

29E6

Structural
Engineering Firm

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Our common goal

SUPPLY STRUCTURAL ENGINEERING TO PROTECT THE PUBLIC

In doing so

WE PROVIDE THE MOST EFFICIENT DESIGN

How do we accomplish this?

WE LISTEN

By way of the proprietary **29E6-STEP PROCESS** we provide the most efficient and safe building design - maximizing time, revenue, profit, and enjoyment in working with all partners. In our structural design charette **WE LISTEN** to identify not only goals but all key factors effecting the scope of work. This unique collaborative discovery addresses potential concerns early and outlines a clear direction to define expectations from 29E6 while also examining budgetary concerns.

Rebranded in 2017 as 29E6 the firm was originally founded in 2010 by Andy Richardson, Principal and Managing Professional Engineer. The company, employing full and part-time individuals, has enjoyed as much as 200% project increase rate over the last several years. The growth is attributed to excellent service and partner satisfaction. 29E6 serves the southeast region – and projections for continued success broaden into the upstate, the greater Kansas City market and the surrounding Cache Valley area in Utah – in the following market sectors: Commercial & Hospitality, Medical, High-End Residential, Industrial, and Historic Preservation.

Licensed in nine states, working toward eleven, and like a larger organization, 29E6 brings the expertise, manpower and adaptability to every project. A pursuit for personal client attention and integral quality control provides excellence in all they do. 29E6 employees enjoy an atmosphere steeped in creativity and ingenuity, nurturing individual growth and opportunity.



Over 25 years in the structural engineering industry, Andy has wide exposure across various applications and highly specialized technical expertise. His diverse resume provides experience in nearly any material, building type or structure. Living in the Lowcountry of South Carolina since 1998, he has acquired mastery in both hurricane design as well as seismic design of buildings. Over the past 10 years, Andy founded and operated his engineering firm and provided engineering education for the PE Exam. In 2017, Andy rebranded his company as 29E6. A combined passion for mentorship and excellence in design, Andy developed a process that unmistakably provides the best design with every efficiency, also intended to be utilized by a team of engineers. Since that time, the vision is to grow and expand 29E6 so architects, contractors, and fabricators everywhere can benefit from the 29E6-Step Process and its streamlined results.

Andy enjoys spending time with his lovely wife, Esther, and six kids. He also enjoys spending time with his church family as well as running, playing frisbee, and learning ballroom dance.

Affiliations

American Society of Civil Engineers (ASCE), Structural Engineering Institute (SEI), Structural Engineering Association of SC (SEA of SC), NCEES Council Record

Licenses and Certifications

ARPE No. 16069, FLPE No. 91363, GAPE No. 031369, GASE No. 001063, NCPE No. 036442, OHPE No. 86872, SCPE No. 22824, TN No. 124016, UT13705971-2203, Missouri and Virginia (to come), NCEES Council Record Civil PE Exam (2003), Structural PE Exam (2005)

Licensed in: AR, FL, GA, NC, OH, PA, SC, TN & UT (MO & VA coming soon).

Engineering Education

PE Master Class - Newly revised on-demand coursework materials to guide and guarantee individual preparation to master the PE Exam. *Coming Soon!*

Ultimate Civil PE Depth Review Courses - The Ultimate Civil PE Depth Review Courses are the #1 resource for passing the civil engineering exam. These courses are an on-demand review covering all five sub-disciplines of the PE Exam.

Professional Development Lunch and Learn Seminars - Developed and taught a number of continuing education and 'lunch and learn' seminars to architects and engineers alike to enrich their education in technical areas such as building code changes, mass timber, and wind load provisions.

Ace the PE Video Series - Creator of an on-demand video series helping prepare students for the PE Exam. The series covers the five sub-disciplines of civil engineering and provides supplemental content to live courses and the student's self-study activities. The course was hosted by PPI from 2015 to 2019 and then by Kaplan publications until 2020.

