

TRANSIT VISION 2040 — FROM VISION TO ACTION

TRANSIT VISION 2040 defines a future in which public transit maximizes its contribution to quality of life with benefits that support a vibrant and equitable society, a complete and compact community form, a dynamic and efficient economy, and a healthy natural environment.



THEME 2: REVOLUTIONIZING SERVICE

STRATEGIC
DIRECTION

2.1

Expand regional
rapid transit networks

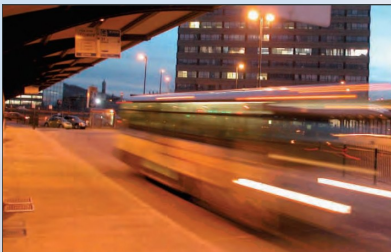
REVOLUTIONIZING SERVICE

Strategic Direction 2.1:

Expand regional rapid transit networks

For decades, major metropolitan areas across Canada have relied on rapid transit networks to act as the “spine” of their transit systems and provide the capacity, speed, reliability and attractiveness needed to generate superior levels of transit ridership. Many mid-sized urban centres have moved in the same direction, and begun to plan for rapid transit as a long-term strategy for building sustainable communities. Recent transportation planning exercises in metropolitan areas vividly illustrate the conviction that rapid transit enhancements are a necessary but very costly strategy that requires the full financial and political support of provincial and federal partners. Maximizing opportunity for rapid transit will require advance planning and corridor protection in these communities.

Connecting neighbouring communities through rapid transit service reduces travel times, greenhouse gas emissions and congestion associated with commuting.



Bus Rapid Transit (BRT) is a flexible, high capacity and cost effective form of rapid transit service; it can be used in communities of all sizes. BRT can also be used as an interim strategy prior to implementation of **Light Rail Transit (LRT)** or **subways**, where these forms of rapid transit are suitable.

Compact development should be encouraged within 600m of all rapid transit corridors to maximize ridership.

Communities should ensure that provision is made to expand rapid transit service to serve future decades of population growth and associated transportation demands. **Population forecasting** should be paired closely with planning for rapid transit.



PERFORMANCE INDICATORS AND TARGETS

Indicator 1: Proximity to Rapid Transit

Rapid Transit Proximity Targets:

Major metropolitan areas & large cities
(pop. 400,000 or greater)

By 2040, 50% of residents and jobs will be located within 600m of a rapid transit station.

Medium cities
(pop. 150,001 to 400,000)

By 2040, 30% of residents and jobs will be located within 600m of a rapid transit station.

Indicator 2: Level of Rapid Transit Service

Service Targets:

Major metropolitan areas & large cities

By 2040, 50 rapid transit service kilometres will be provided per million residents.

Medium cities

By 2040, 30 rapid transit service kilometres will be provided per million residents.

Indicator 3: Rapid Transit Service Expansion

Expansion Targets:

Rapid transit service must be continuously expanding to meet the changing needs of growing populations across Canada. **Every 5 years, rapid transit service will be expanded by 5 service kilometres per million residents.**

INITIATIVES AND BEST PRACTICES

Bus Rapid Transit (BRT) is a flexible and affordable way to provide rapid transit service to a community. Offering reliable service with average operating speeds of 45 to 50 km/h, BRT provides a high level of reliability and enables service to be tailored to closely meet demand.

Winnipeg, Manitoba

Winnipeg's network of **Transit Quality Corridors**, with **exclusive bus lanes** and other transit priority measures in place, have been highly successful over the past several years. With accelerating population growth and expected increases in congestion issues over the next several decades, Winnipeg Transit is now implementing **Rapid Transit Corridors** to further improve speed and reliability.

The first of five potential BRT corridors began operation in April 2012 between Queen Elizabeth Way and Jubilee Avenue. An active transportation path has also been constructed alongside the busway, and integration of the busway with local transit networks is prioritized.

York Region, Ontario



Viva is a fast, reliable transit system launched in 2005 and now serving 120 routes across York Region's nine municipalities. The next phase of the Viva project involves the implementation of five new dedicated "**Rapidways**" on major transportation corridors in the region including Highway 7, Yonge Street, and Davis Drive. Rapidways will involve dedicated bus lanes in the centre of the road, and will be accompanied by the construction of new, attractive stations offering passenger safety and comfort.

Rapidways will be paired with high quality urban design and architecture to create more vibrant, transit-supportive communities.

Quebec City, Quebec

In 1992, Quebec's Réseau de transport de la Capitale (RTC) launched the **Métrobus** system, a high-frequency BRT service. Corridors connect major activity centres throughout the City. The system uses reserved bus lanes with limited stops to ensure high speeds.

Métrobus has been successful in increasing transit ridership in Quebec. Due to its high popularity, the RTC is expanding the number and extent of routes. The fleet will also be replaced with higher-capacity buses and, eventually, an LRT system.



