

Matt Anderson | Specialist



EDUCATION

- Oakton Community College
 - Chemistry Studies
- Roosevelt University
 - Bachelor of Arts, Chemistry, 2011

PRACTICE AREAS

- Chemical Analysis
- Construction Materials Assessment
- Coatings
- Wood Testing and Analysis

CONTACT

manderson@wje.com
847.272.7400
www.wje.com

EXPERIENCE

Matt Anderson joined WJE in 2004 and has since actively participated in the evaluation and testing of a variety of construction materials. He has proficiency in many analytical chemistry and physical testing techniques including: atomic absorption spectroscopy, ion chromatography, gas chromatography with mass spectrometry, UV/visible light spectroscopy, Fourier transform infrared spectroscopy, salt spray exposure testing, UV light/condensation exposure testing, and a variety of wet chemistry techniques. His experience includes concrete, mortar, stucco, cement, soil, wood, water, and coatings. He assists with material failure investigations, material composition characterization, long-term durability assessments, and repair material recommendations.

REPRESENTATIVE PROJECTS

Chemical Analysis

- Water Leakage Investigation - Honolulu, HI: Analysis of leaking water and potential source waters to determine the origin of the leakage
- Pipe corrosion investigation - CA: Langlier Index on water to assist in pipe corrosion cause
- Office Building - Mumbai, India: Assistance in setting up and operating on-site laboratory to provide real-time chloride content test results to assist in ongoing evaluation and repair of embedded steel corrosion in reinforced concrete framing
- Mortar Analysis - Various Restoration Projects: Chemical analyses of mortars to be used in composition calculations
- 55 East Erie - Chicago, IL: Measurement of sulfate levels in balcony railing posthole grouts to determine cause of expansion and cracking of grouts and surrounding concrete
- Chloride Content Analyses - Various Projects: Determination of chloride contents of concrete and mortars to aid in determining degradation cause, long-term durability assessments, and embedded metal corrosion potential

Coatings

- ASTM A775/D3963 Material Testing: Epoxy-coated reinforcing materials compliance testing
- US Cellular Field - Chicago, IL: Assessment of concrete coatings to evaluate failure cause
- Recreational Deck Membrane - Honolulu, HI: FTIR analyses of deck membrane and surface deposits to assist in determining cause of staining/discoloration
- 432 Park Avenue - New York, NY: Long-term durability evaluation of proposed concrete coatings to assess resistance to UV light and condensation

Wood Testing and Analysis

- Multifamily Residences - Kehei, HI: Analysis of plywood samples for the presence of fire-retardant treatment (FRT) chemicals

Construction Materials Assessment

- Church Roof - Detroit, Michigan: ASTM C121/C217 testing of slate to evaluate weather resistance and long-term durability
- Insulation Evaluation - Colorado Springs, CO: Moisture content testing of mineral wool insulation to determine if a new roofing installation was mitigating issues with moisture accumulation
- 5490 South Shore Drive - Chicago, IL: Measurement of the expansion of floor tiles due to heat and moisture to determine the cause of the tiles buckling