



## PERSONNEL QUALIFICATIONS

### Jeremiah Fasl | Senior Associate



#### EDUCATION

- The University of Texas at Austin
  - Bachelor of Science, Civil Engineering, 2006
  - Master of Science, Engineering, 2008
  - Doctor of Philosophy, Engineering, 2013

#### PRACTICE AREAS

- Bridge Engineering
- Testing and Instrumentation
- Research and Testing
- Structural Evaluation

#### REGISTRATIONS

- Professional Engineer in TX
- Structural Engineer in AZ
- NHI Course 130078 - Fracture Critical Inspection Techniques of Steel Bridges

#### PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction (AISC)
- Structural Stability Research Council (SSRC)

#### CONTACT

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#### EXPERIENCE

Since joining WJE in 2013, Jeremiah Fasl has investigated and evaluated a variety of existing structures. His project work experience includes concrete, steel, and wood structures.

Prior to joining WJE, Dr. Fasl worked on a variety of bridge instrumentation and material testing projects at the University of Texas. His research focused on estimating the remaining fatigue life in steel connections using field measurements. He developed instrumentation and analyzed data for bridges and high-mast illumination poles. Dr. Fasl was also involved in fracture tests of notched specimens and determination of slip coefficients of coated, galvanized surfaces during his graduate studies.

#### REPRESENTATIVE PROJECTS

##### Bridge Engineering

- Fracture Critical Bridge - TX: Fatigue evaluation of bridge before and after construction of a retrofit \*
- Fracture Critical Bridge - Philadelphia, PA: Development of a wireless system capable of fatigue monitoring with event notification
- TX 130-TX 71 - Austin, TX: Instrumentation of curved, steel-plate girders during girder lifting and deck placement \*
- IH-345 - Dallas, TX: Fracture critical inspection and strain instrumentation of fatigue-critical details
- Rayse Creek Bridge - Woodlawn, IL: Failure investigation and analysis to determine the cause of bridge collapse
- Cow Bayou Swing Bridge - Bridge City, TX: Condition assessment and rehabilitation design of historic swing span

##### Testing and Instrumentation

- Turner-Roberts Recreation Center - Austin, TX: Load testing of a concrete building
- Fabric Buildings - College Station, TX: Development of software for a permanent strain monitoring system
- Leo Frigo Bridge - Green Bay, WI: Development of alarm monitoring systems during emergency repairs

- Double-Tee Beams - TX: Load testing of prestressed beams to determine cause of cover-stem spalling

#### Research and Testing

- Behavior of Corroded Bars in Concrete Slabs: Experimental testing to determine ductility and behavior of slabs
- Development of Rapid, Reliable, and Economic Methods for Inspection and Monitoring of Highway Bridges: Joint venture between WJE, National Instruments, and the University of Texas, NIST
- Acoustic Emission (AE) Monitoring of ASR in Concrete Structures: Development of a nondestructive technique to quantify ASR using AE
- Cross-Frame and Diaphragm Layout and Connection Details: Development of an experimental program to test the fatigue behavior of three connection details \*

#### Structural Evaluation

- Destiny USA - NY: Evaluation of corrosion-affected mat foundation
- Jones Center - Austin, TX: Assessment of roof deck framing
- Darnall Army Community Hospital - Waco, TX: Evaluation of columns and transfer girder for concrete repair
- Fort Crockett - Galveston, TX: Condition assessment for concrete repair
- Midland Airport Hanger - Midland, TX: Condition assessment of hangar after storm damage
- Springfield Town Center - Springfield, VA: Structural assessment of steel-framed building after partial collapse
- Palo Verde Water Reclamation Facility - Tonopah, AZ: Condition assessment and repair design for concrete and steel structures
- Water Treatment Plant - TX: Assessment of various concrete facilities and development of repair design

\* Indicates while at the University of Texas