

**CONNECTICUT RIVER BRIDGE
012 HANOVER – NORWICH**

NH Bridge ID: Hanover 026/056

CARRYING: West Wheelock Street, NH 10A

PRESENT NAME: Ledyard Bridge

DATE BUILT: 1998

LAT/LONG: 43.703591,-72.299695

CROSSING CHRONOLOGY

- c.1770 Ferry established
- 1796 First toll bridge, massive wood arch collapses in 1804
- 1804 Second bridge built, open truss design
- 1839 Third bridge, also open truss design
- 1854 Bridge destroyed in fire
- 1859 Fourth bridge, toll-free covered Town truss
- 1927 Arches added as reinforcement
- 1934 Bridge taken down
- 1935 Fifth bridge, steel plate girder structure
- 1950 Bridge raised 3 feet with raising of Wilder Dam
- 1997 Sixth bridge completed, continuous steel plate girder

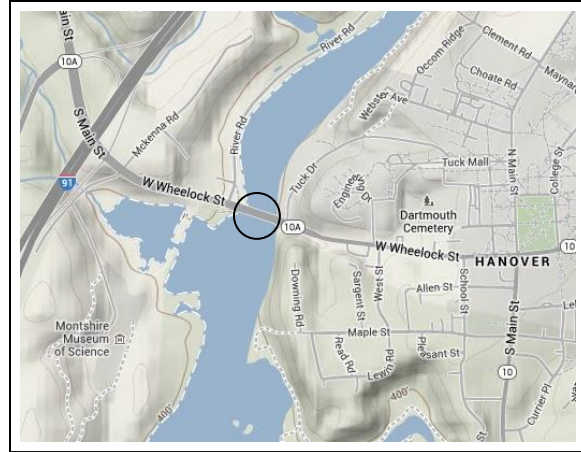


FIGURE 1: Present Ledyard Bridge, built 1997, upstream side, view from Vermont (Photo by Jerry Zoller, NHDOT 2011).

CROSSING HISTORY

Ferry and first bridge: The history of the crossing at this location has always been linked to that of Hanover's Dartmouth College, which was chartered in 1769. Innkeeper John Sargent began running a ferry here within a year or so afterward. The Trustees of Dartmouth acquired the ferry charter in 1772. The White River Falls Bridge Company constructed the first toll bridge in 1796. It was the second bridge built to span the Connecticut between New Hampshire and Vermont, the first having been erected at Bellows Falls in 1785. Local merchant Rufus Graves designed the bridge at Hanover for the company. Graves's expertise as an engineer was apparently not equal to the task—his design, based on Timothy Palmer's 1794 Piscataqua Bridge and consisting of a single high arch 236 feet in length, resulted in a structure that collapsed with a momentous building-shaking roar in 1804.

Second bridge: The next bridge was built by the company shortly after the disaster, probably within 1804. This was an open wooden bridge, its deck lined with a parapet.

Third bridge: The White River Falls Bridge Company replaced the second bridge with another of similar design in 1839. This bridge burned in 1854, arson suspected as the cause. Ferry service resumed for a few years while plans for a new bridge were considered. The White River Falls Bridge Company gave up its charter for the crossing.

Fourth bridge: The fourth span located here proved to be a long-lived structure and in fact became one of the best known bridges in the state in its era. It was completed by the Town of Hanover in 1859 and opened as the first toll-free crossing of the Connecticut River between New Hampshire and Vermont. The raising of the toll resolved many years of local protest and evasion of the fee, and the initiation of a crossing without charge after decades of controversy throughout the New England region was considered cause for celebration, as commemorated in a grand assembly with speeches by Dartmouth faculty members. The bridge was named in commemoration of the noted early American world explorer and free spirit John Ledyard (1751-1789), who had briefly attended Dartmouth. In design the 402-foot covered bridge was a two-span structure employing the Town truss with its latticework frame. For a period in the late 19th century the bridge's side walls were enclosed with barn-like vertical plank, pierced by intermittent diamond windows. In later years the board walls were removed, permitting sunlight to brighten the interior. In 1927 arches were added as reinforcement. In 1933, however, the New Hampshire Highway Department determined that the bridge was not equal to modern service and it was taken down in 1934. Dartmouth students and alumni regretted the demolition, since passing through the span had been part of the college experience for generations.

