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SECOND JOINT U.S.-NEW ZEALAND WORKSHOP ON
SEISMIC RESISTANCE OF HIGHWAY BRIDGES

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PREFACE

In January 1985 Applied Technology Council was awarded a grant by the National Science Foundation to conduct the second in a series of planned cooperative bi-lateral efforts involving highway bridge researchers and design professionals from the United States and New Zealand. The first such effort was held in December 1981, when a group of U. S. bridge designers and researchers traveled to New Zealand to review and discuss bridge seismic design practices and research efforts in New Zealand.

The second bi-lateral workshop was held in San Diego, California, May 8-10, 1985, and was attended by 12 researchers and practitioners from New Zealand and more than 40 researchers and practitioners from the United States. A major objective of the Workshop was to develop recommendations regarding future research needs, and much of the discussion at the Workshop focused on that objective.

This report contains written versions of the papers presented at the Workshop as well as a list and prioritization of workshop recommendations. Included are summaries of research projects currently being conducted in both countries as well as state-of-the-practice papers on various aspects of design practice. Topics discussed include bridge design philosophy and loadings, design of columns, footings, piles, abutments and retaining structures, geotechnical aspects of foundation design, seismic analysis techniques, seismic retrofitting, case studies using base isolation, strong-motion data acquisition and interpretation, and testing of bridge components and bridge systems.

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