



FORENSIC ENGINEERING | CONSTRUCTION SCIENCE | WOOD DESIGN



UPDATED October 2024
YEARS 21+ WITH FIRM | 36+ IN INDUSTRY

EDUCATION

North Carolina State University | Raleigh, NC
Bachelor of Science, Civil Engineering, 1991
Law Engineering and Environmental Services
Basic Risk & Project Management, 1994,1995
Sto Institute: 2000 EIFS: Traditional & Drainage
Fireston: 2003 Building Products University

PREVIOUS EXPERIENCE

Forensic Engineer; Campbell, Schneider & Associates, LLC [1999-2003]

Principal Engineer & Department Manager, Titan Atlantic Group, Inc. [1997-1999]

Technician to Senior Engineer, Law Engineering & Environmental Services, Inc. [1988-1997]

REGISTRATIONS

Professional Engineer: GA #PE027670 Professional Engineer: NC #022534 Professional Engineer: SC #20105 Professional Engineer: TN #108251

AWS American Welding Society: Certified Level II NDE Technician

NICET Institute: Certified as Level II Technician in Soils, Concrete and Asphalt

PROFESSIONAL ORGANIZATIONS

American Council of Engineering Companies (ACEC)
American Society for Testing and Materials (ASTM)
Carolinas Roofing and Sheet Metal Contractors Association (CRSMCA)
National Society of Professional Engineers (NSPE)
NC Structural Engineer's Association (SEA)
Window & Door Manufacturer's Association (WDMA)

PRINCIPAL AREAS OF PRACTICE

- Building Enclosures (Roofs, Cladding, Fenestration)
- Structural Investigations
- Deficient Construction Investigations
- Catastrophe Assessments (Hurricane, Water/Decay, Snow, Fire, Tornado, Flood, Hail, Wood-Destroying Insects, Etc.)
- Facility Condition Assessments
- Environmental, Geotechnical and Construction Material Assessments and Testing

Martin has over thirty-six (36) years of experience in the consulting engineering field, including three (3) years as an engineering technician. As a technician, he gained experience in laboratory and field quality control testing of asphalt, soils, concrete and metal construction materials.

After graduating, Martin provided engineering support for investigations of construction-related problems, including comprehensive laboratory, field testing, and engineering analysis. This work was performed on buildings, bridges, and silos. Later, he managed several large design/repair projects, where he was initially responsible for diagnosing problems and designing repairs, and eventually coordinating the construction activities, including project administration and construction monitoring. Martin then served as the construction services/ geotechnical engineering manager for an engineering consulting firm, providing subsurface explorations, foundation and pavement design services, and monitoring and testing of various structural system surveys for residential and commercial facilities. In this capacity, his engineering experience has included evaluation of system failures, primarily related to deficient construction and catastrophes. Martin's role in many of these projects has been as a non-advocate expert to provide engineering support for cases in litigation.

DEFICIENT CONSTRUCTION

- Investigation of building enclosure and structural issues of residential structures | multiple locations in SC and NC
- Investigation of building enclosure issues of residential structures | multiple locations in SC
- Investigation and assessment of building enclosure and structural issues of residential structures | SC
- Investigation of building enclosure and wood truss roof system of residential structures | multiple locations in SC
- Investigation and assessment of building envelope and structural issues of residential structure | SC
- Investigation and assessment of structures issues of residential structures | GA
- · Investigation of structural issues for residential structures | SC
- Investigation and assessment of exterior cladding of residential structure | SC

STRUCTURAL ANALYSIS

- Investigation and assessment of residential above-ground pool caused by wind event | GA
- Investigation and assessment of residential masonry chimney | multiple locations in GA
- Investigation and assessment of retaining wall collapse | multiple locations in SC
- Investigation of wood truss roof system | SC
- Investigation and assessment of residential siding attachment | NC
- Investigation and assessment of aluminum framed enclosure of single family residence | SC
- Assessment of multi-family condominium handrail attachment | SC
- Investigation and assessment of autoclaved aerated concrete block foundation and exterior walls of single family residence | NC
- Investigation and assessment of residential structural framing issues | NC
- Investigation and assessment of building enclosure and structural issues for residential structures | multiple locations in SC
- Investigation and assessment of pre-engineered metal building including standing seam metal roof, steel bar joint, steel girders and steel columns | SC
- Investigation and assessment of structural wood pile foundation of residential structures | SC
- Design of wood framed gazebo | SC
- Investigation and assessment of light-gauge metal exterior framing of condominium high-rise and mid-rise residential structures | multiple locations in SC
- Design of light-gauge metal framed marina dock, LA

