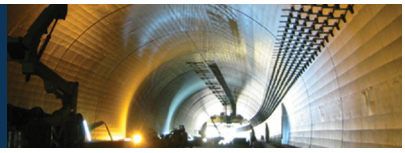
Gall Zeidler Consultants
Geotechnics | Tunnel Design | Engineering



Weehawken Tunnel West Portal
New Jersey Transit Authority Hudson Bergen Light Rail Transit

Location:	North Bergen, New Jersey
Date:	2003
Structure:	Soil / Rock Nail Wall
Wall Height:	50 feet (15 meters)
Geology:	Fill Consisting of Highly Weathered Sandstone, Diabase, and Drained Soil Conditions
Cost:	Approximately $150 Million
Client:	Frontier-Kemper / Shea / Beton-und-Monierbau Joint Venture
Owner:	New Jersey Transit (NJT)

Analysis and Design of the Earth Support System at the West Portal:

Gall Zeidler Consultants (GZ) provided analysis of and detailed design for the earth support system (soil / rock nail wall) to facilitate construction of the West Portal structure of the New Jersey Transit Authority's Weehawken Tunnel project. The work was part of the Weehawken Tunnel Reconstruction (enlargement) Project to accommodate the new Hudson-Bergen Light Rail Transit System (HBLRS).

The West Portal structure consists of a 45 foot (13.7 meter) long cut-and-cover tunnel section. DSI self-drilling hollow bolt anchors were used for the soil / rock nails and reinforced shotcrete was utilized for the face support. In 2009, the design was honored with the Community Service Award for its excellence in construction and renovation of the HBLRS.

Figure 1. Existing portal and the construction of portal wall support.

Figure 2. Shotcrete canopy construction for extension of the West Portal.