



Jason D. Gregorie, EIT

Associate Engineer

Education

- Master of Science in Civil Engineering, Clemson University, 2006
- Bachelor of Science in Civil Engineering, Clemson University, 2004

Principal Areas of Practice

- Construction Materials
- Asphalt and Portland Cement Concrete Pavements
- Building Cladding Assessment
- Structural Assessment/Design
- Wood Structures

Registration

- Engineer-In-Training (EIT), SC

Mr. Gregorie provides civil and structural engineering services in support of the Professional Engineer while undergoing the licensing process.

His work often involves pavements, roadways, site drainage, Portland cement concrete and asphalt mixtures, wood structures, and various failed structures and building components. He has also worked with design professionals beyond the civil discipline, such as architects and mechanical engineers, for condition assessments and building envelope evaluations. He also evaluates various construction materials.

While a graduate student, he was granted a research assistantship to conduct pavement and materials research at Asphalt Rubber Technology Service (ARTS) at Clemson University. Through ARTS, Mr. Gregorie conducted research and assisted in teaching numerous transportation certification courses to contractors, engineers, technicians, and DOT personnel. His research focused on the Superpave method of asphalt mix design, rheology of asphalt cement, and the use of various recycled materials in asphaltic concrete.

Experience

- Applied Building Sciences, Inc. – April 2006 to Present.
- Asphalt Rubber Technology Service, Clemson University – May 2004 to May 2006.
- George A.Z. Johnson, Jr., Inc. Land Surveyors – 2003/2004

Professional Organizations

- Transportation Research Board (TRB)
- American Society of Civil Engineers (ASCE)
- Institute of Transportation Engineers (ITE)
- The Civil Engineers Club of Charleston

Technical Committees

- *Young Member*, Low Volume Roads Committee (AFB30), TRB

Undergraduate and Graduate Research at ARTS

- Superpave Asphalt Mix Design
- Pavement Life-Cycle Cost Analysis
- Fiber Reinforced Asphalt Concrete
- Rubber Modified Asphalt Concrete
- Aggregate Testing/Sampling from SC Quarries

Continuing Education / Conferences

- Transportation Research Board Annual Meeting, 2008, Washington, DC
- International Conference on Low-Volume Roads, 2007, Austin, TX
- Transportation Research Board Annual Meeting, 2007, Washington, DC
- ADS Stormwater Seminar, 2007, Charleston, SC
- Renovation of Masonry Façade, ASCE Web Seminar, 2007, Charleston, SC
- Portland Cement Association / Georgia DOT Cement-Based Pavement Applications, 2006, Savannah, GA



- AASHTO/TRB Subcommittee on Pavement Maintenance Conference, 2006, Charleston, SC
- Residential Masonry Framing and Wind-Borne Debris Protection for Glazed Opening Seminar, 2006, Charleston, SC
- STAAD Structural Software Seminar, 2006, Charlotte, NC
- Transportation Research Board Annual Meeting, 2006, Washington, DC
- Transportation Research Board Annual Meeting, 2005, Washington, DC

Representative Projects – Civil & Materials

- Design and laboratory analysis of Superpave and Marshall asphalt concrete mixes involving numerous mixes and alternative materials, including SCDOT verifications and testing for moisture susceptibility, density, binder content, gradation, rutting, tensile strength, and other parameters.
- Asphalt binder laboratory testing of virgin, polymerized, and crumb-rubber modified binders, including Rotational Viscosity, Bending Beam Rheometer (BBR), and Dynamic Shear Rheometer (DSR) tests.
- ASTM and AASHTO testing/evaluation of aggregates from numerous quarries throughout South Carolina.
- Berwick Subdivision, Savannah, GA: Pavement distress investigation and subdivision drainage evaluation
- Dart Container Warehouse, Atlanta, GA: Mix design analysis and evaluation of cracks in composite concrete slab
- City of Dillon Wastewater Improvements, Dillon, SC: Buried pipe failure analysis
- Roadway Accident Reconstruction, Beaufort, SC: Design and construction of re-created roadway for litigation
- Wilco-Hess, St. Mathews, SC: Parking lot geometric analysis for litigation
- Doodle Hill Subdivision, Conway, SC: FEMA no-rise study using HEC-RAS

- The Hartford Company, Bluffton, SC: Distress survey of four shotcrete pools
- Winthrop Realty Apartments, Wilmington, NC: Subdivision drainage evaluation
- Colleton River Plantation, Hilton Head Island, SC: Investigation of pipe failure
- Cedar Grove Apartments, North Charleston, SC: Investigation of buried pipe collapse

Representative Projects - Structural

- Dart Container Warehouse, Atlanta, GA: Retaining wall failure analysis
- Leggett & Platt Warehouse, N. Charleston, SC: Roof and masonry wall collapse investigation and structural design of repairs
- Hard Rock Café and Casino, Biloxi, MS: Damage assessment and Wind vs. Flood analysis after Hurricane Katrina
- B&D and Bayliss Boatworks, Dare County, NC: Wind damage evaluation of large bay doors after Hurricane Isabel
- Structural condition assessment of residential properties constructed pre-1880, two properties, Charleston, SC
- Metalworx, Summerville, SC: Evaluation of industrial concrete slab on-grade
- Damage assessment after Hurricane Katrina, Wind vs. Flood, more than ten buildings, New Orleans, LA
- Redeemer Presbyterian Church (formerly St. Andrews Lutheran), Charleston, SC: Circa 1840, Structural condition assessment
- Zion United Methodist Church, Huger, SC: Structural analysis and design of repairs after tornado damage
- Bethel United Methodist Church, Charleston, SC: Circa 1850, Heavy timber truss condition assessment and shoring design
- Sportsman Island Marina, Daniel Island, SC: Heavy timber truss design for 70 + ft span trusses
- Cobblestone Park Amenities Center, Columbia, SC: Heavy timber truss design for 69 + ft span trusses



- Ft. Stewart Air force Base Access Control Building, Ft. Stewart, GA: Heavy timber truss design for 37 + ft span trusses
- Diakonia Dining Hall, SC: Heavy timber truss design for 21 ft span trusses
- Beach Club Terrace Houses, Sea Island, GA: Heavy timber framing and truss design
- Little Hawkins Club, GA: Heavy timber truss design for 20 ft span trusses
- State Farm Fire and Casualty Company, GA, NC, SC, Washington, DC: Evaluations of masonry wall and concrete slab on-grade issues, numerous residences
- Walker Avenue Apartments, Greenwood, SC: Fire damage structural assessment
- Residential framing and foundation evaluations, more than twenty properties, SC
- 129 Broad Street, Charleston, SC: Structural assessment of commercial building constructed pre-1890
- Factor's Walk, 8 Pringleau Street, Charleston, SC: Structural assessment of building constructed pre-1900

Representative Projects – Building Envelope

- Pulte/Del Webb Sun City, Bluffton, SC: Stucco investigation and cladding survey, over 2,000 homes
- SC Wind & Hail Underwriting Association, Coastal SC: Cladding survey, over 70 high- and mid-rise buildings
- Window evaluation and analysis including testing per ASTM E1105, numerous buildings, FL, GA, SC
- Evaluation of synthetic and cementitious stucco cladding on residential single-family properties, numerous properties, SC
- Riverwood Apartments, Myrtle Beach, SC: Brick veneer investigation