

PROJECT

Pascoag Bridge
Burrillville, Rhode Island

CLIENTS

Cintec North America
Glen Burnie, Maryland

PROJECT DESCRIPTION

Atkinson-Noland & Associates worked with Bridge Diagnostic, Inc. to evaluate the structural response of the historic Pascoag Bridge in Burrillville, RI. The bridge was strengthened by Cintec using the proprietary ARCHTEC system. Structural load tests were conducted on the pre- and post-strengthened bridge, and displacements and strains were monitored at several critical locations along the arch barrels. Our engineering team implemented a 3D finite element analysis (FEA) to analyze the bridge. The FEA models were calibrated using measurements from the load tests. Pre- and post-strengthening load ratings were provided for the bridge in accordance with AASHTO and Rhode Island DOT's Guidelines.

SERVICES PROVIDED BY ATKINSON-NOLAND

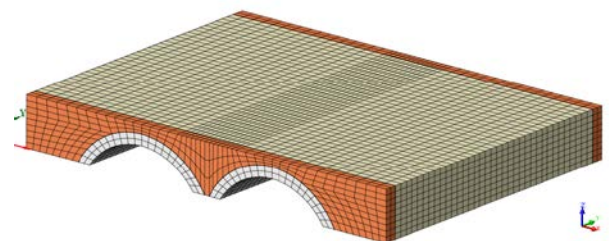
- Engineering support during live load tests
- 3D finite element analysis
- Pre- and post-strengthening load rating in accordance with AASHTO and Rhode Island DOT's Guidelines



Two-span masonry arch bridge located in Burrillville, RI



Instrumentation used to measure displacements and strains



3D model used in the FE analysis



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