

Mr. Boyd is a Senior Managing Consultant with Engineering Systems, Inc. (ESi). Prior to joining ESi, Mr. Boyd had over 11 years of experience in forensic engineering and litigation experience in design and construction defect matters, construction accidents, OSHA worksite safety, 811 utility locates, equipment failures, aerial lifts, forklifts, mobile cranes, and rigging.

Mr. Boyd was also a licenced general contractor for 11 years. Mr. Boyd's experience includes working as a subcontractor owner representative, construction manager, and a design engineer. Mr. Boyd also serves as a Property Manager for multiple residences and tenants. Mr. Boyd is a Certified XL Tribometrist (CXLT) and has evaluated multiple premises liability matters for ADA compliance, pedestrian safety, and snow removal.

Mr. Boyd's specializes in the design and evaluation of residential, commercial, and industrial construction. His expertise includes the standard of care for general contractors, subcontractors, design professionals, material suppliers, and owner representatives. Mr. Boyd has extensive experience in interpretation of building codes, estimating, contracts, scheduling, site drainage, foundation systems, framing, roof systems, underground utilities, structure steel, retaining walls, natatoriums, concrete, asphalt, windows, building envelopes, landscaping, siding systems, interior/exterior finishes, wood flooring, masonry, waterproofing, decks, parking garages, vibrations, HVAC, fire sprinkler, and plumbing systems.

Education

BS, Mechanical Engineering. University of Dayton. 1992

Licenses & Certifications

- State of Arizona P.E. License 72966
- State of Colorado P.E. License 32934
- State of Florida P.E. License 80728
- State of Idaho P.E. License 16752
- State of Illinois P.E. License 062068959

Contact Information

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ESi Denver

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Areas of Specialization

- Construction and Design Defects
- General Contractor
- Standard of Care
- OSHA and Worksite Safety
- Building Envelope
- Windows and Doors
- Waterproofing
- Construction Accidents
- Forklifts
- Cranes and Rigging
- Aerial Lifts
- Building Codes
- Site Grading and Utilities
- Foundations and Framing
- Expert Witness & Litigation Support
- Premises Liability
- Residential, Commercial, and Industrial Structures
- HVAC and Plumbing
- Roofing
- Property Management

- State of Montana P.E. License 41048
- State of Louisiana P.E. License 0044957
- State of Minnesota P.E. License 63384
- State of Nebraska P.E. License E-15960
- State of North Dakota P.E. License PE - 10475
- State of North Carolina P.E. License 047518
- State of Oklahoma P.E. License 28872
- State of South Dakota P.E. License 12866
- State of South Carolina P.E. License 36253
- State of Texas P.E. License 123743
- State of Utah P.E. License 9674502-2202
- State of Washington P.E. License 54748
- State of Wyoming P.E. License 15464
- Certified XL Tribometrist: Excel Tribometers, LLC
- Certified Forklift Operator: Class V and VII
- Certified MEWP (Aerial Lift) Operator

Positions Held

Engineering Systems Inc., Denver, Colorado

- Senior Managing Consultant, September 2026 – Present

Rimkus, Denver, Colorado

- Construction Practice Leader, June 2015 – September 2026

McBoyd Builders, Inc., Eagle, Colorado

- Managing Owner, May 2004 – December 2015

Beaudin Ganze Consulting Engineers, Avon, Colorado

- Construction Manager, January 2002 – May 2004

Robinson Mechanical, Avon and Boulder, Colorado

- Construction Manager, 1997 - 2002

Eagle River Water and Sanitation District, Vail, Colorado

- Technician, 1997

Yoder Engineering Consultants, Avon, Colorado

- Design Engineer, 1993 - 1997

Continuing Education

- **CAP Fall Protection v4 and Roof Access Training**– Texas, 2016
- **Ethics for the Practice of Engineering** – (Bi-Annual)
- **Structural Masonry Materials** - 2018
- **Wind Design** - 2018
- **Multiple courses on Walking/working surfaces, slips, and trips** - 2020
- **ASHREA Essentials 55: Thermal Comfort** - 2020
- **Accessible Design: Curbs, Ramps, and Elevators** -2021
- **Concrete Standards and Requirements** – 2021
- **Design of Buildings Using Insulated Concrete Forms** - 2021
- **Principles of Professional Construction Management** – 2022
- **Principles of At-Risk Construction Management** – 2022
- **2021 International Buildings Code and More** - 2024
- **Structural Behavior of Wood Framed Diaphragms** – 2025
- **Principles of Design Build** – 2025
- **Low Slope Commercial Roof Types and Materials** – 2025
- **Net Zero Design** – 2025
- **Certified Mobile Crane and Rigging Inspector**
- **OSHA 10 and OSHA 30**

