



Appendix K

Best Practices Review



DT16-06056

BEST PRACTICES REVIEW

Sustainable Transportation Programs Across North America

TRANSPORTATION MASTER PLAN UPDATE



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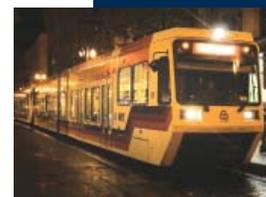
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EXECUTIVE SUMMARY

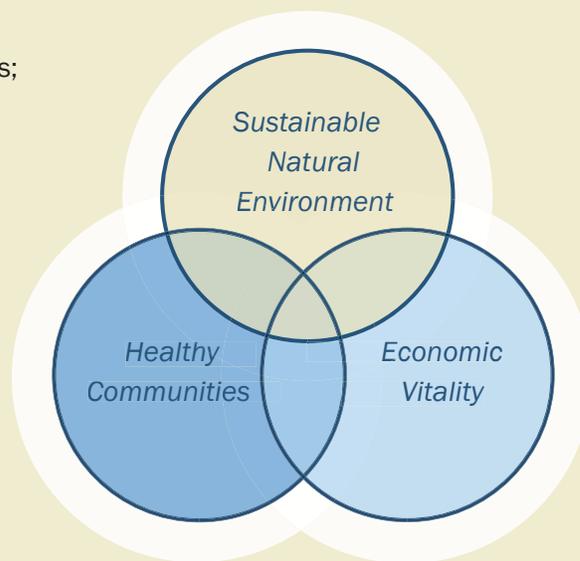
The Regional Municipality of York is updating its 2002 Transportation Master Plan to address new Provincial growth projections and ensure that existing transportation decisions and policies are consistent with recent legislative changes. It is also being undertaken to further address the transportation opportunities and challenges first identified in the Region's 2002 Transportation Master Plan.

Conducting ongoing reviews and updates will ensure that the Master Plan continues to work towards the Region's goals of a sustainable natural environment, economic vitality and healthy communities while providing affordable and efficient transportation systems. With a sustainability focus, the Transportation Master Plan Update will prioritize the Region's short, medium and long-term goals through to 2036.

As part of the need to manage its transportation system efficiently and responsibly, York Region has undertaken this Best Practices review to assess some of the most innovative sustainable transportation initiatives in North America. Calgary, Ottawa, Portland (OR) and Vancouver are recognized leaders in addressing and adopting sustainable transportation initiatives. This Best Practices review is by no means a complete list of sustainable transportation programs established in these four cities. It is, however, the best attempt to capture some of the most significant achievements relative to sustainable transportation practices within each community as they relate to:

- ▶ Major transit services;
- ▶ Sustainable development practices;
- ▶ Supportive financial incentives;
- ▶ Supportive parking policies and programs; and
- ▶ Supportive Transportation Demand Management (TDM) policies and programs.

Planning for a sustainable transportation system must be based on a set of fundamental principles that guide the direction of the Transportation Master Plan. Based on this Best Practices review



York Region Triple Bottom-Line Approach to Sustainability

Economic
Vitality

Healthy
Communities

Natural
Environment

and an examination of other sustainable transportation planning documents, York Region has developed the following draft principles (not presented in priority order):

1. *Integration with Land Use*

Transportation planning will be integrated with land use planning and urban design, to minimize single occupant vehicle trips and longer work trips while encouraging the use of transit, walking and cycling.

2. *Promote Environmental Health*

Transportation systems will make efficient use of land and other natural resources, support efficient land use planning, ensure the preservation of vital habitat and other features of the Terrestrial Natural Heritage System and minimize air quality impacts.

3. *Mobility and Access*

Everyone is entitled to reasonable access to all places, goods and services in York Region. This includes people with physical disabilities, low incomes and the elderly.

4. *Put Sustainable Transportation Modes First*

The Region and its municipalities will plan for reliable, frequent and seamless public transit; create a functional and attractive street network that supports walking, cycling and community interaction; and support these goals through land use planning and urban design.

5. *Transportation Demand Management*

The Region will pro-actively manage demands to minimize the use of single occupant vehicles while supporting alternative transportation modes.

6. *Transportation Supply Management*

The Region will manage the supply and operation of its transportation system so as to minimize the need for roadway expansion.

7. *Goods Movement*

The movement of goods should be safe, efficient and flexible and will minimize the use of non-renewable resources.

Economic
Vitality

Healthy
Communities

Natural
Environment

8. *Fuller Cost Accounting*

Transportation costs will be borne on an equitable basis.

9. *Performance Measurement*

The Region will enhance performance measures and a reporting framework to fairly evaluate the progress of the Transportation Master Plan.

10. *Communications*

Innovative consultation programs will be utilized regularly to more meaningfully engage the public and stakeholder groups in the transportation planning process.

11. *Annual Updates*

The Region will regularly review (annually or bi-annually) the Transportation Master Plan with major reviews every five-to-ten years.

12. *Funding*

The Region must ensure that all sustainable transportation programs and initiatives are properly supported and financially viable over the long term.

As part of this report, a general comparison of the key sustainable transportation programs in place or being planned for each community, including York Region, is provided. Taken further, those sustainable initiatives in each community (or elements of them) that may have application in York Region have been identified. That is not to say that the programs, policies and initiatives implemented in the four communities guarantees similar success in York Region. But based on an assessment of the 2002 Transportation Master Plan and the current state of the Region's sustainable policies, it is recommended that the following initiatives be considered further by the Region for short to medium-term application to increase support for sustainable transportation planning efforts.

Economic
Vitality

Healthy
Communities

Natural
Environment

Sustainable Transportation Initiatives for Consideration	Potential Time Frame
Develop a Transit Oriented Development Best Practices Handbook to be used as an information resource for the public, municipalities, developers, planners, etc.	1-2 years
Designate Markham Town Centre, Beaver Creek/Commerce Valley and other major activity centres as transit “fare free zones”	1-2 years
Encourage all municipalities in the Region to adopt an anti-idling by-law	1-2 years
Actively support regional efforts, through the Greater Toronto Transportation Authority, to reduce congestion and promote sustainable transportation planning	1-2 years
Actively work with municipalities to ensure that all developments within urbanized areas include sidewalks and are both bicycle and transit supportive in design by adopting specific guidelines and identifying potential funding sources.	1-2 years
Actively encourage the Province and the federal government to provide more funding for transit	1-2 years
Develop a marketing campaign to promote sustainable transportation services to school-aged children, university students and the general public	1-2 years
Explore additional locations for commuter car share opportunities (GO stations, park-and-ride lots, etc.)	1-2 years
Work with municipalities to implement transit supportive site design guidelines	1-2 years
Develop a regional parking strategy with area municipalities	1-2 years
Encourage municipalities to concentrate new employment opportunities within 200 metres of transit stops	1-2 years
Require transit stops be generally no more than 500 metres for 90% of the residents and no more than 200 metres for 50% of the residents	1-2 years
Encourage all transit facilities to be LEED Canada certified	1-2 years
Explore operating community shuttles or minibuses to provide transit service between neighbourhoods and transit stations	1-2 years
Equip the entire YRT fleet with bicycle racks	2-5 years
Identify regional arterials suitable for High Occupancy Vehicle (HOV) Lanes and Reserved Bus Lanes (RBL) and implement these measures where appropriate for all road widening initiatives and also as a retrofit for existing arterials	2-5 years
Expand the existing discounted employee transit pass program	2-5 years
Work with academic institutions to initiate a discounted university/college student transit pass program	2-5 years
Pursue municipal powers to assess non-residential parking levies and other initiatives aimed at lowering parking standards in municipalities (for example, supporting reduced parking within 600 metres of a rapid transit station)	2-5 years
Initiate steps, with the support of Transportation Management Associations (TMAs), to require large employers in York Region to provide commuter option incentives such as transit subsidies, preferential carpool parking or telecommuting	2-5 years
Develop a framework in which public-private partnerships (PPPs) could fund additional sustainable transportation projects that support alternative modes in York Region	2-5 years

Economic
Vitality

Healthy
Communities

Natural
Environment

Sustainable Transportation Initiatives for Consideration	Potential Time Frame
Identify future transportation projects that could be funded by private-public partnerships (PPPs).	2-5 years
Support a policy that ensures the Region's capital budget for transit and roads is approximately equivalent.	2-5 years
Amend the Development Charges Act to ensure it is more supportive of transit	2-5 years
Convert YRT buses to low emission vehicles	5-10 years

Economic
Vitality

Healthy
Communities

Natural
Environment

Marshall Macklin Monaghan has undertaken a Best Practices review of the experiences in Calgary, Ottawa, Portland (OR) and Vancouver to identify actions, policies and programs that have been implemented to support the goal of sustainable transportation.

The selection of these four cities was made by York Region staff who identified them as leaders in addressing and adopting sustainable transportation initiatives. The analysis included a rigorous Internet search as well as interviews with key practitioners representing the four cities.

This report highlights innovative programs implemented by the four “champions” in sustainable transportation, including:

- ▶ Major Transit Services;
- ▶ Sustainable Development Practices;
- ▶ Supportive Financial Incentives;
- ▶ Supportive Parking Policies and Programs; and
- ▶ Supportive Transportation Demand Management (TDM) Policies and Programs.



York Region has already embarked on several comprehensive initiatives to support the Regional goals of Sustainable Natural Environment, Economic Vitality and Healthy Communities. This Best Practices Review, as well as a separate assessment of York Region's 2002 Transportation Master Plan (TMP), will provide the necessary tools for the Region's TMP Update to answer such questions as:

- ▶ What sustainable transportation policies/programs/initiatives adopted by these "champion" North American cities are innovative or unique?
- ▶ Why did some sustainable transportation programs in these cities succeed while others failed?
- ▶ What policies/programs/initiatives adopted in these cities may further enhance York Region's sustainable transportation program objectives?
- ▶ What policies/programs/initiatives adopted in these cities may be worth assessing further in the Transportation Master Plan Update

Prior to identifying sustainable transportation practices in other North American cities, it is important to define what exactly "sustainable transportation" means. As Chapter 2.0 suggests, "sustainable transportation" implies many things and is difficult to define. Ironically, it is also something that every community wants to achieve.



SUSTAINABLE TRANSPORTATION

A 21st Century Goal to Which Every Community Now Aspires

It is what many communities in North America strives to achieve. And yet, few communities know exactly what Sustainable Transportation is; moreover, those communities that do pursue sustainable transportation policies and initiatives may define it differently than other similar locales.

Sustainable Transportation is thought to have many definitions. Several international organizations accept the definition developed by the *Canadian Centre for Sustainable Transportation* which states that a sustainable transportation system is one that¹:

- ▶ Allows the basic access needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations;
- ▶ Is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy; and
- ▶ Limits emissions and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable

¹ *Defining Sustainable Transportation*, Transport Canada, March 31, 2005.



resources to the sustainable yield level, reuses and recycles its components, and minimizes the use of land and the production of noise. ²

Transport Canada adopted seven strategic challenges to promote sustainable transportation practices “to preserve and strengthen Canada’s transportation system and advance Canadians’ quality of life...[to] provide a framework that addresses the three elements of sustainable transportation – social, economic and environmental.”³ The seven strategies adopted to promote sustainability in Canada as well as in its own practice, include:

- ▶ Encourage Canadians to make more sustainable transportation choices;
- ▶ Enhance innovation and skills development;
- ▶ Increase system efficiency and optimize modal choices;
- ▶ Enhance efficiency of vehicles, fuels and fuelling infrastructure;
- ▶ Improve performance of carriers and operators;
- ▶ Improve decision-making by governments and the transportation sector; and
- ▶ Improve management of Transport Canada operations and lands.

In 1987, the World Commission on Environment and Development (WCED) published a groundbreaking report for the United Nations entitled “Our Common Future”. Also known as the “Brundtland Report” after the Commission’s chairwoman, the report developed guiding principles for sustainable development as it is generally understood today. The Brundtland Report defines sustainability as development that, “meets the needs of the present without compromising the ability of future generations to meet their own needs.”

York Region accepted the Brundtland Report’s definition and addressed it in its own “Triple Bottom-Line” approach to sustainability.

The philosophy behind the “Triple Bottom-Line” approach is that all of York Region’s initiatives should aim to simultaneously create environmental, social and economic benefits and value. This approach, emphasizing transparency, equity, accountability, community involvement as well as monitoring and continuous improvement towards sustainability, is integrated into many of the Region’s transportation initiatives.

Chapter 3.0 highlights York Region’s leadership in sustainable transportation issues and identifies recent initiatives developed by the Region.



² The Centre for Sustainable Transportation at the University of Winnipeg. (<http://cst.uwinnipeg.ca>)

³ *The Sustainable Development Strategy 2004-2006*, Transport Canada, 2004

3.0

YORK REGION

A Leader in Supporting Sustainable Transportation Practices

York Region has undertaken several comprehensive initiatives to support the Regional goals of Sustainable Natural Environment, Economic Vitality and Healthy Communities. Relative to providing a 30-year framework for future transportation decisions, York Region completed its first Transportation Master Plan (TMP) in 2002. The TMP addressed sustainable transportation challenges and strategies that defined the long-term transportation vision and an integrated road and transit network plan that will support sustainable development in York Region through 2031.

In 2006, York Region initiated an update of its TMP that will build on the previous Master Plan. The TMP will also support recent Council initiatives concerning the growth plan for the Greater Golden Horseshoe and the provincial funding required for York Region's infrastructure projects.

The 2002 TMP outlined a rapid transit investment strategy to complement the maturing Regional road system. The update will allow the Region to address future transportation needs in an efficient, effective and integrated manner considering new Provincial initiatives



“York has committed to shift from current suburban transportation standards to sustainable urban standards in the vision for its new official plan ...”

- Transportation Association of Canada, in recognition of York Region receiving TAC's Sustainable Urban Transportation Award in 2002.

and additional growth in the Region. Recent legislation that supports sustainable development practices in the Province and the Region include:

- ▶ **York Region Official Plan, 2005:** The main objective and structure of the Regional Official Plan focuses on interconnecting the three themes of Sustainable Natural Environment, Economic Vitality and Healthy Communities ('Triple Bottom-line Sustainability').
- ▶ **York Region Sustainable Development Initiative, 2005:** York Region proposed a high level work plan for moving the Region to a higher level of sustainability, including the incorporation of a sustainable development theme into the ongoing and future Growth Management work plan.
- ▶ **Planning for Tomorrow, York Region's Growth Management Initiative, 2006:** Initiated in March 2006 and continuing over the next 18 months, Regional Council has begun a process to solicit public and partner input to ensure that growth management decisions are sustainable and meet the needs of current and future communities.
- ▶ **Towards Sustainability in York Region Advisory Group Final Report (June 2006):** The Towards Sustainability in York Region (TSYR) Advisory Group was established to provide advice to York Region on how to make the Official Plan more sustainable, offering recommendations for a Sustainable Infrastructure Strategy.
- ▶ **The 2005 Provincial Policy Statement:** Issued under the *Planning Act*, the Provincial Policy Statement establishes the policy foundation for regulating the development and use of land. The policies that support sustainable development include "...the use of public transit and other alternative transportation modes in and between residential, employment...and other areas where these exist or are to be developed."⁴
- ▶ **Places to Grow Act, 2005 (Ontario Bill 136):** The Act enables the government to plan for population growth, economic expansion and the protection of the environment, agricultural lands and other valuable natural resources in a co-ordinated and strategic manner.
- ▶ **The Greenbelt Act, 2005 (S.O. 2005, Chapter 1):** The Greenbelt Act enables the creation of a Greenbelt Plan to protect about 1.8 million acres of environmentally sensitive and agricultural land in the Golden Horseshoe from urban development and sprawl. A key provision of the Plan is to "*ensure that the development of transportation and infrastructure proceeds in an environmentally sensitive manner.*"⁵
- ▶ **The Growth Plan for the Greater Golden Horseshoe, 2006:** Adopted under the Places to Grow Act, the Growth Plan is a comprehensive, 25-year strategy that sets clear standards for growth and development, while giving local governments the flexibility they need to address local circumstances. Among the key provisions of the Growth Plan is the establishment of an integrated transportation network that will offer



⁴ The Provincial Policy Statement, Section 1.8.1 (b).

