KENNETH L. CARPER **September 8, 2009**

Professor of Architecture
School of Architecture & Construction Management
College of Engineering & Architecture
Washington State University
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Born: November 2, 1948
Married: Three Children

1. EDUCATION

MS Civil Engineering (Structural) 1977
Washington State University

Bachelor of Architecture (with Highest Honors) 1972
Outstanding Graduate Award: Class of 1972
Washington State University

2. PROFESSIONAL QUALIFICATIONS

Registered Architect, State of Washington 1973-Present

Architectural Consulting since appointment at Washington State University:
Residential and Commercial Design (20 Projects as Principal)
Structural Consulting (21 Projects)

Architectural Practice in Spokane, Washington
E. Norman Sylvester, A.I.A.
Designer and production coordination: commercial, retail, residential and educational facilities.

3. CURRENT PROFESSIONAL MEMBERSHIPS

Member: American Society for Engineering Education (ASEE).

Member: Architecture and Engineering Performance Information Center (AEPIC).

Correspondent: National Academy of Forensic Engineers (NAFE).

Member: American Society of Civil Engineers (ASCE).

Founding Member: Architectural Engineering Institute (AEI)

Member: American Institute of Steel Construction (AISC)

Life Member: India Chapter of American Concrete Institute (ICACI)

4. ACADEMIC ACTIVITIES: TEACHING & SERVICE

4.1 TEACHING: SCHOOL OF ARCHITECTURE & CONSTRUCTION MANAGEMENT, WASHINGTON STATE UNIVERSITY

1974-Present (Current Rank: Professor with Tenure)

Architectural structures sequence for third, fourth and fifth-year students (statics, strength of materials, timber, steel, reinforced concrete and masonry, long-span and high-rise systems, indeterminate systems, wind and seismic forces, computer analysis of structures--seven courses). All of these courses were developed as new courses since 1976.
Also have taught design studio (third and fourth-year levels), architecture orientation, engineering orientation and invited seminars to students in civil engineering, hydraulic engineering, mechanical engineering and professional ethics.

Regular consultant to Design Studios--all levels, including formal lectures, short courses, and consulting on individual student projects.

Faculty Coordinator for Internship Programs in Architecture and Construction Management. Panel member for cooperative educational conferences sponsored by the Professional Experience Program.

Member of Graduate Faculty, School of Architecture & Construction Management. Also have served on graduate committees for students in Civil & Environmental Engineering and in Environmental Science/Regional Planning.

Curriculum Advisory Program: Advisor for Architecture Students and Construction Management students.

Summer courses for high school students interested in Engineering and Architecture (1986-Present).
Engineering Faculty Mentor for National Science Foundation “Young Scholars” Program (1990-91).
Regular faculty participant: WSU "Summer Alive" program

"Structures," summer short course for Spokane area High School students, Interdisciplinary Design Institute, Spokane, WA, July 11, 2000.

Presentations to minority high school students, Minority Student Program (MESA) Advisor: “Bridge Workshop.”

Educational Consultant: University of Idaho, College of Art and Architecture, Building Technology Program. (1978-Present)

University Honors Program Workshop for New Students, “Making Bridges: Physical and Cultural,” Fall 1998.

Faculty mentor: McNair Foundation Program (2007-present)

Courses currently taught each year are:

Arch 351 Structures I (also taught each summer)
Arch 352 Structures II (also taught each summer)
Arch 463/563 Structures III
Arch 464/564 Structures IV (2 sections)
Arch 353 Structures Studio I (2 Sections)
Arch 354 Structures Studio II (2 Sections)
Arch 498 Structures: Special Topics Seminar

4.2 **COMMITTEES** (* indicates service as Chair of Committee)

University and College Level Committees:

University Academic Affairs Committee (Vice-Chair)
University Faculty Status Committee (elected)
University Catalog Committee
University Extended Academic Programs Committee
University Senate (Elected)
University Planning Committee
Physical Facilities Subcommittee
* Regents' Professor Selection Committee (Presidential Appointment)
* Academic Program Review Committee:
  Review of Undergraduate and Graduate Programs,
  Department of Horticulture and Landscape Architecture
* Award Committee: Excellence in Instruction Awards:
  Burlington Northern Award
  President's Award
  CASE Award
WSU Ethics Interest Group (appointed member)
Campus Circulation Task Force
Faculty Search Committee—Interior Design
Tenure and Promotion Committee—Interior Design
* Building Committee: Design Disciplines Facility
OGRD Stipend Proposal Review Committee
Faculty Hearing Committee (Presidential appointment)
Committee to Revise WSU's Discrimination & Sexual Harassment Policy & Complaint Procedures
Dean's Research Committee: College of Engineering & Architecture
Wood Technology & Materials Research Laboratory Advisory Committee
Search Committee: Senior Research Professor, Wood Technology
NSF Project Committee: Technology and Society in General Education
College Promotion and Tenure Advisory Committee (Elected)
College Distinguished Lecture Committee
Teaching Evaluation Committee: Department of Mechanical and Materials Engineering
Teaching Evaluation Committee: Department of Civil & Environmental Engineering
Committee to Select Outstanding Cooperative Education Student
Peer Evaluator - University of Idaho Promotion & Tenure
Peer Evaluator - University of Colorado Promotion & Tenure
Peer Evaluator – University of North Carolina Promotion & Tenure
Peer Evaluator – Cleveland State University Promotion & Tenure
Code of Ethics for Student Government Committee
Dean Search Committee - College of Engineering and Architecture
Associate Dean Search Committee – College of Engineering and Architecture
Provost's Task Force on Future of WSU Honors Program
* Honors Council
College Tenure Review Policy Committee
Director Search Committee: Interdisciplinary Design Institute
Honors Associate, College of Engineering & Architecture
* Campaign WSU, College of Engineering & Architecture
College Scholarship Committee
Search Committee: Provost and Executive Vice President (Presidential Appointment)

School of Architecture and Construction Management Committees:

* School Planning Committee (Elected)
* Philosophy and Goals Committee
  Curriculum Committee
* Third-Year Admissions Committee
  Graduate Program Committee
  Chair Search Committee
* Scholarship Committee
  WSU/University of Idaho Coordinating Committee
  Library Policy Committee
  Admissions Policy Review Committee
  Development Committee
* Professional Advancement Committee (Elected)
  Academic Standards Committee
  Graduate Admissions Committee
* Director Search Committee
  Career Development Committee
* Faculty Search Committees (numerous positions)
  Academic Coordinator Search Committee
* Honors/Awards/Scholarships Committee
  Technology Committee
* Construction Management Curriculum Committee
  Faculty Mentor: Candidates for Tenure and Promotion
  Acting Coordinator, Construction Management Program
* Academic Affairs and Admissions Committee
  Faculty Adviser: Alpha Rho Chi Architecture Fraternity

5. RESEARCH/SCHOLARLY/PROFESSIONAL: ACTIVITIES & SERVICE

Primary research interests are in architectural and civil structural failures--technical and legal implications, and in design to mitigate the effects of natural hazards. Publications and professional activities relate to these interests.

Appointed member, two consecutive 3-year terms, **Board of Direction level Committee on Publications**, American Society of Civil Engineers (ASCE), 2003-2009. This 5-member committee oversees the entire ASCE publications program including over 30 peer-reviewed journals and all books, monographs, standards and other publications of the Society. ASCE is the largest publisher of civil engineering resources in the world.

Member: American Society of Civil Engineers, National **Technical Council on Forensic Engineering** (ASCE/TCFE).

