PERSONNEL QUALIFICATIONS

Ernest A. Rogalla | Associate Principal

EDUCATION

- University of Illinois at Urbana-Champaign
  - Bachelor of Science, Civil Engineering, 1983
  - Master of Science, Structural Engineering, 1984

PRACTICE AREAS

- Buried Pipelines
- Failure Investigation
- Construction Troubleshooting
- Foundations
- Repair and Rehabilitation Design
- Structural Analysis/ Computer Modeling
- Structural Evaluation
- Research and Testing

REGISTRATIONS

- Professional Engineer in IA, IN, KY, LA, MO, MS, OH, TN, WV, and WI
- Structural Engineer in IL

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- American Society of Civil Engineers (ASCE)

TECHNICAL COMMITTEES

- ACI 207 - Mass Concrete
- ACI 224 - Cracking
- ACI 437 - Strength Evaluation of Existing Concrete Structures

CONTACT

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EXPERIENCE

Ernest Rogalla joined WJE in 1986 and has since been involved in the analysis, review, inspection, monitoring, and restoration of hundreds of buildings and structures. He has investigated many failures and collapses, including structures under construction and in service. Critical issues have involved construction, materials, foundation failure, maintenance and deterioration, and unusual loading. He has developed designs for the repair, restoration, and construction of many structures.

Mr. Rogalla has performed extensive finite element and other rigorous analyses on many types of structures and components. He has analyzed linear, nonlinear, dynamic, seismic, torsional, and buckling behavior. These analyses have assessed current behavior and predicted future performance, determined failure cause, predicted load capacity and the feasibility of proposed structural modifications, studied redundancy, identified deficiencies and their effects, and optimized repairs and modifications.

REPRESENTATIVE PROJECTS

Buried Pipelines

- Lake Georgetown Pipeline - Austin, TX: Investigation, analysis, and load testing of new concrete pipeline system
- West Coast Regional Water Supply Authority - Tampa, FL: Pipeline investigation and analysis of failing, corroded, prestressed concrete pipeline

Failure Investigation

- ABCO and Colonial Warehouse Buildings - Blue Ash, OH: Assessment of wind damage and reuse
- Husky Stadium Collapse - Seattle, WA: Structural investigation into the collapse of the stadium addition
- Schoharie Creek Bridge - NY: Structural investigation into the collapse of the six-lane highway bridge
- Sears Distribution Center - Romeoville, IL: Assessment and analysis of roof collapse

Foundations

- Masonic Temple - Crawfordsville, IN: Emergency shoring and foundation underpinning to stabilize historic building damaged by adjacent construction
- Ochsner Hospital - New Orleans, LA: Evaluation of mass concrete pile cap foundation cracking, design, and implementation of repairs

Repair and Rehabilitation Design

- Mather Pavilion - Evanston, IL: Repair of prestressed and cast-in-place concrete structure with plaza
- North Montgomery County Schools - Montgomery County, IN: Construction assessment, code review, and repair design
- Union Camp Factory Building - Dover, OH: Assessment of deterioration; design of maintenance and extended repair program

Research and Testing

- NCHRP 12-37: Pioneering study of concrete cracking in new concrete construction