



Construction of the temporary run-around trestle at Annsville Creek.

Annsville Creek Bridge Replacement

Peekskill, New York

Project Highlights:

- ▶ Subsurface investigation to establish design parameters
- ▶ Evaluation of alternative foundations
- ▶ Analysis of embankment stability
- ▶ Designed bridge pile foundations & retaining walls
- ▶ Established pile load test program
- ▶ Prepared contract drawings, technical specs and construction estimates for foundations & earthwork
- ▶ Provided construction support services

As part of the design team for the replacement of Metro-North Commuter Railroad's Annsville Creek Bridge, Mueser Rutledge Consulting Engineers (MRCE) provided geotechnical and foundation design services. The project entailed the construction of a 1400 linear foot temporary run-around trestle, the raising of grade on existing approach causeways, and the replacement of the existing deteriorated bridge with a 230 foot long structural steel, closed-deck, three span bridge.

MRCE's subsurface investigation consisted of establishing design parameters for construction of cofferdams, land and water borings to establish design parameters for the necessary earthwork and foundations. Alternatives for selection of the optimum bridge and trestle foundation type were evaluated. The bridge approach grades required raising the causeway fill up to three feet. Following the embankment stability analysis, over-excavation of the embankment was recommended, replaced with a lightweight fill contained by retaining walls to prevent increased embankment loadings. MRCE designed bridge pile foundations and retaining walls, established a pile load test program, and prepared contract drawings, technical specifications and construction cost estimates for the foundations and earthwork. MRCE provided construction support services including bid period assistance, shop drawing review, review of pile load tests and production piles, and design clarifications.