Chairman of National **Executive Committee of TCFE** (1989-90).

Secretary of National **Executive Committee of TCFE** (1986-89).

Chairman: **TCFE Awards Committee** (1990-91).

Chairman: national **Publications Committee**, ASCE Technical Council on Forensic Engineering (1986-Present).

Founding Editor-in-Chief: Bi-monthly ASCE peer-reviewed Technical Journal: **Journal of Performance of Constructed Facilities** (1986-Present; 98 issues published to date under Carper's direction).

Control Group Member, ASCE National **Committee on Education**, Technical Council on Forensic Engineering (1991-Present).

Member, Planning Committee and Scientific Board, **"International Congress on Forensic Engineering, Collapses, Reliability and Retrofit of Structures,"** University of Naples, Naples, Italy, December 2-4, 2009.

Member, Conference Advisory Committee and Editor of Official Support Journal, **"8th International Conference on Shock & Impact Loads on Structures,"** Adelaide, Australia, December 2-4, 2009.

Presenter, **"Forensic Engineering Education Workshop,**" Cartago, Costa Rica, July 22-23, 2009.

Coordinator and Presenter, "**International Workshop for Engineering Educators: Embedding Forensic Engineering into the Undergraduate Curriculum,"** sponsored by the Institution of Civil Engineers (ICE) and attended by 45 faculty and practitioners from 11 countries, December 2, 2008, London, United Kingdom.

Member of Organizing Committee (U.S. Coordinator), **"Fourth International Conference on Forensic Engineering: From Failure to Understanding,"** sponsored by the Institution of Civil Engineers (ICE), December 3-5, 2008, London, United Kingdom.

Member of Organizing Committee (U.S. Coordinator), **"International Forensic Engineering Conference: Investigation and Solving Problems,"** Mumbai, India, December 6-9, 2007.

Member of Organizing Committee (U.S. Coordinator), **"Third International Conference on Forensic Engineering,"** sponsored by the Institution of Civil Engineers (ICE), November 10-11, 2005, London, United Kingdom.

Session coordinator, **"International Forensic Engineering,"** Forensic Engineering Symposium, **Structures Congress**, Structural Engineering Institute/American Society of Civil Engineers (SEI/ASCE), Long Beach, CA, May 17, 2007.

Only U.S. expert invited and funded for travel and all expenses, **International Symposium on Forensic Engineering**, sponsored by the Taiwan Construction Research Institute, the Taipei Professional Civil Engineers Association, National Taiwan University and National Taiwan University of Science & Technology, Taipei, Taiwan, January 19-20, 2007.

Session coordinator, **"Forensic Case Studies,"** Forensic Engineering Symposium, **Structures Congress**, Structural Engineering Institute/American Society of Civil Engineers (SEI/ASCE), New York, NY, April 21, 2005.

Session coordinator, **"Concrete and Masonry Structures," Second International Structural and Construction Conference**, September 23-26, 2003, Rome,Italy.

Session coordinator, **"Forensic Engineering Education—Past, Present and Future,"** ASCE National Convention, Washington, DC, November 5, 2002.

Steering Committee Member and Session Coordinator, **Second International Forensic Engineering Congress**, San Juan, Puerto Rico, May 2000.

Member, ASCE **Committee on Quality in Construction: Volume II** (1992-1994).

Past Chairman and Founding Member of ASCE National Technical **Committee on Dissemination of Failure Information** (CDFI) 1984-86. A comprehensive report produced by this committee was cited extensively in testimony before the United States Congress (1985).

Elected to 4-year term as ASCE **Management Group "A"** member. This six-member group oversees policy and coordinates technical activities for six divisions of ASCE, including 47-50 technical committees (1991-95). Chairman (1993-94).

Member, ASCE **Editors' Task Committee on Awards** (2006-2007), **Editors' Task Committee on Reducing Peer-review Turnaround Time** (2006-2007), and **Editors' Task Committee on Ethical Guidelines for Publication** (1991-92).

Coordinator for two-day TCFE National **Symposium on Forensic Engineering**, ASCE Convention, Orlando, Florida, October 21-22, 1991.

Coordinator for TCFE National Symposium on **"Forensic Engineering: Learning from Failures,"** ASCE Convention, Seattle, Washington, April 7, 1986.

Appointed TCFE Liaison to ASCE **Committee on Metrication** (1990-Present).

Pacific Northwest Regional Reporter for **Architecture and Engineering Performance Information Center** (AEPIC).

Appointed ASCE Liaison to AEPIC (1990-1997).

Chairman, Awards Committee, ASCE Inland Empire Chapter (1995-1997).

Invited and funded participant, **Workshop on Protecting People and Buildings from Bomb Damage**, National Academy of Sciences, Washington, DC, November, 2000.

Only U.S. expert invited and funded for travel and all expenses, **Seminario (on) Evoluzione Nella Sperimentazione per Le Costruzioni**, sponsored by Centro Internazionale di Aggiornamento Sperimentale-Scientifico, Corinth, Greece, April 26-May 3, 1998.

One of eight U.S. experts invited to the **U.S.-India Bi-National Workshop on Advances in Construction Materials, Techniques and Management**, Madras, India, December 10-14, 1990. Funding by the U.S. National Science Foundation, the Indian Ministry of Science and Technology, and the United Nations Center for Human Settlement.

Funded research: Consultant to National Science Foundation project no. DUE 0127419, **Developing Case Studies in Failures and Ethics for Engineering Educators**, Norbert Delatte, Principal Investigator, University of Alabama at Birmingham, 2002-present.

Funded research: Participant in NSF **Ethics and Values in Society** Project, Western Michigan University, 1991-1992.

Funded NSF Workshop Participant, **Seismic Research Priorities**, San Diego, California, March 26-29, 1992.

U.S. Chairman, **U.S.-India Bi-National Committee on Maintenance and Repair of Damaged Facilities** (1990-Present).

Member, **International Scientific Committee**, Institute of Theoretical and Applied Mechanics, Academy of Sciences of the Czech Republic (1993-Present).

Member, Steering Committee for Fourth, Fifth and Sixth International Conferences on **"Learning from Structural Failures,"** Prague, The Czech Republic, September 1994, 1995, and 1996.

Member, International Scientific Committee, **Second International Conference on Forensic Engineering: The Investigation of Failures**, The Institution of Civil Engineers, London, UK, November 12-13, 2001.

Member, Building Technology and Civil Engineering Interest Group, Society for the History of Technology.

Participant in several multi-hazard design institutes, seismic conferences and other related short courses.

Funded research on **"Data Collection, Building Performance Problems"** at the Architecture and Engineering Performance Information Center, University of Maryland (1985).

Reviewer, Research Proposals for National Science Foundation. (1983-Present; approximately two per year).

Reviewer, Research Proposals for King Fahd University, Saudi Arabia (multiple occasions)

Reviewer, **Proposal to Establish a New Program in Engineering Management**, King Fahd University, Saudi Arabia (2009).

Reviewer, Textbook manuscripts for Prentice-Hall, for John Wiley and Sons, for Jones and Bartlett, Inc., for Chapman-Hall, for Academic Press, Inc., for CRC Press, for the National Council of Architectural Registration Boards, and for Cambridge University Press (1983-Present).

Reviewer, book manuscripts for ASCE Press.

Reviewer, **Journal of Professional Issues in Engineering Education and Practice**, American Society of Civil Engineers.

Reviewer, **Business and Professional Ethics Journal**, Rensselaer Polytechnic Institute.

