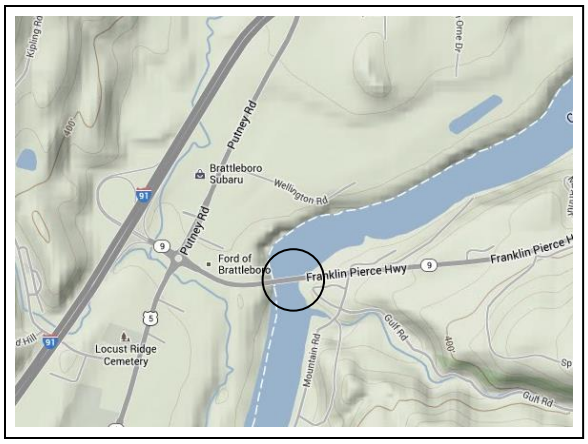
CONNECTICUT RIVER BRIDGE
003 – CHESTERFIELD – BRATTLEBORO **NH Bridge ID:** Chesterfield 040/096

CARRYING: NH 9
PRESENT NAME: US Navy Seabees Bridge
DATE BUILT: 1937, 2003
LAT/LONG: 42.884139 -72.551651



CROSSING CHRONOLOGY

1788	Lower ferry, in vicinity, established.
1888	First bridge, steel suspension
1936	First bridge destroyed by flood
1937	Second bridge, steel arch
2003	Third bridge, box girder rib open spandrel arch, similar in design to 1937 arch, built alongside as bypass bridge

FIGURE 1: US Navy Seabees Bridge, 2003, right; Chesterfield-Brattleboro Steel Arch Bridge, 1937, left, closed and bypassed (Historic Documentation Company Inc. 2012).

CROSSING HISTORY

Ferry Crossing: A ferry known as the "lower ferry" was established in the vicinity of this crossing in 1788 by William Thomas. It was later known as Norcross's Ferry after Benaiah Norcross, who operated it continuously for nearly 50 years. The road leading from the ferry to the village of Chesterfield was laid out in 1822.

First bridge: The first effort to erect a bridge between Chesterfield and Vermont was made in 1817 when a charter was secured by the Vermont and New Hampshire Bridge Company for a bridge over the Connecticut River between Chesterfield and Dummerston. This project never materialized, nor did an effort in 1848 when the citizens of Chesterfield voted to build a bridge to Brattleboro.

The first bridge at this crossing was a suspension bridge built in 1889 by the Berlin Iron Bridge Company of East Berlin, Connecticut. R. B. Hanna was engineer of the superstructure; C. V. Pendleton was engineer of the substructure. United Construction Company of Albany, NY was the general contractor.

The Chesterfield-Brattleboro Suspension Bridge had a clear span of 320' with a roadway 16 ' wide, and consisted of a through truss suspended from fourteen individual cables strung over iron towers. Chesterfield paid two thirds and Brattleboro paid one third of the bridge's total cost of $12,675. The bridge was opened on June 4, 1889, with a ceremony attended by an estimated 1,000 people.

On November 6, 1935, the bridge truss was found severely buckled and broken in several places, the damage attributed to a ten wheel truck and trailer which passed over the bridge the night before. The bridge was repaired to carry light traffic but determined to be at the end of its useful life, and planning for its replacement was begun.

On March 19, 1936, before a new bridge could be started, the Great Flood of 1936 inundated and destroyed the bridge, ripping it from its anchorages. The cables were salvaged to support a temporary pedestrian suspension bridge over the Merrimack River at the site of Manchester's MacGregor Bridge (aka the Notre Dame Bridge), which had also been destroyed by the flood. In July a temporary wood deck bridge on wood-pile bents was completed in place of the old suspension bridge by the Carlo Bianchi Company of Framingham, Massachusetts. Parts of the old suspension bridge were recovered from the river by divers in 2012 and given to the Chesterfield Historical Society, where they are now on display.

