;
- Modal choice; and
- Trip sharing.

These six opportunities are described in further detail in Table 1. It should be noted that trip elimination measures and tools assume that the underlying purpose of the trip must still be accomplished (e.g., the goods must still be purchased; the education/knowledge must still be exchanged between instructor and student). Trip elimination measures seek to accomplish the goal without the act of travelling.

Table 1 – Hierarchy of Travel Choices

Sequence of Travel Decisions	TDM Strategy	Trip Characteristic that Can be Influenced	Effect on the Transportation System
<i>Is this trip required, or could I achieve the end goal (e.g., shopping) some other way?</i>	Trip elimination - reducing the need to travel	Number of trips made	Level of access required from system
<i>Which destination do I choose, given where I am starting from?</i>	Trip reassignment - altering the choice of destination, given the origin	Number of kilometres traveled	System capacity required to meet peak demands
<i>Do I need to travel during the commuter peak hour, or could I travel during mid-day or evening?</i>	Trip scheduling altering the time of day to travel	Time of trip	System capacity required to meet peak demands
<i>Can I also achieve other objectives on this trip, given where I am going?</i>	Trip linking - altering the singularity of purpose for the trip	Number of trips made	System capacity required to meet peak demands
<i>Do I need to travel by private vehicle, or could I choose another mode?</i>	Modal choice - altering the choice of travel mode	Travel mode	Networks required to meet modal choice
<i>Can someone else complete a trip that requires the use of a private auto?</i>	Trip sharing - increasing the number of people sharing a trip	Number of trips made/ Auto occupancy	System capacity required to meet peak demands

3. Guiding Documents

The guiding principles outlined in the Introduction to this document provide the set of fundamental beliefs that will lead the development of the Halton Region Transportation Master Plan. In addition to these principles, there are several policies and plans reviewed in this section to highlight how each address TDM. The Halton Region Transportation Master Plan conforms to the overall goals and policies related to TDM indicated in these documents.

3.1 The Greater Toronto and Hamilton Area (GTHA) Smart Commute Initiative

The *Smart Commute Initiative* is a public-private partnership in the GTHA set up to manage the demand for transportation through the use of innovative strategies to create more travel choices, offer incentives for shared forms of travel and reduce the dependency on SOV travel. *Smart Commute* was initiated with funding from Transport Canada's Urban Transportation Showcase Program, and since then it has become a program of Metrolinx in partnership with the municipalities in the GTHA. The program's three main goals are to:

- Reduce greenhouse gases and other emissions;
- Reduce the severity and duration of traffic congestion; and
- Enhance accessibility and mobility options.

In order to achieve the program goals, the *Smart Commute Initiative* objectives include:

- Increasing the use of non-single occupant vehicle travel alternatives;
- Maximizing the use of less-congested travel times and travel routes; and
- Reducing trip frequency and distance, and eliminating some trips altogether.

The *Smart Commute Initiative* established a GTHA-wide non-governmental organization, known as the Smart Commute Association. The Smart Commute Association coordinates a range of regional-scale TDM measures and tools and supports the delivery of local initiatives through a number of Transportation Management Associations (TMAs).

TMAs are typically defined as non-profit organizations made up of partners in the private and public sectors aimed at providing sustainable transportation solutions and improved mobility and accessibility in a specific geographic area defined typically by an area of economic activity. TMAs offer a range of regional TDM

measures and tools including initiatives that extend into neighbouring jurisdictions, such as development of marketing and promotion materials for non-auto modes and delivery of the Carpool Zone.

The Carpool Zone is a free online ridematching service that provides potential carpool matches based on origin and destination and other preferences. A workplace-specific Carpool Zone is a service offered to workplaces who are members of a local Smart Commute. This service allows employees from a particular organization to search for those who may live near them, and work in the same building or location. TMA's also exist in York, Durham, Toronto, Peel, Hamilton and Halton.

The TMA assists its members in launching and promoting its own commuter programs and monitors progress. Along with the benefit of an overall reduction in peak period SOVs, these programs help improve a company's accessibility to the labour pool, reduce the need for parking facilities, and reduce absenteeism by encouraging a more sustainable commute.

3.2 Regional Official Plan Amendment 38

The 2009 Halton Region Official Plan Amendment 38 (ROPA 38) does not make specific reference to "transportation demand management". Instead it defines and includes "travel demand management" in its transportation policies. The two terms are interchangeable and as such "transportation demand management" will be used.

