



EDUCATION

- University of Vermont
 - Bachelor of Science, Civil Engineering, 1980

PRACTICE AREAS

- Concrete Deterioration
- Concrete Rehabilitation
- Construction Troubleshooting
- Corrosion Protection
- Materials Investigation
- Precast Concrete and Pipe
- Repair and Rehabilitation Design
- High-Performance Concrete
- Research, Testing, and Quality Control

REGISTRATIONS

- Civil Engineer in CA
- Professional Engineer in IL and MT

PROFESSIONAL AFFILIATIONS

- American Concrete Institute
- American Concrete Pipe Association
- ASTM International

CONTACT

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EXPERIENCE

Paul Krauss' consulting activities at WJE have included all aspects of concrete construction and rehabilitation. His experience has included field investigations and laboratory research into numerous construction failures and problems involving concrete, steel, polymer concrete, coatings, and sealers. Mr. Krauss routinely uses structural instrumentation, nondestructive testing, and laboratory techniques to solve complex materials problems.

Mr. Krauss has been project manager for many research projects involving solutions for bridge deck cracking, corrosion resistant steel, and concrete durability. These studies were conducted for many notable organizations such as the National Cooperative Highway Research Program, Concrete Reinforcing Steel Institute (CRSI), and Federal Highway Administration (FHWA).

Mr. Krauss joined WJE after working with the California Department of Transportation (Caltrans). As Chief of the Portland Cement Concrete and Structures Branch of the Transportation Laboratory, he supervised testing and research laboratory for concrete structures and pavements.

REPRESENTATIVE PROJECTS

Concrete Rehabilitation

- Martin Marietta: Manual for repair materials and techniques for concrete structures in nuclear power plants
- U.S. Army Corps of Engineers: Evaluation of injection materials for repair of deep cracks in concrete structures

Testing and Quality Control

- Quality Control Programs for the National Precast Concrete Association, the American Concrete Pipe Association, and the Concrete Reinforcing Steel Institute

Corrosion Protection

- Numerous research and field investigations into the corrosion resistance of epoxy-coated, stainless, and other steel exposed to deicer and marine environments
- FHWA Research: Evaluation of new breeds of corrosion resistant-reinforcing steel for seventy-five to one-hundred-year service life

High-Performance Concrete

- Wacker Drive Viaduct Reconstruction: Development of high-performance concrete and site quality control

Research and Testing

- NCHRP Report 380: "Transverse Cracking in Newly Constructed Bridge Decks"
- Project 20-07/Task 234 "Guidelines for Selection of Bridge Deck Overlay, Sealers and Treatments"
- Project 20-07/Task 235 "Testing Protocols for Surface Applied Concrete Sealers"
- Project 20-007/Task 319 "Evaluating Applicability of the Dual-Ring Test Procedures for Assessing the Cracking Tendency of Repair Materials"
- Caltrans: New materials and techniques for the repair of concrete structures

Instruction and Training

- National Highway Institute (NHI) course DTFH61-05-R-63055 "Bridge Rehabilitation Evaluation and Design Course".
- (ACI) Seminar series "Troubleshooting Concrete Construction" and "Slab on Grade"

TECHNICAL COMMITTEES

- ACI E7 - Education
- ACI 548 - Polymers in Concrete
- ASTM 13.03 - Concrete Pipe Durability
- (ETG): C101 Assessment of Physical Condition of Concrete Bridges, C103 Rapid Repair Techniques for Bridge Decks, and C202, Eliminating or Minimizing Alkali-Silica Reactivity
- SHRP - Selected for expert task groups
- State-appointed Task Group expert: Investigation of problems encountered during the rehabilitation of the Chesapeake Bay Bridge in Maryland