



Stephen Jirsa

Senior Managing Engineer

Department

Engineering Services

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Locations

San Diego, CA

Biography

Stephen Jirsa has over 25 years of engineering experience and leadership in forensic investigation/expert testimony (including trial), evaluation, analysis, and design of all types of buildings, structures, and components. Stephen's forensic experience includes technical leadership of large complex multi-disciplinary losses, as well as post-earthquake and post-hurricane assessments, construction defect, structural collapse, and construction accidents.

Stephen's roles have also involved seismic design and evaluation, product development of building systems, building product certification and code approval, and structural and architectural performance testing. Stephen has provided engineering expertise to commercial, insurance, legal, construction, government, military, and health care clients.

Representative Consulting Assignments

- San Diego International Airport Rental Car Facility | San Diego, California | Investigation of fatal structural collapse occurring during construction of large multi-story airport facility
- Petrochemical Facility Explosion | Investigation of tank explosion at petrochemical storage facility
- Las Vegas Stadium | Las Vegas, NV | Evaluation of cracking of concrete floor decks occurring during ongoing construction of new NFL stadium
- Brewing and Water Bottling Plant | Dominica, Caribbean | Multidisciplinary post-hurricane assessment of brewery and bottling plant including structural, manufacturing equipment, mechanical, and electrical; provided repair/replacement cost studies
- Orchard Hills Apartments | Irvine, California | Construction defect litigation of a 500-unit apartment complex
- Pacific Views Lodge | U.S. Marine Corps, Camp Pendleton, California | Product development and manufacture of lightweight thin-shell concrete bearing wall panels for 4-story hotel on base
- Trident Submarine Base | Kitsap Peninsula, Washington | Investigation of widespread cast-in-place concrete defects in a critical security forces facility included evaluation, testing, development of repair schemes, and oversight of repair implementation
- City Center Litigation | Las Vegas, NV | Investigation of alleged deficiencies of high-rise reinforced concrete building on Las Vegas Strip
- World wide Post-Earthquake and Post Hurricane Evaluations | California, Mexico | Damage assessments of commercial and residential properties following earthquakes and hurricanes
- Queensridge Towers | Summerlin, Nevada | Building envelope investigation of two luxury high-rise residential buildings, including EIFS, windows, and decks

Professional Experience

- 2021 - Current | Senior Managing Engineer | YA Engineering Services

- 2019 - 2021 | Principal Consultant, Large Loss | Envista Forensics
- 2017 - 2019 | Director, Property Loss Consulting - Western Region | DeSimone Consulting Engineers
- 2015 - 2017 | Consulting Engineer | Xpera Group
- 2012 - 2015 | Managing Engineer | Exponent
- 2007 - 2011 | Director of Product Development and Engineering | Ecolite, Inc.
- 2004 - 2007 | Principal, Founder | Spire Engineering - Consulting, Inc.
- 1999 - 2004 | Engineering Project Manager | Ficcadenti & Waggoner
- 1993 - 1999 | Project Engineer | Degenkolb Engineers

Area of Practice

- Bridge Engineering
- Building Code Upgrade Review
- Building Envelope
- Condition Assessment
- Construction Defect Reviews
- Damage Assessment
- Earthquake Engineering
- Failure Analysis
- Historic Preservation
- Litigation Support
- Marine Structures
- Non-Destructive Testing
- Repair and Rehabilitation Design
- Roofing
- Seismic Evaluations and Retrofit Design
- Seismic Risk Assessment
- Structural Analysis
- Water Leakage Testing and Analysis

Publications and Presentations

- "Engineering Issues for Post-Earthquake Damage Assessment", Presented to California Association of Independent Insurance Adjusters, Pomona, CA
- "Identifying Construction Defects and Long Term Conditions Versus Event Driven Damages", Combined Claims Conference, Anaheim, CA
- "ATC-20 - Postearthquake Safety Evaluation of Buildings", Presentations to General Services Administration, Multiple Western Region offices
- Seismic Evaluation Presentations to Insurance Adjusters Association of Southern California and to greater insurance industry, 2019-2021
- "Seismic Repair and Upgrade of a Steel Braced Frame Building", International Association for Bridge and Structural Engineering - Symposium, San Francisco, CA
- "Studcast Hybrid Panels for Sustainable Design", Presented at Structural Engineers Association of Southern California / American Concrete Institute Joint Meeting, Monterey Park, CA

Education

- University of California, Berkeley - Master of Science - Structural Engineering - Berkeley
- University of Texas, Austin - Bachelor of Science - Civil Engineering - Austin

Affiliations

- American Society of Civil Engineers (ASCE)
- Structural Engineers Association of California (SEAOC)
- American Concrete Institute (ACI)

Licenses

- 79489 - Arizona - Professional Engineer
- C54239 - California - Professional Engineer
- 97323 - Florida - Professional Engineer
- 150038 - Texas - Professional Engineer
- 053017 - Georgia - Professional Engineer
- 30916 - New Mexico - Professional Engineer
- 059308 - North Carolina - Professional Engineer
- 43499 - South Carolina - Professional Engineer