Douglas M. Locker

PE

Senior Managing Consultant

Mr. Doug Locker is a Senior Managing Consultant for ESi. He is a registered Professional Engineer in Georgia, Tennessee, Florida, North Carolina, Alabama, and South Carolina. He obtained his first license in Georgia in 1986.

Mr. Locker's expertise includes both mechanical and civil engineering disciplines. His mechanical expertise includes product, system, and component analysis due to malfunctions caused by mechanical failure and/or improper design, manufacturing, construction, or maintenance. He has expertise in fire causation due to mechanical failure in structures and vehicles.

Mr. Locker's civil experience includes residential/light commercial construction, structural design and analysis with comprehensive expertise in construction defects, failure analysis, code compliance, and reparability assessments. He has conducted over 1,000 failure investigations and has testified by deposition and at trial in state and federal court.

Prior to entering the forensic consulting field, Mr. Locker spent 13 years as founder and president of a construction firm with an emphasis on design, renovation, and restoration of residential and light commercial structures. Mr. Locker began his professional career as an engineer with the IBM Corporation.

Education

BS, Mechanical Engineering. Georgia Institute of Technology. 1981

Licenses & Certifications

- State of Alabama P.E. License 33388
- State of Florida P.E. License 75112
- State of Georgia P.E. License 15940
- State of North Carolina P.E. License 037134
- State of South Carolina P.E. License 29353
- State of Tennessee P.E. License 111718

Contact Information

dmlocker@engsys.com

(470) 719-1238

ESi Atlanta

430 Technology Parkway NW
Peachtree Corners, GA 30092

Areas of Specialization

- Building Construction Defect Analysis
- Building Envelope Analysis
- Codes & Standards Compliance Analysis
- Fire & Explosion Investigations Due to Mechanical Failure
- Fire Damage Structural Assessment
- Fireplace Systems
- Fuel Gas Systems & Appliances
- HVAC Systems & Controls
- Plumbing Systems
- Storm Damage Assessments
- Structural Analysis
- Vehicle System Analysis
- Water Loss Causation Evaluation

- Georgia – Licensed Residential and Light Commercial Contractor, License RLQA001807 (Through 6/2026)
- National Council of Examiners for Engineering and Surveying (NCEES) Record 38914
- National Association of Fire Investigators Certified Fire and Explosion Investigator (CFEI) (Through 5/2026)
- National Association of Fire Investigators Certified Vehicle Fire Investigator (CVFI) (Through 5/2026)

Positions Held

Engineering Systems Inc., Atlanta, Georgia

- Senior Managing Consultant, 2017 – Present
- Senior Consultant, 2010–2016

Unified Investigations and Sciences, Inc., Atlanta, Georgia

- Forensic Engineering Consultant, 2007–2010

Artisans of Atlanta, Inc., Atlanta, Georgia

- Shareholder, 2007–2025
- President, 1993–2006

International Business Machines, Inc., Atlanta, Georgia

- Chief Information Officer, 1991–1993
- Systems Engineering Manager, 1987–1991
- Large Systems Software Specialist, 1985–1986
- Systems Engineer, 1981–1985

Scientific Atlanta, Atlanta, Georgia

- Mechanical Engineer, 1979–1981

Hartramp/Powell Consulting Engineers, Atlanta, Georgia

- HVAC Designer/Draftsman, 1978–1979

US Army Corp of Engineers, Annapolis, Maryland

- Test Engineer, 1977–1978

Continuing Education

- **Fluid Flow (M06-001)** – CED Engineering, 2025
- **Engineering Ethics for North Carolina Professional Engineers (NC1**-001) – CED Engineering, 2025
- **Cooling Tower Key Components and How to Improve Water Efficiency (M01**-018) – CED Engineering, 2025