Second bridge: In 1937 the suspension bridge was replaced by a monumental steel arch bridge that remains standing as a pedestrian and recreational bridge alongside a new larger version of the bridge built in 2002-2003. The Chesterfield-Brattleboro Steel Arch Bridge is a single-span, box-girder-rib, two-hinge half-through arch with a span of 425'. The roadway measures 24' between the curbs. Bethlehem Steel Company of Pottstown, Pennsylvania fabricated and erected the superstructure. O.W. Miller Company, Springfield, Massachusetts, was General Contractor and built the substructure.

The bridge is an important example of the box-girder arch type and has been determined eligible for the National Register of Historic Places and recorded to HAER standards in 2000. It was named Most Beautiful Steel Bridge, Class C, of 1937 by the American Institute of Steel Construction. The bridge was designed by Harold E. Langley and John H. Wells, of the New

Hampshire Highway Department. Both men served as State Bridge Engineer and made significant contributions to bridge building in New Hampshire during the twentieth century. The two also designed the similar Orford-Fairlee Bridge over the Connecticut River, built in 1937 and also inventoried in this study.

Third bridge: In 2003, a new steel arch bridge was completed adjacent to and upstream from the 1937 arch. The new bridge is essentially identical in structural design to the 1937 bridge, except roughly twice as wide. It spans 426.5' with a roadway width of 42.5' between the curbs. It was designed by NHDOT and constructed at a total cost of $11.6 million by Cianbro Corporation, Pittsfield, ME.

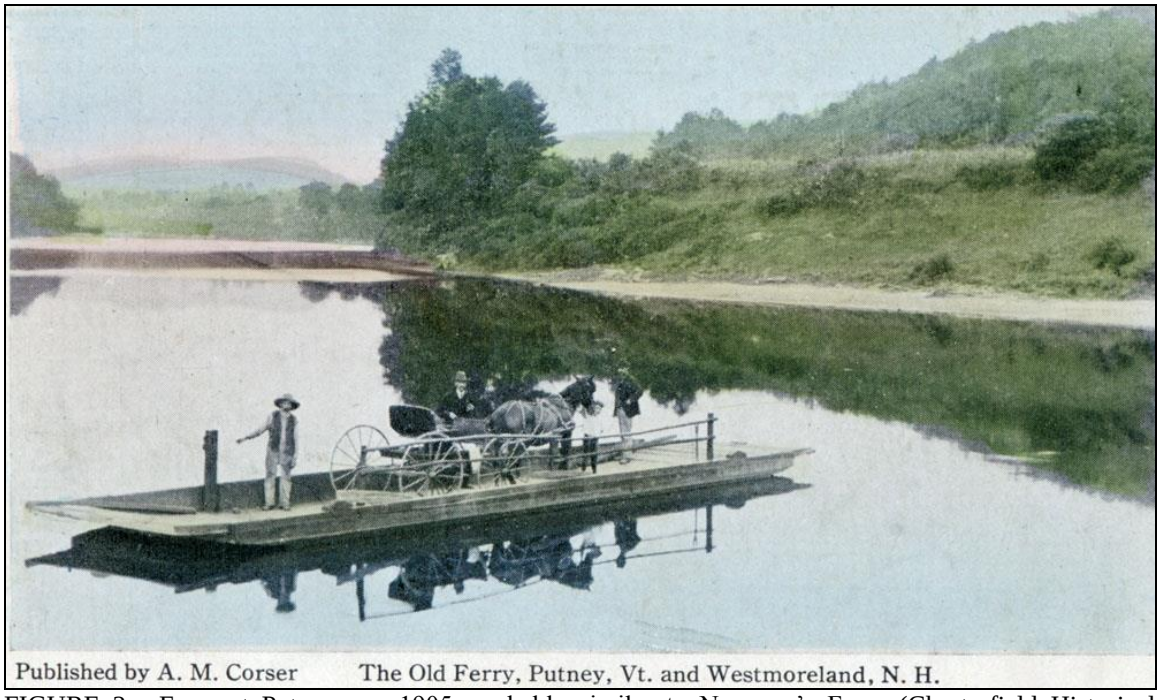


FIGURE 2: Ferry at Putney, ca. 1905, probably similar to Norcross's Ferry (Chesterfield Historical Society).

