

REPLACEMENT OF CR 113 OVER THE BATTEN KILL

Towns of Greenwich & Easton, Washington County, NY

Bridge Owner: Washington County, NY Department of Public Works
Design, Construction Support & Inspection: Greenman-Pedersen, Inc. (GPI)
Prime Contractor: Kubricky Construction Corporation
Precaster: The Fort Miller Co., Inc.

Brief Project Summary

The existing bridge, also known as the Clarks Mills Bridge, was a 298-ft long three-span concrete arch erected in 1916. After a services life of 100 years, the bridge exhibited signs of deterioration with portions of the concrete parapet missing and exposed reinforcing steel starting to corrode along the entire fascia. The out-to-out width of 27-ft made the existing roadway carried by the bridge unsafe for vehicular traffic, bicyclists and pedestrians. In 2002, the bridge became eligible for listing on the National Register of Historic Places.

After presenting a few alternatives for the replacement bridge at the public meeting, the preferred alternative was a three-span concrete, precast concrete arch with a similar appearance to the historical bridge. The new bridge has three 88-ft clear spans with a total length of just under 300-ft. The new abutments and piers were keyed into bedrock which was ideal for an arch type bridge that exhibits a thrust force. The replacement bridge carries two – 11-ft travel lanes, two – 5-ft shoulders and one – 5-ft sidewalk on approximately the same horizontal and vertical alignment. The arch headwall and concrete u-walls were aesthetically treated and stained to increase the aesthetic appearance of the replacement bridge.

The prime contractor, Kubricky Construction Corp. first task was to gain access to the stream approximately 30-ft below the roadway elevation. Once the ramp was complete a causeway was constructed out of heavy stone fill, crane mats, and concrete barriers to maintain stream flow. The causeway was crucial to stage construction equipment and materials to construct the bridge. The Fort Miller Company, Inc. supplied the precast arch and headwall units and Kubricky Construction Corp. erected the bridge using multiple cranes and crane setups. A total of 84 precast pieces (48 arch units and 36 headwall units) make up the replacement bridge superstructure.

Adjacent to the bridge is a manufacturing facility (Hollingworth & Vose or H&V) that operates 24/7 on natural gas, that was supplied through a single directional feed gas main within the bridge fill. To maintain natural gas to the facility, an approximately 300-ft long temporary gas main bridge was constructed to allow demolition of the existing bridge and construction of the new bridge. After the precast panels were set for the replacement bridge, a new gas main was installed within the backfill of the bridge just above the concrete arches. Access to the H&V facilities was always maintained for deliveries and emergency access.

The bridge was opened to traffic in December of 2019 with some of the finish work completed in April 2020. Due to the overall management and guidance of the project team, this \$4.9M project was efficiently managed, came in under budget and completed ahead of schedule.

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Existing Bridge – Overall View

2020 ABCD Bridge Award



Construction – Demolition of the Existing Bridge

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Construction – Rock Excavation for the Begin Abutment

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Construction – Overall view of the Substructures

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Construction – During the Erection of the New Bridge

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Construction – Elevation view of the Upstream Fascia

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Completed Bridge – Elevation View of the Downstream Fascia

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Completed Bridge – Overall view of the New Bridge

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