TDM is addressed by the following policies in the ROPA 38's Transportation Section in Part III:

172. The objectives of the Region are:

172(4) To improve transportation network efficiency through both travel demand management and transportation supply management strategies.

173. It is the policy of the Region to:

173(12) Develop and implement, in conjunction with the Province, Metrolinx and the Local Municipalities, travel demand management initiatives to reduce travel by single occupant vehicles and to reduce congestion on Halton's transportation network.

The contents of this technical reference conform and contribute to many other policy areas of the Regional Official Plan including:

- Land Use Designations (Part III Land Stewardship Policies)
- Environmental Quality (IV Healthy Communities Policies)
- Economic Development (IV Healthy Communities Policies)

TDM initiatives can support intensification goals in Halton Region which are supported in the *Greenbelt Plan* and the *Provincial Growth Plan*. These plans conserve open space and focus development into certain locations, including intensifying development in select areas. TDM initiatives provide support for transit and active transportation, which may be more appropriate travel modes as the Region seeks to increase development in already urbanized areas. TDM also reduces the amount of prime land consumed for parking purposes.

TDM supports measures to reduce dependence on the SOV, in turn reducing pollution from motor vehicles and improving air quality. It also reduces the need for road infrastructure expansion saving valuable land for more productive uses. TDM provides commuting options and is designed to promote efficient use of the transportation system. These measures in turn help to reduce lost productivity and business expense due to time lost by people or goods on the transportation system.

3.3 Legislative Requirements

The Ministry of Municipal Affairs and Housing released the latest *Provincial Policy Statement* in March 2005. The *Provincial Policy Statement* provides direction on matters of provincial interest related to land use planning and development and promotes a provincial “policy-led” planning system. The latest release concentrated heavily on ensuring that sustainability was well represented and gave the policies more weight in planning activities by requiring “conformance” instead of “consideration”. The policies state that the transportation system and infrastructure should be energy efficient and support the development and plans for public transit and other alternative modes.

The *Provincial Growth Plan (2006)* has set the framework for a shift to a denser and more centralized urban fabric. TDM is recognized as one of the means of achieving sustainability in this type of an urban environment. Accordingly, municipalities are required to develop and implement TDM policies in planning policy documents, to reduce trip distance and time and increase the modal share of alternatives to the automobile.

Metrolinx’s *Regional Transportation Plan (The Big Move)* has been created to achieve a sustainable transportation environment. The Big Move provides the initiatives for a transportation system required to support the growth projections and allocations outlined in the *Provincial Growth Plan*. TDM is identified as one of the ten strategies imperative to achieving the vision, goals and objectives of The Big Move. Priority actions include the establishment of guidelines and model policies to help municipalities develop and implement TDM policies in transportation master plans and the encouragement of private sector employers to implement TDM programs.

4. Current TDM Practices in Halton Region

A wide range of TDM measures and tools are already being employed within Halton Region by a variety of private and public champions. Smart Commute Halton already has a range of programs in place at the Regional and Local Municipalities and employers.

4.1 Smart Commute Halton

The Smart Commute Halton program was launched in June 2006. Since its initiation, the Smart Commute Halton program has seen success in bringing awareness to the Smart Commute Initiative as well as encouraging the use of alternative modes and increasing the carpool modal share. Smart Commute Halton initiatives include:

- Carpool / Ridematching Service;
- Preferential Carpool Parking;
- Emergency Ride Home Program; and
- Other supportive measures.

The program has been expanded to include the Local Municipalities and employers across the Region with varying initiatives.

Many employers and their employees understand and value sustainability and the importance of curbing SOV travel. The sharing of experiences with TDM initiatives and knowledge gained is extremely important in gaining understanding and support for the applications of TDM.

5. Future Directions

This section outlines policy direction for implementation by Halton Region. The initiatives are summarised in the following sections that address:

- Performance indicators; and
- Design guidelines.

5.1 Performance Indicators for TDM

In order to determine if TDM is continuing to reduce SOV travel in Halton Region, there must be a definition of measures by which to gauge or track TDM progress. Measurable results of TDM can be organized into 3 categories;

- Traffic – the amount of vehicles that can be taken off roads and eliminated or redirected to other modes.
- Mobility – the increase in the ease and efficiency of movement by all modes.
- Accessibility – the increase in the ease and efficiency of reaching desired destinations.

As part of the funding arrangement with Metrolinx, goals and targets were set to 2013 for each Smart Commute program in the Greater Toronto Hamilton Area. For Smart Commute Halton, the minimum Performance Targets for employer participation in the program are 18 active employers, and 11,000 commuters (employees).

