

St. Croix Crossing

Stillwater, MN

Project Description

The St. Croix Crossing replaced the 80 year-old Stillwater Lift Bridge with a new four-lane extradosed bridge to connect expressways on both sides of the St. Croix River. The joint project between MnDOT and WisDOT plans to realign Hwy 36 and Hwy 35, build a three-mile connection to WIS Hwy 64 from the new bridge, and construct WIS Hwy 35 overpass. The main crossing extradosed design allows for a low profile intended to fit well with the natural environment. 4 600' typical spans and side spans of the extradosed bridge consist of side-by-side box girders connected with a transverse frame system. Precast segments were lifted from barges at each heading with beam and winch lifters capable of side shifting between girder lines. Due to lack of water access at sidespans, segments were lifted at the river-side heading and walked down the cantilever to the opposite tip.

Owner

Minnesota Department of Transportation and Wisconsin Department of Transportation

Contractor

Lunda / Ames JV

Designer

Buckland & Taylor

Our Role

McNary Bergeron provided a full array of construction engineering services including time-dependent construction analyses of the extradosed superstructure and piers, geometry control for the twin box girders, falsework design (including an elevated trestle and segment rolling system on the Wisconsin side) and shop drawings. McB also provided an independent check of the segment lifters.

Total Contract Value

\$580-\$676 million

Timeline

2013-2016

Construction Method and Specifications

Precast twin box girders connected by transverse frames, extradosed, erected in balanced cantilever with lifters, use of unique segment transport systems to walk segments along cantilever and roll segments along trestle.

