RICHARD M. BENNETT
Professor of Civil and Environmental Engineering
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The University of Tennessee
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EDUCATION

University of Illinois, Urbana, IL, Ph.D. in Civil Engineering, 1983
University of Illinois, Urbana, IL, M.S. in Civil Engineering, 1981
Cleveland State University, Cleveland, OH, Bachelor of Civil Engineering, 1979

HONORS

The Masonry Society John Scalzi Research Award, 2014.
The Masonry Society Service Award, 2011.
Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP) Faculty Member of the Year Award, 2011
College of Engineering Teaching Fellow Award, 2010.
University of Tennessee Alumni Association Outstanding Teaching Award, 2008.
Alvin H. Yorkdale Award, ASTM Committee C15, Best peer-reviewed masonry paper, 2002.
Flanagan, R.D., and Bennett, R.M. (2001). "In-Plane Analysis of Masonry Infill Materials." Practice Periodical on Structural Design and Construction, ASCE, 6(4), 176-182.
College of Engineering Allen and Hoshall Engineering Faculty Award, 2001
College of Engineering Leon and Nancy Cole Teaching Award, 1994, 2006
Civil and Environmental Engineering Research Recognition Award, 1991
Civil and Environmental Engineering Outstanding Teaching Award, 1990, 1996, 2005
Civil and Environmental Engineering Teaching Recognition Award, 1987
Civil and Environmental Engineering Service Recognition Award, 1999
Civil and Environmental Engineering Scholar Recognition Award, 2002
ASCE Student Chapter Faculty Member of the Year, 1986, 1987
National Science Foundation Graduate Fellowship
President's Award for Outstanding Senior, Cleveland State University

EXPERIENCE

2008-Present	Director	Engineering Fundamentals Program The University of Tennessee, Knoxville
1994-Present	Professor	Civil and Environmental Engineering The University of Tennessee, Knoxville
2004-2008	Associate Dept. Head	Civil and Environmental Engineering
1999-Present	Professor	Engage Freshman Engineering Program
1989-1994	Associate Professor	Civil Engineering The University of Tennessee, Knoxville
1983-1989	Assistant Professor	Civil Engineering The University of Tennessee, Knoxville
1979-1983	Research Assistant	Department of Civil Engineering

		University of Illinois, Urbana-Champaign
1977	Co-op Employment	Arthur G. McKee and Company Independence, Ohio

PROFESSIONAL REGISTRATION

Tennessee

PROFESSIONAL SOCIETY MEMBERSHIP

American Society of Civil Engineers (ASCE), Member
The Masonry Society, Fellow
ASTM International, Member

PROFESSIONAL ACTIVITIES

1. Corresponding Member, Committee on Safety of Buildings, ASCE Structural Division, 1986-1989; Control Member, 1990.
2. Corresponding Member, Task Committee on Practical Reliability Concepts, ASCE Structural Division, 1986-1989.
3. Control Member, Committee on Methods of Monitoring and Evaluating Structural Performance, ASCE Structural Division, 1991-1994.
4. Control Member, Design of Residential Structures on Expansive Soils Standards Committee, ASCE, 1993-2007, Secretary, 1994-2007.
5. Member, Committee 24 - Education, American Railway Engineering and Maintenance of Way Association, 1994-2000.
6. Chairman, Bridge Failures Recent and Past, American Railway Bridge and Building Association, 1996.
7. Member, Masonry Standards Joint Committee, 2000-present, Secretary, Flexural and Axial Loads Subcommittee, 2002-2003; Chairman, Flexural and Axial Loads Subcommittee, 2004-2010; Construction Requirements Subcommittee, 2004-2007; Executive Committee, 2004-present; Infills Committee, 2007-2010; Vice Chairman, Main Committee, 2010-2013; Chairman, 2013-2016.
8. Member, Steering Committee, ASCE 2004 Structures Congress, 2002-2004.
9. Associate Editor, The Masonry Society Journal, 2006-2016.
10. Member, ASTM C15 Manufactured Masonry Units; C15.02 Brick and Structural Clay Tile, 2006-present. C12 on Mortars and Grouts for Unit Masonry, 2007-present.

RESEARCH

Structural Safety and Reliability: Various aspects of probabilistic based design and analysis of structures, including structural system reliability, load modeling, and practical applications to various problems.

1. Research Assistant at the University of Illinois under the direction of Dr. A. H-S. Ang. Ph.D. Dissertation: Investigation of Methods for Structural System Reliability.
2. Principal Investigator, Reliability of Structures Against Progressive Collapse, Engineering Initiation Grant, National Science Foundation, $48,000, 9/84 to 8/86.
3. Co_Principal Investigator, with E.C. Drumm, A Simplified Analysis of Drilled Shaft Foundations Incorporating Soil Variability, Association of Drilled Shaft Contractors, $5,000, 9/86 to 8/87.
4. Principal Investigator, Modelling of Wind for Structural Load Combinations, National Science Foundation, $30,464, 1/88 to 12/88.

5. Investigator, with E.C. Drumm (P.I.), Analysis of Progressive Slope Failure in an Earth Dam, Martin Marietta Energy Systems, $12,817, 1/88 to 5/88.
6. Principal Investigator, Modeling of Snow for Structural Load Combinations, National Science Foundation, $31,626, 8/90 to 7/91.
7. Principal Investigator, Acceptance Test Specifications and Guidelines for Fiber-Reinforced Polymeric Bridge Decks, subcontractor to Georgia Tech University, prime contract with FHWA, $27,628, 2/00-2/02.

Subsidence Damage Mitigation: Investigation of damage mitigation techniques for residential and light commercial structures subjected to ground subsidence. Involved with experimental test foundations, structural behavior, and numerical analysis.

