

### Zeno Martin | Associate Principal



#### EDUCATION

- Michigan Technological University
  - Bachelor of Science, Civil Engineering, 1996
  - Master of Science, Civil Engineering, 1999

#### PRACTICE AREAS

- Structural Analysis
- Failure/Damage Investigations
- Repair and Rehabilitation
- Litigation Consulting
- Historic Preservation
- Wood Structures

#### REGISTRATIONS

- Civil Engineer in CA, ID, OR, and WA
- Structural Engineer in AK, ID, NV, OR, and WA

#### PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction
- American Society of Civil Engineers
- APA – The Engineered Wood Association

#### CONTACT

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#### EXPERIENCE

Zeno Martin has conducted investigations of existing structures focused on structural issues, including performance, excessive movements, deterioration, fire damage, construction defects, failures, and designing repairs. He has examined many types of structures, including low-rise and high-rise buildings, parking structures, bridges, temporary falsework, tanks, and foundations. Mr. Martin has experience evaluating and designing with concrete, steel, wood, and masonry materials.

Before joining WJE in 2008, Mr. Martin worked for APA – The Engineered Wood Association, where he tested to failure various wood structural products, including large-scale assemblies. He also has expertise in developing building code design provisions and deriving design values. Mr. Martin was instrumental in the development of new wall bracing provisions now in the International Building Code and International Residential Code.

Mr. Martin is a coauthor of *Design of Wood Structures* and a chapter author in the *APA Engineered Wood Handbook*, both published by McGraw-Hill. He has authored dozens of papers and regularly presents at professional conferences.

An experienced expert witness, Mr. Martin has testified in two jury trials, numerous depositions and insurance appraisals, and has presented to a dispute review board.

#### REPRESENTATIVE PROJECTS

##### Structural Analysis

- Clatskanie Ethanol Plant - Clatskanie, OR: Investigation of process tank-bolted connection failures
- Four Seasons Hotel and Private Residences - Seattle, WA: Post-tensioned concrete slab deflection analysis
- Hylebos Bascule Bridge - Tacoma, WA: Deterioration assessment and load rating of steel bascule trusses

##### Failure/Damage Investigations

- I-84/Robinson Road Bridge - Nampa, ID: Steel falsework collapse
- Capital High School - Olympia, WA: Wood roof truss collapse
- US Pacific Northwest: Dozens of investigations of moisture intrusion wood decay damage to framing of condominiums, apartments, and commercial buildings

##### Repair and Rehabilitation

- Group Health Cooperative - Everett, WA: Design of new cladding structural support and attachments to existing structure
- Duwamish Cohousing - Seattle, WA: Repair design for damages due to expansive fill under concrete slabs
- US Pacific Northwest: Dozens of design drawings to repair fire-damaged wood framing

##### Litigation Consulting

- Morse Square - Bellingham, WA: Investigation of wood shear wall construction defect claims
- McGuire Apartments, Carpenters Tower - Seattle, WA: Investigation of post-tensioning and reinforced concrete damages claim
- Harmon Tower - Las Vegas, NV: Investigation of reinforced concrete construction defect claims

##### Historic Preservation

- Astoria Column - Astoria, OR: Structural condition assessment of reinforced concrete column tower
- Rotchev House - Fort Ross State Park, CA: Condition assessment of log timber residence constructed circa 1836
- Heceta Head Lighthouse - Florence, OR: Assessment of cast-iron cracking and prior repairs

##### Wood Structures

- Jewell Elementary School - Bend, OR: Design of structural repairs and full-scale load testing for timber trusses
- Oregon State University, Peavy Hall - Corvallis: Cross-laminated timber assessment