Live Online PE Exam Review Course - Online instructor for a Live PE Exam Review Course covering the five sub-disciplines of civil engineering. Provided the first online course of its kind (2012-2017) with excellent reviews from students; the course was hosted by the popular publisher of the Civil Engineering Reference Manual, PPI.

Ace the PE Exam - Website and podcast provided information and resources to prepare for and pass the PE Exam (2013-2015).

Publications & Digital Content

ENHANCE – An AEC Podcast - Host, Andy Richardson, interviews architects, engineers and contractors to learn the "WHY" behind what these professionals do. This podcast seeks to inspire, educate and entertain the entire AEC community. (2024)

Theory and Practice of Steel Structures; Design to Eurocodes with Introduction to U.S. Standards, an update to structural Eurocodes. Provided a review and update to the book comparing the design of steel structures in the American Institute of Steel Construction (AISC) codes to Eurocodes. (2012)

Civil Engineering Solved Problems - Provided update to the structural chapters for publication to Civil Engineering Academy. (2009)

Civil Engineering Reference Manual - Provided update of masonry chapter to Civil Engineering Academy for conformity to the 2009 International Building Code. (2010)



Andy
Richardson

Professional Engineer
Structural Engineer
29E6 Principal

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Education

Clemson University, Clemson, SC
Bachelor of Science in Civil Engineering,
Magna Cum Laude, 1998
Graduated with Honors

Featured Projects:

Hilton Head Beach House - Hilton Head Island, SC
Innovative, modern 10,000 sf coastal home with CLT wood decking system. At the time of construction this was the first residential project on the east coast utilizing new product material, CLT; considered to be one of the first CLT projects in the US.

Hilton Head Beach House



TRU by Hilton - Beaufort, SC

Four-story wood-framed hotel with walls and roof of traditional light-framed, wood construction. Steel used to span large areas at ground level. Situated relatively close to possible seismic activity, the project had potential for a modest amount of liquefaction. Structural mitigation was utilized in order to alleviate this occurrence.

Bluffton Centre - Bluffton, SC

Multi-office medical facility serving growing demand in larger Bluffton region. Three buildings utilized steel construction framework with open web bar roofing joists. The lateral system, steel moment frames (SMF), allowed maximum flexibility of architecture for the current design as well as future modifications. Through keen understanding of codes we were able to utilize ordinary moment frames (OMF) in lieu of intermediate moment frames (IMF) - a small difference with big cost savings through efficient engineering.

Ohoppee Match Club - Cobbtown, GA

Completed in 2018, multi-building golf complex featured a two-story, exposed, heavy wood-framed clubhouse with steel aspects. Close collaboration with architect, Thomas & Denzinger, was a key part of the structural design; working to accomplish aesthetic goals of the visible connections as well as the structural function.

Ohoppee Match Club



Erie Veterans Health Administration - Erie, PA

Addition to veteran's hospital in Erie, PA, constructed of steel and concrete; steel joist with composite floor and metal roof deck(s). The proposed project will include a new addition to the first floor of existing (main) hospital, providing approximately 10,000 sf of additional area. The addition will be located on the front of the building extend east on one side and towards the west on the other, with the west side expansion extending to existing atrium. A portion of the existing building, which connects with the proposed expansion, will be remodeled as part of this project, and this new connection will serve as an extension of the existing Atrium.

Island Recreational Center -

Bluffton, SC

Provided delegated design services for long-span steel trusses on a multi-use community recreational center. Ours was the role of fabricator's engineer to meet the requirements set forth by the Engineer of Record. The fabricator was Macuch Steel of Augusta, GA, and RISA was software used for analysis.

Island Recreational Center



...continued

Andy
Richardson

Professional Engineer
Structural Engineer
29E6 Principal

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Scott's extensive work experience spans exposure to government, commercial and retail, renovations, residential, civil and structural forensics and civil site sectors. With nearly 25 years in the greater construction and building industry, Scott started from the ground up in the construction field then on to construction management. Civil and structural formal education and training widened his exposure to include: structural and field engineering, forensics and expert witness, quality assurance and construction quality control. Scott's breadth of knowledge and understanding of the industry is beyond compare.