⁵ The Greenbelt Act, 2005, Section 5 (j).

more transportation choices for getting from place to place, reducing congestion on provincial roads.

York Region's planning initiatives make it a national leader in promoting sustainable transportation policies. Other communities across North America have followed suit, developing their own groundbreaking sustainable transportation programs.

A Best Practices review of the experiences in Calgary, Ottawa, Portland, and Vancouver, follows. The Best Practices review identifies existing transit services, development practices, parking policies, financial incentives and Transportation Demand Management (TDM) programs developed in these four communities. The Best Practices review will be assessed further to determine the potential opportunities and challenges of implementing similar strategies in York Region.



Key Sustainable Transportation Accomplishments in York Region

Achieving York Region Transit Ridership Growth (10% each year since 2001 amalgamation)

Operating VIVA – the first phase of a Bus Rapid Transit system

Completing an Environmental Assessment for a subway extension and rapid transit service

Adopting Transit Oriented Development Guidelines

Undertaking a Cycling and Pedestrian Master Plan

Developing Transportation Management Associations (TMAs) through the Smart Commute Initiative

Establishing a Transportation Demand Management (TDM) co-ordinator

4.1 General Profile

The City of Calgary is a single tier government that encompasses the vast majority of the urbanized area. The City's 2005 population was over 956,000 within a land area of 722 square kilometres. The City's population is projected to grow to over 1.25 million residents by 2033. Calgary's regional population is projected to exceed 1.55 million. The Calgary region employed over 643,000 residents in 2004. By 2033, regional employment is projected to grow to 870,000 jobs.

4.2 Characteristics of Transit Services

4.2.1 Conventional Bus Service

The Calgary Transit bus service encompasses over 160 routes covering over 4,500 route kilometres. Approximately 1,800 park-and-ride stalls have been strategically developed



"It is projected that Calgary's population will grow to 1.25 million over the next 20 years because of its economic potential, geographic position and desirability as a place to live. In managing future growth, the City has committed to follow 'smart growth' principles in its decision-making processes to ensure its urban form and transportation system are sustainable from an environmental social and economic perspective."

- Light Rail Transit in Calgary, The First 25 Years, April 2006



along mainline bus corridors. The bus fleet is comprised of 300 regular buses, 404 low floor buses and 94 community shuttle vehicles. In the past several years, strong population and job increases in Calgary have resulted in unprecedented growth in Calgary Transit ridership and demand for increased service. Between 2001 and 2005, annual transit ridership increased by nearly 33 percent from 62 to 82 million revenue trips.

4.2.2 Light Rail Transit (LRT)

The City of Calgary started construction of a light rail line in 1978. The C-Train operates 116 light rail vehicles on over 42 kilometres of track. The C-Train serves 36 stations comprising 11,000 park-and-ride stalls. In 2005, weekday boardings averaged 220,000. On average, the three LRT lines carry 130,000 people in, out and through the downtown, about 17,000 in the peak hour alone.

During the past decade, Calgary's population has increased by 23 percent while Calgary Transit's annual ridership increased by nearly double this rate (45 percent). As a result of this rapid growth, existing LRT and bus services are operating near capacity during peak travel periods. To support this growth, the City of Calgary is embarking on a ten year, \$1 billion dollar capital investment program to extend existing LRT lines and expand its LRT and bus fleet.

One of the key policies of the Calgary Transportation Plan is that "The City investment in transit and roads will be approximately equivalent." The proposed capital budget from 2006 to 2015 includes 47 percent funding for roads and 53 percent funding for transit. The approved transit investment strategy includes plans to accelerate completion of the primary LRT network by extending the northeast line in 2007 and the northwest LRT line in 2008. Additional investments are planned to commence expansion of the LRT platforms to accommodate four-car train operation, construct a new LRT maintenance facility and expand the LRT and bus fleets by nearly 40 percent.

4.3 Sustainable Development

Calgary has developed a solid framework that supports sustainable development policies that encourage transit use and transit-supportive land uses.

4.3.1 Calgary Transportation Plan (1995)

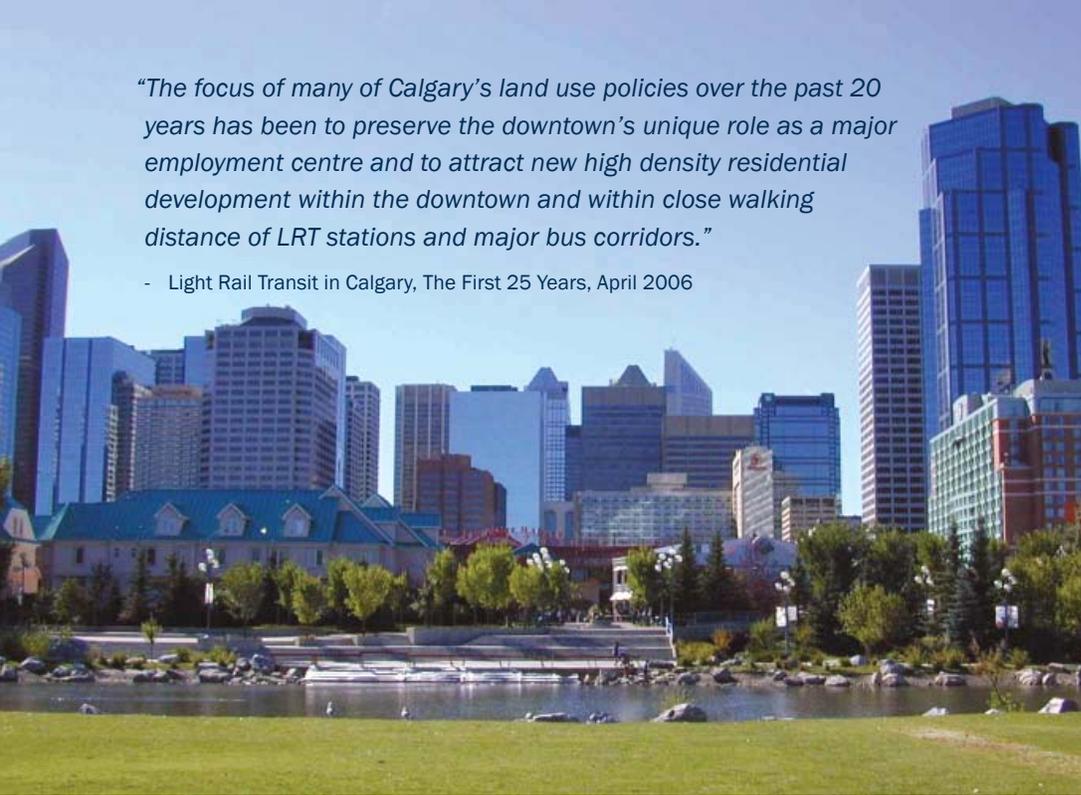
This comprehensive long-range transportation plan was approved by City Council in May 1995.

The Plan places emphasis on the role of public transit and the reduction of vehicle trips. It recognizes that the transit network is closely linked with land use and changes to travel



“The focus of many of Calgary’s land use policies over the past 20 years has been to preserve the downtown’s unique role as a major employment centre and to attract new high density residential development within the downtown and within close walking distance of LRT stations and major bus corridors.”

- Light Rail Transit in Calgary, The First 25 Years, April 2006



behaviour, and that effective land use planning and design are essential to making transit work. One of the key objectives is to increase the number of jobs located close to where people live.

The Calgary Transportation Plan (2005) included a major review of the 1995 Plan. It began in February 2004 with a public survey to determine if there were any changes in Calgarians’ transportation priorities. The results indicated Calgarians continue to generally support the vision and land use strategy of the 1995 Calgary Transportation Plan. Part two of the Plan update process will include reviewing the vision and overall plan to ensure it aligns with the City’s 100 year-vision.

4.3.2 Sustainable Suburbs Study (1995)

This study provides a framework for moving towards more sustainable forms of development in the suburbs. The recommended approach is to move away from largely single-purpose low-density residential areas to communities designed along the lines of mixed-use urban villages.

The objectives of this study were:

- ▶ To be much clearer than in the past relative to the City’s objectives for new communities; and
- ▶ To work more closely with developers, landowners and others involved in planning new communities to achieve a more sustainable community.

The policies are followed by a set of acceptable performance criteria and design guidelines to assist in implementation. The acceptable performance criteria consist of a checklist of performance standards to ensure that the policy is implemented. The design guidelines are suggested ideas for use by stakeholders involved in planning, developing and building communities.

4.3.3 Transit Friendly Design Guide (1995)

The Calgary Transportation Plan identified the need to develop new street design standards in order to encourage transit-supportive development. The Transit Friendly Design Guide contains principles and policies for transit-supportive development and identifies techniques for improved integration of transit into residential and non-residential areas. The basic principles are:

- ▶ Provide appropriate community densities;
- ▶ Minimize walking distance;
- ▶ Provide mixed land uses;
- ▶ Organize density, land use and buildings to benefit from transit;
- ▶ Create a pedestrian friendly environment;
- ▶ Route transit into the community;
- ▶ Reduce transit travel time; and
- ▶ Build quality, user-friendly transit facilities.

The Guide describes relevant transit policies that are used to “evaluate and direct development.” They are broken down into five categories:

- ▶ Land use and community design;
- ▶ Mobility;
- ▶ Integration with other travel modes;
- ▶ Cost/affordability; and
- ▶ Healthy living.

The policies are both a consolidation of policies adopted from previous plans and new policies created for the Transit Friendly Design Guide. As a result of the Guide, new suburbs are required to achieve overall densities between 6 and 8 units per acre.

4.3.4 Transit Oriented Development (TOD) – Best Practices Handbook (January 2004)

The City prepared the Transit Oriented Development – Best Practices Handbook in order to inform Calgarians about TOD policies. This document was prepared by staff following a



request by Council to more actively pursue City Council’s endorsement of *Smart Growth* as a key priority.

The Best Practices Handbook is not a policy document. It is intended as an information resource for Council, developers, builders, planners, urban designers, communities and the general public. Its purpose is to explain TOD, its characteristics, its benefits and challenges, as well as to identify the best practices of TOD throughout North America.

4.3.5 Transit Oriented Development Policy Guidelines (December 2004)

Adopted in December 2004 by Calgary City Council, the Transit Oriented Development Policy Guidelines were developed to follow up on the Best Practices Handbook, and to formalize Council’s intentions for the benefit of developers. The purpose of the TOD Policy Guidelines is:

- ▶ To reaffirm the importance of the LRT system and stations as City-wide assets and the need to optimize the use of this investment through supportive land use policies;
- ▶ To establish broad, City-wide policies and guidelines for the future intensification and development of lands in the vicinity of transit stations;
- ▶ To create certainty in transit station areas for local communities, landowners and developers by clarifying the City’s objectives for land use and development around stations;
- ▶ To provide a framework for evaluating land use, development permits, and/or subdivision applications in transit station areas; and
- ▶ To direct policy development of station area plans for new and existing transit station areas, and the preparation of, and amendments to, Area Redevelopment Plans and Area Structure Plans.

A 600-metre radius around transit stations is used as a starting point to identify projects that must be reviewed based on the TOD Policy Guidelines. Table 4-1 identifies six policy objectives, and related planning guidelines for each objective.

Policy Objectives	TOD Guidelines
Ensure Transit-Supportive Land Uses	Transit-supportive land uses (e.g. high density, pedestrian-oriented, attracting reverse flow on LRT, extended hours of activity, etc.)
	Mix land uses
	Limit non transit-supportive land uses (e.g. auto-oriented, low density, extensive surface parking, etc.)
Increase Density	Optimize density around each station
	Minimize the impacts of density



Policy Objectives	TOD Guidelines
Pedestrian-Oriented Design	Provide quality pedestrian connections
	Provide a compact development form
	Provide integrated public systems (e.g. pedestrian connections, bicycle routes, roads, public open spaces, transit stations, bus stops, etc.)
	Local pedestrian-oriented uses at the ground level
	Human scaled architecture
	Incorporate all-season design
Make Each Station A “Place”	Emphasize important buildings
	Support street and block layout
	Use open space creatively
	Create a focus for the local community
Manage Parking, Bus and Vehicular Traffic	Consider reduced parking requirements
	Place parking in appropriate locations (e.g., located to the rear or side of buildings, minimize vehicle crossings over primary pedestrian routes)
	Develop parking forms that complement the pedestrian nature of the area
	Encourage Transportation Demand Management strategies
	Integrate design for transit circulation and drop-off zones
	Support long term redevelopment (e.g. ability to redevelop surface parking over time)
Plan in context with Local Communities	Work with local communities
	Provide needed community services and amenities
	Ensure built form complements the local context



4.3.6 Summary of Effectiveness of Land Use Planning Tools

Similar to other cities with higher order transit, Calgary did not embark on transit-supportive and transit-oriented development until many years after the opening of the LRT. In many cases, the spontaneous development of employment centres and transit-supportive development that had been envisioned has not occurred.

With the growing recognition of this reality, Calgary’s City Council and staff have taken a series of steps, starting with the adoption of the Calgary Transportation Plan in 1995, to encourage Smart Growth and TOD. These included a series of studies, several formal policy and guideline documents that have been adopted by Council, and the development of a planning process built around these policies and guidelines.

There has been some intensification and successful TOD, but it has not been consistent to date. However, City Council and staff fully endorse transit-supportive policies and a flexible practice that involves developers and the community early in the planning process. The next

step that is currently being undertaken is to set priorities for conducting a more systematic, pro-active pursuit of TOD opportunities.

4.4 Supportive Financial Incentives

The city has benefited from an allocation of provincial gas tax revenues (5¢/litre) to help fund transit projects. These funds have been used for the recent C-Train extension projects. Calgary Transit also receives annual contributions from the reserve fund of the Calgary Parking Authority (CPA). This derives from surplus revenues and payments made by downtown developers as required by the downtown parking by-law (see below). Additionally, the City receives infrastructure funding from the Alberta Municipal Infrastructure Program (AMIP). AMIP funds are intended to assist municipalities in reducing the backlog of necessary capital municipal infrastructure projects that have been deferred, delayed, or are beyond the municipality's current funding abilities. The new funding provided under AMIP is intended to supplement the municipalities "normal" capital infrastructure spending. Only capital project costs, including transit projects, are eligible.



4.5 Supportive Parking Policies and Programs

Calgary's transportation policies are designed to achieve a modal split to accommodate 50 percent of downtown work travel by LRT and bus services in the long-term. A key element of this policy is the gradual reduction in the availability of long term parking relative to downtown growth.

