PERMANENT ANCHORED SOLDIER PILE WALL

PADOT SR 1045 SEC. GUS – RAMP J

Reconstruction of the Gustine Lake Interchange in Philadelphia, PA required the contractor to design and construct a permanent, anchored, soldier pile retaining wall with either precast concrete lagging or a cast-in-place, reinforced concrete facing. Extending for a length of 213 feet and with a maximum height of 22 feet, this wall included 25 each, drilled-in, single and double, wide flange soldier piles; 22 each, PTI Class 1 encapsulated, strand tieback anchors; a geo-composite, wall drainage system; and a permanent, cast-in-place concrete facing with an architectural finish. As required by the owner, anchor redundancy and seismic loading were included in the design of this soldier pile wall. Peirce Engineering Inc. prepared the Final Type, Size & Location (TS&L) Wall Plan and the Final Construction Drawings & Design Calculations for the General Contractor. In addition, Peirce Engineering, Inc. prepared the permanent tieback anchor submission for the Tieback Anchor Subcontractor.

OWNER:
Pennsylvania Dept. of Transportation

PROJECT ENGINEER:
Michael Baker Jr, Inc.

GENERAL CONTRACTOR:
Buckley & Company, Inc.

ANCHOR SUBCONTRACTOR:
JPC Group, Inc.

PEIRCE ENGINEERING INC.

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