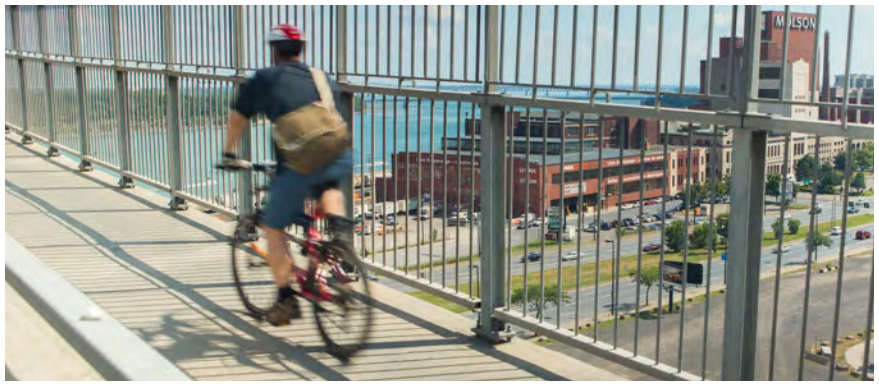
Jacques Cartier Bridge Multipurpose Path

The Jacques Cartier Bridge multipurpose path poses unique challenges

Ponts JACQUES CARTIER + CHAMPLAIN Bridges
Canada



Located on an urban bridge, has atypical geometry, and is exposed to particular weather conditions.

Special characteristics of the path and safety issues

All of these elements combined increase safety risks in winter

Atypical geometry

+ Length (2.7 km)
+ Narrow lateral clearance (from 2.5 m to 1.8 m in winter) MTMDET standard: 3.5 m
+ Long and steep slopes (4.2%)
+ Tight turns
+ Enclosed (guard rails on either side)

Raised path

+ Concrete slab (15 cm)
+ No roadbed materials to insulate the path or minimize cooling
+ More affected by weather variations compared to a path on a roadbed

Risk of falling ice

+ High steel structures (sections 3 and 7)
+ Snow thrown from the traffic lanes

Complexity of weather conditions of the St. Lawrence River

+ Unique, harsh and changeable weather conditions of the St. Lawrence River
+ Very wet, windy and changeable environment that is conducive to the unpredictable formation of black ice that directly affects the quality of the path surface