



John J. Greenan, E.I.T.

Civil/ Structural Engineer

Mr. Greenan provides engineering services in support of the professional engineering and architecture staff while undergoing the PE licensing process. He is responsible for assisting with structural analysis of existing structures for use in structural condition assessments, renovations, and repairs as well as design of new structures and additions to existing structures. Additionally he assists with the production of drawings and specifications for structural repairs, renovations, and new design. Mr. Greenan also assists with the inspection and assessment of building envelopes and building envelope failures.

Education

- Master of Science in Civil Engineering, Clemson University, 2009
- Bachelor of Science in Civil Engineering, The Citadel, 2008

Registration

- Engineer-in-Training (EIT)

Principle Areas of Practice

- Structural Inspections and Assessment
- Structural Design
- Building Envelope Inspections and Assessment
- Computer Aided Finite Element Analysis of Structures and Structural Components

Professional Organizations

- American Society of Civil Engineers (ASCE)
- SC Structural Engineers Association (SCSEA)
- Civil Engineers Club of Charleston

Previous Experience

- Applied Building Sciences, Inc. May 2008 to Present

Related Experience

Graduate Research Assistant - *IRC Wind Provisions Evaluation for the State of South Carolina* submitted to the South Carolina Department of Labor, Licensing and Regulation, May 2009. Clemson University Department of Civil Engineering – August 2008 to May 2009.

Representative Projects

Structural Inspections and Assessment

- Investigation and assessment of a partially collapsed 48,000 square foot manufacturing facility in Marion, WV due to excessive snow loading. Tasked with determining causation, progression of collapse, and scope of repair.
- Inspection and assessment of forklift impact related damage to structural steel tube columns, low-rise commercial/industrial warehouse facility, Charleston, SC.
- Inspection and assessment of existing steel joists and steel joist-girders, low-rise commercial/industrial warehouse facility, Charleston, SC.
- Investigation and analysis of existing above ground, cast-in-place reinforced concrete wastewater treatment plant in Richland, SC.
- Assisted in the structural analysis and repair phase services of historic Bethel United Methodist Church, Charleston, SC.
- Investigation of construction vibration damage claims of historic church adjacent to new construction in downtown Charleston, SC.
- Investigation and assessment of low-rise commercial office building, light gauge steel roof collapse due to ponding water, Shreveport, La.
- Fire damage assessment of low-rise pre-engineered steel framed commercial office building in Marion, SC.
- Fire damage assessment of wood-framed residence on Daniel Island, SC.

- Settlement analysis and repair design of several residences in Charleston, SC area.
- Investigation and analysis of alleged structural and construction issues of modular home in Folly Beach, SC.
- Investigation and analysis of alleged structural and construction issues of home on Sullivan's Island, SC.
- Investigation of damage to several residential and commercial wood framed structures caused by moisture and/or insects/termites.
- Assisted in the investigation of fire retardant treated (FRT) wood roof trusses, middle school, Charleston, SC.

Structural Design

- Design of concrete strengthening using stainless steel external reinforcement for Richland County Wastewater treatment plant SBR and Digester tanks.
- Design of structural repairs to wood framing damaged by moisture, termites, and fire to several residential and townhome/apartment buildings.
- New construction, wood-framed apartment building, Lakecrest Apartments, Greenville, SC.
- Design of several residential structural renovations in Charleston, SC.
- Design of helical pile supports for new and existing foundations for several commercial and residential structures.
- Design of rip-rap revetment and sheet-pile retaining wall on Wappoo Creek (Intercoastal Waterway) Charleston, SC.

Building Envelope Investigation and Design

- Wind damage assessment of 3 low-rise condominium complexes in the Miami, FL area.
- Water intrusion investigations at numerous residences, townhomes, and condominiums in the Charleston, SC area.
- Conventional stucco investigation and repair designs for several residences and townhomes in the Charleston, SC area.

- Brick veneer investigations and repair designs for several residences and townhomes in the Charleston, SC area.

Computer Aided Finite Element Analysis of Structures and Structural Components.

- Modeling and analysis of metal plate connected wood trusses.
- Hydrostatic wastewater load analysis on reinforced concrete tanks.
- Modeling and analysis of welded structural steel gusset plates for attachment to reinforced concrete walls.

Continuing Education Courses/Seminars

- American Institute of Steel Construction (AISC), Webinar, *Design for stability using the 2005 AISC Specification*, September 18, 2009.
- Structural Engineers Association of South Carolina (SEA of SC) 5th Annual Conference, July 22, 2010.
- American Society of Civil Engineers (ASCE) Webinar, *Deciphering Building Code Provisions for Structural Renovation*, May 21, 2010.
- Applied Technology Council (ATC) workshop, *ATC-20: Post Earthquake Safety Evaluation of Buildings*, February 1, 2011.
- Federal Emergency Management Agency (FEMA) workshop, *FEMA-154: Rapid Visual Screening of Buildings for Potential Seismic Hazards*, February 1, 2011.