5.2 TDM in Design Guidelines

Certain spatial elements of TDM programs can be implemented through site and community design guidelines. Site and community design guidelines are implemented by the Local Municipalities in Halton Region. They are presented here for informational purposes. **Table 2** outlines suggested community and site design guidelines. The combination of the community and site design elements of TDM with the policy elements and effective marketing and delivery should achieve the most desirable TDM results. The implementation of a majority of these design policies falls within the responsibility of the Local Municipalities. This table is merely here as a guide for consideration and should not be considered exhaustive.

Table 2 – TDM Supportive Design Policies

<i>Community Design</i>	
Streetscaping	Design streets to be linear parks, with pedestrian amenities, landscaping, and bike lanes
Complete Streets	Design streets where equal consideration is given to the automobile, public transit, cycling, and walking
Transit oriented development	Locate within 400 metres from major transit route (to be determined by local and regional planning studies)
Connectivity	Plan communities in a modified grid formation while discouraging cul-de-sacs
Subdivision design	Design shorter blocks and narrower streets
<i>Site Design</i>	
Building location	Bring buildings closer to the streets
Parking	Provide no more than one parking space for every two workers Provide a minimum of one carpool space for every 100 workers
Cycling Amenities	Provide showers, and lockers in large commercial and employment developments

6. Implementation, Action, and Monitoring

As outlined, the Region has been implementing TDM tools such as the Smart Commute Program. These tools need to continue to be managed, promoted, and most importantly continuously expanded.

A comprehensive set of TDM initiatives need to be implemented to continue to target all influences for reducing SOV travel.

6.1 Business Engagement Plan

The Business Engagement Plan aims to market TDM to local businesses and promote the implementation of TDM measures by providing the necessary tools. It is a response to the recognition that achieving stakeholder buy-in is crucial to the success of region-wide TDM goals. With leadership being provided by the Region through TDM programs such as Smart Commute Halton, it is important to continue to engage the business community in TDM to further the Region's goals of reducing SOV travel.

6.1.1 Business Engagement

Marketing TDM and providing specific examples and success stories in TDM implementation by businesses is critical to the engagement of business in the TDM program.

6.1.2 Marketing TDM

The *Smart Commute Initiative* caters to private local employers. The Smart Commute Association offers a wide array of services to employers including:

- Site assessments and surveys to better understand employee commuting behaviour;
- Carpooling ridematching programs for employers;
- Guidelines for setting up Emergency Ride Home Programs; and
- Promotional events.

Moving forward, Smart Commute Halton needs to increase its presence and breadth of support that it provides for businesses in Halton Region over the next 20 years. In addition to the services outlined above, Smart Commute Halton should explore expanding its services/influence into the following areas:

- Access Management;
- Pedestrian and Bicycle Planning;
- Parking Management and Shared Parking;
- Commute Trip Reduction.
- Shuttle Services;

Ongoing communication between the Region/Smart Commute Halton and targeted businesses is essential so timely response is given to changing travel needs/preference and future opportunities. The younger, and generally more environmentally conscious, generation will be key in changing travel habits to make carpooling, public transit, telework, and active transportation viable options to the SOV. Some specific marketing activities that target businesses are listed below:

- Survey businesses to determine preferences, knowledge, barriers and opportunities for providing TDM services;
- Work with local transit authorities to provide enhanced transit service;
- Personalize marketing campaigns to target businesses and provide them with suitable incentives to try alternatives;
- Provide an opportunity to try alternative modes (i.e. a fixed number of free transit passes for targeted businesses);
- Produce and distribute a Multimodal Access Guide of Halton Region to show how major businesses can be accessed by alternative modes. This electronic information piece will connect an origin and a destination by available modes other than SOV (i.e. transit routes, carpool lanes, bicycle routes, etc);
- Review marketing materials with a marketing specialist; and
- Develop a Program Monitoring and Evaluation Strategy to monitor and evaluate marketing efforts.

For the above to have any significance, the Region needs to ensure that TDM programs are well established before marketing is initiated. Marketing a product that is not established may be counter-productive. An effective practice is to divide target businesses by willingness to use a TDM program (e.g., wouldn't use it, might use it, sometimes use it, often use it) and then catering marketing activities accordingly. It is unrealistic to think that a business whose attitude is "wouldn't use it" would shift into the "often use it" category. Targeting those that are more likely to change is an effective use of resources.

