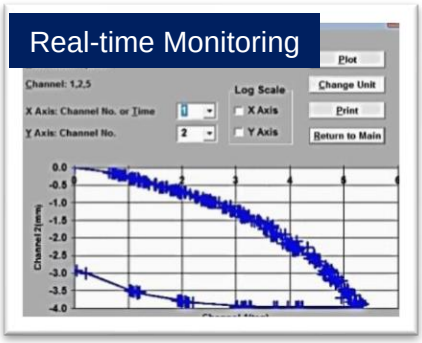
PLATE BEARING TEST

ALFA GEOTECH

CPT Truck

Field Test

Real-time Monitoring



Results

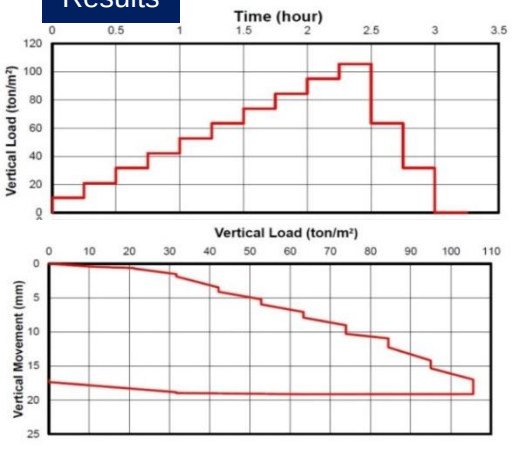


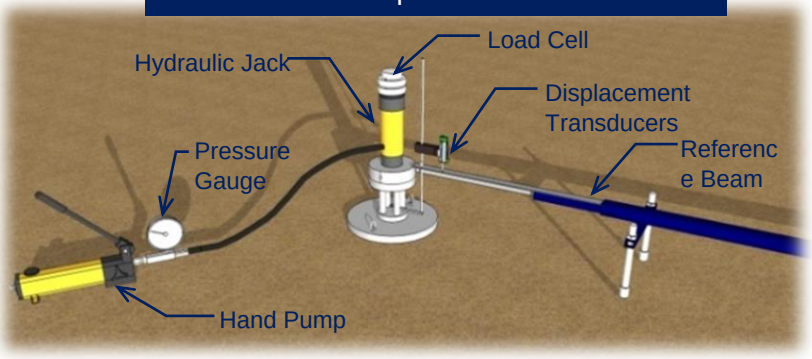
Plate Load Test is an in-situ test which is widely used to determine ultimate bearing capacity of soil for the design of foundation and the modulus of subgrade reaction for evaluation and design of pavement and foundation structures.

Depending on the requirements, the plate load test can be carried out in accordance with ASTM D1194, ASTM D1196 or DIN 18134. A loaded truck or other reaction frame, hydraulic jack, bearing plates, load cell, dial gauges or displacement transducers and deflection beams are needed in the test.

The test is carried out by placing the bearing plate at ground level or at foundation level. The load is then applied to the test plate incrementally by the hydraulic jack acting against the reaction system, and each load increment is maintained for a selected time interval. The load cell and the displacement transducers or the dial gauges, which are calibrated before the testing, are used to measure the applied load and the displacements of the plate with the maximum accuracy. These equipment are connected to a data logger, which is connected to the computer with a real time display, and the measurements are also recorded by the computer during the test.

Based on the load-displacement relationship, the bearing capacity of the soil and/or the modulus of subgrade reaction can be estimated.

Load Cell and Displacement Transducer



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