

GARRETT T. RYAN, P.E.

Senior Structural Engineer
garrett@pseglobal.com



November 6, 2018

PROFESSIONAL EXPERIENCE

Paragon Structural Engineering, LTD.

Senior Structural Engineer (September 2011 – Present)

As Senior Structural Engineer for Paragon Structural Engineering, LTD. (PSE), Mr. Ryan leads a technical staff of professional engineers, graduate engineers, project managers, and field technicians in the structural design and forensic investigation of planned and existing structures. Mr. Ryan's structural design services include analysis and engineering of large, custom single-family residences, multi-family apartment/condominium complexes, low-rise commercial facilities, and ancillary structures (retaining walls, screen walls, and swimming pools) utilizing a variety of building materials including dimensional lumber, engineered wood products, rolled steel, light-gauge steel, CMU, masonry, and cast-in-place concrete. Mr. Ryan's design projects include the following types of structural systems: conventional/post-tensioned elevated foundation systems, pier-and-beam elevated foundation systems, wood/steel/CMU superstructures, masonry/concrete/CMU ground-supported or elevated retaining walls, ground-supported or elevated screen walls, and ground-supported or elevated pools. Mr. Ryan also performs construction phase observations of the aforementioned structural systems to verify design compliance. Projects also include performing design of remedial work for the aforementioned types of structural systems. Mr. Ryan has performed engineering designs for hundreds of residential and low-rise commercial structures and dozens of retaining walls, screen walls, and pools.

Mr. Ryan's structural forensic services include investigations concerning soil-structure interactions, performance of structural systems, evaluations of building envelopes, and determination of cause, origin, and extent of peril damage. Soil-structure interaction assessments include claims relating to design, construction, historic/current site effects, and moisture source influences. Structural system assessments include claims relating to patent or latent design and construction issues. Building envelope assessments include claims related to roof coverings, veneers, flashing, and weather resistive barriers. Peril assessments include claims relating to hurricane damage, tornado damage, lightning strikes, earthquakes, explosions, fire damage, and vehicle-structure collisions. Mr. Ryan performs site investigations and devises protocols for site-specific investigative tests that may include relative elevation surveys, geotechnical borings, geophysical resistivity surveys, ground-penetrating radar surveys, groundwater monitoring, water chemical analysis, test pit excavations, material strength tests, and water application/infiltration tests. His typical projects include single-family residences, multi-family apartment/condominium complexes, commercial facilities, and warehouses as well as ancillary structures such as retaining walls, screen walls, and swimming pools. Mr. Ryan has performed hundreds of forensic investigations, and he has authored dozens of expert reports for use in mediation, arbitration, and/or litigation. In addition, Mr. Ryan has provided expert witness testimony for use in litigation.

Bryant Consultants, Inc.

Director of Structural Engineering (November 2010 – September 2011)

Project Manager (February 2009 – November 2010)

As Director of Structural Engineering for Bryant Consultants, Inc. (BCI), Mr. Ryan lead teams of engineers, project managers, field technicians, laboratory technicians, and contractors in geotechnical and structural forensic investigations concerning soil-structure interactions as well as determination of cause, origin, and extent of peril damage. Peril assessments included claims relating to hurricane damage, tornado damage, lightning strikes, explosions, fire damage, and vehicle-structure collisions. Mr. Ryan performed site investigations and devised protocols for site-specific investigative tests that may have included relative elevation surveys, geotechnical borings, geophysical resistivity surveys, ground-penetrating radar surveys, groundwater monitoring, water chemical analysis, test pit excavations, concrete core strength tests, and water application/infiltration tests. His typical projects included single-family residential structures, multi-family apartment/condominium complexes, commercial facilities, and warehouses as well as ancillary structures such as retaining walls and swimming pools. Projects also included performing structural design of remedial work for the aforementioned types of projects.

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PROFESSIONAL EXPERIENCE (CONTINUED)

Paragon Structural Engineering, LTD.

Graduate Structural Engineer (July 2007 - January 2009)

As a Graduate Structural Engineer for Paragon Structural Engineering, LTD. (PSE), Mr. Ryan performed structural design services. Mr. Ryan's structural design services included analysis and design of large, custom residential and low-rise commercial structures utilizing a variety of building materials including dimensional lumber, engineered wood products, rolled steel, light-gauge steel, CMU blocks, and cast-in-place concrete. He designed roofs, ceilings, floor systems, walls, beams, columns, lateral-force resisting systems (LFRS), and associated connections.

In addition to superstructures, he designed elevated foundation systems of either conventional pier-and-beam or concrete slab. Mr. Ryan also designed ancillary structures such as retaining walls and swimming pools. He designed retaining walls constructed of mortared stone, CMU blocks, and/or conventionally reinforced cast-in-place concrete. He designed swimming pools of conventionally reinforced concrete shells either supported on-grade or elevated on concrete piers. Mr. Ryan also performed construction phase inspections to verify plan compliance. He also conducted limited site investigations to provide consulting for issues such as foundation movement, wood frame failures, and proposed remodels/additions. While at PSE, Mr. Ryan passed the NCEES Principles and Practice of Engineering exam and became a licensed Professional Engineer in the State of Texas.

Foundation Design, LTD.

