

عنوان مقاله:

The Effect of Support Conditions on Piles Performance in the Liquefiable Soils under Seismic Loading

محل انتشار:

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خلاصه مقاله:

Use piles in recent years, a significant increase in sand beaches that are often saturated grain soil structure, has found. Earthquake tensions in areas such soil structure, increase of pore pressure and decrease soil resistance and ultimately create the liquefaction of the soil that Damaging results and costly to put it on the pile. Given the importance of this issue, in this paper, the modeling of the liquefaction of the soil profile by applying the 1631 Manjil, Gilan (the northern provinces of Iran) earthquake in accordance with the Finn behavioral model, the behavior of a single pile is modeled based on elastic behavior including horizontal displacement and bending applied to the pile at the free end connection was investigated. Then connect the tangly pile, again, horizontal displacement and Flexural moment against the pile were analyzed. Compare the results of these two cases show that tangly the pile, pile on the upper end of the pile affected areas, are more influenced by the behavior and performance of soil around the pile

کلمات کلیدی:

Pile, liquefaction, horizontal displacement, Flexural moment, connection

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