

عنوان مقاله:

Proposed Relationship to Design the Waffle Floor under Harmonic Vertical Loading

محل انتشار:

ماهنامه بین المللی مهندسی، دوره 26، شماره 10 (سال: 1392)

تعداد صفحات اصل مقاله: 8

نویسندگان:

r jalili - *Department of Civil Engineering, Islamic Azad University, Bushehr Branch, Bushehr, Iran*

m.m heydari - *Department of Civil Engineering, Islamic Azad University, Sarvestan Branch, Sarvestan, Fars, Iran*

a fereydouni - *Department of Civil Engineering, Islamic Azad University, Bushehr Branch, Bushehr, Iran*

خلاصه مقاله:

The design codes of building are mainly related to the strength of the building and there are no specific codes for the design of building with waffle floors for vibration sensitive equipment. The finite element model, ANSYS, is capable to consider the effects of floor thickness, the size of the bays and stiffness of the columns for analyzing the vibration of the waffle floors and vibration transmission along the waffle floor. Because the finite element analysis is time consuming and it needs enough expertise for modeling, in this study, an approximate relationship is proposed to design the waffle floor based on the comprehensive investigations of different effective parameters in the response of waffle floor. The results obtained from finite element analysis. This proposed relationship comforts the designers of industrial buildings and vibration sensitive equipment to attain a preliminary and appropriate outline to design the waffle floor considering the effective parameters on the floor vibration.

کلمات کلیدی:

Waffle Floor, Vibration, Harmonic Loading, Finite Elements

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/254974>

