

Merritt Parkway, Wire Mill Road Bridge
Spanning the Merritt Parkway at the 9.95 mile mark
Stamford
Fairfield County
Connecticut

HAER No. CT-77

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
P.O. Box 37127
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HISTORIC AMERICAN ENGINEERING RECORD

Merritt Parkway, Wire Mill Road Bridge

HAER No. CT-77

Location: Spanning the Merritt Parkway at the 9.95 mile mark in Stamford, Fairfield County, Connecticut

UTM: 18.620935.4551365
Quad: Stamford, Connecticut

Construction Date: January 1938

Engineer: Connecticut Highway Department

Architect: George L. Dunkelberger, of the Connecticut Highway Department, acted as head architect for all Merritt Parkway bridges.

Contractor: Paul Bacco Construction Company
Stamford, Connecticut

Present Owner: Connecticut Department of Transportation
Wethersfield, Connecticut

Present Use: Used by traffic on Wire Mill Road to cross the Merritt Parkway

Significance: The bridges of the Merritt Parkway were predominately inspired by the Art Deco and Art Moderne architectural styles of the 1930s. Experimental forming techniques were employed to create the ornamental characteristics of the bridges. This, combined with the philosophy of incorporating architecture into bridge design and the individuality of each structure, makes them distinctive.

Historians: Todd Thibodeau, HABS/HAER Historian
Corinne Smith, HAER Engineer
August 1992

For more detailed information on the Merritt Parkway, refer to the Merritt Parkway History Report, HAER No. CT-63.

LOCAL HISTORY

In 1640, agents of the New Haven Colony bought land on the banks of the Rippowam River where it meets the Long Island Sound. The following year, twenty-nine families from Wethersfield purchased these lands and moved there under the leadership of the Reverend Adam Davenport. The small settlement took the name Stamford even though it was still under the jurisdiction of the New Haven Colony. Stamford would continue to grow, and at one point included parts of Greenwich, Bedford, Pound Ridge, New Canaan, and Darien. In 1685, Stamford received its town patent from the Connecticut General Assembly. By 1700 its population had grown to 585; over the next century this number increased dramatically to 4,465.¹

"Stamford began as a typical rural New England village and remained an agrarian community throughout the seventeenth and eighteenth centuries."² The region maintained around 4,000 residents until the arrival of the railroad in 1848. The introduction of the train meant that Stamford was less than two hours from New York City. The railroad also caused a boom in manufacturing. By 1850 the population increased to 5,000, and thirty years later this number more than doubled to 11,000.

Stamford's proximity to New York, combined with inexpensive land, and the availability of cheap foreign-born labor enabled many local companies to prosper and expand. The Stamford Manufacturing Company, the St. John Woodworking Company, the Stamford Woolen Mills, and the Yale & Towne Manufacturing Company, employed thousands of workers by the early 1890s.³

¹D. Hamilton Hurd, History of Fairfield County, Connecticut, (Philadelphia: J. W. Lewis Co., 1881), 692.

²Wayne Russell, "That Special Blend--Stamford's Melting Pot," Stamford Past and Present, 1641-1976, (Stamford: Stamford Bicentennial Committee, 1976), 67.

³Russell, 67.

With this expansion of manufacturing came increased traffic on the main artery through town, the Boston Post Road. By the end of World War I, local residents were clamoring for a solution to the vehicular congestion. Unlike other communities along the Merritt that suffered through many conflicts, most residents in Stamford worked together to have the roadway completed as soon as possible.⁴

BRIDGE CONSTRUCTION HISTORY

The Wire Mill Road begins at Long Ridge Road and terminates at High Ridge Road, both in Stamford. The Osborn-Barnes Construction Company of Danbury, CT, received the contract to grade the Merritt Parkway from Guinea Road, in Stamford, to Ponus Ridge Road, in New Canaan (ConnDot project #180-31). While the Wire Mill Road Bridge is located within this section of the Merritt, the grade separation and bridge contract went to the Paul Bacco Construction Company of Stamford, CT (ConnDot project #180-58).⁵ The bridge cost \$29,238 and was under construction from July 2, 1937, to January 2, 1938. The paving work for this region of the Merritt extended from Taconic Road to Wire Mill Road in Stamford. This contract was awarded to the New Haven Construction Company of New Haven, CT (ConnDot project #180-92). The Wire Mill Road Bridge has received little maintenance since it was built. Recently, some spalling concrete was removed; the bridge was then patched and painted.⁶

⁴"Merritt Parkway Opens," Stamford Advocate, 3 July 1938, p. 1.

