

Gregory S. McLellan, P.E.

GENERAL INFORMATION:

THE PEPPER ENGINEERING GROUP, INC.

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Position: Principal, Vice President, Shareholder

Nature of Business: Structural and Forensic Engineering

PROFESSIONAL:

Licensed Professional Engineer (P.E.):

State of Florida PE #: 48290

Commonwealth of Puerto Rico PE #: 21586

State of Louisiana PE #: 34564

Licensed Threshold Building Inspector (Special Inspector – S.I.)

State of Florida SI #: 7010514

Certified in the Practice of Structural Engineering

By the Structural Engineering Certification Board (SECB)

Certification #: 1340-0705

Building Inspector, Florida Registration No. BN0003260 (Inactive)

Structural Masonry Inspector, Certificate No. SMI-1627 (Inactive)

Structures Specialist, Florida Task Force #1 (FL-TF1), Urban Search & Rescue Team (USAR), Miami - Dade Fire Rescue

Lieutenant, U.S. Coast Guard, Honorable Discharge from active duty, September 1996

EDUCATION:

Master of Science, Civil Engineering Department (Structural)

University of Illinois at Champaign-Urbana, December, 1990

Bachelor of Science in Civil Engineering

United States Coast Guard Academy, May, 1985

PUBLISHED WORK:

“Performance of Roof Systems during the 2004 and 2005 Hurricanes in South Florida”, G. McLellan, A. Puig, M. Cordovez, Published by the Institution of Civil Engineers (ICE - United Kingdom) at the Fourth International Conference on Forensic Engineering in London, England, December 2008.

“Structural Performance of Aluminum Frame Screen Enclosures during the 2004 and 2005 Hurricanes in South Florida”, G. McLellan, M. Cordovez, A. Puig Published by the Institution of Civil Engineers (ICE - United Kingdom) at the Fourth International Conference on Forensic Engineering in London, England, December 2008.

“Attenuation of Blasting Vibrations in South Florida, Part II”, G. McLellan, J. Pepper, M. Johnson, Published by the International Society of Explosive Engineers at their 27th Annual Convention, January, 2001.

“Attenuation of Blasting Vibrations in South Florida”, J. Pepper, M. Johnson, G. McLellan, Published by the International Society of Explosive Engineers at their 26th Annual Convention, February 2000.

URBAN SEARCH & RESCUE (USAR)

FLORIDA TASK FORCE 1 (FL-TF1) – STRUCTURAL ENGINEER:

- 2001 September - Deployed to the World Trade Center 9/11 disaster in New York City. Provided onsite engineering consultation to FL-TF1 leaders, FEMA and FDNY in regard to the structural integrity of the collapsed buildings and adjacent structures.
- 2004 August - Deployed to Punta Gorda Florida in the wake of Hurricane Charlie. Assisted FL-TF1 with search for victims in collapsed and badly damaged houses, mobile homes and other buildings.
- 2004 September - Activated by FEMA with FL-TF1 to respond to Hurricane Jeanne – no action required.
- 2005 July - Activated by FEMA with FL-TF1 to respond to Hurricane Dennis in the Florida panhandle – no action required.
- 2005 September - Deployed to New Orleans, LA by FEMA with FL-TF1 in response to Hurricane Katrina and the subsequent levy breaches. Assisted FL-TF1 with house to house (room to room) searches for victims and assessed the condition of temporary levy repairs prior to and just after the Hurricane Rita.

- 2005 October – Activated by FEMA with FL-TF1 in response to Hurricane Wilma in South Florida. Assisted local firefighters with structural surveys of high rise condominiums that were damaged by the hurricane.
- 2007 August – Deployed with FL-TF1 to Barbados to respond to a building collapse into a limestone cavern. Provided structural engineering for temporary support of partially collapsed building to mitigate risk for search and rescue / recovery personnel. Awarded Unit Citation and Thomas Quinn Exceptional Service Award by Miami-Dade Fire Rescue (MDFR).
- 2010 January – Deployed with FL-TF1 to Haiti as part of an international Urban Search and Rescue response to a 7.0 earthquake. Provided structural engineering for shoring of damaged building and building assessment to facilitate rescue of trapped victims. FI-TF1 was successful in rescuing 11 trapped victims. Also provided ATC-20 building assessments for multiple field hospitals and other structures.

