Pile Dynamics has revealed a new wireless system that allows dynamic load testing of deep foundations. The method enables testing to take place without the need for cables to connect the sensors that acquire data for the test to a Pile Driving Analyser (PDA), the company said.

GRL Engineers, for MACTEC Engineering and Consulting, has used the wireless method at the Tar River Bridge project - part of the US 17 Washington Bypass in the state of North Carolina, US. According to Pile Dynamics, the system allows accelerometers and strain transducers to transmit data to a PDA placed as far as 100 m away from the foundation being tested.

“Dynamic load testing continues to be a reliable and cost effective way of determining the bearing capacity of piles and shafts, and of investigating their integrity,” a spokesman for the company said.

“In the case of driven piles, when the PDA also monitors driving stresses and hammer performance during driving, wireless transmission avoids damage to cables and sensors during the pile hoisting process and improves safety by making it unnecessary to climb the leads to connect cables after hoisting,” he added.