STRUCTURES DIVISION

H&K EST. 1968
EOE including Disability & Vet

GEOTECHNICAL CONSTRUCTION SERVICES

McFarland Retaining Wall Collapse

Location:
Harrisburg, PA

H&K Company:
Structures Division

Owner:
The McFarland, LP

Architect/Engineer:
Thornton Tomasetti

Services Included:
- Site Stabilization: Soil Nails and Shotcrete
- Building Stabilization: Permanent Tiebacks and Thru-Wall Bracing Assemblies
- Retaining Wall: Gravix Retaining Wall

Additional Project Features:
- 65 EA Soil Nails
- 2,080 LF of Soil Nails: 15' - 45' in length
- 1,550 SF of Shotcrete Wall
- 11 EA of PTI Class 1 Corrosion Protection Tieback Anchors: #10 bar, 25' overall length
- 16 EA of Thru-Wall Bracing Assemblies Galvanized L4x4x5/16
- 1,931 SF of Gravix Retaining Wal
- 72 LF of Barrier on top of Gravix Retaining Wall
- 260 CY Reinforced Concrete Foundation for the Gravix Wall

Project Description:
The McFarland Retaining Wall Collapse project consisted of site stabilization, remediation, and repairs. A 100+ year old wall located adjacent to the McFarland Apartment Building collapsed onto the Howard Tire Building located directly below the wall and the McFarland Building. Soil nails and shotcrete were installed to stabilize the slope so a new Gravix Retaining wall could be constructed. The Gravix wall panels and barrier were manufactured by Atlantic American Precast. Permanent Tieback anchors were installed inside of the parking garage of the building and at the exterior base of the McFarland building to anchor the structure to the rock and prevent and additional failures. Thru-wall bracing assemblies were also utilized to support the building. An abandoned building located between the McFarland and Howard Tire building was demolished and a 30 mil HDPE, clay liner and rock lined swale were installed to help improve drainage at the base of the wall and building. A temporary roof was installed on the Howard Tire building to provide security from the weather and thieves.