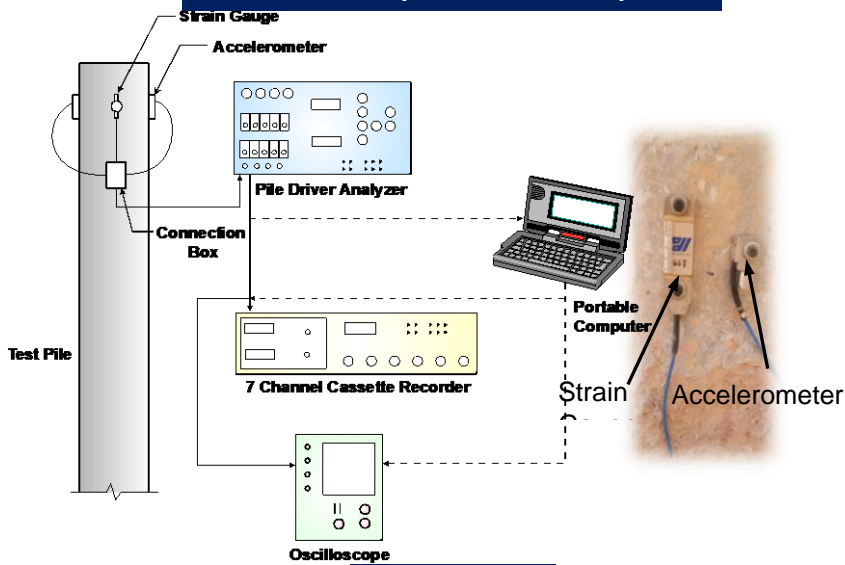
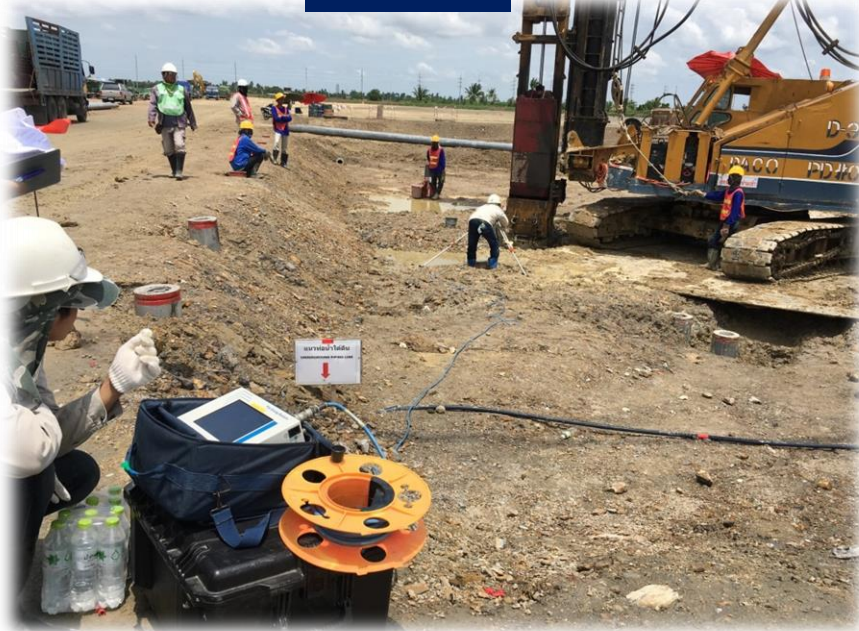


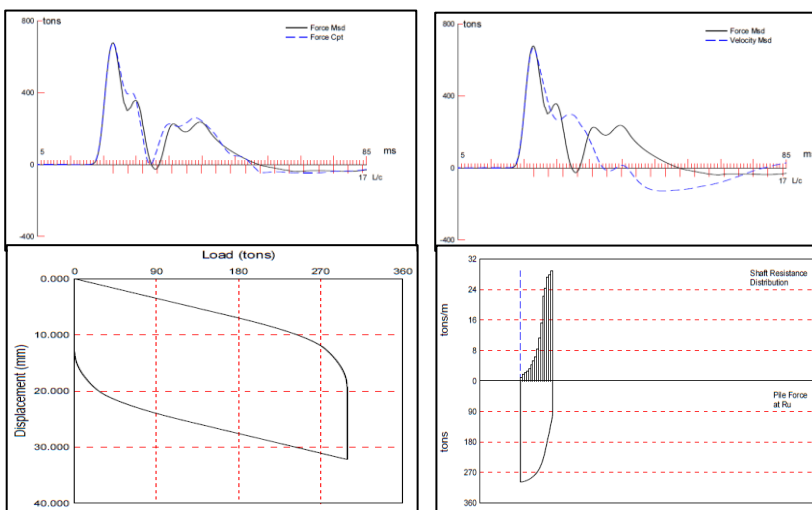
Schematic of Dynamic Pile Analyzer



Field Test



Results



Pile Dynamic Analyzer (PDA), also called high strain dynamic load test, is based on monitoring the response of a pile subjected to hammer blows applied at the pile head. This method is widely used to estimate the bearing capacity and the integrity of the pile, as well as hammer performance, pile stresses, and soil dynamics characteristics, such as soil damping coefficients and quake values. This test is easy, fast, inexpensive and required small working area.

Pile Dynamic Analyzer (PDA) is carried out according to ASTM D4945. The pile driving analyzer, two (2) pairs of strain gauge and accelerometer, pile driving hammer will be needed to perform PDA. Both initial driving and restriking condition of test pile are required for driven pile even though only the restriking is required for bored pile.

Two (2) pairs of strain gauge and accelerometer are attached to the pile along the axial direction. These two pairs are placed at the opposite side of pile with the distance of 1.5 diameter below the top level of piles. The pile is driven by using the hammer which creates the propagation of wave along the pile. The acceleration and strain of the propagated wave for each strike are measured by the accelerometer and strain gauges which are connected to pile driving analyzer for recording the data. These data are interpreted by using two methods: Case Method and CAsE Pile Wave Analysis Program (CAPWAP).

The skin friction, the end bearing, the static load-settlement relationship, pile integrity and compressive/tensile strength of the pile during driving can be generated from Case method and CAPWAP.