



## Ken Simons

PE

### Project Manager

#### Department

Engineering Services

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#### Locations

Seattle, WA

## Biography

Ken is a licensed professional engineer with over 35 years of experience investigating damaged buildings and structures. Projects have included investigation and analysis of partial or total collapses due to fire, storms, flooding, ground movement and vehicle impacts. Ken has also evaluated serviceability issues resulting from or including water infiltration at exterior wall systems, roof leakage and construction defects.

Ken's projects often require remedial repair recommendations and analysis of code upgrade requirements. His experience includes investigation and analysis of numerous apartment and condominium complexes, industrial warehouses, commercial buildings, athletic stadiums and parking structures. Ken has developed load testing procedures to evaluate existing building elements, including the attachment of in-situ wood fiber roof panels at the Kingdome in Seattle, Washington.

Ken is an experienced expert witness who has provided litigation support and expert witness testimony on many cases that have progressed to arbitration, appraisal and trial. As a Past Chair of the American Society of Civil Engineer's Technical Council on Forensic Engineering, Ken has authored and presented numerous publications. Ken also coordinated the first course in civil engineering failures (CE 594) at the University of Colorado in 1987 as he pursued his doctorate while working full time.

## Credentials

- PE | Professional Engineer

## Representative Consulting Assignments

- Boeing Manufacturing Process Facility | Wichita, KS | Investigation of cause, extent and remedial repairs for numerous cracks in a 500,000 SF elevated concrete floor.
- Hollywood Holiday Inn | Los Angeles, CA | Evaluation of earthquake damage to 180,000 SF, three-story concrete parking structure.
- Houston Middle School | Wasilia, AK | Investigation of earthquake distress.
- Harbor Village Marina | Kenmore, WA | Investigation of collapse of two covered moorages and design of remedial repairs.
- Warehouse Roofs | Various locations in WA and OR | Investigation of metal purlin hanger deficiencies in warehouse roofs.
- Joseph Vance Building | Seattle, WA | Investigation of terra cotta wall cladding detachment of 14-story office building.
- Highway 512 Overpass | Tacoma, WA | Investigation of extent of distress and evaluation of repairs to pre-stressed concreted bridge girders from vehicle impact.
- Kittitas County Transfer Station | Ellensburg, WA | Investigation of collapse and design of replacement building.

## Professional Experience

- 2017 - Current | Project Manager | YA Engineering Services
- 1995 - 2017 | Principal Engineer | Damage Consultants Inc.
- 1992 - 1995 | Project Manager | Dodd Pacific Engineering
- 1990 - 1992 | Consulting Engineer | Kenneth B. Simons P.E. Consulting Engineer
- 1985 - 1990 | President | Denver Engineering Associates

## Area of Practice

- Building Code Upgrade Review
- Building Envelope
- Damage Assessment
- Failure Analysis
- Litigation Support
- Repair and Rehabilitation Design
- Roofing

## Publications and Presentations

- Simons, K, Cleveland, OH, Lateral Strength Evaluation of Existing Oriented Strandboard Wall Sheathing, Proceedings of the 4th ASCE Forensic Congress, pp. 467-475
- Simons, K, San Francisco, CA, Strengthen America, Proceedings of the 6th ASCE Forensic Congress, pp. 891-898
- Simons, K, ASCE, Reston, VA, Folding Bleacher Collapse - An Accident Waiting to Happen, Forensic Engineering, pp. 396-407
- Simons, K., Martin Z. & Gatto K., Miami, FL, The Anatomy of the Failure of a Wood Panelized Roof Subpurlin Hanger, Proceedings of the 7th ASCE Forensic Congress
- Simons, K, ASCE, Reston, VA, Challenges Created by the Hierarchy in Facility Rehabilitation Projects, Structural Engineering in the 21st Century, pp. 885-888
- Simons, K, San Antonio, TX, Forensic Engineering Discussion of Imminent Collapse, Proceedings of the National Academy of Forensic Engineers, pp. 75-82
- Simons, K, ASCE, New York, NY, Discussion on Proposal for Structural Design Peer Review, Journal of Performance of Constructed Facilities, Volume 6, No. 3, pp. 196-197
- Simons, K, San Francisco, CA, Substantial Impairment vs. Imminent Collapse of Wood Structures, Proceedings of the 6th ASCE Forensic Congress, pp. 899-906
- Simons, K, Elimination of the Effectiveness of Exterior Stucco Wall Crack Control Joints by Unintentional Linkage of Wall Elements, Construction Specifier Magazine
- Simons, K, ASCE, Reston, VA, Should I notify the Building Department? The Dilemma of the Forensic Engineer, Forensic Engineering, pp. 52-64
- Simons, K, San Diego, CA, Progressive Failure and Imminent Collapse of a Steel Storage Silo, Proceedings of the 3rd ASCE Forensic Congress, pp. 508-517
- Simons, K, Washington, DC, Practices to Reduce Common Failures, Proceedings of the 5th ASCE Forensic Congress, pp. 1-12
- Simons, K, ASCE, New York, NY, Limitations of Residential Structures on Expansive Soils, Journal of Performance of Constructed Facilities, Volume 5, No. 4, pp. 101-114

- Simons, K, Thomas Telford Publishing, London, U.K., Imminent Collapse of Wood Structures Affected by Decay, Forensic Engineering-The Investigation of Failures, pp. 149-158

## Education

- Oregon State University - Master of Science - Civil Engineering
- University of Colorado - Doctor of Philosophy - Civil Engineering
- University of Illinois - Bachelor of Science - Civil Engineering
- Columbia Pacific University - Doctor of Philosophy

## Affiliations

- American Society of Civil Engineers (ASCE) Fellow

## Licenses

- C040276 - California - Civil Engineer
  - 6225 - Idaho - Professional Engineer
  - 13094PE - Oregon - Professional Engineer
  - 23059 - Washington - Professional Engineer
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