PERSONNEL QUALIFICATIONS

# Douglas W. Deno | Principal

## EDUCATION

- St. Joseph's College
  - Bachelor of Arts, Mathematics/Physics, 1963
- Purdue University
  - Bachelor of Science, Civil Engineering, 1964
  - Master of Science, Civil Engineering, 1966

## PRACTICE AREAS

- Construction Troubleshooting
- Failure Investigation
- Floor Slab Investigations
- Concrete Materials Technology
- Concrete Production Practices
- Pavement Investigations
- Litigation Consulting

## REGISTRATIONS

- Professional Engineer in TX

## PROFESSIONAL AFFILIATIONS

- American Concrete Institute
- Texas Aggregates and Concrete Association

## CONTACT

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## EXPERIENCE

Douglas Deno is a recognized expert on concrete materials technology, concrete production, and concrete construction practices. Mr. Deno's expertise includes both cast-in-place and precast concrete, including architectural concrete construction. He has investigated concrete problems involving low strength, cracking, construction-related defects, and various forms of deterioration and distress. As a leading authority, Mr. Deno is frequently invited to speak at seminars and workshops on concrete technology and concrete construction problem investigations.

Mr. Deno has evaluated numerous problems involving slabs-on-grade and structural slabs, including moisture-related failures of coatings and flooring materials. His pavement investigations include parking lots, site paving, streets, and industrial and airfield pavements. He has investigated and designed repairs for distress of precast concrete building cladding and concrete parking garages. Mr. Deno has also investigated problems involving masonry materials and construction practices, shotcrete, plaster, and stucco. Mr. Deno has served as an expert witness in many of the above practice areas.

## REPRESENTATIVE PROJECTS

### Construction Troubleshooting

- Hospital Parking Garage - Dallas, TX: Investigation of construction defects in cast-in-place columns and girders and design and construction observation of repairs
- Industrial Floor Slab - Ciudad Juárez, Mexico: Investigation of and remedial recommendations for widespread surface mortar flaking on floor slabs at a new appliance manufacturing facility
- Distribution Center Warehouse - Dallas, TX: Investigation of distress to previously repaired floor slab construction joints
- Dallas Area Rapid Transit - TX: Investigation of fiber content in tunnel liner shotcrete
- Federal Reserve Bank of Dallas - Dallas, TX: Investigation of grout strength in load-bearing masonry walls

### Concrete Materials Technology

- Amtrak Northeast Corridor and Several Commuter Lines: Investigation of early deterioration of prestressed concrete railroad ties
- Mid-Rise Office Buildings and Adjacent Parking Garages - Houston, TX: Investigation of materials-related deterioration of precast concrete cladding and structural members; design of repairs

### Concrete Production Practices

- Concrete Central Mix Batch Plants - El Paso, TX: Review of batching and mixing procedures for effects on concrete mix uniformity
- Ready-Mix Plants - Dallas and Fort Worth, TX: Quality control reviews of multiplant ready-mix operation

### Pavement Investigations

- Dallas North Tollway - Frisco, TX: Investigation of cracking in new pavement and investigation of rain-damaged pavement
- Street Pavements - Dallas, Fort Worth, and Houston, TX: Investigation of early cracking of new concrete pavements
- Airport Pavements – OK and TX: Investigation of cracking and other distress in recently constructed concrete pavements, including a bonded concrete overlay

## TECHNICAL COMMITTEES

- ACI 232 - Fly Ash and Natural Pozzolans in Concrete
- ACI 302 - Construction of Concrete Floors
- ACI 330 - Concrete Parking Lots and Site Paving
- ASTM C09 - Concrete and Concrete Aggregates, honorary member
- ASTM C09.40 - Ready-Mixed Concrete, past chair