Licenses and Certifications

SCPE No. 25127, OSHA Training in Construction and Industrial Safety (2010/2011)

Licensed in SC.

Education

Clemson University, Clemson, SC

Masters of Engineering, 2002

Bachelors of Science in Civil Engineering, 2001

Featured Projects:

Scott provides, in part, quality assurance design services, special inspections, and has a keen eye for construction supplying a critical capacity for our construction support component. While having touched all our market segments, highlights of some of his work would be found in the following projects.

The Breakers - Hilton Head Island, SC

Provide professional review and authorization on design wind speed and capacity for awning coverage at ocean side resort.

Statesville Courthouse - Statesville, NC

Provided special inspections for exterior stair replacement.

TRU by Hilton - Beaufort, SC

Provided structural design services, construction documents and services, and site visits for national hotel chain. The four-story wood-framed building used steel to span large areas at ground level.

Bluffton Centre - Bluffton, SC

Provided special inspections and construction support for a multi-office medical facility serving growing demand in larger Bluffton region.



TRU by Hilton



Bluffton Centre

**Dwayne S.
Robinett**

Professional Engineer

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Paul Cattle

Professional Engineer
Structural Engineer

Columbia, SC
Studio Lead

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Paul began his career as an EIT in highway infrastructure; designing bridges and culverts in Canada. In 2021, Paul and his family moved to SC, where he began designing PEMB structures such as warehouses, barns, and airplane hangars across the United States.

Since joining 29E6 and having received his PE license, Paul designs, manages, and coordinates structural design projects from concept to completion. Paul listens and collaborates with architects and contractors, ensuring the structural integrity of every building he works on. Paul has nearly a decade of engineering experience, which includes project management on residential and commercial structures.

Paul provides educational content for the 29E6 University; an internal repository for educational and professional development in structural engineering.

Outside of work, Paul and his wife, Stephanie, have two daughters – Éva and Clara – the joys of their life! Together, they love going to the beach and spending vacation time visiting family. Born in France and raised in Canada, Paul speaks French and can get by in Spanish. Currently residing in Columbia, SC, he now enjoys the warm weather of the south and with it: spending time outdoors, playing sports, hunting, and smoking BBQ.

Paul's family worships as members of the First Presbyterian Church of Columbia. He has found Romans 8:28 to be a most helpful Bible verse in navigating life.

Licenses and Certifications

Licensed in: SC & KY. Licensed P. Eng. in Ontario, Canada.

Software

Revit
AutoCAD
Risa3D
Bluebeam

Education

McMaster University, Hamilton, ON
Bachelor of English in Civil Engineering & Society, 2016





Harshil Devani

Structural Engineer

Western India
Studio Lead

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Harshil's practical knowledge and training lies in Structural Engineering. A people person, Harshil's utmost commitment is in delivering the highest quality of service to all clients. He believes that innovation and excellence should be at the forefront of every project, and is dedicated to achieving the best possible results. Harshil takes pride in proper project process from inception to completion. He begins his methodology with a structural design charette, then manual calculations and advanced technology, a rigorous quality assurance review, and finalizes with detailed documentation. Harshil is passionate about quality control and continuous improvement, sustained learning practices and comprehensive engineering concepts.

Co-Founder at SF & BM Consultant, located in Ahmedabad, Gujarat, India, Harshil has extensive experience in designing and analyzing steel and wooden structures. He finds particular interest in Finite Element Analysis (FEA), which he elaborates on through articles, white papers and informational tutorials such as this introductory history of FEA.

His passion for learning extends beyond professional pursuits. Harshil has a keen interest in exploring culinary experiences and preparing new cuisine. He also loves to engage in philosophical discussions; always striving to expand his horizons by engaging in new topics and activities. On a personal level and in his free time, Harshil enjoys swimming, cooking, and going for long rides with his wife.