Project Experience

Construction Defect Evaluations

- Lead testifying expert for a general contractor at a multi-story apartment complex with 3 buildings. The allegations included defective exterior decks, roofing, concrete, framing, waterproofing, stucco, brick, and post-tension concrete slabs. Coordinated with multiple consultants including estimated cost of repairs.
- Expert testimony and consultation for an owner of a large manufacturing facility where the roof coverings detached during and after construction. Provide testimony on the cause of the failure, as well as engineering and repair recommendations.
- Evaluation of a cracked plumbing piping in a multi-story wood framed building. Additional evaluations were performed on the exterior deck framing, siding systems, parking garage, post-tension (PT) slab, swimming pool, and pool deck.
- Coordinated a multi-disciplined team of consultants for a zero-lot line townhome project with a failing retaining wall, and alleged defective concrete sidewalks, driveway, siding, roofing, decks, and foundations. Provided an evaluation of the allegations, including geotechnical evaluations, repair protocols, and cost of repairs for the complex.
- Evaluation and testimony of alleged improper construction and backfill for an underground sewer system for a new development.
- Lead expert on geotechnical issues for an asphalt driveway installed in expansive soils.
- Evaluations on multiple buildings (or portions) that collapsed during remodels.
- Evaluation and testimony for the design of a net-zero, variable flow refrigerant system that was improperly designed and constructed.
- Evaluation of a water-source heat pump HVAC system at a hotel located within a high rise.
- Evaluation of plumbing and shower systems at US military facilities.
- Evaluations of roofing and HVAC systems at a marijuana grow facility.
- Lead testifying expert for an alleged defective waterproofing manufacturer used at the podium slab at a 2-building apartment complex.
- Evaluations of multiple retaining walls including CMU, concrete, and split-face block retaining walls.
- Hundreds of evaluations (plaintiff and defense) for single-family, production, custom, and townhomes residential structures. Evaluations consisted of foundation systems, concrete slab-on grade, grading and drainage, siding systems, building envelope, windows, doors, wood flooring, laminate vinyl tile (LVT), tile, stucco, EIFS, brick, gypsum board, paint, plumbing, HVAC, roofing, masonry, framing, ice damming, and water intrusions.

- Evaluations of the construction and design of multiple pre-fabricated metal buildings (PFMB). Evaluations included collapses during construction, water leaks, condensation, and structural concerns of the foundations and metal framing systems.
- Joint expert for the evaluation of framing, roof structure, HVAC, and plumbing systems for a university building that was converted to a student union.
- Evaluation of construction defects, schedules, delays, and permitting issues at a food-production facility.
- Evaluations of multiple 811 utility strikes and locates.

Standard of Care

- Standard of care for a propane distributor due to an explosion at a hospital that was under construction.
- Standard of care for a general contractor after a fire started at a gas-fired fireplace.
- Standard of care for a general contractor in obtaining building permits.
- Multiple standards of care evaluations for general contractors, design, and subcontractors in relation to alleged construction defects.
- Standard of care for a general contractor after a pedestrian was injured at a sidewalk adjacent to the construction site.
- Standard of care for a general contractor for the sequencing, parking, staging of materials, and crane operation in a congested mid-town construction site.
- Standard of care for a utility company after a bicycle accident.
- Standard of care for a roofing contractor that was installing a torch-down roofing product and started a fire.
- Standard of care for a mechanical design engineer for a hospital remodel.
- Standard of care for a mechanical design engineer for a Variable Flow Refrigerant system.
- Standard of care for a mechanical design engineer for a PVC piping system connected to a steam boiler system.
- Standard of care for a mechanical design engineer for the HVAC design of production homes.
- Standard of care for excavators and locators for underground utility strikes (811).
- Standard of care for a snow removal company.
- Standard of care for a building owner, property manager, and maintenance company due to an injury from a stairway.