1. Co_Principal Investigator, with W.F. Kane, Testing Program for Earth_Structure Analysis of Mine Subsidence, U.S. Bureau of Mines _ Twin Cities Research Center, $9,995, and Illinois Mine Subsidence Insurance Fund, $5,000, 9/87 to 2/88.
2. Investigator, with W.F. Kane (P.I.) and E.C. Drumm, Numerical Modeling of Soil/Structure Behavior During Mining Induced Subsidence, Illinois Mine Subsidence Insurance Fund, $10,000, 2/88 to 5/88.
3. Investigator, with W.F. Kane (P.I.) and E.C. Drumm, Presubsidence Analysis and Design of Test Foundations, Illinois Mine Subsidence Insurance Fund, $7,000, 12/88 to 7/89.
4. Investigator, with W.F. Kane (P.I.) and E.C. Drumm, Evaluation and Remedial Measures for Earth-Structure Damage Mitigation, National Science Foundation, $97,714, Illinois Mine Subsidence Insurance Fund, $82,907, U.S. Bureau of Mines-Twin Cities Research Center, $130,730, Old Ben Coal Company, $48,123, 1/90 to 9/92.
5. Investigator, with W.F. Kane (P.I.), Monitoring Program for a Coal Slurry Cell, U.S. Bureau of Mines-Twin Cities Research Center, $9,995, 3/90 to 7/90.
6. Co-Principal Investigator, with E.C. Drumm, Analysis of Subsidence Induced Structural Damage and Proposed Mitigation Techniques, Illinois Mine Subsidence Insurance Fund, $31,132, 10/92 to 9/93.
7. Principal Investigator, Analysis of Bond Beam Test Foundation, Illinois Mine Subsidence Insurance Fund, $7,917, 1/97 to 5/97.
8. Principal Investigator, Database Criteria for Residential Damage, Illinois Mine Subsidence Insurance Fund, $4811, 3/98 to 7/98.
9. Principal Investigator, Differential Settlement and Building Response, subcontractor to Converse Consultants, primary funding from Clark County Building Department, Nevada, $27,124, 7/98-6/99.

Masonry: Testing and analysis of steel structures with unreinforced structural clay tile infilling. Emphasis on response and capacity under seismic events. Behavior and design of masonry components.

1. Principal Investigator, with E.G. Burdette, Structural Behavior of Clay Tile In_Filled Walls, Martin Marietta Energy Systems, $20,000, 9/89 to 12/89.
2. Principal Investigator, with E.G. Burdette, E.C. Drumm, and D.W. Goodpasture, Structural Behavior of Clay Tile Walls, Numerical and Experimental Evaluation Methods, $73,024, 1/90 to 9/90.
3. Principal Investigator, with E.C. Drumm, Structural Behavior of Clay Tile Walls, Numerical Analysis, Martin Marietta Energy Systems, $45,724, 10/90 to 9/91.
4. Principal Investigator, with E.G. Burdette and D.W. Goodpasture, Structural Behavior of Clay Tile Walls, Testing Plans and Review, Martin Marietta Energy Systems, $20,855, 10/90 to 9/91.

5. Principal Investigator, with E.G. Burdette and D.W. Goodpasture, Structural Behavior of Clay Tile Walls, Shake Table Testing Plan, Martin Marietta Energy Systems, $30,635, 10/90 to 9/91.
6. Principal Investigator, with E.G. Burdette and D.W. Goodpasture, Structural Behavior of Clay Tile Walls, Laboratory Testing, Martin Marietta Energy Systems, $125,502, 6/91 to 1/92.
7. Principal Investigator, Hollow Clay Tile Wall Testing and Analysis, Martin Marietta Energy Systems, $228,764, 2/92 to 9/93.
8. Principal Investigator, Evaluation and Analysis of the Performance of Masonry Infills During the Northridge Earthquake, National Science Foundation, $70,000, 9/94 to 8/95.
9. Principal Investigator, Development of Design Program for SuprKing Structural Wall Components, General Shale Brick, $2,586, 4/94 to 5/94.
10. Principal Investigator, Evaluation of Poroton Masonry, General Shale Brick, $15,000, 8/00 to 6/01.
11. Principal Investigator, Horizontal Joint Reinforcement Requirements for Masonry Veneer in Seismic Category D, Masonry Alliance for Codes and Standards, $3,500, 7/01 to 10/01.
12. Principal Investigator, Seismic Design Category for Residential Structures, General Shale Brick, $3,000, 5/02 to 6/02.
13. Principal Investigator, Height Limitations for Masonry Veneer in Seismic Category D, Masonry Alliance for Codes and Standards, $6,000, 9/02 to 3/03.
14. Principal Investigator, Impact Resistance of Brick Veneer Homes to Wind-Borne Debris, Masonry Alliance for Codes and Standards, $7,500; Brick Industry Association, $5,000; 1/04-6/05.
15. Investigator, with R.C. Henderson (P.I.), "Development of Code-Appropriate Methods for Predicting the Capacity of Masonry Infilled Frames Subjected to In-Plane Forces." NCMA Foundation, $36,970, 6/05 to 12/06.
16. Principal Investigator, with R.M. Kelso, Comparison of Hollow Brick and Solid Brick, General Shale Brick, $5,000, 9/05 to 6/06.
17. Principal Investigator, Evaluation and Analysis of Clay Permeable Pavers, General Shale Brick, $5,000, 4/07 to 8/07.

<u>Miscellaneous Research:</u>

1. Principal Investigator, Evaluation of Engineering Fundamentals Examination Results, The University of Tennessee Learning Research Center, $16,554, 8/88 to 6/89.
2. Principal Investigator, with J.F. Wasserman, Experimental Determination of Dynamic Properties of Vulcraft Composite Longspan Joist Floor System, Nucor Research and Development, $9,964, 6/89 to 12/90.
3. Investigator, with E.G. Burdette (P.I.), Engineering Internship in Civil Engineering, Tennessee Eastman Company, $9,500, 1/90 to 5/90.
4. Investigator, with E.C. Drumm (P.I.), Instrumentation/Monitoring Program for the Central Interstate Project, Bechtel National, Inc., $6,248, 2/94 to 4/94.
5. Principal Investigator, Monitoring of Crowd Movements in Neyland Stadium, The University of Tennessee Facilities Planning, $5,000, 9/94 to 12/94.
6. Co-Principal Investigator, with P.M. Winistorfer, Development of a Manual for Timber Bridge Inspection, U.S. Department of Agriculture, $58,000, 10/95 to 6/97.
7. Investigator, with E.C. Drumm (P.I.) and M. Mauldon, Evaluation of Factors Affecting the Performance of Buried Box Culverts, TN Dept. of Transportation, $183,109, 3/96 to 2/98; extension: $98,393, 3/98 to 2/00; $115,729, 3/00 to 2/03.
8. Principal Investigator, Evaluation of Pre-1950 Bridges for National Register Eligibility, TN Dept. Of Transportation, $83,398, 1/98 to 6/99.

