

Scott Buckner, P.E. | Forensic Consultant

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Professional Summary:

Scott Buckner's diverse experience prior to forensic investigation spans more than 18 years and includes structural design, product design and engineering materials. He has expertise in the design and construction of commercial and residential buildings, industrial equipment and commercial products. He is also skilled in the preparation of construction drawings and specifications for new building construction and for repairs or modifications to existing buildings.

Mr. Buckner evaluates commercial and residential structures and performs forensic investigations, cause and origin investigations, and condition assessments related to:

- Structural failure
- Fire-damaged structures
- Foundation movement
- Vehicular impact
- Weather-related damage
- Roof damage
- Water intrusion

Licenses and Certifications:

Professional Engineer, Pennsylvania, License #PE076925

Professional Engineer, Ohio, License #81608

Project Experience:

Levertine Manor, Apollo, PA

Assessment of Earth Sheltered Roof System

Conducted a structural assessment of a reinforced concrete earth-sheltered roof system, identified deficiencies and provided recommended repairs. The assessment included infrared thermography, a construction document review and a visual examination.

The East End Development, Akron, OH

Commercial Structure Design

Prepared design calculations and construction documents for a new multi-tenant commercial structure. Scope included foundation design, structural steel design, roof and wall system design and associated construction drawings.

Hereford Gas Plant, Grover, CO

Structural Analysis of Gas Compressor Skid

Performed structural calculations and analysis for large scale gas compressor station. The analysis included finite element calculations for the structure and its welded connections. Prepared a calculation package and a site-specific code compliance report.

**DeCastro Residence, West Mifflin, PA
Vehicular Impact Assessment**

Conducted a structural assessment of a residence subjected to a vehicular impact. Determined the extent of structural damage to the framing and foundation. Provided a scope of repair for portions of the residence related to the impact and identified damage that was present prior to the impact.

**Pennsylvania Chemicals, Monaca, PA
Reinforced Concrete Slab Failure**

Evaluated the cause of failure of a reinforced concrete floor slab during construction. Reviewed construction documents, forensic engineer's report, material specifications, petrographic report and site conditions to verify factors contributing to the failure.

Professional Experience:

BE Structural P.C., Forensic Engineer, 2019
Belden-Hutter Inc., Sales Engineer, 2017 – 2019
Engineering Consultant, Structural Design, 2015 – 2017
Youngstown State University, Adjunct Instructor, 2014 – 2015
RCP Cooling Packages, Design Engineer, 2011 – 2013
General Electric, Design Engineer, 2008 – 2009
Eaton Corporation, Design Engineer, 2005 – 2008
VEC Technology, FEA (Stress) Engineer, 2002 – 2005
Ajax/TOCCO Magnethermic, Design Engineer, 2000 – 2002

Specialized Education:

Masonry Structural Design for Buildings, John C. Huang, P.E., 2019
Ethical Issues in Forensic Engineering, J. Paul Guyer, P.E., 2019
Introduction to Metallurgical Failure Analysis, Semih Genculu, P.E., 2019
Steel Beam Reinforcement, Jonathon C. Creviston, P.E., 2019
Bearing Capacity of Soils, John C. Huang, P.E., 2019
AISC Code of Standard Practice for Steel Buildings and Bridges, John C. Huang, P.E., 2017
Cold-Formed Steel X-Brace Design, John C. Huang, P.E., 2017
The Structural Evaluation of Existing Buildings, Matthew Stuart, P.E., 2017
International Building Code - Structural Design, PDH Online, 2017
An Overview of Cold-Formed Steel Structures, Helen Chen, P.E., 2017
Slab-on-Grade Reinforcing Design, Matthew Stuart, P.E., 2017
Design for Manufacturing and Assembly, Eaton University, 2008
Six Sigma for Design & Development, Eaton University, 2007
Six Sigma Green Belt, Eaton University, 2007
FEA Pre & Post Processing and Linear Solvers, Siemens NX, 2003
Advanced Probability and Statistics for Engineers, Youngstown State University, 2003

Education:

Bachelor of Science in Applied Science, Mechanical Engineering, Youngstown State University, Youngstown, Ohio, 2000

Courses Instructed/ Guest Lecturer:

Engineering Mechanics, Youngstown State University

Honors and Awards:

International Grand Prize winner of 2008 PTC/Pro-Engineer *Redefining Innovation* Design Contest for the entry of the *Easy Oars Forward Facing Rowing System*. Publication in May 2008 issue of Machine Design magazine and featured article in April 2008 issue of Manufacturing Business Technology magazine.