Historic Bridge Foundation Facebook Archives

Focus Bridges: New Croton Reservoir Bridges

The New Croton Reservoir in Westchester County, New York, was created by the construction of the New Croton Dam (1892-1906) to provide a supply of water to New York City via the New Croton Aqueduct. This infrastructure replaced a previous system that included what is now known as the Old Croton Dam, which was inundated when the new dam (at a different location) was constructed. The New Croton Reservoir, as well as other reservoirs related to the supply of water for the city, required the construction of several new bridges to cross the various parts of the reservoirs. There are an unusually large variety of different bridge designs found in this area. Although located in a rural setting, many of these bridges display elaborate aesthetic details not normally found with rural bridges, testimony to their association with a project constructed by the city of New York.

The New Croton Dam itself includes a steel deck arch bridge, although the bridge seen today is a modern replacement for the original historic bridge. The modern bridge was designed to resemble the original 1905 bridge. It lacks, however, the riveted design details of the original and has fewer columns.

Below the New Croton Dam is another bridge, a hingeless riveted deck arch bridge with solid plate spandrels, which provides an entrance to Croton Gorge Park. This unusually graceful structure features very shallow curved girders seated on stone abutments that match the stonework of the dam itself.

The Gate House Bridge is located near the site of the now-inundated original Croton Dam and is next to the site of the gatehouse for the New Croton Reservoir. The original Croton Dam included an iron bowstring bridge on it. Next to the old Croton Dam was a three span highway bridge composed of iron bowstring spans that may have been designed by the famous Squire Whipple. The Gate House Bridge, the successor to the three span bowstring bridge, continues to serve light highway traffic today. The bridge has an impressive 12 panel pin-connected Parker through truss span of 396 feet. There also is a unique deck plate girder approach span that is noted for its arched lower chord and unique decorative arches in each panel. The bridge is supported by a beautiful stone substructure that compliments the nearby gatehouse. The American Bridge Company built the bridge.

The Putnam Division Railroad Bridge over the New Croton Reservoir includes a rare long-span pin-connected Baltimore through truss span with concrete abutments. It was built in 1905, but the

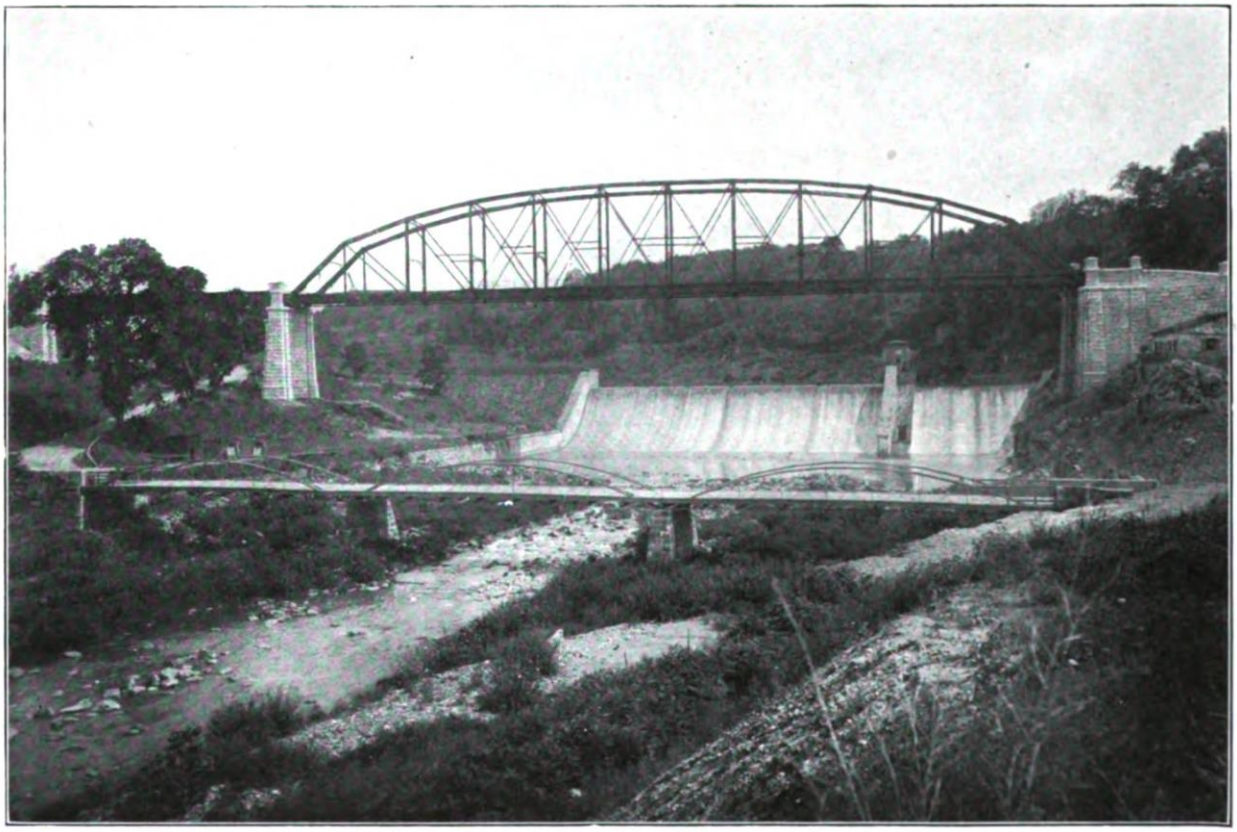
traditional design of the 384-foot truss span is quite similar to bridges built over major rivers in the 1880s and 1890s. The bridge was designed by Olaf Hoff who is also known as the designer of the Whirlpool Rapids Railroad Bridge in Niagara Falls. The truss was erected in-house by the railroad. This bridge has been preserved in place as part of a rail-trail.

