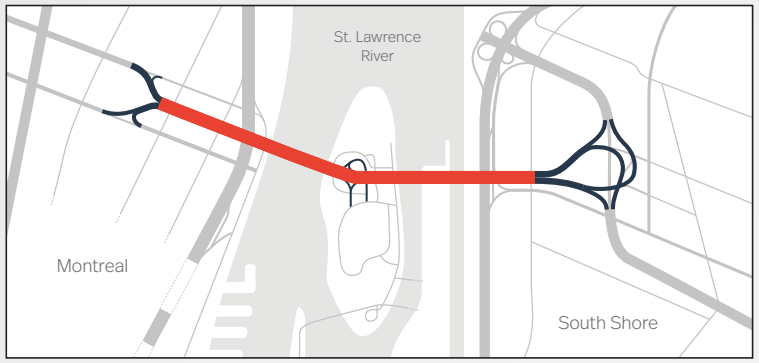
JACQUES CARTIER BRIDGE

A jewel of our heritage, the Jacques Cartier Bridge is an icon of Greater Montreal. Inaugurated in 1930, this five-lane bridge links Montreal to Longueuil and provides access to Île Sainte-Hélène.

Ponts
JACQUES CARTIER + CHAMPLAIN
Bridges
Canada



LENGTH

Bridge length abutment to abutment: 2,765 m

Including the on-ramps and off-ramps: 3,382 m

TECHNICAL DATA

Total number of spans: 40 (24 on the Longueuil side and 16 on the Montreal side)

Main channel width: 304.8 m between the wharf and the pier in the river

Roadway width: 18.3 m between the curbs

Multipurpose path width: 2.5 m

Sidewalk width: 1.5 m

Weight of steel of the bridge and pavilion (original construction): 33,267 tonnes

Amount of concrete in the piers and other supports (original construction): 86,547 m^3

Amount of cut stone for the piers (original construction): 13,379.7 m^3

Amount of gravel and other fill materials in the embankments (original construction): 95,569 m^3

Amount of paint required for one coat (original construction): 38,641.8 L

Number of piers: 28 piers, 2 abutments, 13 steel towers with 4 pedestals each and 60.9 m of concrete arches

Number of rivets: Approximately 4 million

Number of pneumatic caissons: 8

TRAFFIC

Five (5) traffic lanes

Speed: 50 km/h

Scooters: AUTHORIZED

Cyclists (including bicycles and powered scooters): AUTHORIZED on the multipurpose path

Pedestrians: AUTHORIZED on the multipurpose path and sidewalk

VEHICLES

Vehicles less than 15 metres (less than 50 feet) in length: AUTORISED on the Jacques Cartier bridge AND on the access ramps leading to Parc Jean-Drapeau

Vehicles over 15 metres (over 50 feet) in length: AUTORISED on the Jacques Cartier Bridge, but PROHIBITED on the access ramps leading to Parc Jean-Drapeau

Towing: exclusive contract on the bridge

Monitoring: Sûreté du Québec

STRUCTURE

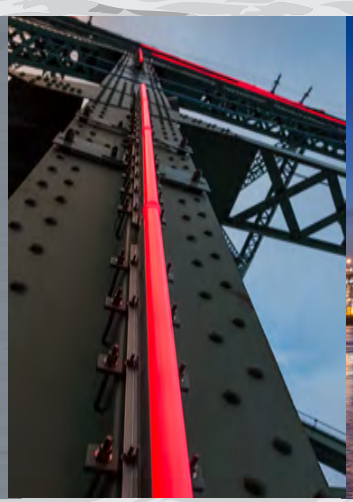
+ Concrete for the deck and substructure of south approach and main span.
+ Steel for the superstructure and substructure of north approach.

DECK

The bridge deck is 23.1 m wide. It has a multipurpose cantilever path on the upstream side and a pedestrian cantilever sidewalk on the downstream side.

The deck is supported by riveted trusses that rest on concrete piers at the south approach and steel towers at the north approach.

In the cantilever section, dowels (trunnions) and tension anchors are used to articulate some of the assemblies.



ILLUMINATION – LIVING CONNECTIONS

Thanks to intelligent programming, the Jacques Cartier Bridge is the first connected bridge that comes alive every night and changes with the rhythm of Montreal's seasons and energy.

2,807 lights

10.4 km of cables

50,000 hours: estimated lifespan of the LED lights

SOUTH APPROACHES

SECTION 1

Stops at the 326.2-m fill section at the south approach.

SECTION 2

Extends from Pier 1 to Pier 9.

SECTION 3

Spans the St. Lawrence Seaway and is approximately 36.6 m above the canal surface.

SECTION 4

Extends from Pier 10 to Pier 19A, which is the southern boundary of the Île Sainte-Hélène Pavilion.

SECTION 5

The Île Sainte-Hélène Pavilion is a three-story building. A rare example of Art Deco architecture in Montreal it is being renovated for a new use. It has a pedestrian tunnel decorated with murals that lets people get from one side of the bridge to the other under the traffic lanes.

SECTION 6

Extends from the north boundary of the Île Sainte-Hélène Pavilion to Pier 23.

MAIN SPAN

SECTION 7

The most recognizable part of the bridge, this cantilever section extends from Pier 23 to Pier 26 and spans the St. Lawrence River. It has two anchor spans at each end, two cantilever spans and a central suspended span. The bridge engineers combined aesthetics and technique to create a remarkable interplay of proportions.

The main span includes the four finials often called the "Eiffel Towers." From the deck, you would never believe that each one is nearly 4.6 m tall and weighs about 6 tonnes!

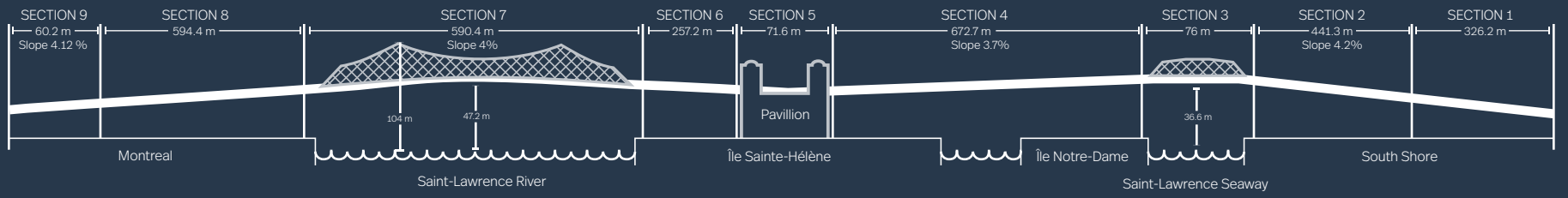
NORTH APPROACHES

SECTION 8

Includes a section with steel towers.

SECTION 9

North approaches that are partly on concrete arches.



Schematic plan not to scale