



OLSON FORENSIC SOLUTIONS, LLC
HVAC • PLUMBING • FIRE

David R. Olson, PE, LEED AP, FASHRAE
Curriculum Vitae (1985 – 2023)

August 27, 2023

Professional

Project Manager – Sturm + Ballard, Inc., 1979 - 1986
President – Integrated Mechanical Systems, Inc., 1986 – 2016
Vice President – PCD Engineering Services, Inc., 2016 – 2020
Manager – Olson Forensic Solutions, LLC, 2020 -

Education

University of Colorado, Boulder, B.S.C.E., 1979

Educational Activities

University of Colorado, Denver, College of Engineering, Mechanical Engineering Staff Member, HVAC Design, 1993, 1994 & 1995
University of Colorado, Boulder, College of Engineering, Architectural Engineering, AREN 4317, HVAC Design Mentor, Spring Semester 2015, 2016, 2017, 2018, 2019, 2020, 2021
University of Colorado, Boulder, College of Engineering, Architectural Engineering, AREN 4318, HVAC Design Mentor, Fall Semester 2021, Fall Semester 2022
University of Colorado, Boulder, College of Engineering, Architectural Engineering, AREN 4319, HVAC Design Mentor, Spring Semester 2022, 2023
Solar Decathlon, US Department of Energy, Judge Coordinator – Build Challenge, October 2017
Solar Decathlon, US Department of Energy, Mixed Use and Multi-Family Division Jury Member – Design Challenge, April, 2019
Solar Decathlon, US Department of Energy, Office Division Jury Member – Design Challenge, April, 2021
Solar Decathlon, US Department of Energy, Office Division Jury Member – Design Challenge, April, 2022

Professional Registration

Professional Engineer by Examination: Colorado, 22286, 1984
Current Professional Engineer by Reciprocity: Arizona, California, Kansas, Nebraska, New Mexico, Utah, Wyoming
Professional Engineer Registrations (lapsed in good standing): Arkansas, Florida, Idaho, Illinois, Iowa, Ohio, Oklahoma, Oregon, Michigan, Montana, New Jersey, New York, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, Washington, Wisconsin

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Leadership in Energy Efficient Design Accredited Professional, LEED AP, 2008

International Code Council Mechanical Plans Examiner, by examination, 2008

International Code Council Plumbing Plans Examiner, by examination, 2008

Professional Societies and Trade Organizations

American Society of Heating, Refrigeration and Air Conditioning Engineers

President, ASHRAE Rocky Mountain Chapter, 1994-1995

General Chairman, Chapters Regional Conference, Denver, Colorado, 1997

ASHRAE Regional Vice Chairman, Chapter Programs, Region 9, 2000-2003

ASHRAE Society Director and Regional Chairman, Region 9, 2005-2008

General Chairman, ASHRAE Annual Conference, Denver, Colorado, June, 2013

American Society of Plumbing Engineers

International Code Council, Mechanical Plans Examiner, 5076352-M3

International Code Council, Plumbing Plans Examiner, 5076352-P3

National Fire Protection Association

Tau Beta Pi National Engineering Honor Society, 1978

Chi Epsilon National Civil Engineering Honor Society, 1978

Honors and Awards

ASHRAE Technology Award, Rocky Mountain Chapter, 1994

ASHRAE Vic Johnson Distinguished Service Award, Rocky Mountain Chapter, 2001

ASHRAE Region 9 Hall of Honor, 2011

ASHRAE Distinguished Service Award, 2013

ASHRAE College of Fellows, 2016

ASHRAE Life Member, 2021

Legislative Appointments

State of Colorado Department of Regulatory Agencies, State Electrical Board, 2013 – 2019

Publications

ASHRAE Insights, *ASHRAE Leaves Helpful Footprint in Denver*, February 2014

Forensic Consulting/Expert Witness Experience

Shop Care, Western Engineering and Research Company

- 2023
- Aurora, Colorado
- Client: Revantage Property Captive-2022/2023
- Former retail grocery store location experienced alleged vandalism to mechanical refrigeration system located in secure refrigeration room outside building proper. Performed a site inspection, spoke with manufacturers and various contractors and determined the extent of vandalism.
- Prepared list of observations and concerns, July 12, 2023

Pidanick Residence, Michael & Jeanette Pidanick – Homeowners

- 2023
- Thornton, Colorado
- Client: Michael Pidanick

- Performed site inspection of attic space in residence. Offered opinion regarding installed HVAC system with respect to apparent mold within attic space.
- Prepared written report, May 4, 2023

Red-T Townhomes Consulting, Johnson Law, Attorney for Plaintiff

- 2023
- Lakewood, Colorado
- Counsel: David W. Hall, Esq.
- Six-unit residential development using air-cooled mini-split heat pumps for heating and cooling without backup heat are installed. HVAC systems fail to maintain the indoor temperature within these dwelling units during periods of excessively cold outdoor air temperatures. Lower-level bathrooms were constructed without any source of heat. Floor drains were installed defectively resulting in frequent introduction of sewer gas into homes.
- Prepared written report dated May 18, 2023