Reviewer, **Structural Engineering International**, International Association for Bridge and Structural Engineering (IABSE), Zurich, Switzerland.

Reviewer, **Building and Environment Journal**, Pretoria, South Africa.

Reviewer, **Civil Engineering**, Journal of the Institution of Civil Engineers (ICE), London, UK.

Reviewer, **Kuwait Journal of Science and Engineering**, Kuwait.

Registered Continuing Education Provider, American Institute of Architects (AIA) (1995-Present.)

Mentor: AIA Intern Development Program (IDP).

Consultant retained by Western Wood Product Association to contribute to new edition of the **Western Woods Use Book**, 1995.

6. PUBLICATIONS

6.1 BOOKS

Carper, Kenneth L. and Robert Smilowitz, eds., **Mitigating the Potential for Progressive Disproportionate Structural Collapse**, American Society of Civil Engineers (ASCE), Reston, VA, 2006. 139 pp., illust. (ISBN 0-7844-0892-0).

Carper, Kenneth L., **Why Buildings Fail**, National Council of Architectural Registration Boards (NCARB), Washington, DC, 2001. 119 pp., illust. (ISBN 0-941575-36-5).

Carper, Kenneth L., ed. and principal author, **Forensic Engineering**, (Second ed.), CRC Press, Boca Raton, FL, 2001. 421 pp., illust. (ISBN 0-8493-7484-7). Originally published by Elsevier Science Publishers, New York, NY, 1989, and reprinted in 1998 by CRC Press. (Also published in the United Kingdom and Japan for international distribution.)

Jacob Feld (deceased) and Kenneth L. Carper, **Construction Failure** (Second ed.), John Wiley & Sons, New York, 1997. 582 pp., illust. (ISBN 0-471-57477-5).

Carper, Kenneth L., ed., **Forensic Engineering: Learning from Failures**, American Society of Civil Engineers, New York, NY, 1986. 98 pp., illust. (ISBN 0-87262-517-6).

6.2 OTHER PUBLICATIONS

Carper, K.L., Delatte, N.J. and Bosela, P.A., "**Status of Forensic Engineering Education in the United States**," in **Proceedings of the International Forensic Engineering Conference: From Failure to Understanding**, London, UK, December 3-4, 2008.

Carper, Kenneth L., **"Foreword,"** in **Beyond Failure: Case Studies for Civil Engineers**, by N.J. Delatte, published by ASCE Press, Reston, VA, 2009.

Carper, Kenneth L., **"Forensic Engineering Council to be Formed in India,"** ASCE News, March, 2008.

Carper, Kenneth L., **"Keynote Paper: ASCE Technical Council on Forensic Engineering: Enhancing the influence of forensic engineering in the United States,"** in **Proceedings of the International Forensic Engineering Conference**, Mumbai, India, December 6-9, 2007.

Carper, K.L., Delatte, N. and Rens, K., **"Lessons from Failure Investigations: A resource for engineering education,"** in **Proceedings of the International Forensic Engineering Conference**, Mumbai, India, December 6-9, 2007.

Bosela, P., Carper, K., Delatte, N., Rens, K. and Sutterer, K. , **"Findings from Workshops on Failure Case Studies in the Civil Engineering and Engineering Mechanics Curriculum,"** in **Proceedings of the Annual Conference, American Society for Engineering Education**, Honolulu, Hawaii, June 24-27, 2007.

Carper, Kenneth L., **"Beyond the Courtroom: Enhancing the Image and Extending the Influence of Forensic Engineering Practice,"** in **Proceedings of the 2007 International Symposium on Forensic Engineering**, Taiwan Construction Research Institute, Taipei, Taiwan, 2007.

Carper, Kenneth L., **"Quality and Safety: the Ultimate Legacy of Forensic Engineering,"** in **Forensic Engineering: Diagnosing Failures and Solving Problems**, B.S. Neale, ed., Taylor & Francis Publishers, London, UK, 2005 (ISBN 0415395232).

Carper, Kenneth L., **Book Review: Engineering Architecture—the Vision of Fazlur Khan**, by Yasmin Sabina Khan, **Journal of Performance of Constructed Facilities**, Vol. 19, No. 2, American Society of Civil Engineers, Reston, VA, May 2005.

Carper, Kenneth L., **"Construction: Hazards, Risks and Rewards,"** **Daily Journal of Commerce**, Seattle, WA, March 2004.

Carper, Kenneth L., **"Structural Failures: Lessons for a Brighter Future,"** in **System-based Vision for Strategic and Creative Design**, Franco Bontempi, ed., A.A. Balkema Publishers, Swets & Zeitlinger, B.V., Lisse, The Netherlands, 2003. (ISBN 90-5809-599-1).

Carper, Kenneth L., **"Technical Council on Forensic Engineering: Twenty-year Retrospective Review,"** in **Forensic Engineering: Proceedings of the Third Congress**, P. Bosela, N. Delatte and K. Rens, eds., American Society of Civil Engineers, Reston, VA, 2003. (ISBN 0-7844-0692-8).

Modern Marvels: Engineering Disasters, History Channel, national television video production, extensive interview frequently broadcast, beginning in July 2003, (available from the History Channel.)

Carper, Kenneth L., **"Terrorists versus Designers and Builders,"** Editorial, **Journal of Performance of Constructed Facilities**, Vol. 16, No. 1, American Society of Civil Engineers, Reston, VA, February 2002

Carper, Kenneth L., **"Lessons Architects Can Learn from Failures,"** book chapter in ***Crolli e Affidabilita delle Strutture Civili*** **(Structural Failures and Reliability of Civil Structures)**, Roberto Gori, editor, Edizioni Libreria Cortina, Padova, Italy, 2002, pp. 3-22. (ISBN 88-7784-225-3).

Carper, Kenneth L., **"Architects: What Can They Learn from Forensic Engineers?"** book chapter in **Forensic Engineering—the Investigation of Failures**, B.S. Neale, ed., Thomas Telford Publishing, London, UK, 2001, pp. 159-164. (ISBN 0-7277-3094-0).

Carper, Kenneth L., **"Terrorism and Architecture,"** in **Direct Connection**, the newsletter of the National Council of Architectural Registration Boards (NCARB), Washington, DC, November, 2001.

Carper, Kenneth L., **Book Review: Inviting Disaster—Lessons from the Edge of Technology**, by James R. Chiles, **Journal of Performance of Constructed Facilities**, Vol. 15, No. 3, American Society of Civil Engineers, Reston, VA, August 2001.

Carper, Kenneth L., **"Forensic Engineering—the Perspective from North America,"** book chapter in **Learning from Construction Failures: Applied Forensic Engineering**, Whittles Publishing, London, UK, 2001, pp. 1-6. (ISBN 1-870325-63-X).

Carper, Kenneth L., **"Legacy of the Kansas City Hyatt Tragedy—A 20-year Retrospective Insight and Review,"** Proceedings, **Second International Forensic Engineering Congress**, ASCE, San Juan, Puerto Rico, May 2000.

Carper, Kenneth L., **"Lessons from Failures: Case Studies as an Integral Component of the Civil Engineering Curriculum**, Proceedings, **Civil & Structural Engineering Education in the 21st Century**, Southampton, UK; 26-28 April 2000.

Carper, Kenneth L., "**Timber Construction for Architects and Builders** by Eliot W. Goldstein, AIA," Book Review, **Fine Homebuilding**, Taunton Press, Inc., Newtown, CT, May 2000.

Carper, Kenneth L., **"Why Do Projects Fail? Lessons from Construction Pathology,"** published both in English and in Mandarin (Chinese), China Development Bank and American International Group, Inc., 1999.

