

PROJECT

Ames Street Arch Bridge
Dedham, Massachusetts

CLIENT

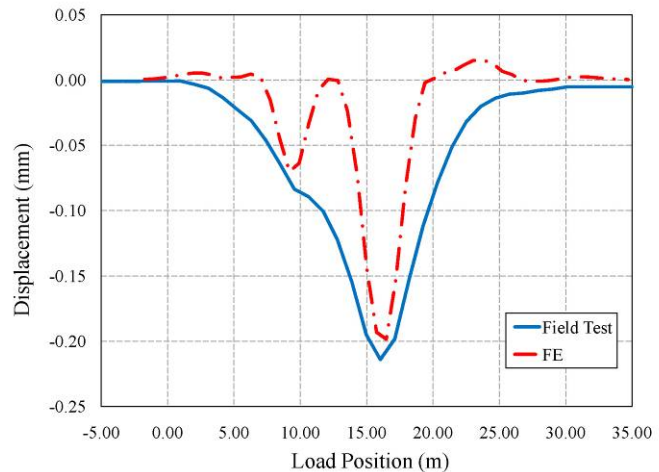
CLS Cintec America, Inc.
Washington, DC

PROJECT DESCRIPTION

Atkinson-Noland & Associates worked with Bridge Diagnostic, Inc. to evaluate the performance of the historic Ames Street Bridge in Dedham, Massachusetts during the strengthening phase of the structure. Live load tests were conducted on the bridge before and after strengthening to evaluate the efficiency of the selected rehabilitation method. Displacement and strain were monitored at several critical locations along the arch barrels using Linear Variable Differential Transformer (LVDT) displacement sensors and surface-mount strain transducers. A finite element study was performed to understand the complex behavior of the multi-span masonry arch bridge. A long-term monitoring system was installed to evaluate the bridge behavior over time.



Four-span masonry arch bridge located in Dedham, MA



Comparison of numerical and test displacement response history at crown

SERVICES PROVIDED BY ATKINSON-NOLAND

- Engineering support during live load tests
- Finite element study of the structure
- Installation of a long-term monitoring system



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