



**TAMMY L. ST. CLAIR, M.S., P.E.**

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**EDUCATION:**

- 2000                    **Master of Science**, Civil Engineering (Magna Cum Laude)  
University of Tennessee  
Knoxville, Tennessee  
Emphases: Steel/Concrete Structures and Construction Management
- 1998                    **Bachelor of Science**, Civil Engineering (Cum Laude)  
West Virginia Institute of Technology  
Montgomery, West Virginia  
Honors: Tau Beta Pi  
Emphasis: Structures

**EXPERIENCE:**

- February 2018            **Aerial Perspective, LLC**  
to June 2021             **Hurricane, West Virginia**

*Owner.* Completed new firm organization and development, including state and federal licensing and registration, designing product deliverables, creating invoicing formats and tracking methods, and developing marketing program and supporting documents. Prepared and managed budget, including operating expense management and revenue generation. Selected equipment and data compilation software programs for office use. Developed job description text for job postings. Interviewed, hired, and trained employees.

*Chief Pilot.* Provided FAA certified remote piloting services for aerial photography and videography related to facility, property, and site documentation, inspection, and examination. Worked with clients to identify project needs and define expectations, schedules, and costs. Compiled raw project data to produce useable deliverables for clients.

April 2016  
to present

**St. Clair Engineering, LLC**  
**Hurricane, West Virginia**

*Owner.* Completed new firm organization and development, including multiple state licensing and registration, creating reporting and invoicing formats and tracking methods, developing marketing program and supporting documents, and establishing investigation and assessment procedures and protocols. Identified, developed, and maintained local market and clientele. Prepared and managed budgets, including operating expense management and revenue generation. Developed and implemented protocols for cataloging and maintaining file-related documents, archive, and evidence storage/custody.

*Engineer.* Completed evaluations related to the condition, construction, damage, and performance of residential, commercial, institutional and industrial structures and civil sites. Prepared and delivered verbal explanations and written technical reports identifying root cause, scope(s) of damage, and/or general repair protocols. Provided expert witnessing services, including written expert reports, written Federal Rule 26 reports and disclosures, review of opposing expert reports, deposition testimony, mediation and arbitration support and testimony, trial exhibit(s) preparation and visual support aids, legal strategizing and consultation, jury and opposing expert reviews, and trial and hearing testimony.

May 2009  
to March 2016

**Engineering Design & Testing Corp.**  
**Charleston, West Virginia**

*Consulting Engineer.* Completed analysis of residential, commercial, institutional, and industrial structures, including the evaluation of roofs, foundations, storm-related damage, blasting, construction vibrations, moisture intrusion, code compliance, post-fire structural assessment, and others. Analyses included photographic study, damage assessment, root cause, repair and/or replacement cost estimate(s), and competency/code compliance. Prepared written reports of findings with graphics, figures, and estimates. Provided expert witnessing services, including written expert reports, written Federal Rule 26 reports and disclosures, review of opposing expert reports, deposition testimony, mediation and arbitration support and testimony, trial exhibit(s) production and visual support aids, legal strategizing and consultation, jury and opposing expert reviews, and trial and hearing testimony.

*District Engineering Manager.* Identified, developed, and maintained clientele for multi-state district region. Hired and managed district administrative staff and engineers. Reviewed and edited technical reports for in-house engineers. Prepared and managed district budget, including operating expense management and revenue generation. Cataloged and maintained file-related evidence storage and custody. Developed training curriculum and trained/mentored new hires, including curriculum oversight, field training, professional development, report editing, market introduction, and file assignment.

February 2008  
to May 2009

**American Home Inspectors & Engineering Assessments, Inc.  
Hurricane, West Virginia**

*Civil/Structural Engineer.* Completed civil and structural engineering analysis and condition assessment for residential and commercial structures. Assisted with new firm development, including creating reporting and invoicing formats and tracking methods, developing marketing program and supporting documents, and establishing investigation and assessment procedures and protocols. Identified, developed, and maintained local market and clientele. Coordinated with other regional engineers to develop network of qualified associates for referrals.

July 2003  
to February 2008

**Engineering Design & Testing Corp.  
Columbia, South Carolina**

*Consulting Engineer.* Completed analysis of residential, commercial, institutional, and industrial structures, including the evaluation of roofs, foundations, storm-related damage, blasting, construction vibrations, moisture intrusion, code compliance, post-fire assessment, and others. Analyses included photographic study, damage assessment, root cause, repair and/or replacement cost estimate, and competency/code compliance. Prepared written reports of findings with graphics, figures, and estimates. Developed technical presentations and written articles for in-house training and publication. Served as new hire mentor, trainer, and technical report editor.

September 1999  
to June 2003

**Ferro Products Corp. and Icon Construction, Inc.  
Charleston, West Virginia**

*Structural Engineer.* Completed design, analysis, and evaluation for new conventional structural steel buildings and existing steel and concrete buildings, including commercial, institutional, and industrial facilities. Designs and analyses considered BOCA codes, Standard Building Code, and International Building Code and were completed using both Allowable Stress Design and Load Resistance Factored Design for structural steel roof and floor systems, steel and concrete composite floor systems, vertical support and lateral force resistance systems, member connections, trusses, stairs/landings, and mechanical platforms. Completed the design of shallow concrete foundations for columns and masonry walls, as well as the design of concrete masonry unit retaining walls. Reviewed, corrected, and updated existing proprietary engineering design programs. Coordinated with drafting team to prepare design, shop, and erection drawings for both large and small projects.

