

**MARK J. STERN & ASSOCIATES**  
**CONSULTING ENGINEERING**  
P.O. BOX 64616  
GARY, INDIANA  
46401-0616

## **QUALIFICATIONS BRIEF**

- Education** 1975, 1977, 1981. *Failure Investigations and Prevention*, University of Wisconsin, Madison  
1995 *Fundamentals of Seismic Design*, Structural Engineers Association of Illinois  
1999 *Engineered Wood Construction*, Engineered Wood Association  
2000 *Lateral Bracing East of the Rockies*, American Institute of Steel Construction  
2002 *Steel Beam Connections*, American Institute of Steel Construction  
2002 *Troubleshooting Concrete Construction*, American Concrete Institute
- Continuing Education** 2002 *Structural and Wind Loadings for the new International Building Code*, ICBO  
2003 *Concrete Slabs on Grade*, American Concrete Institute  
2003 *Design Solutions with Engineered Wood*, APA-The Engineered Wood Association  
2003 *Masonry Design*, Illinois Concrete Products Association  
2004 *Total Corrosion Management*, Sika Corporation  
2004 *Common Problems in Design, Fabrication and Erection of Steel*, Am. Inst. Steel Const.  
2004 *IBC Seismic Design Review*, Structural Engineers Association of Illinois  
2005 *Steel Design After College*, American Institute of Steel Construction  
2005 *Concrete Innovations and Answers*, High Concrete Group and Sika Corporation  
2005 *Seismic Braced Frames*, American Institute of Steel Construction  
2005 *Bar Joists and Girder Joists*, Purdue University Continuing Education & ASCE  
2006 *Post Installed Anchors*, Hilti Corporation  
2006 *Steel Design with the new AISC Manual*, American Institute of Steel Construction  
2006 *Bolting and Welding*, American Institute of Steel Construction  
2006 *Preventing Failures in Design & Construction*, University of Wisconsin  
2006 *Seismic Design-2003 IBC*, Structural Engineers Association of Illinois  
2007 *Structural Steel Design*, University of Wisconsin  
2007 *Designing with Architectural Precast Concrete*, Pre-Cast Concrete Institute  
2007 *Steel Joist and Steel Deck Design*, Steel Joist Institute & Steel Deck Institute  
2008 *Structural Design of Masonry Systems*, University of Wisconsin  
2008 *Concrete Innovations and Answers*, High Concrete Group and Sika Corporation  
2009 *Wood Design for Non-Residential Construction* Woodworks  
2009 *Water Entry Prevention and Moisture Control in Buildings*, University of Wisconsin  
2009 *Structural Provisions of the 2006 International Building Code*, University of Wisconsin  
2009 *Diaphragms, Chords, and Collectors*, National Council of Structural Engineers Association  
2009 *Tilt-up Construction*, Indiana Ready Mixed Concrete Association/Purdue University  
2009 *Transitioning from 2006 IBC to 2009 IBC Structural Provisions*, Structural Engineers Association of Illinois  
2010 *Steel Connections*, Structural Engineers Association of Illinois  
2010 *Practical Solutions for Effective Wood Buildings*, Woodworks  
2010 *ASCE 7-10-- CHANGES FROM ASCE 7-05*, Structural Engineers Association of Illinois  
2010 *Guide to the Design of Out-of-Plane Wall Anchorage*, National Council of Structural Engineers Association  
2010 *Deep Foundations/Lateral Earth Support*, Structural Engineers Association of Illinois

