PERSONNEL QUALIFICATIONS

# Scott Graham | Senior Associate

## EDUCATION

- University of Illinois at Urbana-Champaign
  - Bachelor of Science, Civil Engineering, 1999
  - Master of Science, Civil Engineering, 2001

## PRACTICE AREAS

- Stadiums and Arenas
- Repair and Rehabilitation Design
- Instrumentation/Monitoring/ Load Testing
- Failure/Damage Investigations
- Bridges and Civil Infrastructure

## REGISTRATIONS

- IDOT Certified Bridge Inspection Team Leader
- NHI Course 130055 - Safety Inspection of In-Service Bridges
- NHI Course 130078 - Fracture Critical Inspection Techniques of Steel Bridges
- Professional Engineer in IL
- Structural Engineer in IL

## PROFESSIONAL AFFILIATIONS

- American Concrete Institute
- Concrete Reinforcing Steel Institute
- Structural Engineers Association of Illinois

## CONTACT

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## EXPERIENCE

Scott Graham is experienced in the investigation and evaluation of the capacity and condition of various existing structures, including high-rise buildings, university structures, restoration projects, cornices, cranes, stadiums, and bridges. He conducts on-site and in situ full-scale load testing, inspects and documents existing conditions, and develops repair recommendations for concrete, steel, masonry, and wood structures.

Mr. Graham is also experienced in the instrumentation and testing of mechanical couplers for reinforcing steel. This work involves producing performance data for mechanical coupler systems per testing standards and acceptance criteria developed by various state agencies. Mr. Graham's work on bridge projects has included NBIS inspections and condition assessments of fracture critical elements and gusset plates. It has also included developing erection or demolition procedures during construction.

## REPRESENTATIVE PROJECTS

### Stadiums and Arenas

- Wrigley Field - Chicago, IL: Condition assessment of various structural components within stadium
- Aloha Stadium - Honolulu, HI: Complete condition assessment of section loss to weathering steel components of stadium

### Repair and Rehabilitation Design

- Cloud County Community College - Concordia, KS: Structural evaluation and repair design for lateral load system
- Marquette Building - Chicago, IL: Structural evaluation and repair design to convert seventeenth floor from attic space to office space and design of support for the restored cornice along roof perimeter
- Aquascape - Batavia, IL: Structural evaluation to retrofit existing warehouse after a portion collapsed under snow load

### Instrumentation/Monitoring/Load Testing

- Daley Center - Chicago, IL: Design and load testing of swing stage attachments for fall arrest lifelines
- NASA Vehicle Assembly Building - Cape Canaveral, FL: Full-scale load testing to determine wind load carrying capacity of exterior aluminum panels
- Various Mechanical Coupler/End Anchor Designs: Instrumentation, testing, and reporting on various designs of reinforcing steel mechanical couplers and end anchors; tests including monotonic tension, compression, low-cycle fatigue, high-cycle fatigue, and seismic

### Failure/Damage Investigations

- Major Retail Store Chain - Northeast U.S.: In situ roof snow load determination during 2015 blizzard
- John Hancock Scaffold - Chicago, IL: Investigation of swing stage collapse
- Rayse Creek Bridge Collapse - Jefferson County, IL: Investigation of bridge collapse due to pile failure
- Canadian Natural Resources, Ltd. - Fort McKay, Alberta: Structural inspection of CNRL Horizons fire-damaged industrial plant

### Bridges and Civil Infrastructure

- 606 Milwaukee Avenue Bridge - Chicago, IL: Development of erection procedure for converting abandoned four-span railroad bridge into single-span, tied-arch bridge
- Central Artery/Tunnel Safety Audit - Boston, MA: Condition assessment of more than 120 steel viaduct structures associated with the Big Dig
- IH-345 - Dallas, TX: Field inspection of fracture critical components along 1.6 mile stretch of elevated roadway
- Harlem Avenue Bridge - Palos Heights, IL: Fracture critical inspection of bascule bridge spanning Cal-Sag River
- Leverett Circle Connector Bridge - Boston, MA: Field inspection of steel superstructure and concrete substructure

## TECHNICAL COMMITTEES

- ACI 408 - Bond Development of Steel Reinforcement
- ACI 408-0A - Mechanical Reinforcing Bar Anchorages and Splices, Secretary
- ACI 439 - Steel Reinforcement