



EDUCATION

- Erskine College
 - Bachelor of Science, Physics, 1996
- Georgia Institute of Technology
 - Bachelor of Mechanical Engineering, 1996
 - Master of Civil Engineering, Structural Option, 2006

PRACTICE AREAS

- Bridge Engineering
- Construction Services
- Failure Investigation
- Nondestructive Testing
- Repair and Rehabilitation Design
- Structural Analysis/Computer Modeling
- Structural Evaluation

REGISTRATIONS

- NHI Course 130078 - Fracture Critical Inspection Techniques of Steel Bridges
- Professional Engineer in GA, NC, and SC
- Structural Engineer in GA

PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction
- American Society of Civil Engineers
- American Welding Society

CONTACT

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EXPERIENCE

Robert Kuykendall is experienced in structural investigation, analysis, and repair of low- and high-rise commercial structures, heavy industrial facilities, parking garages, soil retaining walls, bridges, and residential structures. These projects include reinforced concrete, post-tensioned concrete, concrete masonry, timber, steel, and carbon fiber materials. Mr. Kuykendall uses nondestructive testing techniques and computer modeling to analyze existing structures.

Before WJE, Mr. Kuykendall was a surveying project manager at a civil engineering site design firm. While an undergraduate at the Georgia Institute of Technology, Mr. Kuykendall completed cooperative work studies with a private architectural firm and a load cell manufacturing facility.

REPRESENTATIVE PROJECTS

Bridge Engineering

- Varina-Enon Cable-Stayed Bridge - Richmond, VA: Documentation of replacement of post-tensioning tendons
- Four Bridges - Oklahoma City, OK: Remedial grouting of post-tensioning tendons
- Four Bridges - Orlando, FL: Condition assessment of post-tensioning systems
- IH-345 - Dallas, TX: Detailed fatigue assessment of 1.6 miles of twin-girder spans

Construction Services

- Palo Verde Nuclear Generating Station Water Reclamation Facility - Tonopah, AZ: Observation of installation of steel reaction frames, inspection of welds, and lifting of existing structures

Failure Investigation

- Berkman Plaza II - Jacksonville, FL: Investigation of a six-story, post-tensioned parking structure that collapsed during construction
- 17th Street Bridge - Atlanta, GA: Investigation of collapsed architectural steel canopy structure
- I-75 Northwest Corridor - Atlanta, GA: Investigation of collapsed precast concrete architectural facade of a retaining wall and emergency strengthening of thirteen similar walls

Nondestructive Testing

- Elevated Rail - Washington, D.C.: Weld and anchor bolt inspections using ultrasound, magnetic particle, and dye penetrant tests in steel box girders
- The Lakes III - Columbus, GA: Investigation of slab-on-ground for subgrade settlement using ground penetrating radar

Repair and Rehabilitation Design

- Concrete Masonry Retaining Wall - LaGrange, GA: Design of supplemental support and anchorage for deficient soil retaining wall
- Equipment Innovators - Marietta, GA: Design of retrofit of steel framing for overhead crane for increased capacity
- Precast Concrete Double-Tee Beam Repairs - Various Locations, US: Repair of impact-damaged beams using concrete, steel, and carbon fiber reinforced polymer materials
- Stegeman Coliseum - Athens, GA: assessment and repair of crossing barrel vault precast concrete roof structure

Structural Analysis/Computer Modeling

- 155 North Lake Avenue - Pasadena, CA: Analysis of elevated, post-tensioned, concrete slab for increased loading
- Five-Story Residential Building - Gainesville, FL: As-built analysis of 125,000-square-foot, timber-framed structure for lateral loading

Structural Evaluation

- Major Retail Chain - Various Locations, US: Investigation of steel-framing connections for gravity and lateral load resistance
- Gressette Building - Columbia, SC: Investigation of a six-story office building for excessive deflection of post-tensioned concrete slabs
- Two-Story Residence - Birmingham, AL: Investigation of 13,000-square-foot, timber-framed structure for design and construction defects
- Heavy Manufacturing Facility - Birmingham, AL: Investigation of tornado damage at 120,000-square-foot, steel-framed facility
- Southern Nuclear Operating Company, Hatch and Vogtle Plants - Baxley, GA and Waynesboro, GA: visual condition assessment of all safety-related structures and components