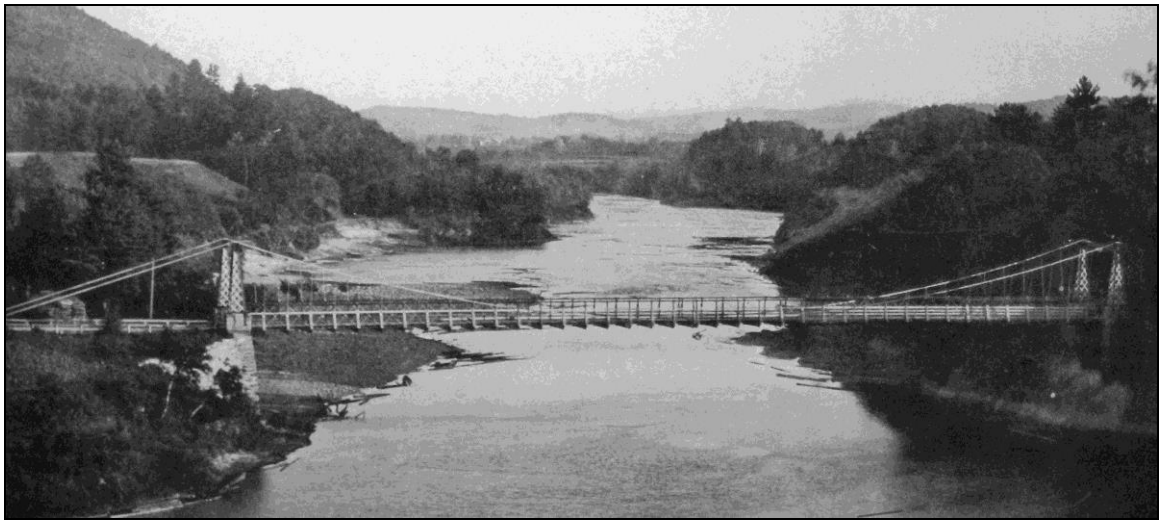


FIGURE 3: Chesterfield-Brattleboro Suspension Bridge, built 1888 (Bacon 1906).

FIGURE 4: Chesterfield-Brattleboro Suspension Bridge (Chesterfield Historical Society).

