



**MICHAEL P. LESTER, PE, CFEI**

**February 2025**



**Education**

North Carolina State University, Raleigh, NC – Bachelor of Science in Civil Engineering, May 1984.  
North Carolina State University, Raleigh, NC – Master of Civil Engineering, December 2007

**Personal Certification**

Registered Engineer-in-Training in North Carolina - 1984.  
Registered Professional Engineer in North Carolina - 1990.  
Registered Professional Engineer in South Carolina - 1997.  
Certified EIFS Installation Inspector (EDI) – 1996 (not current).  
Certified Moisture Analyst (EDI) – 1997 (not current).  
Certified Fire and Explosion Investigator (National Association of Fire Investigators) – 2008

**Professional Experience**

August 2008 to Present – Principal Engineer at Element Analytical, PLLC, Knightdale, NC. Technical duties include: Engineering consultation, investigation, and analysis regarding grading and drainage, blasting and vibration, structural failure and collapse, foundation failure, building materials, building roofing and cladding, fires and explosions, products/consumer goods, and construction/personal injury cases.

December 1994 to August 2008 – Engineer at Forensic Engineering, Inc., Raleigh/Charlotte, NC. Technical duties included: Engineering consultation, investigation, and analysis regarding grading and drainage, blasting and vibration, structural failure and collapse, foundation failure, building materials defects, building roofing and cladding, fires and explosions, traffic accident reconstruction, and personal injury cases.

August 1993 to December 1994 – Sole proprietor of GSD Consultants, Raleigh, NC. Technical duties included: Project administration and coordination, structural investigations and reports, design, detailing, construction document production, and construction administration and inspection. Projects included building structures and foundations, site grading, storm water drainage, erosion control, and pavements.

June 1991 to August 1993 – Project Manager, The LPA Group of NC, P.A., Raleigh, NC. Technical duties included: Project administration and coordination, planning, design, detailing, construction document production, and construction administration and inspection. Projects included airport layout, site grading, drainage, erosion control, pavements, navigational equipment, and airfield lighting and signage.

January 1989 to June 1991 – Project Engineer, The LPA Group of NC, P.A., Raleigh, NC. Technical duties same as above. Projects included maritime building facilities, piers, wharves, bulkheads,

hydrographic surveys, dredges, underwater inspection, grading, drainage, erosion control, pavements, and railroads.

January 1987 to December 1988 – Staff Engineer at Olsen Associates, Inc., Raleigh, NC. Technical duties included: Structural design, detailing, drafting, and technical specifications. Projects included water and wastewater treatment facilities and commercial, institutional, and industrial buildings.

June 1986 to December 1986 – Staff Engineer at David C. Fischetti, P.E., Consulting Engineer, P.A., Cary, NC. Technical duties included: Structural design, detailing, and drafting. Projects included residential, commercial, institutional, and industrial buildings.

**Other Courses & Training**

ASCE 59-11 Blast Protection of Buildings: Part 2, Blast-resistant Design of Systems and Components, December 2024, American Society of Civil Engineers Webinar

Building Enclosure Commissioning – What You Need to Know, December 2024, American Society of Civil Engineers Webinar

Diagnosis, Repair, and Restoration of Building Facades, December 2024, American Society of Civil Engineers Webinar

Forensic Engineering 9th Congress, November 2022, Denver, CO – American Society of Civil Engineers / Forensic Engineering Division.

Advanced Fire Investigation Training Program, September 2022, Indianapolis, IN – National Association of Fire Investigators

AC Theory, Circuits, Generators and Motors, December 2021, Tested, self-study course based upon US Department of Energy Fundamentals Handbook, Electrical Science Book 3 of 4 – PDH-Pro

HVAC Made Easy - Overview of Psychrometrics, Course No. M135, December 2021, Tested, self-study course – PDHOnline.org

Mechanically Stabilized Earth (MSE) Walls-Limit State Based Design Principles, May 2021, Live Webinar – American Society of Civil Engineers

Forensic Engineering 8<sup>th</sup> Congress, November 2018, Austin, TX – American Society of Civil Engineers / Forensic Engineering Division.

International Advanced Fire Investigation Training Program, July 2018, Charlotte, NC – National Association of Fire Investigators

Architectural Engineering Institute Conference 2017, April 2017, Oklahoma City, OK – Architectural Engineering Institute (ASCE).

Post-Disaster Safety Assessment Program – Evaluator Training, November 2015, Huntersville, NC, Structural Engineers Association of NC.



Forensic Engineering 7<sup>th</sup> Congress, November 2015, Miami, FL – American Society of Civil Engineers / Forensic Engineering Division.

Fire Investigator Scene Safety, April 2014, Webinar – International Association of Fire Investigators.

Building Enclosure Design and Moisture Performance, February 2014, Webinar – Woodworks Wood Products Council.

Seismic Rehabilitation of Building Structures and Design of Slabs on Ground: Based on the 2012 IBC, 2012 IEBC, ASCE 31 & 41, and ACI 360R-10, May 2013, Raleigh, NC – Structural Engineering and Education Solutions, LLC / National Council of Structural Engineers Associations Diamond Course Approval No. 120405F.

National Fire, Arson and Explosion Investigation Training Program, March 2013, Charlotte, NC – National Association of Fire Investigators / National Fire Protection Association.

2012 National Design Specification for Wood Construction, February 2013, Webinar – Woodworks Wood Products Council.

6<sup>th</sup> Forensic Engineering Congress, November 2012, San Francisco, CA – American Society of Civil Engineers / Technical Council on Forensic Engineering.

