BUILDING & ENVIRONMENTAL CONSULTANTS
a division of ITC Experts, Inc.

James I. Daniel, P.E.
Principal & Exec. Vice President

Professional Summary

Mr. Daniel is a nationally recognized building enclosure expert with 35 years of experience specializing in the investigation, testing, evaluation and design of repairs for non-performing construction systems including exterior building facades; roofing systems; wall systems; foundations; windows and building fenestration; curtain walls; water, vapor, and air barrier systems; building insulation (including spray polyurethane foam (SPF) insulation); pipe freeze incidents; and interior gypsum board and plaster systems (including Chinese Drywall). Exterior facade expertise includes, among others, brick, concrete and limestone masonry; exterior insulation and finish systems (EIFS); direct-applied exterior finish systems (DEFS); one-coat and three-coat exterior portland cement plaster (stucco); wood, metal, fiber-cement board, and vinyl sidings; thin-brick, tile, adhered stone veneer, and exposed aggregate finish systems; glass fiber reinforced concrete (GFRC); glass and metal curtain wall systems; joint sealants; flashing; and waterproof coating systems. Roofing expertise involves steep and low-sloped roofs including asphalt, wood, slate, and tile shingles; single-ply membrane roofing; modified-bitumen roofing (MBR); built-up roofing (BUR); spray polyurethane foam (SPF) roofing; metal roofs; and associated expansion joints, scuppers, copings and flashing.

Expertise

- Building Science & Construction Technology
- Air and Water Infiltration Investigations of Building Enclosures (Roofs, Walls, Windows, Curtain Walls)
- Hygrothermal Modeling to Evaluate Condensation, Moisture and Water Vapor Transport; Air Infiltration Investigations
- Mold Cause and Origin Investigations
- Masonry Cladding Investigations
- Traditional Stucco (Portland Cement Plaster) Investigations
- Exterior Insulation and Finish System (EIFS) investigations
- Glass Fiber Reinforced Concrete (GFRC) Cladding Investigations
- Roofing Investigations
- Attic Ventilation
- Building Insulation, including spray polyurethane foam (SPF), fiberglass, cellulose
- Pipe Freeze Incidents
- Interior Gypsum Board and Plaster (including Chinese Drywall), Suspended Ceiling Systems
- Interior and Exterior Cement Board Systems
- Interior Tile Cracking Investigations
- Window Performance Investigations
- Glass Curtain Wall Investigations
- Groundwater Management Systems
- Instrumentation, Testing and Evaluation of Construction Elements
- Design of Repairs, Development of Drawings and Specifications
- Construction Contract Administration
- Dispute Resolution Consulting and Expert Witness Testimony

Education

Year	College or University	Degree
1981-1983	Northwestern University	Post-Graduate Work, Structural Engineering (Non-Degree Course Work)
1979	University of Texas at Austin	M.S. Civil Engineering
1976	California Polytechnic State University	B.S. Transportation (Civil) Engineering (with honors)

Year	Continuing Education
1995	Exterior Insulation Finish Systems (EIFS): Materials, Properties, and Performance, Sponsored by ASTM Committee E06 on Performance of Buildings, Denver, CO.
1998	Water Problems in Building Exterior Walls: Evaluation, Prevention, and Repair and Repair, Sponsored by ASTM Committee E06 on Performance of Buildings, Atlanta, GA.
2000	Scaffold User Course, The Chicagoland Construction Safety Council.
2001	Performance of Exterior Building Walls, Sponsored by ASTM Committee E06 on Performance of Buildings, Phoenix, AZ.
2002	Building Facade Maintenance, Repair, and Inspection, Sponsored by ASTM Committee E06 on Performance of Buildings, Norfolk, VA.
2003	Suspended and Supported Scaffold Hazard Awareness Class, The Chicagoland Construction Safety Council.
2003	Water in Buildings, University of Illinois, Champaign-Urbana.
2005	WUFI Pro-ONRL 3.3 Moisture &Vapor Transmission Modeling Course, Building Technology Center, Oak Ridge National Laboratory.
2006	Contract Changes and Change Orders, Lorman Educational Services, Eau Claire, WI.
2007	Roofing Technology and Science I and II, RCI, Inc., San Francisco, CA.
2007	Suspended and Supported Scaffold Hazard Awareness Class, The Chicagoland Construction Safety Council.
2007	Buildings X Workshop and Conference sponsored by BETEC, ASHRAE and CIBSE and organized by Oak Ridge National Laboratory, Clearwater Beach, FL.
2007	Up Against the Wall: An Examination of Building Envelope Interface, Sponsored by ASTM Committee E06 on Performance of Buildings, Tampa, FL.
2008	ABAA Workshop, Air Barrier Association of America, Clearwater, FL.

2009 Water Entry prevention and Moisture Control in Buildings - Roofing Systems, Exterior walls and Foundations, Sponsored by The University of Wisconsin, Madison, WI.

2009 Design Professionals' Exposure for Design Errors and Omissions, Lorman Educational Services, Eau Claire, WI.

2010 25th International Conference on Building Enclosures, Sponsored by The Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI), Orlando, FL.

- Better Design and Building Practices for Reducing Water and Moisture Problems in Wood-Framed Commercial and Multifamily Buildings.
- Buildings That Leak Only on Sunny Days.
- Leaks, Drips and Damage: The Investigation and Repair of Building Envelope Problems at a Newly Built Community Center.
- The Modeled and Measured Performance of Thick Continuous Insulation Under Heavy Cladding Systems.

