

ATC-21-T
**Rapid Visual Screening of Buildings
for Potential Seismic Hazards
Training Manual**

Second Edition

by
APPLIED TECHNOLOGY COUNCIL
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Preface

In 1992 the Federal Emergency Management Agency (FEMA) awarded the Applied Technology Council (ATC) a contract to develop training manuals/slide sets for the following two ATC-developed methodologies: (1) the ATC-20 procedures for postearthquake safety evaluation of buildings (ATC, 1989); and (2) the ATC-21 procedures for rapid screening of buildings for potential seismic hazards (ATC, 1988). The first part of the project was completed in 1993, with the publication of the *ATC-20-T Postearthquake Safety Evaluation of Buildings Training Manual*, which consists of 160 slides and a companion training presentation narrative coordinated with the slides (ATC, 1993).

The second part of the original project was completed with the publication of the 1st Edition of this document, a training manual/slide set concerned with the training of individuals for rapid screening of buildings according to the procedures described in the ATC-21 report, *Rapid Visual Screening of Buildings for Potential Seismic Hazards, A Handbook*. The *Handbook*, developed by the Applied Technology Council, with funding from FEMA, was published in 1988 as FEMA report 154 (ATC, 1988a). The intent of the *Handbook* is to provide a standard rapid visual screening procedure to identify those buildings that might pose potentially serious risk of loss of life and injury, or of severe curtailment of community services, in case of a damaging earthquake.

In 2002, ATC completed and FEMA published the 2nd Edition of the FEMA 154 report, *Rapid Visual Screening of Buildings for Potential Seismic Hazards, A Handbook* (ATC, 2002a). The 2nd Edition of FEMA 154 was patterned after the 1st Edition, but the

scoring system was updated to reflect new knowledge about the seismic performance of buildings and new information on seismic hazard mapping. The 2nd Edition was also organized and formatted to facilitate ease of use of the Rapid Visual Screening procedure.

This 2nd Edition of the *ATC-21-T Training Manual* consists of 120 slides as a PowerPoint presentation on a CD-ROM and a companion training presentation narrative coordinated with the slides. While most of the slides in this 2nd Edition are exact duplicates of those contained in the 1st Edition, a significant number of the slides have been updated to reflect changes incorporated in the 2nd Edition of FEMA 154. The updated slides and associated narrative were developed by Christopher Rojahn, who served as Principal Investigator on the original training manual development project.

The 1st Edition of the training manual was developed under the direction of Co-Principal Investigators Gerald Brady and Robert Bruce, and structural engineering consultant, Lawrence Reaveley. Members of the Project Engineering Panel, who provided overall review and guidance for the project, were Christopher Arnold, James Blacklock, Fred Herman, and James Hill. Peter Mork provided report and slide preparation services. The affiliations of these individuals are provided in Appendix A.

ATC gratefully acknowledges the valuable assistance, support and guidance provided by the FEMA Project Officer for the original project, Marilyn MacCabe.

Christopher Rojahn, Principal Investigator
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