



PERSONNEL QUALIFICATIONS

Arne P. Johnson | Principal



EDUCATION

- University of Illinois, Urbana-Champaign
 - Bachelor of Science, Civil Engineering, 1987
- University of California, Berkeley
 - Master of Science, Structural Engineering, 1988

PRACTICE AREAS

- Structural Evaluation
- Repair and Rehabilitation Design
- Structural Peer Review
- Historic Structures
- Vibration and Noise Monitoring
- Concrete Deterioration
- Stadiums and Arenas
- Wood Structures

REGISTRATIONS

- Professional Engineer in IA, IL, IN, KY, MN, MO, OH, and WI
- Structural Engineer in IL

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- ASTM International (ASTM)
- Structural Engineers Association of Illinois (SEAOI)

CONTACT

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EXPERIENCE

Arne Johnson joined WJE in 1989 after working for a structural design firm in Chicago. At WJE, he has investigated several hundred concrete, steel, masonry, and wood structures. Most assignments have involved evaluation of structural capacity, deterioration, distress, or failure; many have included design of repairs, construction documents, and construction observation.

Mr. Johnson has particular expertise in evaluation and repair design for historic structures, including repair and protection systems for aging concrete. He has extensive experience evaluating and repairing wood structures. Mr. Johnson also has expertise in vibration testing and monitoring to protect structures from construction-related vibrations.

Mr. Johnson has performed numerous insurance-related investigations involving structural failures, fire damage, wind damage, vibration damage, and foundation settlement. He has also conducted many structural design peer reviews and load-rating studies.

REPRESENTATIVE PROJECTS

Structural Evaluation

- Art Institute of Chicago - IL: Numerous investigations and repair designs for museum buildings
- Soldier Field Stadium - Chicago, IL: Annual structural evaluations since 1990, repair designs and observation, life-cycle cost analysis, and development of repair and protection systems for historic concrete
- Wrigley Field - Chicago, IL: Structural investigation to assess stadium condition and cause of concrete deterioration
- Fenway Park - Boston, MA: Investigation of stadium structure and expansion plans
- Millennium Parking Garage - Chicago, IL: Structural analysis and repair design after construction failure
- Korea High Speed Rail Authority - Seoul, Korea: Concrete bridge investigations and quality audit

Repair and Rehabilitation Design/ Historic Structures

- 860-880 N. Lake Shore Drive - Chicago, IL: Investigation, structural repair design, and architectural repair consulting for historic apartment towers
- Bynum Island Bridge - Chicago, IL: Rehabilitation design for historic bridge and stone abutments
- Edgar County Courthouse - Paris, IL: Restoration design for bell tower of historic courthouse
- Franklin Avenue Bridge - Minneapolis, MN: Investigation and repair recommendations for historic concrete arch bridge over Mississippi River

Structural Peer Review

- Art Institute of Chicago - IL: Structural consulting and peer review for Modern Wing addition
- Condell Medical Center - Libertyville, IL: Structural consulting and peer reviews for hospital additions

Vibration and Noise Monitoring

- Art Institute of Chicago, Modern Wing Addition - IL: Pre-construction vibration testing, recommendations for protection of building and artwork, vibration testing, and consulting during construction
- Saint Louis Art Museum Expansion - MO: Preconstruction vibration testing, recommendations for protection of building and artwork, consulting and monitoring of vibrations during construction
- 112 S. Michigan (School of the Art Institute) - Chicago, IL: Vibration testing and monitoring during demolition of floors for new elevators

TECHNICAL COMMITTEES

- ASTM Committee D07 - Wood