Carper, Kenneth L., **"Construction Safety: Structural Failures During Construction,"** published both in English and in Mandarin (Chinese), China Development Bank and American International Group, Inc., 1999.

Carper, Kenneth L., **"Current Structural Safety Topics in North America," The Structural Engineer**, Journal of the Institution of Structural Engineers, Vol. 76, No. 12, June 16, 1998, London, UK, pp. 233-239.

Carper, Kenneth L., **"Avoiding Failures: Lessons from Construction Pathology in the United States,"** in **Seminario sul tema: Evoluzione Nella Sperimentazione Per Le Costruzioni**, Centro Internazionale di Aggiornamento Sperimentale Scientifico, Rome, Italy, 1998, pp. 53-74.

Carper, Kenneth L., **"Construction Failures: Learning the Lessons,"** in **Forensic Structural Engineering: When Bad Things Happen to Good Structures**, Boston Society of Civil Engineers, M.I.T., Cambridge, MA, 1997. (pp. 1-1 through 1-29).

Carper, Kenneth L., **"Structures are Held Up by Both Skill and Luck,"** and **"Why Do Some Structures Fall Down?"**, **Daily Journal of Commerce**, Seattle, WA, April 24, 1997.

Carper, Kenneth L., **Book Review: Structural Safety: Review and Recommendations**, by the Standing Committee on Structural Safety, United Kingdom, **Journal of Performance of Constructed Facilities**, Vol. 11, No. 3, American Society of Civil Engineers, Reston, VA, August 1997.

Carper, Kenneth L., **"Structural Engineering Design: Illuminating the 'Invisible' Activity," Design Book Review**, M.I.T. Press, (Pending Publication)

Carper, Kenneth L., **Book Review: Failures in Civil Engineering**, by Technical Council on Forensic Engineering, Education Committee, **Journal of Performance of Constructed Facilities**, Vol. 10, No. 2, American Society of Civil Engineers, Reston, VA, May 1996.

Acknowledged contributions to **Western Woods Use Book** (fourth ed.), Western Wood Products Association, Portland, OR, 1996. (ISBN 0-9600912-2-X)

Carper, Kenneth L., **"Construction Pathology in the United States," Structural Engineering International**, Vol. 6, No. 1, International Association for Bridge and Structural Engineering (IABSE), Zurich, Switzerland, February 1996.

Carper, Kenneth L., **Book Review: Diagnosis and Treatment of Structures in Distress**, by R. N. Raikar, **Journal of Performance of Constructed Facilities**, Vol. 10, No. 1, American Society of Civil Engineers, Reston, VA, February 1996.

Carper, Kenneth L., **"The January 17 Earthquakes in Northridge, California (1994) and Kobe, Japan (1995): Old Principles-New Lessons,"** published in Japanese by Nihon University, Tokyo, Japan, 1995.

Four case studies in **Failures in Civil Engineering: Structural, Foundation and Geoenvironmental Case Studies**, R. Shepherd and J. D. Frost, eds., American Society of Civil Engineers, New York, NY, 1995. 92 pp., Softbound. (ISBN 0-7844-0122-5)

Carper, Kenneth L., **Book Review: Building Mycology: Management of Decay and Health in Buildings**, by Jagjit Singh, **Journal of Performance of Constructed Facilities**, Vol. 9, No. 3, American Society of Civil Engineers, New York, NY, August 1995.

Carper, Kenneth L., **Book Review: Design Paradigms: Case Histories of Errors and Judgment in Engineering**, by Henry Petroski, **Journal of Performance of Constructed Facilities**, Vol. 9, No. 2, American Society of Civil Engineers, New York, NY, May 1995.

Carper, Kenneth L., **"Learning the Lessons: Forensic Engineering in the United States,"** published in English and in the Czech Language, **Proceedings of the Fourth International Conference on Learning From Structural Failures, Prague**, The Czech Republic, September 19-21, 1994, Czech Academy of Sciences.

Carper, Kenneth L., **Book Review: Forensic Engineering: Environmental Case Histories for Civil Engineers and Geologists**, by G. Shuirman and J.E. Slosson, **Journal of Performance of Constructed Facilities**, Vol. 8, No. 2, American Society of Civil Engineers, New York, NY, May 1994.

Carper, Kenneth L., **Book Review: Construction Claims**, by R. Rubin, **Journal of Performance of Constructed Facilities**, Vol. 7, No. 4, American Society of Civil Engineers, New York, NY, November 1993.

Carper, Kenneth L., **"Lessons from Construction Failures in the United States,"** published in Japanese by Nihon University, Tokyo, Japan, 1992.

Mincks, William R. and Kenneth L. Carper, **"Project Management Techniques to Avoid Failure: A Pro-Active Approach,"** published in Japanese by Nihon University, Tokyo, Japan, 1992.

Ten formal Commentaries on Ethics Case Studies (approximately 50 published pages) in **Teaching Engineering Ethics: A Case Study Approach**, Michael S. Pritchard, editor, Western Michigan University, 1992. (NSF DIR-8820837)

Carper, Kenneth L., **Book Review: Design and Construction Failures**, by D. Kaminetzky, **Journal of Performance of Constructed Facilities**, Vol. 6, No. 1, American Society of Civil Engineers, New York, NY, February 1992.

Carper, Kenneth L., **"Engineering Code of Ethics: Beneficial Restraint on Consequential Morality," Journal of Professional Issues in Engineering Education and Practice**, Vol. 117, No. 3, American Society of Civil Engineers, New York, NY, July 1991.

Carper, Kenneth L., **"Facilities Maintenance and Repair of Damaged Structures," in Advances in Construction Materials, Techniques and Management**, S. Somayaji and M.S. Mathews, editors, Sri Venkatesa Printing House, Madras, India, 1991, pp. 1-30.

Carper, Kenneth L., **"Ethical Considerations for the Forensic Engineer Serving as an Expert Witness," Journal of Business and Professional Ethics**, Rensselaer Polytechnic Institute, Troy, NY, Vol. 9, No. 1, 1990.

Carper, Kenneth L., **"Engineering Pathology: Case Studies in the Classroom,"** Proceedings, National Forum on Engineering Education and Continuing Development, "Setting the Agenda for the 1990's," ASCE, New York, NY, 1990.

Carper, Kenneth L., **"Forensic Engineering Case Histories: Resource Materials for the Classroom,"** Proceedings, American Society for Engineering Education Annual Convention, ASEE, Washington, D.C., 1989.

Task Committee on Guidelines for Failure Investigation, **Guidelines for Failure Investigation**, American Society of Civil Engineers, NY, NY, 1989. 221 pp., Softbound. (ISBN 0-87262-736-5). (Acknowledged editorial support and contributions only).

Carper, Kenneth L., **"Integration of Failure Case Studies into the Architectural Engineering Curriculum,"** Proceedings, American Society for Engineering Education Annual Convention, ASEE, Washington, D.C., 1988.

Carper, Kenneth L., **"Structural Failures During Construction," Journal of Performance of Constructed Facilities**, Vol. 1, No. 3, American Society of Civil Engineers, New York, NY, August 1987. (Award)

"Michael Arland Residence, Palouse, Washington," design completed in 1976, featured in Farm and Ranch Living, February/March 1987.

Carper, Kenneth L., **"Failure Information: Dissemination Strategies," Journal of Performance of Constructed Facilities**, Vol. 1, No. 1, American Society of Civil Engineers, New York, NY, February 1987.

