

A Bicycle Network for a North American Metropolis: The Case of Montreal

Marc Jolicoeur, Research Coordinator, Vélo Québec
1251 Rue Rachel Est, Montreal H2 J2J9, Canada
marc-jolicoeur@velo.qb.ca

Summary

There are nearly two million cyclists in Greater Montreal, and responsibility for the development of the city's bicycle networks lies in the hands of 122 municipalities. Many of these municipalities have made the creation of bikeways a priority and the metropolitan area now has a bike network comprising over 1,000 kilometres. The 29 municipalities on the island of Montreal have cooperated on the creation of this network via the Montreal Urban Community (MUC), but there has been little concerted action at the metropolitan level.

The Réseau vélo métropolitain (Metropolitan Bicycle Network) is a project launched in 1998 to develop a unified bicycle network that will connect all parts of the metropolitan area and to make transportation by bike and public transportation more compatible. The goals of this project are:

- to provide cyclists with greater access and to increase the use of bicycles as a means of transportation;
- to provide a network that will promote economic development by creating a bike-friendly city that is attractive to tourists and investors.

The partners in this project include municipalities, which will be responsible for the further development of their bikeways, transit commissions, which will develop better services for cyclists, and Vélo Québec, which has been mandated to coordinate the project.

1. Montreal, a bike-friendly city

With over 3 million inhabitants, Greater Montreal is Canada's second largest city and boasts 10% of the country's population within a 50-kilometre radius. It is 500 kilometres east of Toronto, Canada's largest city, and the same distance north of New York City in the United States. Located in the southwest corner of the province, Montreal is home to almost half of the population of Quebec.

According to a study conducted by Vélo Québec¹, more than one million inhabitants of Greater Montreal go biking at least once a week during the period from early May to late September. Every year on the first Sunday in June, more than 40,000 cyclists participate in the 65-kilometre Tour de l'Île, the biggest bike tour in the world. The Sunday before, the Tour des enfants attracts 10,000 cyclists ages 6 to 12, who follow a 20-kilometre route. Even during the winter, when the city receives an average snowfall of nearly one metre, 150,000 cyclists still use their bikes, at least occasionally.

Cyclists can enjoy over 1,000 kilometres of bikeways in the metropolitan area, 330 of which are on the island of Montreal. The City of Montreal has installed more than 1,500 spaces for bicycle parking on downtown streets, 1,000 spaces at metro stations and 500 spaces at commuter train stations. According to the latest origin and destination survey², 20% to 30% of the travel in downtown neighbourhoods is accomplished by foot or by bicycle. These are just some of the

reasons why Montreal was named the most bike-friendly city in North America in the March 1999 issue of the US magazine *Bicycling*.

2. Bike route planning and development

Metropolitan Montreal began developing bike routes in the mid 1970s to meet the recreational needs of Baby Boomers, those born in the fifteen years following the end of World War II. Initiated primarily by the 122 municipalities that comprise the Greater Montreal area, these bike paths were created in parks and along local roads within the respective municipalities. Other organizations built bike paths in large public parks, notably the federal government along the Lachine Canal and the Montreal Urban Community in a network of six parks. Lastly, the Quebec Ministry of Transport set up bike paths on five of the bridges spanning the rivers surrounding the islands of Montreal and Laval.

During this first phase of development, the 29 municipalities in the Montreal Urban Community were the only ones to establish a master plan. Elsewhere, collaboration was limited to a few specific projects (for example, a path was created along an abandoned rail line that crossed four municipalities) and links between neighbouring municipalities.

Concerted action for the creation of a bicycle network at the metropolitan level began with some planning at the provincial level. In 1992, at the first Vélo Mondiale conference, held in Montreal, Vélo Québec unveiled Quebec's Bicycle Master Plan for 2000-3. The proposed network was composed of existing bike paths, abandoned public corridors that would be transformed into bikeways and the links required to connect these segments into a unified network. Three years later, the Quebec government unveiled its bicycle policy⁴ and, mere weeks later, accepted Vélo Québec's proposal to develop bicycle network to attract tourists, which was called La Route Verte. Targeted for completion in 2005, it will eventually total 4,000 kilometres and link all the southern regions of Quebec. Three of the six major routes that make up La Route Verte pass through Greater Montreal.

