ENGINEER: CIVIL/STRUCTURAL

R. JASON ROOF, M.E., P.E.
Engineering Design & Testing Corp.
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EDUCATION:

2011 M.E., Civil/Structural Engineering
University of South Carolina, Columbia, South Carolina

2010 B.S., Civil Engineering
University of South Carolina, Columbia, South Carolina

EXPERIENCE:

February 2017 to Present **Engineering Design & Testing Corp.**
Columbia, South Carolina

Consulting Engineer. Root cause analysis and assessment of buildings and other structures for failures, settlement, signs of distress, construction defects, impacts, serviceability issues and water intrusion from roofing systems, drainage systems and architectural finishes. Structural evaluation and assessment related to excessive moisture, pest infestation, high wind events, hailstorm events, consolidation of soils, design flaws, and improper construction methods. Assessments of building structures, systems, and envelopes for compliance with codes and construction documentation. Preparation of repair and/or replace cost estimates.

June 2015 to February 2017 **South Carolina Department of Transportation**
Columbia, South Carolina

Associate Engineer I and Associate Engineer II. Projects included the structural design of, analysis of, and plan preparation for flat-slab and prestressed girder multi-span bridges located in the Pee Dee region of South Carolina.

February 2014 to December 2014 **South Carolina Department of Health and Environmental Control**
Columbia, South Carolina

Associate Engineer II. Managed the licensing and inspection programs for the state and federally regulated low-level radioactive waste

disposal site located in Barnwell, South Carolina. Reviewed submittals and calculations for high integrity disposal container designs and provided improvement recommendations for compliance and certification.

March 2013 to February 2014 — **Kyzer and Timmerman, LLC**
West Columbia, South Carolina

Structural Designer. Structural design, analysis and plan preparation for residential, commercial and municipal low to mid rise building construction, including renovations to existing buildings and various other structural systems (signs, earth retaining structures, and transportation skids). Projects included the design of composite action framing, lateral restraint systems, gravity support systems and foundations, constructed of masonry, reinforced concrete, timber, structural steel, and light-gauge steel materials. Structural assessment and design of residential, commercial, and industrial building renovations and retrofits. Finite element analysis of structural elements and systems.

January 2012 to March 2013 — **Chao and Associates, Inc.**
Irmo, South Carolina

Structural Designer. Projects included the evaluation, design and analysis of building, transportation, municipal, drainage, and earth retaining structures. Root cause analysis and repair scheduling for structural failures, building impacts, deterioration, construction defects, water intrusion, general site conditions, settlement, and damages from wind, hail, pest infestation, and fire events. Assessments of existing structures and building envelopes for rehabilitation, retrofit, code compliance, change in occupancy, compliance with construction documents, remediation, distress and building envelope failures including flashings, waterproof barriers, veneers, drainage systems, and roof coverings. Services included inspections of buildings and construction materials for the determination and abatement of asbestos sources.

EXPERIENCE – DESIGN AND CONSTRUCTION (partial listing):

S 41 Bridge over Smith Swamp – Marion, SC
Design of a 90 foot long, continuous multi-span, flat-slab bridge superstructure and the accompanying deep foundations.

SC-41 Bridge over Maidendown Swamp – Marion, SC
Design of a 130 foot long, continuous multi-span, prestressed girder bridge superstructure and the accompanying deep foundations.

Little River Medical Building – Little River, SC
Design of a multi-story, steel/composite framed, medical office building and the accompanying shallow foundations.

Conway Public Safety Building – Conway, SC
Design of a 29,000 square foot, multi-story, steel/composite framed, public safety building located in a moderately high seismic zone.

SALTA Rotor Skid – Charlotte, NC
Design of a 44 foot long, steel framed, skid utilized in the transportation of a 130,000 pound rotor assembly.

Sayebrook Parcel D – Horry County, SC
Design of an 11,000 square foot, single-story, commercial building and the accompanying shallow foundations.

Metro Waste Water Treatment Plant Sampler Platform – Columbia, SC
Design of an elevated, 100 foot long, steel framed, walk-way platform and the accompanying shallow foundations.

EXPERIENCE – ENGINEERING INVESTIGATIONS (partial listing):

Department of Corrections – Columbia, SC
Evaluation of a wood framed roof truss system for damages due to fire-retardant chemical interactions.

Wardlaw College HVAC Replacement – Columbia, SC
Evaluation and analysis for the installation of a new roof mounted HVAC system.

Wilder Stadium Repairs – Clinton, SC
Evaluation of distress and damages along with repair schedules for a high school football stadium seating structure constructed of reinforced/prestressed concrete.

Richland County Home Rehabilitation Project – Richland County, SC
Structural and code compliance assessments along with repair recommendations for numerous dilapidated residential buildings throughout Richland County.

West Columbia Pump Station – West Columbia, SC
Construction compliance and field inspections for a municipal waste-water pump station.

Decker Mall Renovation – Columbia, SC
Assessment and repair recommendations for an abandoned commercial grocery store and other attached buildings.

Kingstree Asbestos Survey – Kingstree, SC
Asbestos inspections and abatement recommendations for seven abandoned residential buildings prior to demolition.

CONTINUING EDUCATION:

"Earth Retaining Structures", NHI, Columbia, S.C., 2015

"Column Design for Post-Tensioned Box Girder Bridges", Midas, Columbia, S.C., 2016

"LRFD for Highway Bridge Superstructures – Steel", NHI, Columbia, S.C., 2016

"LRFD for Highway Bridge Substructures", NHI, Columbia, S.C., 2016

"Above and Below Water Bridge Inspections", ACEC, Columbia, S.C., 2016

Prestress of the Carolinas Plant Tour and Seminar, PCI, Charlotte, N.C., 2016

PROFESSIONAL ORGANIZATIONS:

- American Society of Civil Engineers (ASCE)
- Structural Engineering Institute (SEI)
- Roof Consultants Institute (RCI)

December 2018

REGISTRATIONS and CERTIFICATIONS:

Registered Professional Engineer in South Carolina (#32663)
Registered Professional Engineer in North Carolina (#045473)
Registered Professional Engineer in Georgia (#PE042195)
National Council of Examiners for Engineering and Surveying Record (#15-251-06)
Registered Building Inspector in South Carolina (#49027)

December 2018