

**CRAIG K. JENSEN, P.E.**  
**PRINCIPAL ENGINEER: CIVIL-STRUCTURAL**

Jensen Engineering & Construction Services, LLC (JEC Services)  
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Des Moines, WA 98198  
(360) 927-1605  
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**EDUCATION:**

2005 Bachelor of Science, Civil Engineering: Structural Emphasis – With Honors  
Washington State University, Pullman, Washington

**EXPERIENCE:**

2015-Present **JEC Services, LLC**  
**Seattle-Tacoma, Washington**

*Principal Engineer.* Forensic engineering investigations to determine cause of failure, scope of damage, repair recommendations, repair cost and repair schedules. Engineering expert consultation, depositions and expert testimony for insurance claims and litigation. Civil-structural engineered designs for buildings, structures, mechanical attachments, fall arrest anchors, highways, stormwater and retaining walls. Non-destructive testing utilizing ground penetrating radar systems and x-ray to conduct evaluations of concrete and masonry structures. Scanning to locate mild reinforcement, post-tensioned steel, conduit, live electrical wires, grouted/ungouted masonry cells and slab/component thickness. Infrared thermal inspection, vibration analysis and acoustic emissions for leak detection and damage evaluation. Incidents involved foundation cracks and settlement, wall cracks and excessive bulging, code compliance, water intrusion and wood rot, manufacturing, design and construction defects, excessive deflection, retaining walls, storm damage and ground slope failures.

2013-15 **Engineering Design & Testing Corp.**  
**Seattle-Tacoma, Washington**

*Consulting Engineer.* Forensic engineering failure investigations to determine cause, scope of damage, repair recommendations, repair cost and schedules. Engineering expert consultation and depositions for insurance claims and litigation. Incidents involved personal injury, code compliance, structure collapse, construction site accidents, wood rot, wall cracks and excessive bulging, storm, wind, hail, seismic, building materials, foundation settlement and cracks, retaining walls, roof collapse, ceiling collapse, fire sprinkler

systems, zip lines, sewer systems, ground slope failure, water intrusion, excessive deflection, sagging, vibrations, fallen trees, slip and falls, fires and explosions. Building code and safety standards compliance review and assessments.

2012-13      **Steeler, Inc.**  
**Seattle, Washington**

*Civil Engineer – Structural.* Analysis, design, plan development and material selection of building frames and systems for commercial, retail, institutional, industrial, mixed-use, multi-family, and residential buildings and structures. Building and construction code compliance including wind, seismic and gravity loads. Evaluation of existing buildings, structures and materials including damage assessment, review of structural designs, repair options, schedules and cost estimation. Development of testing programs for new building products. Review and development of manufacturing processes, quality assurance and control programs and cost evaluation for production of sheet steel products.

2012            **Richmond Engineering**  
**Olympia, Washington**

*Civil Engineer – Structural and Hydraulic.* Analysis, design, construction administration, project management and material selection for domestic water and sewer systems including water quality and pressure, pump capacity and code compliance.

2010-12       **Washington State Department of Transportation**  
**Tumwater, Washington**

*Civil Engineer – Geotechnical and Project Manager.* Geotechnical analysis, design, reports and recommendations for transportation structures, including bridge foundations, retaining walls, engineered slope and stability, ground settlement and load-bearing capacity. Determination of soil parameters for project elements including roads, bridges, sign structures and culverts. Development of field exploration programs and laboratory testing of soils. Constructability and feasibility analysis, code compliance, planning, value engineering, scheduling, cost estimates, design and construction budgets, workforce projections and project controls.

2007-09      **Coughlin Porter Lundeen**  
**Seattle, Washington**

*Civil Engineer - Structural.* Design, analysis, plan development and material selection of building structural systems for commercial, institutional, educational, residential, parking, storage, and tower cranes. Designs consisted of mild reinforced and pre-stressed concrete, hot-rolled steel, cold-formed steel, wood, and masonry. Evaluation of existing structures for repairs, additions and renovations. Code compliance and determination of wind, seismic and gravity load distributions. Construction administration for multiple buildings, including structural observation, review and approval of post-tensioned stressing reports, shop drawings and submittals, structural sketches, evaluation of contract compliance, evaluation reports, and solutions to construction obstacles.

