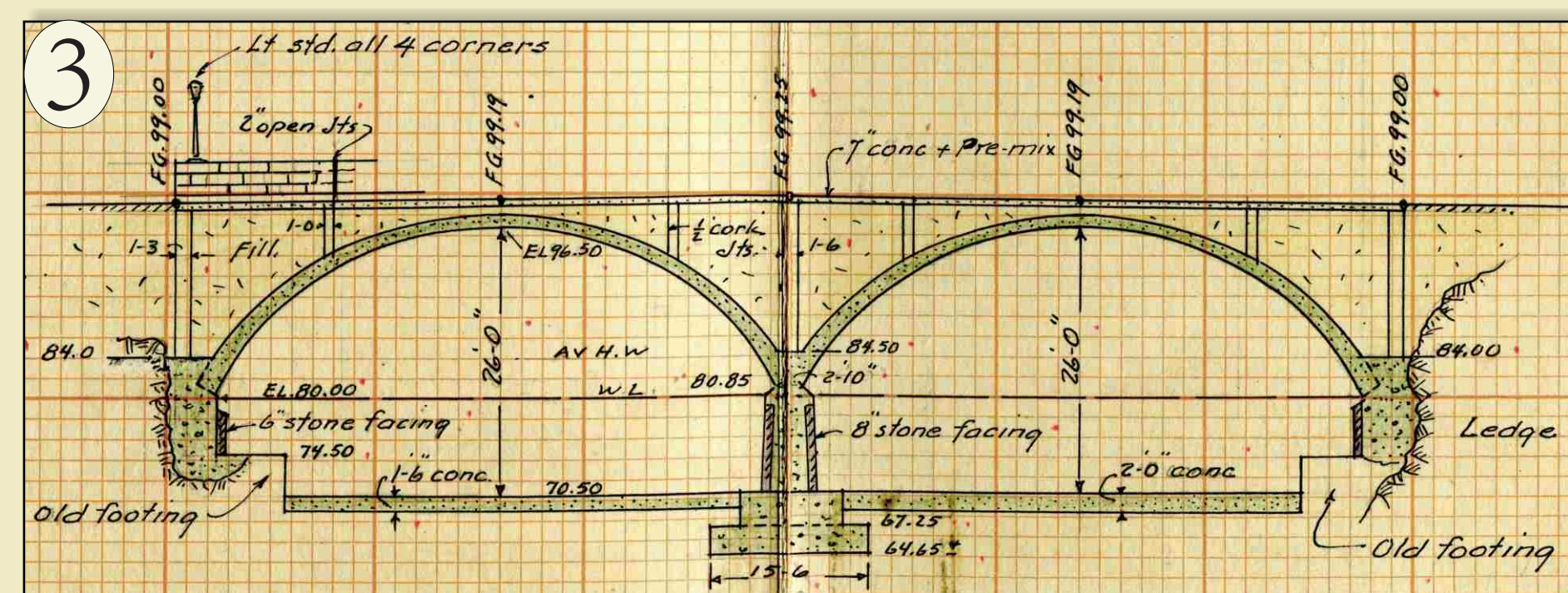
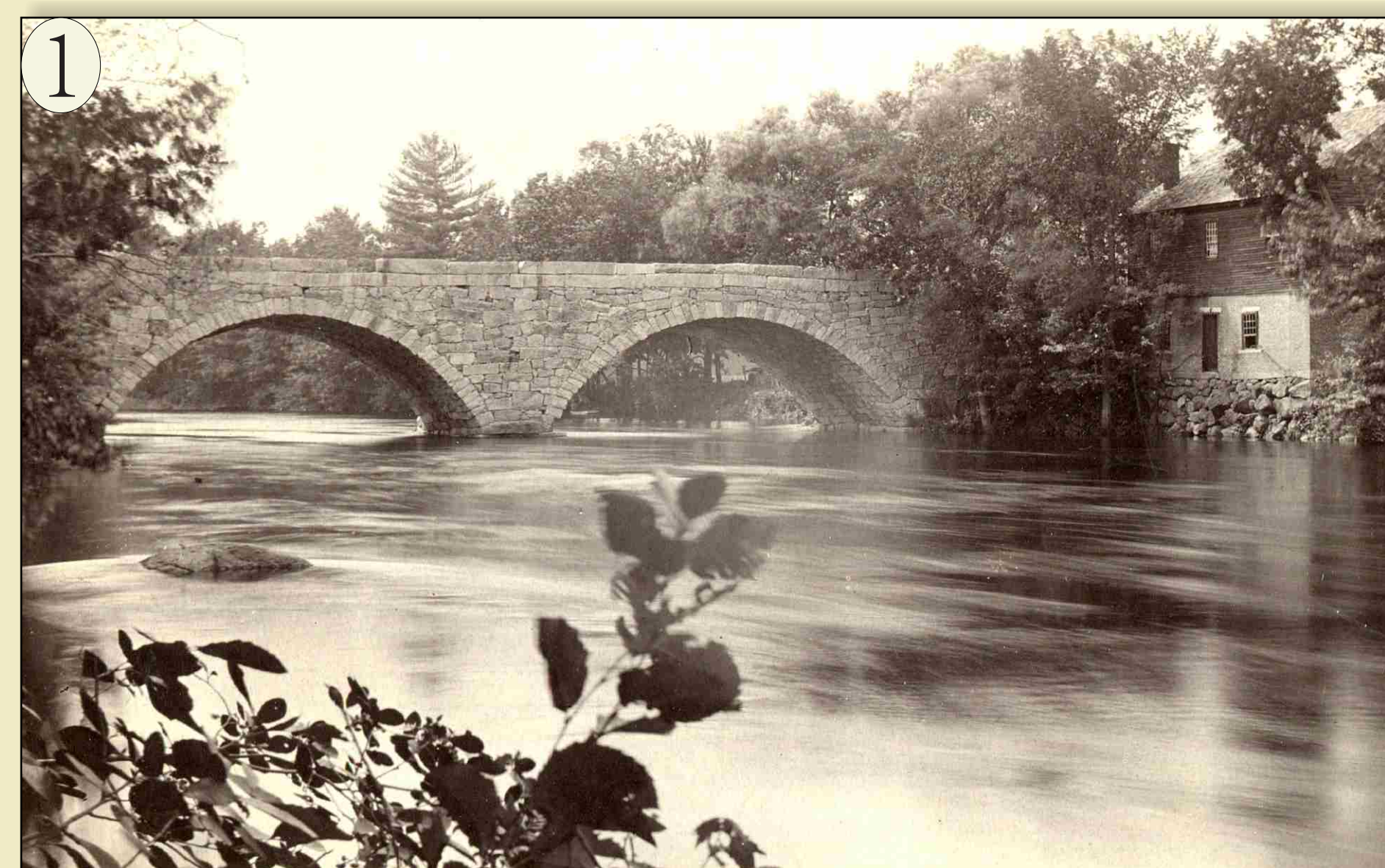


HISTORIC BRIDGES OF HENNIKER



EDNA DEAN PROCTOR - STONE ARCH BRIDGE

1. Erected in 1835 over the Contoocook River at a cost of \$3500 to permanently replace the Town's first bridge built in 1780, a wood span repeatedly destroyed by ice and floods. Considered the first double stone arch bridge in the state.

2. The massive stone arches resisted a century of attack by the Contoocook until the Great New England Hurricane of 1938, one of the most destructive storms in the region's history. Flood waters washed out the foundations and tumbled the landmark bridge into the river.

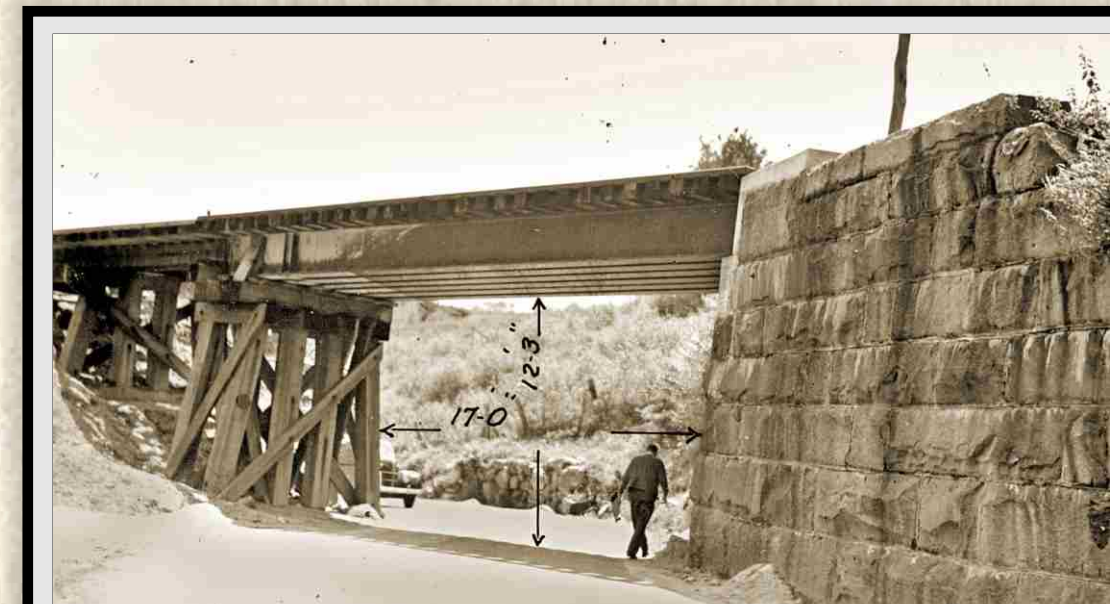
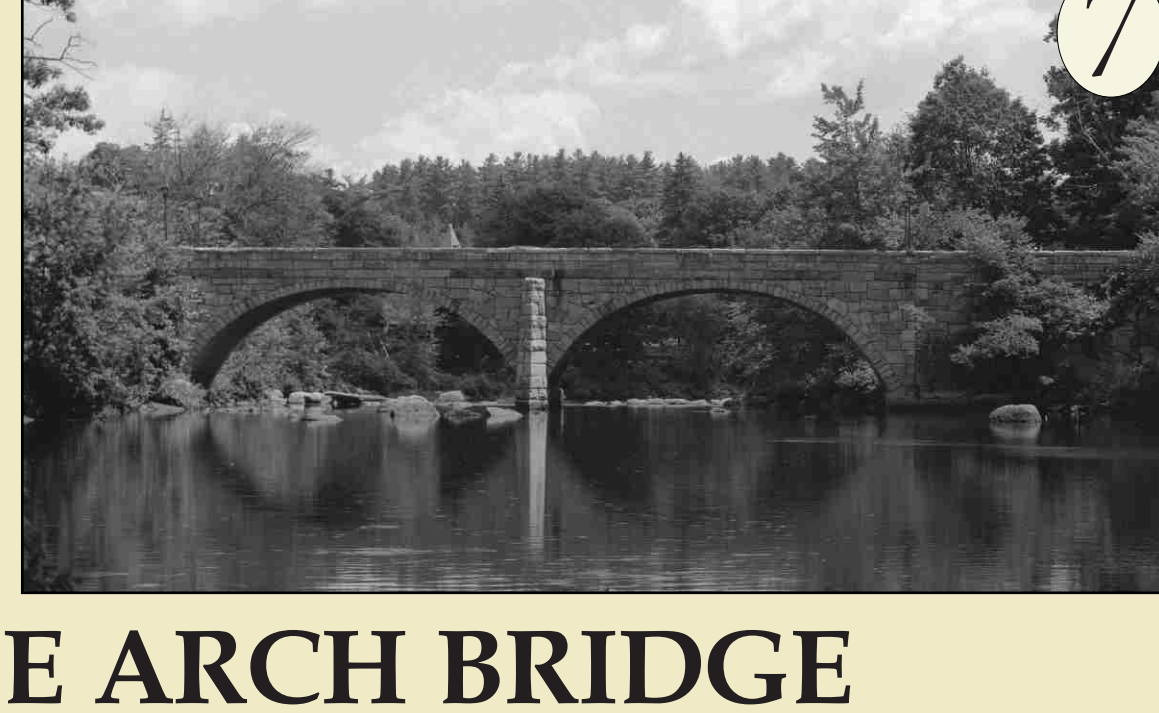
3. One of sixty bridges in the state destroyed by the "38 Hurricane," it was eligible for replacement with federal disaster funds. John H. Wells, a top engineer at the New Hampshire Highway Department, designed a modern reinforced concrete double arch bridge. Henniker voters approved the use of Proctor Family Trust funds to apply the stone from the old bridge over the concrete to duplicate the appearance of the old bridge.

4. A huge crane drove steel sheet piling to form a foundation for a new center pier. Heavy timber falsework was erected over the river to form the concrete arches and support the stonework during construction. Workers placed wedge-shaped stones called *vousoirs* along the edge of the falsework to form the arch.

5. Concrete arch complete and falsework partly removed. *Vousoirs* are mortared in place. Workers are installing steel reinforcing rods for the concrete spandrel walls to contain the roadway fill.

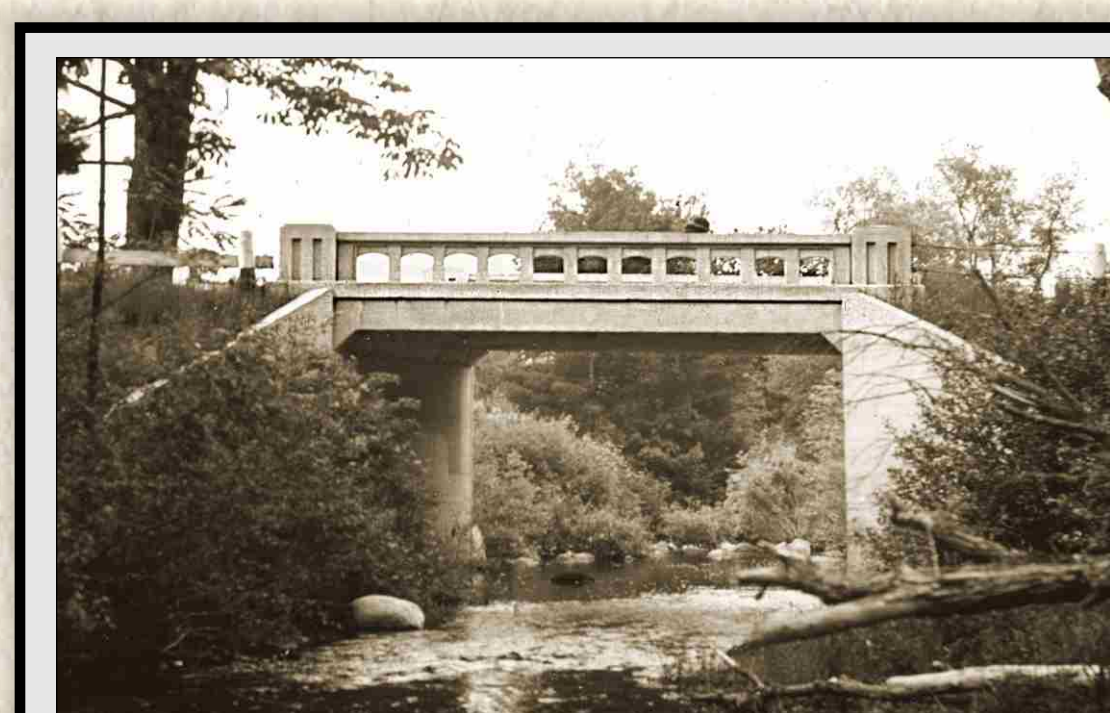
6. Completed 1939 and named in honor of Edna Dean Proctor (1827-1922) renowned poet, Henniker native and benefactor. Shown May 1940 during inventory of state bridges by NH Highway Department prior to World War II.

7. Photo by Charley Freiberger, 1997. See "Edna Dean Proctor Bridge," Library of Congress, Historic American Engineering Record, online collection.



