

Patrick G. Busick | Forensic Structural Engineer, PE

4700 Northwest Parkway, Suite 230, Hilliard, OH

614.430.0813

Patrick.Busick@efiglobal.com

Professional Summary:

Patrick Busick has 16+ years of combined professional experience in the fields of commercial and industrial structural engineering. His responsibilities have included structural analysis of new and existing structures of a multitude of construction materials including wood, masonry, steel, and concrete. Mr. Busick's experience included inspecting existing buildings for adding new structures, reinforcing design and analyzing failing structures. His work required assessing compliance with structural building codes.

Areas of Expertise:

- Water damage and microbial growth investigations
- Structural damage investigations – fire, water, storm, vehicular impact, other
- Roof and building condition assessments
- Existing structure analysis and reinforcement recommendation
- Structural repair and replacement design

Licenses and Certifications:

Licensed Professional Engineer (PE), Indiana, License #PE12100599

Licensed Professional Engineer (PE), Michigan, License #6201310172

Licensed Professional Engineer (PE), Ohio, License #E-76196

Licensed Professional Engineer (PE), West Virginia, License #024011

HAAG Residential Certified Inspector

Project Experience:

Various Forensic Examinations, Midwest Region

Served as project manager and structural engineer on over 200 insurance-related forensic structural engineering investigations on residential and commercial properties including but not limited to: foundation failure, roofing inspections, framing evaluations, fire damage evaluations and repair recommendations, and moisture intrusion in the states of Michigan, Ohio, Indiana and West Virginia.

Major Pet Food Manufacturer, Temple, TX New Construction - Industrial

Performed engineering design of a vertical steel tower in an industrial facility extending up through an existing roof. Created a structural model of the existing structure and the new tower, which allowed for analysis of their interaction. Performed all calculations necessary and applied

these to the creation of sections and details as well as general notes for a complete set of construction documents.

**Mimi's Café, Prototype
New Construction – Restaurant (Commercial)**

Responsible for design of a prototype structure that would be “rolled-out” to multiple locations across the United States. Performed calculations for all the elements of the wood structure (including wood trusses and manufactured wood beams) with concrete spread footings. These calculations were then utilized to create sections, details and general notes for a complete set of construction documents.

**McWane Ductile, Coshocton, OH
New Construction – Industrial**

Responsible for layout of a steel pipe run from the top of a steel foundry to ground level. This required structural modeling and analysis of existing and new steel towers that would accommodate the run of new steel pipes. Performed all necessary calculations for sections, details and general notes for creation of a complete set of construction documents.

Professional Experience:

EFI Global, Forensic Structural Engineer, 2019 – Present
Ventura Engineering, PE, 2008 – 2019
WD Partners, Structural Engineer, 2006 – 2008
Steven Schaefer Associates, Cooperative Education Student, 2004 – 2005

Specialized Education:

Wood and Masonry Design, University of Cincinnati/Baseheart, 2006
Adapting ASCE 7 Wind Load Provisions to Real Life Buildings, S.K. Ghosh/Boggs, 2015
AISC Night School – Fundamentals of Connections Design, AISC/Murray, 2017
The AISC Construction Manual: 15th Edition, AISC/Gerschwinder, 2018
An Overview of Structural Changes in 2018 IBC, S.K. Ghosh, 2018
An Overview of Major Changes in ASCE 7-16, S.K. Ghosh, 2018
Engineering Ethics, Dr. Norbert J. Delatte, Jr., PE, 2018
Deep Foundations – Overview and Design Example, Stephen Harris, P.E., S.E., 2018
Designing with Commercial/Industrial Insulated Metal Wall Panels, Drew Snoply, 2018
Seismic Restraint of Nonstructural Components, Chris Kimball, SE, MCP, CBO, 2018
The AISC Steel Construction Manual, 15th Ed and 2016 Specification, Louis E. Geischwinder, 2018
Steel Framed Stairway Design Part 1 – Overview and Gravity Loading, Adam Friedman, P.E., S.E., 2018
Wind Loads on Non-Building Structures for the Practicing Engineer, Emily Guglielmo, P.E., S.E., 2018
Tips to Optimize Structural Masonry, Diane Throop, P.E., 2018
Special Inspections Based Upon the Special Inspection Manual and 2018 IBC, S.K. Ghosh, 2019
ACI 318, Appendix D: Anchorage to Concrete with Post-Installed Mechanical Anchors, Todd E. Hamilton, P.E., 2019
Simpson Strong-Tie Anchor Designer Software, Todd E. Hamilton, P.E.
Ethics for Professional Engineers, Raymond Bosek, P.E., 2019
Fundamentals of Wood Construction, Raymond Bosek, P.E., 2019
Structural Forensic Engineering, Victor Popp, 2020

