

## PROJECT PROFILE



### Puget Sound Naval Shipyard Drydock Floor Repairs Bremerton, Washington

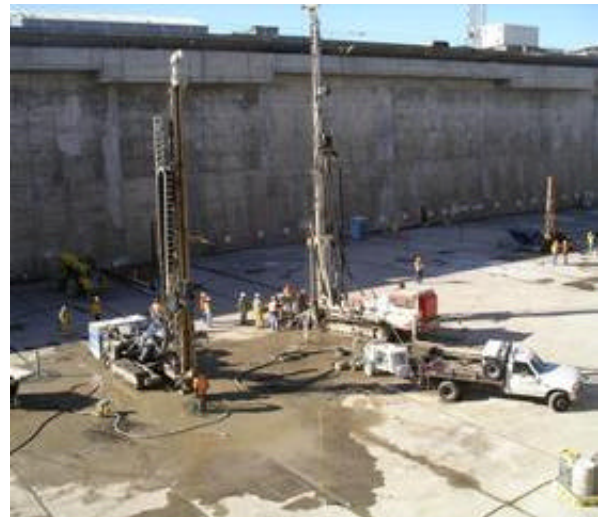
**Owner:**

*U.S. Navy*

A floor repair project was undertaken for the largest drydock at the Puget Sound Naval Shipyard in Bremerton, Washington. The drydock is approximately 1100 feet long by 190 feet wide and 60 feet deep and is used by the Navy to service their largest aircraft carriers. The floor repair included dewatering and compaction and void grouting beneath the 7 foot thick concrete floor slab of the drydock followed by the installation of relief wells. Before the grouting could begin, a series of 24 piezometers were installed to monitor piezometric water levels immediately beneath the floor slab and in the glacial outwash deposit underlying the drydock.

Engineered Monitoring Solutions was responsible for assisting with installation of

the piezometer sensors and the design, installation and programming of an automatic data acquisition system (ADAS) in the pumpwell control room, adjacent to the drydock, to monitor the sensors during and after the grouting operations. The ADAS is programmed to measure the piezometric water levels every 2 minutes and compare the shallow piezometric water levels to an



alarm threshold. In the event that a threshold is exceeded, the ADAS triggers a visual and audible alarm in the control room. Piezometer data is analyzed in more detail by importing the data into a Microsoft Excel spreadsheet.

