

施工扰动作用下基坑抗隆起稳定性分析

王景春, 徐日庆, 黄 斌

(浙江大学 岩土工程研究所, 浙江 杭州 310027)

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摘要 施工扰动的方式千变万化且错综复杂, 影响到周围土体工程性质的变化。长期以来, 在基坑的开挖理论与分析方法上, 都是以原状土为研究对象的。在前人的研究基础上, 提出了施工扰动度的概念, 建立了施工扰动度的表达式, 并且建立了考虑开挖扰动的基坑抗隆起安全性分析模型, 还给出了计算实例。研究结果表明, 施工扰动对基坑安全系数有较大的影响, 应采取综合措施控制施工对土体的扰动。

关键词 [岩土力学](#); [施工扰动](#); [深基坑](#); [扰动度](#); [抗隆起稳定](#); [控制措施](#)

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WANG Jing-chun, XU Ri-qing, HUANG Bin

WANG Jing-chun, XU Ri-qing, HUANG Bin

(Institute of Geotechnical Engineering, Zhejiang University, Hangzhou 310027, China)

Abstract

The construction methods are complex and changeable, which influence the performances of soil around the site. For a long time the excavating theory and stability analysis of deep excavation are based on the original soil. In this paper, on the basis of the previous researches, the concept of construction disturbance is discussed, and an expression of disturbance degree is set up and the calculation model against heave for the stability of deep excavation is established. In additional, the calculation example is also given. The study shows the construction disturbance can exert an obvious effect on the safety factor. And some engineering measures to control the construction disturbance are taken.

Key words [rock and soil mechanics](#); [construction disturbance](#); [deep excavation](#); [degree of disturbance](#); [stability against heave](#); [control measures](#)

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