

Instrumentation

Pile load tests require displacement sensors for monitoring vertical and horizontal displacements at the pile head, a load cell for monitoring the induced load, and telltales or extensometers to monitor compression and settlements. Strain gauges, sister bars, or fiber optic strands can be embedded in the pile to monitor distribution of load along the length of the pile.

Anchor & tieback pull-out tests require a load cell to monitor the pulling force and displacement sensors to monitor displacements at the anchor head and the reaction block.

Automation of Measurements

GEO-Instruments supplies and configures sensors, loggers, and communications as needed for the tests, and then automates processing, data visualization, and distribution of measurements to on-site engineers and to remote design engineers.

Advantages of Automation

Safety: All instruments are read remotely, allowing field engineers to keep a safe distance at all times.

Reliability: Measurements are recorded electronically, eliminating reading and transcription errors. Redundant sensors can be added easily, if required.

Quick Access to Data: On site access to data is available within seconds; remote access to data with additional processing and plots is available within minutes.

Additional Services

Custom Solutions: GEO can configure special systems as needed.

Superior Support: GEO can provide training and installation assistance.

Calibrations: GEO can calibrate load cells and other test equipment.



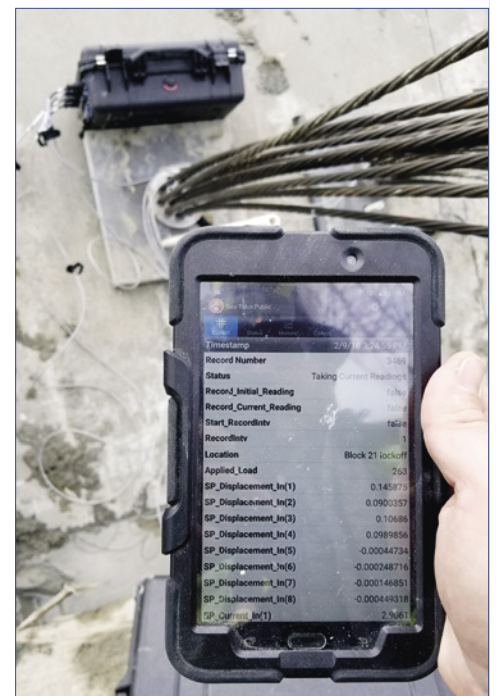
Real time measurements test were distributed not only to the field engineers conducting the test, but also to the overseas design engineers.



Sensors for this load test include displacement sensor, sister-bar strain gauges, settlement sensors, pressure cells, and piezometers.



GEO's modular systems can accommodate any requirement and are easy to expand.



Real-time readings were displayed on smart phones during this pullout test.

