

Matthew E. Lewis | Senior Associate



EDUCATION

- Michigan Technological University
 - Bachelor of Science, Civil Engineering, 2002
 - Master of Science, Civil Engineering, 2003

PRACTICE AREAS

- Code Consulting
- Construction Troubleshooting
- Failure/Damage Investigations
- Litigation Consulting
- Fire Damage
- Repair and Rehabilitation Design
- Structural Evaluation
- Parking Structures

REGISTRATIONS

- Professional Engineer in IN
- Professional Engineer in MI

PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction
- American Society of Civil Engineers
- Structural Engineering Institute

CONTACT

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EXPERIENCE

Since joining WJE in 2003, Matthew Lewis has performed investigations and assessments of historic and contemporary buildings, parking structures, stadiums, municipal structures, and smokestacks, as well as retail, office, and residential buildings. His projects involve a wide variety of services, including field investigation, structural analysis, nondestructive testing and instrumentation, structural damage and failure assessment, design of structural repairs, preparation of construction documents and drawings, construction observations, and building code investigation.

Prior to joining WJE, Mr. Lewis performed research at Michigan Technological University in fatigue analysis and evaluation of large steel overhead sign support structures. This work resulted in a comparative method for structures based on a combination of their economic and performance characteristics. This method was made available to state departments of transportation in the United States for use in the development of a stronger and more economic sign support structure.

REPRESENTATIVE PROJECTS

Construction Troubleshooting

- Conner Creek - Detroit, MI: Observation of extensive reinforced concrete repairs in a historic combined sewer overflow facility
- Palo Verde Water Reclamation Facility - Tonopah, AZ: Observation of concrete repairs for large water treatment structures at nuclear power plant
- Cobo Conference and Exhibition Center - Detroit, MI: Observation of concrete repairs at helix bridge and roof-level parking

Failure/Damage Investigations

- Cadillac Place - Detroit, MI: Causation investigation for partial collapse of historical plaster ceiling
- Joplin Schools - Joplin, MO: Structural assessment of tornado damage at multiple educational facilities
- Mt. Zion Church - Auburn Hills, MI: Structural investigation of an auditorium roof that partially collapsed during a storm

- Comerica Auburn Hills Operations Center - MI: Investigation, repair, and in situ drying of post-tensioned tendons for concrete slabs

Litigation Consulting

- Center for Forensic Psychiatry - Ann Arbor, MI: Analysis of construction change order items related to project cost overrun and delay
- Criminal Justice Center - Huntsville, AL: Extensive field inspection and evaluation of construction documents for new correctional facility
- Tractor Supply Company - Fenton, MI: Field inspection, evaluation, and structural analysis of tornado-damaged commercial building

Fire Damage

- LMCU Ballpark (formerly Fifth Third Ballpark) - Grand Rapids, MI: Fire damage investigation and repair of a baseball stadium
- Oakland Hills Country Club - Bloomfield, MI: Fire damage assessment and building code review for historic building

Structural Evaluation

- Little Rock and Morrilton Schools - AR: Field inspection of fire-retardant-treated truss structures
- Major Retail Store Chain - U.S. Locations: Field inspection, structural analysis, repair recommendations, and design for large, metal-framed buildings
- GM Saginaw Metal Casting Operations - Saginaw, MI: Investigation, testing, and repair of elevated concrete slab

Parking Structures

- Grand Circus Park - Detroit, MI: Design-build assessment, repair design, construction documents, and construction observations for large underground parking garage
- City of Birmingham - MI: Assessment, repair design, construction documents, and construction observations for five parking garages
- Fisher Building - Detroit, MI: Assessment and development of strategic repair approach for historic parking structure