2011 **ASCE 7-10-- CHANGES FROM ASCE 7-05**, Structural Engineers Association of Illinois  
2011 **Steel Joist Institute- Highlights of Changes in the 2010 SJI Std. Specs. and Codes**, SJI  
2011 **Steel Joist Institute- Reinforcing and Investigating Steel Joists**, SJI  
2011 **Architectural Pre-Cast Concrete**, Pre-Cast Concrete Institute  
2011 **New Steel Construction Manual**, American Institute of Steel Construction  
2011 **Ethical Engineering-Concepts and Challenges**, National Society of Professional Engineers  
2011 **Deep Foundations**, Structural Engineers Association of Illinois  
2011 **Composite Design**, American Institute of Steel Construction  
2012 **Field Problems, Solutions and Prevention**, American Institute of Steel Construction  
2012 **Practical Design and Detailing Techniques for Reinforced Concrete**, Structural Engineers Association of Illinois  
2012 **Steel Deck Diaphragm Design**, American Institute of Steel Construction  
2012 **Masonry Design & Construction**, Structural Engineers Association of Illinois  
2012 **Design of Underslung Hoist and Crane Beams and Girders**, American Institute of Steel Construction  
2012 **"Chicago" Loads According to ASCE/SEI 7-10**, Structural Engineers Association of Illinois  
2013 **CJ Series Composite Steel Joists**, Steel Joist Institute  
2013 **Masonry Design & Construction 2013**, Structural Engineers Association of Illinois  
2013 **Deep Foundations and Earth Retention**, Structural Engineers Association of Illinois  
2013 **Soils in Construction**, Construction Advancement Foundation  
2013 **Designing Steel Joists for uplift**, Steel Joist Institute  
2013 **Design of Reinforced Steel Members**, American Institute of Steel Construction  
2013 **Evaluation & Modification/Open Web Steel Joists & Joist Girders II**, Steel Joist Institute  
2014 **Design of Reinforced Steel Members 2**, American Institute of Steel Construction  
2014 **Anchorage to Concrete using ACI Appendix D**, Structural Engineers Association of Illinois  
2014 **Geotechnical Engineering**, Construction Advancement Foundation  
2014 **Principles of Seismic Design**, Structural Engineers Association of Illinois  
2015 **Design of Low-Rise Reinforced Concrete Buildings**, Structural Engineers Assoc. of Illinois  
2015 **IBC Essentials for Wood-Frame Construction based on 2015 IBC**, Am. Wood Council  
2015 **Design of Connections for Wood Members using the NDS & TR12**, Am. Wood Council  
2016 **Joist Bridging**, Steel Joist Institute  
2016 **Diaphragm Design with Steel Deck**, Steel Joist Institute  
2016 **Evaluation & Modification/Open Web Steel Joists & Joist Girders 2**, Steel Joist Institute  
2017 **Helical Design: Code Compliance and Effects of Seismic Activity**, RamJack

*Post Graduate Studies* 1956 to 1957, Graduate courses in Structural Engineering and Mathematics, Purdue University Calumet, Hammond, IN

*University* 1953, **B.S., Civil Engineering**, Purdue University, West Lafayette, IN

*Honors* Chi Epsilon, National Civil Engineering Honorary Fraternity

**Professional Registration** Professional Engineer Indiana No. PE60008589 since 1959  
Professional Engineer Michigan No. 29479 since 1982  
Professional Engineer Wisconsin No. 21300-006 since 1982  
Professional Engineer Ohio No. 47490 since 1982  
Structural Engineer, Illinois No. 081-003478 since 1970  
Structural Engineering Certification Board, No. 1466-0705 since 2005  
Professional Engineer Tennessee No. 00112174 since 2008 (inactive)  
Professional Engineer Kentucky No. 27473 since 2010

**Affiliations** **Fellow, Life Member**, American Society of Civil Engineers (Past President, N.W. IN Branch)  
**Charter Member**, Professional Engineers In Construction

**Charter Member**, Structural Engineering Institute of the American Society of Civil Engineers

**Founding Member**, Indiana Structural Engineers Association

*Professional* **Life Member**, National Society of Professional Engineers

**Member**, Structural Engineers Association of Illinois

**Life Member**, Indiana Society of Professional Engineers (Past President, Calumet Chapter)

**Life Member**, American Concrete Institute

**Member**, American Institute of Steel Construction

**Member**, Northwest Indiana Contractors Association (Past President)

*Construction* **Trustee**, Construction Advancement Foundation of Northwest Indiana (Past Chairman)

**Past Trustee**, Indiana State Laborers Health and Welfare Fund (35 years)

**Past member**, Lake County Contractors License Board (Past Chairman)

**Experience** **1955 to 1994** Responsible charge of **Commercial Construction** of buildings costing up to 2.0 million dollars. Familiarity with all phases of **construction** and **construction management**.