The current Calgary Land Use By-law requirements for office buildings specify one parking stall per 1,500 square feet of development for the downtown core area. However, the by-law also requires that only 50% of this requirement can actually be built on site. Funding for the remaining 50% of parking spaces required for the development must be transferred to a reserve fund managed by the Calgary Parking Authority (CPA). This cash-in-lieu program used the additional funds to construct parking structures in designated corridors on the periphery of the downtown core. These structures are connected to the office and retail core by an extensive, elevated walkway system known locally as the *Plus 15* network. The results of this program diminished the incentive for auto use by limiting on-site parking. At the same time, the CPA is able to contribute regularly to Calgary Transit because of surpluses in the reserve fund.

The City's Transit Oriented Development Policy Guidelines outline specific standards to manage parking around existing transit stations or other potential station areas where development will occur. The Guidelines recommend that the reduction of standard parking

requirements should be strongly considered in TOD station areas. Other recommendations include:

- ▶ A reduction in the number of required parking stalls should be considered in TOD station areas;
- ▶ In addition to proximity to a transit station, the relaxation of parking standards should be considered when a site “earns” further locational/parking management benefits, such as shared parking, proximity to park-and-rides, on-street parking within TOD station areas and long-term bicycle parking; and
- ▶ A cash-in-lieu policy for parking in TOD areas should be considered as part of a parking management strategy for a station area.

4.6 Supportive TDM Policies and Programs

Calgary has developed several strategies and programs to enhance sustainable development practices in the region.

4.6.1 TDM Market Review (1999)

Calgary Transit conducted a study in 1998-1999 to assess the potential application and benefits of TDM. The study included focus groups, a survey of all employers with over 500 employees and a telephone survey of City residents. A report, entitled “Managing Transportation Demand in Calgary: TDM Market Review” presented the findings from these various efforts. Several municipal initiatives resulted from this study. In particular, the study led to the formal adoption of flexible hours for City employees and the expansion of peak transit services.

4.6.2 Rideshare Programs

In the spring of 2002, Calgary partnered with *Commuter Connections* to develop, implement and promote an Internet-based carpool program for the Calgary area. This Web-based ride matching service (www.carpool.ca) reached a milestone in January 2005 with over 2,000 active participants.

The City recently established its first Park’n’Pool site in the parking lot of a local co-op. Park’n’Pool sites are parking areas set up in neighbouring communities designed to be a meeting place for carpooling and to promote the awareness of Calgary’s carpool program.



4.6.3 Alternative Transportation Fairs

Calgary's Alternative Transportation Fairs raise awareness of programs designed to give commuters options to driving alone. The fairs consist of informative displays on commuter travel choices and their benefits. Topics include walking, cycling, carpooling, transit and flexible work arrangements that allow off-peak travel or eliminate the need to make some work trips.

4.6.4 "Escape the Rush" Program

"Escape the Rush" was created in 1999 as a public awareness campaign to illustrate the advantages of various strategies that encourage travel options. Since its inception, the City has worked with several major employers to identify work arrangement strategies as alternatives to peak hour commutes.

4.6.5 High Occupancy Vehicle (HOV) Lanes

Calgary Transit and Calgary Roads recently opened an HOV Lane on the Centre Street Bridge and adjacent downtown roads. The HOV lane provides priority and travel time advantages for people who travel downtown by transit or by carpool. The Centre Street HOV lane operates in conjunction with the existing reversible lane system that designates three of the four traffic lanes for peak direction travel. The curb lane (southbound in the morning and northbound in the afternoon) is reserved for HOVs. The Centre Street HOV lane also includes a new Traffic Signal Priority (TSP) system to provide transit vehicles with faster and more reliable service by pre-empting traffic signals along the corridor in favour of transit.

4.6.6 Cycling

Calgary's cycling network includes on-street bikeways and regional pathways. Bikeways are defined as on-street facilities reserved for cyclists through the provision of wide curb lanes, designated bike lanes and signed routes. Regional pathways are multi-use facilities for non-motorized recreation and transportation. The City maintains nearly 550 kilometres of pathways and 260 kilometres of on-street bicycle routes. Additional details about Calgary's cycling program include:

- ▶ The City requests that applicants for specific types of new developments provide bicycle parking facilities on a voluntary basis and at their own expense.
- ▶ The City maintains seven Park 'n' Bike sites located five to eight kilometres from downtown Calgary. They feature direct access from major roads and connections to river pathways.



- ▶ In 2002, the City of Calgary launched the *Bicycle Rack Sponsorship Program*. The program installed 160 new, high-quality bicycle racks on key public and private lands in the downtown area. By 2006, the program had 190 racks available.
- ▶ In an effort to make streets more bicycle friendly, the City has embarked on individual programs to: implement wide curb lanes on all new or reconstructed major roadways, design new traffic calming projects to enhance cyclist safety and access, and replace old style catch basin grates with bicycle friendly grates for bikeways with high cyclist volumes.

Bicycles are allowed on C-Train and Calgary Transit routes, although only a limited number of Calgary Transit buses have racks. In addition, Calgary Transit provides 84 bicycle lockers at nine C-Train stations that may be rented for six-month or full-year terms.

4.7 References

- ▶ Calgary Economic Development (www.calgary-promote.com/)
- ▶ Calgary Transit (www.calgarytransit.com)
- ▶ City of Calgary (www.calgary.ca)
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- ▶ *Calgary Transit 20-Year Capital Plan 2006-2025*, Calgary Transit, December 2005
- ▶ *Light Rail Transit in Calgary, The First Twenty-five Years*, John Hubbel, Director of Calgary Transit and Dave Colquhoun, Transit Planning Manager, Calgary Transit, presented at the 2006 Joint International Light Rail Conference, St. Louis, Missouri, April 2006
- ▶ **Guest Interview: Mr. Don Mulligan, Manager of the Calgary Transportation Plan**



5.1 General Profile

The estimated 2006 population of Ottawa is 932,200 covering an area of 2,797 square kilometres. In 2001, the new City of Ottawa was created with the amalgamation of the Region of Ottawa-Carleton and 11 local municipalities. Under this new union, Ottawa's area is almost 92 percent rural. Ottawa's population is projected to grow to nearly 1.2 million residents by 2021.

Ottawa 20/20 represents the blueprint for Ottawa's long-term growth, and identifies the essentials of sustainable development. It is the result of a dynamic process where residents and City staff collaborated to develop a shared vision for the new City. Ottawa 20/20 is the grandchild of the 1974 Official Plan, whose groundbreaking transportation policies led to the development of mixed-use planning, transit oriented development and rapid transit service. The Ottawa 20/20 initiative began with the Smart Growth Summit held in 2001. The summit examined the concept of Smart Growth and how it could be applied to Ottawa. It also



"The vision that has emerged... is one of a more compact, efficient, equitable, affordable and environmentally healthy city, one that provides a high quality of life for its citizens and offers a range of lifestyle and travel choices."

- Ottawa 20/20

explored future challenges, including transportation, economic growth, affordable housing, arts and culture, plus other social needs.

Ottawa City Council initiated the *Ottawa 20/20* process shortly thereafter. To guide the planning activities that followed this process, they established a set of principles that include:

- ▶ A Caring and Inclusive City;
- ▶ A Creative City Rich in Heritage, Unique in Identity;
- ▶ A Green and Environmentally-Sensitive City;
- ▶ A City of Distinct, Liveable Communities;
- ▶ An Innovative City Where Prosperity is Shared Among All;
- ▶ A Responsible and Responsive City; and
- ▶ A Healthy and Active City.

The *Ottawa 20/20* vision guides over 20 individual plans that have been developed to address specific needs of the community. The City's Official Plan and Transportation Master Plan, two such documents that reflect the principles of *Ottawa 20/20*, will be explored in greater detail in this Best Practices review.

The vision that has emerged from the consultations is one of a more compact, efficient, equitable, affordable, and environmentally healthy city, providing a high quality of life for its citizens and offers a range of lifestyle and travel choices.

5.2 Characteristics of Transit Services

OC Transpo is the primary public transit carrier in the City of Ottawa. Ottawa City Council establishes transit policies and guides the implementation of service. Shortly after the amalgamation, transit service began operating in both urban and rural communities. Some OC Transpo routes also operate to downtown Gatineau, Quebec. A detailed summary of OC Transpo service follows.

5.2.1 Conventional Bus Service

OC Transpo operates a fleet of 911 buses operating on 225 routes (including school routes). It served nearly 89.6 million passengers in 2005— or 343,000 people every weekday. Other characteristics of its bus service include:

- ▶ Accessible low-floor buses (524) account for over 57% of the entire fleet;
- ▶ Nearly one-third of all buses are equipped with bicycle racks;



- ▶ Transit service is provided to 20 free park-and-ride stations in urban and rural areas comprising over 5,200 spaces; and
- ▶ Transit service also operates for over 60 elementary schools in the Ottawa region.



In 2005, the City of Ottawa received a grant to study the diesel-electric hybrid technology that best meets or exceeds its transit operating needs with a view toward reducing emissions generated by the City-owned fleet of transit buses. The City's Fleet Emissions Reduction Strategy, an integral part of the *Ottawa 20/20* Growth Management Plan, has identified 2007 as the target date to begin hybrid acquisition.



OC Transpo also operates one of North America's most successful bus rapid transit (BRT) systems— the Transitway.

5.2.2 The Transitway

The Transitway is the largest project in the City's transportation history and has been honoured with a Canadian Public Works *Project of the Century* Award. A dedicated system of bus-only roadways, the Transitway provides an exclusive rapid transit link across much of the City's urban area, with service operating 22 hours a day.



Transitway stations are convenient transfer points located next to major shopping centres, employment areas, schools and high-density housing. The Transitway provides a rapid transit connection to the O-Train, Ottawa International Airport, the VIA train station and inter-city bus service.

Following completion of several planning studies (1974-1980), the first sections of the Transitway were opened in December 1983 to the east and west of downtown. New land development, much of which was dormant for many years, developed around station locations and other areas designated as "activity nodes" in the Official Plan. In addition to system operating cost savings that resulted in faster transit service, the developments occurring around the stations brought added tax revenues to the local municipal governments in the area— before the 2001 amalgamation. Noted former OC Transpo General Manager Ian Stacey:

"The lesson from Ottawa-Carleton is that bus transit can compete successfully with the automobile. Its success, however, is a result of a whole series of actions, not just the result of a single, major program."

5.2.3 The O-Train

The O-Train operates along an eight-kilometre track serving five stations, including the Carleton University campus. The O-Train is fully integrated with bus service and the Transitway for seamless travel between systems and increased commuting options. Nearly 9,000 passengers per weekday rode O-Train vehicles in October 2004, exceeding earlier projections.

In 2003, the O-Train won the national FCM-CH2M Hill Sustainable Community Award for excellence in municipal service delivery that advances sustainable community development.

As a result of the O-Train's success, an LRT network was planned and constructed along key corridors throughout Ottawa. The first section of the new light rail transit system was to be operational in 2009 and include service to downtown Ottawa, the Airport and an east-west connection. The O-Train's diesel technology was also to be replaced with electric light rail technology to provide even more environmental benefits to the Ottawa community.

In December 2006, the Ottawa City Council voted to terminate the first planned LRT expansion (the North South Light Rail Transit Project) after the necessary federal funding and property acquisition conditions set out in the original Project Agreement between the City of Ottawa and the Ottawa LRT Corporation were not met. The Project Agreement was conditional on matching contributions by both the federal and provincial governments.

According to one Ottawa City Councillor, due to the loss of light rail, 400 buses that would have been off the downtown streets will still be on, resulting in 131,000 tonnes of emissions a year that would have been eliminated by electric light rail. Additionally, the LRT project would have pumped roughly \$1.2 billion into the regional economy. The Conference Board of Canada released a report in early 2007 which said Ottawa's economy would grow half a per cent slower because of the loss of the LRT.

5.3 Sustainable Development Practices

Ottawa 20/20 is the region's growth management strategy that guides the direction of short and long-term policies incorporated in the Official Plan, Human Services Plan, Arts and Heritage Plan, Economic Strategy and Environmental Strategy. A description of the sustainable development policies contained within the Official Plan as well as City's Transportation Master Plan is provided below.

5.3.1 Ottawa Official Plan

Ottawa's Official Plan developed a broad strategy to meet the challenges of managing growth in ways that support sustainable development or "livable communities and healthy



environments.” This means that growth will be compact and directed towards key locations with mixed uses – locations that are easily accessible by transit and that encourage walking.

Among the key strategies envisioned by the Official Plan that support sustainable development and transportation policies include:

- ▶ Managing growth in urban areas where services already exist or where they can be provided efficiently;
- ▶ Directing growth to urban areas where it can be accommodated in compact and mixed-use developments, and served with quality transit, walking and cycling facilities;
- ▶ Providing a transportation system that emphasizes transit, walking and cycling through policies that protect air quality, forests, wetlands and other natural environment areas; and
- ▶ Focusing attention on high quality design to help create attractive communities where buildings, open space and transportation work well together.

Ottawa’s 1974 Official Plan was groundbreaking. With public sentiment indicating that residents preferred improvements to transit than more roads, a two-pronged approach to public transit was established. The Official Plan encouraged both an operational improvement program and the development of rapid transit. Relative to the former, regular service increased while a significant amount of express service was added. Bus priority measures were also implemented, including:

- ▶ Reserved bus lanes on two streets;
- ▶ Exclusive transit terminals in almost every regional suburban shopping centre;
- ▶ Flexible hours in downtown Ottawa to help reduce peak loadings on express bus routes; and
- ▶ Automated passenger systems monitored by a main computerized control centre

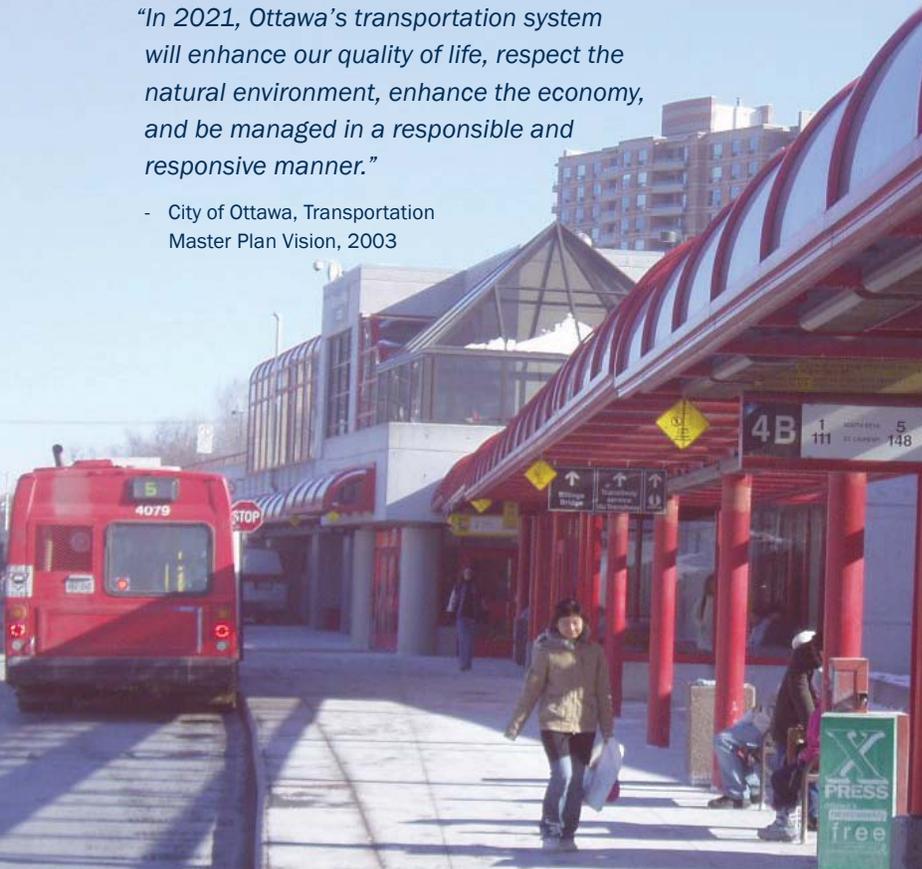
Conditions relating to transit services were also included in the Official Plan so that transit would efficiently serve the most people. For example, higher density land uses were recommended to locate close to planned routes and bus stops. The Official Plan also required public transit service to locate within 400 metres of every resident. Relative to development staging, the Official Plan recognized the need to avoid having small isolated pockets of development far from transit service, even though it may be the most desirable location for the developer.

