

ABOUT THIS TRAINING COURSE

The City of Los Angeles, and the Structural Engineers Association of Southern California (SEAOSC) created a task force to study the reason for the widespread damage in the 1994 Northridge Earthquake. The task force concluded that one primary cause of damage was the *lack of quality control* in the design, construction, and inspection of wood frame buildings. The Federal Emergency Management Agency (FEMA), State of California Office of Emergency Services (OES), City of Los Angeles, SEAOSC and the Building Industry Association (BIA) joined forces to provide additional training in seismic-resistant construction. This course is one outcome of their cooperative effort.

This course seeks to teach building contractors and building inspectors the correct methods for doing typical seismic retrofits that have been designed by an engineer or architect or described in a prescriptive standard. The course will not teach one how to design a seismic retrofit, but rather how to properly implement the design.

Woodward Clyde Federal Services and the Hazard Mitigation Technical Assistance Partnership, Inc. created this manual and course update. The new course includes some elements of the original course prepared by Wiss, Janney, Elstner Associates, Inc. and Organizational Learning Systems, Inc. Revisions to the manual and course content are primarily the work of the private instructional team of experts FEMA originally hired to teach the course. The FEMA instructional team members are:

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The authors have presented the information in this manual as a one-day seminar to several thousand building contractors and inspectors throughout the State of California. The seminars were presented under the sponsorships of FEMA, OES, BIA, International Conference of Building Officials (ICBO), the Association of Bay Area Governments (ABAG), Pacific Coast Building Conference (PCBC), and the State of California Department of Insurance.

The California Earthquake Authority sponsored the addition of a new section to this FEMA manual, namely *Retrofitting Post and Pier Houses*. This section creates a new prescriptive standard for floor support systems that are common in the northern coastal regions of California and elsewhere. The Hazard Mitigation Technical Assistance Partnership, Inc. created this section through James E. Russell, Building Code Consultant.

COURSE INFORMATION LIMITS

Any opinions, findings, conclusions or recommendations expressed in this manual do not necessarily reflect the views of the Federal Emergency Management Agency, California Office of Emergency Services, California Earthquake Authority, Building Industry Association, Structural Engineer's Association of California, City of Los Angeles or any other sponsors of the seminar training. The authors of this manual are solely responsible for its content. Additionally, neither the creators, sponsors nor authors of this manual make any warranty, expressed or implied, nor assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, product, or process included in this manual. Users of information from this manual assume all liability arising from such use.