A monitoring plan should be implemented to ensure that TDM marketing is being effective. This includes setting goals to achieve and also measuring the success of achievements. Goals can be based on a variety of parameters. For example, Smart Commute Halton will utilize the Metrolinx goal for employer/employee participants in the program. The initiatives and participants (businesses) need to be measured individually as well to see how successful they have been. With TDM being a relative new concept there may not be enough precedence and experiences available to be able to predict success.

6.1.3 Business Actions for TDM

The Victoria Transport Policy Institute outlined how businesses can implement TDM strategies by their roles as employers. In these roles, businesses often make decisions that affect whether TDM strategies are considered at all, how TDM solutions are evaluated and compared with alternatives, and the quality with which TDM strategies are implemented. Businesses can benefit directly as follows:

- Parking management can reduce parking costs and increase flexibility; and
- Commute Trip Reduction, such as Guaranteed Ride Home, can help recruit and retain employees.

7. Conclusions and Recommendations

The Region has set the foundation for an effective TDM Report by making sustainable trip making a priority. Smart Commute Halton not only serves as the leader in TDM implementation, but also provides valuable support and information for other organizations taking an initiative in TDM. Policies, strategies and standards have been identified to help Halton Region and its Local Municipalities further the development and implementation of TDM. Promotional and marketing activities can be done through the Smart Commute programs, however the implementation of specific standards such as community design standards need to be considered as part of infrastructure implementation.

Moving forward, the Region should continue its efforts furthering TDM initiatives. TDM is most successful when it is comprehensive and has support from related policies. There needs to be complete buy-in at all levels of government, local business, and the public and the measures need to promote all forms of sustainable transportation and address all trip making motivational factors.

Transportation Demand Management recommendations include the following:

- That the Region continue working with the Local Municipalities, Metrolinx, private local employers and other government agencies to promote TDM measures;
- That the Region hire a full-time Transportation Demand Management Co-ordinator to educate, promote and implement region wide TDM initiatives; and
- That a Halton Transportation Management Association (TMA) Working Group be established to promote, educate and implement the Smart Commute program across the Region.

8. References

- Racca, P. David. *Transportation Network Models to Accurately Estimate Transit Level of Service*. University of Delaware.
- Toronto Star. *Commute's True Cost of Family Time*. December 13, 2007.
- Toronto Star. *What to do, as GTA driving times get longer?* January 7, 2010.
- Transportation Tomorrow Survey. *Travel Summary for the Regional Municipality of Halton*. 2006
- Victoria Transport Policy Institute 2009, *TDM 23 – TDM Marketing*: <http://www.vtpi.org/tdm/tdm23.htm>
- Victoria Transport Policy Institute 2009, *TDM 45 – Transit Oriented Development*:
<http://www.vtpi.org/tdm/tdm45.htm>
- Victoria Transport Policy Institute 2009, *TDM 71 – Success Stories*:
<http://www.vtpi.org/tdm/tdm71.htm>
- Victoria Transport Policy Institute 2009, *TDM 72 – Parking Solutions*:
<http://www.vtpi.org/tdm/tdm72.htm>
- Victoria Transport Policy Institute 2009, *TDM 122 – Streetscape Improvements*:
<http://www.vtpi.org/tdm/tdm122.htm>
- Victoria Transport Policy Institute 2009, *TDM 131 – Performance Evaluation*:
<http://www.vtpi.org/tdm/tdm131.htm>
- Victoria Transport Policy Institute 2009, *TDM 201 - Individual Business Actions*:
<http://www.vtpi.org/tdm/tdm201.htm>
- York Region. *Best Practices Review: Sustainable Transportation Programs Across North America*. April 2007
- York Region. *Transportation Master Plan: Appendix P Background Paper on TDM*, May 2009
- York Region. *Transportation Master Plan: Policy Paper #3 Transportation Demand Management and Telecommuting*, October 2000.

