Project: Bridgeport Bridge

Project Completed: 2010

Overview: This project, completed in 2010, involved the in-kind restoration and conversion of an abandoned historic pin-connected through truss that included two 124 foot truss spans for pedestrian use. The work included a substantial amount of hot metal riveting. The pier for the bridge was tipping over, slowly twisting the bridge. The trusses were removed from the river and completely and carefully dismantled and shipped to the shop for restoration, while the substructure was replaced by others. Truss restoration work included removing and replacing portions of truss members that exhibited extensive section loss. This avoided the complete replacement of truss members with severe deterioration confined to a portion of the member. Areas with lesser deterioration were repaired by welding new plate to the affected areas. Replacement of the highly deteriorated top chord and end post cover plate with a thicker, more durable cover plate was completed. The new cover plate was riveted to the bridge, replicating the original design and appearance.

Bridge before restoration

Bridge before restoration

Removing the deck.

Preparing to move the bridge down the street to where it would be dismantled.

Preparing to move the bridge down the street to where it would be dismantled.

Moving the bridge down the street to where it would be dismantled.

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These are original rivets found on the Bridgeport Bridge that are obviously not driven very nicely. Yet, despite their imperfections, they worked for 100 years! The rivets driven by Bach Steel will look much nicer than these and will be ready for their century of service!

Sitting behind a vertical member is a section of top chord awaiting a new cover plate to be riveted onto it.

Top chord sections with newly riveted cover plate in place.

Driving a rivet into the top chord. The entire cover plate was highly deteriorated, so the old cover plate was removed and a thicker cover plate was riveted on in its place to the original channels.

A replicated section of vertical member (to left) being welded onto the original portion of the member.

Reassembling the restored bridge.

Moving a restored span back down the street back to the project site.

Moving a restored span back down the street back to the project site.

Moving a restored span back down the street back to the project site.

Preparing to lift a restored span back over the river.

Lifting a restored span back over the river.

Lifting a restored span back over the river.

Lifting a restored span back over the river.

When bridges from this era were completed, the workers who built the bridge often would climb to the top of the bridge and post for a photo. This practice was recreated after the restoration of this historic bridge.

Bridge trusses after restoration and placement on the new substructure.

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