2005-07      **Washington State Department of Transportation**  
**Bellingham, Washington**

*Civil Engineer – Highway and Hydraulics.* Design, analysis, plan preparation, planning and material selection for roadway improvement projects, including culvert replacements, roadway widening and realignments, roadway geometry, and sight distance. Projects included stormwater and hydraulic systems, hydrology, flooding, drainage, culverts, open channel flow, foundations, retaining walls, headwalls, wingwalls, superelevations, acceleration lanes, erosion and sediment control best management practices, grading, digital terrain modeling, surveying and staking reports, earthwork cross-sections and quantification, roundabouts, mining site reclamation and permitting. Project management, constructability and feasibility analysis, design and construction schedules, and cost estimates and value engineering. Code compliance and Americans with Disability Act requirements.

**PRESENTATIONS:**

*Americans with Disabilities Act and Accessibility Standards,*  
2015, Nashville, Tennessee. Engineering Design & Testing Corp. – Fellowship Conference

*Modern Day Building Codes,*  
2014, Lenexa, Kansas. Engineering Design & Testing Corp. – Employee Training Program

*Design and Code Compliance of Cold-Formed Steel Framing and Assemblies,*  
2013, Seattle, Washington. Steeler, Inc. – Employee Training Program

*Design and Analysis of Rigid, Semi-Rigid, and Flexible Building Diaphragms,*  
2009, Seattle, Washington. Coughlin Porter Lundeen – Professional Development Program

**NON PEER-REVIEWED PUBLICATIONS:**

Jensen, C.K., "[From Sketch to Space Needle](#)", *The Stress Point*, Volume 28, Number 2,  
Engineering Design & Testing Corp., Columbia, South Carolina, June 2015

Jensen, C.K., "[Seismic Retrofit: Aging in a Seismic Space](#)", *The Stress Point*, Volume 28,  
Number 1, Engineering Design & Testing Corp., Columbia, South Carolina, March 2015

**PROFESSIONAL ORGANIZATIONS:**

Structural Engineers Association of Washington (SEAW)  
American Concrete Institute (ACI)  
American Society for Testing and Materials (ASTM)  
International Code Council (ICC)  
Claims and Litigation Management Alliance (CLM)

**REGISTRATIONS:**

Registered Professional Engineer in Arizona (#58899)  
Registered Professional Engineer in California (#83759)  
Registered Professional Engineer in Idaho (#15875)  
Registered Professional Engineer in Nevada (#022959)  
Registered Professional Engineer in Oregon (#88920)  
Registered Professional Engineer in Texas (#118002)  
Registered Professional Engineer in Washington (#48179)  
National Council of Examiners for Engineering and Surveying (# 55828)  
Haag Certified Inspector – Residential Roofs (# 201401117), Inactive  
Haag Certified Inspector – Commercial Roofs (# 201401117), Inactive

**PARTIAL PROJECT LIST:****Nintendo of America, Parking Garage**

Responsible for gravity engineering calculations and plans preparation for a four-story post-tensioned concrete parking garage in Redmond Washington. This included concrete slabs on grade, elevated post-tensioned & mild reinforced concrete slabs and beams, isolated, strip, elevator and construction crane footings, basement walls, interior masonry walls, steel canopies and stair framing.

**King Co. Fire District,  
Fire Station  
Headquarters**

Responsible for lateral engineering calculations and plans preparation for a two-story fire station in Kenmore Washington. The building consisted of truck bays, a two story living quarters, and lobby. The lateral system

was a combination of steel concentric braced frames, special reinforced concrete shear walls, and wood structural panel shear walls. The design also included wood struts, diaphragms, chords, studs, concrete combined footings, plinths, steel canopies, masonry veneer, and wind and seismic loading.

### Microsoft, Office Buildings

Responsible for construction administration of two four-story post-tensioned office buildings located in Redmond Washington. The buildings were flat plate post-tensioned concrete slabs with special reinforced concrete shear walls and round concrete columns. Duties included liaison to the architect and contractor,



attending meetings, site visits and reports, maintaining organized records, review and approval of post-tensioned stressing reports, shop drawings, and submittals, and providing solutions to construction obstacles by providing responses to RFI's and structural sketches.



### Seattle Public Schools, Nathan Hale HS

Responsible for gravity and lateral engineering calculations and plans preparation for the addition and renovation of two school buildings in Seattle Washington. Duties included mild reinforced concrete beams and slabs, special reinforced shear walls,

diaphragms, steel struts, and seismic loads. This also included construction administration tasks such as liaison to the architect and contractor, attending meetings, site visits and reports, answers to RFI's, and review and approval of shop drawings and submittals.