Goldens Railroad Bridge, also called Bridge L-158, is a relocated historic Whipple through truss with Phoenix columns, originally built in 1883 as a span of the Rondout Creek Railroad Bridge near Kingston, New York. When that bridge was replaced ca. 1904, this span was relocated here ca. 1907 to serve as a crossing for the New Croton Reservoir. The bridge has been abandoned for many years.

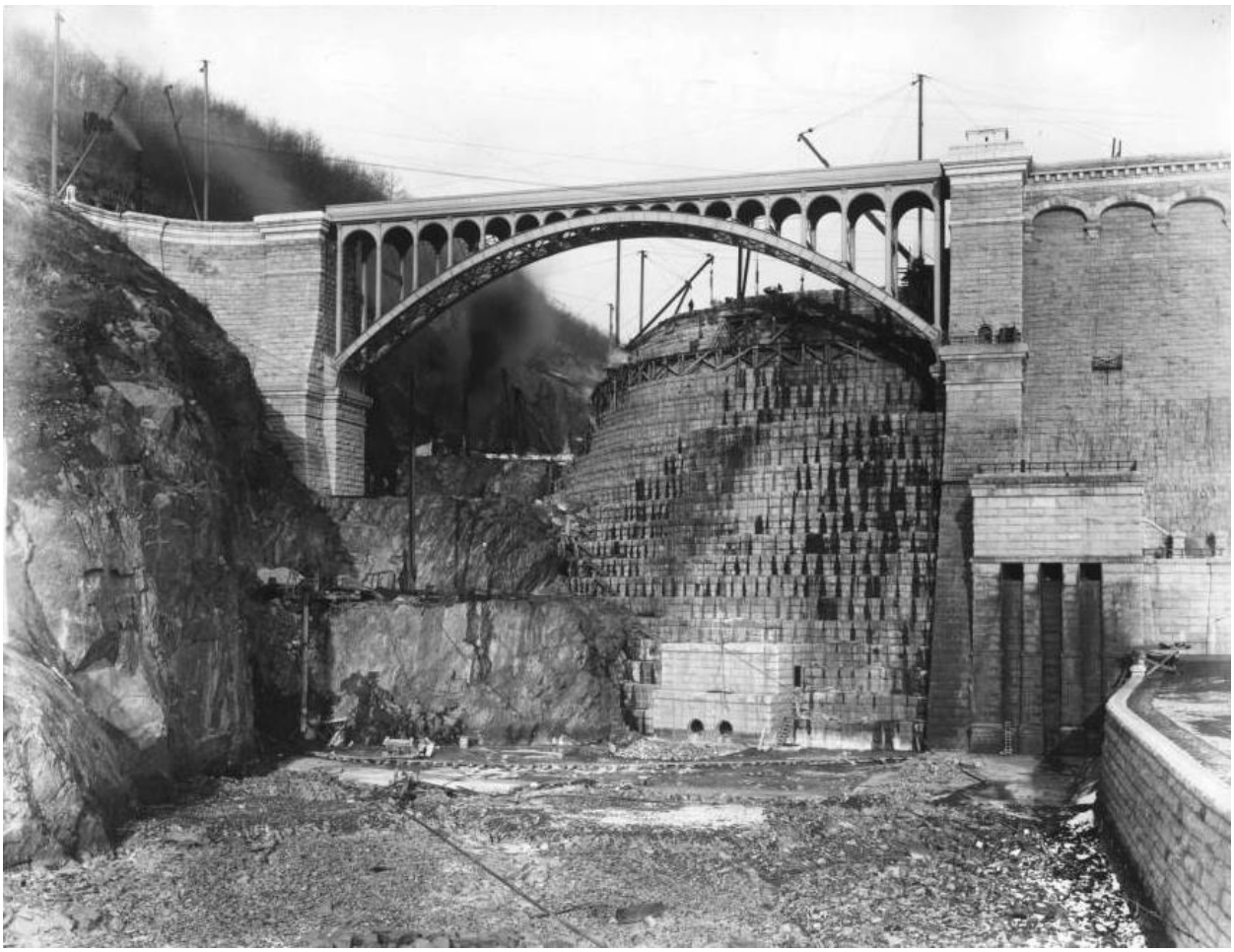
The Muscoot Reservoir Bridge at Katonah is an unusual small-scale, low-clearance example of a solid rib, spandrel-braced steel deck arch bridge. Normally reserved for deep gorge crossings, this bridge type appears to have been chosen for this location for aesthetic reasons. The bridge also includes handsome concrete abutments and ornamental steel railing. The bridge was built in 1904 and has been abandoned for many years.