COLLAPSE and DAMAGE INVESTIGATION

- Investigation of structural damage to residence caused by tree impact | multiple locations in SC
- Investigation of structural damage to residence caused by earthquake | SC
- Investigation of structural damage to residence caused by vehicle impact | TN
- Investigation of structural damage to residence caused by wind event | TN
- Investigation of damage to boat dock caused by wind event | GA
- Investigation of residential roof system caused by wind and hail event | GA
- Investigation of wood truss roof system deteriorated due to Fire Retardant Treatment (FRT) | SC
- Investigation and assessment of residential modular roof system failure | SC
- Investigation of collapse of a large-scale commercial SPF roof structure | SC
- Investigation of in-ground swimming pool surface cracking at residence | SC
- Investigation of low-slope rubber paver issues at commercial roof | SC
- Investigation of structural steel television tower collapse | SC
- Investigation of damage to residences caused by vibration events | SC
- Investigation of damage to residences caused by blasting events | SC
- Investigation of reinforced concrete slab-on- grade airplane taxi area | SC
- Investigation of light-gauge metal roofing truss collapse | SC
- Investigation of structure damage caused by termites at residence | SC
- Investigation of low-slope roof collapse of commercial building | SC
- Investigation of damage to boat docks caused by wind and/or wave events | multiple locations, SC
- Investigation of residential structure damaged by fire | SC
- Investigation of hotel structure damaged by fire | SC

PRESENTATIONS and PUBLICATIONS

- Peer Reviewer: Wylie, J.: Investigation of Constructed Facilities – Sampling Methodologies, American Society of Civil Engineers (ASCE) - Committee on Forensic Investigations – Forensic Engineering Division, American Society of Civil Engineers, Reston, VA (2021)
- Author: Wylie, J.: "Tornadoes vs. the Building Enclosure

 A Case Study" IIBEC Interface: September 2021 | Vol. XXX-IX No. 9
- Author: Wylie, J.: "What (Not) To Expect When You Are Expecting New Fenestrations - A Case Study" IIBEC Interface: April 2021 | Vol. XXXIX No. 4

PRESENTATIONS and PUBLICATIONS CONTINUED

- Author: Wylie, J.: "U.S. Building Enclosure Resource Guide", IIBEC Interface: September 2020 | Vol. XXXIX No. 4
- Author: Wylie, J.: "Anatomy of Construction Litigation An IIBEC Interface Collection", by Derek Hodgin, RBEC, RRO, PE, CDT, and John Wylie, REWC, RRO, PE, IIBEC Interface: January 2021.
- Author: Wylie, J.: "Anatomy of Construction Litigation, Part 1 - Identification of Defects", IIBEC Interface: August 2019 | Vol. XXXVIII No. 9
- Author: Wylie, J.: "Evaluating The Adequacy of Siding Attachment", IIBEC Interface: July 2019 | Vol. XXXVII No. 7
- Presenter: Wylie, J.: "Why Window Why? Water Testing Problems and Solutions", IIBEC Charleston Meeting, Charleston, SC. April, 2019.
- Presenter: Wylie, J.: "Best Practices for Structural Engineering", CSE Seminar Dealing with the Challenges of Mid-Rise Wood Frame Construction", Clemson, SC. July 2017; Atlanta, GA. August 2017; Raleigh, NC. November 2017.
- Presenter: Wylie, J.: "Dealing with the Challenges of Mid-Rise Wood Frame Construction", Mid-Atlantic Chapter IIBEC (RCI) Seminar. Jessup. MD. October 2017.
- Presenter: Wylie, J.: "Lessons Learned During Sliding Glass Door Replacement and Concrete Balcony Repairs in a Hurricane Coastline", 31th IIBEC (RCI) International Convention and Trade Show, Orlando, FL, March 2016
- Presenter: Wylie, J.: "Tale of Two Stones", The 12th North American Masonry Conference. Denver, CO. May 2015.
 American Society of Civil Engineers (ASCE) Forensic Engineering 7th Congress Conference. Miami, FL. November 2015.
- Presenter: Wylie, J.: "A Building's First Line of Defense: The Exterior Cladding", CSE Load Path Seminar. Clemson, SC. November 2015.
- Presenter: Wylie, J.: "Case Study on Code Shortcomings Regarding Stone Veneer Requirements", 2015 WCA Spring Conference. Mount Pleasant, SC. March 2015.
- Presenter: Wylie, J.: "Siding Attachment: Facts + Fantasies", CSE Understanding Building Envelope Failures.
 Clemson, SC. June 2013. 28th IIBEC (RCI) International Convention and Trade Show. Anaheim, CA. March 2014.
- Author: Wylie, J.: "Experimental Testing of Unreinforced Masonry Walls Strengthened with Orthogonal Near-Surface Mounted CFRP Subject to Out-of-Plane Loading", a thesis submitted to the Graduate Faculty of North Carolina State University. 2009.