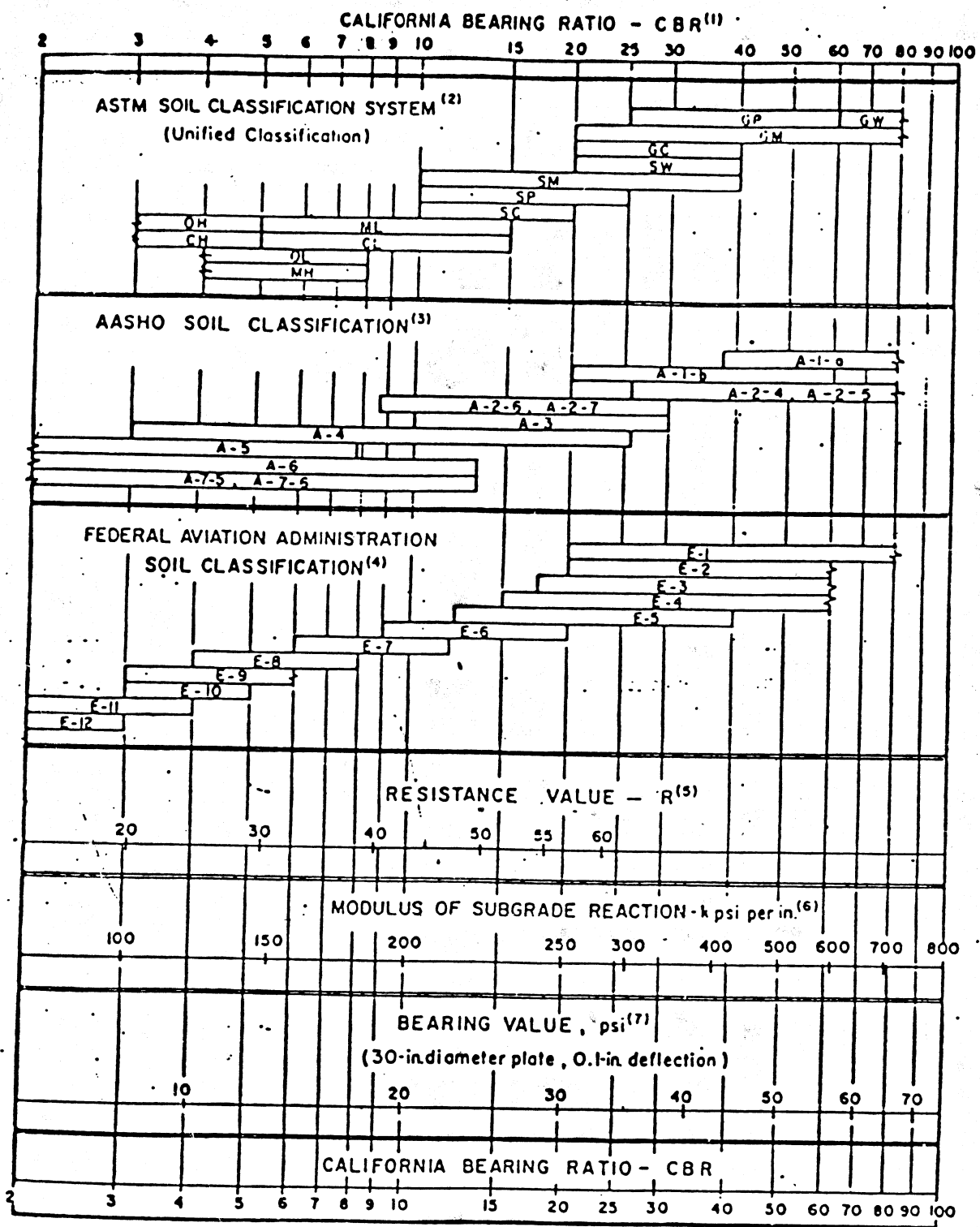


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Approximation - Soil



$$\frac{1b}{in^3} \cdot \frac{1725 in^3}{ft^3}$$

$$= 260 \frac{lb}{ft^3}$$

(1) For the basic idea, see O. J. Porter, "Foundations for Flexible Pavements," Highway Research Board Proceedings of the Twenty-second Annual Meeting, 1942, Vol. 22, pages 100-136.
 (2) "Characteristics of Soil Groups Pertaining to Roads and Airfields," Appendix B, The Unified Soil Classification System, U.S. Army Corps of Engineers, Technical Memorandum 3 357, 1953.
 (3) "Classification of Highway Subgrade Materials," Highway Research Board Proceedings of the Twenty-fifth Annual Meeting, 1945, Vol. 25, pages 376-392.
 (4) Airport Form, U.S. Department of Commerce, Federal Aviation Agency, May 1948, pages 11-16. Estimated using values given in FAA Design Manual for Airport Pavements.
 (5) F. N. Hoover, "A New Approach for Pavement Design," Engineering News-Record, Vol. 141, No. 2, July 8, 1948, pages 134-138. R is a factor used in California Statistometer Method of Design.
 (6) See T. A. Madsen and G. E. Barron, "Soil Tests for Design of Runway Pavements," Highway Research Board Proceedings of the Twenty-second Annual Meeting, 1942, Vol. 22, page 152. R is a factor used in Westergaard's analysis for design of concrete pavement.
 (7) See item (6), page 184.