3. Necessary collaboration

Four levels of government are involved in Montreal regional development: federal (Canada), provincial (Quebec), regional (Montreal Urban Community and 16 regional county municipalities) and municipal (122 local municipalities). The creation of cycling networks involves several areas of responsibility which fall under these various levels of government:

- roads: Quebec (Ministry of Transport) and local municipalities
- parks: Canada, Quebec, regional municipalities and local municipalities
- recreation: local municipalities
- planning: regional municipalities and local municipalities

As we can see, only local municipalities are empowered to act in all the areas of responsibility involved. The creation of a metropolitan bicycle network on their sole initiative would require concerted action from 122 municipalities with often diverging interests.

It is also essential that the other levels of government be involved. Regional municipalities can take care of planning at a regional level and facilitate the joint actions of the local municipalities they represent. The provincial government must intervene when a path is to be constructed across a highway or on a bridge, two infrastructures under its responsibility. It also sponsors La Route

Verte. Finally, the federal government manages areas with major existing bikeways: the Old Port, the Lachine Canal Historic Site, and the St. Lawrence Seaway.

In 1997, Vélo Québec concluded that the best way to further the development of the Montreal bicycle network was to appoint an organization to plan the network and pool the efforts of the various participants. For its part, the Quebec government created the Ministry of Metropolitan Montreal, whose mandate was to co-ordinate the government's activities in the metropolitan area and set up a mechanism for joint action in various matters. Vélo Québec therefore submitted a proposal for the Réseau vélo métropolitain (Metropolitan Bicycle Network) to this ministry and subsequently signed a contract with the government to co-ordinate the project.

4. A metropolitan network

The aim of the Réseau vélo métropolitain (Metropolitan Bicycle Network) project is twofold: develop a unified bicycle network to connect all parts of the metropolitan area and help cycling become an integral part of the public transit system by making it more compatible with the various methods of transportation available (metro, train, bus, taxi, plane).

The basic network was defined from the very outset of the project (see map). This network links the islands of Montreal and Laval to each other and to the north and south shores, and serves each region. The network is composed of eight major bikeways, which join up with local routes. Five of these bikeways run along a body of water, one provides access to the downtown area, another connects Montreal's largest parks, and the last one crosses all the others and spans the three rivers surrounding Montreal. The Réseau vélo métropolitain (Metropolitan Bicycle Network) will enable cyclists to go anywhere in the metropolitan area, be it for transportation, recreation or tourism.

Approximately 50% of the network already exists. The individual bikeways are anywhere from 30% to 100% completed and, generally speaking, the segments requiring the most construction are located on the outskirts. Some existing facilities do not meet generally recognized standards. Major construction projects are underway, notably forty or so kilometres of bike path in Laval and a highway overpass built by the Ministry of Transport to connect the bike paths of Longueuil and Saint-Hubert, two large South Shore municipalities. Other work is planned for several segments in the city. The network's targeted completion date is 2010.

The network will be identified by information boards installed at primary points of interest, like the intersection of major routes, the downtown areas of municipalities, etc. These boards, which are currently being designed, will include the following three elements:

- a sign identifying it as an information board of the Réseau vélo métropolitain;
- information such as a map of the entire network, a map of local routes, and information for cyclists, for example, metro or train access regulations, ferry schedules, etc.;
- advertising to finance board installation and maintenance.

The first information boards will be installed in 2001. In a second phase, the information boards could be completed with the addition of signs indicating the direction of primary points of interest.

Route markers like those used for la Route verte are not being planned. In the case of metropolitan Montreal, several dozen municipalities would have to authorize and then install the hundreds of necessary signs.

