

# SIMPLIFIED LRFD BRIDGE DESIGN

***Simplified LRFD Bridge Design*** is a study guide for solving bridge problems on the Civil and Structural PE exams. It is also suitable as a reference for practicing engineers and as a classroom text for civil engineering students. The book conforms to the fifth edition of *AASHTO LRFD Bridge Design Specifications* (2010).

Unlike most engineering books, ***Simplified LRFD Bridge Design*** uses an alternative approach to learning—the inductive method. The book introduces topics by presenting specific design examples, literally teaching backward—the theory is presented once specific design examples are comprehended.

Another unique quality of the book is that whenever new topics and materials appear in design examples, AASHTO LRFD Bridge Design Specifications reference numbers are cited, so that students will know where to find those new topics and materials.

For example,

## **New Topics or Material**

Design Live Load HL-93

## **AASHTO Reference Number Cited**

A Art. 3.6.1.2

## ***Design Examples and Practice Problems***

In addition to the first section on an overview of the LRFD Method of Bridge Design, there are eight design examples and three practice problems utilizing a step-by-step process to help students learn easily in the shortest time.

## ***About the Editors***

**Jai B. Kim, PhD, PE**, is a professor emeritus of civil and environmental engineering at Bucknell University, and was department chairman for 26 years. Recently he was a structural engineer at FHWA. He was also actively involved in the NCEES structural PE Committee and Transportation Research Board Committee of Bridges and Structures. He holds a BSCE and MSCE from Oregon State University and a PhD from University of Maryland. **Robert H. Kim, MSCE, PE**, is chief design engineer for BKLB Structural Consultants, Inc. He has extensive experience in bridge engineering. He holds a BS from Carnegie Mellon University and a MSCE from The Pennsylvania State University. **Jonathan R. Eberle, BSCE and EIT**, is engaged in research with a focus on the seismic design of structures at Virginia Polytechnic Institute. He holds a BSCE from Bucknell University.

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