Certifications

Qualifications for GATE examination (2016)

Structural Engineer Grade – 1 Government Certification

Software

Enercalc
Risa 3D
Risa Connection
Bluebeam Revu
Autodesk AutoCAD
Autodesk Revit
Abaqus FEA
Tekla Structures
Csi Etabs
Bentley Staad Pro
Ram Connection
Ram Elements
Hilti Profis Engineering
Bentley Advance Concrete Designer (RCDC)

Education

M.S. University Baroda, Vadodara, Gujarat, India
Master of Science in Structural Engineering, 2018

S. V. P. Institute of Technology – Vasad, Anand, Gujarat, India
Bachelor of Science in Civil Engineering, 2014





Taylor Durtschi

Structural EIT

Logan, UT
Studio Lead

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Taylor spent a summer in training at 29E6 and has become a superior asset to 29E6. She is a strong EIT having caught on quickly to 29E6 best process and procedures. Taylor is high impact on the teams "Right. Reviewable. Repeatable." implementation tactic across both small and large, and commercial and residential applications. She designs for all market segments but has a special talent for residential wood structures that are affected by the lowcountry's high wind load and seismic activity.

Taylor also works on building the 29E6 training video library for onboarding new employees. She's crafted a digital resource with step-by-step, "how to's" of 29E6 procedures and acquiring ASCE references. Taylor's comprehension of gravity and lateral wind loads ideally suits her to identify the forms and processes for doing these calculations efficiently. And, her love for teaching shines through as well!

As far as other teaching ventures, Taylor runs a tutoring business called The Bridge Tutors. The Bridge Tutors is committed to providing quality tutoring and academic support to ALL students, striving to build students' self-confidence and help them realize their potential. The Bridge Tutors offers online one-on-one tutoring services for all ages in math, engineering and science.

In her free time Taylor enjoys reading a good book, hanging out with her dog Aussie, and spending time with family. She has 3 brother, 3 sisters, and 11 'niblings' (nieces and nephews). Taylor is also pursuing a 2nd bachelor's degree in psychology and loves sports: soccer, football, and tennis.

Engineering Education

Utah State University, College of Engineering Tutoring Center – basic to graduate-level structural engineering tutoring courses. Emphasizing complex to conceptual learning techniques.

Education

Utah State University, Logan, UT

Master of Engineering in Civil Engineering - structural emphasis, 2019

Bachelor of Science in Civil Engineering - structural emphasis,

Summa Cum Laude, 2018

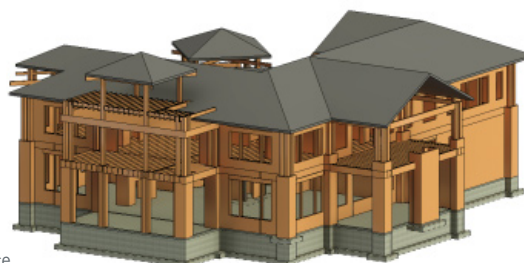
Featured Projects

Spanish Wells Residence - Hilton Head Island, SC

New, contemporary house on Hilton Head Island, SC. A number of unique conditions and spans that make this house interesting, requiring detailing and design structurally. This includes steel frames for gravity and lateral requirements. First floor - dimensional lumber, second floor - 14" deep floor TJI's. The house is elevated to meet flood requirements, and the first level constructed on 8" CMU walls. The interior supports are 16" CMU piers with (4) #5 vertical bars and ties at 8" on center. The piers bear on a continuous 16" deep x 24" wide grade beam with (2) #5 bars top and bottom. The roof is framed with engineered roof trusses at 2'-0" on center.



Spanish Wells Residence





Daniela Digori

Structural Designer

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Daniela's fluidity and expertise in Revit is an essential role in drafting projects for client approval across all market segments at 29E6. Daniela is a team player with excellent communication and organizational skills that make for a trouble free work environment. She's also fluent in other engineering software such as Sofstik (SSD) and Nemetschek Frilo for use in building calculations. Daniela loves working in the structural building industry, continues to learn and improve in U.S. style and works toward designing structural projects.

