

Jamie Hudson | Associate II



EDUCATION

- Lehigh University
 - Bachelor of Science, Civil Engineering, 2015
- University of Edinburgh and University of Glasgow
 - Master of Science, Structural Engineering and Mechanics, 2016

PRACTICE AREAS

- Facade Assessment
- Plazas and Terraces
- Repair and Rehabilitation
- Structural Analysis
- Historic Preservation

PROFESSIONAL AFFILIATIONS

- Association for Preservation Technology International (APT)
- Structural Engineers Association (SEA)

CONTACT

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EXPERIENCE

Jamie Hudson joined WJE in 2016, bringing with her three years of academic research experience in structural health monitoring and structural intervention in building conservation. Since joining WJE, Ms. Hudson has worked on a variety of projects involving the evaluation of existing structures. Her work has included condition assessments, load capacity evaluations, water leakage testing, and on-site inspections.

While an undergraduate student at Lehigh University, Ms. Hudson assisted with research developing a compressive sampling scheme for damage detection and localization for steel structures. Her graduate research at the Universities of Edinburgh and Glasgow involved the evaluation of the structural response of Gothic stone masonry vaults to differential settlement and the suitability of fiber reinforced polymers as an intervention technique.

REPRESENTATIVE PROJECTS

Facade Assessment

- The Pennsylvanian Rotunda Restoration - Pittsburgh, PA: Evaluation of terra cotta rotunda and building construction
- Stephen Foster Memorial - Pittsburgh, PA: Water infiltration investigation of built-in copper gutters and Indiana limestone masonry walls
- Hanna Building at Playhouse Square - Cleveland, OH: Facade ordinance inspection and condition assessment
- Trimont Condominiums - Pittsburgh, PA: Evaluation of reinforced concrete facade construction

Plazas and Terraces

- Tribute to Children - Pittsburgh, PA: Design study, repair design, and construction observations for topping slab replacement and waterproofing remediation
- Pasquerilla Spiritual Center - Eisenhower Chapel Frizzell Room - University Park, PA: Water infiltration investigation involving metal framed fenestration and exposed exterior concrete

Repair and Rehabilitation

- PNC Park Waterproofing Repairs - Pittsburgh, PA: Construction phase services for waterproofing repairs to stadium seating areas and concourses including sealant, surface sealer, and expansion joint repairs

Structural Analysis

- David L. Lawrence Convention Center - Pittsburgh, PA: Structural evaluation of precast plank flooring
- City of Akron Retaining Walls - Akron, OH: Evaluation of the safety and suitability of retaining walls

RESEARCH PUBLICATIONS

- Hudson, J., Theodosopoulos, D. 2017. Gothic Barrel Vaults under Differential Settlement: The Effects of Boundary Conditions and FRP on Structural Behaviour. Paper presented at the annual international conference on Mechanics of Masonry Structures Strengthened with Composite Materials, June 28-30, in Bologna, Italy.
- Yao R., Pakzad S.N., Hudson J.M. 2015. Iterative Spatial Compressive Sensing Strategy for Structural Damage Diagnosis as a BIG DATA Problem. Paper presented at the annual IMAC conference of the Society for Experimental Mechanics.