The 1974 Official Plan also encouraged a rapid transit concept that was based on corridors radiating to and from downtown. During 1975 and 1976, the Ottawa Regional Council considered several strategies to provide rapid transit services. Ultimately, the Council adopted the “outside-in” strategy through which rapid transit lines would be built outside the downtown first, thereby delaying construction of the expensive downtown portion for as



“In 2021, Ottawa’s transportation system will enhance our quality of life, respect the natural environment, enhance the economy, and be managed in a responsible and responsive manner.”

- City of Ottawa, Transportation Master Plan Vision, 2003



long as possible. Following both the selection of a technology (busway) and routes nearly five years later, the Official Plan was amended to contain a schedule of land use, major roads and rapid transit.

5.3.2 Ottawa Transportation Master Plan

The Transportation Master Plan (TMP) is directly linked to the Official Plan and will guide the City of Ottawa over the next two decades as it strives to manage growing transportation demand in ways that reflect the *Ottawa 20/20* principles. It identifies the transportation facilities and services that the City intends to put in place by 2021 to meet the travel needs of residents and businesses, and to support the development patterns identified in the Official Plan.

In support of sustainable development and transportation policies identified in *Ottawa 20/20*, the TMP set an ambitious transit modal split objective for 2021 of carrying 30% of motorized person-trips in the afternoon peak hour, a rate nearly double the current level. The TMP also established bold objectives for walking and cycling (2021 modal splits of 10% and 3% during peak hours, respectively).

Other policies identified in the TMP that encourage sustainable development practices include:

- ▶ **Land Use Planning:** The City will shape development patterns by encouraging compact developments with a mix of uses, and by requiring supportive community and site design practices;
- ▶ **Transportation Demand Management:** The City will develop a Transportation Demand Management Strategy that uses education, promotion and incentives to make alternatives to driving more attractive;
- ▶ **Transportation Supply Management:** The City will maximize the efficiency and people-moving capacity of existing systems, in order to reduce the need for new infrastructure and services, achieve modal shift objectives, minimize the costs of congestion, and preserve public health; and
- ▶ **New Infrastructure and Services:** The City will add infrastructure and services that are required to encourage desired modal shifts, prevent unacceptable congestion and delay, and minimize neighbourhood traffic infiltration and air pollution.



5.4 Supportive Financial Incentives

The TMP recognized that transit faces several areas of competitive disadvantage in Ottawa related to the price of travel. Free parking, especially at workplaces, was considered the most significant.

The Transportation Master Plan acknowledged that the City has virtually no ability to influence the provision of free parking, but will pursue the required authority, possibly through the power to impose a levy on non-residential parking spaces as is being considered in Quebec. The City will also urge the federal government to enforce the taxability of employer-provided parking benefits, and to make employer-provided transit benefits tax-exempt. The City will also consider whether transit incentives such as a fare-free zone would help to achieve key objectives. Finally, the City will explore the use of financial incentives to promote residential development within mixed-use projects.

5.5 Supportive Parking Policies and Programs

Both *Ottawa 20/20* and the Official Plan identify mixed-use centres as one of the primary features of its future growth plan. Mixed-use centres, similar to TODs, are compact developments that are constructed around rapid transit stations; encompass a mix of residential and commercial



activities; and encourage bicycle and pedestrian use. Mixed-use centres are sometimes referred to as a “city within a city”.

The availability and price of parking are major elements of how these mixed-use centres are developed and how successfully they can function. The parking strategies established in the Official Plan to complement mixed-use centres, include:

- ▶ The adoption of minimum and maximum parking requirements for developments within 600 metres of a rapid-transit station;
- ▶ The potential for shared parking arrangements among uses that peak at different time periods;
- ▶ The potential for providing structured public parking by the City alone or in partnership with others in order to reduce the amount of land provided for surface parking by individual land uses, thereby freeing up additional land for development;
- ▶ The opportunities for and means available to develop in a manner that will take advantage of air rights over the rapid-transit network, including park-and-ride lots; and
- ▶ An investigation of the potential for the sharing of park-and-ride lots with other nearby uses.

Other parking policies that support intensification and promote sustainable development efforts include:

- ▶ Establishing centralized parking lots within a reasonable walking distance of multiple destinations, where required;
- ▶ Considering the reduction of parking requirements for new developments where transit service is adjacent to or can be incorporated into a development, or where walking and/or cycling have high modal shares; and
- ▶ Supporting efforts to allow the City to secure sustainable transportation system funding by imposing annual levies on non-residential parking spaces.

5.6 Supportive TDM Policies and Programs

TDM strategies that are currently in place to encourage more sustainable transportation choices and environmentally responsible behaviour include:

5.6.1 Active and Safe Routes to School

Supported by the City of Ottawa, this international program supports reducing obesity rates in school children and exploring safer, more active ways to travel to school or other destinations.



5.6.2 The Bruce Timmermans Cycling Awards

The *Bruce Timmermans Cycling Awards* recognize individuals and organizations that make outstanding contributions to the encouragement of cycling. The individual award honours one Ottawa resident who proactively and publicly promotes cycling in the City. The organizational award honours the contributions or investments of one business, organization, government or other entity that promotes cycling as an alternative mode of transportation.



5.6.3 ECOPASS

The OC Transpo ECOPASS offers up to a 15% yearly saving on transit passes. The ECOPASS program began in 2000 and had more than 60 participating business and over 6,500 subscribers. In late 2004, the ECOPASS, was made available to all Government of Canada employees living in Ottawa. With the Federal Government coming on board, the number of subscribers was projected to rise to 25,000.

5.6.4 EnviroCentre

EnviroCentre is a non-profit organization in Ottawa that delivers energy-efficiency programs to reduce air pollution. In 2005, EnviroCentre received funding to help formulate a strategy aimed at developing Canada's first Transportation Management Association (TMA) for Ottawa's Byward Market area, which features entertainment, tourist and retail establishments.

5.6.5 TravelWise Program

TravelWise works with local employers, schools, community groups and the general public to offer travel options as an alternative to driving alone. The program also encourages non-travel options such as teleworking and compressed work weeks, together with a shift in the times during which commuters travel to and from work to a period outside of normal rush hours.

5.6.6 Vehicle Anti-idling Campaign

The City of Ottawa's Anti-Idling campaign discourages unnecessary motor vehicle idling. This applies to both the City's fleet and private vehicles operating within the community. In December 2004, a new noise by-law was created to include a section on idling motor vehicles that places a five minute limit on the amount of time a vehicle can idle.

5.6.7 Transportation Master Plan Guidelines

Ottawa's Transportation Master Plan identifies several policies to enhance the City's existing transportation demand management (TDM) initiatives by:

- ▶ Developing a comprehensive TDM Strategy that will establish long-term objectives and opportunities, set priorities for short-term action, and outline a framework for monitoring progress;
- ▶ Adopting a "leadership by example" role by improving and promoting the services and facilities available to employees for commuting and business travel options;
- ▶ Integrating TDM with public health, recreation and environmental programs;
- ▶ Helping developers reduce development costs and improve marketability through TDM, and encouraging them to include TDM-supportive programs and infrastructure such as on-site bicycle parking, shower and change facilities and preferential carpool parking; and
- ▶ Working with primary and secondary schools, universities and colleges to make walking, cycling, transit and ridesharing more attractive through initiatives such as the universal student pass program.



5.7 References

- ▶ *Bus Technology as Rapid Transit in Ottawa-Carleton, Ian Stacey, Transit, Land Use and Urban Form, 1988.*
- ▶ City of Ottawa (www.city.ottawa.on.ca)
- ▶ EnviroCentre (www.envirocentre.ca)
- ▶ OC Transpo (www.octranspo.com)
- ▶ *Ottawa 20/20*
- ▶ *Ottawa Official Plan*
- ▶ *Ottawa Transportation Master Plan*
- ▶ Ottawa Start (www.ottawastart.com)
- ▶ Statistics Canada (www.statscan.ca)
- ▶ *The Tyee*

6.1 General Profile

Portland had an estimated 2005 population of 556,370 covering an area of nearly 145 square miles (375 km²) in northwestern Oregon. The Portland Metropolitan Area population includes nearly 2.1 million residents that encompass five Oregon counties and one county in the State of Washington. The population is projected to grow to about 2.35 million residents by 2020. The City of Portland is a “home rule” charter city, and is the last city in the United States with a “commission style” of government.

“Metro” is the directly elected regional government that serves the residents of the Portland Metropolitan Area. Metro is responsible for regional level infrastructure, transportation and planning. For example, the Metro 2040 Growth Concept defines regional growth and development in the Portland metropolitan region. Metro also develops and updates the Regional Transportation Plan every four years, setting the direction for regional investments through a mix of transportation options, including roadways, light rail, freight, transit and bicycles (similar to the York Region TMP).



“Portland’s quality of life and active citizenry help make it the #1 city on our list. Public transportation, including free transit downtown, is excellent, and mixed-use development in downtown’s Pearl District is an urban model for cities across the nation.

- 2006 SustainLane Ranking of Sustainable Cities

6.2 Characteristics of Transit Services

The Tri-County Metropolitan Transportation District (“TriMet”) provides transit service to greater Portland. TriMet is a national leader in providing public transportation, carrying more people than any other American transit system of its size. Ridership on buses and light rail transit has increased for 17 consecutive years. TriMet’s LRT system and buses combined to eliminate 199,300 daily car trips — or 62.5 million trips each year. This has contributed to the elimination of nearly 4.2 tons of smog-producing pollutants each day.

6.2.1 Conventional Bus Service

TriMet operates 93 bus lines including many serving its LRT system (“MAX”), streetcar and major transit centres. Among the features of TriMet’s bus service include:

- ▶ 611 buses, including 321 low-floor buses;
- ▶ 18 transit centres where buses and LRT meet;
- ▶ 21 free park-and-ride lots totaling over 8,000 parking spaces;
- ▶ Free bus rides within a 330-square-block area of downtown Portland (“Fareless Square”);
- ▶ “Transit Tracker” real-time arrival information for all 7,700 bus stops; and
- ▶ Two diesel-electric hybrid buses that are currently being tested to confirm if they are capable of reducing emissions by 75% and improving fuel efficiency.

In fiscal year 2005, 64 million residents and visitors boarded TriMet buses; nearly 210,000 people board TriMet buses every day.

6.2.2 Light Rail Transit Service

Tri-Met also operates the 44-mile, 64 station MAX LRT system. MAX encompasses four lines with service extending to the Portland International Airport — one of only nine systems in the United States providing direct service to a major airport. TriMet will add a fifth MAX line to Portland State University in 2009. In fiscal year 2005, 31.9 million residents and visitors boarded MAX vehicles; nearly 97,000 people board MAX vehicles daily.

MAX carries 26% of afternoon rush hour commuters from the downtown along the major east-west freeway corridors. Most of its riders (70%) are choice riders; that is, they have a vehicle available or choose not to own a vehicle so that they can ride TriMet. TriMet ridership has outpaced population growth and daily vehicle miles travelled for more than a decade.

The MAX system operates primarily in exclusive rights-of-way except for some sections in the downtown area where it runs in mixed traffic. TriMet planners believe that the introduction of LRT service has been a tangible element in increasing ridership. For example, prior to



the Interstate MAX line, a high-frequency bus route operated with eight-minute headways during peak periods. It was one of TriMet's highest performing routes. When light rail transit replaced the bus service, ridership increased nearly 85% during weekdays and 150% on weekends.

6.2.3 Streetcar Service

The Portland Streetcar was initiated by the City to connect two major redevelopment areas along its waterfront. Portland Streetcar Inc. (PSI), a private non-profit corporation, manages and operates the streetcar that runs from the central part of downtown through the Pearl District, a walkable mixed-use neighbourhood that combines local businesses with renovated historic buildings, including those with a “green” roof, LEED certification, and eco-minded tenants.⁶



The streetcar system operates in mixed-traffic on a six-mile continuous loop. Design tradeoffs were made to better fit the Portland Streetcar into the scale and traffic patterns of the neighbourhoods through which it travels.

The projected ridership target in 2001 indicated 3,500 weekday riders; by the fall of 2005, weekday trips exceeded 9,000 daily passengers.

6.3 Sustainable Development

Portland has a long history of promoting sustainable transportation, transit-oriented development and joint development projects. The general culture of planning in Portland is based on an integrated transportation and planning approach that promotes sustainable development. Portland has a strong history of land use planning developed since the 1970's with the advent of state legislation requiring municipalities to prepare comprehensive land use plans.

Metro's 2040 Growth Concept and its implementation plan are founded on the principles of ensuring a transportation, land use and air quality connection. The 2040 Growth Concept, as well as other tools and techniques, have been instrumental in promoting new development (or redevelopment) integrated with transit services. Because Portland has experienced significant population and economic growth over the last decade, it may be difficult to gauge exactly how much new development occurred that otherwise would not have taken place in the communities currently served by rapid transit service. For example,

⁶ The LEED (Leadership in Energy and Environmental Design) Green Building Rating System is a voluntary, consensus-based American standard for developing high-performance, sustainable buildings.

major redevelopment most likely would have occurred within Portland's Pearl District without new streetcar service given the nature of the development (loft conversion, new ownership housing downtown); however, the Portland Streetcar was the catalyst needed to ignite these redevelopment efforts.

Since 1997 when the original streetcar alignment was identified, over \$2.28 billion has been invested within two blocks of the streetcar alignment. Current estimates of transit induced development suggest the MAX system alone has spawned nearly \$3 billion of investment near light rail transit stations.

Metro, TriMet and Portland's growth management efforts are described in greater detail below.

6.3.1 Metro Initiatives

Metro's sustainable development program advocates the construction of "transit villages" and other projects that concentrate a mix of retail, housing and jobs in areas around regional light-rail systems and other transit lines.

Metro's growth management plan, the 2040 Growth Concept, calls for the protection of farmland and open space. Specifically, the plan limits expansion within an urban growth boundary, and focuses growth in regional or town centres and around transit corridors. These compact mixed-use, mixed-income developments concentrate retail, housing and jobs in urban environments scaled for pedestrians; increase the use of non-auto transportation choices such as taking transit, riding bikes and walking; and decrease regional congestion and air pollution.