2010 The Three R's: Repairs, Renovations, and Retrofits, Sponsored by Building Science Corporation, Chicago, IL.

2011 RCI 26th International Convention, Sponsored by The Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI), Reno, NV.

- Mastering the Design Issues of Installing (Solar) Photovoltaics on Existing Roofs.
- Dynamic Water Vapor Permeance of Building Materials.
- The Correlation Between Wind Resistance and the Physical Properties of Fiberglass Shingles.

2011 Sustainability of Lightweight Insulating Concrete Roof Systems, Sponsored by the Chicago Area Chapter of RCI, Inc., Oak Brook, IL.

2011 Professional Roof Consulting, Sponsored by The Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI), Oak Brook, IL.

2012 RCI 27th International Convention, Sponsored by The Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI), Dallas, TX.

- Lessons Learned from Restoration of Architectural Terra Cotta.
- Repair Strategies for Metal Roofs.
- Field Monitoring the Wind Performance of Commercial Roofs.

2012 ABAA 1st National Conference, Sponsored by The Air Barrier Association of America (ABAA), Chicago, IL.

- Design Considerations for Air Barriers
- Incorporating Air Barriers into Specifications
- Masonry Veneer Anchors and Air Barriers
- Whole Building Air Tightness Testing
- Avoiding Pitfalls with Air Barriers
- High Performance Building Envelope Through Air Sealing
- Key Junctures and Interfaces for Air Barriers
- High Performance Building Envelope Through Air Sealing
- Characterization of Air Leakage in Residential Construction

2012 Building Science Experts' Session "Spray Polyurethane Foam (SPF) Insulation," Sponsored by Building Science Corporation (BSC), Somerville, MA. Session covered History of SPF; SPF Chemistry, Production, and Installation; Open-Cell and Closed Cell SPF; SPF Blowing Agents; SPF Codes and Standards; SPF Roofs: Problems and Solutions; and SPF Walls: Problems and Solutions.

2013 The Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI), March 2013, Orlando, FL.

- Do You Really Know When to Use a Vapor Retarder in a Roof System?
- Where Does the Heat Go?
- How to Survey a Slate Roof
- Roof Ventilation for Cathedrals: How Much is Sufficient?
- Condensation Risk of White Roofs in Cold-Climate Zones

2013 ASTM Symposium on Building Walls Subject to Water Intrusion and Accumulation: Lessons from the Past and Recommendations for the Future, April 14-15, 2013, Indianapolis, IN.

Professional Experience

Organization: **Building & Environmental Consultants, Inc. (BEC), a division of *ITC Experts, Inc.***

2008 - Present Title: Principal & Executive Vice President

Summary: Provide oversight and management of a group of consultants and collaborators that specialize in forensic investigation and engineering to solve problems for the construction industry. Areas of expertise cover building enclosure leakage investigations, mold cause and origin investigations, hygrothermal modeling, flooding evaluations, sub-surface drain-tile and foundation evaluations, and wind and hail damage assessment. BEC has expertise in most all building components including, low and steep sloped roofs; masonry; exterior insulation & finish systems (EIFS); exterior portland cement plaster (traditional stucco); glass fiber reinforced concrete (GFRC) facades; siding systems; windows; curtain walls; building structures; and HVAC (mechanical), electrical, and plumbing; among others.

Organization: **Packer Engineering, Inc., Naperville, IL**

Titles:

2003 - 2008	Vice President
2002 - 2003	Sr. Director, Construction Technology Group
1999 - 2002	Director, Construction Technology Group
1997 - 1999	Senior Consultant, Construction Technology Group

Summary: Provided oversight and management of Construction Technology Group, a group of consultants that specialized in forensic engineering and problem solving for construction industry. Areas of expertise covered building enclosure investigations, mold cause and origin investigations, roofing, masonry, EIFS, stucco, windows, curtain walls, and structures, among others.

Organization: **Raths, Raths & Johnson, Inc.**

1996 - 1997 Title: Consultant

Summary: Specialized in investigation and evaluation of non-performing construction systems including exterior building facades, roofing systems, wall systems, foundations, windows and building fenestration.

Organization: **USG Corporation, Research & Development Center**

Titles:

1990-1996 Exterior Systems Manager, Architectural Systems Laboratory
1989-1990 Program Manager, Construction Systems Laboratory

Summary: Managed Exterior Systems Development, Architectural Systems Laboratory for USG Corporation, one of the country's largest manufacturers of building construction products. Areas of responsibility included development and technical support of exterior insulation and finish systems (EIFS), direct-applied exterior finish systems (DEFS), one-coat exterior stucco finish systems, and fiber reinforced cement board systems.

Managed Construction Systems Laboratory for USG Corporation. Areas of responsibility included development and technical support of exterior wall systems, fiber reinforced cement board systems, interior drywall partition systems, drywall finishing systems, removable office partitions, acoustical ceilings, and raised access floors.

Organization: **Construction Technology Laboratories, Inc. (CTL), a subsidiary of the Portland Cement Association (PCA)**

Titles:

1986-1989 Senior Engineer
1982-1986 Engineer
1978-1982 Associate Engineer

Summary: Conducted laboratory research programs sponsored by the cement industry through Portland Cement Association. Work involved seismic evaluation of reinforced concrete beam-column connections and wall frames; testing and evaluation of glass fiber reinforced concrete (GFRC) curtain wall panels; testing and evaluation of exterior finish systems; evaluation and testing of masonry wall systems; evaluation of prestressed concrete pipes; testing and evaluation of pavement slabs; construction, testing and evaluation of MX-missile shelters for the US government, among others. Managed in-plant and on-site quality assurance program for the manufacture and installation of GFRC curtain walls on two of the world's largest GFRC-clad buildings; a 42-story and a 48-story Marriott Hotel.