Graduate Structural Engineer (June 2004 - June 2007)

As a Graduate Structural Engineer for Foundation Design, LTD. (FDL), Mr. Ryan performed structural design services. Mr. Ryan's structural design services included analysis and design of large, custom residential and low-rise commercial structures utilizing a variety of building materials including dimensional lumber, engineered wood products, rolled steel, light-gauge steel, CMU blocks, and cast-in-place concrete. He designed roofs, ceilings, floor systems, walls, beams, columns, lateral-force resisting systems (LFRS), and associated connections. In addition to superstructures, he designed elevated foundation systems of either conventional pier-and-beam or concrete slab. Mr. Ryan also performed construction phase inspections to verify plan compliance. He also conducted limited site investigations to provide consulting for issues such as foundation movement, wood frame failures, and proposed remodels/additions.

PROFESSIONAL LICENSES

State of Texas	Professional Engineer #102362
State of Alabama	Professional Engineer #32346
State of Colorado	Professional Engineer #44799
State of Florida	Professional Engineer #71959
State of Louisiana	Professional Engineer #35818
State of Mississippi	Professional Engineer #20461
State of Oklahoma	Professional Engineer #24784
NCEES National Registration	Professional Engineer #42544

EDUCATION

The University of Texas (Austin, TX)

Bachelor of Science in Architectural (Structural) Engineering, 2004 - Honors Graduate, GPA 3.8 / 4.0

PROFESSIONAL CERTIFICATIONS AND TRAINING

ATC-45: Safety Evaluation of Buildings after Windstorms and Floods, Applied Technology Council (ATC)

Building Envelope Trained (BET-1), Building Envelope Science Institute

Building Envelope Certified (BEC-2), Building Envelope Science Institute

Commercial Roofs Inspector, Haag

Ground Penetrating Radar for Infrastructure, Geophysical Survey Systems, Inc. (GSSI)

Ladder Safety (Single, Extension, Articulated, and Step), American Ladder Institute

Model Law Engineer, National Council of Examiners for Engineering and Surveying (NCEES)

Residential Roofs Inspector, Haag

Rope and Harness for Steep Roof Slopes, Safety Services Company

Wind Damage Inspector, Haag

Wind Storm Inspector, Texas Department of Insurance (TDI)

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PROFESSIONAL ASSOCIATIONS

Building Envelope Science Institute
Order of the Engineer

PROFESSIONAL PUBLICATIONS

Foundations on Expansive Soils: Design Considerations, Evaluation, and Remediation - HalfMoon Education, Inc.,
In Progress, Contributing Author
Structural Design for Wood Construction, HalfMoon Education, Inc. (2017), Contributing Author

PROFESSIONAL LECTURES, SEMINARS, PRESENTATIONS, AND TRAINING AS A PRESENTER

Building Envelopes: The Hottest and Worst Trend in Residential Litigation - Building Professional Institute (Irving) - May 22, 2018
Building Envelopes: The Hottest and Worst Trend in Residential Litigation - Co Presented with Bush, Rudnicki, Shelton Law Firm to Residential Strategies Dallas-Ft. Worth Custom Builder Meeting - May 10, 2018
Building Envelope Litigation - Co Presented with Bush, Rudnicki, Shelton Law Firm to Dallas Builders Association, Metro North Division - January 24, 2018
Uniting Architecture and Structural Engineering - Stocker Hoesterey Montenegro Architects - January 23, 2018 ^{AIA}
Construction Litigation: Building a Better Foundation ^{AIA} - Co Presented with Hashimi Law, SwingleCollins & Associates, and 2-10 Home Buyers Warranty - October 26, 2017
Building Envelopes: The Hottest and Worst Trend in Residential Litigation - Co Presented with Bush, Rudnicki, Shelton Law Firm to Dallas Builders Association - October 3, 2017
Building Envelopes: The Hottest and Worst Trend in Residential Litigation - Co Presented with Bush, Rudnicki, Shelton Law Firm to Greater Houston Builders Association Custom Builders Council - June 15, 2017
Forensic Analysis of Plumbing Leak Foundation Claims - April 27, 2017 ^{TDI}
Forensic Analysis of Plumbing Leak Foundation Claims - February 15, 2017 ^{TDI}
Building Envelopes - On-site Training and Education: Southgate Homes - January 24, 2017
Building Envelopes - On-site Training and Education: Sumeer Homes - January 16, 2017
Building Envelopes - On-site Training and Education: Sumeer Homes - December 19, 2016
Forensic Analysis of Plumbing Leak Foundation Claims - December 9, 2016 ^{TDI}
Building Envelopes - On-site Training and Education: Terraces by Windsor - December 8, 2016
Construction Litigation: Building Envelopes - Co Presented with Hermes Law and Swingle Collins & Associates - November 16, 2016
Forensic Analysis of Plumbing Leak Foundation Claims - October 25, 2016 ^{TDI}
Building Envelopes, The New Litigation Frenzy - Dallas Builders Association - September 14, 2016
Building a Better Foundation - Southgate Homes - June 1, 2016
Storm Resistant Construction - Dallas Builders Association: Building a Better House Series - May 11, 2016

Key

^{AIA} American Institute of Architects Continuing Education Approved Course

^{TDI} Texas Department of Insurance Continuing Education Approved Course

EXPERT WITNESS DESIGNATION

This curriculum vitae shall not be used for expert witness designation unless an authorized proposal has been executed with this firm.