PERSONNEL QUALIFICATIONS

James Gordon | Associate III

EDUCATION

- Oklahoma State University
  - Bachelor of Science, Civil Engineering, 2020
- Oregon State University
  - Master of Science, Civil Engineering, 2024

PRACTICE AREAS

- Structural Analysis
- Steel Structures
- Bridges and Civil Infrastructure
- Fire Damage Assessment
- Litigation Support

REGISTRATIONS

- Society of Professional Rope Access Technicians, Level 1 Technician
- Professional Engineer in TX

PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction
- American Welding Society
- Structural Engineers Association of Texas
- Structural Stability Research Council

CONTACT

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EXPERIENCE

James Gordon is engaged in the evaluation and rehabilitation of new and existing structures. His experience includes advanced structural analysis for a range of structure types, the assessment, design and repair of steel structures and civil infrastructure, assessment of fire-damaged structures, and litigation support.

Before joining WJE, Mr. Gordon was a graduate research assistant at Oregon State University, where he developed modeling techniques to simulate the behavior of steel structures exposed to fire. This work mostly consisted of developing temperature-dependent connection models and testing the strength of fire-exposed steels under different exposure characteristics. Mr. Gordon's previous experience gives him a unique skill set that is applicable to analyzing all types of complex structural systems.

REPRESENTATIVE PROJECTS

Structural Analysis

- Skillman Arch Bridge - Dallas, TX: Erection engineering services focused on the development of cable tensioning sequence for network arch system
- Barbours Cut Terminal, Wharfs 5 and 6 - La Porte, TX: Strengthening of container wharf to support new, larger ship-to-shore cranes in hurricane region
- Mass Timber Truss - Lakeway, TX: Analysis of newly constructed mass timber trusses to evaluate distress and serviceability concerns

Bridges and Civil Infrastructure

- Light Rail Concrete Plinth Assessment - Seattle, WA: Physical testing and statistical analysis of nylon inserts in concrete dual blocks
- City of Beaumont Bridges - TX: Assessment, repair design, and construction period services for thirteen concrete bridges
- US 190 Steel Bridge - Temple, TX: Inspection, repair design, and repair installation of fatigue cracks in steel bridge
- IWGO Steel Bridge - New Orleans, LA: Design of jacking hardware for various bridge repairs; analysis and installation of weld retrofits

Fire Damage Assessment

- San Antonio Y - TX: Evaluation and development of repair recommendations for fire-damaged, precast, post-tensioned concrete box girder bridge segments
- Sand Processing Plant - San Antonio, TX: Structural assessment of fire damage to steel structure at sand processing plant and development of associated repair recommendations

Steel Structures

- Nitrogen Fertilizer Plant - Coffeyville, KS: Assessment, repair design, and construction period services for deteriorated conveyor support structure
- Clarifier Support Structure - Mesa, AZ: Assessment, coatings testing, and repair design of steel support framing at two clarifier units in water reclamation plant
- Westlake Epoxy Plant - Deer Park, TX: Assessment and repair recommendations for rehabilitation of steel structure

Litigation Support

- Factory Catwalk - Central TX: Litigation support and structural construction and design defects
- Cofferdam Failure - Cougar, WA: Failure investigation of and litigation support for temporary cofferdam