9. Collaborating Scientist, Oak Ridge Y-12 Concurrent Engineering Center, $25,301 (1996), $33,377 (1997), $25,534 (1998), $8,197 (2000). Examples of projects include:
    a. Nonlinear finite element analysis of deep draw cup manufacturing
    b. Evaluation of 1940's era timber trusses
    c. Design of support structure for neutron beam guides
10. Investigator, with E.C. Drumm (P.I.), Equivalent Earth Pressure Conditions for Testing Underground Utility Boxes, Strongwell, $1,860, 7/99 to 8/99.
11. Investigator, with G. Kawiecki (P.I.), Segmented Active Constrained Layer Damper for Structural Vibration Control, National Science Foundation, $132,971, 5/99 to 5/01.
12. Principal Investigator, Characterization of Framing Factors for New Low-Rise Residential Building Envelopes, subcontractor to Enermodal Engineering, prime contract with ASHRAE, $6,000, 10/99-1/00.
13. Principal Investigator, Composite Crossarm Component Evaluation Program: Mechanical Properties, Tennessee Valley Authority, $19,851, 5/00-9/01.
14. Principal Investigator, Effects of Oriented Strandboard Thickness Swell Treatments on Structural Properties, Tennessee Wood Utilization Research, USDA Special Grant, $58,172, 1/02 to 6/03.
15. Investigator, with J.E. Seat (P.I.), C.T. Melear, and D.R. Raman, Engaging Preservice Science Teachers in Engineering, National Science Foundation, $99,663, 8/02 to 7/03.
16. Principal Investigator, Heavy Vehicle-Infrastructure Collision and Asset Interaction, Federal Highway Administration, $40,000, 5/04 to 5/05.
17. Investigator, with J. Beavers (P.I.). Pre-Disaster Mitigation Program, Tennessee Emergency Management Agency, $56,520, 10/05 to 9/08.
18. Principal Investigator, Finite Element Analysis Crash Model of Tractor Trailers, Center for Transportation Research, $20,000, 6/07 to 4/08.
19. Investigator, with Q. Zhao (P.I.). Data Analyses and Interpretation of Blast Tests for Bastogne LLP, Center for Industrial Services, $13,090, 7/07 to 12/07.
20. Principal Investigator Enhanced FEA Crash Model of Tractor-Trailers, Center for Transportation Research, $20,000, 8/08 to 8/09.
21. Investigator, with E.C. Drumm (P.I.), Instrumentation and Analysis of Piling Framed Concrete Retaining Wall, Charles Blalock & Sons, $303,998, 8/07-7/10.
22. Co-principal Investigator, with E.C. Drumm, Piling Framed Retaining Wall: Extension of Data Collection, Design Refinement and Verification, Tennessee Department of Transportation, $139,000, 8/11-7/14.
23. Investigator, with C. Rawn (P.I.), Research and Instructional Strategies for Engineering Retention, RISER, National Science Foundation STEP Program, $2,000,000, 7/11-6/16.
24. Principal Investigator, Research Initiation Grant: Increasing Student Engagement in Homework, National Science Foundation, $149,867, 1/12-12/13.
25. Principal Investigator, with W. Schleter and B. White, Spatial Skills Mini-Grant from Engage Engineering, Stevens Institute of Technology, $3,000, 8/12-6/13.
26. Principal Investigator, with W. Schleter and B. White, Everyday Engineering Examples Mini-Grant from Engage Engineering, Stevens Institute of Technology, $2,500, 8-13-12/13.

REFEREED PUBLICATIONS

Journal Articles:

1. Bennett, R.M. (1985). "Reliability Analysis of Frame Structures with Brittle Components." Structural Safety. 2(4), 281-290.

