## PERSONNEL QUALIFICATIONS



# **Jeffrey A. Caldwell** | Principal and Unit Manager



## **EDUCATION**

- Tulane University
  - Bachelor of Science, Civil Engineering, 1996

## **PRACTICE AREAS**

- Structural Evaluation
- Failure Investigation
- Repair and Rehabilitation Design
- Historic Preservation
- Bridge Engineering
- Concrete Investigation
- Corrosion Protection
- Construction Troubleshooting

#### **REGISTRATIONS**

- Civil Engineer in CA and MA
- NHI Course 130078 Fracture Critical Inspection Techniques for Steel Bridges
- NHI Course 130088 Bridge Construction Inspection
- Professional Engineer in AZ and UT

# **PROFESSIONAL AFFILIATIONS**

- American Concrete Institute
- Association for Preservation Technology International
- International Concrete Repair Institute

# CONTACT

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#### **EXPERIENCE**

Since joining WJE in 1998, Jeffrey Caldwell has worked in the WJE Princeton, Boston, and Los Angeles offices. During this time, he has focused on the assessment, preservation, repair design, and implementation of restoration programs for a variety of building structures.

Mr. Caldwell has investigated several hundred structures in a wide range of projects. Investigations have involved conditions of distress and deterioration in a variety of materials, including concrete, steel, masonry, and wood. The majority of his experience includes investigative work and design of repairs for structural and building envelope systems. Mr. Caldwell has also participated in a wide variety of bridge investigations, instrumentation/monitoring programs, and facade investigations.

## **REPRESENTATIVE PROJECTS**

#### **Structural Evaluation**

- Exelon Corporation Eddystone, PA: Assessment and repair of coal stacker support tower
- Palo Verde Water Reclamation Facility -Tonopah, AZ: Visual and materials condition assessment and repair program

# **Failure Investigation**

- Carlyle House New York, NY: Investigation of existing construction details and partial roof collapse, structural analysis, and repair documents
- Condé Nast Building New York, NY: Investigation of partial collapse of forty-ninestory personnel hoist scaffold system
- Pace Wildenstein Warehouse Storage Facility
  Brooklyn, NY: Investigation of partial roof collapse

# **Repair and Rehabilitation Design**

- Santa Ana Federal Building Santa Ana, CA: Building envelope evaluation and investigation
- Boston Design Center Boston, MA: Assessment and repair of 1920s concrete facade

#### **Historic Preservation**

- Los Angeles County Hall of Justice Los Angeles, CA: Investigation and repair of historic terra cotta, granite, and brick masonry facades
- John Anson Ford Amphitheatre Los Angeles, CA: Exterior envelope, historic concrete repair, and waterproofing consulting
- Beverly Wilshire Hotel Los Angeles, CA: Investigation and repair of historic concrete and masonry facades
- Fairmont Copley Hotel Boston, MA:
  Assessment and repair of terra cotta facade and vaulted sidewalk framing
- Fenway Park Boston, MA: Development of concrete repair procedures for historic 1912/1934 architectural concrete seating bowl

# **Bridge Engineering**

- Boston Central Artery/Tunnel Boston, MA:
  Safety inspection of more than 120 steel
  viaduct structures
- I-435 Bridge over the Missouri River Kansas City, MO: Retrofitting of fatigue-sensitive details
- Illinois Department of Transportation Cook County: Fracture critical inspection of several fracture critical steel truss and steel-girder bridge structures
- Norridgewock Bridge Norridgewock, ME: Investigation, field testing, and concrete analysis to assess deep foundations within coffer dam structures
- Vilas Bridge North Walpole, NH: Detailed condition assessment of two-span open spandrel deck concrete arch bridge constructed in 1930

# **Construction Troubleshooting**

- Port of Long Beach Long Beach, CA: Investigation of strength, quality, and installation methods of concrete piles
- Anaheim Regional Transportation Intermodal Center - Anaheim, CA: Quality assurance and water testing for installation of ETFE building enclosure system

