

# Lake Champlain Bridge

Crown Point, NY / Chimney Point, VT



The original Champlain Bridge was opened to traffic in 1929 at a cost of \$1 million. Its opening was attended by 40,000 people. This 2184 ft long bridge was one of the first continuous truss road bridges built in the nation. In 1991, the bridge underwent extensive rehabilitation with replacement of the deck and railings, the repainting of the steel trusses, and the repairing of the bridge piers.

Due to safety concerns relating to the unreinforced piers, the bridge was closed without warning. The bridge is only one of two that connect New York to Vermont and when closed in 2009, it caused economic hardship for commuters and local businesses.

The bridge is being replaced by a Modified Network Tied Arch concept on 7 concrete piers based upon public comment. Other designs suggested included Steel Girder, Segmental box, Steel Cable Stayed and Extradosed structures.

The new design required 2 vehicle lanes with wider shoulders. In order to allow passage of the replica schooner Lois McClur, a 75 ft navigational clearance was required. A 75-year design life was also required.

The contract to initiate construction was awarded 7½ months after the old bridge was closed. After the seven, 250 ft approach spans were placed, the 402 ft arch span was installed on August 27, 2011. Epoxy-coated reinforcing steel (ECR rebar) was used to provide corrosion protection to the reinforcing steel. The bridge is due to be opened in 2011.

## Team

### Owner:

Vermont Department of Transportation and  
New York Department of Transportation

### Designer:

HNTB

### General Contractor:

Flatiron Constructors

### Design Criteria:

- 2 lanes with shoulders.
- Provide 75-year design life.
- Provide 75 ft vertical navigation clearance.

**Total Project Cost:** \$70 million

### Total Size:

LENGTH: 2100 ft

### Photography:

New York Department of Transportation