CRAIG D. COMARTIN

Mr. Comartin has thirty years of experience as a structural engineer in seismically active regions. He has extensive experience with all structural materials. Over the past seven years he has been serving as a seismic consultant for a small number of select clients including the Applied Technology Council, Stanford University, the University of California, Berkeley, and the National Science Foundation. He is a recognized and respected leader in the earthquake professions, serving as an officer and director of the Earthquake Engineering Research Institute.

EDUCATION

BSCE; University of Santa Clara; 1971
MSCE; University of California, Berkeley; 1973

REGISTRATION

California; Civil and Structural; 1977
Washington; Civil and Structural; 1984
Alaska; Civil; 1981
Oregon; Civil and Structural; 1979
Guam; Civil and Structural; 1987

PROFESSIONAL SOCIETIES

Structural Engineers Association of California
Seismological Society of America
Earthquake Engineering Research Institute
(Director and Secretary/Treasurer, 1994-2000)

EMPLOYMENT HISTORY

1990 to Present: President:
Comartin-Reis
Stockton and Palo Alto California

1980 to 1990: Partner, Director, And Senior Vice President
Coffman Engineers, Inc.
Seattle, Washington

1978 to 1980: Senior Structural Engineer
Wiss, Janney, Elstner and Associates
San Francisco, California

1973 to 1978: Structural and Geotechnical Engineer
Rutherford & Chekene
San Francisco, California

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SELECTED RELEVANT EXPERIENCE

STANFORD UNIVERSITY SEISMIC PROGRAM

Since the spring of 1991, Mr. Comartin has served as technical advisor for the management of the Stanford program for seismic rehabilitation and design of new campus structures. Assignments include:

- Risk management and planning.
- Damage investigation and structural evaluations
- Development of performance based seismic rehabilitation and design standards.
- Technical management of seismic rehabilitation new design projects.
- Seismic and structural engineering quality assurance program.

ATC 33 - GUIDELINES FOR THE SEISMIC REHABILITATION OF BUILDINGS

Mr. Comartin currently serves as Senior Structural Consultant to the Applied Technology Council. His involvement on this federally funded effort to develop consensus standards for mitigating seismic hazards in existing buildings include:

- Geotechnical chapter team member for the development of procedures to include the effects of foundations in the analysis of existing buildings.
- Coordination of the preparation of twenty four building case histories testing the use of the guidelines.
- Development of workshop presentations for selected case histories.

ATC 40 - RECOMMENDED METHODOLOGY FOR THE SEISMIC EVALUATION AND RETROFIT OF CONCRETE BUILDINGS

Mr. Comartin was the Principal Investigator for this project for the California Seismic Safety Commission. The document is a technically sound methodology for use on concrete buildings to evaluate seismic performance and implement cost effective mitigative measures. Key elements include:

- Performance based approach.
- Field investigation and testing procedures.
- Pseudo-nonlinear capacity spectrum analysis.
- Component modeling and acceptability criteria.
- Foundation effects.
- Detailed example building studies.
- Design and construction quality assurance.
- Benefit-cost analyses.

ATC 43 - EVALUATION AND REPAIR OF EARTHQUAKE DAMAGED CONCRETE AND MASONRY WALL BUILDINGS

Mr. Comartin is the Co-Principal Investigator Project Director for this project funded by the Federal Emergency Management Agency. The objective is to develop criteria for assessing the effects of damage and formulating repair alternatives. The approach is a procedure to quantify loss by comparing the anticipated performance of the damaged building subject to future ground shaking to that anticipated for the undamaged building. The scope includes concrete and masonry bearing wall and infilled frame structures.. Key elements include:

- Performance based nonlinear analysis.
- Field investigation and testing procedures.
- Damaged component behavior.
- Repair procedures.
- Risk based analysis of repair alternatives.
- Risk based policy considerations

UNIVERSITY OF CALIFORNIA, BERKELEY - RISK ASSESSMENT OF MAJOR BUILDINGS

Mr. Comartin assists the university with decisions regarding the priority, performance objectives, benefit/cost analyses, and funding for major campus facilities. Recently he completed a risk and benefit/cost study of four of the largest nonductile concrete buildings on the campus.

RECENT PUBLICATIONS

"Performance Based Evaluation and Repair of Earthquake Damaged Buildings", with C. Rojahn, *Proceedings of the Sixth National Conference on Earthquake Engineering,* Earthquake Engineering Research Institute, Seattle, 1998.

"Peer Review and Performance Based Design", with Harry Jones II, *Proceedings of the Sixth National Conference on Earthquake Engineering,* Earthquake Engineering Research Institute, Seattle, 1998.

"Practical Aspects of Performance Based Evaluation and Rehabilitation of Buildings", *Proceedings of the Structural Engineers World Congress*, San Francisco, 1998.

"The Impact of the Northridge Earthquake on Structural Design Practice", *Proceedings of the Seventh U.S.-Japan Workshop on the Improvement of Structural Design and Construction Practices*, Applied Technology Council ATC 15-6), Kobe, Japan, 1996.

The Guam (1993) Earthquake: Reconnaissnace Report, Supplement to the Earthquake Engineering Reasearch Institute Journal *Spectra*, Technical Editor, Oakland, California, March, 1995.

The Hyogo-Ken Nanbu Earthquake, January 17, 1995: Preliminary Reconnaissance Report, Technical Editor with Marjorie Greene and Susan K. Tubbesing, Earthquake Engineering Research Institute, Oakland, California, February, 1995.

"Transitions in Seismic Analysis and Design Procedures for Buildings and Their Foundations", with J.R. Keaton, W.P. Grant, G.R. Martin, and M.S. Power, *Proceedings of the Sixth U.S.-Japan Workshop on the Improvement of Structural Design and Construction Practices*, Applied Technology Council (ATC 15-5), Victoria, British Columbia, 1994.

"Practical Aspects of the Seismic Rehabilitation of Unreinforced Masonry Buildings", with M. Fouad Bendimerad and Harry Jones II, *Proceedings of the Fifth National Conference on Earthquake Engineering,* Earthquake Engineering Research Institute, Chicago, Illinois, 1994.

"One Hundred Years of Risk, Recovery, and Rehabilitation: A Seismic History of Stanford University", with M. Fouad Bendimerad, *Proceedings of the 1993 National Earthquake Conference*, Memphis, Tennessee, 1993.