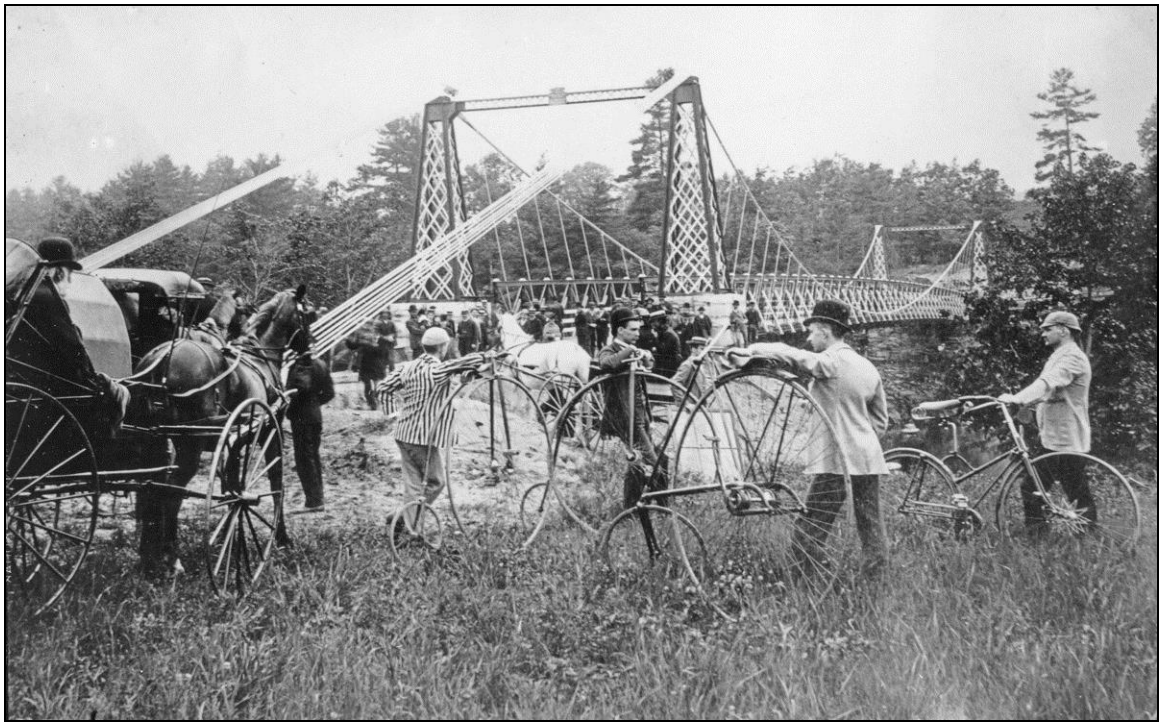


FIGURE 5: Chesterfield-Brattleboro Suspension Bridge. Photo probably depicting opening celebration in 1888 (Chesterfield Historical Society).


FIGURE 6: Chesterfield-Brattleboro Suspension Bridge in 1922 (Storrs 1922).


FIGURE 7: Chesterfield-Brattleboro Suspension Bridge in 1922 (Storrs 1922).

FIGURE 8: Photo, 1937, showing at left, remains of 1888 suspension bridge destroyed by 1936 flood, and at right, the initial construction of steel arches for Chesterfield-Brattleboro Arch Bridge (NHDOT 1941).

