

INTRODUCTION

The purpose of this manual is to provide a simple, practical guide for analysis and design of sheet pile walls. It is concerned with (1) typical uses and methods of constructing anchored and cantilever sheet pile walls, (2) possible modes of failure, (3) soil properties and earth pressure theories, (4) the Free Earth Support method of analysis, (5) Rowe's design procedure, (6) anchor design, and (7) corrosion of steel sheet piles.

Included in the last section of the manual is a user's guide for the computer program FES, which can be used to perform Free Earth Support analyses of anchored walls. This computer program makes it much easier to perform these analyses, which involve iterative calculations, and which are often very time-consuming when performed by hand. The only function of the computer program is to perform calculations. All judgments regarding soil properties, factors of safety, and adjustments to the calculated values are left in the hands of the user, and are made outside the program. The purpose of the first part of this manual is to provide guidance with regard to the factors involved in these important aspects of design and analysis.