

Pont Canal de Beauharnois (Canada)



Project description

The Pont Canal de Beauharnois spans the Beauharnois Canal (part of the St. Lawrence Seaway) in Montréal, Quebec, and opened to traffic in December 2012. It was built as a key element in the new western section of the A30 Autoroute, which forms a bypass of the city of Montréal. The overall project had a total cost of approximately USD 1.5 billion, making it the biggest public-private highway project of its time in Canada.

The bridge deck consists of twin steel box girders, one for each traffic direction. These were incrementally launched across its concrete piers, creating a clearance of up to 125 ft (38 m) for shipping traffic.

mageba scope

Modular expansion joints were required for use at five bridge axes, with two joints

Location of the bridge near Montréal



of length 44 ft (13.5 m) at each axis (one per box girder). The largest joints, at one end of the bridge, are of type LR19, and thus have 19 movement gaps (accommodating 60 inches (1,520 mm) of longitudinal movement). Joints at two further axes have 11 gaps, permitting 35 inches (880 mm) of movement, while the joints at the remaining axes have 7 and 3 gaps respectively.

Transport of the assembled joints from the factory in Shanghai to the bridge site in Montréal presented a significant challenge, considering the fact that all of the joints were longer than could be transported in a 40-foot container, and the client's wish to avoid welding together of sections on-site. A further challenge was presented, in the case of the very large joints, by the width of the joints, which could not be reduced to less than 13 feet (4 m).

Architect's impression of the bridge



Highlights & Facts

mageba products:

Type: TENSA®MODULAR Type LR19, LR11, LR7 and LR3 expansion joints
Features: Snowplow protection
Installed: 2012

Bridge:

City: Montréal
Country: Canada
Built: 2009–2012
Type: Steel box girder
Length: 1.58 mi (2,550 m)
Contractor: Nouvelle Autoroute 30 Consortium (Dragados and partners, with bridge design by Arup)

Transport of two smaller expansion joints in a 45-foot container

