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Single Piles and Pile Groups Under
Lateral Loading
Lymon C. Reese
William F. Van Impe

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SINGLE PILES AND PILE GROUPS UNDER LATERAL LOADING

by
Lymon C. Reese
William F. Van Impe

*The best single reference for
laterally-loaded piles*

The complexities of designing piles for lateral load are manifold. Wind forces act against overhead signs and high rise buildings and loads from waves and currents are frequently critical to the design of offshore structures and bridges. Waterfront structures must support horizontal loads from the berthing of ships, retaining walls must withstand lateral earth pressures. Such structures are often founded on piles which may be steel pipes or reinforced concrete columns. In navigating the complexities of lateral-load design, the book presents procedures for designing the piles and pile groups; a problem that can only be solved by accounting for the soil resistance as related to the lateral deflection of the pile.

This book guides the designer into finding the critical loads, either causing a pile to be overloaded or causing too much lateral deflection. Complex equations are derived and explained, and computer programs are used to solve the equations. Simplified versions of the two required programs are presented on a CD-ROM, allowing the reader to check the solution of some of the many examples given in the book and to find answers to related problems. Applications of the method are presented for the design of piles for a building, an offshore structure, an overhead sign, etc.

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CD-ROM in the back jacket includes a student version of LPILE and GROUP software.
The bibliography is 14 pages long, and it thoroughly covers all of the relevant geotechnical literature.
The hard-cover book is bound with Smyth-sewn signatures on good quality paper. The inside pages are black & white (no color) with many line drawings and charts, but few photographs.

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