2. Bennett, R.M. (1986). "Probabilistic Assessment of the Importance Factor." Technical Note, Journal of Structural Engineering. ASCE, 112(10), 2345-2349.
3. Bennett, R.M. (1986). "Reliability of Nonlinear Brittle Structures." Journal of Structural Engineering. ASCE, 112(9), 2027-2040.
4. Bennett, R.M., and Ang, A.H-S. (1986). "Formulations of Structural System Reliability" Journal of Engineering Mechanics. ASCE, 112(11), 1135-1151.
5. Bennett, R.M. (1987). "Comments on 'First Order vs. Second Order Reliability Analysis of Series Structures.'" Short Communication, Structural Safety, 4(3), 241-242.
6. Bennett, R.M., and Najem_Clarke, F.S. (1987). "Reliability of Bolted Steel Tension Members." Journal of Structural Engineering. ASCE, 13(8), 629-637.
7. Bennett, R.M. (1988). "Optimal Lower Bound for Unions." Short Communication, Structural Safety, 5(4), 319-320.
8. Bennett, R.M. (1988). "Formulations for Probability of Progressive Collapse." Structural Safety. 5(1), 67-77.
9. Bennett, R.M. (1988). "Snow Load Factors for LRFD." Journal of Structural Engineering, ASCE, 114(10), 2371-2383.
10. Tucker, G.L., and Bennett, R.M. (1990). "Statistical Analysis and Reliability Applications of Partially Restrained Steel Connections." Journal of Structural Engineering, ASCE, 116(4), 1090-1101. Closure to discussion, 1992, 118(3), 866.
11. Bennett, R.M. (1990). "Structural Analysis Methods for System Reliability." Structural Safety, 7(2), 109-114; also in (1989) New Directions in Structural System Reliability, University of Colorado, Boulder, Colorado, 45-51.
12. Drumm, E.C., Bennett, R.M., and Oakley, G.J. (1990). "Probabilistic Response of Laterally Loaded Piers by Three-Point Approximation." International Journal for Numerical and Analytical Methods in Geomechanics, 14(7), 499-507.
13. Belk, C.A., and Bennett, R.M. (1991). "Macro Wind Parameters for Load Combination." Journal of Structural Engineering, ASCE, 117(9), 2742-2756. Closure to discussion, 1992, 118(9), 2642-2643.
14. Lin, G., Bennett, R.M., Drumm, E.C., and Triplett, T.L. (1995). "Response of Residential Test Foundations to Large Ground Movements." Journal of Performance of Constructed Facilities, ASCE, 9(4), 319-329. Closure to discussions, 1997, 11(1), 47-48.
15. Bennett, R.M., Drumm, E.C., Lin, G., Triplett, T.L., and Powell, L. (1996). "The Effects of Ground Subsidence on a House." Journal of Performance of Constructed Facilities, ASCE, 10(4), 152-158.
16. Bennett, R.M., Boyd, K.A., and Flanagan, R.D. (1997). "Compressive Properties of Structural Clay Tile Prisms." Journal of Structural Engineering, ASCE, 123(7), 920-926.
17. Bennett, R.M., and Swensson, K. (1997). "Spectator Live Loads During Football Games." Technical Note, Journal of Structural Engineering, ASCE, 123(11), 1545-1547.
18. Flanagan, R.D., and Bennett, R.M. (1999). “Bi-Directional Behavior of Structural Clay Tile Infilled Frames.” Journal of Structural Engineering, ASCE, 125(3), 236-244.
19. Flanagan, R.D., and Bennett, R.M. (1999). “In-Plane Behavior of Structural Clay Tile Infilled Frames.” Journal of Structural Engineering, ASCE, 125(6), 590-599.
20. Flanagan, R.D., and Bennett, R.M. (1999). “Arching of Masonry Infilled Frames: Comparison of Analytical Methods.” Practice Periodical on Structural Design and Construction, ASCE, 4(3), 105-110.
21. Bennett, R.M., Fricke, K.E., and Winistorfer, P.W. (2000). “Case Study: Splice Failures in Split-Ring Connected Wood Roof Trusses.” Journal of Performance of Constructed Facilities, ASCE, 14(3), 97-103.
22. Clarke, S.N., Goodpasture, D.W., Bennett, R.M., Deatherage, J.H., and Burdette, E.G. (2000) “Effect of Cycle Counting Methods on Effective Stress Range and Number of Stress Cycles for Fatigue-Prone Details.” Transportation Research Record 1740, Paper 00-0622, 49-60.

23. Andrews, C.K., Winistorfer, P.M., and Bennett, R.M. (2001). “The Influence of Furnish Moisture Content and Press Closure Rate on the Formation of the Vertical Density Profile in Oriented Strandboard.” Forest Products Journal, 51(5), 32-39.
24. Flanagan, R.D., and Bennett, R.M. (2001). "In_Plane Analysis of Masonry Infill Materials." Practice Periodical on Structural Design and Construction, ASCE, 6(4), 176-182.
25. Bennett, R.M., Hufstetler, M.L., and Carver, M. (2002). “50 Year Old Prestressed Segmental Concrete Bridges.” Journal of Professional Issues in Engineering Education and Practice, ASCE, 128(2), 83-87.
26. Parsons, J.R., Seat, J.E., Bennett, R.M., Forrester, J.H., Gilliam, F.T., Klukken, P.G., Pionke, C.D., Raman, D.R., Scott, T.H., Schleter, W.R., Weber, F.E., and Yoder, D.C. (2002). “The Engage Program: Implementing and Assessing a New First Year Experience at The University of Tennessee.” Journal of Engineering Education, 91(4), 441-446.
27. Alqam, M., Bennett, R.M., and Zureick, A-H. (2002). “Three-parameter vs. Two-parameter Weibull Distribution for Pultruded Composite Material Properties.” Composite Structures, 58(4), 497-503.
28. Kim, Y.S. and Bennett, R.M. (2002). “Flexural Tension in Unreinforced Masonry: Evaluation of Current Specifications.” The Masonry Society Journal, 20(1), 23-30.
29. Steidl, C.M., Wang, S., Bennett, R.M., and Winistorfer, P.M. (2003). “Tensile and Compression Properties Through the Thickness of Oriented Strandboard.” Forest Products Journal, 53(6), 72-80.
30. Henderson, R.C., Fricke, K.E., Jones, W.D., Beavers, J.E., and Bennett, R.M. (2003). “Summary of a Large- and Small-scale Unreinforced Masonry Test Program.” Journal of Structural Engineering, ASCE, 129(12), 1667-1675.
31. Bryja, J., and Bennett, R.M. (2004). “Disaster Investigation Report: Tornado and Severe Storm Damage in Tennessee November 10, 2002.” The Masonry Society Journal, 22(1), 111-120.
32. Alqam, M., Bennett, R.M., and Zureick, A-H. (2004). “Probabilistic Based Design of Concentrically Loaded FRP Compression Members.” Journal of Structural Engineering, ASCE, 130(12), 1914-1920.
33. Bennett, R.M., Wood, S.M., Drumm, E.C., and Rainwater, N.R. (2005). “Vertical Loads on Box Culverts under High Embankments.” Journal of Bridge Engineering, ASCE, 10(6), 643-649.
34. Zisi, N.V., Bennett, R.M., and Van Houts, J.H. (2005). “Dimensional Stability and Mechanical Properties of Oriented Strandboard with Microwave Dried Flakes in the Surface Layers.” Forest Products Journal, 55(12), 136-142.
35. Zureick, A-H., Bennett, R.M., and Ellingwood, B.R. (2006). “Statistical Characterization of Fiber-Reinforced Polymer Composite Material Properties for Structural Design.” Journal of Structural Engineering, ASCE, 132(8), 1320-1327.
36. Bennett, R.M., Borchelt, J.G., Bryja, J., and Kjorlien, B. (2006). “Impact Resistance of Residential Wall Systems to Wind-borne Debris.” The Masonry Society Journal, 24(1), 45-56.
37. Bennett, R.M., McGinley, W.M., and Bryja, J., (2007). “Deflection Criteria for Masonry Beams.” Journal of ASTM International, 4(1), Online ISSN: 1546-962X.
38. Hedrick, S.E. II, Bennett, R.M., Rials, T.G., and Kelley, S.S. (2007). “Correlation of Near-Infrared Spectroscopy Measurements with the Properties of Treated Wood.” Journal of Materials in Civil Engineering, ASCE, 19(4), 279-285.
39. Tackie, A.D., Wang, S., Bennett, R.M., and Shi, S.Q. (2008). “Investigation of OSB Thickness-Swell Based on a 3D Density Distribution. Part I. The Finite Element Model.” Wood and Fiber Science, 40(1), 91-102.
40. Tackie, A.D., Wang, S., and Bennett, R.M. (2008). “Investigation of OSB Thickness-Swell Based on a 3D Density Distribution. Part II. Variations in Thickness-Swell and Internal Stresses. Wood and Fiber Science, 40(3), 352-361.
41. Bennett, R.M. (2008). “The First United States Prestressed Masonry Structures.” The Masonry Society Journal, 26(2), 67-72.