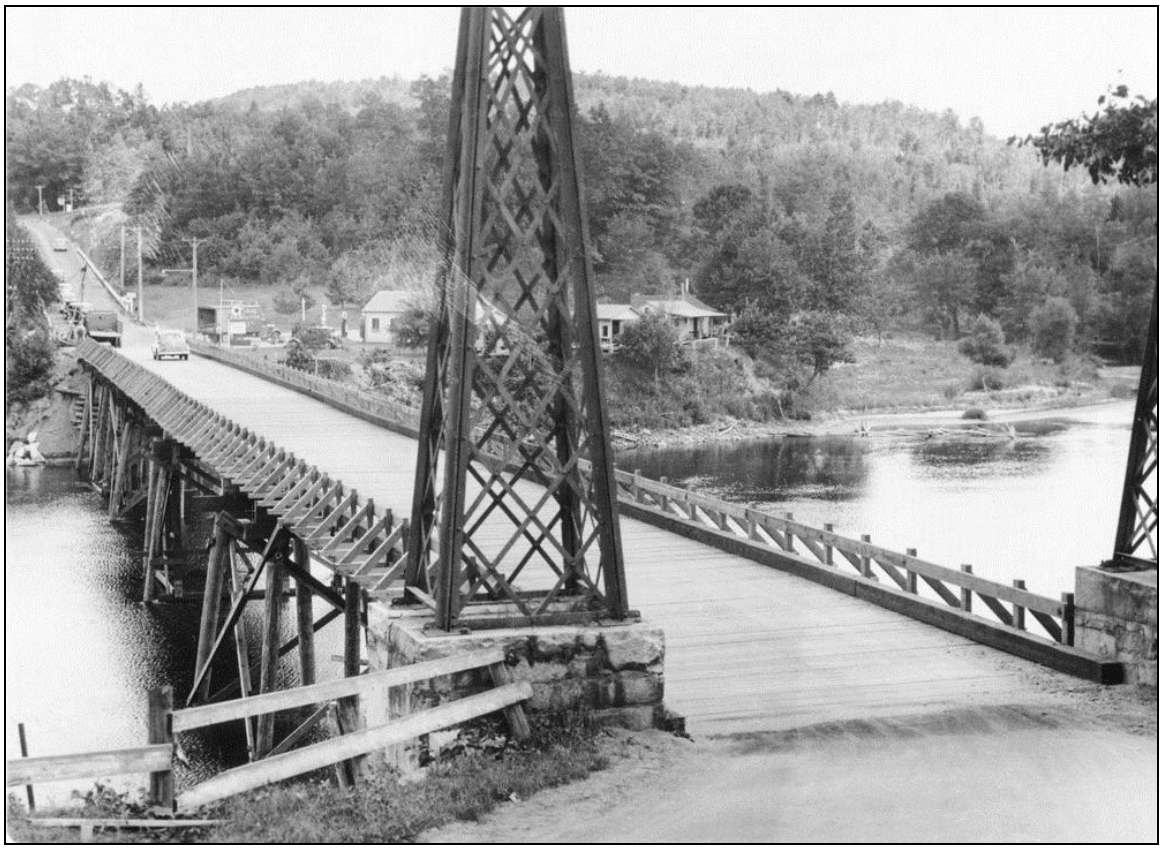


FIGURE 9: Photo, 1937, showing temporary wood trestle bridge erected between towers of suspension bridge destroyed by 1936 flood (NHDOT 1941).

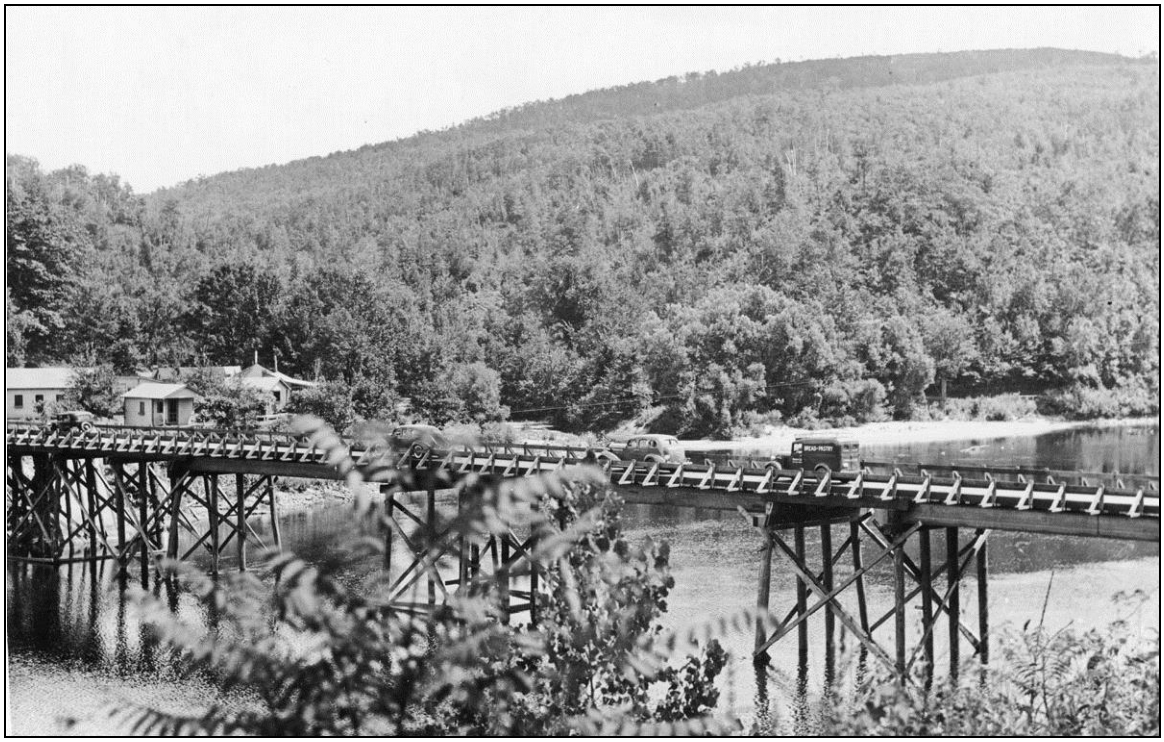


FIGURE 10: Photo, 1937, showing traffic passing over temporary wood trestle bridge erected after 1936 flood (NHDOT 1941).

