
Estimation of Earthquake-proof Capacity by Push-over Analysis on Building-pile-soil System

Hisashi NEMOTO

Prediction of the behavior of not only a superstructure but also a substructure is indispensable for estimation of the earthquake-proof capacity of a building because of the performance-based design and the experience of the huge earthquake. The push-over analysis on the building-pile-soil system, the excellence of which is convenient in practice in comparison with dynamic analysis, is useful for estimating earthquake-proof capacity of a building with piles. This report develops the method of modeling of piles and soil adjacent to the pile. The result of the push over analysis on a building with piles also clarifies the process of damages.