5. Developing the synergy between cycling and public transit

A study that examined how to make cycling and public transit more compatible⁵ provided a starting point for the second part of the Réseau vélo métropolitain (Metropolitan Bicycle Network) project. The study listed a number of solutions (facilities, equipment, methods of operation) for encouraging this compatibility and compared Montreal's situation to what has been done in other cities. The study also proposed practical solutions for improving the synergy between cycling and public transit in Montreal. The study was presented to transit corporations, notably the Agence Métropolitaine de Transport (AMT), which manages commuter trains and inter-modal stations offering express buses to the downtown area.

The AMT has since promised to double the number of bicycle parking spaces at the facilities it manages. It also asked Vélo Québec to research the bike access at six train and inter-modal stations. Completed last March, this study helped establish a technique for analyzing and formulating recommendations on the number, type and location of bicycle parking facilities, access through the stations themselves and the routes connecting stations to surrounding neighbourhoods. This last point, which is often the most problematic in Montreal, will be given special attention. Steps have already been taken in the case of the Longueuil terminal, which combines a metro station with covered platforms for approximately 40 local and inter-city bus routes. The terminal is located between the access ramps of a bridge crossing the St. Lawrence River and is very difficult to reach by bicycle from the Longueuil bicycle network path. Despite these problems, as many as 400 cyclists a day use the terminal from May to September.

A pilot project to encourage travel by bicycle and taxi has begun. A co-operative effort of the Ministry of Transport, the Bureau du Taxi and the industry, this project involves installing bike racks on a fleet of approximately 100 cabs scattered throughout Montreal, Laval (northern suburb) and Longueuil (southern suburb). These cabs will be able to transport up to two or three bikes, depending on the type of rack. They will offer an alternate mode of transportation to cyclists unable or unwilling to travel solely by bike because of a mechanical breakdown, rain, too much to drink, etc. These specially equipped taxis will also enable tourists to travel from their hotel to the train station or airport with both their luggage and their bike.

More work will be done in various areas in the coming years, according to the needs of cyclists and the resources available. Some of the key projects likely to get off the ground are the following:

- the accessibility study, which could be extended to all transit stations and the metro system;
- more parking for bicycles, and the addition of covered parking spaces and bike lockers at train, bus and metro stations;
- the construction of safe access routes to train, bus and metro stations;
- the installation of bike racks on buses that cross the St. Lawrence River and buses that connect metro terminuses to regional bike paths;
- improved accessibility on trains and the metro;
- a campaign to promote the combined use of cycling and public transit.

6. A joint effort

A large number of partners are behind the planning and construction of the Réseau vélo métropolitain. Municipalities and the Quebec Ministry of Transport are building the bike paths. As is the case with roads, municipalities must pay for the network segments within their borders, while the Ministry assumes responsibility for constructing major infrastructures such as bridges and overpasses. The Ministry of Transport is also providing 25% in matching funds to pay for routes that are part of La Route Verte.

Other partners such as the Old Port of Montreal, the Lachine Canal Historic Site, the parks in the Montreal Urban Community and the St. Lawrence Seaway have already built bike paths and in many cases are planning to update these facilities.

For their part, public transit corporations are providing bicycle parking facilities and adapting their vehicles and policies to accommodate the transportation of bikes.

Finally, the team at Vélo Québec is planning and co-ordinating the development of the Réseau vélo métropolitain, with the support of the Ministère de la Métropole.

Notes

1. VÉLO QUÉBEC (1998), *Bicycling in Québec in 1995 and 1996, Volume I, Research Report*, Montreal, 51 p.
2. AGENCE MÉTROPOLITAINE DE TRANSPORT (2000), *Enquête Origine-Destination 1998 - Mobilité des personnes dans la région de Montréal*, Montreal, 170 p.
3. VÉLO QUÉBEC (1992), "Plan du Québec cyclable de l'an 2000" in *The Bicycle: Global Perspectives*, Montreal, 575 p.
4. MINISTÈRE DES TRANSPORTS DU QUÉBEC (1995), *Bicycle Policy*, Quebec, 22 p.
5. VÉLO QUÉBEC (1999), *Complémentarité entre le vélo et les transports publics*, 74 p.