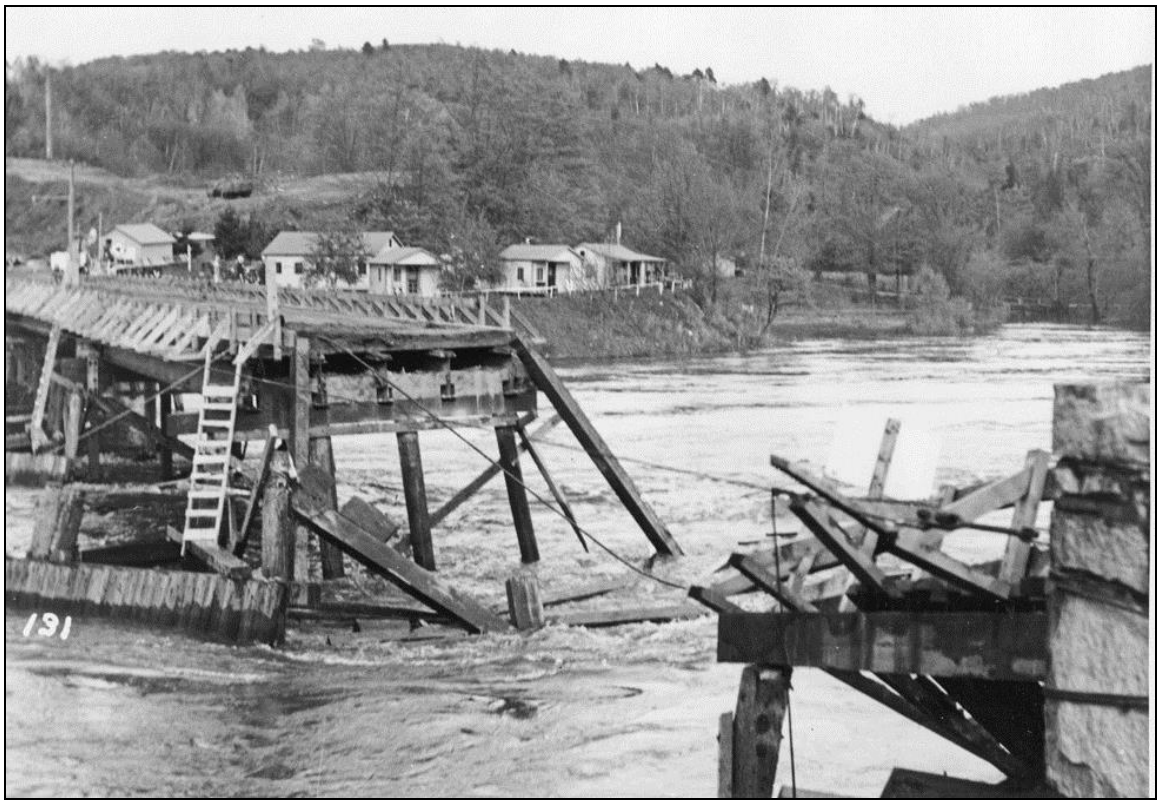


FIGURE 11: Photo, 1937, showing section of temporary wood trestle bridge washed out (NHDOT 1941).

