

2015 STI Canada Annual Conference in Gatineau

Technical Tour: Rapibus Corridor and Stations



May 25th 2015



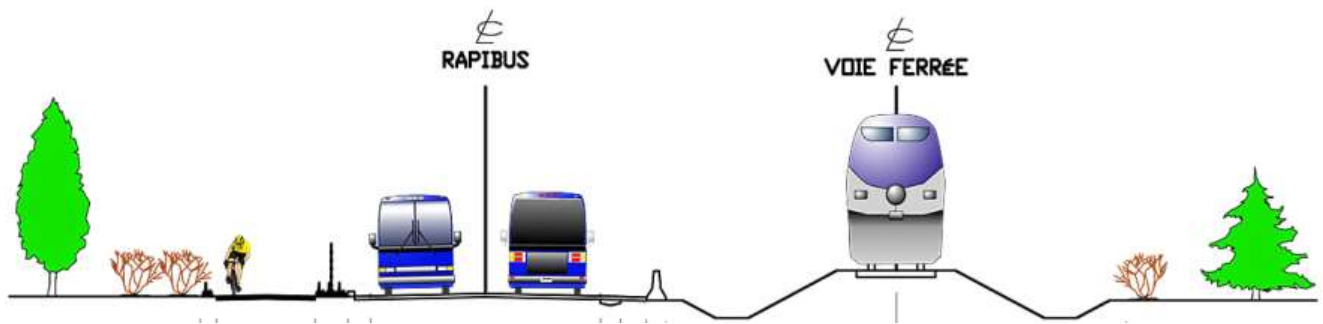
STO

Société de transport
de l'Outaouais



The bidirectional Rapibus corridor is just over 12 km in length. This transit-dedicated infrastructure connects the Eastern sectors of Gatineau to the downtown core and Ottawa with bus services.

The corridor was built along an existing railway right-of-way. The original tracks remain next to the added bus lanes and bicycle path for possible use in the future.



Three fully-lit tunnels provide safe crossing points on the 10.7 km bicycle path along the corridor. The pathway is also connected to the National Capital Region's existing trail network.

There are major undertakings reflecting the scale of the engineering challenges faced during the project:

- The complete refurbishment of the *Pont Noir* Bridge, originally built by Canadian Pacific Railways in 1877; and the addition of a bicycle path along the bridge, providing a new crossing point over the Gatineau River.
- The construction of the 60-meter-long *Gréber* tunnel. The region's first underpass required 12 800 square-meter of concrete and 1 000 tonnes of steel.
- The construction of a pumping station, adjacent to the tunnel, capable of removing up to 90 litres of water per second in case of flooding or heavy rains.
- The construction and expansion of *des Allumettières Boul.* and *Main St.* overpasses respectively.



Des Allumettières overpass



Main St. overpass

The Stations

The ten stations along the corridor offer multiple amenities to riders, including:

- Enclosed and heated/air-conditioned waiting areas or semi-enclosed waiting areas equipped with radiant heating
- Bicycle racks at 9 locations, providing a total of 175 parking spots, 70 of which are sheltered
- Complete street furniture
- An architectural concept reminiscent of rivers, hills and trees
- Tactile warning strips along the boarding and alighting areas
- Panels describing the general history of the location



Major features of the stations:

Taché-UQO Station

- Westernmost station of the corridor
- Caters mostly to *Université du Québec en Outaouais* (UQO) students



Montcalm Station

- A major transit-node for the Eastern sectors with Aylmer, the downtown core and Ottawa
- Mural to prevent graffiti



De la Gappe Station

- Located east of the *Pont Noir* bridge
- The local and Rapibus platforms provide a link between both services
- 203-spot Park-and-Ride



De la Cité Station

- Largest station along the corridor
- STO service centre
- Pedestrian overpass with elevators
- Green roofs on each side
- Geothermal-heating



Labrosse Station

- Easternmost station
- The local and Rapibus platforms provide a link between both services
- 579-spot Park-and-Ride



Intelligent Transportation Systems

***Pont Noir* as a unidirectional bridge**

As STO vehicles approach the bridge, they are detected using an RFID-based (Radio Frequency Identification) system. An algorithm then manages the flow of buses through the use of traffic lights at both ends of the *Pont Noir* Bridge.



Optical fibre

To ensure safe and secure communications, 14km of optical fibre were installed along the corridor.