42. Bennett, R.M. (2010). “Proposed Masonry Specified Compressive Strength Requirements.” Journal of ASTM International,7(2), Paper JAI102663.
43. Bennett, R.M., Sanders, J.P., and Bryja, J. (2010). “Statistical Analysis of Flexural Tensile Strength of Clay Masonry as a Function of Void Area.” Journal of ASTM International, 7(3), JAI102707.
44. Zisi, N. and Bennett, R.M. (2011). “Shear Behavior of Corrugated Tie Connections in Anchored Brick Veneer-Wood Frame Wall Systems.” Journal of Materials in Civil Engineering, ASCE, 23(2), 120-130.
45. Fonseca, F.S., Mathew, S., and Bennett, R.M. (2011). “MSJC Deep Beam Requirements.” The Masonry Society Journal, 29(1), 49-61.
46. Morrison, S. and Bennett, R.M. (2013). “Concepts of Shear Friction Applied to Masonry Shear Walls.” The Masonry Society Journal, 31(1), 1-13.
47. Jeldes, I.A., Drumm, E.C., and Bennett, R.M. (2015). “Piling Framed Concrete Retaining Wall: Design Pressures and Stability Evaluation.” Practice Periodical of Structural Design and Construction, ASCE, 20(3).

Conference Proceedings:

1. Bennett, R.M., Ang, A.H-S., and Goodpasture, D.W. (1985). "Probabilistic Safety Assessment of Redundant Bridges." Structural Safety and Reliability. Proceedings of the Fourth International Conference on Structural Safety and Reliability, III:205-III:212.
2. Drumm, E.C., Bennett, R.M., and Kane, W.F. (1988). "Mechanisms of Subsidence Induced Damage and Techniques for Analysis." Mine Induced Subsidence: Effects on Engineered Structures, ASCE Geotechnical Special Publication No. 19, 168-188.
3. Lee, P.A., Kane, W.F., Drumm, E.C. and Bennett, R.M. (1989). "Investigation and Modeling of Soil_Structure Interface Properties." Foundation Engineering: Current Principles and Practice, ASCE, 1, 580-587.
4. Baylosis, R.B., and Bennett, R.M. (1989). "Safety Assessment of an Existing Concrete Gravity Dam." Structural Safety and Reliability, Proceedings of Fifth International Conference on Structural Safety and Reliability, ASCE, 279-286.
5. Bennett, R.M., Hoskins, J.D. III, and Kane, W.F. (1989). "Reliability_Based Analysis of Shallow Foundations." Structural Safety and Reliability, Proceedings of Fifth International Conference on Structural Safety and Reliability, ASCE, 2051-2055.
6. Drumm, E.C., Bennett, R.M., and Manrod, W.E. (1992). "Use of Reliability Methods for the Sequential Analysis of a Small Dam." Stability and Performance of Slopes and Embankments - II, ASCE Geotechnical Special Publication 31, 1126-1136.
7. Flanagan, R.D., Bennett, R.M., and Barclay, G.A. (1993). "In-Plane Behavior and Strength of Structural Clay Tile Infilled Frames." Sixth North American Masonry Conference, Philadelphia, PA, 371-382.
8. Flanagan, R.D., Bennett, R.M., and Beavers, J.E. (1993). "Seismic Behavior of Unreinforced Hollow Clay Tile Infilled Frames." Masonry: Design and Construction, Problems and Repair. ASTM STP 1180, 91-102.
9. Flanagan, R.D., Bennett, R.M., and Butala, M.B. (1993). "Properties of Structural Clay Load-Bearing Wall Tile." Sixth North American Masonry Conference, Philadelphia, PA, 87-98.
10. Flanagan, R.D., and Bennett, R.M. (1994). "Effects of Inter-Storey Drift on the In-Plane Capacity of Infilled Walls." Masonry (6), Proceedings of the Third International Masonry Conference, The British Masonry Society, 104-107.
11. Drumm, E.C., Bennett, R.M., Lin, G., Raaf, D.B., and Daugherty, D. (1994). "Continuous Lift Piers: Damage Repair and Response During Subsidence." Proceedings of the International Land

Reclamation and Acid Drainage Conference and Third International Conference on the Abatement of Acid Drainage, Pittsburgh, 314-321.

