



## **John C. Wylie, M.S., P.E.**

Structural / Forensic Engineer

John C. Wylie has over eight (8) years of experience as an engineering consultant and engineering intern, primarily in the areas of deficient construction, structural analysis and collapse/damage investigations. Mr. Wylie is responsible for the inspection and structural analysis of a wide variety of building envelope and framing systems that include roof, wall and guardrail systems. Mr. Wylie's experience also includes the analysis of various types of building components used in high-wind environments. Additionally, Mr. Wylie is responsible for preparing written reports and assisting in litigation support that includes building code review, engineering research, review of engineering and architectural documents and deposition preparation. Mr. Wylie has provided deposition testimony during a litigation case, and has presented several technical papers at national and regional conferences.

### **Education**

- Master of Science in Civil Engineering: Structures and Mechanics, North Carolina State University (2009)
- Bachelor of Science in Applied Mathematics and Physics, Mansfield University of Pennsylvania (2005)

### **Registration/Certification**

- Registered Professional Engineer (P.E.): South Carolina

### **Professional Organizations**

- American Society of Civil Engineers (ASCE)
- National Society of Professional Engineers (NSPE)
- American Concrete Institute (ACI)
- American Wood Council (AWC)

### **Professional Organizations (Continued)**

- The Roof Consultants Institute (RCI)

### **Previous Experience**

- Construction Science and Engineering Inc. (January 2009 - Present)

### **Related Experience**

- Graduate Research Assistant, North Carolina State University (January 2007 - January 2009)
- Engineering Assistant, North Carolina Department of Transportation (May 2006 - August 2006)
- Transportation Construction Inspector: Level III, New York State Department of Transportation (May 2005 - August 2005)

## Principal Areas of Practice

- Deficient Construction
- Structural Analysis
- Collapse and Damage Investigation

## Deficient Construction

- Investigation of building envelope and structural issues of residential structures, multiple locations in SC and NC
- Investigation of building envelope issues of residential structures, multiple locations in SC
- Investigation and assessment of building envelope and structural issues of residential structures, SC
- Investigation of building envelope 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

## Structural Analysis (Continued)

- 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 envelope 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

## **Structural Analysis (Continued)**

- 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

## **Collapse and Damage Investigation (Continued)**

- 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

## **Presentations and Publications**

- "Lessons Learned During Sliding Glass Door Replacement and Concrete Balcony Repairs in a Hurricane Coastline", 31th RCI International Convention and Trade Show, Orlando, FL; March 2016
- "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
- "A Building's First Line of Defense: The Exterior Cladding", CSE Load Path Seminar, Clemson, SC; November 2015

## **Presentations and Publications (Continued)**

- “Case Study on Code Shortcomings Regarding Stone Veneer Requirements”, 2015 WCA Spring Conference, Mount Pleasant, SC; March 2015
- “Siding Attachment: Facts and Fantasies”, CSE Understanding Building Envelope Failures, Clemson, SC; June 2013 ; 28th RCI International Convention and Trade Show, Anaheim, CA; March 2014
- “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