Carper, Kenneth L., **"Building Structures: Technology Response to Creative Process,"** in The Built Environment: Integrative Essays on Design and Planning, T.J. Bartuska and Gerald Young, eds., Crisp Publications, Menlo Park, CA, 1993.

Committee on Forensic Engineering, **Reducing Failures of Engineered Facilities**, American Society of Civil Engineers, New York, NY, 1985. 108 pp., Softbound. (ISBN 0-87262-485-4). (Editorial support and acknowledged contributions only).

Bell, Glenn R. and Carper, Kenneth L., **"Report of the National Committee on Dissemination of Failure Information,"** American Society of Civil Engineers Committee on Forensic Engineering, ASCE, New York, NY, 1984.

Carper, Kenneth L., **"Limited Field Inspection vs. Public Safety,"** Civil Engineering, Vol. 54, No. 5, American Society of Civil Engineers, New York, NY, May 1984. (Award)

7. INVITED PRESENTATIONS, SEMINARS AND SHORT COURSES

7.1 NATIONAL & INTERNATIONAL

"**International Workshop for Engineering Educators: Embedding Forensic Engineering into the Undergraduate Curriculum,"** sponsored by the Institution of Civil Engineers (ICE) and attended by 45 faculty and practitioners from 11 countries, December 2, 2008, London, United Kingdom.

"Status of Forensic Engineering Education in the United States," Plenary Session presentation, International Forensic Engineering Conference: From Failure to Understanding, London, UK, December 3-4, 2008.

"Why Buildings Fail: Architectural and Engineering Deficiencies," invited and funded Michel Punch and Partners Lecture, University of Limerick, Limerick, Ireland, March 12, 2008. This prestigious annual invitation is extended to an internationally recognized individual, who is also interviewed live on the Pat Kenny Irish Public Radio Program (with an audience of several million in Ireland, the UK and Western Europe), and for several national and UK newspapers. The preceding speakers were John Burland (2006), famous throughout Europe for his efforts to stabilize the Leaning Tower of Pisa; and Leslie Robertson (2007), the engineer of record for the World Trade Center Towers in New York City and many other landmark structures throughout the world.

"Forensic Engineering Education: the American Experience," invited and funded presentation, Forensic Engineering Colloquium, Limerick, Ireland, March 10-11, 2008.

"Forensic Engineering: Use of Case Histories in the Architect's Education," invited and funded presentation, Forensic Engineering Colloquium, Limerick, Ireland, March 10-11, 2008.

"ASCE Technical Council on Forensic Engineering: Enhancing the influence of forensic engineering in the United States," invited and funded keynote presentation, International Forensic Engineering Conference, Mumbai, India, December 6-9, 2007.

"Lessons from Failure Investigations: A resource for engineering education," International Forensic Engineering Conference, Mumbai, India, December 6-9, 2007.

"Why Buildings Fail: Lessons for Construction Specifiers," invited lecture, Albuquerque Chapter, Construction Specifications Institute, Albuquerque, NM, March 12, 2007.

"Beyond the Courtroom: Enhancing the Image and Extending the Influence of Forensic Engineering Practice," invited keynote presentation, International Symposium on Forensic Engineering, Taipei, Taiwan, January 20, 2007.

"Building Failures: What Can Architects Learn from Forensic Engineers?" invited presentation, School of Architecture and Visual Arts, University of East London, London, UK, November 15, 2005.

"Forensic Engineering: Lessons from Failures," invited presentation, School of Architecture and Visual Arts, University of East London, London, UK, November 14, 2005.

"Quality and Safety—the Ultimate Legacy of Forensic Engineering," Keynote Paper, Third International Conference on Forensic Engineering, London, UK, November 11-12, 2005.

"Architects and Lessons from Forensics: the NCARB Project," invited presentation, continuing professional education seminar, Simpson, Gumpertz & Heger Inc., Waltham, MA, May 3, 2005.

"Structural Failures: Lessons for a Brighter Future," Second International Structural and Construction Conference, Rome, Italy, September 23-26, 2003.

"Technical Council on Forensic Engineering: Twenty-year Retrospective Review," Third International Forensic Engineering Congress, San Diego, CA, October 19-21, 2003.

"Developing Case Studies in Failures and Ethics for Engineering Educators," consultant and presenter, workshop for engineering educators, NSF project no. DUE 0127419, first workshop held in Birmingham, AL, July 2003.

"Lessons Architects Can Learn from Failures," invited Keynote Lecture, conference on **Structural Failures and Reliability of Civil Structures**, Venice, Italy, December 6-7, 2001.

"Architects: What Can They Learn from Forensic Engineers?" presented at the **Second International Forensic Engineering Conference**, London, UK, November 12-13, 2001.

"Legacy of the Kansas City Hyatt Tragedy—A 20-year Retrospective Insight and Review," presentation at the **Second International Forensic Engineering Congress**, San Juan, Puerto Rico, May 21, 2000.

"Engineering Best Practices: Avoiding Construction Failures," invited seminar series presented in four major cities of the Peoples Republic of China, invited by China Development Bank and American

International Group (AIG), Beijing, Wuhan, Xi-An and Shanghai, Peoples Republic of China, October 12-November 2, 1999.

"Best Practices for Failure Avoidance," invited presentation, American International Group (AIG), New York, NY, July 23, 1999.

"Avoiding Failures: History of Forensic Engineering Contributions," invited Keynote speaker, Fourth Annual Seminar, **Issues in Forensic Engineering '99**, University of California - Irvine, ASCE Forensic Engineering Technical Group, May 7, 1999.

"Research in Forensic Engineering: Investigation & Repair," invited lecture, National Research Council of Canada, Ottawa, Canada, January 11, 1999.

"Architectural Design for Durability," invited lecture, Workshop on Durability of Housing, National Forest Products Laboratory, Madison, Wisconsin, September 24-25, 1998.

"Recent Structural Failures," invited lecture, Oscar Faber Corporate Headquarters, St. Albans, UK, July 15, 1998.

"ASCE, ICE and IStructE: Common Concerns and an Agenda for Action," invited report to the UK Standing Committee on Structural Safety (SCOSS), London, UK, July 13, 1998.

"Current Structural Safety Topics in North America," invited formal program presentation and open discussion, Institution of Structural Engineers, London, UK, July 9, 1998.

"Structural and Construction Safety," Invited Workshop, Slovak Society of Civil Engineers, Bratislava, Slovakia, June 9, 1998.

"Lessons Learned from Construction Failures," invited lecture, Technical University of Brno, Brno, Czech Republic, June 8, 1998.

"Research Needs Relative to Structural Safety," invited lecture sponsored by Czech Academy of Sciences, Institute of Theoretical and Applied Mechanics, Prague, Czech Republic, June 4, 1998.

"Lessons Learned from Construction Failures," invited lecture sponsored by Czech Association of Civil Engineers and Czech Chamber of Forensic Engineers, Czech Technical University, Prague, June 3, 1998.

"Failures in Architecture & Engineering: What are the Lessons?" invited lecture, Technical University of Vienna, Vienna, Austria, May 28, 1998.

"Failures in Architecture & Engineering: What are the Lessons?" invited lecture, Swiss Federal Institute of Technology, Zurich, Switzerland, May 20, 1998.

"Failures in Architecture & Engineering: What are the Lessons?" invited lecture, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, May 18, 1998.

"Failures in Architecture & Engineering: What are the Lessons?" invited lecture, Dipartimento di Costruzioni e Trasporti, University di Padova, Padova, Italy, May 6, 1998.

