

Dr. Shakir Shatnawi, Ph.D., P.E.
President, Shatec Engineering Consultants, LLC
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Public and private expertise in transportation/highway/traffic engineering, highway geometric design, engineering specifications, accident analysis & reconstruction, safety, sight distance requirements, roadside hazards, signage, striping, friction, skid resistance, surface defects, construction quality control-assurance, dispute resolution, failure investigations, pavements, materials, repairs, maintenance and rehabilitation.

License

California Professional Engineer's License #52795

Education

1987-1990: Ph.D. – Civil Engineering (Transportation Engineering)

University of Arkansas at Fayetteville, Fayetteville, Arkansas

1984-1985: M.S. – Civil Engineering (Construction Engineering & Management)

San Jose State University, San Jose, California

1978-1982: B.S. – Civil Engineering

California State University, Sacramento, California

Relevant Experience Highlights

2010-Present: President

Shatec Engineering Consultants, LLC, El Dorado Hills, CA, California

1991-2010: From Transportation Engineer to Division Chief (progressive promotions)

California Department of Transportation (Caltrans): D-10 (Stockton), District 4 (Oakland), and Headquarters (Sacramento), California.

1993-1999: Adjunct Professor

California State University, Sacramento, California

1997-1999: Adjunct Professor

National University, Sacramento, California

1989-1990: Research Fellow

Turner-Fairbank Highway Research Center, FHWA, McLean, Virginia.

Professional Summary

Dr. Shakir Shatnawi is an expert witness who has successfully assisted legal entities on a variety of cases. He is a registered professional engineer in California, and is currently the president of Shatec Engineering Consultants, LLC since May 2010. In this position, he directs the engineering operations, performs studies and investigations and conducts presentations and seminars on various engineering issues.

Shakir has extensive highway and transportation expertise. The following is a list of major categories for his expertise:

- Highway and Transportation Engineering
- Traffic Engineering
- Traffic control plans for construction projects
- Highway safety
- Parking Facilities
- Accident analysis & reconstruction
- Speed requirements, driver behavior/reaction, and braking distance
- Roadside hazards and work areas
- Obstructions, road hazards and clear recovery zone
- Roadway geometric standards
- Highway alignment
- Sight distance requirements,
- Curvature design criteria, horizontal curves, vertical curves
- Superelevation/cross slope design and adequacy
- Signage, speed and striping
- Motorcycle & bicycle safety and dynamics in relation to highway characteristics and defects.
- Roadway surface defects such as raveling, potholes, settlements, discontinuities, edge drop-off and loose gravel
- Roadway surface characteristics such as friction, skid resistance and roughness
- Pavement surface drainage and hydroplaning problems
- Pavement and Geotechnical Standards, maintenance and repairs
- Concrete Materials
- Asphalt Materials
- Soil and aggregate Materials
- Highway Construction
- Construction Defects
- Construction Quality
- Construction Disputes
- Highway Maintenance standards and safety procedures and manuals
- Engineering specifications, standards and manuals
- ADA requirements
- Forensic/Failure investigations
- Construction materials characteristics and testing

Shakir received his Ph.D. in civil engineering (Transportation Engineering) from the University of Arkansas (1990), and received his M.S. in civil engineering (Construction Engineering and Management) from San Jose State University (1985), and B.S. degree in Civil Engineering from California State University, Sacramento (1982).

Dr. Shatnawi is a member of the Forensic Expert Witness Association (FEWA). As the president of Shatec Engineering Consultants, he has been providing expert witness services, expert testimony and litigation support to attorneys and legal entities.

Dr. Shatnawi has been providing services on cases related to accident reconstruction, traffic and transportation engineering, engineering analysis, design standards, construction specifications, guidelines, policies, public agency practices, roads, pavements, airports, materials, highway geometric design, drainage, asphalt, concrete, soil, repairs, maintenance, inspections, rehabilitation, construction quality control - quality assurance, construction claims, inspection, settlement, dispute resolution, pavement surface conditions such as friction, skid resistance, surface discontinuities, cracking, rutting, defects, potholes and roughness, failure investigations, forensic engineering, traffic safety standards, traffic control plans, construction work zone accidents, construction safety, safety operating procedures, roadside hazards, signage, sight distance requirements, ADA requirements and code violations.

Dr. Shatnawi has over 28 years in professional engineering experience encompassing public agencies (Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), academia (California State University, National University) and industry with over 200 technical publications. He taught at California State University and at National University from 1993 to 1999 various classes such as transportation and highway engineering including geometric design standards, traffic engineering and safety hazards as well as statistics. He taught university graduate and undergraduate students as well as advised graduate students through their research studies.

Shakir served as a principal investigator on multi-million dollar projects. While working for Caltrans from 1991 to 2010, he was involved at various high level transportation engineering capacities such as being a Branch Chief, Office Chief and a Division Chief. He was in charge of over \$700 million program for Caltrans involving design standards, specifications and maintenance. Previous to that, Shakir worked at the FHWA Turner-Fairbank Highway Research Center in McLean, Virginia as a research fellow.

As a recipient of many acknowledgements from the government and industry, Dr. Shatnawi has an impeccable reputation within the industry for his significant professional contributions. He has received numerous acknowledgements and awards for his accomplishments. As an expert orator, he frequently shares his knowledge at major conferences. Shakir published many papers at major conferences and journals related to safety, road hazards and pavements.