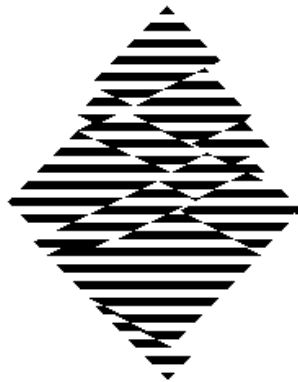


Soil Mechanics

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A. Verruijt

Revised by S. van Baars



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Preface

This book is part of the introductory course of Soil Mechanics in the Department of Civil Engineering of the Delft University of Technology. It contains an introduction into the major principles and methods of soil mechanics, such as the analysis of stresses, deformations, and stability. The most important methods of determining soil parameters, in the laboratory and in situ, are also described. Some basic principles of applied mechanics that are frequently used are presented in Appendices. The subdivision into chapters is such that one chapter can be treated in a single lecture of 45 minutes, approximately.

Comments of students and other users on the material in earlier versions of this book have been implemented in the present version, and errors have been corrected. Remaining errors are the author's responsibility, of course, and all comments will be appreciated.

Several users, from all over the world, have been kind enough to send me their comments or their suggestions for corrections or improvements.

The “double sliding” logo was produced by Professor G. de Josselin de Jong, who played an important role in developing soil mechanics as a branch of science, and who taught me Soil Mechanics.

Zoetermeer, November 2002

Arnold Verruijt

In this new edition several small, but also some major adjustments have been carried through. Not only pressure, instead of tension, but also settlement and volume decrease are defined positive. Besides this, more attention is given to the difference between the failure criterion of Coulomb (based on one normal stress) and the failure criterion of Mohr-Coulomb (based on two principal stresses). Especially the shear tests reflect this difference. My special thanks goes out to Prof.dr.ir. A. Verruijt, who taught me the fundamentals of Soil Mechanics and gave me the opportunity to revise this book to the developments the Geotechnical Engineering is undergoing.

Delft, May 2007

Stefan Van Baars

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