**Construction Admin., Microsoft Office Building 94 in Redmond, WA**

**Construction Admin., Nathan Hale High School Library Renovation in Seattle, WA**

**Construction Admin., South Medford High School Classrooms in Medford, OR**

**Structural Design, Microsoft Office Building 244 in Redmond, WA**

**Structural Design, Microsoft Office Building 245 in Redmond, WA**

**Structural Design, MS Office Bldg. & Underground Parking Garage in Redmond, WA**

**Structural Design, Omak High School Concession Stand in Omak, WA**

**Structural Design, Issaquah High School Multi-Use Building in Issaquah, WA**



**Structural Design, Nathan Hale High School Weight Room Addition in Seattle, WA**  
**Structural Design, Nathan Hale High School Library Renovation in Seattle, WA**  
**Structural Design, Lone Pine Elementary Gymnasium in Medford, OR**  
**Structural Design, Lone Pine Elementary Classrooms in Medford OR**  
**Structural Design, Talus Corporate Center Parking Garage in Issaquah, WA**  
**Hwy. Design, State Route 548 Terrell Creek Culvert Replacement in Blaine, WA**  
**Hwy. Design, State Route 20 Safety & Preservation in Burlington, WA**  
**Hwy. Design, State Route 11 Chuckanut Safety & Preservation in Burlington, WA**  
**Hwy. Design, State Route 20 Barrier Creek Slope Stabilization in WA**  
**Hwy. Design, State Route 20 Red Cabin Creek Bridge Replacement in Burlington, WA**  
**Hwy. Design, State Route 9 Roundabout in Burlington, WA**  
**Hwy. Design, State Route 546 Badger Road Paving in Lynden, WA**  
**Hwy. Design, State Route 542 Baptist Creek Fish Passage in Deming, WA**  
**Hwy. Design, State Route 542 High & Hedrick Creek Fish Passage in Bellingham, WA**  
**Hwy. Design, State Route 9 Realignment and Widening in Sumas, WA**  
**Hwy. Design, State Route 539 Guide Meridian Widening in Bellingham, WA**  
**Hwy. Design, State Route 539 Guide Meridian Widening in Lynden, WA**  
**Hwy. Design, Interstate Route 5 On/Off Ramps through Bellingham, WA**  
**Hwy. Design, Interstate Route 5 Joe Leary to Nulle Road Paving in Burlington, WA**  
**Hwy. Design, Interstate Route 5 Seattle Sign Structures in Seattle, WA**  
**Geotech. Design, Interstate Route 5 Mellen Sign Structures in Centralia, WA**  
**Geotech. Design, Interstate Route 5 Columbia River Crossing on border of OR and WA**  
**Geotech. Design, US Route 97 Butler Bridge/Slope Replacement in Goldendale, WA**  
**Investigation-Safety Evaluation, Slip and Fall in Rochester, WA**  
**Investigation-Cause of Failure, Mobile Zip Line in Puyallup, WA**  
**Investigation-Cause of Failure, Freezer Door in Seattle, WA**  
**Investigation-Cause of Failure, Sitting Chair Leg Fracture in Tukwila, WA**  
**Investigation-Cause of Failure, Asphalt Batch Plant Collapse in Las Vegas, NV**  
**Investigation-Collapse Evaluation, Residence in Point Roberts, WA**  
**Investigation-Repair Recommendations, Fire at Concrete Batch Plant in Flagstaff, AZ**  
**Investigation-Repair Recommendations, Mobile Home in Nespelem, WA**  
**Investigation-Scope of Storm Damage, Condominium Complex in Scottsdale, AZ**  
**Investigation-Scope of Storm Damage, Residence in Redmond, WA**  
**Investigation-Cause of Damage, Mobile Home Roof in Yakima, WA**  
**Investigation-Cause of Damage, Residence Roof in Puyallup, WA**  
**Investigation-Cause of Damage, Residence Roof in Belfair, WA**  
**Investigation-Cause of Damage, Residence Wall in Harrisonville, MO**  
**Investigation-Cause of Damage, Warehouse Roof in Lakewood, WA**  
**Investigation-Cause of Damage, Low-E Windows in Tacoma, WA**  
**Investigation-Scope of Moisture Damage, Commercial Bldg. in Everett, WA**  
**Investigation-Cause of Moisture Damage, Apartment Complex in Hillsboro, OR**  
**Investigation-Cause of Moisture Damage, Church in Bellingham, WA**  
**Investigation-Cause of Moisture Damage, Apartment Bldg. in Lynnwood, WA**  
**Investigation-Cause of Water Intrusion, Residence in Olympia, WA**