12. Lin, G., Drumm, E.C., Bennett, R.M., Powell, L., and Triplett, T. (1994). "Soil-Structure Interaction During Mining Induced Ground Movements." Vertical and Horizontal Deformations of Foundations and Embankments, ASCE Geotechnical Special Publication 40, 786-797.
13. Graziano, J.A., and Bennett, R.M. (1994). "A Nonlinear Analysis Methodology for the One Hole Malleable Iron Conduit Clamp." Seismic Engineering, ASME PVP-Vol. 275-I, 181-193.
14. Bennett, R.M., Gilley, R.D., Belk, C.A., and Chou, K.C. (1994) "Macro Time Modeling of Wind and Snow." Structural Safety and Reliability, ICOSSAR '93, 1617-1622.
15. Tang, Q., Drumm, E.C., and Bennett, R.M. (1994). "Response of Drilled Shaft Foundations in Karst During Construction Loading." Proceedings, International Conference on Design and Construction of Deep Foundations." 1296-1309.
16. Chou, K.C. and Bennett, R.M. (1995). "Stochastic Dynamic Analysis Using Nonlinear Load Exceedance Approach," Proceedings of Int'l Conf. on Structural Dynamics, Vibrations, Noise and Control SDVNC'95, Hong Kong, Vol. 1, 696-701.
17. Lin, G., Drumm, E.C., Bennett, R.M., and Powell, L. (1996). "Monitoring of a House During Mining Subsidence," Proceedings, 13th Annual Meeting of American Society for Surface Mining and Reclamation, Knoxville, 184-203.
18. Flanagan, R.D., Bennett, R.M., Adham, S.A., and Fischer, W.L. (1996). "Masonry Infill Performance During the Northridge Earthquake." Proceedings of the 7th North American Masonry Conference, Notre Dame, 906-917.
19. Bennett, R.M., Fowler, J.J., and Flanagan, R.D. (1996). "Shake Table Testing of Structural Clay Tile Infilled Frames." Proceedings of the 7th North American Masonry Conference, Notre Dame, 497-507.
20. Bennett, R.M., and Skinner, T. (1997). “Bridge Failures, Recent and Past, Lessons for the Future.” Proceedings of the 101st Annual Conference, American Railway Bridge and Building Association, 122-143.
21. Yang, M.Z., Drumm, E.C., Bennett, R.M., and Mauldon, M. (1997) "Influence of Compactive Effort on Earth Pressures around a Box Culvert," Proceedings, 9th International Conference of the Association for Computer Methods and Advances in Geomechanics (IACMAG 97), Wuhan, China, 2021-2026.
22. Yang, M.Z., Drumm, E.C., Bennett, R.M., and Mauldon, M. (1999) "Measurement of Earth Pressures on Concrete Box Culverts under Highway Embankments" Field Instrumentation for Soil and Rock, ASTM STP 1358, American Society for Testing and Materials, pp 87-100.
23. McGinley, W.M., Bennett, R.M., and Johnson, E.N. (2002). “Effects of Horizontal Joint Reinforcement on the Seismic Behavior of Masonry Veneers.” 6th International Masonry Conference, London.
24. McGinley, W.M., Johnson, E.N., and Bennett, R.M. (2003). “Considerations in the Design of Lintels for Masonry Veneer.” 9th North American Masonry Conference, The Masonry Society, 346-357.
25. Bennett, R.M., and Bryja, J. (2003). “Implications of the IRC Seismic Requirements on Brick Veneer Construction in the Southeast.” 9th North American Masonry Conference, The Masonry Society, 646-655.
26. Bennett, R.M., Borchelt, J.G., Bryja, J., and Kjorlien, B. (2005). “Impact Resistance of Brick Veneer Structures to Hurricane Debris.” 10th Canadian Masonry Symposium, Banff, Alberta, 937-945.
27. Bennett, R.M., Kelso, R., and Bryja, J. (2007). “Thermal Performance of Hollow Brick Veneer Walls.” Proceedings, 10th North American Masonry Conference, The Masonry Society, 158-164.
28. Branch, E., Drumm, E.C., Bennett, R. M, and Haddad, S. (2008) “Numerical Analysis of a Novel Piling Framed Retaining Wall System,” Proceedings, The 12th International Conference of the

International Association for Computer Methods and Advances in Geomechanics (IACMAG), Goa, India. Paper # 473980129.

29. Bennett, R.M., and Huston, E.T. (2011). "Allowable Stress Shear Design Provisions: Trial Designs." 11th North American Masonry Conference, Paper 34.
30. Bennett, R.M., Huston, E.T., McLean, D.I., and Throop, D.B. (2011). "Allowable Stress Recalibration in the 2011 TMS 402 Code." 11th North American Masonry Conference, Paper 33. *Winner of Outstanding Paper Award*.

OTHER PUBLICATIONS

1. Bennett, R.M., and Ang, A.H-S. (1983). "General Structural System Reliability Analysis." Recent Advances in Engineering Mechanics and Their Impact on Civil Engineering Practice. Proceedings of the Fourth Engineering Mechanics Division Specialty Conference, ASCE, 839-842.
2. Bennett, R.M., and Ang, A.H-S. (1984). "An Alternate Method for Structural System Reliability." Probabilistic Mechanics and Structural Reliability. Proceedings of Specialty Conference, ASCE, 41-44.
3. Ang, A.H-S., and Bennett, R.M. (1984). "On Reliability of Structural Systems." Ship Structure Symposium '84, Society of Naval Architects and Marine Engineers.
4. Bennett, R.M. (1986). "Reliability of Bolted Steel Connections." presented at ASCE Structures Congress '86, New Orleans, LA.
5. Bennett, R.M. (1987). "Reinforced Concrete Column Reliability." Materials and Member Behavior. ASCE Structures Congress 87, Orlando, FL, 629-637.
6. Bennett, R.M. (1988). "Reliability Methods for Steel Members Subjected to Axial Load and Moment." Probabilistic Methods in Civil Engineering, ASCE, 360-363.
7. Oakley, G.J., Drumm, E.C., and Bennett, R.M. (1988). "Lateral Analysis of Drilled Piers Incorporating Soil Variability." Probabilistic Methods in Civil Engineering, ASCE, 9-12; also in Foundation Drilling, 27(5), 10-11.
8. Bennett, R.M., Drumm, E.C. and Wasserman, J.F. (1989). "Instrumentation: Measuring Structural Behavior." The Construction Specifier, 42(1), 82-87.
9. Bennett, R.M. (1990). "Structural Damage and Remedial Measures." Mine Subsidence and Structures, Institute for Geotechnology Publication #90-01, The University of Tennessee, 55-65.
10. Kane, W.F., Bennett, R.M., and Drumm, E.C. (1990). "Construction and Instrumentation of Test Foundations for Subsidence Damage Assessment." Proceedings, Third Conference on Ground Control Problems in the Illinois Coal Basin, Mt. Vernon, IL, 311-321.
11. Hudgings, R.A., Bennett, R.M., and Sneed, L.A. (1990). "Experimental Testing of Damage Mitigation Techniques." Mine Subsidence - Prediction and Control, Association of Engineering Geologists, Pittsburgh, PA, 173-176.
12. Flanagan, R.D., Jones, W.D., and Bennett, R.M. (1991). "Analytical Modeling of Masonry Infilled Steel Frames." Third DOE Natural Phenomena Hazards Mitigation Conference, St. Louis, MO.
13. Walls, J.C., Webb, D.S., Stone, N.E., and Bennett, R.M. (1991). "Seismic Shake Table Testing Program for Hollow Clay Tile Wall Evaluation at DOE Facilities in Oak Ridge, Tennessee." Third DOE Natural Phenomena Hazards Mitigation Conference, St. Louis, MO.
14. Gilley, R.D. and Bennett, R.M. (1991). "Snow Load Modelling for Structural Load Combination Methods." Department of Civil Engineering Research Series No. 47, The University of Tennessee, Knoxville, TN.
15. Triplett, T., Lin, G., Kane, W., and Bennett, R.M. (1992). "Prediction of Coal Mine Subsidence and Implications for Structural Damage." Third International Workshop on Surface Subsidence due to Underground Mining, Morgantown, WV, 76-82.