Residential Code of Ohio, Robert J. Schutz, 2020
Ohio Laws, Rules, and Ethics, Raymond Bosek, P.E., 2021
2021 International Residential Code: Residential Structural Design, Jared Agee, MCP, CBO, 2021
Residential Structural Design, Marcus Woods, Greg Robinson, 2021
An Introduction to Geotextiles in Pavement and Drainage Applications, J. Paul Guyer, 2021
Forensics Engineering Conference: The Forensics Mindset: It's More Than Just Engineering, Zachary Kates, P.E, LEED AP, 2022
Forensics Engineering Conference: Pensacola Bridge Collapse, Juan Carlos Araiza, Ph.D, P.E., 2022
Forensics Engineering Conference: Side Effects: Performance and Pathology of Building Enclosures, Michael Drerup, P.E., F. ASCE, 2022
Forensics Engineering Conference: Stucco: The Hottest and Worst Trend in Residential Litigations, Brian Eubanks, M.S.C.E., P.E., D.F.E., 2022
Forensics Engineering Conference: Tornadoes: Engineering Research to Implementation – 2011 to Present, Christine Standohar-Alfano, Ph.D., P.E., CCM, 2022
Forensics Engineering Conference: Metal Building Warehouse Failures, Norbert Delatte, Jr., P.E., Ph.D., F. ACI, F. ASCE, 2022
Forensics Engineering Conference: Flashing of Curtain Wall and Storefront Systems in Commercial Applications, David Cannon, AIA, REWC, 2022
Forensics Engineering Conference: Why is the Structure Not Behaving the Way Everyone Thought it Would, John Bryant, Ph. D., P.G., P.E., CPG, D. GE, 2022
Forensics Engineering Conference: 3D Forensics: Show & Tell, Jim Wiethorn, Ph.D., P.E., 2022
Forensics Engineering Conference: Deflection Issues with Two-Way Flat Plate Concrete Building, Aaron Larosche, Ph. D., P.E., SE, 2022
Forensics Engineering Conference: Emergency Repair of the I-40 Hernando De Soto Bridge, Francesco Russo, Ph.D, P.E., 2022
Forensics Engineering Conference: Tropicana Garage Collapse, David Peraza, P.E., 2022
Forensics Engineering Conference: Cantilevered Canopy Collapses: Have We Pushed the Envelope Too Far?, Michael Lee, P.E., 2022
Forensics Engineering Conference: Collapse of the Metro Rail in Mexico City, Sergio Alcocer, Ph.D., 2022
Forensics Engineering Conference: Project Delivery: Reconstructing a Structural System When Build-Out is Nearly Complete, Gordon Shepherd, P.E., RRC/Amy Patrick, P.E., 2022
Forensics Engineering Conference: TBPELS Professional Practice and Ethics, Lance Kinney, Ph.D., P.E., 2022

Education:

Bachelor of Science, University of Cincinnati, Cincinnati, OH, 2006 (Certificate of Achievement in Structural Engineering)

Affiliations:

American Society of Civil Engineers (ASCE)