**Investigation-Cause and Scope of Damage, Residence Vinyl Siding in Olympia, WA**  
**Investigation-Cause of Sewer System Backup, Commercial Bldg. in Puyallup, WA**  
**Investigation-Cause of Wall Cracking, Residence in Oak Harbor, WA**  
**Investigation-Assessment of Foundation Cracking, Residence in Puyallup, WA**  
**Investigation-Cause of Tile Floor Damage, Residence in Pasco, WA**  
**Investigation-Cause of Ground Slope Failure, Residence in Olympia, WA**  
**Investigation-Cause of Cracking, Earth Retaining Structure in Springfield, MO**  
**Investigation-Cause of Failure and Repair Estimate, Swimming Pool in Spokane, WA**  
**Investigation-Cause of Fire Suppression System Failure, Comm. Bldg. in Seattle, WA**  
**Investigation-Fire Cleanup Protocol, Warehouse in Seattle, WA**  
**Investigation-Scope of Blast Damage, Residence in Bellingham, WA**  
**Investigation-Cause of Explosion, Mix Use Building in Houston, TX**  
**\*Investigation-Accessibility & Code Evaluation, Medical Facility in Albany, OR**  
**\*Investigation-Collapse Consulting, Commercial Bldg. in Fremont, NE**  
**\*Investigation-Cause of Roof Collapse, Commercial Bldgs in Shawnee, KS**  
**\*Investigation-Cause of Ceiling Collapse, Hotel in Rogers, AR**  
**\*Investigation-Cause of Collapse, Steel Frame in Kansas City, KS**  
**\*Investigation-Scope of Storm Damage, Commercial Bldg. in Parkville, MO**  
**\*Investigation-Scope of Storm Damage, Commercial Bldg. in Olathe, KS**  
**\*Investigation-Scope of Storm Damage, Commercial Bldgs. in Woodward, OK**  
**\*Investigation-Scope of Fire Damage, Residence in Shawnee, KS**  
**\*Investigation-Scope of Damage, Fallen Tree at Residence in Overland Park, KS**  
**\*Investigation-Scope of Storm Damage, Airplane Hangers in Kearney, NE**  
**\*Investigation-Scope of Fire Damage, Industrial Building in Kansas City, MO**  
**\*Investigation-Scope of Flood Damage, Apartment Complex in Overland Park, KS**  
**\*Investigation-Scope of Fire Damage, Apartment Building in Kansas City, MO**  
**\*Investigation-Cause of Roof Damage, Residence in Kansas City, MO**  
**\*Investigation-Cause of Tile Roof Damage, Residence in Overland Park, KS**  
**\*Investigation-Cause of Wall and Floor Cracks, Warehouse in Lenexa, KS**  
**\*Investigation-Cause of Floor Damage, Warehouse in Riverside, MO**  
**\*Investigation-Cause and Scope of Damage, Industrial Buildings in Dallas, TX**  
**\*Investigation-Cause of Wall Failure, Commercial Bldg. in San Francisco, CA**  
**\*Investigation-Cause of Damage, Office Building in Omaha, NE**  
**\*Investigation-Cause of Collapse, Fertilizer Storage Structures in Overland Park, KS**  
**\*Investigation-Cause of Damage, Event Center in Hobbs, NM**  
**\*Investigation-Scope of Damage, Wood Bridge in Clark County, KS**  
**\*Investigation-Cause of Failure, Earth Retaining Structure in Belleville, IL**  
**\*Investigation-Cause of Collapse, Earth Retaining Structure in Fort Leavenworth, KS**  
**\*Investigation-Cause and Scope of Damage, Grain Silos in Watson, MO**  
**\*Investigation-Cause of Floor Damage, Animal Shelter in Jefferson, MO**  
**\*Investigation-Cause of Basement Wall Cracking, Residence in Overland Park, KS**

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\* Projects marked with an asterisk were completed as part of a training program



**CONTINUING EDUCATION:**

Rebar Locating for Pinned Precast Traffic Barriers Utilizing GPR and Magnetic Reluctance  
JEC Services LLC, 2015, Des Moines, Washington

Radar Inspection of Concrete, The Handbook  
JEC Services LLC, 2015, Des Moines, Washington

Ground Penetrating Radar for Structural Applications Utilizing Hilti X-Scan PS 1000 System  
Hilti, 2015, Seattle, Washington

Ground Penetrating Radar, Inverse Scattering and Data Processing  
JEC Service LLC, 2015, Des Moines, Washington

