

studies on the load carrying capacity of shallow foundation resting over geogrid–reinforced sand under eccentric load

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چکیده :

Several works have been done relating to the estimate of the ultimate bearing capacities of shallow foundations, supported by geogrid reinforced sand. Few experimental studies have been made on the evaluation of bearing capacity of shallow foundations on geogrid–reinforced sand under eccentric load. The purpose of this paper is to conduct few model tests in the laboratory by using square surface foundation over the reinforced sand bed. are observed which are plotted to get load–settlement curves for each set up. The load–settlement curve for each test is plotted to determine the ultimate bearing capacity. Parametric studies have been made to evaluate the influence of load eccentricity on bearing capacity of the foundation. The ultimate bearing capacity of eccentrically loaded square footings can be computed by knowing the ultimate bearing capacity of square footing under central load and a reduction factor (R_{kR}) for reinforced condition. The reduction factor is developed based on the results of laboratory model tests on geogrid reinforced soil

کلید واژه : shallow foundations , geogrid , reinforced , eccentrically load, square footing

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