

ATC-10-1

**Critical Aspects of Earthquake Ground Motion
and Building Damage Potential**

by

APPLIED TECHNOLOGY COUNCIL
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Preface

In March 1984, Applied Technology Council (ATC) organized a two-day seminar to identify critical aspects of earthquake ground motion and building damage potential that should be considered in design but currently are not. At this San Francisco meeting, researchers and practitioners presented previously unpublished ideas and material on earthquake ground motion, building response, and building design. Attendees, technical paper authors, and working group participants discussed ground motion characteristics that have the greatest impact on damage potential. They evaluated the credibility of present design practice and identified some of its deficiencies. New methods with potential to better account for realistic ground motions in design were presented and new areas for research were suggested.

This report contains the working group conclusions and recommendations as well as the technical papers presented at the seminar. These papers and recommendations represent innovative and provocative ideas on the subject of earthquake ground motion and building damage potential.

ATC gratefully acknowledges the many individuals who contributed to the success of the seminar. William B. Joyner of the U. S. Geological Survey and John B. Scalzi of the

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