



EDUCATION

- Georgia Institute of Technology
 - Bachelor of Civil Engineering, Structures, 1995
- University of Illinois
 - Master of Science, Structural Engineering, 2005

PRACTICE AREAS

- Health Monitoring
- Research and Testing
- Structural Evaluation
- Structural Analysis/Computer Modeling
- Repair and Rehabilitation Design
- Condition Assessment
- Bridge Engineering
- Failure Investigation
- Software Development
- Testing and Instrumentation
- Vibration and Noise Monitoring

REGISTRATIONS

- NHI Course 130055 - Safety Inspection of In-Service Bridges
- Professional Engineer in DC, FL, MD, and VA
- Structural Engineer in IL

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)

CONTACT

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EXPERIENCE

Since joining WJE in 2001, Richard Lindenberg has worked on variety of projects using his specialized experience in structural evaluation through structural modeling and instrumentation. Most of his assignments involve bringing an innovative approach to field data collection, data analysis, and visualizations. He also works extensively in the investigation and design of repairs for parking structures, bridges, buildings, and facades. These projects typically include analysis, repair design, development of repair specifications, and construction observation.

Prior to joining WJE, Mr. Lindenberg worked as an engineer for Davis, Bowen, and Friedel, Inc. and designed a variety structures, including water retaining structures, commercial buildings, timber bridges, and shoreline protection. Prior to this, he worked in the oil and gas industry as a facilities engineer supporting production and pipeline services.

REPRESENTATIVE PROJECTS

Health Monitoring and Instrumentation

- Cardinal Stadium - Glendale, AZ: Developed a distributed monitoring system and database system for monitoring lifting of two 700-foot-long super trusses
- I-43 Leo Frigo Bridge - Green Bay, WI: Emergency acceleration and tilt monitoring of multiple piers after sudden settlement of interstate
- Wacker Drive Health Monitoring - Chicago, IL: Develop software and database systems to collect more than one hundred sensors
- Javits Center - New York, NY: Development of wireless monitoring system for 140 sensors

Research and Testing

- Development of Rapid, Reliable, and Economic Methods for Inspection and Monitoring of Highway Bridges - Joint Venture between WJE, National Instruments, and University of Texas, NIST
- Predicting Volume Change Movements and Forces in Buildings, PCI
- Development of Pendulum Tuned Mass Damper (PTMD) to address floor vibrations

Structural Evaluation

- Allen County War Memorial Coliseum - Fort Wayne, IN: Evaluation of concrete cracking at roof truss connections
- Children's Mercy Hospitals and Clinics - Kansas City, MO: Capacity evaluation due to low-strength concrete in garage structure
- Floor Vibrations - Various Locations: Field instrumentation and structural modeling of human comfort due to floor vibrations at multiple locations

Structural Analysis/Computer Modeling

- FDR Drive - New York, NY: Finite element models correlated with field measurements data for vibration mitigation measures
- MetLife Stadium - Meadowlands, NJ: Modeling of precast stadia structures to determine causes of cracking
- Marion County Public Library - Indianapolis, IN: Design modifications to steel structures supporting multistory hanging glass wall
- Chicago Transit Authority - IL: 3D finite element modeling of rail fastener behavior correlated to field instrumentation results

Repair and Rehabilitation Design

- SEPTA - Philadelphia, PA: Investigation and repair design of elevated rail bridge-bearing distress
- Olympia Centre - Chicago, IL: Investigation and repair design for cracking in structural concrete frame
- Cook County Domestic Violence Courthouse - Chicago, IL: Retrofit an existing clay tile arch warehouse for business occupancy
- St. Joseph Hospital - Chicago, IL: Structural strengthening with bonded overlay for NMR

Condition Assessment

- National City Center - Pittsburgh, PA: Investigation and structural capacity evaluation of concrete floor slabs
- Blast Damage - Long Grove, IL: Insurance condition assessment of multiple residences for structural damage due to an explosion

AWARDS

- 2010 Martin P. Korn Award - Precast/Prestressed Concrete Institute