**Representative Construction Projects:**

Remodeling of Porter Hall for Purdue University Calumet

Carpentry and Millwork in the construction of Southlake Mall, Ayers, and J.C. Penney

Construction of tenant build-out for over 100 stores in Southlake Mall, Hobart, IN

*Construction* Construction of Chapel Square Office Building, Merrillville, IN

Construction of an apartment project for St. Luke Housing and Development, East Chicago, IN

Miscellaneous remodeling in many bank branches for the former Gary National Bank

Design and Construction of Armstrong Jewelers in over ten shopping centers in the Midwest

Construction of the Massachusetts building for H. Gordon & Sons, Gary, IN

Design and Construction of the former Ross Care Center, Merrillville, IN

Construction of the Merrillville Bank & Trust (now Harris Bank), Merrillville, IN

Installation of elevator in old Lake County Courthouse

**1953 to 1955.** Chief Construction Surveyor and Chief Design Draftsman, Airfield Construction Battalion, United States Air Force

**1955 to 1993.** Structural Design for various project constructed by our family construction firm

**1960 to present.** Failure investigations for many insurance companies to determine cause of various construction failures so that the companies can determine insurance liability.

Appearance as an Expert Witness in court to testify about causes of failure, construction problems, and personal injury cases involving construction and/or building code violations.

Examination of buildings to determine safety after fire and/or windstorm and/or other physical damage.

*Professional* Owners representative to monitor construction for compliance with plans and specifications and certify completion for purposes of payment by the owner and/or lending institution.

Consultant to attorneys regarding construction and engineering problems of their clients.

**Representative Legal Cases**

Landlord/tenant case regarding tenant improvements

Personal injury cases involving building code violations

Construction projects involving completion and contract adherence

Construction projects regarding quality of construction

Arbitrations regarding construction contracts and projects

Personal injury cases involving job site safety

Subrogation cases involving construction

**1993 to present.** Structural design work for local architects, property owners, and design/build contractors.

**Representative Structural Design Projects**

Eads School, Munster, IN  
Lake County Libraries, St. John, Cedar Lake, Lake Station, Addition to main library  
Chemical Plant, Channahon, IL  
Strack & Van Til stores, various Indiana and Illinois locations  
Ultra Store additions, various Indiana and Illinois locations  
Castongia John Deere, DeMotte, IN  
Various foundations for dairy installations, Fair Oaks, IN  
Fairhaven School, Chesterton, IN  
Middle School, Lake Central School, St. John, IN  
Office Building, East Chicago, IN  
Machinery Foundations, East Chicago, IN  
Large residence, Bannockburn, IL  
Structural repairs, old sheriff's residence, Crown Point, IN  
Office Building complex, Crown Point, IN  
Public Safety Facility, St. John, IN  
Miscellaneous industrial projects involving remodeling in plants  
Readiness Center, Indiana National Guard, Gary, IN  
Addition to Calumet College, Whiting, IN  
Student Housing Apartment Building, Louisville, KY  
National Mascot Hall of Fame museum, Whiting, IN  
Office Building Addition, Strack & Van Til, Highland, IN  
Training Facility, Construction Advancement Foundation  
Four Story Apartment building, Whiting, IN  
Restaurant, Whiting, IN  
Remodel, Strack & Van Til, Munster, IN  
Public Service Building, Whiting, IN  
Apartment Building/commercial building, Valparaiso, IN  
Office Building, Munster, IN  
Park Facility, Porter County, IN