

# STRUCTURES

DIVISION



## GEOTECHNICAL CONSTRUCTION SERVICES

### Montgomery County Justice Center

**Location:**

Norristown, PA

**H&K Company:**

Structures Division

**Construction Manager:**

Skanska USA Building, Inc.



**Client:**

P.J. Dick Incorporated

**Owner:**

County of Montgomery

**Services Included:**

- Soil Nails and Shotcrete
- Rock Bolts
- Tiebacks
- Micropiles
- Sitework

**Additional Project Features:**

- 204 EA Soil Nails: T40/20 Hollow Bar, #8 Solid Bar
- 4,590 LF of Soil Nails
- 12,458 SF of Shotcrete Wall
- 336 EA Rock Bolts: #8,10,14 Solid Bar



- 5,783 LF of Rock Bolts
- 13 EA Tiebacks: #11 Solid Bar @ 35'
- 14 EA Micropiles: 13.375" O.D.
- 630 LF of Micropiles

**Project Description:**

This project was the first phase for the expansion of the existing courthouse in Norristown, PA. This project provided for a delegated design, allowing us to develop the type of temporary shoring utilized. In the levels where soil was encountered, we utilized a T40/20 hollow bar which allowed us to grout the anchor as we drilled, providing for reliability, speed and efficiency with the anchor installation. In the areas where rock was encountered, drilling was performed in open hole and we installed a solid bar anchor ranging in sizes from a #8 to #14 bar. The soil nails / rock anchors, along with shotcrete were installed in multiple lifts to accomplish up to a 35' tall retained excavation. These soil nails and rock bolts were installed through the existing underground parking garage exterior walls, allowing for the demolition of the interior floors and support columns. The perimeter garage walls were used as the temporary shoring face. Micropiles and Tiebacks were also installed on the Eastern side of the project to stabilize an existing structure and meet the strict movement criteria at this location.