The Plum Brook Road Bridge near Goldens Bridge dates to 1904 and, in terms of design, is a traditional pin-connected Pratt through truss. However, it displays an unusual portal bracing design. Also, like many of the bridges over the reservoirs, it includes substantial concrete abutments with notable aesthetic embellishments. Built by the American Bridge Company, the bridge is today closed to traffic.

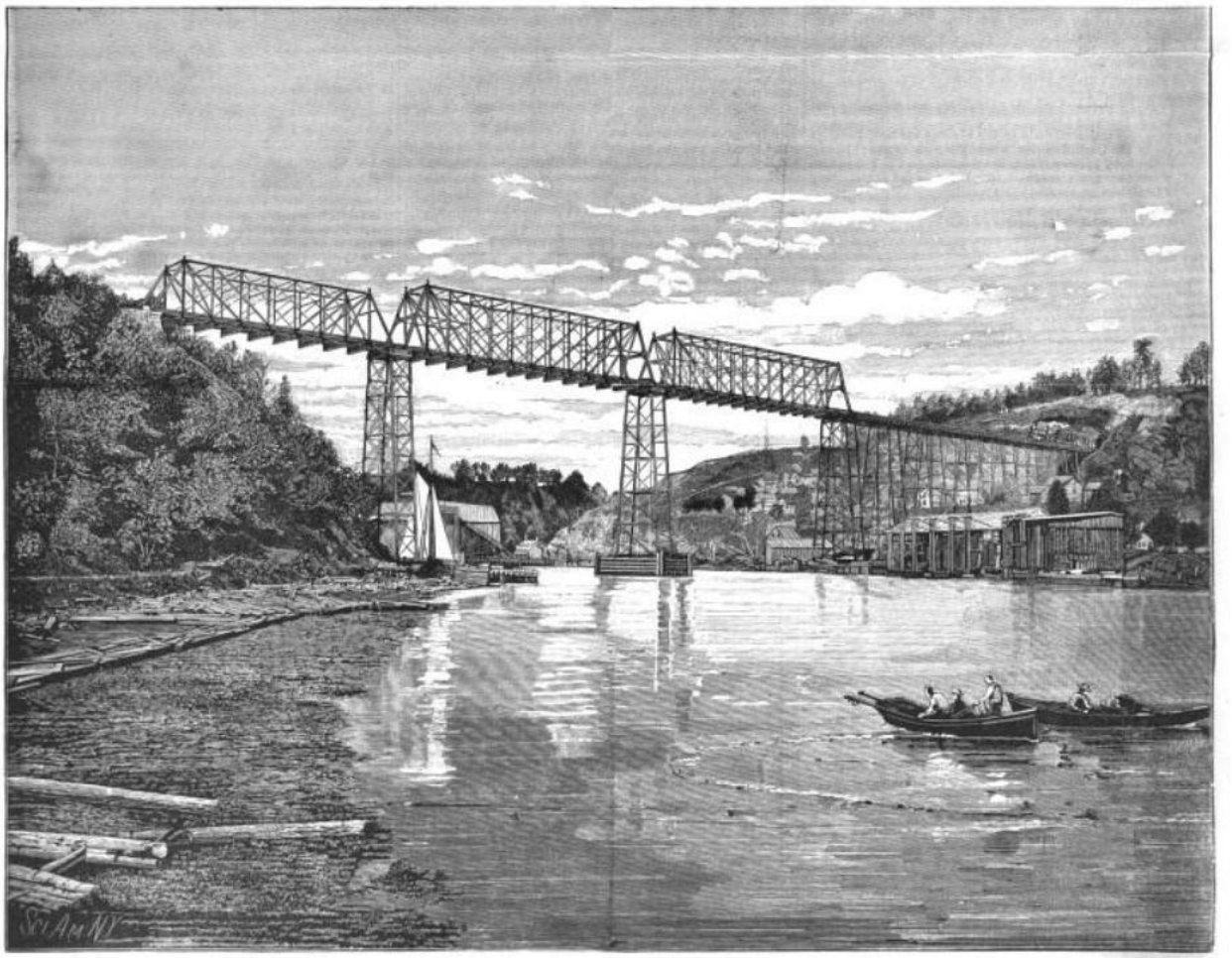
The AMVETS Memorial Bridge was constructed in 1931 to carry the Taconic State Parkway over the New Croton Reservoir. It is noted for its large 750-foot steel through arch span, which is complimented by abutments that include massive ornamental concrete walls that provide an entrance to the bridge. This bridge, and its unusually extensive aesthetic elements, are the result of the Taconic State Parkway construction, and are not associated with the New Croton Reservoir's initial construction. The Taconic State Parkway was designed to be a scenic highway; therefore, many ornamental details were included in its structures. This bridge has since been paired with a 1970s deck truss to provide a one-way couplet of bridges on the parkway.



The Gate House Bridge, with the former highway bowstring truss bridge and the Old Croton Dam still visible.