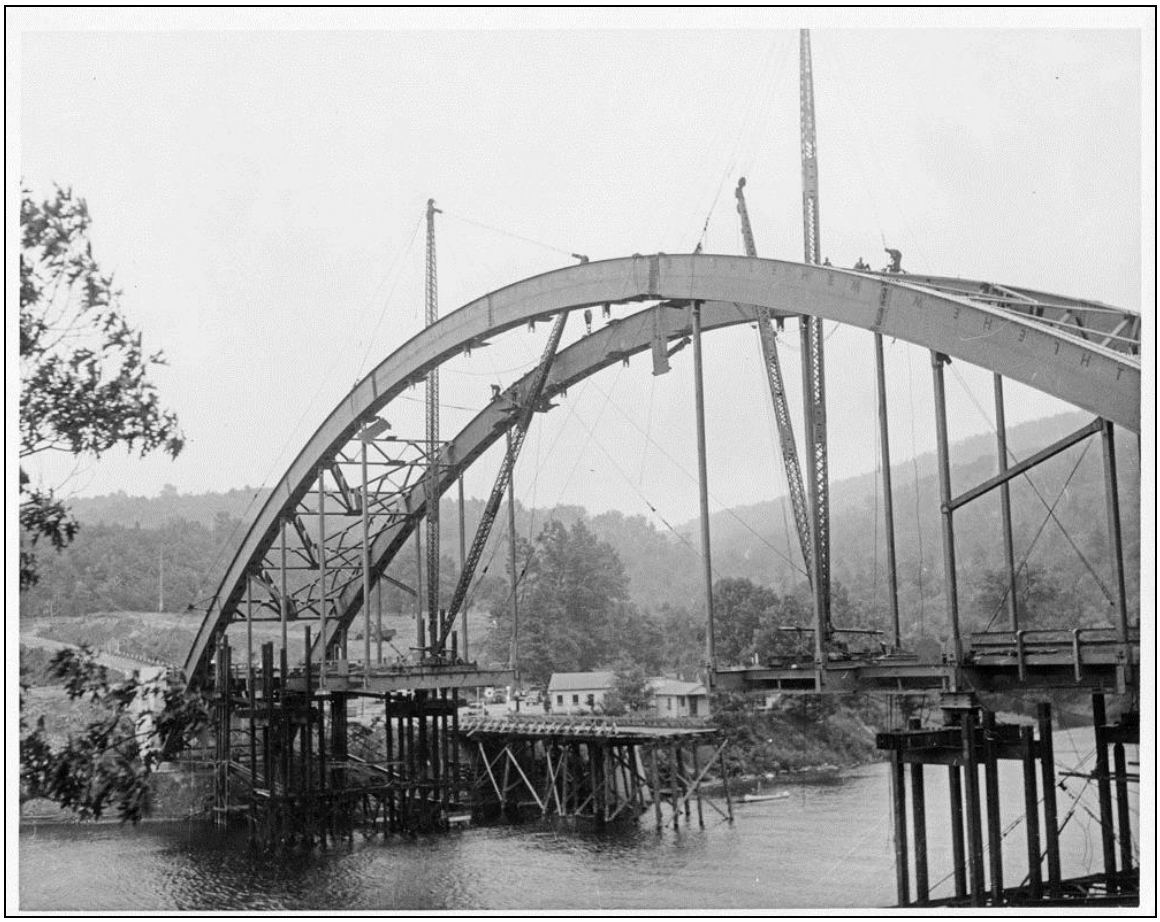


FIGURE 12: Chesterfield-Brattleboro Arch Bridge, under construction in 1937, showing completion of the steel arches (NHDOT 1941).