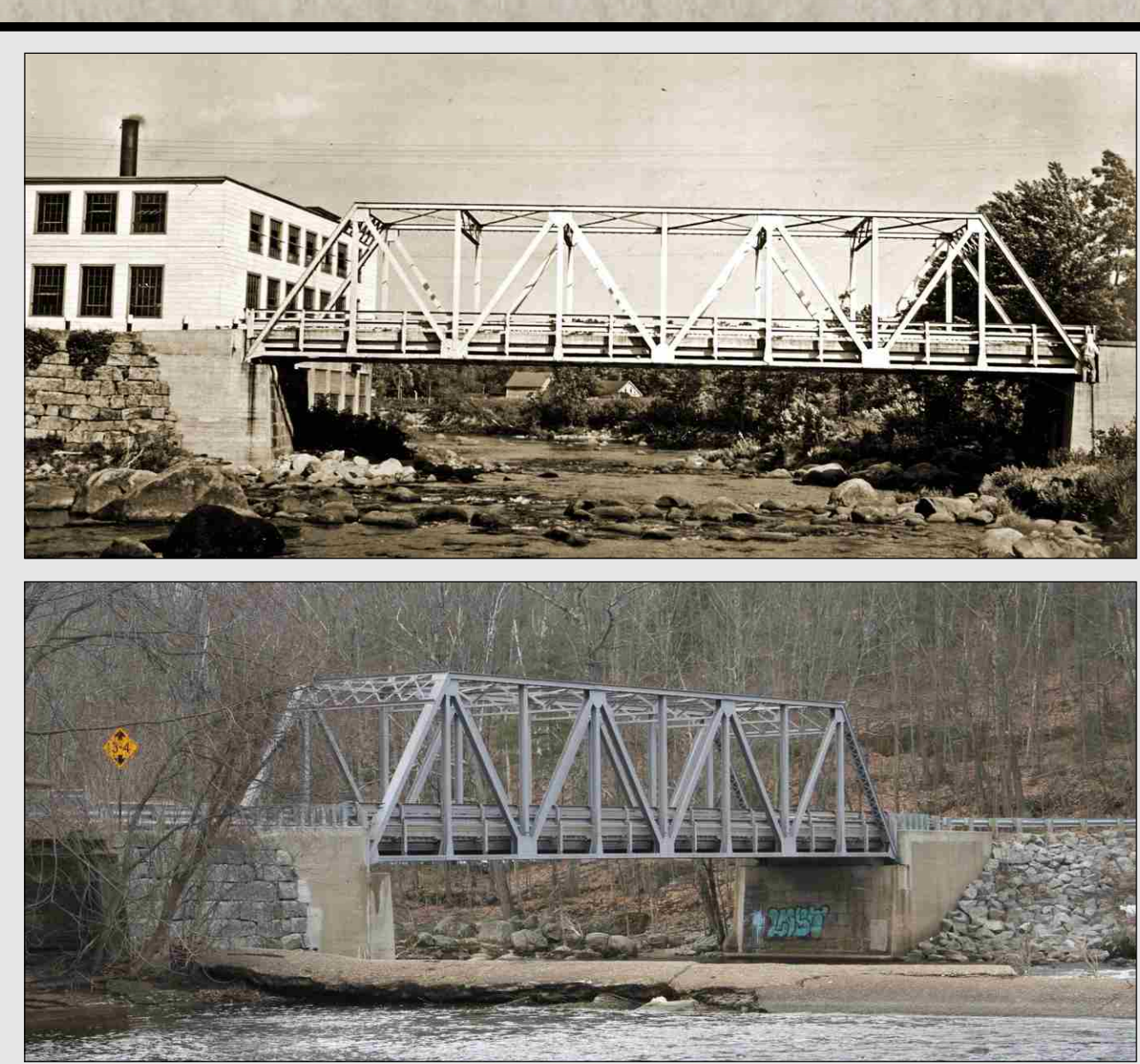
RAILROAD BRIDGES

Henniker was home to several Boston & Maine Railroad Bridges including a notable 200-foot long plate-girder bridge built in 1921 over the Contoocook River in West Henniker. Its stone abutments survive. A short railroad bridge of steel I-beam construction crossed over Weare Road, shown above (top) in 1940; its predecessor is depicted on the Birds-eye view map. Both bridges were removed after the Great Flood of 1936 that wrecked much of the line. The only B&M bridge that survives is an abandoned concrete T-beam highway span built in 1930 to carry Colby Crossing Road over the tracks, shown in 1940 (center). It was built partly on existing stone abutments, shown in 2018 (bottom).



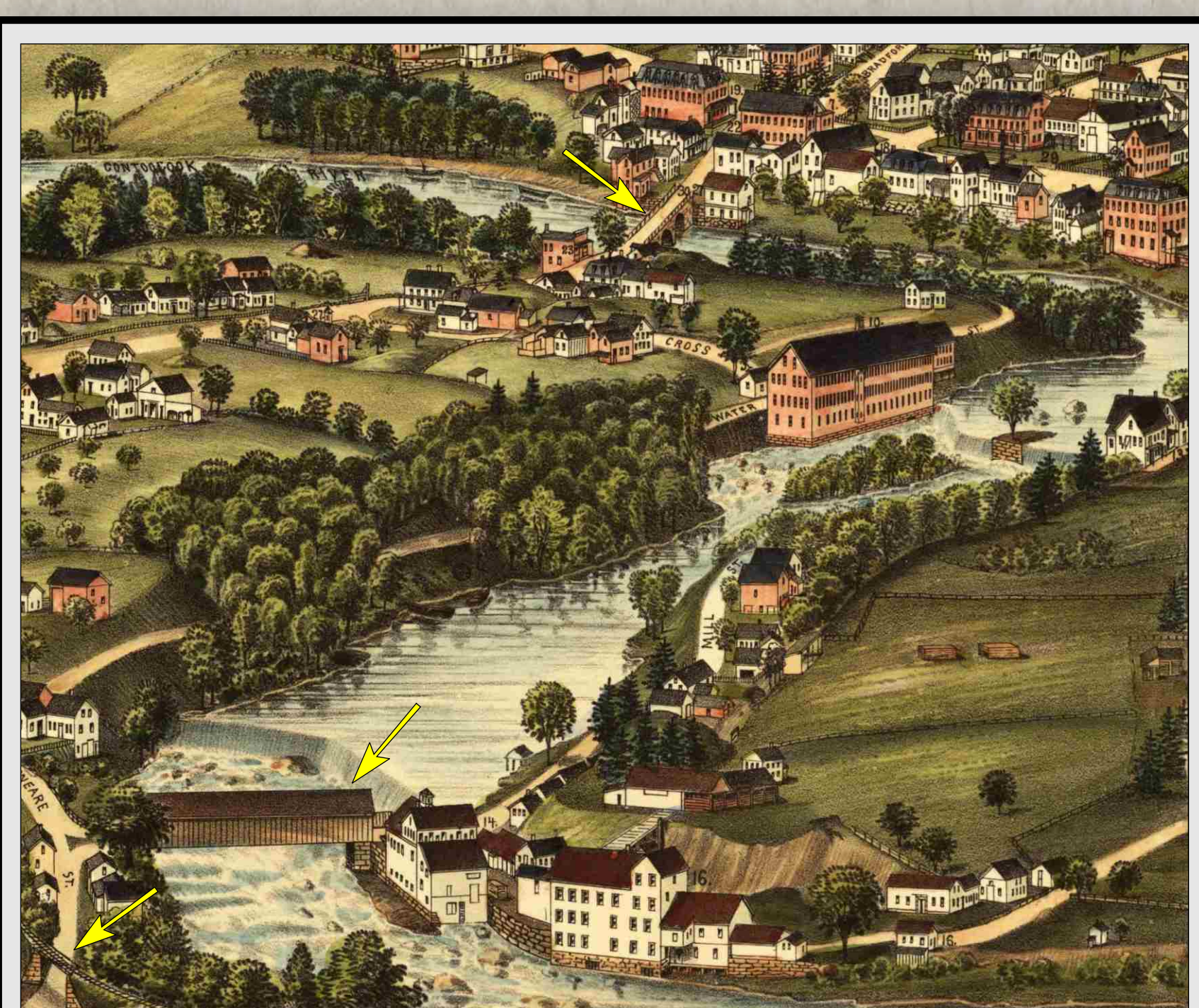
CONCRETE RIGID FRAME BRIDGE

Warner Road Bridge over Amey Brook, is shown in 1942 (top) with original decorative concrete railings, and in 2018 with modern steel guardrails. The Concrete Rigid Frame bridge type was developed in the 1920s to carry roads over the Merritt Parkway in Connecticut, one of the nation's first limited access highways, now listed on the National Register. The efficient design integrated the steel reinforcement in the slab deck into structural "legs" which also serve as abutments. The type was widely used in New Hampshire during the 1930s.



