

14. Experimental Study of Piled Raft Foundation - Part 2 Comparison with Loading Test to Simplified Analysis -

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In-situ vertical and horizontal loading tests were carried out for model specimens on Kanto-loam ground, basic data was obtained. Because structure loads are supported with direct foundation and friction piles, design of piled raft foundation is reasonable to consider interaction between structure and ground for settlement and horizontal behavior to decide ground basement size, diameter, arrangement and length of piles. So, analytical study was carried out to verify the actual analytical method. Grid beam method was used with non-linear characteristics of ground reaction and piles. For vertical loading, hybrid analysis method was examined and for horizontal loading, grid beam method included press effect from raft was compared. As the result, analysis precision was verified for settlement property and horizontal behavior, and loading distribution ratio.

Key words : piled raft foundation, in-situ test, grid beam method, hybrid analysis, interaction