Professional Affiliations, Achievements & Awards

Professional Affiliations:

- **Registrations/Certifications**
  - Licensed Professional Engineer in the States of Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Maryland, Michigan, Minnesota, Missouri, Nebraska, Texas, Virginia, and Wisconsin.
  - Registered Exterior Wall Consultant (REWC), The Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI)
  - National Council of Examiners for Engineering and Surveying (NCEES) Certification
- **International Code Council (ICC), Member**
- **American Society for Testing and Materials (ASTM)**
  - Member, Committee C09, Concrete and Mineral Aggregates
    - Member, Subcommittee C09.42, Fiber Reinforced Concrete
  - Member, Committee C11, Gypsum and Related Building Materials and Systems
    - Member, C11.03, Application of Gypsum and Other Products in Assemblies (Stucco)
    - Member, C11.05, Exterior Insulating and Finish Systems (EIFS) and Related Products
  - Member, Committee C12, Mortars for Unit Masonry
    - Member, Subcommittee C 12.03, Specifications for Mortars
  - Member, Committee C15, Manufactured Masonry Units
    - Member, Subcommittee C15.02, Brick and Structural Clay Tile
    - Member, Subcommittee C15.04, Research
    - Member, Subcommittee C15.05, Masonry Assemblies
  - Member and Past Assistant Secretary, Committee C 27, Precast Concrete
    - Member and Past Chairman, Subcommittee C 27.40, Glass Fiber Reinforced Concrete (GFRC)
  - Member, Committee E06, Building Construction
    - Member, Subcommittee E06.51, Performance of Windows, Doors, Skylights, and Curtain Walls
      - Member, Task Group E6.51.02, Water Resistance of Windows
    - Member, Subcommittee E06.55, Exterior Building Wall Systems
      - Member, Task Group E6.55.15, Water Penetration
    - Member, Subcommittee E06.58, Exterior Insulation & Finish Systems (EIFS)
      - Past Member, Task Group E06.58.01, Design Guide (discontinued)
      - Past Member (Past Vice-Chairman), Task Group E06.58.03, Structural Issues (discontinued)

    - Past Chairman, Task Group E06.58.04, Water Penetration (discontinued)
    - Past Member, Task Group E06.58.10, Detailing (discontinued)
- **The Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI)**
    - Member, Task Group for Development of the "Stucco and Exterior Finish Cladding Systems" Course
    - Member, Registered Exterior Wall Consultant (REWC) Committee
    - Member, Advocacy Committee
- **American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE), Member**
- **Building Enclosure Technology and Environment Council (BETEC), Member**
- **American Architectural Manufacturers Association (AAMA), Member**
- **National Fire Protection Association (NFPA), Member**
- **National Fire Sprinkler Association (NFSA), Member**
- **American Concrete Institute (ACI)**
  - Consulting Member, Committee 544, Fiber Reinforced Concrete and Past Chairman (1990 to 1996)
    - Past Chairman (1990 to 1996), Subcommittee 544 Ex, Executive Subcommittee on Fiber Reinforced Concrete
    - Past Chairman (1984-1990), Subcommittee 544 B, Glass Fiber Reinforced Concrete
    - Past Chairman (1992-1996), Subcommittee 544 E, State-of-the-Art Report on Fiber Reinforced Concrete
    - Member, Subcommittee 544-0C, FRC - Testing
    - Member, Subcommittee 544-0F, FRC - Durability
  - Member, Committee 549, Thin Reinforced Cementitious Products and Ferrocement
    - Member, Subcommittee 549-0A, Glass Fiber Reinforced Concrete - Spray Up
  - Past Member (1986 to 1989), Committee 366, Precast Concrete Pipes (discontinued)
  - Past Member (1986 to 1988), Raymond C. Reese Structural Research Award Committee
- **The Masonry Society (TMS)**
  - Member, Existing Masonry Committee
- **Precast/Prestressed Concrete Institute (PCI)**
  - Consulting Member, Committee on Glass Fiber Reinforced Concrete Facade Panels
- **International Fibrous Concrete Institute (IFCI), President and Board of Directors (1988 to 1993) (discontinued)**
- **American Society of Civil Engineers (ASCE), Member**

Achievements & Awards:

- **Tau Beta Pi, High Scholarship Recognition, California Polytechnic State University, 1975**
- **Most Outstanding Student of the Year, Awarded by the School of Engineering, California Polytechnic State University, 1976**
- **Chi Epsilon, National Honorary Civil Engineering Society, University of Texas at Austin, 1977**

Books, Publications, and Presentations

Publications:

Twenty-six publications related to evaluation, testing and design of structures and construction materials. These include fiber reinforced concrete, exterior cladding systems and materials, response of concrete structural walls and columns to earthquake loadings, time dependent deformations in long-span concrete bridges, and design of concrete pavements.