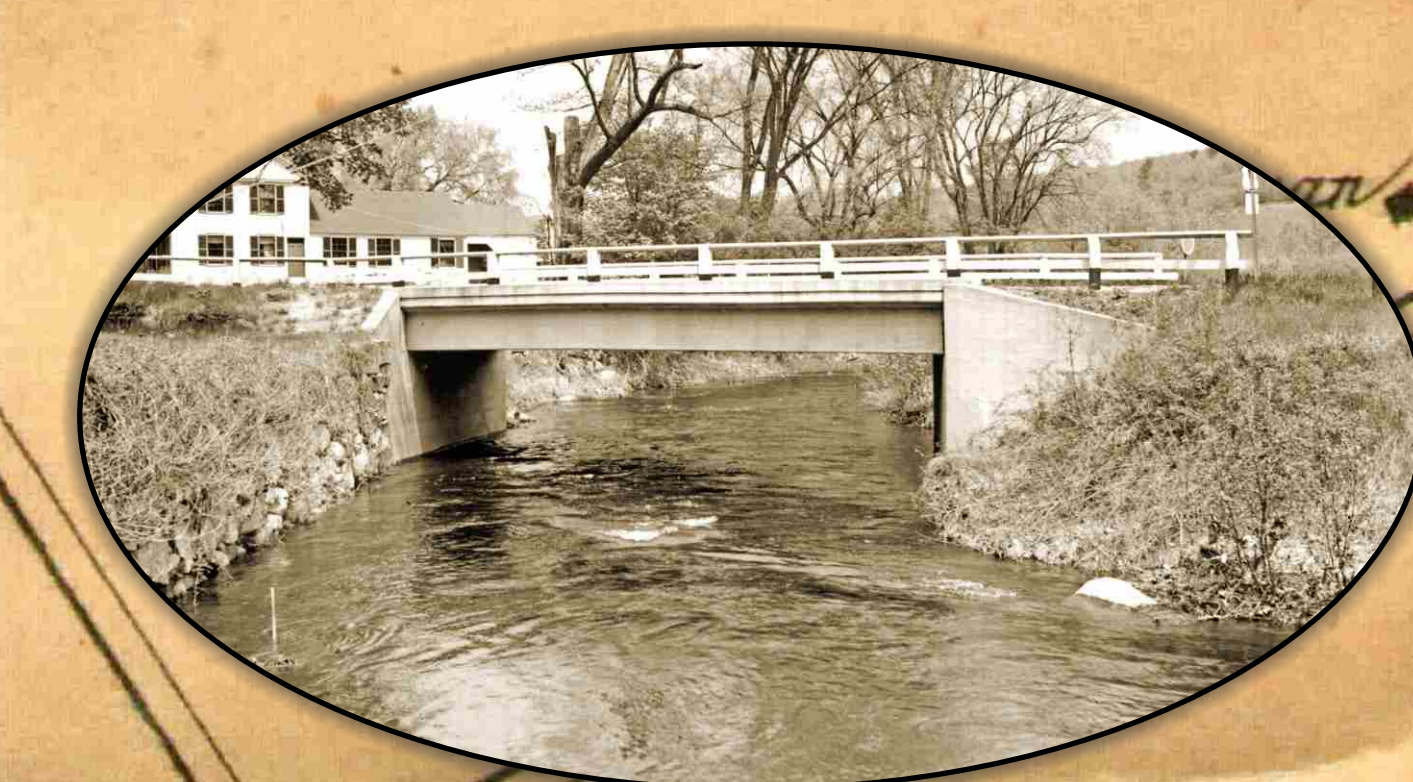
RIVETED WARREN TRUSS

Ramsdell Road Bridge over Contoocook River, in 1942 (top). Note Highway Dept. inspector standing on abutment. Built in 1937 to replace an iron truss built 1900, destroyed by the 1936 flood. The "Leatherboard" factory is visible at left. The 1940 bridge replaced Lower Falls Bridge, a covered bridge destroyed by fire (shown on Bird's-eye map at left). Eligible for the National Register of Historic Places, the Town of Henniker with assistance from the Federal Highway Administration and NH Dept. of Transportation, rehabilitated the bridge in 2008 to modern standards. Bottom photo, 2018.