Metro is currently updating the region's long-range transportation plan. The update is being conducted as part of Metro's *New Look* regional planning process, and will result in a new 2035 Regional Transportation Plan by November 2007. A goal of this planning effort is to re-tool the current plan to better advance regional policies, public priorities and local efforts to implement the 2040 Growth Concept. The process uses an outcomes-based approach to identify and prioritize transportation investments that are crucial to the region's economy, and that most effectively integrate the land use, economic, environmental and transportation goals embodied in the 2040 Growth Concept.

Metro's TOD Implementation Program operates through a series of cooperative agreements among the region's elected regional government, local jurisdictions and private developers. The primary use of program funds is site acquisition. Property is acquired, planned and reparceled. It is then sold with conditions to private developers for constructing transit-oriented development and/or dedicated to local governments for streets, plazas and other public facilities where appropriate. In many cases the land value is written down to cover the extraordinary development costs required to construct a specific TOD project. In such cases, a "highest and best transit use" appraisal is used to establish the sale price. The program is



the first of its kind in the United States and has been instrumental in helping shape the joint development policies of the Federal Transit Administration.

6.3.2 TriMet Initiatives

TriMet is typically involved through the acquisition of land for the LRT project and the subsequent disposition of surplus property. In several cases, TriMet bought centrally located properties for use as construction staging areas and then made them available for development under the Federal Transit Administration’s Joint Development program. The Joint Development program allows TriMet to dispose of the property at a discount to offset the typically higher cost of inner-city redevelopment. The discount is equal to the net present value of 30 years of transit fares from the new TOD use. The property is disposed of through a Request for Proposal (RFP) process and criteria are established to ensure the proposed project meets various planning and design objectives.

TriMet builds its system around the 2040 Growth Concept and a desire to facilitate development. It works closely with the Metro and local levels of government as well as the Portland development community.

Station area planning has been a key component and a successful program in implementing LRT service. The local municipalities, in conjunction with Metro and Tri-Met, lead the local planning process which includes preparation of market studies, concept plans, new zoning ordinances, design guidelines and interim control measures to prohibit inappropriate development during the planning and construction stage. New zoning ordinances around transit stations typically promote high-density residential development or mixed-use development with a strong residential component. Zoning also contains minimum and maximum densities, maximum parking regulations and prohibits land uses that are not transit supportive.

6.3.3 City of Portland Initiatives

Portland has planned for a compact urban form, and made a conscious decision to “go up, not out” to preserve prime farmland and obtain efficiencies in infrastructure. A key component of the regional planning efforts has been the establishment of an Urban Growth Boundary (UGB) and the desire to focus growth around the public transit system. Portland planners believe the UGB has been important in forcing developers to look at redevelopment opportunities and not just greenfield development.

Flowing from the 2040 plan is a regional Transportation Master Plan with the objective of reducing automobile trips in the regional area. A major component of transportation planning in Portland has been a deliberate policy to not provide new roads to downtown Portland.



6.4 Supportive Financial Incentives

Unlike Ontario, various tax abatement programs have been used in Portland to fund transit projects. *Tax abatement* is an incentive that can be used by cities to encourage the redevelopment of blighted areas by providing real property tax reductions or exemptions. In Portland, tax abatements have been applied to high-density housing or the housing component of mixed-use projects. The developers must demonstrate that public financial assistance is necessary to make the project feasible, and must guarantee that a minimum of 20% of the housing units will be affordable based on a specific criterion. A tax abatement program spans a 10-year period.

The City of Gresham on the eastern terminus of the MAX Blue Line has implemented a tax exemption program to encourage transit-supportive housing and affordable mixed-use projects on vacant or under-utilized sites within the city and within walking distance of transit. Inside Gresham's Vertical Housing Development Zone (VHDZ), a developer of a mixed-use project—one that typically includes housing over retail—may receive a partial property tax abatement ranging from 20 to 80 percent of the building value for a period of 10 years, based on the number of floors of residential units. The percentage of tax abatement gets higher as the building gets higher. As of 2006, 26 projects in the Portland region were funded through the VHDZ program.

The Transit Oriented Development Property Tax Exemption was established to support high density housing and Mixed-Use developments affordable to a broad range of the general public on vacant or underutilized sites along transit corridors whose design and features encourage building occupants to use public transit. The exemptions support TOD projects by reducing operating costs through a ten-year maximum property tax exemption.

Projects that receive a TOD will be exempt from property taxation on the residential improvements for up to ten consecutive years, beginning January 1 of the year immediately following the calendar year in which construction is completed. The exemption applies to the residential portion of a project or to non-residential components that provide public benefits as detailed in the product specific guidelines below. The exemption does not include the value of the land, nor any improvements that do not provide a public benefit.

To be eligible for the TOD Exemption, the site must be located within the boundaries of one of the following transit areas including:

- ▶ Lents Town Center Transit Oriented Areas;
- ▶ Goose Hollow Light Rail Station Area;
- ▶ Hollywood/42nd Avenue Light Rail Station Area;
- ▶ 82nd Avenue Light Rail Station Area;
- ▶ 60th Avenue Light Rail Station Area;



- ▶ Gateway Plan District Light Rail Station Area and Transit Oriented Areas; and
- ▶ Northwest Plan District.

Tax Increment Financing (TIF) has also been used to finance urban renewal projects that include integrated transit services. When the city defines an urban renewal boundary, the county assessor "freezes" the assessed value of real property within the urban renewal district. As the city and others invest in the urban renewal area, property values go up. The property taxes above those that were collected when the values were "frozen" are used to pay for the improvements in the urban renewal area.

Of the \$88.7 million construction cost for the Portland Streetcar, \$19.7 million was funded through a TIF contributed by the Portland Development Commission— the city's urban renewal agency. TIF money was available because the Streetcar project was initiated to connect two major redevelopment areas near downtown that involved contaminated brownfields and vacant industrial land requiring environmental remediation.

Similar to a TIF, the City of Hillsboro's Central Business District formed a Local Improvement District (LID) to fund infrastructure improvements in the heart of its downtown area adjacent to a MAX line. A LID is a temporary property tax increase dedicated to specific improvements. Business owners saw the value of a cohesive downtown retail and commercial district linking the main business district with light rail transit service.

In 2001, the City partnered with Bechtel Enterprises to fund the \$125 million MAX Red Line connecting Beaverton (OR) to the Portland International Airport. This innovative public-private venture used design/build and fast-track construction to extend light rail to the airport sooner than originally planned. No state or federal money was used to fund the project. Bechtel, who contributed over \$28 million for the project, built the extension in exchange for development rights to 120 acres at the airport entrance. In partnership with Trammell Crow, Bechtel is carrying out a transit-oriented development known as Cascade Station. The project is expected to add about 10,000 jobs and \$400 million in hospitality, entertainment, retail and office space by 2015.

On a smaller scale, transportation projects that reduce vehicle miles travelled may qualify for a tax credit. Businesses can get a tax credit for purchasing and installing new or used equipment that allows an employee to telework one or more days per week; employers that subsidize transit passes for employees or provide vehicles for carpooling or van pooling are eligible for a tax credit; and business owners who buy a hybrid vehicle or one that uses alternative fuel may also be eligible for a tax credit.





“There was a time, not too long ago, when the primary function of the City’s Office of Transportation was to build roads.... Things have changed. Funding for new road projects has all but disappeared... Fewer cars mean less pollution and more efficient use of scarce transportation resources.”

- Sustainable Infrastructure Report, City of Portland, December 2001.



6.5 Supportive Parking Policies and Programs

Parking strategies are a key part of Portland’s sustainable development initiatives.

TriMet works closely with the City of Portland and manages the supply and location of parking in the downtown area in order to promote transit use. For several years, Portland placed a “lid” on the total number of downtown parking spaces.

In the downtown area, there are no minimum parking requirements in the zoning regulations, while a maximum parking requirement is specified. Office development, for example, is limited to a maximum of 0.7 spaces per 1,000 square feet of development. Parking space ratios are also linked to transit accessibility with less parking permitted closer to the MAX system.

Metro supports lower parking standards in suburban locations as well as in urban areas. The Metro Framework Plan provides for maximum parking regulations across Metro; however, maximum parking regulations in suburban locations are not as low as in more urban areas within the city. That said, Metro advocates low parking rates in suburban locations recognizing the direct relationship between density and parking availability. When working with developers in suburban areas, Metro suggests developers:

1. Charge for parking;
2. Advocate establishing a car sharing program in suburban lots; and
3. Actively promote an alternative mode of transportation (cycling, TDM, etc.).

TriMet owns and operates free park-and-ride lots along most bus routes and MAX lines. These lots have over 8,200 parking spaces. Many park-and-ride lots have been donated

by religious institutions and businesses that can only be used on weekdays by TriMet passengers, carpools and vanpools. Over time, TriMet anticipates reducing the amount of park-and-ride demand by promoting redevelopment of surface lots for mixed-use developments with some commuter parking provided in structures. The Gateway Regional Center urban renewal project, described above, is one such project that when completed, will include a three-story, 101,000-square-foot medical office building and corporate centre for the Oregon Clinic in the middle of the Gateway Transit Center. The complex will include a three-level, 573-space parking garage to serve both the transit center and office building.

6.6 Supportive TDM Policies and Programs

The City of Portland, other municipal governments, Metro and TriMet have implemented several sustainable transportation programs that enhance the Region's quality of life by providing residents efficient and affordable transportation options, including:

- ▶ A creative bicycle and pedestrian program that has implemented over 200 miles of bikeways, thousands of bicycle parking spaces, five bicycle stations with permanent clothes storage, showers (and whirlpool/steam room/sauna where available) and secure bicycle parking; and a progressive bicycle safety program for area children;
- ▶ The Employee Commute Options (ECO) program requiring employers in the Portland area with more than 50 employees reporting to a single work site to provide commute option incentives including transit subsidies, carpool matching, preferential carpool parking, bicycle programs, compressed work weeks and telecommuting;
- ▶ Car sharing program ("Flexcar") allowing individuals to use a vehicle without the drawbacks of car ownership. Vehicles are located in more than 20 locations in neighbourhoods, downtown and at MAX stations in the suburbs;
- ▶ Transportation Demand Management programs that provide outreach to over 700 employers comprising nearly 250,000 employees in the Portland Metropolitan Area. The TDM program includes rideshare matching services, technical assistance to employers, planning and program assistance for area transportation partnerships and Transportation Management Associations (TMAs);
- ▶ The "Kids on the Move" program designed to familiarize children with road safety and encourage walking, cycling and public transit as regular modes of transportation; and
- ▶ TriMet's public art program integrating historic and cultural art at MAX stations and bus shelters.



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7.1 General Profile

The City of Vancouver's 2005 estimated population was 583,267; its regional population comprising the Vancouver Census Metropolitan Area (CMA) exceeded 2.15 million in 2005. Greater Vancouver's population is expected to increase by about 800,000 residents to approach a total of three million over the next 25 years.

The Greater Vancouver Regional District (GVRD) manages and plans area growth, and also delivers essential services to 21 municipalities and one electoral area that make up the metropolitan area of Greater Vancouver. The GVRD is currently updating the Regional Growth Strategy to address and manage its growth in a way that will adhere to the Sustainable Regional Initiative – the region's adopted sustainability principles.



7.2 Characteristics of Transit Services

In April 1999, responsibility for transit and other regional transportation services was transferred from the province to the Region with the creation of the Greater Vancouver Transportation Authority (GVTA), which operates as TransLink. The provincial legislation that created TransLink, the GVTA, prescribes a governance structure for TransLink. Its primary responsibilities include:

- ▶ Regional transportation planning;
- ▶ Administration of service contracts with subsidiary companies and contractors;
- ▶ Management of capital projects; and
- ▶ Financial management.

Vancouver transit services are provided by wholly owned operating subsidiaries of TransLink or by private contractors. Many of the services link up at major centres to provide seamless travel between destinations. A description of the key transit services follows.

7.2.1 Conventional Bus Service

The Coast Mountain Bus Company offers a wide array of bus services that include:

- ▶ NightBus routes that operate every 30 minutes, seven nights a week, from 2:00 to 4:00 am serving downtown Vancouver;
- ▶ A fleet of 231 zero-emission, hydroelectric-powered trolley buses providing service on 150 routes in the Vancouver region;
- ▶ Community shuttles or minibuses that operate on more local routes connecting neighbourhoods and linking with the regional transit network; and
- ▶ Express Coach routes providing direct, limited-stop regional service to Vancouver.

7.2.2 B-Line Bus Rapid Transit

Operated by the Coast Mountain Bus Company, the B-Line comprises three routes that offer express and limited-stop service to major routes and transfer points in the Vancouver region. B-Line vehicles include global positioning systems and signal priority technologies to deliver more reliable service. B-Line attracts over 60,000 boardings per day, representing 10% of all bus ridership in the region.

7.2.2 SkyTrain

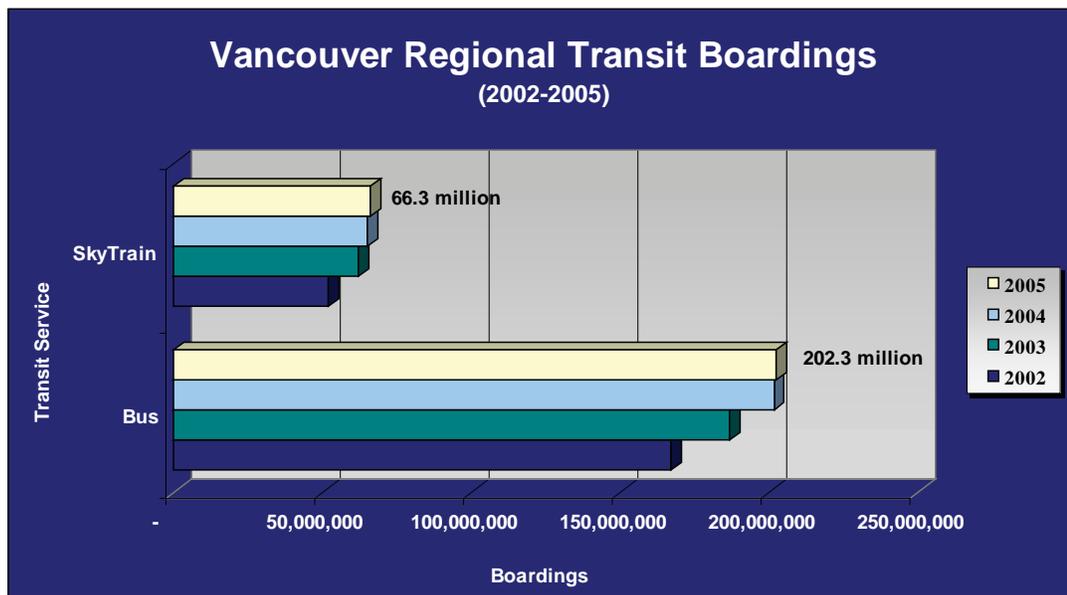
The BC Rapid Transit Company operates the Expo and Millennium SkyTrain lines, the world's longest automated light rapid transit system, connecting downtown Vancouver with the cities of Burnaby, New Westminster and Surrey. SkyTrain moves 200,000 customers daily along 49



kilometres of track using 210 rail cars. The LRT system currently serves 33 stations and will provide the link between two new rapid transit services expected to be operating by 2011.

The Canada Line, a rail-based rapid transit line will open in 2009. The 19.5 kilometre line with 16 stations will link central Richmond, the Vancouver International Airport, and Vancouver to the downtown business district and Waterfront Station. The Canada Line will provide an important expansion to the existing rapid transit network. The TransLink Board approved the Evergreen light rail transit line in principle in late 2004. This line will feature 11 stations over 11 kilometres, linking communities north-east of Vancouver with SkyTrain, West Coast Express and TransLink buses.