**Gold Peak v. Clubhouse Development, Wood Smith Henning & Berman, LLP
Attorney for Defense**

- 2022-2023
- Vail, Colorado
- Counsel: Michael D. Simpson, Esq.
- Plaintiff alleges that installed snow-melting system is defective. Plaintiff claims boilers leak, piping and various manifolds leak, one exterior stairwell lacks the specified snow-melt system installation, control issues and failure to install manufacturer's boiler condensate neutralization kits.
- Prepared written report, dated May 18, 2023
- Case settled August 25, 2023 without further testimony

Jaramillo Residence Consulting – Dinsmore & Shohl, LLP – Attorney for Defense

- 2022-2023
- Denver, Colorado
- Counsel: Todd H. Fleckenstein, Esq.
- Plaintiff alleges that water softening system was installed improperly and has resulted in damage to home, health issues, destruction of landscaping and the death of two pet dogs due to an initial cross-connection in the water softener drain piping and the introduction of sodium into the domestic water piping in the home.
- Prepared written report, dated December 30, 2022.
- Case settled February 17, 2023 without further testimony.

Gandrey Residence Consulting – The Law Office of Jessica H. Miller – Attorney for Plaintiffs

- 2022
- Golden, Colorado
- Counsel: Jessica H. Miller, Esq.
- Plaintiff purchased a rural property and home in Boulder County, Colorado. Upon application for building permit for planned modifications they learned that the home had been converted from a garage to a residence, without a permit or drawings by the previous homeowner. Performed site inspection and code review to identify necessary

upgrades to meet currently adopted building code so that permit could be obtained for remodel.

- Prepared List of Mechanical Issues, dated October 17, 2022.

4045 Wadsworth Blvd. Consulting – Western Engineering and Research Corporation

- 2022
- Wheat Ridge, Colorado
- Client: Hartford Insurance Company
- Performed site inspection to determine extent of vandalism at property. Vandals had destroyed two 20-ton air cooled condensing units, electrical service and refrigerant piping in apparent attempt to harvest copper.
- Prepared written report dated September 16, 2022.

Strata Energy Consulting – Ireland Stapleton Pryor & Pascoe, PC – Attorney for Defense

- 2022
- Oshoto, Wyoming
- Counsel: Julie M. Walker, Esq.
David S. Manush, Esq.
- Defendant: Woodard & Curran, Inc.
- Insurance company for Strata filed a subrogation claim following a pipe rupture within a modified piping manifold originally designed by Defendant. Subsequent investigation concludes that Defendant was not responsible for pipe system failure. The piping failure was attributed strictly to operator errors which occurred before and after the incident.
- Prepared written report, dated February 22, 2022.
- Case settled November 30, 2022 without further testimony

Modera West Wash Park Consulting – Hall & Evans, LLC – Attorney for Defense

- 2021 – 2023
- Denver, Colorado
- Counsel: Elizabeth K. Olson, Esq.
Francesca M. Coleman (Tait), Esq.
- Defendant: Davis Partnership Architects
- Defendant accused of preparing contract drawings that were “unsuitable” for their intended purpose and is seeking monetary contribution from Defendant. Subsequent investigation results in opinions that Defendant did indeed meet their applicable Standard of Care.
- Prepared written rebuttal report, dated January 25, 2022.
- Participated in site meeting with arbitration panel, attorneys, experts, July 5-6, 2022.
- Prepared written second rebuttal report, dated December 16, 2022.
- Deposed on March 29, 2023 by Tara Bailes, Esq. for Plaintiffs MPC; by Clark T. Thiel, Esq. for Northington; by Sara Kiridly, Esq. for ME Engineers; by Daniel M. Fowler, Esq. for CHS Plumbing; and by Todd H. Fleckenstein, Esq. for United Builders Service
- Case settled April 17, 2023 without further testimony.

Berkeley Flats Townhomes Consulting – Johnson Law – Attorney for Plaintiffs

- 2021 - 2023

- Denver, Colorado
- Counsel: Chad Johnson, Esq.
Dillon Fulcher, Esq.
- Performed site inspection, airflow and static pressure testing of six townhouse units within development to identify deficiencies which have led to unsatisfactory operation of HVAC systems.
- Prepared Preliminary List of Deficiencies, June 25, 2021.
- Prepared Preliminary List of Recommendations, June 25, 2021.
- Prepared written report dated June 15, 2022.
- Deposed November 16, 2022 by various defense attorneys: Matthew Blubaugh, Jason Rietz, Gerald Jorgensen, Jonathan Edin.
- Case settled February 1, 2023 without additional testimony

Modera LOHI – Hall & Evans, LLC – Attorney for Plaintiff

- 2021 - 2022
- Denver, Colorado
- Counsel: Matthew J. Ninneman, Esq.
Ike M. Eckert, Esq.
- Plaintiff: Alliance Construction Solutions
- Plaintiff seeks relief from sub-contractor accused of performing sub-standard mechanical construction resulting from insufficient layout and planning of interstitial ceiling spaces, failure to produce necessary submittals prior to start of construction, poor quality and inconsistent installation of low-ambient controls and subsequent failure to honor warranty obligations.
- Investigation in progress.

Asterisk Events Center Consulting – Ireland Stapleton Pryor & Pascoe, PC – Attorney for Defense

- 2021
- Denver, Colorado
- