



## Owen Rosenboom

PhD, SE, PE

### Vice President

#### Department

Engineering Services

**Tel:** (415) 656-9499

**Email:** owen.rosenboom@yaeservices.com

#### Locations

San Francisco, CA

## Biography

Owen is Vice President of YA Engineering Services (YAES). His work focuses on solving complex problems on a wide range of structure types from high-rise buildings to bridges, historic monuments and sculptures. He has specialized expertise in assessing the effects of earthquakes on existing structures including having conducted damage assessments after a number of domestic and overseas earthquakes.

Owen's work includes field investigations of damaged and collapsed structures and performing evaluations and analyses using a wide range of modeling techniques. Owen joined YAES in 2019. Prior to joining YAES he spent eleven years at Wiss, Janney, Elstner Associates, Inc. (WJE) in Emeryville, California. Prior to joining WJE, Owen attended Hong Kong Polytechnic University where he was a post-doctoral fellow. In addition to his many years of civil and structural forensic engineering experience, he has extensive research experience in concrete and masonry structures, including rehabilitation using fiber reinforced polymer (FRP) materials.

## Credentials

- PhD | Doctor of Philosophy
- SE | Structural Engineer
- PE | Professional Engineer

## Representative Consulting Assignments

- Mid-Rise Apartment Building | Berkeley, CA | Investigation of balcony collapse.
- High-Rise Hotel | Las Vegas, NV | Construction defect litigation including trial testimony.
- High School Auditorium | Honolulu, HI | Causation investigation and scope of repairs following failure of long-span steel truss.
- Community Center | San Pedro, CA | Develop scope of repairs including required code upgrades following a fire.
- Agricultural facilities and silos | Multiple states | Causation investigations, scope of repair, and subrogation support following collapse or fire damage.
- Hospital | Las Vegas, NV | Causation investigation of foundation settlement.
- Laboratory | Idaho Falls, ID | Causation investigation of collapsed steel frame building during construction.

## Professional Experience

- 2019 - Current | Vice President | YA Engineering Services
- 2008 - 2019 | Associate Principal | Wiss Janney Elstner Associates Inc.

## Area of Practice

- Building Code Upgrade Review
- Damage Assessment

- Failure Analysis
- Litigation Support
- Repair and Rehabilitation Design
- Structural Analysis

## Publications and Presentations

- Rosenboom, O.A., Kehoe, B.E., (FRPRCS9), Sydney, Australia, CFRP Seismic Collector for Concrete Diaphragms, Proceedings of the 9th International Conference on Fiber Reinforced Polymer Reinforcement for Reinforced Concrete Structures
- Paret, T.F., Rosenboom, O.A., Rautenberg, J.M., Searer, G.R., (15WCEE), Lisbon, Portugal, Calibration of Various Nonlinear Analysis Procedures with Earthquake Damage in a Reinforced Concrete Shear Wall Building, Proceedings of 15th World Conference on Earthquake Engineering
- Rosenboom, O.A. & Paret, T.F., Cusco, Peru, Seismic Retrofit and Historic Preservation of a San Francisco Banking Temple, Proceedings of the 11th International Conference on Structural Analysis of Historical Constructions
- Rosenboom, O.A. & Kowalsky, M.J., Reversed in-plane cyclic behavior of post-tensioned clay brick masonry walls, ASCE Journal of Structural Engineering, 130(5), pp. 787-798
- Rosenboom, O.A., Kelley, S.J., Paret, T.F., (10NCEE), Anchorage, Alaska, Rehabilitation of Maison Dufort- Adopting Traditional Techniques for Seismic Retrofitting, Proceedings of the 10th National Conference on Earthquake Engineering
- Rosenboom, O.A. & Rizkalla, S.H., Modeling of IC debonding in FRP strengthened concrete flexural members, ASCE Journal of Composites for Construction, 12(2), pp. 168-179
- Rosenboom, O.A. & Rizkalla, S.H., Experimental study of IC debonding in FRP strengthened beams, ACI Structural Journal, 105(1), pp. 41-50
- Cobeen, K.E., Paret, T.F., Rosenboom, O.A., Historic Renovation and Seismic Retrofit of the Hibernia Bank Building, Structures Magazine
- Rosenboom, O.A., Klaboe, K.T., Freeman, S.A., Graham, L., Maly, J.E., (10NCEE), Anchorage, Alaska, Seismic Rehabilitation of the Historic Smokestack at Heart Mountain Relocation Center, Proceedings of the 10th National Conference on Earthquake Engineering
- Rosenboom, O.A. & Rizkalla, S.H., Behavior of prestressed concrete strengthened with various CFRP systems subjected to fatigue loading, ASCE Journal of Composites for Construction, 10(6), pp. 492-502
- Rosenboom, O.A., Paret, T.F., Searer, G.R., (15WCEE), Lisbon, Portugal, Chronological Construction Sequence, Creep, Shrinkage, and Pushover Analysis of an Iconic 1960s Reinforced Concrete Building, Proceedings of 15th World Conference on Earthquake Engineering
- Searer, G.R.; Rosenboom, O.A., (10NCEE), Anchorage, Alaska, Seismic Repercussions- IEBC Code Requirements Regarding Additions and Alterations, Proceedings of the 10th National Conference on Earthquake Engineering
- Teng, J.G., Chen, G.M., Chen, J.F. & Rosenboom, O.A., Interaction between steel stirrups and shear-strengthening FRP strips in RC beams, ASCE Journal of Composites for Construction, 14(5), pp. 498-509
- Paret, T.F., Rosenboom, O.A., Panian, L., Korolyk, M., Egan, J., Wells D. Murphy, D., (10NCEE), Anchorage, Alaska, Seismic Vulnerability Assessment of the Washington Monument, Proceedings of the 10th National Conference on Earthquake Engineering
- Teng, J.G., Chen, G.M., Chen, J.F., Rosenboom, O.A. & Lam, L., Behavior of RC beams shear strengthened with bonded or unbonded FRP wraps, ASCE

## Education

- Hong Kong Polytechnic University - Post-Doctoral Fellow - Civil Engineering
- North Carolina State University - Master of Science - Civil Engineering
- North Carolina State University - Doctor of Philosophy - Civil Engineering
- Oklahoma State University - Bachelor of Science - Civil Engineering

## Affiliations

- Associate Member ACI Committee 440: Fiber-Reinforced Polymer Reinforcement
- Voting Member ISCARSAH: International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage
- Voting Member ASCE 41 Committee: Seismic Evaluation and Retrofit of Existing Buildings

## Licenses

- 68880 - Arizona - Professional Engineer (Structural)
  - C75354 - California - Civil Engineer
  - S6188 - California - Structural Engineer
  - 58755 - Colorado - Professional Engineer
  - 92231 - Florida - Professional Engineer
  - PE16423 - Hawaii - Professional Engineer (Structural)
  - PE 46079 - Louisiana - Professional Engineer
  - 26576 - Nevada - Professional Engineer (Structural)
  - 25622 - New Mexico - Professional Engineer
  - 86590 - Ohio - Professional Engineer
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