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Simulation Vacuum Preloading Method by Tri-Axial Apparatus

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ABSTRACT

It is very important to control any risk of instability of embankment during vacuum construction, the simulation vacuum preloading method using tri-axial apparatus is proposed to predict the behavior of soft soil improvement in the laboratory, as well as to make this method become familiar and easier in the future. The tri-axial apparatus is used instead of the large-scale one, which has been performed by Bergado (1998) and Indaratna (2008). The tri-axial test on small size specimen can be carried out in one week compared to the large-scale apparatus takes one month for big specimen. In addition, the lateral deformation as well as the shear strength increase with time can determine accurately.

KEYWORDS

Soft Soil; Soil Improvement; Vacuum Preloading; Degree of Consolidation

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