Fig. 9. Approximate interrelationships of soil classifications and bearing values.

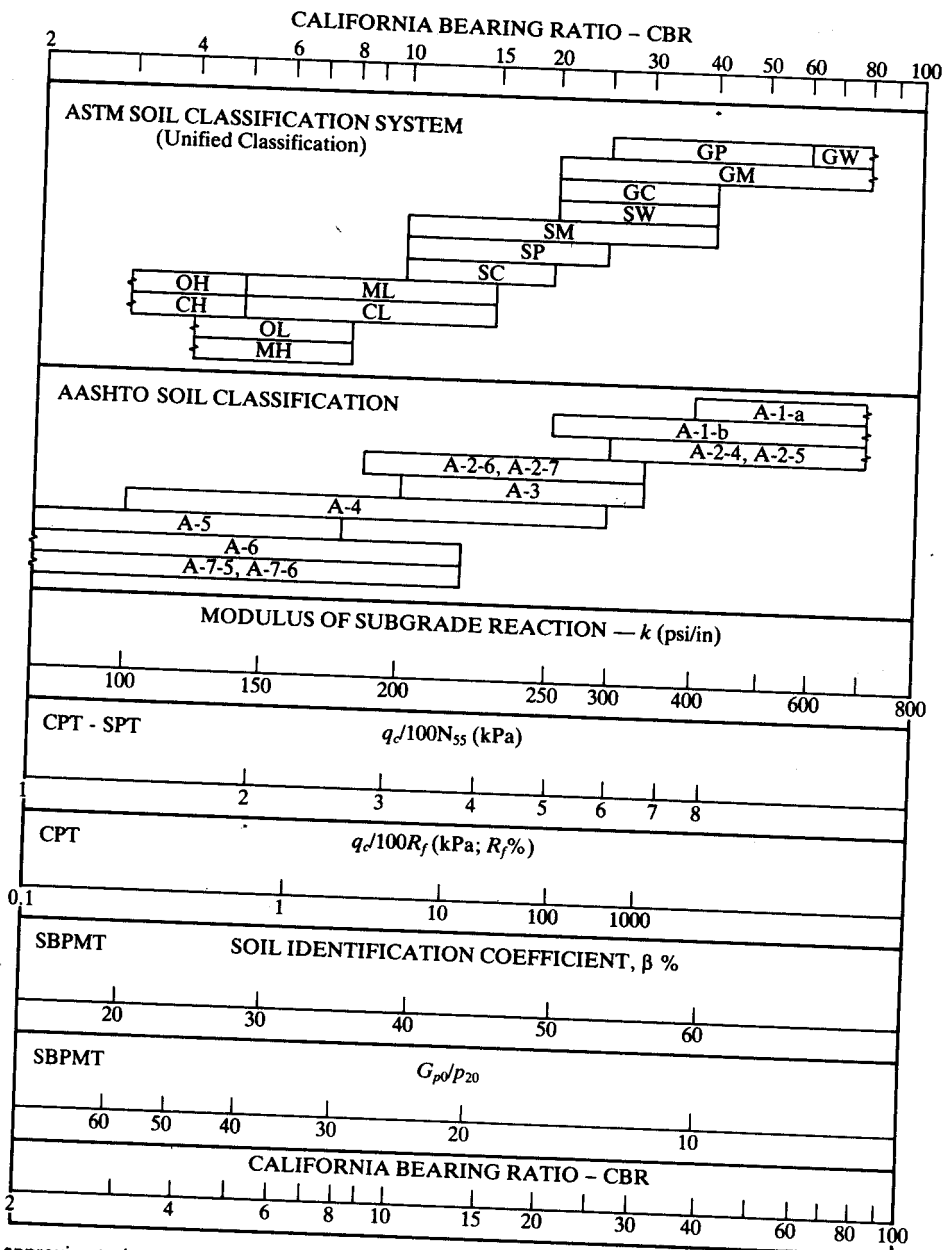


Fig. 3.37 Chart for approximate interrelationships between soil classification, bearing values, and some in-situ parameters: q_c , cone tip bearing; N_{55} , SPT blow count/ft; R_f , friction ratio (percent); G_{p0} , shear modulus at 0 percent strain; p_{20} , pressure at 20 percent strain; CBR, California Bearing Ratio. (After Pamukcu and Fang, 1989.)