

Port Mann Bridge (Canada)



Project description

The Port Mann Bridge is one of British Columbia’s most significant bridge structures, carrying the Trans-Canada Highway (Canada’s Highway 1) across the Fraser River to the west of Vancouver. As part of the major Port Mann Highway 1 project, which also includes the widening and upgrading of 23 miles (37 km) of highway, the bridge has been replaced with a new structure, and was opened to traffic at the end of 2012.

The new bridge is designed for 10 lanes of traffic, and with its main span of 1,542 ft (470 m), it is the second longest cable-stayed span in North America. At 164 ft (50 m) wide, the new bridge is also the widest span bridge of any type in the world.

mageba scope

mageba has delivered the modular expansion joints required for the entire bridge including both approaches. The joints have up to 11 movement gaps and thus can facilitate movements of up to 35 inches (880 mm). In noise-sensitive areas, several joints are equipped with noise-reducing “sinus plates” on the surface.

mageba also supplied, in cooperation with R.J. Watson Inc., disc bearings for the bridge. These are designed for loads of up to 19,000 kN and a number feature “double discs” to achieve this load capacity.

Highlights & Facts

mageba products:

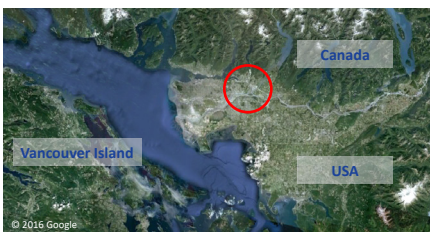
- Type: Modular expansion joints and disc bearings*
- Features: Expansion joints with movements of up to 35 in (880 mm), some featuring “sinus plates”
- Installation: 2012

Structure:

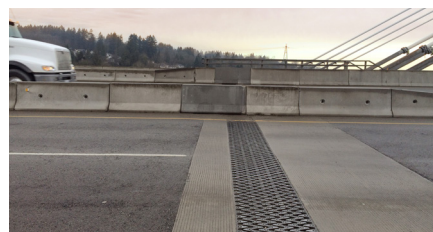
- City: Vancouver
- Country: Canada
- Built: 2008–2012
- Type: Cable stayed bridge
- Length: 1.37 mi (2,200 m)
- Maintained: Transportation Investment Corporation
- Contractor: Kiewit Flatiron General Partnership

* in cooperation with R.J. Watson Inc.

Location of the bridge in British Columbia



A modular expansion joint featuring noise-reducing “sinus plates” on its surface



Disc bearings (with double discs per bearing) ready for delivery

