

Landon W. Holder | Senior Associate



EDUCATION

- Virginia Polytechnic Institute and State University
 - Bachelor of Science, Civil Engineering, 2009
 - Master of Science, Civil Engineering, 2010

PRACTICE AREAS

- Parking Structures
- Failure/Damage Investigations
- Structural Analysis
- Bridges
- Nondestructive Evaluation
- Repair and Rehabilitation

REGISTRATIONS

- Structural Engineer in IL
- NHI Course 130055 - Safety Inspection of In-Service Bridges
- NHI Course 130078 - Fracture Critical Inspection Techniques for Steel Bridges
- Society of Professional Rope Access Technicians (SPRAT) - Level I Technician
- AWS Certified Welding Inspector

PROFESSIONAL AFFILIATIONS

- Structural Engineers Association of Illinois

CONTACT

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EXPERIENCE

Since joining WJE in 2011, Landon Holder has been involved in multiple projects involving structural evaluation and condition assessment of bridges, parking structures, residential structures, as well as membrane structures and bleacher systems. His work has included assessment of structural performance involving deterioration, distress, and evaluation of design errors using computer and structural analysis.

As a graduate research assistant, Mr. Holder studied the behavior of composite steel girders subject to over-height vehicle collisions. His work included formulation and implementation of an instrumentation plan, strain and displacement monitoring, and nonlinear finite element modeling and analysis of the structure under investigation.

REPRESENTATIVE PROJECTS

Parking Structures

- Des Plaines Casino Garage - Des Plaines, IL: Design review of parking garage to assist in failure investigation
- Park Place Tower - Chicago, IL: Field inspection of parking garage to assist in rehabilitation design

Failure/Damage Investigations

- The Meadows Care Center - Joplin, MO: Inspection of post-tornado damage of a timber-framed medical facility

Structural Analysis

- Cavalia - Toronto, ON: Field investigation and computer analysis of aluminum bleachers to determine design adequacy and develop repairs
- Courthouse Square - Salem, OR: Evaluation of the original design of post-tensioned slab using computer and structural analysis to assist in a punching shear load test
- Indiana Toll Road: Load ratings of multiple bridge structures to assist in repair and rehabilitation designs
- Ethanol Production Facility - Rochelle, IL: Assistance in field investigation and structural analysis of two reinforced concrete grain silos

- Multiresidential Condominium Building - North Hollywood, CA: Finite element analysis of post-tensioned slab after expansion joint failure, evaluation of original design, and development of repairs

Bridges

- Chicago Department of Transportation - Chicago, IL: Visual inspection of twenty-three bridges for CDOT to assist in structural evaluation and analysis of pin and hanger connections
- Structure 1-3 Indiana Toll Road - Hammond, IN: Inspection of concrete piers to assist in the repair and rehabilitation design of two bridges; project engineer for construction observation of the implemented repairs
- Sherman Minton Bridge - Louisville, KY: Through-arch bridge steel core sampling for material testing

Nondestructive Evaluation

- Amelia Earhart Bridge - Atchison, KS: Ultrasonic testing of steel tab plates in knuckles of tied-arch bridge
- Gill-Montague Bridge - Turners Falls, MA: Ultrasonic and visual inspection of bearing pins to assist in structural analysis of deck truss bridge
- Parking Garage Review at 1751 Diehl Road - Naperville, IL: Assistance in GRP testing of prestressed T-beams to determine cause of shear cracking
- Tennessee Department of Transportation: Ultrasonic testing of girder and truss-pinned connections of deck truss and through-truss bridges