Figure 7.1 (below) depicts the transit boardings observed between 2002 and 2005 for both major Vancouver regional transit services.



7.2.3 West Coast Express

West Coast Express Ltd. operates long haul commuter service that runs during peak times and travels over 65 km between Mission and Vancouver. The commuter rail service provides stops at eight regional transit stations, serving over 2.1 million commuters per year. The West Coast Express service is designed around the schedule of commuters coming into the city to work and going home at the end of the business day, so no reverse commute trips are provided.

West Coast Express distinguishes itself from other transit providers by offering a wealth of amenities including: on-board cappuccino bar; upholstered seats; and passenger seating with worktables.



7.3 Sustainable Development

The GVRD has proven to be a national leader in promoting sustainable development—including a key transportation component—over the last decade. A description of programs and initiatives that have distinguished the Vancouver region as a leader in sustainable development are provided below.

7.3.1 Regional Growth Strategy

The GVRD’s regional growth strategy, the Livable Region Strategic Plan (LRSP), which was adopted in 1996, set out four fundamental strategies:

- ▶ Protect the green zone;
- ▶ Build complete communities;
- ▶ Achieve a compact metropolitan region; and
- ▶ Increase transportation choices.

The GVRD is currently reviewing its Regional Growth Strategy to develop a plan to manage growth over the next 25 years. The Review, undertaken under the auspices of the GVRD’s Sustainable Region Initiative, will include sustainability principles as the foundation for the strategy.

7.3.2 Regional Town Centres

One component of the LRSP strategy of “building complete communities” is a transit-supportive land use strategy described as “building a network of centres.” In practice, this meant the delineation of a Metropolitan Core (the Vancouver Central Area) and eight Regional Town Centres across the area:

- ▶ Metrotown (Burnaby);
- ▶ Richmond Centre;
- ▶ Lonsdale (North Vancouver);
- ▶ Downtown New Westminster;
- ▶ Surrey City Centre;
- ▶ Langley Town Centre;
- ▶ Coquitlam Centre; and
- ▶ Maple Ridge Town Centre.

The Metropolitan Core and Regional Town Centres were designated as the region’s focus for high density residential development; employment and office development; and facilities for retail, cultural and community services. While the Regional Town Centres were envisioned



as subregional and regional hubs for both transit and road access, the intent was to create centres that were well served by transit, and also less automobile-dependent.

The policies set out in the LRSP and Transport 2021 have had some success in directing the region's population growth to the Metropolitan Core and Regional Town Centres. Housing growth around Regional Town Centres has contributed to more compact urban areas.

Between 1991 and 2001, the population of the Vancouver CMA grew by 29%, while the population of the Metropolitan Core and the Regional Town Centres collectively grew by 41%. Population growth in these designated growth areas has helped to support the transit system along major transit lines. About 18% of the region's population lives within walking distance of the Metropolitan Core or a Regional Town Centre, but these residents account for 40% of all non single-occupant vehicle work trips (by transit, walking or cycling).

Many of the Regional Town Centres are also key subregional shopping destinations and have good community infrastructure. The strategy of developing Regional Town Centre policies has not been as successful in attracting office development, however. Between 1990 and 2000, about 14 million square feet of office space was added to the regional office market. However, only half of this new office inventory was added in the designated growth centres– 6 million square feet in the Metropolitan Core and 1 million in the eight Regional Town Centres. By contrast, office parks, which are poorly served by transit, grew by just under 7 million square feet. For many of the firms locating in office and business parks, good highway access was considered to be more important than good transit access.

7.3.3 Transport 2021

Transport 2021 is the regional long-range transportation plan, which was developed jointly by the Provincial Ministry of Transportation and Highways and the GVRD. TransLink maintains responsibility for its implementation. The goal of Transport 2021 was to serve and help shape land use patterns in the then proposed Liveable Region Strategy. Transport 2021 identified four main policy levers to direct the transport system toward desired goals, through: (1) land use, (2) demand management, (3) service levels, and (4) transport supply.

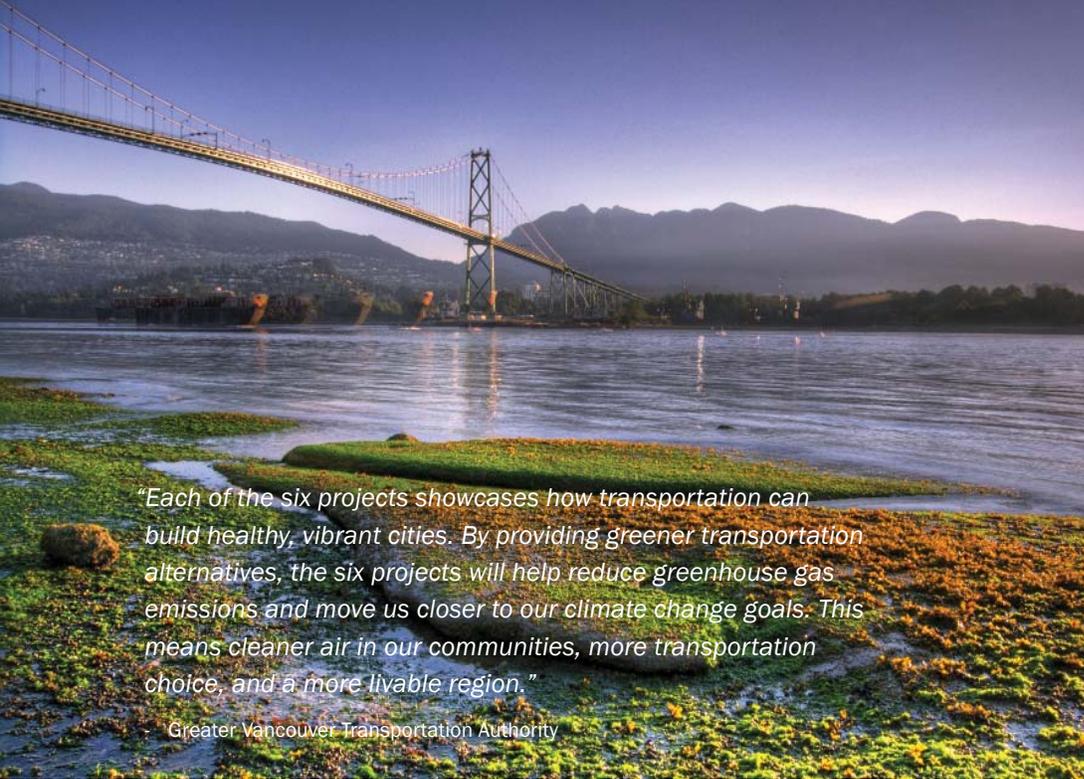
Relative to sustainable development, Transport 2021 recommended providing high quality, fast and frequent transit services linking Regional Town Centres. Additionally, the long-range transportation plan identified rapid transit as a major player in shaping regional growth.

7.3.4 Three-Year Plan and Ten-Year Outlook

TransLink outlined a three-year regional transportation plan that incorporated sustainable transportation initiatives as its primary focus. Among the sustainable development strategies proposed through 2007 include:

- ▶ New regional centre connecting services (including suburb-to-suburb links);





“Each of the six projects showcases how transportation can build healthy, vibrant cities. By providing greener transportation alternatives, the six projects will help reduce greenhouse gas emissions and move us closer to our climate change goals. This means cleaner air in our communities, more transportation choice, and a more livable region.”

Greater Vancouver Transportation Authority



- ▶ Implementation of the Sustainable Regional Showcase for Greater Vancouver that includes: Main Street corridor development, the Central Valley Greenway cycling facility; development of ‘transit villages’ around regional stations, and pilot testing a residence-based trip reduction program providing individualized travel information (see below); and
- ▶ Developing a process, in consultation with municipalities and the GVRD, to define and review major development.

7.3.5 Urban Transportation Showcase Program

The Urban Transportation Showcase Program is a Government of Canada funding program that aims to develop solutions to reduce greenhouse gas emissions caused by transportation in cities. Transport Canada is working in partnership with provinces and municipalities to create a number of transportation “showcases” or pilot projects to demonstrate and evaluate ways for Canada to meet its Kyoto Protocol commitment.

TransLink is managing six Urban Transportation Showcase projects in the Vancouver Region that will achieve the following objectives relating to the 2006 Transportation Plan:

- ▶ The Transit Village projects at regional transit stations will improve the safety and security of the stations and vicinity, increase station passenger serving capacities and ridership, and improve access for cyclists and pedestrians to the station;
- ▶ The Central Valley Greenway regional cycling and pedestrian path project will increase walking and cycling trips;

- ▶ The TravelSmart project for six diverse communities in the region will increase walking, cycling, transit and carpool trips by providing households access to information about travel choices and incentives to take them;
- ▶ The Bus Technology and Alternative Fuels Demonstration project will contribute to reducing greenhouse gas and air pollutant emissions of providing bus service;
- ▶ The Goods Movement Strategy will provide a policy framework for improving the capacity and efficiency of the region’s transportation system for moving goods and reducing congestion; and
- ▶ The Main Street Transit and Pedestrian project will help to increase pedestrian and transit trips, and improve the reliability of transit service in a major travel corridor.



7.4 Supportive Financial Incentives

The incentives to encourage densification around rapid transit lines has largely occurred at the local level through zoning changes. For example, modifications to zoning have included increasing allowable residential densities around SkyTrain stations, allowing residential development above commercial properties or developing comprehensive community plans for areas around SkyTrain stations. At the regional level, the available financial instruments– fuel, parking and property taxes– have largely been used as a means to generate revenue, not to influence development patterns. That has changed somewhat since the implementation of the new parking tax in 2006 (see below).

7.4.1 Fuel Tax

About 40% of TransLink’s revenue comes from a portion of the provincial motor vehicle fuel taxes that are collected by the GVRD. Currently, the fuel tax for the region is 12 cents per litre. The fuel tax appears to have a limited impact on travel demand because at its current rate, fuel taxes are generally perceived as being part of the collective category of “automobile operating costs.” More significant impacts on fuel consumption appear to come from international oil prices and general economic conditions.

Environmentally friendly fuels receive certain tax exemptions to encourage their use. Qualifying alternative fuels are exempt from tax until they reach 3.5% of British Columbia’s motor fuel market. Then, tax rates are based on market share and the fuel’s environmental benefits.

The federal government recently began sharing gas tax revenues – \$5 billion over five years – with cities and communities across Canada. For British Columbia, this initiative is worth over \$635 million over five years. The Greater Vancouver Transit Authority alone received over \$18.4 million as part of the 2006-2007 allotment authorized by the federal

government. Local governments are able to use their gas tax funds for environmentally sustainable infrastructure projects.

7.4.2 Parking Tax

To help fund a significant expansion of roads and transit services in the Greater Vancouver Regional District, TransLink has implemented the parking tax. Effective January 2006, this tax was applied based on the size of parking sites located on non-residential properties throughout the region.

The revenue from the parking tax will help TransLink move forward with \$1.9 billion in transportation improvements over the next three years as identified in TransLink's Three-Year Capital Plan.

7.4.3 Property Tax

The British Columbia Transit Act gives TransLink the authority to levy a property tax to raise operating revenues. This "transit tax" is based upon commercial and residential rates for each \$100,000 of assessed value for the property. In 2005, the residential rate assessed by TransLink rose from 27.52 cents per \$100,000 in assessed value of the property to 47.38 cents. As with parking taxes, TransLink's assessed property tax is largely used for revenue generation. Property taxes are budgeted at \$204 million or about 26 percent of TransLink's total revenue.

7.5 Supportive Parking Policies and Programs

As described earlier, Regional Town Centres have not been able to attract employment to the levels planned. Rather, much of the employment growth has occurred in suburban office parks that offer free parking and are difficult to serve by transit, thus contributing to the mounting congestion. Such developments do not allow the region to maximize the return on investment in the development of high capacity transit linking town centres. While in recent years there has been strong demand for this type of development and for car dependence to be reduced, it is necessary to reverse or moderate these trends.

The 2006 parking tax charges will help offset current and future operating costs in suburban communities as well as provide incentives to minimize the amount of free parking offered in future development projects. One of the potential long-term effects of this action is to encourage some of these developments to locate to areas such as regional town centres, where less parking is needed.



Vancouver's Three-Year Plan (*Keeping Greater Vancouver Moving*) makes several recommendations relative to the region's parking strategy including:

- ▶ Working with the GVRD and municipalities to develop a regional parking strategy for implementation starting in 2005, that includes a review of: by-law provisions for the minimum and maximum parking requirements for new or renovated developments throughout the region; regulations for managing off-street parking including preferential parking for car/vanpools and motorcycles; and the regulation of on-street parking on major arterials; and
- ▶ Seeking legislative amendments to the GVTA Act to make the application of the existing provisions regarding stall or area parking taxes practical and to allow issues, such as enforcement, collection and exemptions to be readily addressed.



7.6 Supportive TDM Policies and Programs

TransLink, supported by the City of Vancouver and its surrounding municipalities, has implemented several TDM measures that exemplify sustainable transportation practices. Among the most innovative programs include:

7.6.1 Commuter Car Share

Car sharing is joint access to one or often a fleet of vehicles without the high costs of owning and maintaining a car. Members of the Co-operative Auto Network (CAN) have access to 90 vehicles throughout Vancouver. They are also entitled to use car share parking spaces at a growing number of SkyTrain stations.

Vancouver's Three-Year Plan recommended instituting a pilot program to provide commuters with shared vehicles who live or work near a SkyTrain station.

7.6.2 Cycling

The Vancouver Region offers a wide array of programs to encourage cycling for both recreational and work trips. Most transit services allow bicycles to be loaded on vehicles for free, although SkyTrain does limit bicycles during some peak hour trips. Bicycle lockers are also provided at several transit stations for a \$30 monthly fee.

Between 2005 and 2007, TransLink will have invested \$15 million in cycling— most of that matched with investment from the municipalities. Cycling enhancements include:

- ▶ Funding and building new cycling infrastructure in partnership with municipalities;
- ▶ Improving access to TransLink owned infrastructure;
- ▶ Equipping the entire bus fleet with bicycle racks by 2008;.

- ▶ Providing more information and education to encourage more people to cycle; and
- ▶ Developing a long-range plan and more research into the future needs of cyclists.

The City recently implemented advanced stop lines at intersections, which give cyclists a buffer zone in front of vehicles while waiting at traffic signals. Drivers may only enter and pass through these areas if they are certain that no cyclist is in or approaching the bicycle box (designated in red).

7.6.3 Employer Discounted Transit Pass

The TransLink Employer Pass Program (EPP) offers 15% savings on a year-round pass, allowing travel on all buses, shuttles and SkyTrain. As a result of the growth of the Employer Pass Program, (with over 13,000 passholders, and over 200 companies participating), TransLink now limits the number of companies joining in any given month.

7.6.4 Idle Free Workplaces

Better Environmentally Sound Transportation (BEST), one of Vancouver’s leading non-profit sustainable transportation planning and research organizations, collaborated with the Jack Bell Foundation in 2004 to educate targeted businesses and the general public on the environmental and economic benefits of avoiding excessive idling. The nine-month Idle Free Workplace campaign focused on major regional employers with significant vehicle fleets while educating the general public about the environmental impacts of idling. Among the campaigns successes include:

- ▶ A reduction in frequency and idling times of 25% in participating organizations;
- ▶ The distribution of nearly 20,000 idle free fact cards and recognition decals to partnering employers and drivers; and
- ▶ Endorsement of a model “anti-idling” by-law by the GVRD Board of Directors with tentative plans by various member municipalities to adopt the by-law.

