

عنوان مقاله:

Base Level Evaluation in Buildings with Different Foundation Levels by Soil-foundation-structure Interaction

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خلاصه مقاله:

The base level is among the effective parameters in determining the seismic force on a structure, if the equivalent-static method is used for analyzing a structure. It is obvious that the base level is located on foundation in buildings in which foundation is built in a single level and there is not any interaction between the structure s walls and the soil; however, in some buildings which have underground part, the foundation is built in two different levels which in turn makes the determination of the location of base level uncertain. Since no relevant recommendation has been provided in the seismic codes, this study tries to remove such uncertainties. For this purpose, the structural models along with foundation and their peripheral soil were modeled by the ABAQUS software and regarding the soil type it was tested by an artificial accelerogram compatible with the spectrum of the code. Two types of soil (stiff and soft) were used in this study. The results indicated that the base level location is considerably influenced by the soil type, the number of entrance columns leading to the underground and the number of stories of the structure

کلمات کلیدی:

,Base Level, Soil-foundation-structure Interaction, Different Foundation Levels, Artificial Accelerogram

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