



New run-around to bypass the Metro-North Peck Bridge at Bridgeport, CT.

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## Peck Bridge & Bridgeport Viaduct Replacement

*Bridgeport, Connecticut*

Mueser Rutledge Consulting Engineers (MRCE) provided geotechnical and foundation engineering services for the design of a new 450 foot long bridge over the Pequonnock River and the rebuilding of 2,500 linear feet of approach viaducts. A subsurface investigation revealed the presence of very soft clay, glacial sands and bedrock. The very soft clay extended throughout the entire length of the river bridge and west viaduct, with a stratum of glacial sands overlying the bedrock the entire length of the East viaduct. A series of load tests were performed on representative timber piles supporting the 100 year old West viaduct to evaluate their load carrying capacity. These timber piles, under water for 100 years, were found to be in excellent condition. Both the piles and pile caps were able to be reused to support the reconstructed piers, thus saving the client several million dollars.

MRCE designed new spread foundations for the East viaduct piers, and a reaction platform to support the pit pier of the existing bridge, so that it could be used until the new bridge was in service. During final design, MRCE services included foundation design for the East and West viaducts, cofferdams and foundations for the five river piers, a pile load test program, and foundations for the new temporary run-around bridge to maintain traffic during new bridge construction.