Ottawa, Ontario

Ottawa's grade-separated **Transitway**, launched in 1983, was Canada's first BRT system. Over the decades that have past since its opening, it has been highly successful and influential across Canada and internationally.

As the Transitway continues to expand, an LRT system is being added to Ottawa's transit network. In 2001, the O-Train LRT was implemented as a pilot project, using a former Canadian Pacific Railway Track stretching 8 km in a north-south direction through the City. The next step is the implementation of the new east-west OLRT. Provincial and federal funding was secured early on in the OLRT project, with each senior level of government agreeing to contribute \$600 million of the total cost of \$2.1 billion.



Ottawa's rapid transit system is coupled with **Transportation Master Plan** policies that call for intensification of transit-supportive land uses within 600m of any rapid transit station. This maximizes accessibility to transit and overall transit ridership.

INITIATIVES AND BEST PRACTICES

Light Rail Transit (LRT) offer a high speed, high capacity service that can carry 10 to 20 thousand passengers per hour in each direction. LRT vehicles such as trams, streetcars and rail cars also offer the benefit of a smooth, quiet service for passenger comfort. While LRT implementation is more costly than BRT, its high passenger-to-operator ratios reduce operating costs.

Edmonton, Alberta

Edmonton was the first city in North America with a population of under one million to implement LRT. Construction of Edmonton Transit's LRT system began in 1974 for operation during the City's hosting of the 1978 Commonwealth Games. The original LRT system included a 7.2 km line with a project budget of \$65 million. A 2.2 km extension was added three years later in 1981. The system continues to expand with the creation of new lines and extension of existing routes, now covering 21 km in total.

Edmonton's **LRT Network Plan** works to ensure that the Transportation Master Plan's objectives are carried through, guiding LRT expansion, design and technology.



Vancouver, British Columbia

Vancouver's grade-separated, elevated **SkyTrain** runs on three lines, with 47 stations in total. It provides fast, convenient service along with attractive views of the City.

The SkyTrain's newest line, the **Canada Line**, was constructed prior to the 2010 Olympics in Vancouver. Covering 19 km and with 16 stations in total, it connects the City with the Vancouver Airport and central Richmond along with many other growing points of interest along the corridor. Currently, its two-car trains run every three minutes and forty seconds, although the line was built to accommodate trains of up to three cars at a frequency of every two minutes for a capacity of up to 15,000 passengers per hour in each direction. The Canada line accommodates a passenger capacity equivalent to 10 major road lanes.



A fourth SkyTrain line, the Evergreen Line, is planned to begin operation in 2016 and will run from the Lougheed Town Centre Station in Burnaby to Douglas College Station in Coquitlam.

Subway systems can transport 20 to 40 thousand people per hour in each direction at speeds of up to 80 km/h. As major metropolitan areas in Canada expand and intensify, extensions of existing subway systems are needed to support this growth and reduce keep traffic congestion at a minimum.

Toronto, Ontario

In 2010, construction began to **extend Toronto's Yonge-University-Spadina subway line** outside of city limits for the first time, connecting to growing residential and employment centres in York Region. The Spadina segment into Vaughan will include six new stations over 8.6 km, and is expected to be completed by 2015. The total cost of this extension will be \$2.6 billion; provincial and federal governments have agreed to each cover one third of the total cost, with the remainder being covered through the provincial MoveOntario 2020 initiative. The Yonge segment of the subway line is also planned to be extended into Richmond Hill.

These subway extensions will be combined with the construction of the new Crosstown LRT along Eglinton Avenue, along with the revitalization of the rail line in Scarborough.



Tunnel boring for the Spadina subway extension, June 2012

REGIONAL RAPID TRANSIT CHECKLIST

- Have sufficient funding sources been secured for the implementation and expansion or regional rapid transit networks as outlined in community plans?
- Is a detailed plan in place to continuously expand and adapt the network of rapid transit service to best serve growing community needs over future decades?
- Is the effectiveness of the rapid transit systems being continuously monitored, through ridership data and passenger satisfaction surveys? Are processes in place to improve rapid transit service when it does not adequately meet the community's needs?

This guide is one in a series designed to assist CUTA members with implementation of *Transit Vision 2040* strategic directions for which they are in a leadership role. It incorporates performance indicators used in annual reporting at a national level to track progress towards 2040 targets. While CUTA is taking the lead for ten of these 27 strategic directions, the remaining 17 fall within the responsibility of other stakeholders, and these guides have been developed in order to provide support to CUTA members and encourage progress toward the *Vision*. The guides summarize the goals and objectives of each strategic direction, propose performance indicators and targets, illustrate best practices from transit systems across the country and provide a checklist to assist members in reviewing their progress.