



PERSONNEL QUALIFICATIONS

Vincent J. Kania | Associate III



EDUCATION

- University of Illinois at Urbana-Champaign
 - Bachelor of Science, Structural Engineering, 2012
- University of California, Berkeley
 - Master of Science, Structural Engineering, 2016

PRACTICE AREAS

- Structural Evaluation
- Repair and Rehabilitation Design
- Structural Analysis/Computer Applications
- Failure/Damage Investigations
- Load Testing
- Seismic Evaluation
- Reinforced Concrete Structures
- Steel Structures

REGISTRATIONS

- Structural Engineer in IL

CONTACT

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EXPERIENCE

Since joining WJE in 2016, Vincent Kania has gained experience in various engineering projects involving the investigation, analysis, repair, and retrofit of reinforced, prestressed, and post-tensioned concrete, steel, and timber building structures. He has experience in structural and computer analyses to model the behavior of existing structures and to design repairs and retrofits. Mr. Kania also has laboratory and field experience in full-scale structural load testing as well as bridge structure experience in new design and load rating. He has also developed expertise in seismic evaluation of building structures involving both new construction and existing facility retrofits.

REPRESENTATIVE PROJECTS

Structural Evaluation

- U.S. Army Public Health Command Lab - Gunpowder, MD: Steel and composite floor framing deflection analysis for differential settlement and construction staging
- Ultra-High-Performance Concrete (UHPC) Shear Evaluation - Northbrook, IL: Analysis and evaluation of test results; development of vertical shear design recommendations for UHPC structural members
- Marina City Bowling Alley Rooftop Deck - Chicago, IL: Evaluation and analysis of existing concrete and steel bar joist roof structure for new occupancy loads

Repair and Rehabilitation Design

- ASARCO Ray Mine Electrowinning Building - Kearney, AZ: Repair and retrofit design of industrial processing facility due to extreme differential foundation movements
- ASARCO Ray Mine Leach Vats - Kearney, AZ: Steel bracing retrofit design to address severe deterioration of concrete walls
- Chase Tower Storefront Restoration - Chicago, IL: Investigation, repair design, and construction oversight of deteriorated structural steel framing for glass curtain wall
- Marina Towers - Chicago, IL: Inspection and concrete repairs to balconies and facade of landmark structure

Structural Analysis/Computer Applications

- Burton Barr Library Roof Repair - Phoenix, AZ: Computer analysis of cable roof truss system for roofing and ballast repair design
- Horizon House Towers - Fort Lee, NJ: Computer modeling and analysis of twenty-eight-story concrete shear wall towers to evaluate structural response to wind event

Failure/Damage Investigations

- Florida International University Pedestrian Bridge - Miami, FL: Failure analysis of post-tensioned concrete truss web members
- Chase Tower Vaulted Sidewalk Collapse - Chicago, IL: Investigation and repair design of concrete walls and steel beams supporting vaulted sidewalk

Load Testing

- Prestressed Concrete Beam Testing - Northbrook, IL: Load testing and evaluation of prestressed concrete beams with Cazaly hanger detail
- Ultra-High-Performance Concrete Beam Shear Testing - Northbrook, IL: Load testing of full-size UHPC beams in shear
- Chicago Public Schools - Chicago, IL: Load testing of 1920s-vintage reinforced concrete roof structures
- Janney Technical Center Structural Laboratory - Northbrook, IL: Design of and fabrication support for 2000-kip capacity steel test frame

Seismic Evaluation

- Salt Lake City Airport Parking Garage - UT: Seismic analysis and evaluation of post-tensioned concrete moment frames to address construction and design deficiencies
- Via Christi St. Joseph Hospital - Wichita, KS: Seismic evaluation, analysis, and preliminary repair design of existing building structure, including steel moment frames and composite concrete floor slabs
- CURE Hospital - Santo Domingo, Dominican Republic: Seismic evaluation and analysis of six-story concrete and masonry building