



#### EDUCATION

- University of Michigan
  - Bachelor of Science, Civil Engineering, 2018
  - Master of Science, Civil Engineering, 2019

#### PRACTICE AREAS

- Parking Structures
- Failure Investigation
- Structural Evaluation
- Structural Analysis
- Repair and Rehabilitation Design
- Facade Assessment

#### CONTACT

jbarden@wje.com  
248-593-0900  
www.wje.com

#### EXPERIENCE

Justin Barden has been involved in many projects relating to structural engineering. He has been involved in field investigations, structural analyses, structural damage and failure assessment, and the preparation of construction documents and drawings.

Mr. Barden has performed investigations, developed repair designs, and performed construction observations of concrete, steel, and wood structures. Additionally, at previous firms, he was involved in many concrete structure projects, especially parking structures.

#### REPRESENTATIVE PROJECTS

##### Parking Structures

- Henry Ford Health Systems - Detroit, MI: Condition assessment and development of repair and maintenance plan of a two-way reinforced concrete structure
- Beaumont Hospital - Dearborn, MI: Evaluation of pre-stressed, double-tee beam structure with corrosion related distress
- NOW Parking Structure - Birmingham, MI: Condition assessment of parking structure and development of emergency facade stabilization
- Schlumberger - Houston, TX: Emergency assessment of structurally deficient parking structure\*
- University of Michigan - Ann Arbor, MI: Water infiltration assessment and repair design of Simpson Parking Structure\*
- Mott Community College - Flint, MI: Construction observations for repairs to a button headed tendon large post-tension parking structure\*
- Multiple Parking Structures at Wayne County Airport - Romulus, MI: Routine inspections and construction observations\*

##### Failure Investigation

- Multiple Schools and Apartment Buildings - Dayton, OH: Failure and damage investigation of tornado damaged buildings
- School - Grand Rapids, MI: Investigation and development of structural framing repairs after partial building collapse

##### Structural Evaluation

- University of Michigan - Ann Arbor, MI: Assessment of wood roof trusses
- Historic Building - Belle Isle, MI: Evaluation and analyses of wood structural framing
- Apartment Complex - Detroit, MI: Assessment of wood-framed, cantilevered balconies
- Mixed-Use Complex - Houston, TX: Litigation support and structural failure investigation of a post-tensioned podium mixed-use building\*

##### Structural Analysis

- Edsel and Eleanor Ford House - Grosse Pointe Shores, MI: Analyses of reinforced concrete, cantilevered retaining wall
- Battle Creek City Hall - Battle Creek, MI: Terra Cotta facade connection analyses
- Great Lakes Water Authority - Detroit, MI: Structural analyses and design of facility addition

##### Repair and Rehabilitation Design

- Missouri United Methodist Church - Detroit, MI: Repair design for concrete structural members
- Hunter's Ridge Apartments - Farmington Hills, MI: Design of reinforcement repairs at burned wood truss members

##### Facade Assessment

- Restaurant - Dayton, OH: assessment of tornado damaged facade and roof
- 789 E Eisenhower Building - Ann Arbor, MI: water intrusion investigation of below-grade parking facility

*\*Indicates with previous firms*