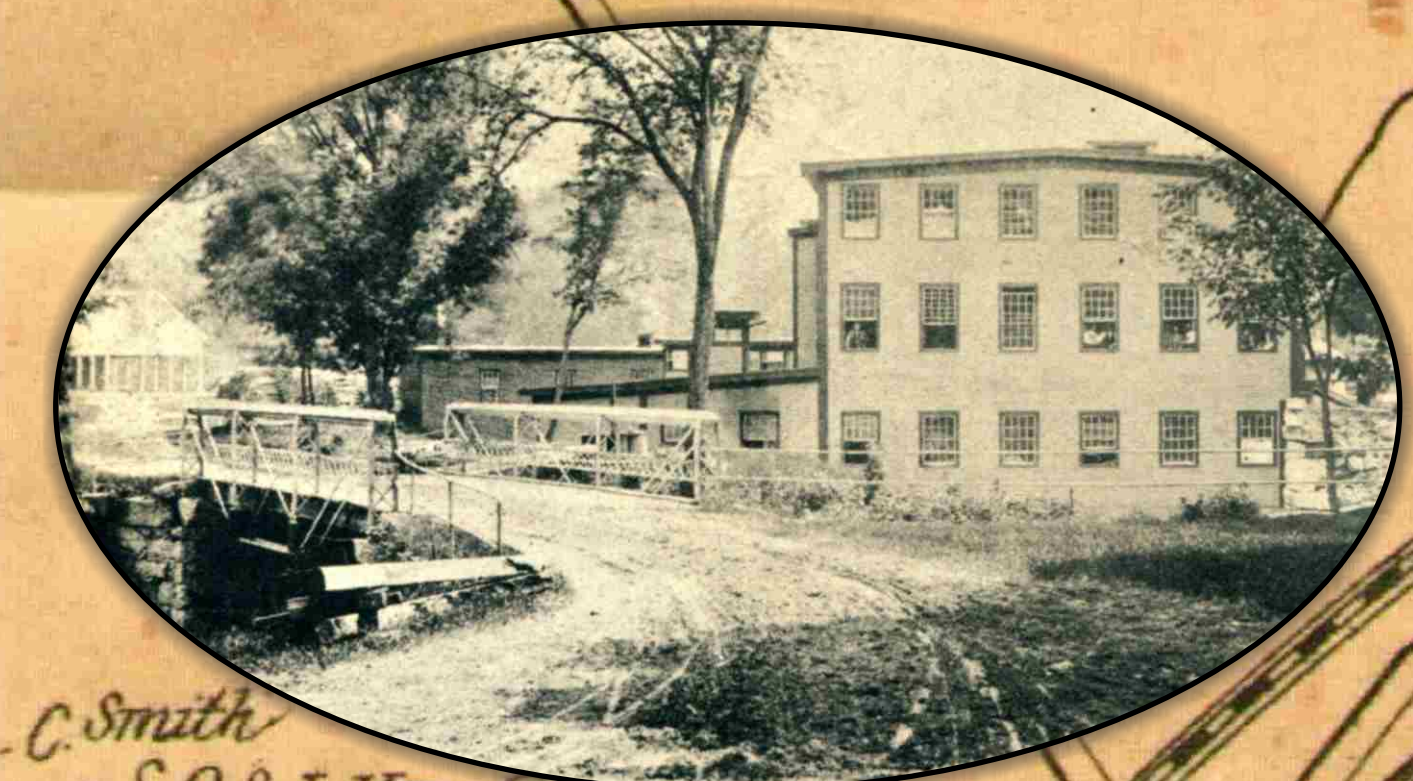


Panoramic "Bird's-eye-view" map of Henniker, 1889, by Geo. E. Norris. Arrows point to three bridges no longer existing: Henniker stone arch bridge, replaced by the Edna Dean Proctor Bridge; Lower Falls Bridge, a covered bridge replaced by the Ramsdell Road steel truss bridge; and Boston & Maine Railroad bridge over Weare Street, removed in the 1940s.

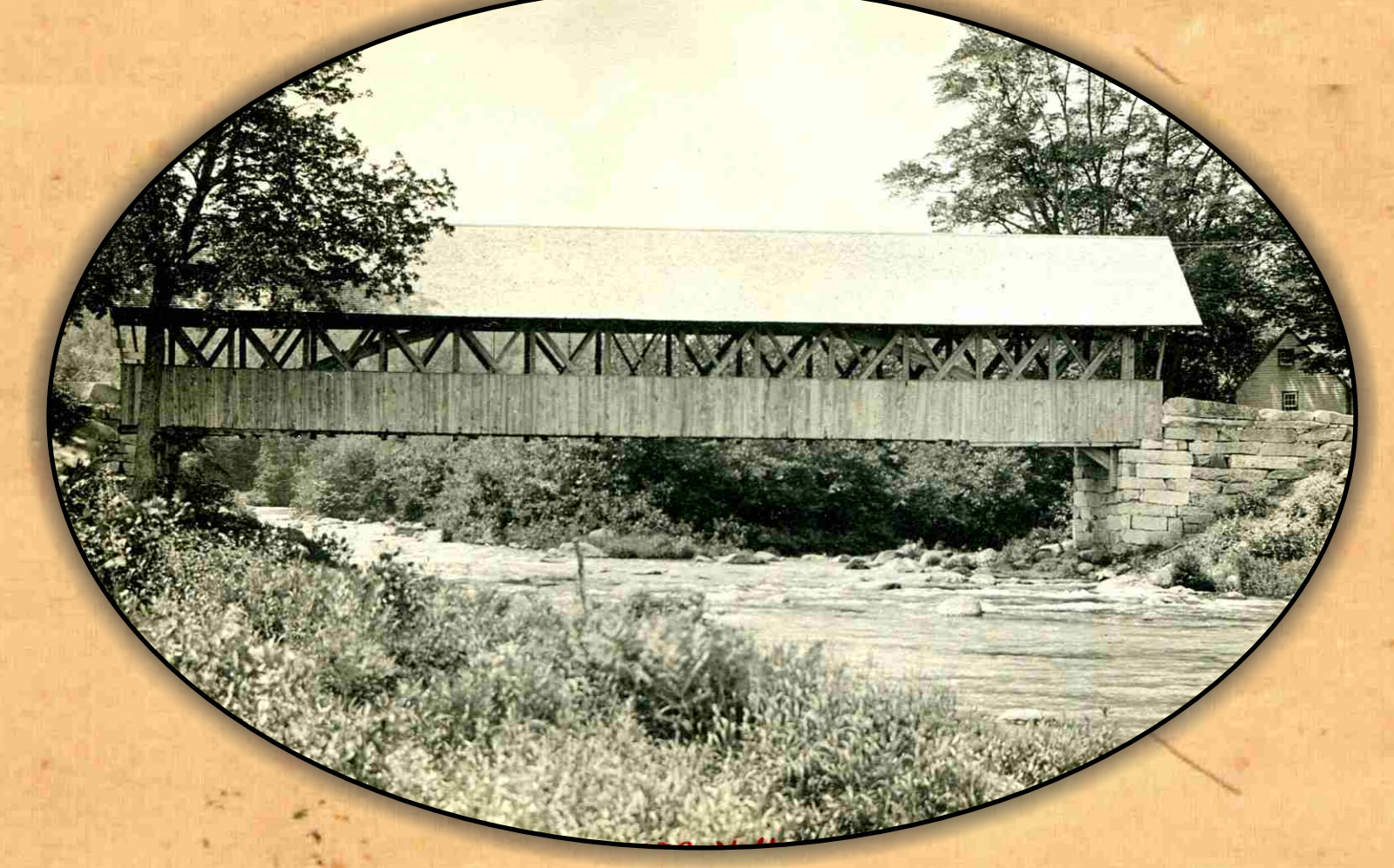
Western Avenue Bridge was built in 1933 by the New Hampshire Highway Department to replace the Patterson Hill Road Bridge (in background of 1940 photo at right). Two high Pratt Truss spans salvaged from the Pembroke Bridge in Concord were reused to stretch dollars during the Depression. Coincidentally, Pembroke Bridge had been designed by John W. Storrs and built in 1915, same as the Patterson Hill Road bridge. Western Avenue was designated Route US202/NH9 until the 1970s when the bypass around Henniker was built. The bridge was closed in 2009 due to advanced deterioration and replaced with a modern Warren Truss of galvanized steel in 2018.



