CONSTRUCTION SAFETY ORDERS (NARRATIVE) (1700)

(November 1991)

PLATE C-22

BEARING VALUE OF SOIL

Shores and similar members that depend upon earth for support will probably require foot blocks or sills to distribute the load. In the absence of test data that establish the sustaining power of the soils in question, the following information should be helpful in determining the size of sill needed to assure adequate support from the soil.

Soil type	*Tons allowable per square foot*
Soft clay	1
Wet clay	2
Sand and clay, mixed in layers	2
Fine dry sand	3
Hard dry clay	4
Coarse compact dry sand	4

DESIGN CONSIDERATIONS
EXCAVATIONS, SLOPES AND BENCHES

The determination of the slope or bench configuration or design of the shoring system shall be based upon careful evaluation of such pertinent factors as the following:

(1) Depth and width of cut.

(2) Possible variation in water content of the material while the excavation is open.

(3) Anticipated changes in materials from exposure to air, sun, water or freezing temperatures.

(4) Loading imposed by structures, equipment, overlaying material or stored material.

(5) Vibration from equipment, blasting, traffic, trains or other sources.

(6) Existing underground facilities.

(7) New or old adjacent excavations.

(8) A minimum Kw of 35 pcf shall be used in all calculations unless a soils evaluation indicates otherwise.

K = Coefficient of active earth pressure

W = Unit weight of soil in pcf

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY:

1. Amendment filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35).

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