Figure 125. Results of TS-1 and TS-2

Cape Fear River Bridge: Bent-8

A Statnamic load test was performed in order to determine the bearing capacity of Bent-8 as part of the Cape Fear River Bridge construction project. The test was performed on April 11th 2003. The test shaft was constructed using a casing with a 47 inch (119.4 cm) outer diameter and wall thickness of 0.5 inches (1.27 cm). The total shaft length was 86.3 feet (26.3 m) of which 4.3 feet (1.31 m) of casing extended above the surface. Of the total length of the shaft, 32.6 feet (9.94 m) was socketed in weathered rock, and 49.4 feet (15.1 m) of the shaft embedded in the residual soil layer.

Soils from the ground surface to a depth of 7.6 feet (2.32 m) were noted as muck, and from a depth of 7.6feet (2.32 m) to 40 feet (12.2 m) were characterized as loose alluvial fine to coarse sand with traces of organic material and gravel. The underlying material below a depth of 40 feet (12.2 m) is described as the PeeDee formation. The PeeDee material is composed of green-gray, micaceous, fine sand. The maximum static capacity of the B-8 test shaft was 1,827 kips (8112 kN) at 0.39 inches (0.99 cm) of displacement, as shown in Figure 126.

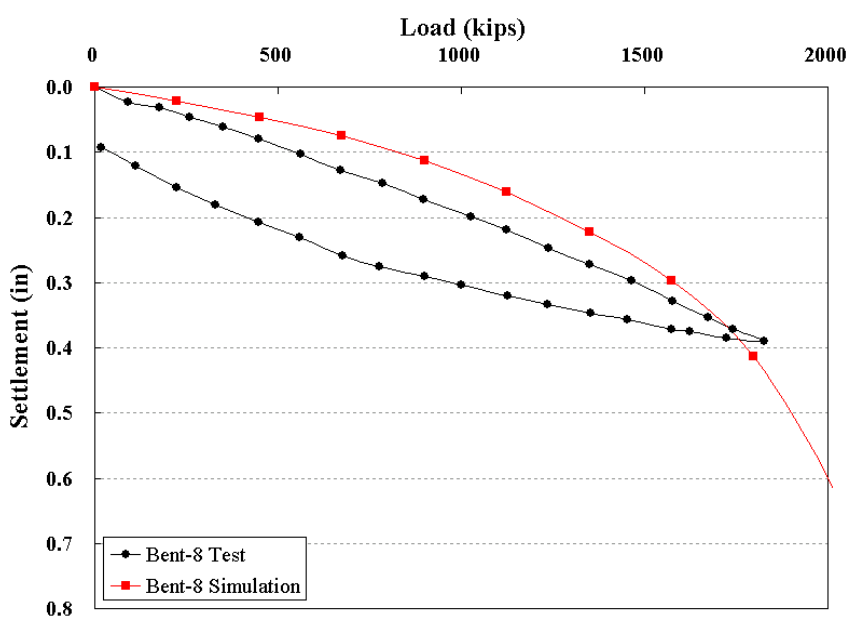

Figure 126. Results of Bent-8