*Project Manager.* Completed estimates and prepared quotes for steel erection crews, including the development of new spreadsheet support and unit item rates. Assisted with schedule management and status review. Attended job meetings and site inspections. Coordinated with general contractors, materials suppliers, and field superintendent on job scheduling. Provided technical support and solutions for structural concerns related to design, fabrication, and site/existing condition inconsistencies. Developed with the field superintendent, general contractor, architect, owner, and engineer-of-record (construction team) efficient solutions to minimize construction costs (value-added engineering).

August 1998  
to August 1999

**Engineering Fundamentals Department, University of Tennessee  
Knoxville, Tennessee**

*Graduate Teaching Fellow.* Assisted in the development of freshman engineering curriculum for National Science Foundation pilot teaching program. Instructed freshman engineering courses, problem-solving sessions, and laboratory activities in Statics, Dynamics, Computer Graphics, Computer Programming, and Engineering Orientation. Served as graduate advisor and mentor to ten to twelve freshman engineering students per semester.

May 1994  
to July 1998

**United States Army Corps of Engineers  
Huntington, West Virginia**

*Student Trainee/Engineer GS-5.* Assisted in the development of and provided engineering services to the District Residential Flood-Proofing Program, including structural inspections and evaluations of existing residences, writing scopes of work and completing CAD drawings for individual flood-proofing protocols, and estimating materials quantities for each residence.

**PROFESSIONAL REGISTRATIONS:**

Registered Professional Engineer in West Virginia (#15444)

Registered Professional Engineer in Kentucky (#25128)

Lapsed or Inactive Professional Engineer Registrations: Pennsylvania, Maryland, New York, Tennessee, North Carolina, South Carolina, Florida, Alabama, Mississippi, Louisiana, California, Indiana, Ohio, Virginia

**CONTINUING EDUCATION (a selection of courses):**

- *Masonry Structures Design*
- *ADA Paths*
- *Characteristics of Commercially Important Wood*
- *Concrete Slabs-on-Grade*
- *Soil Mechanics, Bearing Capacity and Slope Stabilization for West Virginia*
- *Quality Project Management*
- *Drones for Engineers*
- *Repair Techniques for Metal Plated Wood Trusses: Part 1 and Part 2*
- *Fundamentals of Helical Anchors/Piles*
- *sUAS: Becoming an FAA Licensed Drone Pilot; Bridge Valley Community and Technical College*
- *Fiber Reinforced Asphalt*
- *Drones Yesterday, Today and Tomorrow*
- *A Primer Regarding Blast Loads on Structures*
- *The Construction Site and Conflict...The Standard of Care*
- *Shaking Things Up a Bit*
- *Metal Roofing: Composition and Damage Assessment*
- *Retaining Wall Design and Slope Stabilization Techniques*
- *Construction Defect Investigations*

- *Hydrology – A Look at Stormwater, Drainage, and Flooding*
- *Wood Decay vs. Termite Damage*
- *Tile Flooring Installation and Inspection*
- *High Wall Stability*
- *Segmented Retaining Wall Course*
- *Fundamentals of Ground Anchors and Anchored Structures*
- *Soils Basics for Engineers*
- *Concrete Petrography*
- *Post-Toasting – Post Fire Structural Surveys and Investigations*
- *Lean On Me – Temporary Construction Bracing*
- *Hurricane Damage Evaluation Procedures*
- *Hail Testing of Residential Roofing Materials*
- *An Introduction to Infrared Thermography*
- *Windows: Performance and Testing*

#### **PROFESSIONAL PRESENTATIONS:**

- *Earthquakes - Key Components to Aid in Damage Evaluation*; Engineering Design & Testing Corp. Engineers' Meeting; San Antonio, Texas, 2011
- *Vibration Damage: Is It All It's Cracked-Up to Be?*; Bluegrass Claims Association; Lexington, Kentucky, 2010
- *Basement Foundation Walls*; Engineering Design & Testing Corp. Engineers' Meeting; Columbia, South Carolina, 2010
- *When Roofs Go to Hail*; Engineering Design & Testing Corp. Spring-Ed; Charlotte, North Carolina, 2006
- *Moisture Intrusion: Damages, Causes, Cures*; 9<sup>th</sup> Annual RJMW Catastrophe Conference; Charlotte, North Carolina, 2006
- *Variations Between the Florida Building Code and the International Building Code*; Engineering Design & Testing Corp. Engineers' Meeting; Ashville, North Carolina,

#### **PROFESSIONAL ARTICLES and PUBLICATIONS:**

- "The Basics of Blasting"; *The Stress Point*; June 2012
- "Seismic Design for the Metropolis"; *The Stress Point*; March 2011
- "Some Concepts in Seismic Design"; *The Stress Point*; December 2010
- "Keeping the Cold Outside"; *The Stress Point*; December 2009
- "Deck Attachments – How Do They Stack Up?"; *The Stress Point*; July 2006
- "A Mighty Wind"; *The Stress Point*; September 2005
- "Which Building Code Applies?"; *The Stress Point*; May 2004