SERGIO G. ARRATIA, P.E., M.S.C.E.



Engineering Design & Testing Corp. Post Office Box 3090 | Boynton Beach, Florida 33424

P 954.743.4500

ENGINEER: CIVIL/STRUCTURAL

E sarratia@edtengineers.com

EDUCATION

2008 Master of Science, Civil Engineering

University of Arkansas, Fayetteville, Arkansas

2005 Bachelor of Science, Civil Engineering

University of Arkansas, Fayetteville, Arkansas

EXPERIENCE

February 2018 to Present

Engineering Design & Testing Corp. Boynton Beach, Florida

Consulting Engineer

Assessment of residential and commercial structural systems, foundation settlement, walls, structural supports, roofs, property loss, construction defects, building code compliance, water intrusion, interior and exterior finishes, and storm damage. Evaluation of structural building components including concrete, masonry, steel, light-gauge, timber, and composite structural members. Root cause investigation and damage assessment of incidents affecting residential and commercial property, including scope of damage, remediation analysis, and cost estimation.

January 2015 to January 2018

Bryntesen Structural Engineers Fort Lauderdale, Florida

Project Manager

Designed and managed luxury residential, commercial, retail and office structural projects with conventional systems, pre-engineered systems, and deep and shallow foundations. Provided analysis and design for lateral and gravity structural systems for new and retrofitted structures with various structural building components including concrete, masonry, timber, light-gauge, and composite structural members. Supplied feasibility studies for proposed renovations and remediation reports for existing structures. Performed special and threshold inspector requirements per Florida Statute.

August 2011 to May 2014

Tatum-Smith Engineers, Inc.

Rogers, Arkansas

Project Manager

Developed project scope and coordinated requirements and specifications with local and national clients. Coordinated project scheduling with Tatum-Smith management team. Supervised and monitored the work and schedule

of sub-professional level Project Engineers. Coordinated structural design with architectural design and other engineering disciplines, performed quality assurance and control on construction documents and structural calculations, and executed field observations during and after construction to evaluate and ensure conformance with the project specifications.

June 2008 to July 2010

CMC Joist and Deck

Rogers, Arkansas

Design Engineer

Assisted draftsmen and sales people in interpreting contract documents to prepare bid proposals for steel joists and steel deck. Detailed and reviewed structural drawings from construction documents provided by clients. Evaluated, designed, analyzed, and reinforced structural members for commercial and residential projects. Prepared bills of materials for implementation in the production lines and visited job sites to monitor erection procedures and construction methodologies.

June 2006 to May 2008

University of Arkansas Favetteville, Arkansas

Graduate Research Assistant

Evaluated concrete construction and curing procedures in bridges constructed by the Arkansas Highway and Transportation Department (AHTD). Project funded by AHTD for a master's degree thesis titled "Evaluation of Bridge Deck Curing Procedures".

August 2003 to May 2008

Center for Training Transportation Professionals

Fayetteville, Arkansas

Certified Proctor

Capacitated and tested personnel and companies performing work in the transportation industry with the aggregates, asphalt, concrete, and soils modules.

REGISTRATIONS and CERTIFICATIONS

Registered Professional Engineer in Alabama (#37444-E)

Registered Professional Engineer in Arkansas (#15388)

Registered Professional Engineer in Florida (#82552)

National Council of Examiners for Engineering and Surveying Record (#13-923-04)

HAAG Certified Inspector – Commercial Roofs (#201804300)

HAAG Certified Inspector – Residential Roofs (#201804300)

FenestrationMaster® Professional Certification

Florida Association of Realtors® (#SL3359394)

National Association of Realtors® (#278050977)

PROFESSIONAL ORGANIZATIONS

American Concrete Institute (ACI)

American Society of Civil Engineers (ASCE)

Fenestration & Glazing Industry Alliance (FGIA)

Chi Epsilon National Civil Engineering Honor Society

Tau Beta Pi National Engineering Honor Society

PUBLICATIONS

- "Evaluation of Bridge Deck Curing Procedures", 2009, University of Arkansas
- "Identifying Damage to Concrete and Clay Roof Tiles", September, 2020, EDT The Stress Point
- "Why is My Building Cracking?", May, 2021, EDT The Stress Point
- "What is the Relationship Between MPH and PSF?", May, 2022, EDT The Stress Point

CONTINUING EDUCATION

- "FenestrationMaster Professional Certification," sponsored by Fenestration & Glazing Industry Alliance, online course, August 2022
- "Technical Issues Regarding Premise Liability Matter," sponsored by EDT, online seminar, February 2022
- "Construction Defects," sponsored by EDT, online seminar, February 2022
- "Blast-Related Damage Evaluation of Residential Structures," sponsored by EDT, online seminar, February 2021
- "Failure Analysis of Threaded Fasteners," sponsored by EDT, online seminar, February 2021
- "Finite Element Analysis and Its Use in Legal Consulting," sponsored by EDT, online seminar, February 2021
- "Hailstone-Impact Damage to Asphalt Shingle Roof Coverings," sponsored by EDT, online seminar, February 2021
- "Hurricane Damage: Storm Surge vs Wind vs Wind-Driven Rain," sponsored by EDT, online seminar, February 2021
- "Rooftop Solar Arrays: A Civil/Structural Perspective," sponsored by EDT, online seminar, February 2021
- "Concrete Roof Tiles: Installation Guidelines and Storm Damage Assessment," sponsored by EDT, Savannah, Georgia, February 2020
- "Standard of Care Examined Through a Warehouse Roof Collapse," sponsored by EDT, Savannah, Georgia, February 2020
- "Subsurface Evaluation and Foundations," sponsored by EDT, Savannah, Georgia, February 2020

- "A Forensic Engineer's Guide to Geotechnical Field Analysis," sponsored by EDT, Charlotte, North Carolina, February 2019
- "No Tear Veneers Keeping Water Out of Walls," sponsored by EDT, Charlotte, North Carolina, February 2019
- "Significant Wood Design and Construction Changes to the 2018 IBC and NDS PM (BCD121)," sponsored by AWC, online seminar, February 2019
- "Structural-Condition Assessment of Existing Structures," sponsored by ASCE, Panama City, Panama, February 2019
- "Structural-Condition Assessment of Existing Structures," sponsored by EDT, Charlotte, North Carolina, February 2019
- "Fire Retardant Treated Wood," sponsored by EDT, Orlando, Florida, February 2018
- "Heat, Air, and Moisture Components of Building Envelopes," sponsored by EDT, Orlando, Florida, February 2018
- "Introduction to Wood Connection Analysis," sponsored by EDT, Orlando, Florida, February 2018
- "Pressure Treated Wood," sponsored by EDT, Orlando, Florida, February 2018
- "Framing Solutions for Steel-Framed Office Buildings," sponsored by AISC, Rogers, Arkansas, October 2013
- "Post-earthquake Safety Evaluation of Buildings," sponsored by ATC, Fayetteville, Arkansas, October 2013