15. SOIL STABILIZATION

STABILIZATION OF SOILS

Stabilization is the process by which the strength and stability of a soil mass is improved and increased

FREE SWELL TEST

$$\%\text{Free soil} = \frac{\text{Final volume} - \text{Initial volume}}{\text{Initial volume}} \times 100$$

DIFFERENTIAL FREE SOIL TEST

$$\%\text{DFS} = \frac{\text{Soil volume in water} - \text{Soil volume in kerosine}}{\text{Soil volume in kerosine}} \times 100$$

Degree of Expansiveness	% DFS
Low	< 20%
Medium	20 to 35%
High	35 to 50%
Very High	> 50%

Plasticity Index	Swelling Potential
0 to 15	low
10 to 35	medium
20 to 40	high
> 35	very high

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