Appendix A: Terminology

Travel Reduction Plan	A combination of transportation system and demand management measures targeted at a specific travel market.
Travel Market	A collection or group of trips with similar characteristics being made from a common origin or to a common destination. Travel markets represent the point of potential influence for TSM and TDM programs. Examples include employment areas and/or single employers, residential areas or buildings, schools, and hospitals. Overall travel within Halton Region is a broad, non-specific travel market that should also be considered and targeted.
Transportation System Management (TSM) Initiatives	An umbrella term used to describe initiatives aimed at influencing aspects of the decision to travel based on operational strategies for existing transportation infrastructure. Examples include the implementation of transit priority measures at intersections, the implementation of high occupancy vehicle (HOV) lanes in corridors, and the construction of new sidewalks and/or bicycle lanes. TSM measures are specifically not discussed in this paper, but they are an important complement to TDM initiatives and form half of an effective travel reduction strategy for any given travel market.
Transportation Demand Management (TDM) Initiatives	The application of a range of measures aimed at influencing travel patterns by reducing the amount of travel and shifting travel to non-peak periods or more efficient travel modes. Examples include carpooling, vanpooling, walking, cycling, public transit, alternative work hours and telecommuting.
Program	The term <i>program</i> is used to describe a coordinated group of <i>strategies</i> that, taken together, encompass all TDM or TSM initiatives in the Region.
Strategies	The term <i>strategies</i> describe a group of <i>measures</i> that have a similar goal. For example, TDM strategies have been developed to promote walking and cycling, to reduce commuter peak period travel, and to encourage shorter trips.
Measures	The term <i>measures</i> describe a group of <i>tools</i> that have a similar influence over the factors affecting the decision to travel. Each measure is aimed at one or more of three points of influence: cost of travel, public attitudes, and travel service and/or convenience.
Tools	The term <i>tool</i> describes a specific action that can be taken to implement a TDM measure. TDM tools range in complexity and timing from policy changes (e.g., changes to the federal Income Tax Act) to day-to-day operational changes (e.g., providing free or conveniently-located parking for use by car pools).

Appendix B: Relevant Experience

Ottawa, Ontario

Bruce Timmermans Cycling Awards

This award recognizes organizations and individuals for making outstanding contributions to cycling. The individual award honours an Ottawa resident who proactively and publicly promotes cycling, while the organization award honours an Ottawa organization that contributes to, invests in, and supports cycling as a mode choice.

Portland, Oregon

Portland has created a governance structure that has made TDM implementation efficient and seamless. A regional government of elected officials presides over the City of Portland and its surrounding municipalities. Tri-Met (the Tri-Country Metropolitan Transportation District of Oregon) is the regional transportation authority. These two entities oversee transportation and policy planning activities throughout the greater Portland area and ensure that the local governments are working with a common goal. As a result, several sustainable transportation programs have been implemented to enhance quality of life by providing transportation options, including:

- A creative bicycle and pedestrian program that has implemented over 300 km of bikeways, thousands of bicycle parking spaces, and 5 bicycle stations with permanent clothing storage and shower facilities.
- An Employee Commute Options Program requiring employers in the Portland area with over 50 employees at a single work site to provide commute option incentives such as transit subsidies, telework opportunities, preferential carpool parking spots, and ride matching.
- The Kids on the Move program which familiarizes children with road safety and encourages walking, cycling, and transit as regular modes of transportation.



Bike Box in Portland Source: Bicycleattourney.com

Vancouver, British Columbia

Commuter Car Share

Car sharing allows members to have access to a car without the financial commitments of owning and operating a private automobile. Members of the Co-operative Auto Network have access to 90 vehicles throughout Vancouver (usually in Skytrain Stations). A pilot program has been recommended that provides commuters that live /work near Skytrain stations with shared vehicles.



Reserved car share parking spot, Source: NY Times

U-Pass

A Universal Transit Pass (U-Pass) was implemented for approximately 60,000 students attending the University of British Columbia and Simon Fraser University in 2003. The U-Pass works by providing all students with a transit pass for a semester for a discounted cost that is added into their tuition. The U-Pass cut monthly transit costs from \$67 to \$22 resulting in approximately a 50% increase in university student ridership, transportation cost savings for students of over \$3 million, and \$20 million saved from avoiding parking facility expansions.

U-Passes have been implemented between numerous transit systems and post-secondary institutions in Canada, including the Mississauga Transit and the University of Toronto Mississauga Campus. All transit systems entering into a U-Pass have seen a rise in ridership independent of the price of the U-Pass and have generally expanded or adjusted service to better cater to the students of these institutions.

Calgary, Alberta

TDM Market Review (1999)

Calgary Transit conducted a study to research the potential benefits of implementing TDM on transit. The study included aggressive public consultation including, telephone surveying of residents, surveying of large employers and focus groups. Several municipal initiatives have resulted from this study including a flextime policy for City of Calgary employees.

Alternative Transportation Fairs

Calgary's Alternative Transportation Fairs raise awareness of programs designed to give commuters options to driving alone. The fairs consist of displays of commuter travel choices and their benefits.

Escape the Rush Program

Escape the Rush was created as a public awareness program to promote travel options. Numerous employers have implemented programs to cut peak hour commutes through this program.