Construction and Equipment Accident Evaluations

- Evaluation of a back-hoe operator who struck and pinned a worker at a highway construction site.
- Evaluation of a collapse of a 7-story scaffolding system during a windstorm.

- Standard of care for a crane operator after a construction site accident
- Evaluation and standard of care for a double fatality in a manhole at a construction site
- Multiple evaluations and standard of care opinions for operators of forklift that included tip-over and struck-by. in accidents.
- In-depth review of cranes, crane operators, and safety procedures after a near miss at industrial complex under construction.
- Multiple evaluations and standard of care for operators of aerial and scissor lifts that included tip-over, struck by, and pinched by accidents.
- Evaluation of a boom truck operator after several construction workers fell while installing roof trusses.
- Evaluation of standard of care, roles, and responsibilities for general contractors, subcontractors, and vendors for worksite safety and OSHA citations. This work included the following
 - An employee fell down an elevator shaft at a construction site at a school.
 - An employee was injured when he fell from an elevated working platform.
 - An employee was injured when he fell through a temporary shoring system.
 - An employee was struck by a manhole that was being hoisted.
 - An employee fell through a skylight on a roof.
 - An employee stepped into a hole in the floor.
 - An employee tripped in the dirt outside a construction site.
 - An employee was fatally struck by a skid steer
 - An employee was run over by a skid steer
 - An employee fell down an elevator shaft
 - A pedestrian tripped on the temporary site fencing near a construction site.
 - An employee was struck by a metal column during removal.
 - An employee was struck by a metal beam being hoisted by a crane (multiple evaluations)
 - An employee fell from a third story deck when the temporary guardrails detached.
 - An employee was electrocuted while working from scaffolding adjacent to overhead power lines
 - An employee fell from scaffolding.
 - An employee was struck by a forklift while trying to stabilize the load.

Design and Construction Experience

- Owner representative for a remodel and construction of an ambulance facility.
- Lead negotiator to evaluate, manage, and resolve a delay claim against the owner and architect on a public project,
- Construction manager responsible for coordinating the owner, design, and construction teams for an at-risk design-build project for a hospital remodel project.
- General contractor for remodel and expansion of a ski-school building at the base of Vail Ski Area.
- General contractor for the remodel of an elementary school which included a centralized computer room.
- General contractor for a remodel of the pool and conference rooms including a new custom hot tub and air conditioning.
- General contractor for the installation of a new air conditioning system for a hotel.
- General contractor for multiple tenants finishes for retail stores.
- General contractor for an indoor car washing facility.
- Framing subcontractor for a new art museum.
- Project manager for a commercial mechanical subcontractor. Projects included snowmelt systems, hospitals, medical office buildings and residential systems.
- Design of the HVAC and plumbing systems for a 10-story luxury hotel.
- Design of the HVAC and plumbing systems for a county administration complex.
- Design of the HVAC and plumbing systems for numerous high-end residential homes.

Presentations

Wind Damage Evaluation – In person continuing education (CE) presentation for insurance adjusters and attorneys in 2018.

OSHA Safety Seminar - In person CE presentation for insurance adjusters and attorneys in 2019.

Utility Strikes – Utility Companies, Excavators, and Locators. CE webinar presentation for insurance adjusters and attorneys in 2020.

Roof Defects, Materials, and Analysis - CE webinar presentation for insurance adjusters and attorneys from 2021 through 2025.

Effective Use of Experts in Adversarial Matters - In person CE presentation for the Idaho Association of Defense Attorneys in McCall, Idaho in 2021.



Construction Defect Evaluation, Analysis, Strategy, and Allocations - CE Webinar for the Kansas Association of Defense Attorneys in 2021.

The Nuts and Bolts of CD, Accidents, Subrogation, and Delays – In person CE presentation for Artex/New Con in Las Vegas, NV in 2022.

QA/QC in Construction Defects - CE webinar presentation for attorneys in 2022 and 2023.

Construction Defects and Claims – CE webinar presentation for the Columbus, Ohio Bar Association in 2023.

Mechanics Liens and Construction Defects - In person CE presentation for adjusters and attorneys in Denver, CO in 2026.