



PERSONNEL QUALIFICATIONS

Matthew P. Carlton | Principal and Unit Manager



EDUCATION

- University of Texas at Austin
 - Bachelor of Science, Civil Engineering, 1993
 - Master of Science, Civil Engineering, 1995

PRACTICE AREAS

- Building Envelope Assessment/Design
- Nondestructive Evaluation
- Collapse Investigation
- Testing and Instrumentation
- Structural Repairs and Retrofits
- Historic Preservation
- Failure Investigation
- Structural Evaluation

REGISTRATIONS

- Professional Engineer in AR, LA, and TX

PROFESSIONAL AFFILIATIONS

- Building Enclosure Council - Austin Chapter, founding member
- Structural Engineers Association of Texas (SEAoT) - past president, Austin Chapter

TECHNICAL COMMITTEES

- Total Precast Committee, Precast/Prestressed Concrete Institute

CONTACT

mcarlton@wje.com
512.257.4800
www.wje.com

EXPERIENCE

Since joining WJE in 1995, Matthew Carlton has served as the project manager for numerous large-scale projects involving construction and design defects, materials failures, structural deterioration, and collapses. His work has included evaluation and repair design for concrete, steel, masonry, and wood structures and a variety of architectural systems. In the course of this work, Mr. Carlton has used nondestructive evaluation techniques as well as structural instrumentation and load testing to evaluate the effects of deterioration on concrete and masonry structures.

In addition to his structural experience, Mr. Carlton has completed assessments, peer reviews, and repair designs for many types of building envelope systems, including stone cladding, brick masonry, precast concrete, stucco, and EIFS as well as waterproofing for plazas and below-grade applications. He has also had the opportunity to work on several historic projects, gaining experience with load bearing masonry, archaic materials, and historic preservation requirements.

REPRESENTATIVE PROJECTS

Building Envelope Assessment/Design

- Texas Law Center - Austin: Curtain wall assessment and repair design
- Robert D. Moreton State Office Building - Austin, TX: Assessment of distress in precast wall panels and consultation on recladding design
- University of Texas at Austin, Ernest J. Cockrell Hall: Design of facade repairs to address brick cladding distress on building that houses the Department of Civil Engineering
- Multiple peer review and commissioning projects, including Austin City Hall, MacKown Dental Clinic (Lackland AFB), and Blanton Museum of Art (UT Austin)

Nondestructive Evaluation

- Acacia Avenue Bridges - Compton, CA: Evaluation of distress in concrete columns using ultrasonic pulse velocity
- MacArthur Maze - Oakland, CA: Evaluation of fire-damaged concrete using impact-echo

Collapse Investigations

- Schlitz Warehouse - Austin, TX: Investigation of lamella arch wood-framed roof system collapse
- University Health System Parking Garage - San Antonio, TX: Investigation of hybrid precast/post-tensioned parking garage that collapsed during construction

Testing and Instrumentation

- Darrell K. Royal-Texas Memorial Stadium - Austin, TX: Monitoring of crowd-induced vibrations in upper deck, design of structural and waterproofing repairs, and consulting
- Hewlett-Packard Modular Data Center - Austin, TX: Static and moving load tests and air flow and leakage tests of raised access floor panel system for new semiconductor manufacturing facility

Structural Repairs and Retrofits

- Austin Radisson Ballroom Renovation - TX: Design of innovative exterior truss system, allowing for removal of entire line of columns in ballroom, and design of new lateral bracing and support system for new curtain wall and solar shade fins
- Apache Maintenance Hangar, 127th Aviation Support Battalion, Fort Bliss - El Paso, TX: Assessment and repair design to address foundation settlement caused by inundation of subgrade soils

Historic Preservation

- San Jacinto Museum of History - La Porte, TX: Assessment of stone cladding on monument's star and evaluation of trial repairs
- Texas Governor's Mansion - Austin: Assessment of fire damage to historic brick masonry
- Mission San Antonio de Valero (The Alamo) - San Antonio, TX: Independent evaluation of roof slab in the "Monk's Burial Room"
- French Legation - Austin, TX: Assessment and repair design to address foundation movement and wood framing distress in historic residence of French chargé d'affaires to the Republic of Texas