

# 42 Quechee Gorge Bridge

Route 4, Hartford, Vermont

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Located in a wooded area of scattered residential, commercial, and agricultural buildings in Windsor County, the Quechee Gorge Bridge (also called the Ottauquechee River Bridge) is the oldest standing steel arch bridge in Vermont. This large tri-span, spandrel-braced, deck arched bridge is 285' long, 41' wide, and sits 163' above the Ottauquechee River. The Quechee Gorge Bridge provides breathtaking views of Vermont's deepest gorge; sometimes referred to as "Vermont's Grand Canyon." The Quechee Gorge was formed by glacial activity approximately 13,000 years ago. The Bridge was listed on the National Register of Historic Places in 1990.

Designed for the Woodstock Railroad in 1911 by master bridge builder, John W. Storrs, and fabricated by the American Bridge Company of New York, the Quechee Gorge Bridge is rare for its unusual design and construction method. Due to its relatively unaltered state, (the bridge was rehabilitated in 1989) the bridge retains its integrity of location, design, materials, and workmanship.

It is historically significant for its contribution to the broad patterns of our transportation history since it was built as a railroad bridge during the height of railroad transportation and then, in 1933, was incorporated into a highway bridge due to increased automobile traffic on Vermont's roadways. The bridge is architecturally significant for embodying the types, forms, and methods of engineering and construction associated with bridge building in Vermont in the 19th and 20th centuries. The bridge is intact with an identifiable truss system which is still functioning.

Although a few steel arches had been built in America in the 1880s and 1890s, they did not become common until the first decades of the twentieth century, and then only for special circumstances. When the 1905 Bellows Falls, Vermont Bridge was demolished, this span became Vermont's oldest steel arch. It is also the only spandrel-braced arch which uses truss work in the area between the roadway and the ribs, in effect, making the whole web into part of the arch. The design was especially well-suited to crossings high above a rocky gorge. By utilizing an arch, the abutments could be made lower than a comparable deck truss. Although the method of erection of this bridge is not known, steel arches typically were constructed with the ribs cantilevered out over the river and held in place by stay cables. Thus, this bridge could

have been erected without first building 163' of falsework precariously perched in the gorge below.

The bridge was built in 1911 to carry the tracks of the Woodstock Railroad over the gorge and replaced an 1875 wooden truss bridge which was less suited for heavyweight, twentieth century locomotives. In 1933, the right of way was taken over for U.S. Route 4, and the bridge was converted for highway use. This procedure chiefly required adding stringers and a concrete deck to the system.

At the time John W. Storrs designed this bridge, he was employed as a bridge engineer for the Boston and Maine Railroad. He also worked as an independent consultant for others, including the Woodstock and Montpelier and Wells River Railroads. Around 1909 his son, Edward, joined him and by 1915 the firm, known as Storrs and Storrs, was doing a large business in northern New England. The firm also designed a Connecticut River bridge in Brattleboro, as well as a granite bridge in Barre which are both still standing. The Quechee Gorge Bridge appears to be the largest and most sophisticated bridge Storrs designed.

The Quechee Gorge Visitor Center offers visitor information along with interpretive displays about the history of the bridge, the gorge and local flora and fauna. The Visitor Center is located on Route 4 between Quechee State Park and Quechee Gorge, approximately 8 miles from Woodstock, Vermont and 2 miles from the intersection of I-89 and Route 4.

**Sources:**

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