

**A Calculation Method of Design Bearing Capacity of Piles for Several  
Construction Methods by Statistical Analysis of Loading Test Data Base**

Hidetoshi NISHIOKA      Masayuki KODA  
Masahiro SHINODA      Masaru TATEYAMA

A design bearing capacity of piles can be calculated by the characteristic value multiplied by a resistance factor. A calculation method to obtain them from loading test data base for several different construction methods was proposed in this paper. Firstly, the formula to calculate the characteristic value by using results of ground investigation was proposed. Secondary, the resistance factor obtained from the statistical analysis of loading test results by use of the First-order reliability method was proposed. The proposed method can evaluate the difference of the effectiveness of pile construction methods with the same reliability.