

LECTURE 20

Characteristics of the compactor:

- (1) Mass, size
- (2) Operating frequency and frequency range

Characteristics of the soil:

- (1) Initial density
- (2) Grain size and shape
- (3) Water content

Construction procedures:

- (1) Number of passes of the roller
- (2) Lift thickness
- (3) Frequency of operation vibrator
- (4) Towing speed

Degree of Compaction

Relative compaction or degree of compaction

$$R.C. = \frac{\gamma_{d-field}}{\gamma_{d\max-laboratory}} \times 100\%$$

Correlation between relative compaction & relative density $R.C. = 80 + 0.2D_r$

It is a statistical result based on 47 soil samples.

Typical required R.C. $\geq 95\%$