



PERSONNEL QUALIFICATIONS

Matthew L. Arnold | Associate III



EDUCATION

- Kansas State University
 - Bachelor of Science, Civil Engineering, 2011
 - Master of Science, Civil Engineering, 2013

PRACTICE AREAS

- Bridges and Civil Infrastructure
- Repair and Rehabilitation
- Difficult Access
- Structural Testing

REGISTRATIONS

- NHI Course 130055 - Safety Inspection of In-Service Bridges
- NHI Course 130078 - Fracture Critical Inspection Techniques for Steel Bridges
- Professional Engineer in IL and KS
- Society of Professional Rope Access Technicians (SPRAT) - Level 1 Technician

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- National Council of Structural Engineers Associations - SE3 Committee
- Structural Engineers Association of Illinois

CONTACT

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EXPERIENCE

Since joining WJE in 2017, Matthew Arnold has been involved in a variety of projects related to modeling and load rating of bridges; repair and modification design of buildings; field inspection and condition assessment of elevated structures; and structural testing, primarily of facade access equipment.

Prior to joining WJE, Mr. Arnold worked at a bridge design firm near Kansas City, Kansas. His previous work includes the design and repair of vehicular bridges and related temporary structures, NBIS inspections and condition assessments of routine and fracture critical bridges, bridge modeling and load rating, project management and construction period services, and computer-aided drafting. Mr. Arnold's work as a federally funded graduate research assistant focused on developing ASTM A1096, a quality control test for evaluating bond of steel reinforcements used in prestressed concrete applications.

REPRESENTATIVE PROJECTS

Bridge and Civil Infrastructure

- Mississippi Department of Transportation (DOT) - Various Bridges: Team leader of routine and fracture critical inspections, modeling, and load rating
- Will Rogers Airport - Oklahoma City, OK: Evaluation of elevated roadway structure using visual and nondestructive evaluation inspection methods
- Kansas DOT - Multiple Kansas Counties: Assistant to NBIS program manager in developing bridge inspection plans and team leader of routine inspections*
- Kansas Turnpike Association: Design of temporary retaining wall and falsework structures for large-scale bridge and road replacement projects*

Repair and Rehabilitation

- Aon Center - Chicago, IL: Multiple structural evaluations throughout the building, including various feasibility studies and design of a new access point and ADA ramp
- NBC Tower - Chicago, IL: Structural evaluation of concrete slab systems to facilitate the replacement and mobilization of new chiller units

- Chicago Bee Library - Chicago, IL: Structural modification/design to incorporate a new stairwell into an existing structure
- Old Chicago Post Office - Chicago, IL: Inspection and assessment of concrete and steel structures at track and roof levels
- Kansas DOT - Topeka: Project management and repair inspections of concrete decks, polymer overlays, and joint replacement of existing highway bridges*

Difficult Access

- Inland Steel Building - Chicago, IL: Inspection of welds on steel column panel cladding elements
- Loyola University - Chicago, IL: Facade assessment of terra cotta and brick masonry
- University of Chicago - IL: Critical inspection of P/C concrete panels and glass curtain walls
- Pershing Tower - Chicago, IL: Critical inspection of terra cotta and brick masonry of historic clock tower
- Mississippi DOT - Various bridges: Fracture critical inspection of multiple bridges using industrial rope access techniques

Structural Testing

- Northwestern Medical Center - Chicago, IL: Structural testing of existing davit bases, davit arms, and roof anchorages on multiple buildings
- 227-237 East Delaware - Chicago, IL: Design and structural testing of new facade access anchorages and equipment
- 401 East Ontario - Chicago, IL: Load testing of new and existing anchorages used for facade access
- 120 North LaSalle - Chicago, IL: Load testing of existing davit arms used for facade access

**Indicates work prior to joining WJE*