Depositions 101  
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Successfully Defending Construction Site Accidents  
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Hurricane Sandy, Lessons Learned  
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Asbestos Litigation  
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Investigation and Discovery of a Construction Defect Claim  
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Key Concepts to Aid in Evaluation of Earthquake Damage  
Engineering Design & Testing Corp., 2015, Nashville, Tennessee

Building Failures During Winter – On Thin Ice  
Engineering Design & Testing Corp., 2015, Nashville, Tennessee

Federal Rules of Civil Procedure, Rule 26 – Expert Reports  
Engineering Design & Testing Corp., 2015, Nashville, Tennessee

Structural Analysis Methods for Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Bridge Design and Code Requirements  
Structural Engineers Association of Illinois, 2015, Chicago, Illinois

Wind Analysis and Design of Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Seismic Design for Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Reinforced Concrete Design for Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Prestressed Concrete Design for Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Masonry Design for Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Structural Steel Design for Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Wood Design for Buildings and Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Design of Foundations and Earth Retaining Structures  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Bridge Design  
Structural Engineers Association of Washington, 2015, Seattle, Washington

Steep Roof Access Training  
Engineering Design & Testing Corp., 2014, Charlotte, North Carolina

Building Science and Infrared Thermal Imaging  
International Association of Certified Home Inspectors, 2014, Online

Structural Issues for Home Inspectors  
International Association of Certified Home Inspectors, 2014, Online

25 Standards Every Inspector Should Know  
International Association of Certified Home Inspectors, 2014, Online

Inspection for Moisture Intrusion  
International Association of Certified Home Inspectors, 2014, Online

Design and Renovation of Wood Structures  
American Society of Civil Engineers, 2014, San Mateo, California

Professional Report Writing  
Engineering Design & Testing Corp., 2014, Lenexa, Kansas

The Construction Site and Conflicts  
Engineering Design & Testing Corp., 2014, Salt Lake City, Utah

Credentials in Litigation  
Engineering Design & Testing Corp., 2014, Salt Lake City, Utah

A Guide to the Investigation of Imminent Collapse  
Engineering Design & Testing Corp., 2014, Salt Lake City, Utah

Steel Connection Design and Failure Analysis  
Engineering Design and Testing Corp., 2014, Salt Lake City, Utah

Certified Inspector Program – Commercial Roofs  
Haag Engineering Company, 2014, Minneapolis, Minnesota

Certified Inspector Program – Residential Roofs  
Haag Engineering Company, 2014, Minneapolis, Minnesota

Concrete Distress and Deterioration: Symptoms and Causes  
PDHEngineer, 2013, Online

Confined Spaces and OSHA Regulations  
Etraintoday, 2013, Online

Equivalent Coatings: Codes, Standards, and Corrosion Protection  
Steel Framing Industry Association, 2013, Webinar

Cold-Formed Steel and Mid-Rise Construction  
Steel Framing Industry Association, 2013, Webinar

Approving or Selecting Building Products with Confidence  
International Code Council, 2013, Webinar

Cold-Formed Steel and Sustainability  
Steel Framing Industry Association, 2013, Webinar

A Guide to High Performance Cold-Formed Steel Assemblies  
Steel Framing Industry Association, 2013, Webinar

Rehabilitation of Existing Structures  
Coughlin Porter Lundeen, 2009, Seattle, Washington

Post-Tension Building Design and Construction  
American Society of Civil Engineers, 2008, Seatac, Washington

The Transportation Design Academy  
Washington State Department of Transportation, 2007, Seattle, Washington

Advanced Project Management  
Washington State Department of Transportation, 2007, Seattle, Washington

Project Management Process  
Washington State Department of Transportation, 2007, Seattle, Washington

Introduction to Project Inspecting  
Washington State Department of Transportation, 2007, Seattle, Washington

Project Scheduling Methods and Software  
Washington State Department of Transportation, 2007, Seattle, Washington

Project Delivery Information System  
Washington State Department of Transportation, 2007, Seattle, Washington

Contract Plans & Estimate Preparation  
Washington State Department of Transportation, 2006, Seattle, Washington

Certification in Construction Site Erosion & Sediment Control  
Washington State Department of Transportation, 2006, Seattle, Washington

Roundabout Design  
Michael Baker International, 2006, Seattle, Washington

Design Documentation  
Washington State Department of Transportation, 2006, Seattle, Washington

MGSFlood Software  
Washington State Department of Transportation, 2005, Seattle, Washington

Highway Drainage  
Washington State Department of Transportation, 2005, Seattle, Washington

Basic Highway Capacity  
Transpeed, 2005, Seattle, Washington

Roadway Geometric Design  
Transpeed, 2005, Seattle, Washington