Fifth bridge: The Highway Department completed the new bridge in 1935. The American Bridge Company fabricated the superstructure consisting of three continuous plate girder spans with an overall length of 345 feet. The abutments, wings, and piers were built of reinforced concrete. Davidson Company served as general contractor, completing the bridge for approximately \$151,000. In 1950 the Highway Department had to raise the bridge by 3 feet because the Wilder Dam located downstream was being raised in height. The old deck surface treatment was removed and a new one applied as part of the project, and the light standards were also replaced. When the bridge was condemned in the 1990s, it was one of five historic continuous plate girder deck bridges standing in the state, and was recorded in accordance with the standards of the Historic American Engineering Record.

Sixth bridge: During 1995-1997, the New Hampshire DOT replaced the Ledyard Bridge with a longer structure, measuring 465 feet in length. The new bridge, though larger, was designed to

closely resemble the old one, being three spans and of steel plate girder construction on reinforced concrete abutments and piers. Midway Excavators, Inc., of South Hampton, NH, served as contractor.



FIGURE 2: Ledyard Bridge, built 1859, showing New Hampshire portal in 1922 (Storrs 1922).

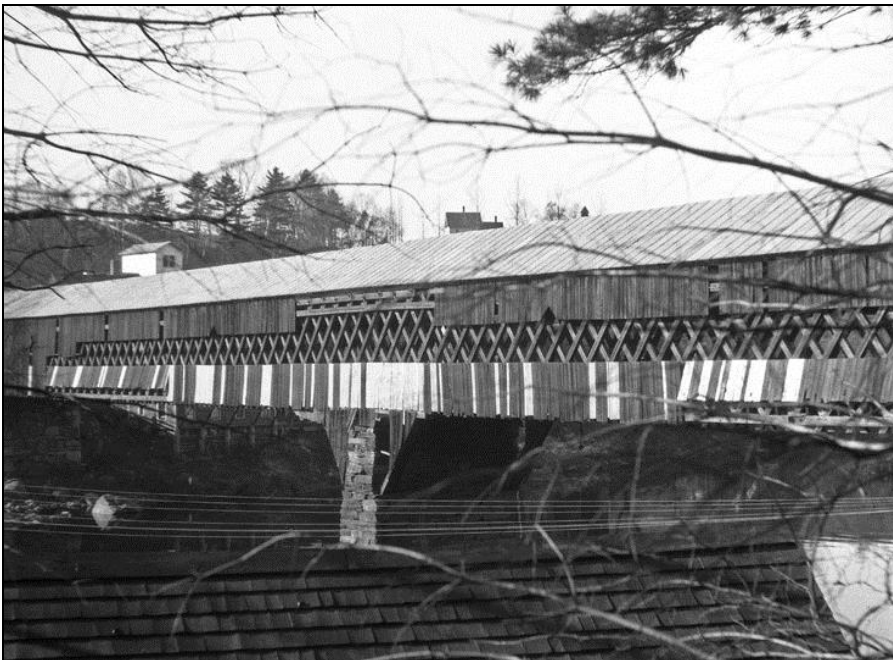


FIGURE 3: Ledyard Bridge, built 1859, showing downstream side from New Hampshire end in 1922 (Storrs 1922).



FIGURE 4: Ledyard Bridge, built 1935. Vermont approach in 1942 (NHDOT 1942).



FIGURE 5: Ledyard Bridge, built 1935. Upstream side from Vermont in 1942 (NHDOT 1942).



FIGURE 6: Ledyard Bridge, built 1935. Postcard, looking west toward Lewiston Vermont shortly after completion (Lebanon Historical Society).



FIGURE 7: Present Ledyard Bridge, view from New Hampshire (Photo by Jerry Zoller, NHDOT 2011).

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