



# Peter Ricchio, P.E., S.E.

## SENIOR ENGINEER

Mr. Ricchio serves as a Senior Engineer in the Structural Engineering & Mechanics group. He has extensive experience in structural engineering and evaluation, specializing in condition assessments and structural analyses of existing buildings, rehabilitation and repair design, forensic investigations, construction observations, and construction contract administration. Mr. Ricchio has performed condition assessments, repair design, and forensic investigations of parking garages; forensic investigations of deep foundations; facade leakage investigations and repairs; structural analyses of post-tensioned floor slabs; review of construction and safety practices for high-rise concrete buildings; and development, installation, and maintenance of a structural monitoring system. He has also been involved in the evaluation and repair of a variety of precast concrete, post-tensioned concrete, reinforced concrete, steel, wood, and masonry structures.

### Academic Credentials

M.S. in Civil Engineering  
Purdue University, 2005

B.S. in Civil Engineering  
Purdue University, 2004

### Licensure/Certification

Structural Engineer  
IL

Professional Engineer  
AK, DC, IL, FL, MA, NC, NV, NJ,  
OH, PA, SC, TX, PR

### Professional Affiliations

American Institute of Steel  
Construction  
Structural Engineers Association  
of Illinois

### Contact Information

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### Representative Project Experience

#### Forensic/Failure Investigation

- Investigated the failure during construction of precast concrete hollow core floor slab elements at a multi-story residential development in Chicago, Illinois.
- Investigated the as-built conditions of reinforced concrete deep foundation elements supporting a super tall building under construction in downtown San Francisco, California
- Investigated the as-built condition of a raft slab supporting a super tall building under construction in Kuala Lumpur, Malaysia.
- Performed damage assessments, structural evaluations, and developed conceptual repair recommendations for numerous structures throughout southeast Texas following Hurricane Harvey.

#### Quality Assurance Inspection

- Conducted field observations of various concrete construction sites in New York City to assess the conformance of the structure with the approved design documents. Coordinated observations with Department of Buildings inspectors to remedy observed construction items that were not in conformance with design documents.
- Conducted field observations of multiple repair projects at a shopping center in the Midwest U.S. Repair work included architectural cladding replacement, strengthening and repair of precast concrete structural framing members in multiple parking garages, and replacement of parking areas and roofing above occupied retail space.
- Conducted field observations of reinforced concrete antenna pedestal structures under construction in southeast Asia.
- Conducted field observations of in-progress repairs to antenna pedestal structures near Madrid, Spain.

#### Analysis

- Performed an as-built condition survey of a two-story, cast-in-place concrete parking garage in the Midwest U.S., through investigative demolition, nondestructive testing and visual observations. Conducted a structural design review of post-tensioned and conventionally reinforced concrete structural members.
- Performed structural analyses of post-tensioned floor slabs in a high rise residential condominium building in the Northwest U.S. Evaluated the structural capacity of the floor slabs resulting from the loss of post-tensioning tendons due to corrosion.

#### Structural Evaluation

- Assisted in the development and installation of a strain gage monitoring system for use during the widening of an existing multi-span steel truss bridge in Southeast U.S.



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- Performed a condition survey of a multi-level post-tensioned concrete parking garage in Chicago to evaluate concrete distress, areas of water leakage and a failed construction joint. Performed field observations and served as project assistant during subsequent repair program.
- Performed a water infiltration assessment of a concrete high rise condominium building in Chicago to evaluate possible sources of water intrusion into residential units. Identified exterior concrete and window system repair locations and coordinated repair work with contractor.
- Performed an evaluation of precast concrete channel slab roof panels and metal deck roof panels at a manufacturing facility in the Midwest U.S. Documented existing conditions such as concrete cracks, concrete spalls, concrete delaminations, metal deck distress and metal deck corrosion.
- Performed a structural evaluation of a 1920's era concrete parking structure near Chicago, Illinois. Developed structural repairs to address observed distress and performed construction observations of in-progress repairs.
- Performed a structural evaluation and developed repair recommendations for a below grade precast concrete parking structure in Springfield, Illinois.
- Performed structural evaluations, developed repairs, and performed construction observations of precast concrete and post-tensioned concrete parking structures at multiple shopping centers throughout the United States.

### Litigation Support

- Provided litigation support for the partial collapse of a reinforced concrete parking garage in the Northeast U.S., through documentation and observation of structural component testing, review of construction documents and structural analysis.
- Provided litigation support for the partial roof collapse of a retail facility under construction in the Midwest U.S. due to an apparent overloading of rain water during an extreme weather event.