



*At left is the installation of temporary supports. At right, the installation of the new liner.*

---

## **West Point Tunnel**

*West Point, New York*

MRCE investigated the existing condition of the 100 year old Conrail tunnel under West Point Military Academy, making cores through the existing liner and borings from ground surface to the tunnel crown. The tunnel passes primarily through rock with a central section in soil. Early improvements included lowering the rock invert and drainage ditches in the rock.

MRCE designed and prepared contract drawings for general rehabilitation of the tunnel and for removal and replacement of portions of the existing liner at the crown in the soil section and removal of rock at the crown in the remaining sections to increase vertical clearances to meet Conrail's operational requirements.

Work included:

- Waterproofing
- Chemical Grouting Of Soil
- Installation Of Rock Anchors
- Underpinning Of Existing Structures
- Drainage Modifications And Improvements
- Rock Removal With Hydraulic Splitters
- Temporary Shoring And Bracing
- Installation Of A Bernold Tunnel Liner System
- Shotcreting

MRCE also provided resident engineering services during the fourteen month long construction period.