Post-Disaster Safety Assessment Program Training for Evaluators, May 2012, Webinar – California Emergency Management Agency

3<sup>rd</sup> Annual State Conference, September 2011, Wrightsville Beach, NC – Structural Engineers Association of NC

2011 Structures Congress, April 2011, Las Vegas, Nevada – Structural Engineering Institute / American Society of Civil Engineers.

Guide to Design of Out-of-Plane Wall Anchorage: Based on the 2006/2009 IBC and ASCE/SEI 7-05, December 2010, Raleigh, NC – Structural Engineering and Education Solutions, LLC / National Council of Structural Engineers Associations Course Approval No. 10405D.

5<sup>th</sup> Forensic Engineering Congress, November 2009, Washington, D.C. – American Society of Civil Engineers / Technical Council on Forensic Engineering.

National Fire, Arson & Explosion Investigation Training Program, March 2008, Denver, CO – National Association of Fire Investigators

2007 Structures Congress, May 2007, Long Beach, California – Structural Engineering Institute / American Society of Civil Engineers.

ATC-20 Post Earthquake Safety Evaluation of Buildings Training Workshop, May 2007, Long Beach, California – American Society of Civil Engineers / California Office of Emergency Services.



**MICHAEL P. LESTER, PE, CFEI**  
**PAGE 4 OF 5**

4<sup>th</sup> Forensic Engineering Congress, October 2006, Cleveland, Ohio – American Society of Civil Engineers / Technical Council on Forensic Engineering.

Forensic Engineering Seminar, July 2006, Boston, Massachusetts – National Academy of Forensic Engineers.

32<sup>nd</sup> Annual Conference on Explosives & Blasting Technique, January 2006, Dallas, Texas – International Society of Explosives Engineers.

2005 Structures Congress, April 2005, New York, New York – Structural Engineering Institute / American Society of Civil Engineers.

3<sup>rd</sup> Forensic Engineering Congress, October 2003, San Diego, California – American Society of Civil Engineers / Technical Council on Forensic Engineering.

Managing Blasting Risk and Explosives Security, June 2002, Englewood, NJ – American Society of Civil Engineers.

Civil Engineering Conference & Exposition, October 2000, Seattle, WA – American Society of Civil Engineers.

2<sup>nd</sup> Forensic Engineering Congress, May 2000, San Juan, Puerto Rico – American Society of Civil Engineers / Technical Council on Forensic Engineering.

Basic Arson Investigation, June 1999, Asheville, NC – North Carolina Chapter International Association of Arson Investigators.

Traffic Accident Reconstruction 1, October 1997, Evanston, IL – Northwestern University Traffic Institute.

Certification Training Program, Exterior Insulation and Finish System Moisture Analysis, February 1997, Virginia Beach, VA – Exterior Design Institute.

Certification Training Program, Exterior Insulation and Finish System Installation Inspection, June 1996, Hilton Head, SC – Exterior Design Institute.

Wood Design and Construction Seminar, November 1995, Charlotte, NC – APA-The Engineered Wood Society.

The New North Carolina Wind Design Code, November 1994, Raleigh, NC – NCSU Industrial Extension Service.

Elements of Urban Stormwater Design, August 1989, Raleigh, NC – NCSU Industrial Extension Service.

Bridge Evaluation, Rehabilitation and Underwater Inspection, September 1987, Baltimore, MD – American Society of Civil Engineers.



**Publications, Seminars and Presentations**

“Forensic Engineering Investigations: Trends, Topics and Case Studies from the Carolinas” – Continuing Education Seminar Presented to Architects and Professional Engineers at NCSU McKimmon Center, December 2006.

*Failure of a Church Fresco: The Engineering of Art v. The Art of Engineering.* Proceedings of the 5<sup>th</sup> Forensic Engineering Congress, ASCE Press, November 2009. (Paper also presented at the Congress in Washington, D.C.)

*Study of Residential Damages in Coastal North Carolina from Hurricane Irene.* Proceedings of the 6<sup>th</sup> Congress on Forensic Engineering, ASCE Press, November 2012. (Paper also presented at the Congress in San Francisco, CA)

*Partial Failure of a Bulk Storage Facility: Construction Defect vs. Design Error.* Proceedings of the 7<sup>th</sup> Congress on Forensic Engineering, ASCE Press, November 2015. (Paper also presented at the Congress in Miami, FL)

“Anatomy of a Limited Investigation.” Session panelist at the 7<sup>th</sup> Congress on Forensic Engineering (ASCE / Forensic Engineering Division), Miami, FL, November 2015.

Co-editor, Proceedings of the 7<sup>th</sup> Congress on Forensic Engineering, ASCE Press, November 2015.

*A Tale of Two Sites: Settling for Less.* Proceedings of the Architectural Engineering Institute Conference 2017, ASCE/AEI, April 2017. (Paper also presented at the Conference Oklahoma City, OK).

*Case Studies in Engineering Liability from Flawed Design Decisions.* Proceedings of the Forensic Engineering 8<sup>th</sup> Congress, ASCE Press, November 2018. (Paper also presented at the Congress in Austin, TX).

Congress Chair, Forensic Engineering 8<sup>th</sup> Congress (ASCE, [www.forensiccongress.org](http://www.forensiccongress.org)), November 2018, Austin, TX.

Co-editor, Proceedings of the Forensic Engineering 8<sup>th</sup> Congress, ASCE Press, November 2018.

**Professional Associations**

American Society of Civil Engineers (ASCE)  
ASCE/Forensic Engineering Division – Executive Committee & Former Committee Chair  
National Society of Professional Engineers (NSPE)  
Professional Engineers of North Carolina (PENC)  
National Academy of Forensic Engineers (NAFE) – Senior Member  
National Association of Fire Investigators (NAFI)  
Construction Professionals Network (CPN) of NC – Board Member (2008-2010)  
American Institute of Steel Construction (AISC)

