

Access to Region's Core — New York/New Jersey

Project Description

The Access to Region's Core (ARC) project is a \$5 million study to assess several options for improving access for passengers and freight between Manhattan, the west shore of the Hudson, Queens and the areas beyond. Key goals of the project were to:

- improve trans-Hudson River mobility
- improve upon the existing infrastructure
- enhance economic viability of the region, and
- protect the environment.

Testing for this portion of the project was for the FEIS and Advanced Conceptual Engineering

Phase, which involved design and construction of several miles of tunnel connecting Secaucus Junction with Penn Station in Manhattan. This section included several miles of bored tunnel beneath the Palisades, soft-ground tunnel beneath the Hudson River and bored tunnel and station caverns in mid-town Manhattan.

GeoTesting Express' Role

GeoTesting Express, Inc. (GTX) worked for Transit Link Consultants, J.V., to perform rock testing for borehole geophysical logging of a proposed tunnel as part of the ARC project. We performed the following tests on 13 different borings under a tight timeframe:

- punch penetration
- unconfined compressive strength
- indirect Brazilian tensile strength
- Cerchar abrasivity
- thin section petrography
- point load index
- pulse velocities and ultrasonic constants
- and elastic moduli in unconfined compression.

The entire test program totaled more than \$20,000.

Benefits to Client

GTX's ability to receive, process and store a large quantity of samples at one time was a real benefit to the project.

- We provided photographs of all samples before and after testing.
- With GTX's expanded rock testing capability, we were able to prepare all of the rock specimens for testing in-house.
- In addition, we prepared these specimens in accordance with the requirements of ASTM D 4543 for strength testing.
- We utilized our automated testing equipment whenever possible which allowed us to perform the testing with less labor.

We saved the client approximately 30% of typical testing costs for the project.

