

Michael J. Fornek | Senior Associate



EDUCATION

- University of Illinois at Urbana-Champaign
 - Bachelor of Science, Civil Engineering, 2008
- Stanford University
 - Master of Science, Structural Engineering, 2009

PRACTICE AREAS

- Parking Structures
- Structural Analysis
- Failure/Damage Investigations
- Steel Structures
- Earthquake Damage Assessment
- Repair Design
- Structural Design
- Concrete Structures
- Finite Element Analysis

REGISTRATIONS

- LEED Accredited Professional
- Professional Engineer in CA
- Structural Engineer in IL

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- Structural Engineers Association of Illinois (SEAOI)

CONTACT

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* Indicates with previous firm

EXPERIENCE

Michael Fornek has broad-based experience in condition assessments, structural evaluation, and repair design for buildings, bridges, and other structures constructed from various systems, including conventionally reinforced, prestressed, and post-tensioned (PT) concrete, steel, and timber structures. He has performed high-level finite element modeling for various structures, and his experience includes bridge engineering and the rating of existing bridge structures.

Since joining WJE in 2018, Mr. Fornek has focused on structural analysis and forensic evaluation of existing structures. His work as a design engineer prior to joining WJE has given him firsthand understanding of complex design and construction processes. His past project experience includes complex adaptive reuse construction of existing buildings and PT concrete structures and cable-stayed pedestrian bridges.

REPRESENTATIVE PROJECTS

Parking Structures

- 400 East Ohio Street - Chicago, IL: Parking garage concrete repair design and construction administration
- Baxter Healthcare - Deerfield, IL: Annual parking garage concrete inspection, repair design, and construction administration
- St. Louis Place - St. Louis, MO: Inspection and oversight of concrete and PT repairs for parking structure
- City Center - Oshkosh, WI: Frame analysis and corbel design for repair of three-story precast and conventionally reinforced concrete structure with parking above occupied space

Structural Analysis

- Oregon Department of Transportation Bridge Ratings: Structural analysis to refine bridge ratings for inadequate existing bridges
- Sentry Headquarters - Stevens Point, WI: Structural evaluation of existing roof anchor system braced against existing parapet wall
- Plainfield High School - Plainfield, IL: Analysis of existing timber structures for wind loading

Failure/Damage Investigations

- Corona, CA: Forensic investigation of incident involving temporary bridge falsework
- Mariano's - Chicago, IL: Site inspections and oversight of existing roof waterproofing system and associated repairs
- The Address Hotel - Dubai, UAE: Structural damage assessment of sixty-five-story hotel that experienced severe fire damage *

Steel Structures

- 70 West Madison Street - Chicago, IL: Design of roof fall protection and anchor system
- Baxter Healthcare - Deerfield, IL: Repair design and construction administration for cable-stayed roof structure
- Willis Tower - Chicago, IL: Design of five-story podium structure around base of iconic tower *

Earthquake Damage Assessment

- Multiple Projects - Christchurch, New Zealand: Damage assessments and repair schemes following 2011 earthquake *

Repair Design

- 400 East Ohio Street - Chicago, IL: Facade repair design and construction administration
- Mississippi Terrace - Keokuk, IA: Design of PT and concrete repairs for seven-story residential structure
- Ira Jones Middle School - Plainfield, IL: Site survey and repair design to address settlement of slab-on-grade

Structural Design

- Red Gate Road - St. Charles, IL: Design of cable-stayed pedestrian bridge underslung beneath a new river crossing *
- Milwaukee Intermodal - WI: Design of new roof trusses for reconstruction of new train shed *

Concrete Structures

- Wacker Drive Reconstruction - Chicago, IL: Design of post-tensioned concrete deck slabs for elevated viaduct structure *

Finite Element Analysis

- Balcony Peer Review - Pembroke Pines, FL: Finite element modeling of existing residential balconies