16. Bennett, R.M., Drumm, E.C., and Johnson, D.C. (1992). "Behavior of Linear Foundations Subjected to Longwall Subsidence." Third International Workshop on Surface Subsidence due to Underground Mining, Morgantown, WV, 121-128.
17. Jamal, B.D., Bennett, R.M., and Flanagan, R.D. (1992). "Numerical Analysis for In-Plane Behavior of Infilled Frames." Proceedings, Sixth Canadian Masonry Symposium, Saskatoon, Saskatchewan, 609-620.
18. Flanagan, R.D., Bennett, R.M., and Barclay, G.A. (1992). "Experimental Testing of Hollow Clay Tile Infilled Frames." Proceedings, Sixth Canadian Masonry Symposium, Saskatoon, Saskatchewan, 633-644.
19. Ben-Hassine, J., Drumm, E.D., Hoskins, J.D., and Bennett, R.M. (1992). "Mechanistic Approach for the Prediction of Structural Response due to Subsidence." Fourth Conference on Ground Control for Midwestern U.S. Coal Mines., Mount Vernon, IL, 373-390.
20. Flanagan, R.D., and Bennett, R.M. (1993). "Large-Scale Testing of Structural Clay Tile Infilled Frames." Proceedings, 1993 Annual Conference of the Canadian Society of Civil Engineers, Fredericton, New Brunswick, 533-540.
21. Johnson, D.C., Bennett, R.M., and Drumm, E.C. (1993). "Economic Evaluation of Subsidence Damage Mitigation Techniques." Proceedings, 12th Conference on Ground Control in Mining, Morgantown, WV, 426-432.
22. Flanagan, R.D., Tenbus, M.A., Bennett, R.M., and Jamal, B.D. (1993). "Behavior of Infilled Frames." Proceedings, National Workshop on Unreinforced Hollow Clay Tile, SanFrancisco, CA, 99-105.
23. Flanagan, R.D., Bennett, R.M., Burdette, E.G., and Goodpasture, D.W. (1993). "Testing of Clay Tile Infilled Frames." Proceedings, National Workshop on Unreinforced Hollow Clay Tile, SanFrancisco, CA, 185-191.
24. Graziano, J.A., and Bennett, R.M. (1993). "An Analysis of the Behavior of the One Hole Malleable Iron Conduit Clamp." Recent Advances in Structural Mechanics, ASME PVP-Vol. 269/NE-Vol. 13, 119-130.
25. Flanagan, R.D., Tenbus, M.A., and Bennett, R.M. (1994). "Numerical Modeling of Clay Tile Infills." Proceedings from the NCEER Workshop on Seismic Response of Masonry Infills, NCEER-94-0004, 1-63 to 1-68.
26. Bennett, R.M., Drumm, E.C., and Lin, G. (1994). "Behavior of Foundations Subjected to Large Ground Movements." ASCE Structures Congress XII, 49-54.
27. Flanagan, R.D., and Bennett, R.M. (1994). "Uniform Lateral Load Capacity of Infilled Frames." ASCE Structures Congress XII, 785-790.
28. Flanagan, R.D., Tenbus, M.A., and Bennett, R.M. (1994). "Seismic Evaluation of Industrial Facilities with Unreinforced Structural Clay Tile Infills." Fifth U.S. National Conference on Earthquake Engineering, EERI, 365-374.
29. Flanagan, R.D., and Bennett, R.M. (1994). "Behavior of Damaged Infill Panels." Proceedings, 10th International Brick and Block Masonry Conference, Calgary, 659-667.
30. Bennett, R.M., Columber, C.E., and Flanagan R.D. (1998). “Flexural Tensile Strength of Structural Clay Tile.” 8th Canadian Masonry Symposium, Jasper, Alberta, 10-17.
31. Bennett, R.M., Flanagan, R.D., Adham, S., Fischer, W., and Tenbus, M. (1998). “Analysis and Performance of Masonry Infill Structures.” Proceedings of the NEHRP Conference and Workshop on Research on the Northridge, California Earthquake of January 17, 1994, Vol. IIIA, 98-105.
32. Weber, F., Bennett, R. M., Forrester, J., Gilliam, F., Klukken, P. G., Parsons, J. R., Pionke, C.D., Scott, T., Schleter, W., Seat, J. E., Yoder, D. (2000). "The engage Program: Results from Renovating the First Year Experience at the University of Tennessee," Proceedings of the ASEE Frontiers in Education Conference, Kansas City, KS.