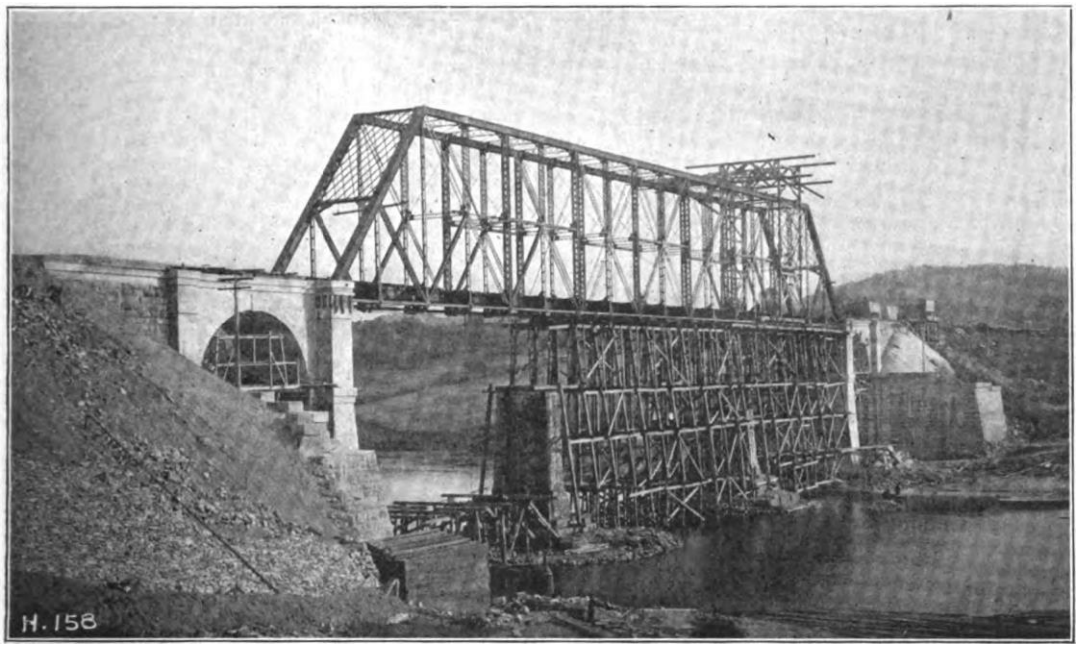


The original bridge on the New Croton Dam.

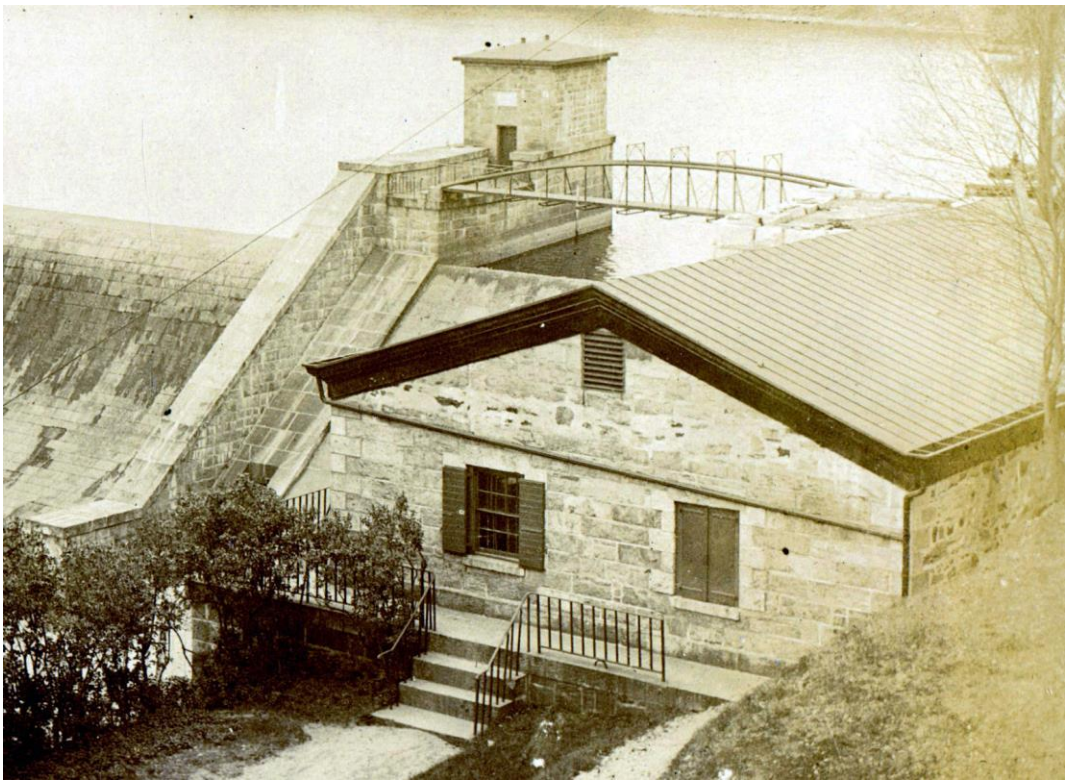


RONDOUT BRIDGE, NEW YORK, WEST SHORE, AND BUFFALO RAILROAD.

This image shows the old Rondout Creek Bridge near Kingston, New York. The small span on the left was relocated to Goldens Bridge.



This photo shows the construction of the Putnam Division Railroad Bridge. The wooden falsework appears to be making use of the old stone piers from the previous bridge at this location, which had a shorter span length.



This photo shows a portion of the Old Croton Dam, where an iron bowstring bridge can be seen.

AMVETS Memorial Bridge

Croton Dam and Gorge Park Bridge

Croton Dam and Gorge Park Bridge

Gate House Bridge

Goldens Bridge

Katonah Bridge

North County Trailway Bridge

Plum Brook Road Bridge