- **Thermodynamics (M08-001)** – CED Engineering, 2025
- **Florida Building Code 8th Edition: Advanced Course** – PDH Academy, 2024
- **Strength Design for Reinforced Concrete Hydraulic Structures (S03-022**) – CED Engineering, 2024
- **Coastal Construction: Designing the Building Envelope (S04-018)** – CED Engineering, 2024
- **Wood As an Engineering Material: Moisture Relations and Physical Properties (S02-022)** – CED Engineering, 2024
- **Engineering Laws, Rules and Ethics for Florida Professional Engineers (FL2-006**) – CED Engineering, 2024
- **Job Hazard Analysis** – KPA, 2024
- **Portable Ladder Safety** – KPA, 2024
- **Respiratory Protection** – KPA, 2024
- **Roadside Safety Training** – KPA, 2024
- **Fall Protection Awareness** – KPA, 2024
- **Aerial Lift Operations Awareness** – KPA, 2024
- **Asbestos Hazard Awareness** – KPA, 2024
- **Chemical Safety Awareness** – KPA, 2024
- **Confined Space (Permit Required)** – KPA, 2024
- **Excavation & Trenching** – KPA, 2024
- **Engineering Ethics for North Carolina Professional Engineers (NC1-001)** – CED Engineering, 2023
- **Ethical Professional Obligations for Florida PEs** – PDH Academy, 2023
- **Laws and Rules Update for Florida PEs** – PDH Academy, 2023
- **Surface Fungi Sampling & Analysis Proficiency: Certification # MSF-2577-US** – Mycometer, 2022
- **Professional Standard of Care: Discussion of Common Law Definition of Engineering S of C** – ESi, 2022
- **International Existing Building Code: Overview & Application to CSE Discipline** – ESi, 2022
- **Floor Level Surveys** – ESi, 2022, 1 hour
- **Residential Electrical Systems** – International Association of Arson Investigators, Inc., 2021
- **Investigating Natural Gas Systems** – International Association of Arson Investigators, Inc., 2021
- **Electric and Hybrid Vehicle Fires** – International Association of Arson Investigators, Inc., 2021
- **Georgia POST NBA04G & Georgia FFSTC 1996-2102-01** – GFIA, 2021

- **2010 ADA Standards for Accessible Design: Part 1 & Part 2** – PDH Academy, 2020
- **Florida Building Code 7th Edition: Advanced Course** – PDH Academy, 2020
- **Laws and Rules for Florida PEs** – PDH Academy, 2020
- **Ethics for Florida PEs** – PDH Academy, 2020
- **"Strengthening Techniques – FRP Part I," "Strengthening Techniques – FRP Part II," and "Repurposing Existing Buildings"** – Structural Technologies, 2020
- **Engineering Investigations of Hurricane Damage: Wind Versus Water** – ASCE, 2019
- **Avoiding Failures of Retaining Walls** – ASCE, 2019
- **Introduction to Composite Strengthening Systems** – Simpson Strong-Tie, 2019
- **Simpson Strong-Tie Anchor Systems Overview** – Simpson Strong-Tie, 2019
- **Laws and Rules for Florida PEs** – PDH Academy, 2019
- **Florida Building Code 6th Edition: Advanced Course** – PDH Academy, 2019
- **Ethics for Florida PEs** – PDH Academy, 2019
- **Forensic Engineering 8th Congress** – ASCE, 2018
- **Designing for Flood Loads Using ASCE 7 and ASCE 24** – ASCE, 2018
- **NFPA 921 & NFPA 1033: Putting it Together** – NAFI, 2016
- **Florida Building Code, 5th Edition 2014: Highlights and Changes Advanced Course** – PDH Academy, 2016
- **Florida Laws & Rules** – PDH Academy, 2016
- **Florida Ethics** – PDH Academy, 2016
- **Florida Laws and Rules** – Biennium Cycle 2013–2015, 2015
- **Classical Methods of Structural Analysis** – AISC, 2014
- **"Significant Changes to the Wind Load Provisions of ASCE 7-10" & "Coordination with the 2012 IBC and 2012 IRC"** – ASCE, 2014
- **"Separating Wind and Water Damage," "Emerging Trends in Building Products" & "What is Damage**?" – Windstorm Conference, 2014
- **Structural Renovation of Buildings: Updated for 2012 IBC and IEBC** – ASCE, 2013
- **Life Safety Code Changes** – NFPA, 2013
- **Current Code Requirements for Interior Wall and Ceiling Finishes** – NFPA, 2013
- **Occupational Safety and Health Standards for Construction Industry** – GTRI, 2012
- **Advanced National Fire, Arson & Explosion Investigation Training Program** – NAFI, 2011