33. Pionke, C.D., Bennett, R.M., and Parsons, J.R. (2001). "Teaching Mechanics to Freshman." Computer Methods and Advances in Geomechanics, Proceedings, 10th International Conference, Tucson, AZ, 1859-1862.
34. Bennett, R.M., Kane, W.F., and Hughes, J.J. (2001). "Behavior of Spread Footings Due to Geologically Controlled Ground Movements." Proceedings, 36th Annual Symposium on Engineering Geology and Geotechnical Engineering, Las Vegas, NV, 539-546.
35. Yang, M.Z., Drumm, E.C., Bennett, R.M., and Mauldon, M. (2001) "Temperature effects on contact earth pressure cells: Inferences from long term field instrumentation" Geotechnical News, Newsletter of the North American Geotechnical Community, 19(2), June, 25-28.
36. Bennett, R.M., Flanagan, R.D., and Henderson, R.C. (2003). Discussion of "Arching in masonry walls subjected to earthquake motions." Journal of Structural Engineering, 129(6), 838.
37. Bennett, R.M., Rainwater, N.R., and Burdette, E.G. (2004). "Grout consolidation using a reinforcing bar shaker." Masonry Construction, January, 32-37.
38. Ingram, E.E., Burdette, E.G., Goodpasture, D.W., Deatherage, J.H., and Bennett, R.M. (2004). "Behavior of Steel H-Piles Supporting Integral Abutments." CD Proceedings, ASCE Structures Congress 2004.
39. Hedrick, S.E., Bennett, R.M., Kelley, S.S, and Rials, T.G. (2004). "Determination of Wood Properties Using Near Infrared Spectroscopy." CD Proceedings, ASCE Structures Congress, 2004.
40. Radcliffe, M.R., Bennett, R.M., and Bryja, J. (2004). "Highly Cored Extruded Clay Units: Testing and Design Procedures." CD Proceedings, ASCE Structures Congress, 2004.
41. Tang, Y., Huang, B., Drumm, E, C. and Bennett, R, (2005) "Safety Analysis Of An Ancient Pagoda Under Seismic Conditions" Proceedings of McMat2005: 2005 Joint ASME/ASCE/SES Conference on Mechanics and Materials, Baton Rouge, Louisiana, USA
42. Schleter, W.R., and Bennett, R.M. (2006). "Using Web-based Homework in an Introductory Engineering Physics Course." Computers in Education, ASEE Annual Conference, Paper 2279.
43. Bennett, R.M., and Bryja, J. (2007). "ASTM C 652 Bricks: Less is Good." Journal of Building Enclosure Design, Summer 2007, 16-18.
44. Bennett, R.M., Kelso, R.M., and Bryja, J. (2007). "Adding Substance with Hollow Brick." The Construction Specifier, December, 60(12), 44-51.
45. Bennett, R.M., and Schleter, W.R. (2010). "Short, Hands-On Team Design Projects in a Freshman Engineering Physics Class." ASEE Annual Conference, Paper AC 2010-1044.
46. Schleter, W.R., and Bennett, R.M. (2011). "Work in Progress - Enhancing On-Line Interaction with Graphical Tools." Frontiers in Education Conference, Session F3E.
47. Bennett, R.M., Schleter, W.R., Olsen, T. and Guffey, S. (2012). "Effects of an Early Homework Completion Bonus." ASEE Annual Conference, Paper AC 2012-3724.
48. Bennett, R.M. Schleter, W.R., and Raman D.R. (2012). "A Success Enhancement Program After the First Test in Freshman Engineering." ASEE Annual Conference, Paper AC 2012-3721.
49. Bennett, R.M., Russell, M.H., and Rawn, C.J. (2013). "Engineering Introduction in Pre-Calculus Courses." ASEE Annual Conference, Paper ID #5836.
50. Bennett, R.M., Schleter, W., Olsen, T., Guffey, S., and Li, W. (2013). "Characteristics of Students Who Do Not Do Homework." ASEE Annual Conference, Paper ID #6761.

CONSULTING

Design review of silo disposal units, Martin Marietta Energy Systems, Inc., 1987.
Member of seismic review team for gaseous diffusion plant, Martin Marietta Energy Systems, Inc., 1989.
Review of seismic analysis of an existing facility, Science Applications International Corporation, 1989.
Installation of strain gages in slab on grade, Martin Marietta Energy Systems, Inc., 1990.
Mitigation of subsidence damage in structures, Civil Engineer, U.S. Bureau of Mines, 1992-1995.

Analysis of vibration problem from rock crusher, Technical Engineering Consultants, PC, 1993, 2000.
Lifetime evaluation of industrial facilities, Martin Marietta Energy Systems, Inc., 1993.
Investigation of crane failure, Bender and Associates, 1995.
Evaluation of steel strength, Construction Solutions, 1996.
Evaluation of masonry construction procedures, Gentry and Painter, 1997.
Methodology for seismic analysis and design, Technical Engineering Consultants, PC, 1998.
Evaluation of masonry wall failure, Custard Insurance Adjustors, 1998; Butler, Vines, and Babb, 2000.
Evaluation of concrete stave silo, Athens Furniture Company, 1999.
Investigation of commercial interstate highway sign structure, Technical Engineering Consultants, PC, 2000.
Testing of pipe connection brackets, Blalock Construction, 2000.
Design of reinforced concrete retaining wall, Kane Geotech, 2000.
Determination of floor load capacity, Kane Geotech, 2001.
Investigation of masonry wall cracking, First Baptist Church, Rockwood, 2001.
Sloped roof support investigation, Brick Industry Association, 2002.
Development of spreadsheet programs for foundation design, QORE Property Sciences, 2002.
Instrumentation Evaluation, Kane Geotech, 2004.
Evaluation of BEES Software, Brick Industry Association, 2005.
Design of conveyor belt support, Kane Geotech, 2007.
Design of swinging pedestrian bridge for a state park, Bender Engineering, 2007.
Development of web-based brick design program, General Shale, 2011.
Analysis of zip line, Bender Engineering, 2012.
Development of web-based masonry partition wall design program International Masonry Institute, 2013.
Development of web-based masonry brick arch design program, Brick Industry Association, 2014.