

Case Study

Temporary Tiebacks

Date: September 2003

Job Name: 2920 Eastlake

Owner: A & V Ventures

Location: Seattle, WA

General Contractor: Versatile Drilling

2920 Eastlake is located on a hillside in the Lake Union Area of Seattle. The owners of the property, A&V Ventures, wanted to develop the site for the construction of a mixed-use building to house their office and provide rental office space. In order to develop the area, excavation support in the form of a temporary 50' tall soldier pile wall tied-back with 182 temporary anchors. Versatile Drilling of Seattle, WA was awarded the contract for the site development, and subcontracted the tieback installation and testing to Northwest Cascade's Geotechnical Division.

The area where the site is located is underlain with layers of blue clay over wet silty sand. In order to hold the loads required in the wall design tiebacks reached up to 100' in length in the upper rows. The tiebacks were tested to loads upward of 270 kips requiring a 5 strand anchor. Tiebacks were connected to the wide-flange soldier piles with side pocket walers.

During the construction the Puget Sound region was hit with some of the heaviest rains in recorded history. This condition not only made for drilling difficult, it put erosion control measures to the test. The close working relationship between Versatile Drilling and Northwest Cascade allowed for a successful project in lieu of the challenges faced.



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