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EVOLUTION PATTERN OF ENGINEERED ROAD TURFY SOIL EXAMINED BY INVERSION AND ANALYTIC HIERARCHY PROCESS

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Abstract

Turfy soil is a special soil formed in the swamp environment with the incomplete decomposition of plant residue. On one hand, the special engineering geological properties of turfy soil such as high compressibility, high moisture content, high void ratio, will cause great difficulty with engineering construction in turfy soil area, this study will make it clear of parameters value for engineering design. Turfy soil, on the other hand, is a part of the wetland, the essence of protection of the turfy soil is to protect the wetland, which is of great environmental ecological benefit. With the engineering construction in the turfy soil swamp area, the turfy soil swamp was influenced and began to degrade. In consideration of both environmental and economical benefits, 3 special areas were selected for sampling, and several tests of moisture content, organic content, grain density, ammonia nitrogen and ORP (Oxidation-Reduction Potential) was done for inversion. The results show that based on the test results, inversion of evaluation indicator and evaluate by AHP, is an effective way to analyze the distribution and evolutional pattern of turfy soil influenced by engineered road, which shows great economic and environmental benefits.

Keywords: AHP, environmental effect, engineered road, inversion, turfy soil

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