



#### EDUCATION

- Illinois Institute of Technology
  - Bachelor of Science, Architectural Engineering, 2006
  - Master of Structural Engineering, 2008

#### PRACTICE AREAS

- Facade Assessment
- Failure Investigation
- Peer Review
- Repair and Rehabilitation Design
- Structural Evaluation

#### REGISTRATIONS

- Professional Engineer in IL
- Structural Engineer in IL

#### PROFESSIONAL AFFILIATIONS

- Structural Engineers Association of Illinois

#### CONTACT

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#### EXPERIENCE

Since joining WJE in 2008, James Lewan has been involved in a variety of projects, including facade inspections, condition surveys, testing and evaluation, repair and rehabilitation design, construction document preparation, peer review, and structural analyses. He has performed evaluations of brick, terra cotta, stone masonry, concrete, steel, and glass facades. Mr. Lewan has assessed the causes of collapse or distress in existing structures, prepared comments and recommendations for peer reviews, provided steel and concrete repair details, and performed numerous structural analyses on various structures.

While attending the Illinois Institute of Technology, Mr. Lewan performed independent research on second-order effects of building frames and energy dissipation techniques for impact-attenuating devices for formula race cars. Both projects involved formulating mathematical theories regarding the behavior to be studied. Mr. Lewan constructed prototypes and performed thorough testing on them to test the validity of the model. Test results were used to modify the prototype to achieve better performance.

#### REPRESENTATIVE PROJECTS

##### Facade Assessment

- Chicago Housing Authority - IL: Facade inspection of numerous brick masonry buildings
- Macy's - Chicago, IL: Condition assessment of terra cotta, stone masonry, and glass facade

##### Failure Investigation

- Aurora Skate Center - Aurora, IL: Investigation of partial ceiling collapse due to failed tension chord of bowstring truss

##### Peer Review

- Chicago Mercantile Exchange Center - IL: Peer review of structural design and calculations for proposed modifications
- One Museum Park West - Chicago, IL: Peer review of structural calculations for curtain wall system

#### Repair and Rehabilitation Design

- 300 South Riverside - Chicago, IL: Assessment of reserve capacity for new loads on existing structure and design of strengthening repairs
- Chicago Federal Center - IL: Design of spread footing alternate to proposed deep foundations for architectural tree canopies
- Oklahoma Judicial Center - Oklahoma City: Assessment of as-installed anchorage to concrete and design of new steel to concrete connections

#### Structural Evaluation

- Aloha Stadium - Aiea, HI: Wind load certification for stadium seating high-roof main wind force resisting system, and component and cladding
- Cornerstone Parking Garage - Cincinnati, OH: Investigation of adequate strength and serviceability of existing precast concrete members for original design loads