7.6.5 OnBoard Program

Since it began in 2002, the OnBoard program has assisted over 250 Greater Vancouver employers to identify and implement commuting options for their employees. Options explored through the OnBoard program include the EPP, ride matching, car and vanpooling, car sharing, active transportation (cycling and walking), parking management strategies, teleworking and shuttle buses.



7.6.6 Ridesharing

TransLink provides year-to-year funding to the Jack Bell Foundation's (JBF) RideShare Program, which operates subsidized services for carpooling, vanpooling and ridematching. The Ridesharing program offers an on-line database that allows commuters to find potential matches in two minutes. As of 2006, there were over 120 vehicles in the fleet owned and operated by JBF Ride-Share, with many registered commuters choosing to carpool, vanpool or rideshare.

In order to increase the number of carpools and vanpools operating in the Vancouver Region, the Three-Year Plan recommended: developing an annual marketing plan; establishing target rates for program growth; conducting customer surveys; and undertaking operational reviews.

7.6.7 University Discounted Transit Pass

A Universal Transit Pass (U-Pass) was introduced for approximately 60,000 students at the University of British Columbia and Simon Fraser University in 2003. The U-Pass cut transit costs for students from \$67 a month to \$22 a month, resulting in:

- ▶ A 53% increase in student transit ridership at the University of British Columbia;
- ▶ A 40% increase in student transit ridership at Simon Fraser University;
- ▶ Transportation cost savings to students exceeding \$3 million per month; and
- ▶ Avoiding having to fund additional parking spaces that generated cost-savings of over \$20 million.

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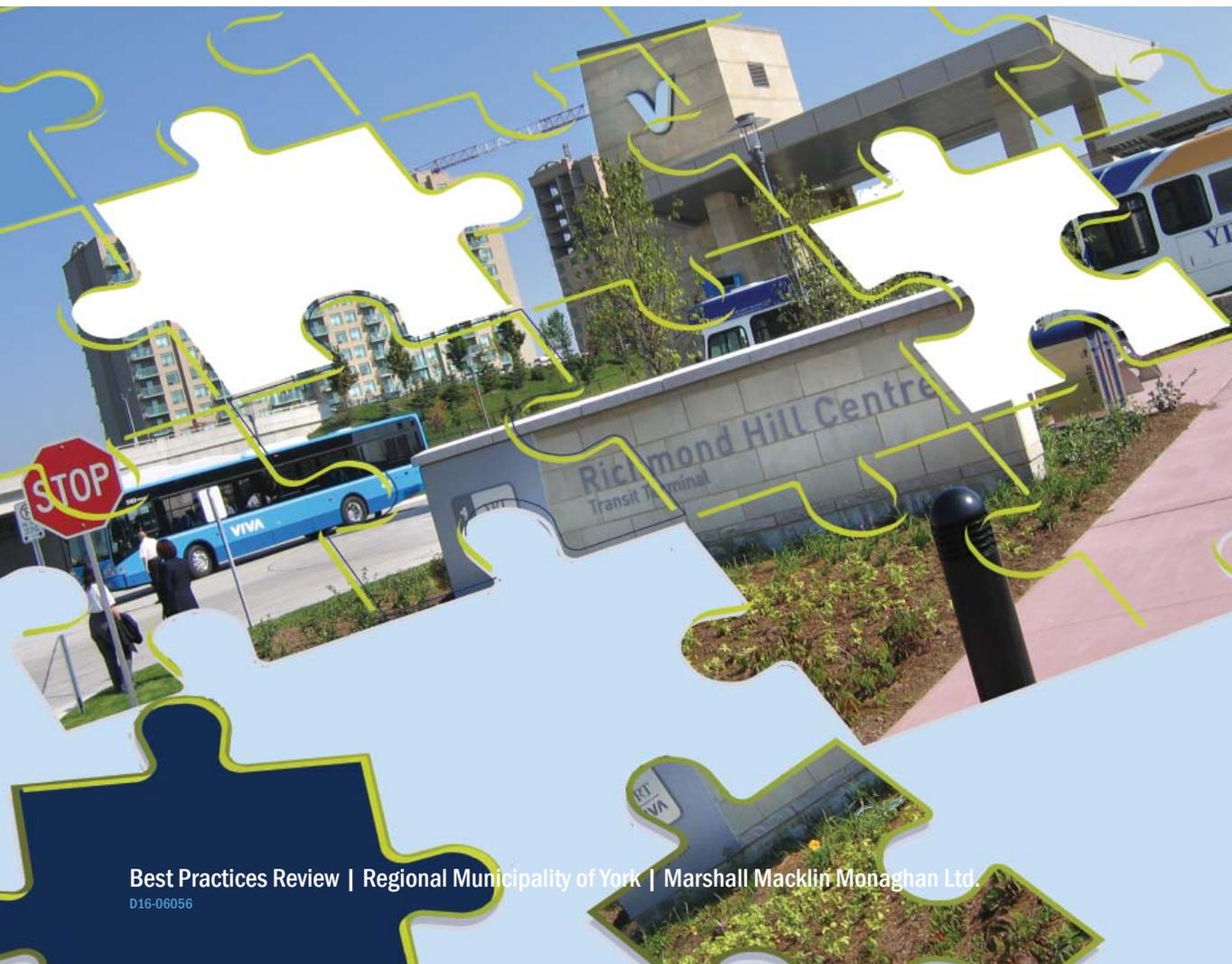


CONCLUSION: LESSONS LEARNED

An Assessment of Cities' Best Practices

This Best Practices review is by no means a complete list of sustainable transportation programs established in the cities of Calgary, Ottawa, Portland and Vancouver. It is, however, the best attempt to capture some of the most significant achievements relative to sustainable transportation practices within each metropolis. Likewise, the Best Practices review is not a list of “one size fits all” programs, policies and initiatives that guarantees success in other communities. One program’s success could be another’s failure.

Below is a summary of each community’s sustainable transportation policies and programs, including York Region. The Appendix profiles each community in more detail. The summary is meant to provide a general comparison of the key sustainable transportation programs in place or being planned for each community. The summary includes a brief assessment of York Region’s sustainable transportation initiatives-- in essence asking the question: **How Are We Doing?**



8.1 Transit Services

Each city assessed for this report operates or contracts out a variety of transit services that have been in place many years. For purposes of this report, transit operations for each community, including York Region, were assessed based on:

- ▶ Annual transit passenger trips (“ridership”);
- ▶ Ridership Per Capita (2005);
- ▶ Revenue/Cost Ratio or total operating revenue/total operating expense. Operating revenue generally refers to those revenues collected through fares; and
- ▶ Cost Effectiveness or total direct operating expense/regular service passengers.

Municipality	Annual Transit Passenger Trips (Million)				Rider-ship Per Capita (Million)	R/C Ratio				Cost Effectiveness			
	2002	2003	2004	2005		2005	2002	2003	2004	2005	2002	2003	2004
Calgary	74.8	76.5	79.5	81.1	84.8	48%	50%	48%	53%	\$2.19	\$2.33	\$2.41	\$2.26
Ottawa	86.8	87.9	88.8	89.6	101.2	59%	54%	52%	50%	\$2.03	\$2.22	\$2.33	\$2.54
Portland	69.4	69.6	71.3	75.0	134.8	43%	40%	39%	36%	\$2.38	\$2.56	\$2.64	\$2.80
Vancouver	128.6	143.6	155.6	159.7	74.3	59%	59%	57%	59%	\$3.05	\$2.92	\$2.95	\$3.10
York Region	8.4	10.3	13.8	15.2	16.6	42%	44%	50%	45%	\$4.36	\$4.39	\$3.76	\$4.52

Source: Canadian Urban Transit Association and Portland Tri-Met, FY2007 TIP

As Table 8.1 indicates, the cities analyzed for this report experienced significantly higher transit ridership and a higher per capita rate than York Region. This is not surprising considering the other peer cities operate transit systems that are more established and serve more densely populated routes. That said, it is worth noting that York Region’s transit ridership increased nearly 81 percent between 2002 and 2005, a strong indication that the Region is committed to expanding its transit services while residents are eager to use them.

Relative to the R/C Ratio, York Region has not fared well relative to its Canadian competitors, although fare box coverage of operating expenses is higher than its Portland counterpart. Perhaps more disconcerting is how the Region compares to the other city’s transit systems relative to cost effectiveness. York Region expended over \$4.50 per passenger trip in 2005, well above the Canadian national average as well as the other cities reported here. York Region’s decrease in cost effectiveness in 2005 may be the result of it introducing the new “VIVA” BRT service in the fall— when new routes were just starting to build a ridership base.

Conclusion: The significant increase in public transit investment is resulting in record transit ridership increases. However, it is clear from the current performance indicators, that York Region will require still greater investments in its transit system in order to have a measurable impact on future transit market share. As noted earlier, between 2001 and 2005, ridership on the YRT/Viva system has more than doubled, resulting in more than 7



million new trips annually. With the introduction of Viva routes, the annual ridership rate increase is expected to be even higher than the 9.5% average annual increase to date. However, these increases do not come without associated costs.

Investments, both in terms of capital and operating, have been significant, especially when compared to pre-amalgamation levels. However, the YRT/Viva system total operating costs per capita are still well below expenditures in cities such as Mississauga, Ottawa or Calgary. Although there has been significant annual cost increases, it is expected that these costs will stabilize over the next couple of years and that the overall system cost recovery rate will improve as ridership increases surpass the rate of investment.

Investment in public transit cannot be made in isolation. Public policies governing planning and development practices to encourage higher density development are also needed to support a more supportive public transit environment. Paid parking policies, transportation demand management initiatives and aggressive marketing campaigns are all factors required to make a demonstrable change in transit usage.

8.2 Sustainable Transportation Initiatives

The four cities selected for this Best Practices review are recognized leaders in developing, fostering and implementing sustainable transportation initiatives in North America.

Calgary has one of the continent's longest operating light rail systems, and recognized early on the importance of supporting transit-oriented development – especially downtown. Additionally, Calgary completed the *Sustainable Suburbs Study* as early as 1995, although the city has experienced mixed results relative to intensifying its suburban areas. *Ottawa 20/20* represents that city's sustainable vision – a vision that was embodied in the 1974 Ottawa Official Plan whose groundbreaking transportation policies led to the development of mixed use planning, transit oriented development and rapid transit service. The *2040 Growth Concept* and *New Look* regional planning process preserve that tradition. Vancouver's 1996 regional growth strategy (*Liveable Region Strategic Plan*), its support for Regional Town Centres and regional transit services, make it one of Canada's sustainable development champions.

Conclusion: For each of these four communities, the “sustainable transportation” concept is not new. York Region's active support for sustainable transportation initiatives occurred later than most of its peer cities; however, the Region has taken a leadership role in promoting sustainability in all of its planning initiatives. Since 2002, York Region has adopted:

- ▶ The 2002 Transportation Master Plan⁷;
- ▶ *Planning for Tomorrow*, York Region's Growth Management Initiative;

⁷ Awarded the Transportation Association of Canada's Sustainable Urban Transportation Award in recognition of its integration of land use and transportation growth initiatives.



- ▶ The York Region Official Plan, with a ‘sustainable development’ emphasis;
- ▶ Sustainable Development Initiative;
- ▶ Towards Sustainability in York Region Advisory Group and Final Report; and
- ▶ Transit Oriented Development Guidelines.

Continuing this trend, York Region is committed to an integrated road and transit network plan that will support future growth in York Region. The primary purpose in producing the Transportation Master Plan Update is to create a transportation system and supportive land use design that will effectively accommodate growth by doubling transit use while providing more travel choices. Encouraging sustainable transportation initiatives in the 2006-07 Transportation Master Plan Update ensures that these initiatives will support the Regional goals of Sustainable Natural Environment, Economic Vitality and Healthy Communities.

8.3 Supportive Financial Incentives

Most of the communities assessed for this report have developed creative programs to fund their transit programs. Ottawa establishes different mill rates for different parts of the city (‘transit zones’); Vancouver assesses properties through a ‘transit tax’; Calgary’s Parking Authority regularly contributes money to its transit system; and Portland uses tax abatement programs for transit projects— which is common in other American cities. Every North American city is constrained by the type and amount of service that they can provide. What differs among these cities is the fluctuating amount of money available to fund these services from local, regional or federal sources.

Conclusion: In 2004, the Ontario government announced that it would invest more than \$680 million in 78 transit systems, benefiting 105 municipalities across Ontario. The formula for gas tax funding is based on a ratio of 70 percent ridership and 30 percent population. In 2006, York Region received 2¢ per litre from the Province of Ontario to help fund its transit services. Both the Cities of Calgary (5¢ per litre) and Vancouver (12¢ per litre) receive larger funding from their provincial governments. Likewise in Portland, the bulk of its services are funded by the state and federal governments. This leaves the Region of York at a clear disadvantage relative to the peer cities in funding its transit system. Because of the lack of provincial support, the Region must develop creative initiatives or new partnerships to fund its services. In 2002, the Region successfully initiated an agreement with the York Consortium to undertake the design and construction of the “Quick Start” program for implementation of the Viva. At the same, the Region negotiated a cost sharing agreement with the Province and Federal Government for the “Quick Start” program to fund new bus rapid transit system. Unless the Region can secure additional funding from the Province and Federal Government, the Region must continue to seek funding options through other, more creative means for the next, more intensive phases of Viva. This funding



is crucial to ensure that York Region can deliver on transit services that are effective, efficiently operated and sustainable.

8.4 Supportive Parking Policies and Programs

Policies to limit the availability of parking both in urban and suburban communities have met with mixed success in the Best Practices communities. In more urban areas, regulations that limit downtown parking through by-laws, TOD guidelines and other initiatives have proven to be much more successful than similar programs operating in more suburban areas. Officials in Calgary, Ottawa and Portland recognize that it is much more difficult to encourage developers and other municipalities within their regions to limit parking at office parks, retailers and other “big box” developments. In Portland’s case, the City has actively sought relationships with developers who are willing to advocate parking charges, car sharing and alternative transportation services outside the metropolitan area.

Conclusion: York Region has begun to tackle some of its parking issues through the adoption of its Transit Oriented Development Guidelines. The Guidelines, which focus on the need for the Region to generate more transit ridership, envision parking that is well-designed, attractive and transit friendly. This will certainly have an impact on the type and amount of parking located around transit centres and stations, but the impact on the “big box” developments, more typical of suburban communities like York Region, is questionable.

Unlike the other cities assessed in this report, York Region cannot enact by-laws to reduce parking ratios. That responsibility falls to the Region’s nine municipalities. But through initiatives like the Transit Oriented Development Guidelines, the Region has the opportunity to encourage other communities to discourage the amount of parking at major sites. Both Markham and Vaughan have enacted by-laws that reduce parking or promote alternative parking standards on a site-by-site basis. But clearly, more serious discussions between the Region and its municipalities must occur before any tangible gains are made.

8.5 Supportive TDM Policies and Programs

Transportation Demand Management programs are initiated by communities to reduce the demand for automobile use by encouraging the behavioural change of “solo” travel.

