



#### EDUCATION

- University of Illinois at Urbana-Champaign
  - Bachelor of Science, Civil Engineering, 1974

#### PRACTICE AREAS

- Bridge Engineering
- Failure Investigation
- Construction Troubleshooting
- Disaster Response
- Reinforced Concrete Structures
- Steel Structures
- Structural Evaluation

#### REGISTRATIONS

- NHI Course 130055 - Safety Inspection of In-Service Bridges
- Professional Engineer in AZ, CO, IL, OK, and WY

#### PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- American Railway Engineering and Maintenance-of-Way Association (AREMA)
- American Society of Civil Engineers (ASCE)
- American Welding Society (AWS)
- Colorado Contractors Association (CCA)
- Dispute Resolution, State of Colorado, registered member
- Wyoming Contractors Association (WCA)

#### EXPERIENCE

William Caldwell specializes in the construction, means and methods design, and troubleshooting of large-scale civil infrastructure projects, including bridges, dams, and power plants. He has been involved in the evaluation of structural distress and failures of many high-profile structures and has provided expert testimony supporting litigation of structural damage. Mr. Caldwell has also served as an instructor for the Bridge Construction Inspection course organized and sponsored by the National Highway Institute (NHI).

Prior to joining WJE, Mr. Caldwell was employed by a bridge construction firm responsible for both construction and design-build of at-risk projects. He served as the lead construction engineer for a project requiring the retrofitting of four segmental bridge erection gantry cranes. Mr. Caldwell has worked on-site at projects throughout the United States and on international projects in Egypt, China, Canada, and Bolivia.

#### REPRESENTATIVE PROJECTS

##### Bridge Engineering

- Bridge Girder Erection - Locations Nationwide: Procedure and erection process development
- Four Bears Bridge - Newtown, ND: Contractor means and methods design for multispan, precast segmental, balanced cantilever bridge\*
- Zakim, Tobin, and Leverett Bridges - Boston, MA: Structural safety audit of segmental precast concrete and steel tub girder construction

##### Disaster Response

- Cabin Creek Station - Georgetown, CO: Structural evaluation and litigation support for accident at hydroelectric plant
- Various Structures along the Gulf and East Coasts: Assessment of damage by Hurricanes Katrina (New Orleans) and Sandy (New York area)
- Multiple Bridges - CO: Evaluation of bridges relative to flood disaster
- Multiple Buildings - Locations Nationwide: Investigation of roof and wall collapses relating to failures due to wind and snowfall

#### Reinforced Concrete Structures

- Clinton Power Station - Clinton, IL: Certification of all concrete production and ACI-certified reinforced concrete placement\*
- Multiple Locks and Dams - Ohio River: Construction management
- Multiple Commercial and Industrial Concrete Buildings - Locations Nationwide: Construction and inspection processes
- Multiple Bridges and Wharves - Locations Nationwide: Investigation of distress of bridge girders and concrete wharves

#### Steel Structures

- Aswan High Dam - Aswan, Egypt: Refurbishing gates and cranes and extensive underwater repair welding and surveys\*
- Hydroelectric Plant - St. Cloud, MN: Structural evaluation of the plant's penstock\*
- Power Station - Fort Collins, CO: Means and methods for erection of building frame and generating equipment\*
- Procter & Gamble Olean Oil Refinery - Cincinnati, OH: Steel superstructure, steel storage reservoirs, and erection operations\*

*\*Indicates with previous firms*

#### TECHNICAL COMMITTEES

- AREMA - Committee 10 (Structures)
- CCA - Task Force for Girder Erection
- CDOT/CCA - Bridges
- CDOT/CCA - Dispute Board
- WYDOT/WCA - Specification Review Board

#### CONTACT

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