

## عنوان مقاله:

The Numerical Analysis of Load Carrying Capacity of Strip Foundations on Sand Slopes Reinforced by Geogrid

## محل انتشار:

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## خلاصه مقاله:

Load carrying capacity in superficial foundation is one of the most important factors in the design of structures located on them. To improve load carrying capacity of shallow foundation it is possible to use strip reinforcement in the soil under the foundation. To calculate load carrying capacity of the shallow foundations on the reinforced sand it is possible to use the laboratory or numerical method. The purpose of this study was to investigate the effect of Geogrids and their geometric characteristics on the load carrying capacity of strip foundation on the slope. In order to perform numerical analysis finite difference method is used. For this purpose, different geometric parameters including sand later thickness is replaced by load carrying capacity of strip foundation located on the soil reinforced by Geogrid(For the clay tiles), the number of Geogrids, the distance between the top Geogrid to the bottom of the foundation, the distance between the Geogrids and the Geogrid length were analyzed and through determining the optimum value of each parameter it is possible to make the best use of Geogrid as the reinforcement and increase load carrying capacity as much as possible. In all these cases the dimensionless parameters were used and all of the parameters are measures based on the dimension of the foundation and also in order to analyze load carrying capacity the dimensionless parameter  $BCR_u$  as the ratio of ultimate load carrying capacity of the soil versus ultimate load carrying capacity of unreinforced soil is used

## کلمات کلیدی:

load carrying capacity, shallow foundations, numerical method, reinforced soil and slopes

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/446649>