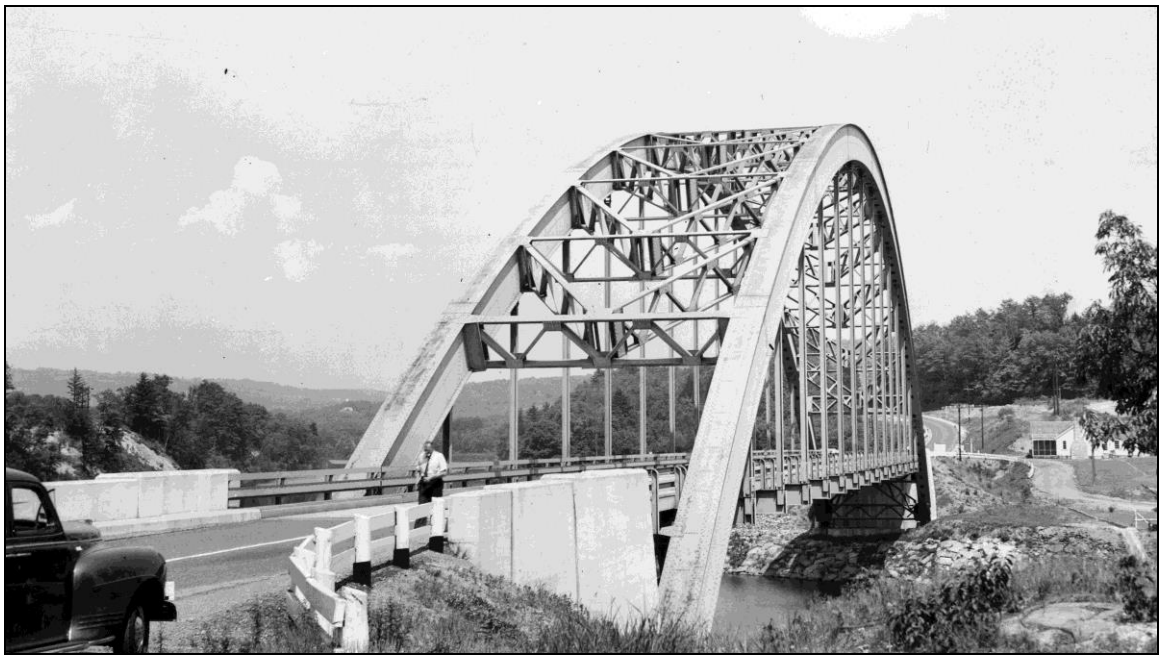


FIGURE 13: Chesterfield-Brattleboro Arch Bridge, completed 1937. Downstream side, view from Vermont shore in 1941 (NHDOT 1941).

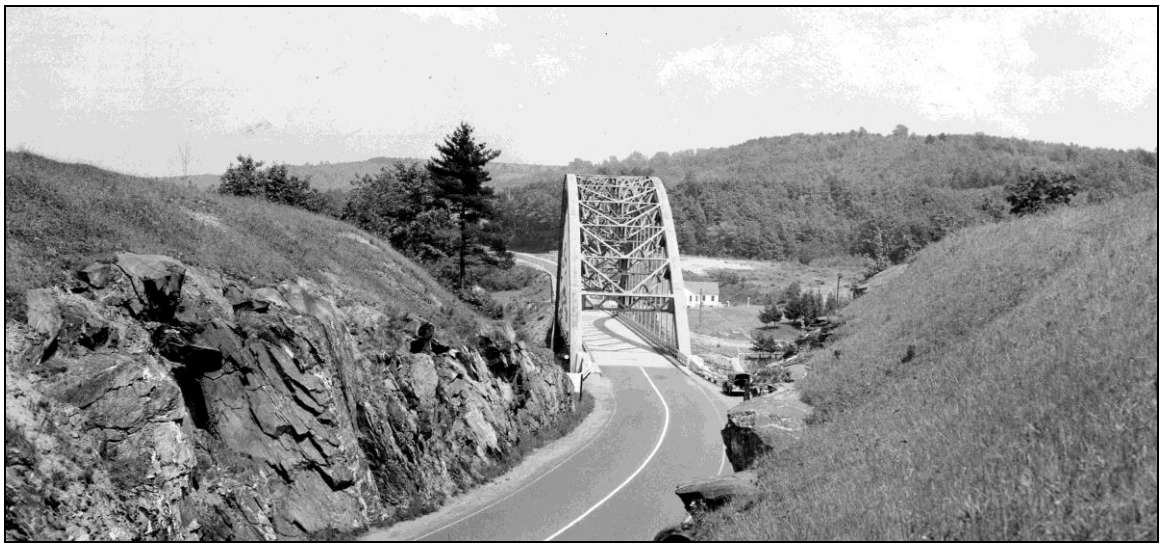


FIGURE 14: Chesterfield-Brattleboro Arch Bridge, completed 1937, Vermont end shown in 1941 (NHDOT 1941).

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John Storrs Photograph Collection. Located at New Hampshire Division of Historical Resources, Concord.

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