Variable message signs

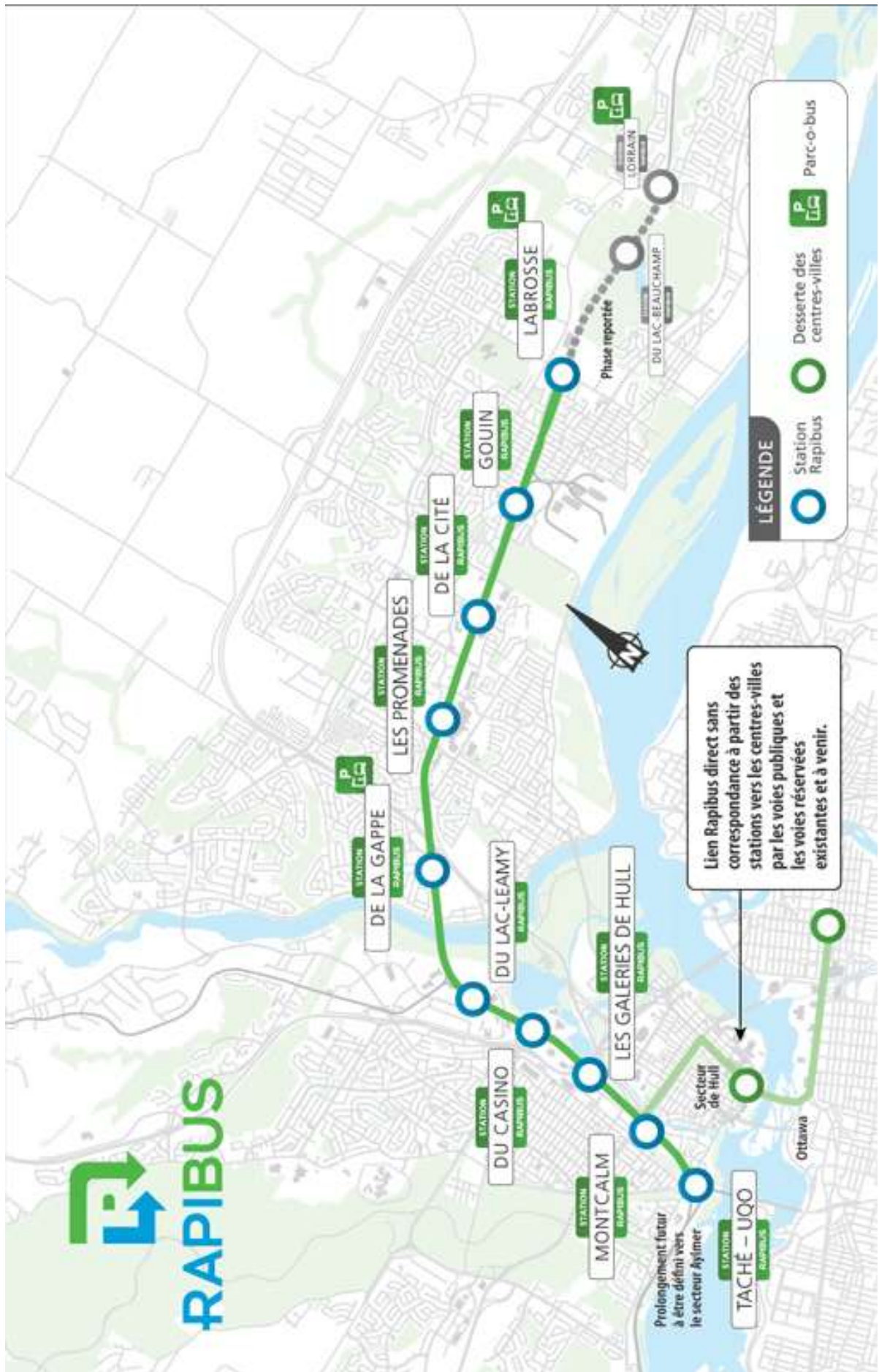
Variable message signs (VMS) at the stations enhance rider experience by displaying real-time travel information and other general messages.



Rapibus intersections



At intersections between the corridor and the road network, the traffic light controllers have been upgraded with algorithms that provide buses priority (TSP – Transit Signal Priority) with minimal impact on traffic.



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