"Failures in Architecture & Engineering: What are the Lessons?" invited lecture, Dipartimento di Costruzioni dell'Architettura, University di Venezia, Venice, Italy, May 5, 1998.

"Avoiding Failures: Lessons from Construction Pathology in the United States," invited conference presentation, Seminario: Evoluzione Nella Sperimentazione per Le Costruzioni, Corinth, Greece, April 26, 1998.

"Unhappy Surprises in Construction: How One Industry Benefits from its Mistakes," invited conference presentation, The Evolution of Risk Management Practices in the Financial Services Industry, New York University, Leonard N. Stern School of Business, New York City, NY, April 17, 1998.

"Construction Failures: Learning the Lessons" invited 4-hour presentation to introduce the 1997-1998 Boston Society of Civil Engineers Lecture Series: "Forensic Structural Engineering: When Bad Things Happen to Good Structures," Massachusetts Institute of Technology, Cambridge, MA, October 8, 1997.

"Avoiding Failures: Lessons from Construction Pathology," 4-hour Continuing Professional Education Course, Construction Specifications Institute Annual National Convention, Orlando, FL, June 28, 1997.

"Ten Years of the ASCE Journal of Performance of Constructed Facilities," Session Coordinator and presenter, ASCE National Convention, Minneapolis, MN, October 7, 1997.

"Lessons From the Past: Learning from our Mistakes," Keynote Address, Council of Educational Facility Planners, International Conference, Anchorage, AK, December 5, 1996.

"The January 17 Earthquakes in Northridge, California (1994) and Kobe, Japan (1995): Old Principles-New Lessons," seminar for design professionals, Nihon, University, Tokyo, Japan, September 27, 1995.

"Architectural Design Principles for Seismic Resistance," seminar for architecture students, Nihon University, Tokyo, Japan, September 26, 1995.

"Learning the Lessons: Forensic Engineering in the United States," Keynote Lecture, Fourth International Conference on Learning from Structural Failures, Prague, The Czech Republic, September 19-21, 1994. (Also chaired a session at this conference.)

"Progress on Failure Information Dissemination," Technical Session, ASCE National Convention, Dallas, TX, October 27, 1993.

"Failures from Extreme Winds: Evolving Codes and Standards," Wind Engineering Seminar, Texas Tech University, Lubbock, TX, October 22, 1993.

"Reviewing and Improving the Quality of a Technical Journal," Editors' Workshop Presentation, ASCE National Convention, Dallas, TX, October 26, 1993.

"Mitigating Failures: Role of the Design Professional," Professional Development Seminar, sponsored by the Association of Professional Engineers of the Province of Manitoba, Winnipeg, Manitoba, Canada, March 1, 1993.

"Engineering Design and Construction Failures," Invited Banquet Speaker, Manitoba Hydro Professional Engineers Association, Winnipeg, Manitoba, Canada, March 1, 1993.

"Lessons from Construction Failures in the United States," Invited Lecture, Nihon University, Tokyo, Japan, November 24-25, 1992.

"Project Management Techniques to Avoid Failure," Invited Lecture with William Mincks, Nihon University, Tokyo, Japan, November 25, 1992.

"Solicitation of Discussions in Technical Publications," Presentation to ASCE Editors' Workshop, New York City, NY, September 15, 1992.

"Activities of the Technical Council on Forensic Engineering," ASCE National Convention, Orlando, Florida, October 21, 1991.

"Failures: Lessons Learned," Continuing Education Seminar, Construction Specifications Institute, San Diego, CA, June 29, 1991.

"Facilities Maintenance and Repair of Damaged Structures: A State-of-the-Art Review," Keynote Lecture, U.S.-India Bi-National Workshop on Advances in Construction Materials, Techniques and Management, Indian Institute of Technology, Madras, India, December 12, 1990.

"Failures and Professional Engineering Design," invited lecture, Maharashtra India Chapter of American Concrete Institute and BHAD Board Panel Architects' Association of India (BBPAA), Bombay, India, December 6, 1990.

"Structural Failures at the Construction Site," invited lecture, Maharashtra India Chapter of American Concrete Institute and the Bombay Port Trust, Bombay, India, December 5, 1990.

"The Ethics of Forensic Engineering," Conference on Moral Problems in the Professions: Advocacy, Institutional Ethics, and Role Responsibilities, Lincoln, Nebraska, March 29, 1990.

"Failure Information: Technical Journal Activities," Technical Session Speaker, National ASCE Convention, New Orleans, Louisiana, October 10, 1989.

"The Technical Journal as a Catalyst for Professional Activities," presentation at Editors' Workshop, American Society of Civil Engineers Convention, New Orleans, Louisiana, October 8, 1989.

"Forensic Case Histories in Professional Engineering Education," American Society for Engineering Education National Convention, Lincoln, Nebraska, June 27, 1989.

"Ethics and the Professions: Moral Theories and Contemporary Problems," one of twelve invited and funded participants to this two-week interdisciplinary workshop, College of Law, University of Nebraska, Lincoln, Nebraska, June 19-30, 1989.

"Integration of Failure Case Studies into the Architectural Engineering Curriculum," American Society for Engineering Education National Convention, Portland, Oregon, June, 1988.

"L'Ambiance Plaza: Failures During Construction," Invited Lecture, University of Maryland, College Park, Maryland, March 8, 1988.

"Failures: Causes, Costs and Benefits," Invited Lecture, University of Maryland, College Park, Maryland, February 4, 1987.

"Workshop to Develop Policy and Procedures for Reducing Failures of Engineered Facilities," one of thirty invited and funded participants. NSF Sponsored Workshop, Clearwater, Florida, January 7-9, 1985.

"The Importance of Construction Field Inspection," Technical Session Paper, National ASCE Convention, Houston, Texas (1983).

"Failures of Architectural Structures," Invited Lecture, Florida Institute of Technology, College of Engineering, Melbourne, Florida (1981).

7.2 REGIONAL PRESENTATIONS

"Failure: What Does it Mean? and What Happens Next?" invited presentation, American Institute of Architects Annual Meeting, Spokane Chapter, Spokane, WA, October 23, 2008.

"Forensic Engineering Contributions to Improved Construction Practices," invited presentation, Associated General Contractors (AGC), Bellingham, WA, September 23, 2004.

"Failures During Construction: Lessons for Contractors from Forensic Engineering," invited presentation, Associated General Contractors (AGC) Education Foundation, Seattle, WA, January 7, 2004.

"Building Failures," four-hour professional education workshop, Willamette Valley Chapter, Construction Specifications Institute (CSI), Eugene, OR, August 30, 2002.

"Avoiding Building Failures," invited lecture, Willamette Valley Chapter, Construction Specifications Institute (CSI), Eugene, OR, August 29, 2002.

"ASCE Forensic Engineering Activities," invited lecture to Inland Empire Section, American Society of Civil Engineers, Spokane, WA, May 16, 2002.

"Why Buildings Fail," invited lecture to joint meeting of Spokane chapters of the Construction Specifications Institute (CSI) and the American Institute of Architects (AIA), Spokane, WA, April 11, 2002.

"The Ethics of Failure," presentation to joint meeting of the Central Washington chapters of the American Institute of Architects (AIA) and the Structural Engineers Association of Washington (SEAW), Sunnyside, WA, September 20, 2000.

"Avoiding Construction Failures," banquet presentation, Construction Specifications Institute (CSI), Portland Chapter, Portland, OR, February 11, 1997.