Daniela's professional obligations are double duty. In her second career Daniela is a professor at Technical University of Moldova, lecturing on various topics, such as:

- Structural calculation
- Project management
- Consulting undergraduate projects

Daniela is happy to be part of a big family, where her parents and 4 brothers are very supportive in all her endeavors. She loves to travel and to discover new beautiful places in her country and all over the world. She also tries to stay active, spending free time staying fit and exercising, or just enjoying being outside and riding a bicycle.

Affiliations

Association of Engineers Builders Designers of Structures (AICPS)

Certifications

Technical certification in Structural Engineering; fields of structural resistance for civil and industrial buildings

Publications

Technical Scientific Conference of Co-workers, PhD candidates and Students of Technical University of Moldova

Calculation of the Anchored Pillars, pgs. 358 – 361.

Sports Complex from Ciorescu, Chi in u, Calculation of the Flanged Joints, pgs. 232 – 239.

Study of Welded Metal Joints, pgs. 434-437.

Software

Autodesk Revit
Sofstik AG
Nemetschek Frilo

Education

Sofstik Software Training, 2016

Technical University of Moldova, Chisinau, Moldova
Master of Science in Structural Engineering, 2016
Bachelor of Science in Civil Engineering, 2014





Travis Bennett

Structural Designer

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Over 20 years experience in structural design, Travis has proven performance in a wide variety of disciplines, software and work environments. Simultaneously raising his family and working full-time, Travis attended school in the evenings working toward his goal to become a well rounded drafter and modeler; earning three Associate's degrees and five certifications in engineering, architectural and computer-aided design.

Functioning as lead, Travis managed multiple teams of drafters in a fast-paced, rapidly changing setting. These roles required excellent communication and organizational skills, complex file and database management, implementation of drafting standards and creation of typical details library. He's had specialized focus utilizing SolidWorks parametric modeling/AutoCAD drafting (for military vehicles). Proficiency in standard applications such as Inventor & Revit, and very complex design tasks in the operation and application of CAD equipment round out Travis's training. Travis's industry exposure includes: consultant coordination and quality assurance, design project involvement to determine detailed BIM model specs, scope of design and choosing initial parameters. He develops signed construction documents including civil and structural requirements necessary for architect and contractor, inclusive of: foundation, framing & site plans, isometrics and structural sections and details for a wide variety of projects.

Travis has a broad understanding of assembly and design with various construction methods, such as: structural, concrete, conventional lumber, metal stud, CIP, steel joists, CMU, conventional slabs and retaining walls. He has also developed a strong working knowledge of design industry workflows, production cycle and priorities while assisting with various market segments: commercial, religious, residential, education, hospitality, medical and event venues. And he has exposure to most every structural design element and material: hollowcore, concrete, CLT, steel, CMU, wood, light gage, post-tension.

At 29E6 Travis has broadened his support to the needs of all their markets but has special interest in the housing studio.

Travis has lived in the Charleston area all his life and has three children: Kailynn, Zachary, Rory. His children and family are his passion, alongside Carolina Panthers football! Travis and girlfriend, Julie, adore Chaos and Mayhem (felines), Waverly (canine), and Skittles (emydidae, aka a red-eared slider turtle). Travis loves kayaking, video and board games, football, motorsports, and MMA; having recently earned black belt in American Freestyle and previously a black belt in Tae Kwon Do. He also enjoys DIY improvements around the house, roadtrips, and hosting a huge annual Halloween party.

Education

Trident Technical College, North Charleston, SC

Associate of Applied Science in Engineering Design Graphics, 2011

Associate of Arts in Art History, 2007

Associate of Science in General Science, 2006





**Kenny
Ellis**

Drafter

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After his service in the military, Ken continued his education within the field of livestock management from The Ohio State University and earned multiple certificates in auto mechanics, sustainable agriculture and leadership development. From his time in the United States Marine Corps and with his wide range of knowledge in management, Ken has been well shaped for his position on the 29E6 drafting team. Alongside his personal education Ken has gone through extensive training with knowledge checks and skills checks since having been with 29E6. Ken works to redraw and correct plans, ensuring only excellent plans are delivered to the client.