Transportation programs geared toward discouraging single-occupant vehicle trips have been in place for several years in the peer cities. Calgary, Ottawa, Portland and Vancouver have developed a creative package of incentives and initiatives to encourage transit use and alternative modes of transportation, including: employee and student discounted transit passes, ridesharing programs, car sharing programs and seamless cycling and pedestrian networks. Other TDM initiatives employed successfully include HOV lanes (downtown Calgary), traffic signal priority systems for transit (Calgary), TMAs (Ottawa), programs



requiring commuting options for large employers (Portland) and enhanced bicycle-friendly facilities (Vancouver).

Conclusion: Since the first Transportation Master Plan was developed in 2002, York Region has initiated several TDM programs including: creating a TDM Coordinator position, establishing TMAs for major employment and population centres and developing a partnership with the GTA’s Smart Commute Association to identify employer incentives. York Region also recently initiated the Cycling and Pedestrian Master Plan to develop and assess its own set of trails, on-street bikeways, and pedestrian facilities. Because each of the Region’s TDM programs is in its infancy, it is difficult to measure their success.

However, it is clear that the Region must take additional steps to enhance its TDM programs. Perhaps most important, York Region should explore a reduced price transit pass program that is marketed to all employees and university students in the Region. Especially for the latter, the Region could partner with York University, other universities and transit systems to develop a universal reduced price transit pass program for university students, faculty and employees. As well, the Region could develop a pass program open to all employees— at least for an interim period of time— to attract new riders.



8.6 Sustainable Transportation Initiatives for Consideration

Based on an assessment of the 2002 Transportation Master Plan and the current state of the Region’s sustainable policies, it is recommended that the following initiatives be considered further by the Region for short to medium-term application to increase support for sustainable transportation planning efforts.

Sustainable Transportation Initiatives for Consideration	Potential Time Frame
Develop a Transit Oriented Development Best Practices Handbook to be used as an information resource for the public, municipalities, developers, planners, etc.	1-2 years
Designate Markham Town Centre, Beaver Creek/Commerce Valley and other major activity centres as transit “fare free zones”	1-2 years
Encourage all municipalities in the Region to adopt an anti-idling by-law	1-2 years
Actively support regional efforts, through the Greater Toronto Transportation Authority, to reduce congestion and promote sustainable transportation planning	1-2 years
Actively work with municipalities to ensure that all developments within urbanized areas include sidewalks and are both bicycle and transit supportive in design by adopting specific guidelines and identifying potential funding sources.	1-2 years
Actively encourage the Province and the federal government to provide more funding for transit	1-2 years
Develop a marketing campaign to promote sustainable transportation services to school-aged children, university students and the general public	1-2 years

Sustainable Transportation Initiatives for Consideration	Potential Time Frame
Explore additional locations for commuter car share opportunities (GO stations, park-and-ride lots, etc.)	1-2 years
Work with municipalities to implement transit supportive site design guidelines	1-2 years
Develop a regional parking strategy with area municipalities	1-2 years
Encourage municipalities to concentrate new employment opportunities within 200 metres of transit stops	1-2 years
Require transit stops be generally no more than 500 metres for 90% of the residents and no more than 200 metres for 50% of the residents	1-2 years
Encourage all transit facilities to be LEED Canada certified	1-2 years
Explore operating community shuttles or minibuses to provide transit service between neighbourhoods and transit stations	1-2 years
Equip the entire YRT fleet with bicycle racks	2-5 years
Identify regional arterials suitable for High Occupancy Vehicle (HOV) Lanes and Reserved Bus Lanes (RBL) and implement these measures where appropriate for all road widening initiatives and also as a retrofit for existing arterials	2-5 years
Expand the existing discounted employee transit pass program	2-5 years
Work with academic institutions to initiate a discounted university/college student transit pass program	2-5 years
Pursue municipal powers to assess non-residential parking levies and other initiatives aimed at lowering parking standards in municipalities (for example, supporting reduced parking within 600 metres of a rapid transit station)	2-5 years
Initiate steps, with the support of Transportation Management Associations (TMAs), to require large employers in York Region to provide commuter option incentives such as transit subsidies, preferential carpool parking or telecommuting	2-5 years
Develop a framework in which public-private partnerships (PPPs) could fund additional sustainable transportation projects that support alternative modes in York Region	2-5 years
Identify future transportation projects that could be funded by private-public partnerships (PPPs).	2-5 years
Support a policy that ensures the Region's capital budget for transit and roads is approximately equivalent.	2-5 years
Amend the Development Charges Act to ensure it is more supportive of transit	2-5 years
Convert YRT buses to low emission vehicles	5-10 years



Economic
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Environment

A draft set of guiding principles had been developed to ensure that this Transportation Master Plan – and all subsequent plans – will encourage sustainable transportation practices in York Region. The principles were developed through:

- ▶ Information gleaned from this Best Practices Review;
- ▶ A review of the York Region's 2002 Transportation Master Plan;
- ▶ A review of sustainable transportation principles developed from other sources, such as Transport Canada; and
- ▶ Input received during the TMP public meetings held in the municipalities of Aurora, Keswick and Vaughan during November of 2006.

The draft set of principles developed for this project recognizes the strong connection between transportation and other critical elements: our communities, our natural environment and our economic well-being. The principles also recognize the need to develop meaningful ways to engage the public in the planning process, and foster cooperation and coordination with the local municipalities.



The sustainability principles are as follows:

- 1. Integration with Land Use:** Transportation planning will be integrated with land use planning and urban design, to minimize single occupant vehicle trips and longer work trips while encouraging the use of transit, walking and cycling..
- 2. Promote Environmental Health:** Transportation systems will make efficient use of land and other natural resources, support efficient land use planning, ensure the preservation of vital habitat and other features of the Terrestrial Natural Heritage System and minimize air quality impacts.
- 3. Mobility and Access:** Everyone is entitled to reasonable access to all places, goods and services in York Region. This includes people with physical disabilities, low incomes and the elderly.
- 4. Put Sustainable Transportation Modes First:** The Region and its municipalities will plan for reliable, frequent and seamless public transit; create a functional and attractive street network that supports walking, cycling and community interaction; and support these goals through land use planning and urban design.
- 5. Transportation Demand Management:** The Region will pro-actively manage demands to minimize the use of single occupant vehicles while supporting alternative transportation modes.
- 6. Transportation Supply Management:** The Region will manage the supply and operation of its transportation system so as to minimize the need for roadway expansion.
- 7. Goods Movement:** The movement of goods should be safe, efficient and flexible and will minimize the use of non-renewable resources.
- 8. Fuller Cost Accounting:** Transportation costs will be borne on an equitable basis.
- 9. Performance Measurement:** The Region will enhance performance measures and a reporting framework to fairly evaluate the progress of the Transportation Master Plan. The Region must establish performance measures and a reporting framework to fairly evaluate the progress of the Transportation Master Plan.
- 10. Communications:** Innovative consultation programs will be utilized regularly to more meaningfully engage the public and stakeholder groups in the transportation planning process. The Region must update the Transportation Master Plan on a regular basis, typically every five years.
- 11. Annual Updates:** The Region will regularly review (annually or bi-annually) the Transportation Master Plan with major reviews every five-to-ten years.
- 12. Funding:** The Region must ensure that all sustainable transportation programs and initiatives are properly supported and financially viable over the long term.

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Vitality

Healthy
Communities

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Environment

APPENDIX

Municipality	York Region, Ontario
Regional Land Area	1,776 km ²
Estimated Regional Population (year)	920,900 (2006)
Projected Regional Population (year)	1.3 million (2026)
Annual Transit Passenger Trips (year)	15.2 million (2005)
Key Sustainable Transportation Initiative	York Region Sustainable Development Initiative; Planning for Tomorrow Regional Growth Initiative
Transit Oriented Development Policies	York Region TOD Guidelines (adopted Sept. 2006)
Supportive Financial Incentives	York Consortium 2002; “Quick Start” program, funded by York Region, federal and provincial governments, launched the development of a rapid transit network throughout York Region; Provincial fuel tax (2¢/litre).
Supportive Parking Policies/Programs	Discussions have taken place with area municipalities relative to municipal parking initiatives; the Markham Centre Plan and related zoning by-laws cut parking requirements by about half the Town average; Vaughan has established alternative parking standards on a site-by-site basis.
TDM Programs and Policies	Created a TDM Coordinator position; local TMAs working with the GTA’s Smart Commute Association to identify incentives for employers to initiate TDM programs; established TMAs for Hwy. 404/Hwy. 7, Markham Centre, North York/Vaughan and Aurora/Newmarket.
Governing Structure	The 21 members of York Regional Council set policies, direction and budgets for The Regional Municipality of York. Members of Regional Council are chosen by voters in what is termed a “double direct” form of election. That is, a successful candidate for the office of Mayor or Regional Councillor in a municipality earns a seat on both local and Regional Council for four years. The Chair of Regional Council is elected at large by the members of Regional Council and also serves a four-year term. Most of Council’s work is done through standing committees and task forces. These bodies receive public input, review policies and consider staff reports, then recommend actions to Regional Council.
Long-term Vision	Reach the Region’s goals of Sustainable Natural Environment, Economic Vitality and Healthy Communities, while providing safe, affordable, efficient and effective transportation for people and goods.



Municipality	Calgary, Alberta
Regional Land Area	5,083 km ²
Estimated Regional Population (year)	1.15 million (2005)

Municipality	Calgary, Alberta
Projected Regional Population (year)	1.55 million (2033)
Annual Transit Passenger Trips (year)	82.0 million (2005)
Key Sustainable Transportation Initiative	2005 Calgary Transportation Plan
Transit Oriented Development Policies	Calgary TOD Best Practice Handbook; Calgary TOD Policy Guidelines
Supportive Financial Incentives	Provincial fuel tax (5¢/litre); Cash-in-lieu program; Alberta Municipal Infrastructure Program
Supportive Parking Policies/Programs	Calgary Downtown By-law Requirement for Office Buildings (one space per 1,500 ft ²); Cash-in-lieu program funds peripheral parking lots; Parking requirements in TOD station areas (per TOD Policy Guidelines)
TDM Programs and Policies	TDM Market Review; recently opened HOV lanes on downtown roads in conjunction with a traffic signal priority system for transit vehicles; maintains 550 km of pathways and 260 kilometres of on-street bicycle routes
Governing Structure	<p>The role of City Council is to govern the City of Calgary, Calgary's municipal corporation, providing the civic services. Calgary's City Council consists of the Mayor and 14 Aldermen. All are elected by and accountable to the citizens of Calgary.</p> <p>Council sets priorities, establishes policy and makes decisions based on information from four Standing Policy Committees:</p> <ul style="list-style-type: none"> -Community and Protective Services -Finance and Corporate Services -Land Use, Planning and Transportation -Utilities and Environment
Long-term Vision	Ensuring sustainability is integrated in land use and transportation initiatives that are formally endorsed by Council; regionally, pushing the boundaries to higher densities, smarter designs, more services and strategically locating jobs and housing in the same area



Municipality	Ottawa, Ontario
Regional Land Area	2,797 km ²
Estimated Regional Population (year)	932,200 (2006)
Projected Regional Population (year)	1.2 million (2021)
Annual Transit Passenger Trips (year)	89.6 million (2005)
Key Sustainable Transportation Initiative	Ottawa 20/20
Transit Oriented Development Policies	Ottawa 20/20
Supportive Financial Incentives	Provincial fuel tax (2¢/litre); different mill rates for different parts of the City ('transit zones')
Supportive Parking Policies/Programs	Parking by-law requiring a maximum limit on the number of parking spaces near rapid transit stations

Municipality	Ottawa, Ontario
TDM Programs and Policies	ECOPASS program issuing reduced transit passes to over 25,000 subscribers; developed Canada's first TMA in Byward Market area
Governing Structure	The City of Ottawa is governed by an elected 22-member City Council comprised of the Mayor, representing the city as a whole, and 21 Councillors, representing the city's individual wards. City Council appoints standing committees, made up solely of Councillors, to study specific issues before bringing them to a meeting of City Council. There are 15 advisory committees which provide advice to City Council and staff on specifically mandated areas of interest, and contribute to the development of policies, programs and initiatives
Long-term Vision	Promote an efficient transportation network by ensuring land use and transportation planning are in "lockstep."



Municipality	Portland, Oregon
Regional Land Area	1197 km ²
Estimated Regional Population (year)	2.1 million (2005)
Projected Regional Population (year)	2.35 million (2020)
Annual Transit Passenger Trips (year)	75.0 million (2005)
Key Sustainable Transportation Initiative	2040 Growth Concept, New Look
Transit Oriented Development Policies	Metro's TOD Implementation Program
Supportive Financial Incentives	Vertical Housing Development Zone; Transit Oriented Development Property Tax Exemption; Tax Increment Financing; Local Improvement District
Supportive Parking Policies/Programs	Portland downtown area maximum parking requirement for office developments is limited to 0.7 spaces per 1,000 ft ² ; Works with developers to advocate parking charges, car sharing and alternative transportation in the suburbs
TDM Programs and Policies	"Flexcar" program operating at 20 regional locations; Employee Commute Option (ECO) program requiring employers (50+) to provide commute option incentives.
Governing Structure	Metro is governed by a council president elected regionwide and six councillors elected by district. Metro also has an auditor who is elected regionwide. The Chief Operating Officer (COO) reports directly to the Metro Council President and is responsible for day-to-day management of Metro operations.
Long-term Vision	Maintain transit modal share during major reconstruction of the downtown while identifying the key ingredients to develop successful sustainable initiatives in suburban areas.

Municipality	Vancouver, British Columbia
Regional Land Area	2,879 km ²
Estimated Regional Population (year)	2.15 million (2005)
Projected Regional Population (year)	3.0 million (2030)
Annual Transit Passenger Trips (year)	159.7 million (2005)
Key Sustainable Transportation Initiative	The Liveable Region Strategic Plan (LRSP) and Review
Transit Oriented Development Policies	LRSP's concept of Regional Town Centres
Supportive Financial Incentives	Provincial motor fuel tax (12¢/litre); parking tax, 'transit tax' assessed to properties
Supportive Parking Policies/Programs	Parking tax charges applied to suburban communities; developing regional parking strategy with municipalities
TDM Programs and Policies	University discounted transit passes (U-Pass); \$15 million investment in cycling between 2005 and 2007
Governing Structure	<p>The governance structure of the GVRD comprises three legal districts:</p> <ul style="list-style-type: none"> -Greater Vancouver Water District (GVWD) -Greater Vancouver Sewerage and Drainage District (GVS&DD) -Greater Vancouver Regional District <p>These districts work in partnership to provide services to the taxpayers through their constituent municipalities.</p> <p>The GVRD is governed by a Board comprised of elected representatives from each municipality whose number of directors per municipality and number of votes per director are determined by population. Each director exercises one vote for every 20,000 residents, to a maximum of five votes. Several standing and advisory committees have been established to provide advice to the Board and serve as a link to wider stakeholder groups *</p>
Long-term Vision	Two-tiered, long-term commitment to serving transit priority corridors and 'candidate corridors', that have some impediment to becoming a primary corridor. Previous emphasis was placed on the transit node, not corridor.

*At the time the regional districts were created, careful consideration was given to selecting the best model for governance. The focus was on cooperation among municipalities to achieve service delivery. Because this model relies on consensus or on majority rule – as opposed to subordination to a directly elected regional or metropolitan government – the powers of the GVRD to ensure implementation of coherent planning policy have been limited.