1. Primary Contributing Author of ASTM PS 72-99, Standard Test Method for Evaluating the Tensile-Adhesion Performance of an Exterior Insulation and Finish System (EIFS), American Society for Testing and Materials, W. Conshohocken, Pennsylvania.
2. Major Contributor and coordinating editor, ACI 544.1R-96, Committee Report on Fiber Reinforced Concrete, American Concrete Institute, Farmington Hills, Michigan, 1997, 82 pp.
3. Cheyrezy, M., Daniel, J. I., Krenchel, H., Mihashi, H., Pera, J., Rossi, P., and Xi, Y., "Specific Production and Manufacturing Issues," Proceedings of the Second International RILEM Workshop, High Performance Fiber Reinforced Cement Composites 2 (HPFRCC 2), Ann Arbor, Michigan, June 11-14, 1995, E&FN SPON, ISBN 0 419 21180 2.
4. Major contributor to ASTM C 948-94, Standard Test Method for Dry and Wet Bulk Density, Water Absorption, and Apparent Porosity of Thin Sections of Glass-Fiber Reinforced Concrete, American Society for Testing and Materials, W. Conshohocken, Pennsylvania.
5. Major contributor to ASTM C 947-89, Standard Test Method for Flexural Properties of Thin-Section Glass-Fiber-Reinforced Concrete (Using Simple Beam with Third-Point Loading), American Society for Testing and Materials, W. Conshohocken, Pennsylvania.
6. Daniel, J. I., Roller, J. J., and Weinmann, T. L., "Quality Control and Quality Assurance for Manufacture and Installation of GFRC Facades," Proceedings of the 7th Biennial Congress of the GRCA, Maastricht, Netherlands, September 25-28, 1989, 38 pp.
7. Hanson, N. W., Roller, J. J., Daniel, J. I., and Weinmann, T. L., "Manufacture and Installation of GFRC Facades," Proceedings of the International Symposium on Fiber Reinforced Concrete and Ferrocement Products, ACI Special Publication SP-124, Atlanta, Georgia, February 1989, 33 pp.
8. Vinson, K. D. and Daniel, J. I., "Advances in the Development of Specialty Cellulose Fibers Specifically Designed for the Reinforcement of Cement Matrices," Proceedings of the International Symposium on Fiber Reinforced Concrete and Ferrocement Products, ACI Special Publication SP-124, Atlanta, Georgia, February 1989, 22 pp.

9. Shah, S. P., Ludirdja, D., Daniel, J. I., and Mobasher, B., "Toughness - Durability of Glass Fiber Reinforced Concrete Systems," ACI Materials Journal, Vol. 85, No. 5, September/October 1988, pp. 352-360.
10. Schultz, D. M., Daniel, J. I., and Oesterle, R. G., "Design Considerations for GFRC Facade Panels Incorporating the Steel Stud / Flex-Anchor Connection," Proceedings of the 6th Biennial Congress of the GRCA, Edinburgh, Scotland, October 20-23, 1987, pp. 241-248.
11. Daniel, J. I., and Shah, S. P., "Thin Precast Fiber Reinforced Cement Panels," Materials and Member Behavior, Proceedings of the 1987 ASCE Structures Congress, Orlando, Florida, August 17-20, 1987, pp. 374-388.
12. Shah, S. P., Ludirdja, D., and Daniel, J. I., "Toughness of Glass Fiber Reinforced Concrete Panels Subjected to Accelerated Aging," PCI Journal, Vol. 32, No. 5, September-October 1987, pp. 82-99.
13. Daniel, J. I. and Anderson, E. D., "Acrylic Fiber Reinforced Cement Composites," Proceedings of the Third International Symposium on Development in Fibre Reinforced Cement and Concrete, Sheffield, England, July 13-17, 1986.
14. Daniel, J. I. and Schultz, D. M., "Long-Term Strength Durability of Glass Fiber Reinforced Concrete," Proceedings of the Third International Symposium on the Developments in Fibre Reinforced Concrete, Sheffield, England, July 13-17, 1986.
15. Daniel, J. I., Shiu, K. N., and Corley, W. G., "Openings in Earthquake-Resistant Structural Walls," ASCE Journal of Structural Engineering, Vol. 112, No. 7, July 1986, pp. 1660-1676.
16. Rabbat, B. G., Daniel, J. I., Weinmann, T. L., and Hanson, N. W., "Seismic Behavior of Lightweight and Normal Weight Concrete Columns," ACI Journal, No. 1, Proceedings Vol. 83, January-February 1986, pp. 69-79.
17. Daniel, J. I. and Schultz, D. M., "Durability of Glass Fiber Reinforced Concrete Systems," Proceedings of the Durability of Glass Fiber Reinforced Concrete Symposium, Chicago, Illinois, November 12-15, 1985, pp. 174-198.
18. Daniel, J. I., "Effect of Specimen Moisture Condition on the Measurement of the Flexural Proportional Elastic Limit for Thin-Section GFRC," Proceedings of the 5th Biennial Congress of the GRCA, Darmstadt, West Germany, October 16-18, 1985.
19. Daniel, J. I., "Effect of Specimen Moisture Condition on the Measurement of the Flexural Proportional Elastic Limit for Thin-Section GFRC," PCA Research and Development Serial No. 1779, Portland Cement Association, Skokie, Illinois, April 1985, 20 pp.
20. Shiu, K. N., Daniel, J. I., and Russell, H. G., "Time-Dependent Moment Redistribution in Concrete Post-Tensioned Box-Girder Bridges," Proceedings of the International Symposium on Nonlinearity and Continuity in Prestressed Concrete, Phase 2, Vol. 3, University of Waterloo, Waterloo, Ontario, Canada, July 1983, pp. 67-88.
21. Daniel, J. I. and Schultz, D. M., "Testing of Reduced-Scale Concrete MX-Shelters - Experimental Program," Physical Modeling Techniques for Missile and other Protective Structures, ASCE, New York, June 29, 1983. available through the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, NTIS Ascension No. ADA 130314, 1983.