Ken is broadening his knowledge base with exposure to client needs satisfaction and finds interest in that side of the business. He enjoys the work he does with 29E6 and sees it as a blessing.

Ken and his wife, Hannah, have a son, Samuel. Ken keeps busy working on the family farm, continuing his education at Moody Bible Institute, and is actively involved in his church and the teen ministry there. What he enjoys most is studying the Bible, understanding, and comprehending the message it gives. During his free time, he takes great pleasure being with family and friends and he also plays ultimate frisbee!

Education

The Ohio State University - Agricultural Technical Institute, Wooster, OH
Associate Degree in Livestock Management, 2020

United States Marine Corp, Jacksonville, NC, 2014-2018

Moody Bible Institute, Chicago, IL, present
Continuing studies.

Featured Projects

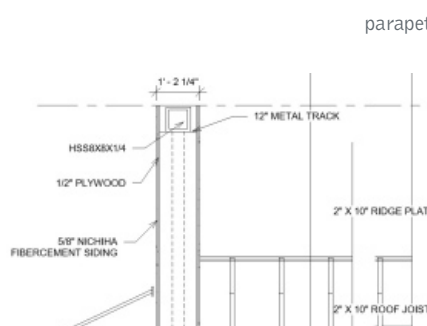
Help of Beaufort - Beaufort, SC
Wood Truss. Wood-framed. Completed in Revit.



aerial



Help of Beaufort



parapet

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Jennifer has administrative management background with over 15 years serving executives in the paper, telecommunications, healthcare, and marketing industries.

Focused on keeping Andy and the 29E6 team organized with administrative & project management needs, Jennifer is the conduit behind the scenes keeping all arms of the company in collaborative motion. She ensures the efficiency of inter-office needs, manages human resources services across the remotely-located southeast offices including payroll, employee onboarding, policies and procedures. Jennifer also manages all financial responsibilities, including: preparing reports, billing, accounts receivable and accounts payable.

Jennifer resides in Nashville with her husband, 2 kids - Braden & Adalyn, and 3 dogs. Much of her spare time is spent running her children to practices or cheering one on at baseball, softball or soccer games. If there is free time left, she loves to do house projects, bowl and is a big fan of her hometown Wisconsin Badgers or anything red!

Education

Upper Iowa University, Fayette, IA
Bachelor of Science in Business Management, 2003

Featured Projects:

Through the back side of the machine, Jennifer touches every project facilitating its seamless progress and ensurance of excellence.

Jennifer
Fox

Account Manager

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Jonathan comes to us from a varied background in Electrical and Computer Engineering. He spent five years on active duty with the United States Marine Corps as an Avionics Technician in Beaufort, SC, where he became friends with James Ellis, and eventually Andy Richardson. After his separation from the service, he spent the next four years working in both the high and low voltage electrical fields, and in particular low voltage fire and security alarm applications. He has always worked to stay sharp on computers and is currently pursuing a degree in Information Technology from Liberty University Online.

At 29E6, Jonathan primarily works in an infrastructure support roles in IT and Operations, filling the following roles:

- Microsoft 365 Business Admin
- Google Workspace Admin
- Jira Work Management Admin
- Physical IT Asset Admin
- Microsoft Power Automate Manager

Jonathan also works as our primary Continual Process Improvement agent, analyzing processes, identifying constraints, and seeking solutions for better productivity. He is always looking for ways to make work easier, more enjoyable, and more productive for the entire 29E6 team.

Jonathan works remotely from his home in Bryson City, NC, with his wife Jessica and their daughter and three boys. He spends most of his free time outside with his family, or visiting with his parents at his boyhood home (just 20 minutes away), all under the shadow of the beautiful Blue Ridge mountains.

Education

Liberty University, Lynchburg, VA
Continuing studies in Information Technology, 2021 - present

United States Marine Corp, Beaufort, SC, 2013-2018
United States Marine Corp Reserves, 2018-2021

Jonathan Engle

IT & Operations

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