"Avoiding Construction Failures," Technical Session, Construction Specifications Institute (CSI) Northwest Regional Conference, Chelan, Washington, September 28, 1996.

"Failures, Faults, and Forensics: Risk Management to Prevent Failure," Continuing Education Seminar, 1995 AIA Northwest and Pacific Region Conference, American Institute of Architects, Spokane, Washington, September 14, 1995.

"Failures: Lessons to Build On," Invited Banquet Lecture, Central Washington Chapter, American Institute of Architects, Richland, Washington, August 2, 1994.

"Lessons from Structural Engineering Disasters," Invited Lecture, Structural Engineers' Association of Idaho, Boise, Idaho, April 13, 1994.

"Architectural & Engineering Failures: What are the Lessons?" University of Idaho, College of Art & Architecture Lecture Series, April 4, 1994.

"When Technology Fails," Technical Seminar, Westinghouse-Hanford, Richland, Washington, March 16, 1994.

"Failures of Civil Engineering Works," Invited Banquet Speaker, Roadbuilders Conference, Spokane, Washington, March 2, 1994.

"Prestressed Concrete Seminar: Lessons from Failures," Prestressed Concrete Institute Convention, Couer d'Alene, Idaho, February 16, 1994.

"Lessons: A Review of ASCE Activities," Invited Banquet Speaker, ASCE Inland Empire Chapter, Spokane, Washington, September 24, 1993.

"Lessons from Failures," Technical Session, Structural Engineers Association Northwest Conference, Pt. Ludlow, Washington, August 6, 1993.

"Engineering Failures and Their Lessons," Invited Banquet Speaker, 19th Annual Western Protective Relay Conference, Spokane, Washington, October 21, 1992.

"Engineering for Safety," Safety Seminar, Kaiser Aluminum and Chemical Corporation, Spokane, Washington, March 19, 1991.

"Architectural Failures: Design Errors, Construction Problems and Material Deficiencies," Continued Education Seminar, The Callison Partnership, Seattle, Washington, March 1, 1991.

"Forensic Engineering: Lessons from Failure," Invited Lecture, joint meeting of Society of American Military Engineers and American Society of Civil Engineers, Walla Walla, Washington, December 6, 1989.

"Forensic Architecture: Advancing the Quality of Design," Invited Lecture, American Institute of Architects, Spokane, Washington, September 28, 1989.

"Lessons from Recent Failures in Engineered Construction," Technical Session Speaker, Pacific Northwest Structural Engineering Conference, Richland, Washington, August 3, 1989.

"Building Failures," full-day presentation, Professional Engineers of Oregon Annual Convention, Ashland, Oregon, May 12, 1989.

"Forensic Engineering," four-hour continuing education short course presented to Professional Engineers of Oregon, Ashland, Oregon, May 11, 1989.

"Industrial Accidents and Forensic Investigations," Kaiser Aluminum and Chemical Corporation, Engineering Section, Spokane, Washington, January 13, 1989.

"Forensic Engineering," Lecture, National Society of Professional Engineers, Moscow, Idaho, December 8, 1987.

"Construction Failures: An Overview," Associated General Contractors Regional Convention, Washington State University, April 4, 1987.

"Construction Failures: Soils and Foundations," Soil Compaction Seminar, Spokane, Washington, February 19, 1987.

Building Officials' Short Courses, **"Failure Case Studies"** and **"Design Principles for Wind and Earthquake Forces,"** Roseburg, Oregon, November 19-20, 1986.

Coordinator, four-day Building Officials Short Course, **"Quality Assurance/Quality Control in Construction,"** Pullman, Washington, November 3-7, 1986.

"Performance Problems in Constructed Facilities: A Challenge for the Design Professions," Keynote Banquet Address, 1986 Pacific Northwest Structural Engineering Conference, Spokane, Washington, June 26, 1986.

"Quality Control in Construction Engineering," Presentation to Kaiser Aluminum Engineering Section, Spokane, Washington, November 25, 1985.

"Learning from Failures: The AEPIC Concept," ASCE Conference Banquet Speaker, Walla Walla, Washington (1985).

"The AEPIC Center: Professional Response to Building Performance Problems," ASCE Tri-Chapter Conference Banquet Speaker, Moscow, Idaho (1985).

"Built Environment Technologies--Influence on the Design Process," AIA Interdisciplinary Lecture Series, University of Idaho (1984).

"Structural Failures: Implications for the Construction Manager," Short Course, Presentation for Engineering Continuing Education, Spokane, Washington (1984).

"Overview of Architectural Structures Failures," Lecture, Oregon School of Design, Portland, Oregon (1983).
"Structural Failures: Hyatt Regency Hotel, Kemper Arena and the Hartford Coliseum" and "Seismic Principles for Building Design," Short Courses for Washington State Council of Building Officials (1982).

"Building Failures: Learning from Disaster," ASCE Tri-Chapter Conference Banquet Speaker (1981).

7.3 LOCAL PRESENTATIONS

"Technology and the Built Environment," invited lecture, College of Art & Architecture, University of Idaho, September 21, 2006.

"Technology and the Built Environment," invited lecture, Department of Architecture, University of Idaho, September 29, 2005.

"Technology and the Built Environment," invited lecture, Department of Architecture, University of Idaho, September 16, 2004.

"Why Buildings Fall Down," invited "world-class faculty presentation," Washington State University, November 9, 2003.

"The Relationship Between Professional Codes and Ethics," presenter and session coordinator, Forum on Ethics and Academic Life in the 21st Century, Washington State University, March 5-7, 2003.

"Forensic Engineering: What is it?" seminar for Chemical Engineering seniors and graduate students, Washington State University, March 4, 2002.

"Architects & Engineers—Working Together," invited lecture to ASCE student chapter, Washington State University, January 31, 2002.

"Ethics in Research," Faculty Research Symposium panel member, Ethics in the Disciplines, Washington State University, October 4, 2000.

"The Ethics of Failure," Faculty Research Symposium presenter, Ethics in the Disciplines, Washington State University, March 1, 2000.

"Lessons from Engineering Failures," invited lecture to ASCE Student Chapter, Washington State University, March 4, 1999.

"Forensic Engineering: What is It?" seminar for Chemical Engineering seniors, Washington State University, March 25, 1996.

"The Real World: Making a Difference," Invited Commencement Speaker, School of Architecture Commencement Program, Washington State University, May 13, 1995.

"Case Studies: Engineering Errors," Invited Lecture to ASCE Student Chapter, Washington State University, April 12, 1995.

"Integrating Ethics Across the Curriculum," workshops conducted for Washington State University faculty, March 3, 1995 and April 5, 1995.

"Failures, Faults, and Forensic Engineers," Invited Seminar for Civil Engineering Seniors, CE 465, Washington State University, September 8, 1994.

"Investigating Failures," Invited Lecture to Civil Engineering Senior Design Class, Washington State University, March 7, 1994.

"Architectural and Engineering Failures," Washington State University School of Architecture Lecture Series, December 1, 1993.

"Forensic Engineering Practice," Invited Lecture to Civil Engineering Senior Design Class, Washington State University, September 23, 1993.

"What is Forensic Engineering?" Invited Lecture, ASCE Student Chapter, Washington State University, March 24, 1993.

"Technology and Ethics," Honors Program Seminar, Washington State University, March 10, 1993.

"Ethics in Engineering," Honors Program Luncheon, Washington State University, December 4, 1992.

"Integration of Failure Case Studies into the Curriculum for Professional Education," Presentation to WSU College of Engineering and Architecture Advisory Board, November 6, 1992.

