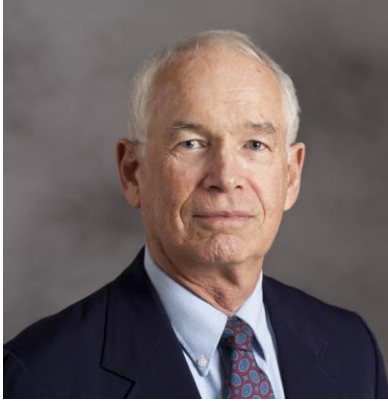


Robert Bruce | Senior Associate



EDUCATION

- Purdue University
 - Bachelor of Science, Electrical Engineering, 1966
- University of California, Los Angeles
 - Master of Architecture, Architecture, 1974
 - Master of Engineering, Structural Engineering, 1981

PRACTICE AREAS

- Earthquake Damage Assessment
- Repair and Rehabilitation Design
- Seismic Retrofit Design
- Wood Materials and Structures
- Welding Evaluation and Design

REGISTRATIONS

- Civil Engineer in CA
- Structural Engineer in CA
- AWS Certified Welding Engineer

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- American Welding Society (AWS)
- Structural Engineers Association of California (SEAOC)

TECHNICAL COMMITTEES

- SEAONC - Disaster Emergency Services

CONTACT

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EXPERIENCE

Robert Bruce has extensive experience designing seismic upgrades and conducting postearthquake safety evaluations. He has participated extensively in FEMA-funded schematic design, training, and publication projects related to seismic adequacy of buildings.

Mr. Bruce has authored or coauthored papers and documents on seismic retrofit, computerized lateral force analysis methods, analysis of concrete shear walls, structural timber durability, coastal design, and post-earthquake safety evaluation. He has given more than three hundred post-earthquake safety evaluation presentations.

Mr. Bruce began his career in the Naval Civil Engineer Corps in Vietnam. Before joining WJE, he held various positions with Degenkolb Associates; the Forest Products Laboratory at the University of California, Berkeley; and the Applied Technology Council.

REPRESENTATIVE PROJECTS

Earthquake Damage Assessment

- Building safety evaluation engineer following five major California earthquakes, the 2007 Peru earthquake, and the 2010 Haiti earthquake
- FEMA Hazard Mitigation Technical Assistance Program (HMTAP): WJE Program Manager for FEMA predisaster mitigation services to local communities in ten states
- FEMA National Earthquake Technical Assistance Program (NETAP) ATC-66 program: Lead instructor for postearthquake safety evaluation training

Repair and Rehabilitation Design

- Evaluation of National Flood Insurance Program Building Standards: Member of expert panel
- Structural design of more than twenty-five condominium unit remodels

Seismic Retrofit Design

- Alcatraz Island Building 64 - San Francisco, CA: Schematic seismic retrofit design

Wood Materials and Structures

- 2,200-Foot Timber-Framed Boardwalk - Emeryville, CA: Investigation of wood decay and limnoria damage, repair design, and construction observation
- 54,000-Square-Foot Industrial Facility - San Leandro, CA: Evaluation and repair design of timber-roof trusses
- Riggers Loft Historical Industrial Building - Richmond, CA: Wood materials evaluation of 26,000-square-foot building; rehabilitation and seismic upgrade design
- *FEMA Coastal Construction Manual*: Contributing author on wood durability and seismic design

Welding Evaluation and Design

- Rigger's Loft - Richmond, CA: Design of long-span welded steel roof trusses; in-house consultation and guide specification revision