22. Shiu, K. N., Daniel, J. I., and Russell, H. G., "Time-Dependent Behavior of Segmental Cantilever Concrete Bridges," Report to State of Illinois, Department of Transportation, Submitted by Construction technology Laboratories, a Division of the Portland Cement Association, Skokie, Illinois, March 1983, 101 pp. and Appendices. Also available through National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, NTIS Ascension No. PB 84-325845, 1982.

23. Shiu, K. N., Daniel, J. I., Aristizabal-Ochoa, J. D., Fiorato, A. E., and Corley, W. G., "Earthquake Resistant Structural Walls - Tests of Walls With and Without Openings," Report to National Science Foundation, Washington, D. C. Also available through National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, NTIS Ascension No. PB 82-131947, 1982.

24. Rabbat, B. G., Daniel, J. I., Weinmann, T. L., and Hanson, N. W., "Seismic Behavior of Lightweight Concrete Columns," Report to National Science Foundation, Washington, D. C. Submitted by Construction Technology Laboratories, a Division of the Portland Cement Association, Skokie, Illinois, September 1982, 260 pp. Also available through National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, NTIS Ascension No. PB 83-204891, 1982.

25. Daniel, J. I., and Burnside, B., "Design Information for Concrete Arch System," Concrete Construction, Vol. 27, No. 7, July 1982, pp. 581-585.

26. Daniel, J. I., Hudson, W. R., and McCullough, B. F., "A Study of CRCP Performance: New Construction vs. Overlay," Research Report 177-12, Center for Highway Research, The University of Texas at Austin, September 1977.

Symposium Volumes, Compilations and Books:

Two symposium volumes, two book compilations and one book on Fiber Reinforced Concrete.

1. Daniel, J. I., and Shah, S. P. (edit.), Fiber Reinforced Concrete - Developments and Innovations, Special Publication SP-142, American Concrete Institute, Farmington Hills, Michigan, 1994, 317 pp.

2. Daniel, J. I. (edit.), Steel Fiber Reinforced Concrete, Compilation 27, American Concrete Institute, Farmington Hills, Michigan, 1994, 84 pp.

3. Daniel, J. I. (edit.), Synthetic and Other Non-Metallic Fiber Reinforcement of Concrete, Compilation 28, American Concrete Institute, Farmington Hills, Michigan, 1994, 84 pp.

4. Daniel, J. I., Roller, J. J., Litvin, A., and Azizinamini, A, Fiber Reinforced Concrete, SP039.01T, Portland Cement Association, Skokie, Illinois, 1991, 48 pp.

5. Daniel, J. I., and Shah, S. P. (edit.), Thin-Section Fiber Reinforced Concrete and Ferrocement, Special Publication SP-124, American Concrete Institute, Farmington Hills, Michigan, 1990, 448 pp.

Presentations, Workshops, and Educational Courses by Special Invitation:

1. "Stucco and Exterior Finish Cladding Systems," Institute of Roofing, Waterproofing, & Building Envelope Professionals (RCI, Inc.), Two-day course presented in Orlando, Florida, September 13-14, 2012.

2. "Masonry," ABA Sticks & Bricks, American Bar Association, Chicago, Illinois, November 8, 2007.

3. "Damages - The Expert's Prospective," Illinois Institute of Continuing Legal Education, Chicago, Illinois, July 27, 2007.
4. "Working With Experts - An Expert's Prospective," Society of Illinois Construction Attorneys, Chicago, Illinois, December 12, 2006.
5. "EIFS," Westfield Group, Westfield, OH, November 7 and November 10, 2006.
6. "The Building Envelope," Lecturer, Northwestern University, Class: *CIV ENG 395-0* Engineering Forensics, Evanston, Illinois, May 4, 2006.
7. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Virginia, Arlington, Virginia, September 28, 2004.
8. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Kane County Bar Association, Geneva, Illinois, September 21, 2004.
9. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Advances In Environmental Mold Issues In Illinois, Oak Brook, Illinois, October 30, 2003.
10. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Indiana, South Bend, Indiana, October 9, 2003.
11. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Advances In Environmental Mold Issues In Virginia, Arlington, Virginia, September 25, 2003.
12. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In New York, Rochester, New York, September 5, 2003.
13. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Virginia, Arlington, Virginia, June 25, 2003.
14. "Mold Remediation," Presenter, The Federation of Defense and Corporate Counsel and National Association of Mutual Insurance Companies, Mold Summit, St. Louis, Missouri, May 15, 2003.
15. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Kentucky, Lexington, KY, April 29, 2003.
16. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Ohio, Columbus, Ohio, April 1, 2003.
17. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Illinois, Rockford, Illinois, December 3, 2002.
18. "Moisture Sources (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Indiana, South Bend, IN, October 31, 2002.