"Failure: What Can We Learn?" Invited Faculty Showcase Lecture, New Student Orientation, Washington State University, July 19, 1991.

"Professionalism," Invited Lecture to Civil Engineering Seniors, WSU, April 10, 1990.

"Construction Site Safety: Professional Responsibilities," Invited Lecture, ASCE Student Chapter, Washington State University, February 7, 1990.

"Forensic Engineering," Hydraulic Engineering Faculty Seminar, Washington State University, January 22, 1990.

"Engineering Failures," Invited Lecture, Mechanical Engineering Systems Design Course, Washington State University, November 2, 1989.

"What Can We Learn from Failures?" Invited Faculty Day Lecture, Washington State University, October 17, 1989.

"L'Ambiance Plaza Construction Collapse," Tau Beta Pi Invited Lecture, Washington State University, April 11, 1988.

"Errors and Trials: The Ethics of Failure," Invited Lecture to Civil Engineering Seniors, Washington State University, April 7, 1987.

"Failures in Engineered Construction," Tau Beta Pi Invited Lecture, Washington State University, March 25, 1987.

"Professionalism and the Survival Skills," Invited Commencement Speaker, School of Architecture Commencement Program, Washington State University, May 10, 1986.

"Do a Good Job and You Won't Have to Worry About the Lawyers...(quite so much)," Seminar for Civil Engineering Seniors, November 7, 1985.

"Structural Failures: Hartford, Kemper and the Hyatt Walkways," WSU Architecture Faculty Seminar Series (1982).

"John Hancock Building, Boston: Architectural Vision? Technical Nightmare," WSU Architecture Faculty Seminar Series (1982).

"Structural Collapse: What Can We Learn?" WSU Architecture Faculty Seminar Series (1982).

8. HONORS AND AWARDS

8.1 RESEARCH/PROFESSIONAL AWARDS

National ASCE Award: **2006 Richard R. Torrens Award**, given annually to the outstanding editor-in-chief of one of ASCE's 30 technical journals. Certificate and wall plaque presented October 22, 2006 in Chicago, IL. (The only editor to be honored by this award twice, having received it previously in 1991.)

1997 National Forensic Engineering Award, American Society of Civil Engineers, plaque and trophy presented at the First Forensic Engineering Congress, Minneapolis, MN, October 7, 1997.

The **1994 Engineer of the Year** award from the Inland Empire Section (Washington-Idaho), American Society of Civil Engineers, January 1994.

National ASCE Award: **1991 Richard R. Torrens Award**, given annually to the outstanding editor-in-chief of an ASCE technical journal. Certificate and wall plaque presented October 23, 1991 in Orlando, Florida.

Certificate of Appreciation for **Distinguished Service to the American Society of Civil Engineers**, presented by Past National President of ASCE at Inland Empire Section Meeting, January 21, 1990.

Annual Award for **Excellence in Research**, WSU School of Architecture:

Academic Year 2004-2005
Academic Year 1988-1989

"Structural Failures During Construction," (August 1987) was selected one of ten outstanding papers published in the ASCE **Journal of Performance of Construction Facilities**, during the two years 1987-1988.

National winner of the American Society of Civil Engineers **Daniel W. Mead Award** for the paper **"Limited Field Inspection vs. Public Safety."** A certificate and wall plaque were awarded at the National ASCE Convention, Houston, Texas, October 1983. This paper was also selected for recognition by the editors of **Civil Engineering** as one of the three best papers published by that journal in 1984.

Listed in **Who's Who in Science and Engineering**
Listed in **Who's Who in the World**
Listed in **Who's Who in American Education**
Listed in **Who's Who in Engineering Education**
Listed in **Dictionary of International Biography** (Cambridge, UK)
Listed in **Who's Who Among America's Teachers**

8.2 TEACHING AWARDS

"**Outstanding Teacher in the College of Engineering & Architecture"** (Reid C. Miller award), College of Engineering & Architecture, Washington State University, 2009.

Honorary member, **Sigma Lamda Chi**, Construction Management Honorary Society, recognition ceremony, April 23, 2001.

Received the **Faculty Recognition Award**, Naval Reserve Officer Training Corps, Washington State University/University of Idaho, April, 2000.

Received the **1999 Faculty Award from the Honors College**, Washington State University, May, 1999.

Recognized by the University of Idaho Alumni Association as one of **"40 most influential faculty members on the UI campus,"** for contributions as a Consultant to the College of Art and Architecture, December 5, 1996.

Selected as Washington State University's entry to the **1996 U.S. Professor of the Year** Competition, Carnegie Foundation for the Advancement of Teaching.

Nominated by Washington State University Architecture Students for National Architecture **"Professor of the Year"** Award, American Institute of Architecture Students (AIAS), 1995.

Selected as Washington State University's entry to the **1995 U.S. Professor of the Year** Competition, Carnegie Foundation for the Advancement of Teaching.

The **"1994 President's Faculty Excellence Award (Teaching),"** all-University Award (Sahlin Award) presented to one faculty member at Washington State University, May 1994.

"Outstanding Faculty Member 1991-92," Northwest Cooperative Education Association, Pacific Northwest Region (Academic Year 1991-92).

"Professional Experience Program Faculty Coordinator of the Year," Washington State University (Academic Year 1991-92).

"Outstanding Professor of Architecture Award," selected by WSU Architecture and Construction Management Students

Academic Year 2008-09
Academic Year 2007-08
Academic Year 2000-01
Academic Year 1999-2000
Academic Year 1997-98
Academic Year 1991-92
Academic Year 1984-85
Academic Year 1983-84
Academic Year 1982-83

Selected one of **"Top Ten Faculty,"** Kappa Delta Sorority, Washington State University, Fall 1991.

Invited **"Faculty Showcase Lecturer,"** New Student Orientation, Washington State University, July 1991.

Teaching Award Certificate American Institute of Architects 4th-Year Students, Washington State University (Academic Year 1990-91).

"Outstanding Educator in the College of Engineering and Architecture," selected by the Washington State University College of Engineering and Architecture Coordinating Council (Academic Year 1984-85).

Special award and certificate for **"Significant Contributions to the Professional Program Curriculum,"** College of Art and Architecture, University of Idaho (Academic Year 1983-84).

Selected one of the **"Top Ten University Professors,"** Beta Chapter of Alpha Phi Sorority, University of Idaho (Academic Year 1986-87).

9. PUBLIC SERVICE: LOCAL CIVIC ACTIVITIES

Pullman Public Schools: Technical Advisory Committee

Pullman Public Schools: Levy/Bond Campaign Committee

Pullman Public Schools: Architect Selection Committee

Gladish Community and Cultural Center: Fund Raising Committee, Capital Development

Citizens' Advisory Committee on Facilities Planning (Appointed by Pullman School Board).

Mentor program participant and Career Awareness Program Presentor, Pullman Public Schools.

Pullman High School Senior Project mentor (numerous occasions)

Elementary School Program, "Structures: Buildings and Bridges," Sponsored by Pacific Science Center, Pullman Public Schools.

Elementary School Program "Science Day" Presenter, Pullman Public Schools (numerous occasions).

Advisory Committee: Pullman High School Vocational Program.

Pullman Public School PTA Building Committee.

Informal Consultant: Task Force on Historic Preservation.

Montessori School of Pullman, Inc. Past Secretary-Historian and President of the Executive Committee.

Project Coordinator for Pullman Bikeways, State of Washington Urban Arterial Board.

American Cancer Society: Fund Drive Solicitor.

American Heart Society: Fund Drive Solicitor.