

Project Category

NSBF Byway Organization Leveraging Resources Award

Project Name

Rehabilitation of Lake Avenue Bridge over the Merritt Parkway in Greenwich, CT; aka State Project No. 56-309.

Byway Name

Merritt Parkway ,CT; established as NSB in 1996/ 37.5 miles

Overview

We nominate the rehabilitation of the Lake Avenue Bridge spanning the Merritt Parkway in Greenwich, CT for a public-private partnership award. The project required taking the bridge out of service to completely replace the structural steel. It was accomplished under great time pressure to minimize disrupting the parkway’s heavy volume of weekday traffic moving below it –estimated around 70,000 vehicles per day -- and school bus routes requiring a posted 8.5 mile detour while the bridge was out. In addition, the restoration of the ornamental ironwork presented uncertainties about its condition that could not be determined until it was removed, such as how much breakage would occur during its removal. The project was accomplished ahead of schedule, on budget, and to positive community reception through the strong collaboration of CT DOT who designed and administered the project, the contractor Mohawk Northeast who brought the right skills to the work, and the Merritt Parkway Conservancy who explained the project to the public and closely advised on the restoration from developing the original scope through execution. The successful outcome is exemplary, especially within the context of the Merritt’s recognition as an endangered historic place in 2010 resulting from the absence of effective collaboration between CT DOT and the Conservancy in rehabilitating the parkway’s bridges.

Intrinsic Qualities

The Merritt Parkway is a National Scenic Byway and is listed on the National Register of Historic Places. The project is an exemplary restoration of one of the Merritt Parkway’s distinguished 69 bridges designed by State Highway Department George Dunkelberger, considered to be the road’s most scenic feature as set within their carefully landscaped medians and shoulders. As described in the NSB profile: Set in natural surroundings, Merritt Parkway’s significant design brilliantly integrates the craft of the engineer and the artist. The bridges along the route are excellent examples of Art Deco, or Art Moderne, styles of the 1920s and 1930s. Magnificent foliage abounds in both spring and fall. Kept low, the bridges complement the carefully considered rock cuts, grading and plantings

Byway Best Practice

Scenic byways often generate conflicts between the competing missions of safety, efficiency and aesthetic stewardship of the agencies responsible for their maintenance and upkeep. From a project management perspective, the ability of the three partners to clearly recognize and respect the project’s shared goals and each partner’s objectives was exemplary. It kept the work on track to meet schedules and contain costs while achieving a positive aesthetic outcome. From the perspective of specifying and executing the restoration work necessary for a successful aesthetic result, the project applied best practices developed in the field of building restoration to a transportation structure. The restoration color palette was determined by paint analysis sampled from multiple points over moving traffic in 2011 prior to disassembly. The ornamental grillework and rails was carefully documented by 3-D scanning, tagged, removed, crated and shipped offsite for repair and restoration. Missing ornament was recast, existing ornament was stripped to bare metal by sponge-jet blasting. And all ornament was carefully shop primed and painted to its original colors and re-installed in its original locations. This level of care is unusual in transportation projects.

Partners

The three partners each played a specific role in the project, while collaborating in joint field decisions during construction. CT DOT, the State agency responsible for the road, determined the structural deficiency of the original span, and designed and administered its replacement, including removing and re-installing the original decorative ornament. The Design, Bridge, Environmental Review and Construction Divisions participated in the project. Mohawk Northeast, a private contractor specializing in civil construction, executed the work in conformance with the specifications, which included establishing job-specific procedures for removals, conservation and re-installation of historic ironwork. The Merritt Parkway Conservancy, a private non-profit committed to the parkway's preservation, revitalization and stewardship, sponsored the paint analysis (a task beyond CT DOT protocols), engaged in the reviews and approvals of cleaning, casting and re-painting submittals, and kept the public informed about the scope and schedule of the project.

Keys to Success

The keys to success in this project were the shared common goal to restore the bridge to sound and attractive condition, the establishment of mutual trust between all partners, the effort to keep lines of communications open, timely responses to each other's needs, and public support from outside stakeholders.

Additional Information

Contact Information

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Project Year(s):

Planning initiated 2011; construction April 2019 – November 2019

Website

[Home](#) | [merritt \(merrittparkway.org\)](#)

Photographs