19. "Moisture Sources (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Maryland, Rockville, MD, October 30, 2002.
20. "Moisture Sources in Buildings (The Cause and Origin of Mold Growth)," Presenter, Frost Brown Todd Seminar, The Truth about Defending Mold Claims, Straight Talk and Practical Advise, Cincinnati, Ohio, October 9, 2002.
21. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In New York, Rochester, New York, September 20, 2002.
22. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Virginia, McLean, Virginia, September 10, 2002.
23. "Moisture Sources (The Cause and Origin of Mold Growth)," Presenter, PLRB National Mold Symposium II, San Antonio, Texas, May 6-7, 2002.
24. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Kentucky, Lexington, Kentucky, April 25, 2002.
25. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Ohio, Columbus, Ohio, April 5, 2002.
26. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Western Loss Association Mold Seminar, Elk Grove Village, IL, February 28, 2002.
27. "The Building Envelope and Moisture Transport (The Cause and Origin of Mold Growth)," Presenter, Lorman Education Services, Solving Water Intrusion and Mold Problems In Tennessee, Nashville, Tennessee, January 31, 2002.
28. ASTM Workshop on Residential EIFS, Expert Panelist, American Society for Testing and Materials, Seattle, Washington, April 18, 1999.
29. Issues Related to the Manufacture of High Performance Fiber Reinforced Cement Composites (HPFRCC), Session Moderator and Presenter, 2nd International Workshop on HPFRCC, University of Michigan, Ann Arbor, Michigan, June 11-14, 1995.
30. Thin Fiber Reinforced Cement Products, Presenter, Symposium for Fiber Reinforced Cement Based Materials, Center for Advanced Cement Based Materials (ACBM) Technology Transfer Day, Northwestern University, Evanston, Illinois, March 3, 1993.
31. Direct-Applied Finish Systems Over Fiber Reinforced Cement Boards for Exterior Walls, Presenter, Symposium on Experience and Application with Fiber Reinforced Concrete, International Fibrous Concrete Institute (IFCI), Miami, Florida, January 10-11, 1991.
32. Fracture Toughness of Fiber Reinforced Concrete, Expert Panelist, A Workshop to Critically Review Results from a CMRC / NRC Reported Inter-University Research Project, Phoenix, Arizona, January 4-5, 1990.
33. Durability of Glass Fiber Reinforced Concrete Symposium, Presenter, Precast/Prestressed Concrete Institute, Chicago, Illinois, November 12-15, 1985.

Litigation Support Experience

In addition to the hundreds of construction related projects that Mr. Daniel has managed over the past 33 years, the following expert witness testimony experience (deposition, trial, and arbitration experience) is provided since the year 2000. Mr. Daniel was involved in his first trial in the early 1980's and hundreds of dispute resolution matters since that time.

Expert Engagement:

Type of Matter: Exterior Insulation and Finish System (Barrier EIFS) Cladding
Law Firm: Butzel Long
Case Name: Michigan Wall Systems vs. Utica Hotel
Representing: Utica Hotel (Owner)
Testimony Provided: Deposition
Date: January 6, 2000
Disposition: Settled

Expert Engagement:

Type of Matter: Mold growth in attic
Law Firm: Cardelli, Hebert & Lanfear, P.C.
Case Name: Kathy & Alan Stenman vs. Silverman Building Companies, Inc. vs. Augerbuilt, Inc., et. al.
Representing: Augerbuilt, Inc. (Framing Subcontractor)
Testimony Provided: Deposition
Date: January 3, 2001
Disposition: Settled

Expert Engagement:

Type of Matter: Gypsum sheathing deterioration during construction
Law Firm: Long, Aldridge & Norman, L.L.P.
Case Name: Park Center III Limited Partnership, et al. v. The Pennsylvania Manufacturers' Association Insurance Co.
Representing: Park Center III Limited Partnership (Owner)
Testimony Provided: Deposition
Date: March 6, 2001
Disposition: Settled

Expert Engagement:

Type of Matter: Drainage EIFS Cladding
Law Firm: McManus, Schor, Asmar & Darden, L.L.P.
Case Name: Renaissance Customs, Inc. v. Herbert & Kozam
Representing: Renaissance Customs, Inc. (General Contractor)
Testimony Provided: Deposition and Trial
Date: Deposition Testimony - February 25, 2002
Trial Testimony - June 4, 2002
Disposition: Awarded in favor of client

Expert Engagement:

Type of Matter: Thin Brick Cladding
Law Firm: Patton Boggs, L.L.P.
Case Name: TMG-Southwest v. Real Brick Products, Inc., et. al.
Representing: Real Brick Products, Inc. (Thin Brick System Manufacturer)
Testimony Provided: Deposition
Date: August 29, 2002
Disposition: Settled

Expert Engagement:

Type of Matter: Barrier EIFS Cladding
Law Firm: Prossnitz; Birndorf & Birndorf;
Case Name: CP Partners v. Dryvit Systems, Inc
Representing: CP Partners (Hotel Owner)
Testimony Provided: Deposition
Date: February 10, 2003
Disposition: Settled

Expert Engagement:

Type of Matter: Direst Exterior Finish System (DEFS) Cladding and Window Leakage
Law Firm: McManus, Schor, Asmar & Darden, L.L.P.
Case Name: National Children's Center Leakage Investigation
Representing: National Children's Center (Building Owner)
Testimony Provided: Arbitration
Date: February 13, 2003
Disposition: Awarded in favor of client

Expert Engagement:

Type of Matter: Thin Brick Cladding
Law Firm: Sherman & Howard, L.L.C.
Case Name: Calcon Constructors, Inc. v. Real Brick Products, Inc.
Representing: Real Brick Products, Inc. (Thin Brick System Manufacturer)
Testimony Provided: Deposition (for Arbitration)
Date: March 18, 2003
Disposition: Settled

Expert Engagement:

Type of Matter: Window Leakage, Masonry and EIFS Cladding Defects
Law Firm: Hardig, Lee & Groves
Case Name: Neenan v. Tri-State Window
Representing: Tri-State Window (Window Fabricator/Distributor)
Testimony Provided: Deposition
Date: July 14, 2003
Disposition: Settled

Expert Engagement:

Type of Matter: Water Infiltration and Mold
Law Firm: Hume, Smith, Geddes, Green & Simmons, LLP
Case Name: Reber v. Servicemaster
Representing: Servicemaster (Mold Remediation Contractor)
Testimony Provided: Deposition
Date: October 16, 2003
Disposition: Settled

Expert Engagement:

Type of Matter: Vapor Migration, Condensation and Rotting of Structural Insulated Panel ("SIP") Roof Assemblies in Juneau, Alaska
Law Firm: Preg, O'Donnell & Gillett
Case Name: Bearden v. Mountainside, et. al.
Representing: Insulspan (SIP Technology Licensor)
Testimony Provided: Deposition
Date: January 14, 2004
Disposition: Settled

Expert Engagement:

Type of Matter: Window Leakage and Masonry Flashing
Law Firm: Cardelli, Hebert & Lanfear, P.C.
Case Name: National Church Residences v. Allied Interior and Construction Co.
Representing: Allied Interior and Construction Co.
Testimony Provided: Deposition
Date: June 21, 2004
Disposition: Settled

Expert Engagement:

Type of Matter: Window Leakage
Law Firm: Greensfelder, Hemker & Gale, P.C.
Case Name: Great River Medical Center v. NBBJ and Merit Construction, et. al.
Representing: Great River Medical Center (Hospital Owner)
Testimony Provided: Deposition and Arbitration
Date: Deposition Testimony - June 25, 2004
Arbitration Testimony - May 1, 2005
Disposition: Award in favor of client

Expert Engagement:

Type of Matter: Mold in Cathedral Ceilings
Law Firm: Herbolsheimer, Lannon, Henson, Duncan and Reagan
Case Name: Jones v. A&W Insulation, et. al.
Representing: A&W Insulation (Insulation Subcontractor)
Testimony Provided: Deposition
Date: February 9, 2005
Disposition: Settled

Expert Engagement:

Type of Matter: Basement Flooding, Water Damage, and Mold
Law Firm: Brown & James
Case Name: Bayer v. Ehret Heating & Cooling Inc.
Representing: Ehret Heating & Cooling Inc. (Subcontractor)
Testimony Provided: Deposition Testimony & Arbitration Testimony
Date: Deposition Testimony - March 4, 2005
Arbitration Testimony - February 2, 2006
Disposition: Award in favor of client

Expert Engagement:

Type of Matter: Water Leakage in Building Envelope, Stucco, Slate Roofing, Internal Gutters
Law Firm: Broad and Cassel
Case Name: Palm Beach Trust v. Livingston Builders
Representing: Palm Beach Trust (Building Owner)
Testimony Provided: Deposition
Date: October 10-11, 2005
Disposition: Settled during Trial in favor of Client

Expert Engagement:

Type of Matter: Water Infiltration, Window Leakage, EIFS Cladding, Steep Roofs, Low-Sloped Roofs, Condensation, Mold Growth
Law Firm: Cantwell & Cantwell
Case Name: Waigand v. Dryvit, et.al.
Representing: Waigand (Building Owner)
Testimony Provided: Deposition
Date: February 13 and March 10, 2006
Disposition: Settled

Expert Engagement:

Type of Matter: Mold Cause and Origin in Attic
Law Firm: O'Hagan Smith & Amundsen
Case Name: Philips (Tenant) v. Shingala
Representing: Shingala (Unit Owner)
Testimony Provided: Deposition
Date: May 10, 2006
Disposition: Settled

Expert Engagement:

Type of Matter: Barrier EIFS Cladding
Law Firm: Greensfelder, Hemker & Gale, P.C.
Case Name: Poger v. Schaefer Construction
Representing: Schaefer Construction (General Contractor)
Testimony Provided: Deposition
Date: May 18, 2006
Disposition: Settled

Expert Engagement:

Type of Matter: Roof Leakage, Mold and Decay in Wall Construction
Law Firm: Leahy, Eisenberg & Fraenkel, Ltd.
Case Name: Lumbermen's Mutual Casualty Co. v Gloria Sykes
Representing: Lumbermen's Mutual Casualty Co. (First-Party Property Insurer)
Testimony Provided: Deposition
Date: May 24, 2006
Disposition: Settled

Expert Engagement:

Type of Matter: Window Leakage, Masonry Cladding, Water Infiltration
Law Firm: Kightlinger & Gray, LLP
Case Name: Alig v. Sheehan Construction
Representing: Sheehan Construction (General Contractor)
Testimony Provided: Deposition
Date: May 31, 2006
Disposition: Settled

Expert Engagement:

Type of Matter: Stucco Deficiencies, Water Penetration
Law Firm: Koeller, Nebeker, Carlson & Haluck, LLP
Case Name: Allen v. Del Webb Coventry Homes, Inc.
Representing: Dell Webb Coventry Homes, Inc.
Testimony Provided: Deposition
Date: January 23, 2007
Disposition: Settled

Expert Engagement:

Type of Matter: Stucco Deficiencies, Water Penetration
Law Firm: Koeller, Nebeker, Carlson & Haluck, LLP
Case Name: Allen v. Del Webb Coventry Homes, Inc.
Representing: Pulte Phoenix
Testimony Provided: Deposition
Date: March 20, 2007
Disposition: Settled

Expert Engagement:

Type of Matter: Water Leakage, Roofing
Law Firm: Huck Bouma, P.C.
Case Name: Wesley Square Condominium v. Wheaton West
Circuit Court of Cook County, Case No. 02 L 1171
Representing: Wesley Square Condominiums (Homeowner's Association)
Testimony Provided: Deposition
Date: September 12, 2007
Disposition: Settled

Expert Engagement:

Type of Matter: Glass Curtain Wall Leakage, Mold
Law Firms: Robinson & Cole, LLP and Baker, Donelson, Bearman, Caldwell & Berkowitz, PC
Case Name: Pyramid Hotel Opportunity Ventures v. Lexington Insurance, et. al.
24th Judicial District Court For The Parish of Jefferson, State Of Louisiana,
Case Number 635-788
Representing: Multi-Tiered Property Insurance Carriers
Testimony Provided: Deposition and Trial
Date: January 15, 2008 – Deposition Testimony
June 26, 2008 – Trial Testimony
Disposition: Court Ruling

Expert Engagement:

Type of Matter: Barrier EIFS Cladding
Law Firms: Meuleman Mollerup, LLP and Duane Morris, LLP
Case Name: Boise Lodging Investors, LLC v. Devcon Construction, Inc.
Representing: Boise Lodging Investors, LLC (Hampton Inn Hotel Owner)
Testimony Provided: Deposition and Arbitration
Date: March 6, 2008 – Deposition Testimony
April 4, 2008 – Arbitration Testimony
Disposition: Arbitration Panel Ruling

Expert Engagement:

Type of Matter: Vinyl Siding and Leakage Issues
Law Firms: Saunders, Condon & Kenney, P.C.
Case Name: Sunset Siding, Inc. v. Winston Village Association
Circuit Court of the Twelfth Judicial Circuit, Will County, Illinois
Case No.: 04 L 155
Representing: Sunset Siding, Inc.
Testimony Provided: Deposition
Date: March 25, 2009 & March 30, 2009 – Deposition Testimony
Disposition: Settled

Expert Engagement:

Type of Matter: Window Sash Fell Out of Frame and Injured Person
Law Firms: Kasdorf Lewis & Swietlik
Case Name: Marie Wagner v. Cincinnati Casualty Co., et al.
Rock County Circuit Court, State of Wisconsin
Case No. 07-CV-001381, Case Code No. 30107
Representing: Corporate Contractors (Window Installer)
Testimony Provided: Deposition
Date: February 24, 2010 – Deposition Testimony
Disposition: Ongoing

Expert Engagement:

Type of Matter: Duties and Responsibilities of General Contractor
Law Firms: Herbolsheimer, Lannon, Henson, Duncan and Reagan
Case Name: Hanson v. Welch Developers
Circuit Court of the 13th Judicial Circuit, Grundy County, State of Illinois
Case No. 06 L 40
Representing: John Hanson, Owner of Residential Home
Testimony Provided: Deposition
Date: July 22, 2010 – Deposition Testimony
Disposition: Settled

Expert Engagement:

Type of Matter: EIFS
Law Firms: Phelps Dunbar, LLP
Case Name: RPM Inc., et al. v. Chubb Custom Insurance, et al.
Court of Common Pleas Cuyahoga County, Ohio
Case No.: CV-05-578004
Representing: Great American Assurance Company
Testimony Provided: Deposition
Date: December 15, 2010
Disposition: Settled

Expert Engagement:

Type of Matter: Exterior Masonry Wall Leakage
Law Firms: Childress Duffy, LTD
Case Name: Michael McGrath v. Northern Heritage Builders and Rapciak Construction
Circuit Court of Cook County, State of Illinois
Case No.: 08 L 5548
Representing: Michael McGrath, Owner of Residential Home
Testimony Provided: Deposition, Trial
Date: September 24, 2010 – Deposition Testimony
February 15, 2011 – Trial Testimony
Disposition: Award in favor of client

Expert Engagement:

Type of Matter: Chinese Drywall
Law Firms: Ansa Assuncao, LLP and Akerman Senterfitt
Case Name: H. Bradley Staggs and Audrey L. Staggs v. Alvarez Homes, Inc.
Circuit Court of the Thirteenth Judicial Circuit in and for Hillsborough County, Florida
Case No.: 09026416
Representing: Alvarez Homes, Inc. (Builder)
Testimony Provided: Deposition
Date: November 9, 2011
Disposition: Settled

Expert Engagement:

Type of Matter: Fire Sprinkler Pipe Freeze and Rupture
Law Firm: Wilson, Grosenheider, Jacobs, Basinger & Loiacono, L.L.P.
Case Name: American Strategic Insurance Lloyd's Texas a/k/a ASI v. Sanders Custom Homes
192nd Judicial District Court, Dallas County, Texas
Case No.: DC-11-12795-K
Representing: Williams Consolidated, Ltd. d/b/a Williams Insulation (Thermal Insulation Installer)
Testimony Provided: Deposition
Date: December 11, 2012
Disposition: Settled

Expert Engagement:

Type of Matter: Attic Wall Pipe Freeze and Rupture
Law Firm: Balick & Balick, LLC
Case Name: Federal Insurance Company and Firemen's Insurance Company v. Miller and Smith Homes, et. al.
Superior Court of the State of Delaware for New Castle County
Case No.: 09C-02-042 JRJ
Representing: Miller & Smith Homes (General Contractor)
Testimony Provided: Deposition
Date: January 31, 2013
Disposition: Settled