WJE

PERSONNEL QUALIFICATIONS

Raul Olvera | Associate III



EDUCATION

- University of Texas at Austin
 - Bachelor of Science, Civil Engineering, 2017
 - Master of Science, Civil Engineering, 2019

PRACTICE AREAS

- Concrete Structures
- Repair and Rehabilitation Design
- Historic Preservation
- Bridges and Civil Infrastructure
- Corrosion Assessment

REGISTRATIONS

■ Professional Engineer in TX

PROFESSIONAL AFFILIATIONS

- American Concrete Institute
- American Society of Civil Engineers
- International Concrete
 Repair Institute
- Structural Engineers Association of Texas

CONTACT

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EXPERIENCE

Since joining WJE in 2019, Raul Olvera has investigated and evaluated various new and existing structures. His project experience includes concrete, steel, wood, and masonry structures. Mr. Olvera's work focuses on assessments related to design and construction deficiencies, rehabilitation design, and foundation-related movement.

Before joining WJE, Mr. Olvera was a graduate research assistant at the University of Texas, where he evaluated the shrinkage behavior of geopolymers and portland cement slurries for oil well cementing applications.

REPRESENTATIVE PROJECTS

Concrete Structures

- Wastewater Treatment Plant Georgetown,
 KY: Structural design review of tertiary filters
 and UV disinfection concrete structures
- Oasis Pass Austin, TX: Design of reinforced concrete beams, slabs, and footing of multistory building
- Country Club Creek Trail Austin, TX: Design of cast-in-place piers and retaining walls
- American Concrete Pipe Association: Audits of precast concrete plant manufacturing processes and quality control testing

Repair and Rehabilitation Design

- LBJ East Plaza Austin, TX: Evaluation of elevated plaza structure and design of new bonded overlay system
- Marble Falls Powerhouse TX: Structural assessment and rehabilitation design of concrete structure as park feature
- Fire Station 18 Austin, TX: Renovation and expansion design of wood-framed fire station building
- Texas A&M University Dormitories College Station: Structural assessment and repair design of distressed columns
- Headway Circle Austin, TX: Construction administration of concrete tilt-up wall panel repairs

Historic Preservation

- Hot Springs Reservoir (c. 1880) AR:
 Structural analysis of concrete, steel, and brick masonry elements of below-grade thermal water storage reservoir
- Adams Building (c. 1926) Port Arthur, TX: Lateral and gravity analysis of seven-story reinforced concrete structure
- Varner Hogg Plantation State Historic Site (c. 1824) - West Columbia, TX: Investigation of hurricane-related effects on foundation soils and mass masonry walls
- Texas A&M University, Academic Building (c. 1914) - College Station: Assessment of brick masonry and cast stone facade
- Fort Parker State Park, Combination Building (c. 1939) - Mexia, TX: Evaluation of differential movement and design of structural repairs for wood-framed structure

Bridges and Civil Infrastructure

- Liquefied Natural Gas (LNG) Tank
 Foundations Cameron, LA: Investigation of reinforced concrete damage due to cryogenic LNG exposure
- Williamson County Criminal Justice Parking Garage - Georgetown, TX: Investigation of double-tee distress and repair recommendations
- St. David's Hospital Parking Garage Austin, TX: Structural condition assessment and repair recommendations for concrete parking structure
- Bridge Construction Brazos County, TX:
 Structural analysis for casting, transportation,
 and erection of precast bridge components

Corrosion Assessment

- Various Texas Department of Transportation Structures: Cathodic protection assessments
- Port of Houston Wharves TX: Condition assessment and nondestructive evaluation of corrosion-induced distress
- LNG Tank Aprons Cameron, LA: Evaluation of corrosion potential on cryogenic LNG tanks