FORENSIC (INVESTIGATIVE) WORK:

Over 2,400 investigative assignments completed, including:

- Structural Evaluation and Analysis including Finite Element Analysis (FEA)
- Hurricane & Wind Damage
- Flood Damage
- Roof Damage
- Sink Holes
- Structural Failures
- Collapse
- Fire Damage and Reconstruction
- Foundation Failures
- Ground Subsidence and Settlement
- Flooring Failures
- Industrial Storage Rack Failures
- Seawall / Pier Failures
- Underwater Investigations using SCUBA
- Concrete Deterioration (corrosion of reinforcing steel)
- Construction Vibrations
- Construction / Quarry Blasting
- Vehicle Collisions with Structures
- Slip and Fall Accident Investigations
- Railings / Safeguards Construction
- Termite Damage
- Insurance Appraisals
- Building Envelope – Water Intrusion
- Truss Inspections

- Mold Contamination
- Building Code Compliance
- Construction Defect Analysis
- Post Disaster Structural Assessment of Buildings and Other Structures

PROFESSIONAL AFFILIATIONS:

Broward County Board of Rules and Appeals (BORA):

- Structural and Fire Code Sub-Committees – 2006 to Present

Florida Structural Engineers Association (FSEA):

- Director 2008, 2009, 2010 (State Board)
- Past-President 2006, 2007
- President 2005 (South Florida Chapter)
- President-Elect 2004
- Secretary 2002-2003

Urban Search & Rescue (USAR)

- Florida Task Force 1 (FL-TF1) – Senior Structures Specialist – 2005 to Present
- FEMA Structures Sub-Group – 2008 to Present
- State of Florida Structures Specialists Work Group – 2008

American Society of Civil Engineers (ASCE)

- Technical Council on Forensic Engineering (TCFE) – 2006 to Present

National Society of Professional Engineers (NSPE)

Florida Engineering Society (FES)

National Academy of Forensic Engineers (NAFE)

MILITARY BACKGROUND:

Graduated from the United States Coast Guard Academy in 1985 with a Bachelors of Science degree in Civil Engineering and commissioned as Ensign, U.S. Coast Guard. From 1985 to 1987, served as a Deck Watch Officer aboard the Coast Guard Cutter Chase. Duties included, Deck Watch Officer, Anti-Submarine Warfare Officer, Gunnery Officer, Law Enforcement Boarding Officer and Weapons Officer (Department Head). Promoted to the rank of Lieutenant Junior Grade during this period.

From 1987 to 1989, served as Deck Watch Officer aboard the Coast Guard Cutter Campbell. Duties included Deck Watch Officer, Weapons Officer and Law Enforcement Boarding Officer. Held a Top Secret security clearance. While serving aboard the Campbell, selected for post graduate school in Civil Engineering.

From 1989 to 1991 attended the University of Illinois, Urbana-Champaign. Earned a Masters of Science degree from the Civil Engineering Department. Primary course of study was Structural Engineering. Promoted to the rank of Lieutenant during this period.

After graduating from the University of Illinois assigned to the U.S. Coast Guard Civil Engineering Unit in Miami, Florida. As a Design Engineer for the U.S. Coast Guard completed the engineering calculations, drawings, specifications and cost estimates for a wide variety of projects requiring knowledge of the many disciplines of Civil Engineering such as structural, geotechnical, coastal, transportation, environmental and construction management. A partial list of these projects include the construction a small office building, foundation designs for tall towers and offshore maritime aids to navigation, repair of seawalls, rebuilding of travel lifts, design of new piers and docks, design of hazard waste storage facility, design of boathouses and boat shelters, construction and re-paving of roadways, installation and renovation of tall steel towers and the replacement of many roofs on varying types of buildings and roof systems. Served as Tall Tower Engineer; responsible for the inspection, maintenance and repair of all Coast Guard communication towers and Loran-C towers in the southeastern U.S. and the Caribbean, including tall towers up to 700 feet in height.

Other Coast Guard engineering duties included leading damage assessment and repair teams to inspect and repair Coast Guard facilities after Hurricanes Andrew, Opal and Erin. This work included the inspection of industrial buildings, office buildings, residential housing and various waterfront structures such as piers, seawalls and boathouses.

MORE: Other work experiences include structural design / analysis, due diligence evaluations, parking garage and building restoration projects, marine structures design and analysis, and peer review of high rise building design.