



EDUCATION

- University of Illinois at Urbana-Champaign
 - Bachelor of Science, Engineering, 2001
 - Master of Science, Engineering, 2003
 - Doctor of Philosophy, Engineering, 2007

PRACTICE AREAS

- Construction Troubleshooting
- Construction Materials Assessment
- Nondestructive Evaluation
- Mass Concrete

REGISTRATIONS

- FACE F-Number Dipstick Technician
- ICRI Concrete Slab Moisture Testing Technician
- Professional Engineer in AL, AR, CO, FL, GA, ID, IL, LA, MS, NC, TN, TX, VA, WI, and WV

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- International Concrete Repair Institute (ICRI)
- Structural Engineers Association of Texas (SEAoT)

CONTACT

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EXPERIENCE

Jacob Borgerson leads and performs forensic investigations related to the failure, distress, and damage of various construction materials. He specializes in providing concrete construction expertise in multiple areas, including construction practices, specifications, field testing, and repair of existing structures. As an adjunct faculty member at the University of Houston-Downtown, Dr. Borgerson teaches classes on concrete and statics. He is an approved examiner for the concrete field testing, concrete strength testing, and concrete laboratory testing programs sponsored by the American Concrete Institute. Dr. Borgerson is also a regular speaker at the World of Concrete.

REPRESENTATIVE PROJECTS

Construction Troubleshooting

- Blossom Hotel Medical Center - Houston, TX: Repair documents for concrete column and wall defects
- 100 Park Century Square - College Station, TX: Evaluation of soil and concrete slab-on-ground post-construction movement
- ATL West Parking Deck - Atlanta, GA: Evaluation of low compressive strength concrete
- White Box, Killeen Mall - Killeen, TX: Evaluation of concrete floor flatness and levelness *
- CGG - Houston, TX: Assessment of rain-impacted concrete slab; phase 3 *
- Imperial Boulevard - Sugar Land, TX: Evaluation of concrete pavement plastic shrinkage cracking *

Construction Materials Assessment

- Federal Detention Center - Houston, TX: Evaluation and repair of foundation settlement of two-story reinforced concrete building
- Yale Street Bridge - Houston, TX: Condition survey of eighty-two-year-old reinforced concrete structure *
- Northwest Lake Warehouse Building No. 3 - Houston, TX: Evaluation of as-built concrete flatwork
- 806 Main Street - Houston, TX: Condition survey of one hundred-year-old high-rise building *

- Confidential Chemical Plant - Gulf Coast Region, US: Evaluation of delayed ettringite formation due to elevated internal temperatures
- Planet Fitness Westfield - Houston, TX: Evaluation and recommendations for distress caused by concrete slab moisture *

Nondestructive Evaluation

- Sugar Land Surface Water Treatment Plant - Sugar Land, TX: Detection and location of voids in structurally reinforced concrete slab using impact echo testing *
- Arabella - Houston, TX: Estimation of in-place strength of concrete columns using CAPO-test *
- Capitol Tower - Houston, TX: Evaluation of concrete masonry unit wall using ground penetrating radar *

Mass Concrete

- SHINE Medical Isotope Production Facility - Janesville, WI: Thermal control plan for mass concrete elements
- The Allen Hotel - Houston, TX: Thermal control plan for ten-foot-thick mass concrete pile cap for thirty-four-story tower
- Petit Caillou Lock Structure - Chauvin, LA: Thermal control plan for mass concrete base slab
- Hanover Republic Square - Austin, TX: Thermal control plan for mass concrete foundation for forty-four-story tower
- TMC3 Detention Tank - Houston, TX: Thermal control plan for 9,000-cubic-yard mat foundation

* Indicates with previous firms

TECHNICAL COMMITTEES

- ACI 117 - Specification for Tolerances for Concrete Construction and Materials
- ACI 207 - Mass Concrete
- ACI 228 - Nondestructive Test Methods for Evaluation of Concrete in Structures
- ACI 327 - Roller-Compacted Concrete Pavements
- ACI 330 - Concrete Parking Lots and Site Paving
- ACI 360 - Design of Slabs-on-Ground