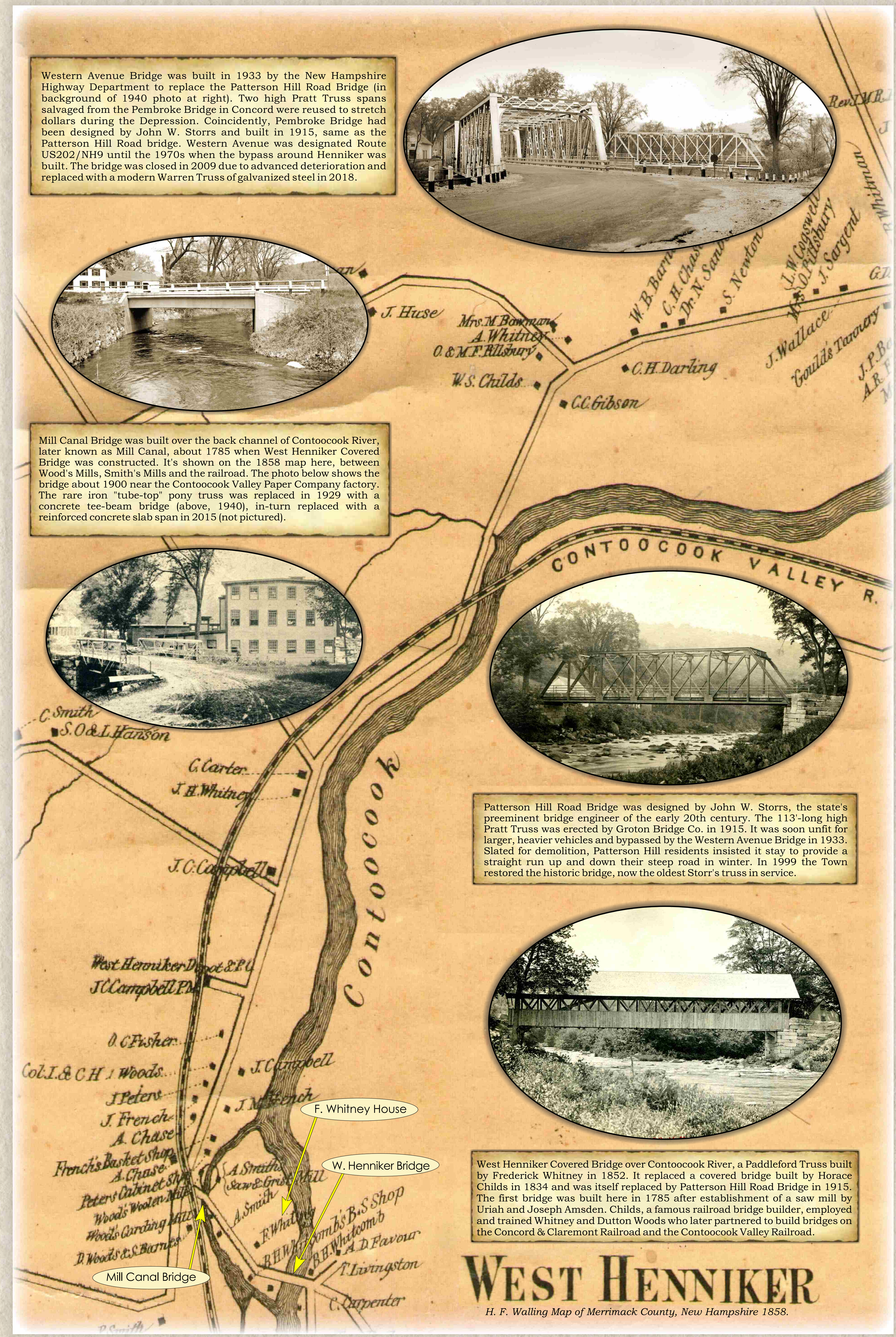
Mill Canal Bridge was built over the back channel of Contoocook River, later known as Mill Canal, about 1785 when West Henniker Covered Bridge was constructed. It's shown on the 1858 map here, between Wood's Mills, Smith's Mills and the railroad. The photo below shows the bridge about 1900 near the Contoocook Valley Paper Company factory. The rare iron "tube-top" pony truss was replaced in 1929 with a concrete tee-beam bridge (above, 1940), in-turn replaced with a reinforced concrete slab span in 2015 (not pictured).



Patterson Hill Road Bridge was designed by John W. Storrs, the state's preeminent bridge engineer of the early 20th century. The 113'-long high Pratt Truss was erected by Groton Bridge Co. in 1915. It was soon unfit for larger, heavier vehicles and bypassed by the Western Avenue Bridge in 1933. Slated for demolition, Patterson Hill residents insisted it stay to provide a straight run up and down their steep road in winter. In 1999 the Town restored the historic bridge, now the oldest Storrs truss in service.



West Henniker Covered Bridge over Contoocook River, a Paddleford Truss built by Frederick Whitney in 1852. It replaced a covered bridge built by Horace Childs in 1834 and was itself replaced by Patterson Hill Road Bridge in 1915. The first bridge was built here in 1785 after establishment of a saw mill by Uriah and Joseph Ansdon. Childs, a famous railroad bridge builder, employed and trained Whitney and Dutton Woods who later partnered to build bridges on the Concord & Claremont Railroad and the Contoocook Valley Railroad.



WEST HENNIKER
H. F. Walling Map of Merrimack County, New Hampshire 1858.