



Rehabilitation of Longfellow Bridge (Phase 1)

Boston, Massachusetts



Opened in 1906, the historic steel rib arch bridge, with its “salt and pepper” towers, spans the Charles River and is a vital link between Boston and Cambridge. A combination railway and highway bridge, the Longfellow Bridge is one of the busiest in the Commonwealth. Approximately 90,000 transit riders on the Red Line and 28,000 vehicles use the bridge daily.

In 2013, the Massachusetts Department of Transportation began a \$270 million, multi-year rehabilitation project on the bridge. Because the bridge has been listed on the National Register of Historic Places since 1976, the project has taken careful consideration to safely repair the bridge, but retain its historical integrity.

The last major rehabilitation of the bridge was in 1959, so there was significant deterioration of the steel arch ribs. Maintaining the bridge’s historical character led to a more complicated rehabilitation project, but the overall result will be a better, safer bridge. One aspect of the project included removing the steel arch ribs, stripping and cleaning the rust, then galvanizing and repainting, including hot-dip galvanizing diaphragms, beams, columns, and other steel components. The “new” ribs were then reinstalled to maintain the historic character of the bridge, while ensuring it complies with modern environmental and safety standards.

The hot-dip galvanizing and duplex system, where required, will ensure the 2,135 foot structure will resist corrosion while enhancing the overall aesthetic of this iconic bridge for decades to come. ■



Galvanizer

Duncan Galvanizing Corp.

Fabricators

Cianbro
Atlantic Bridge
Auciello Iron Works

Owner

Massachusetts Department of Transportation

Engineer

Jacobs

General Contractor

J.F. White/Skansa JV

Bridge & Highway