⁵Contract Card File, Map File and Engineering Records Department, Connecticut Department of Transportation, Wethersfield, CT.

⁶Wire Mill Bridge, DOT #704; Bridge Maintenance File, Engineering Department, Connecticut Department of Transportation, Newington, CT.

BRIDGE DESCRIPTION

The Wire Mill Road Bridge is a single-span, reinforced-concrete, barrel-type rigid-frame bridge spanning 67'-7" with a clear roadway 30' wide. The Merritt Parkway travels under the bridge at a skew of 21°-14' with a clear roadway of 60'. Sloping, curving reinforced-concrete wing walls form the approach for the overpass.

The rigid-frame design allows the engineer to decrease the structural material at the center of the span, thus forming an arched opening. (See the Merritt Parkway History Report, HAER No. CT-63, for a more detailed description of the rigid-frame.) The intrados of the span rises 2'-9" from the springline to the crown, while the extrados remains horizontal from the knee to the crown. The frame thickness at the crown is 24". The outside of the knee is curved, and the inside of the knee is a corner with an obtuse angle. The frame leg thickness increases from the base to the knee. The exposed face of the legs remains vertical, and the hidden face slopes away from the roadway.

The detailing of the Wire Mill Road Bridge is classical yet very simple. The pylons are rectangular shaped with a batter. A dentil band across the bridge span is imitated in a plane band on the pylons and then continued on the wing walls. Each wing wall slopes to provide an inclined approach and curves away from Wire Mill Road. The result looks like a solid, circular stair rail, complete with round newel post at the end of the wall. The railing is solid on the wing walls and on part of the bridge span. A strong balustrade is introduced less than a quarter of the span from the pylons. At the center of the span, a cast stone cartouche bears the Connecticut state coat of arms on the only rail post.

The Wire Mill Road Bridge exemplifies the use of colored concrete on the bridges of the Merritt Parkway. The pylons and everything above the dentil band are gray, and everything below the band is cream.

Presently, the bridge displays two attempts to remedy spalling concrete. Plywood has been applied to the eastern crown and the northeast pylon. Actual repairs have been painted with a steel gray coating that differs drastically from the original concrete colors.

BIBLIOGRAPHY

Hurd, D. Hamilton. History of Fairfield County, Connecticut. Philadelphia: J. W. Lewis Co., 1881.

Russell, Wayne. "That Special Blend--Stamford's Melting Pot." Stamford Past and Present, 1641-1976. Stamford: Stamford Bicentennial Committee, 1976.

Stamford Bicentennial Committee. Stamford Past and Present, 1641-1976. Stamford: Stamford Bicentennial Committee, 1976.

Stamford Advocate. 1937-1939.

-----, Contract Card File. Map File and Engineering Records Department, Connecticut Department of Transportation: Wethersfield, CT. This includes construction drawings, copies of which are in the HAER field records.

-----, Bridge Maintenance File. Engineering Department, Connecticut Department of Transportation: Newington, CT.

PROJECT INFORMATION

This recording project was undertaken by the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER) Division of the National Park Service, Robert J. Kapsch, Chief. The Merritt Parkway recording project was sponsored and funded by the Connecticut Department of Transportation (ConnDot) and the Federal Highway Administration.

The fieldwork, measured drawings, historical reports and photographs were prepared under the general direction of Eric N. DeLony, HAER Chief, and Sara Amy Leach, HABS Historian.

The recording team consisted of Jacqueline A. Salame (Columbia University), architect and field supervisor; Mary Elizabeth Clark (Pratt Institute) and B. Devon Perkins (Yale University), architectural technicians; Joanne McAllister-Hewlings (US/ICOMOS-Great Britain, University of Sheffield), landscape architect; Corinne Smith (Cornell University), engineer; Gabrielle M. Esperdy (City University of New York) and Todd Thibodeau (Arizona State University), historians; and Jet Lowe, HAER photographer.