عنوان مقاله:

Trench Barriers to Protection of Structures under Dynamic Loadings-2

محل انتشار:

اولین کنفرانس ملی مهندسی ژئوتکنیک (سال: 1392)

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نویسنده:

Hassan Negahdar - ١-Postgraduate student, Department of Soil Mechanics, Basement and Foundations, National Research University Moscow State University of Civil Engineering (MGSU)

خلاصه مقاله:

Wave barriers are intended to mitigate the transmission of vibrations in the soil. In this study, twodimensionalfinite difference element analysis has been carried out, to investigate the efficiency of openand in-filled barriers under dynamic loading without or with presence of the structure. In thiscontribution, on the basis of the general basis for yield, failure and potential functions in plasticity in soil,two constitutive models to studying the rate of soil response in the elastic and elastoplastic range havebeen investigated. From numerical analysis be concluded that the results achieved with assigning elasticproperties to the soil material doesn't follow the trend with the result that have been achieved fromanalysis of the model with non-linear properties of soils, with higher values at all points. Presence ofstructure has a significantly larger effect on efficiency of barriers on reducing surface wave energy withassigning nonlinear modulus to soil.

کلمات کلیدی:

Wave Barrier, Soil Displacement, Strain-Hardening and Elastic Model

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