- **Investigation and Repair of Fire-Damaged Framing** – ASCE, 2011
- **Effective Investigation and Testimony** – CFI Trainer, 2010
- **Arc Mapping Basics** – CFI Trainer, 2010
- **5th Congress on Forensic Engineering** – ASCE, 2009
- **Commercial Roofs Damage Assessment** – Haag Engineering, 2009
- **Composition Wood and Metal Roof Damage Assessment** – Haag Engineering, 2009
- **Vehicle Fire, Arson & Explosion Investigation Science and Technology** Seminar – NAFI, 2009
- **Investigation of Appliance Fires** – Fire Findings, 2008
- **Structural Condition Assessment of Existing Structures** – ASCE, 2008
- **The Scientific Method for Fire and Explosion Investigation** – CFI Trainer, 2008
- **Investigating Motor Vehicle Fires** – CFI Trainer, 2008
- **Investigative Procedures** – Unified Investigations & Sciences, 2007
- **2006 International Residential Code Update** – NAHB, 2007
- **Slab on Grade Concrete Construction** – Auburn Engineering Extension, 2007
- **Designing with Wood** – Auburn Engineering Extension, 2006
- **Allowable Stress Design for Wood Construction** – Auburn Engineering Extension, 2006
- **Construction Surveying** – Auburn Engineering Extension, 2005
- **Establishing Your Engineering Practice** – Auburn Engineering Extension, 2004
- **Warranty Workshop** – NAHB, 2002

Professional Affiliations/Honors

American Society of Plumbing Engineers

- Member, 2015 – Present

International Code Council

- Member, 2010 – Present

National Association of Fire Investigators

- Member, 2008 – 2026t

American Society of Civil Engineers

- Member, 2007 – Present

American Society of Mechanical Engineers

- Member, 1981 – Present

Greater Atlanta Home Builders Association

- Member, 1995–2007

National Association of the Remodeling Industry

- Member, 1995–2007

Publications

“Premature Failure of Structural PT Wood at Agricultural Facilities.” N.R. Flores and **D.M. Locker,** Engineering Systems Inc., https://www.engsys.com/work/premature-failure-of-structural-pt-wood-at-agricultural-facilities/ . Nov. 2026.

Presentations

"From Initial Hypothesis to Vapor Drive: Two Georgia Case Studies in Diagnosing Wall-Cavity Moisture Behind Built-in Cabinetry," N.R. Flores and **D.M. Locker,** Proceedings of the 11th ASCE Forensics Congress, Lake Buena Vista, FL, 2026.

“Lightning Strikes; Meteorology, Science, Investigation and Damaging Effects,” **D. Locker**, GFIA Spring Conference, Atlanta, GA, March 16, 2022.

“Fire Investigator Advanced Training,” **D. Locker**, Liberty Mutual, Atlanta, GA, May 2017.

“20 lb. Propane Cylinder Connections,” **D. Locker**, GFIA, Atlanta, GA, March 2014.

“Gas Concentration Modeling Using Fire Dynamic Simulator (FDS),” **D. Locker**, GFIA, Atlanta, GA, March 2014.

“An Expert’s Role in Product Liability Cases,” **D. Locker**, NASP, Atlanta, GA, November 2013.

“Mechanical and Practical Aspects of Fireplace and Chimney Fires,” **D. Locker**, GFIA, Atlanta GA, August 2011.