

REVIEW ON SOIL STABILIZATION TECHNIQUES

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ABSTRACT

Low rise buildings are particularly vulnerable to ground movements sourced from swelling and shrinking of the expansive clay soils. Geotechnical engineers have long recognized that swelling of expansive clays caused by moisture variation may result in considerable damage to the overlying structures, and engineers should take them into the consideration. This paper highlights the performance of fly ash and limestone for soil stabilization by means of swell potential and strength. Atterberg limits, Standard Proctor Compaction and Unconfined Compressive Strength(UCS) tests were carried out on stabilized soil samples, after a curing a period of 7 days. The use of two waste by-products, limestone and fly ash, may provide an inexpensive and advantageous construction process. This paper gives a comprehensive report on stabilization techniques for clayey soils.

KEYWORDS: Soil Stabilization, Swell and Shrinkage, Atterberg Limits, Proctor Compaction, UCS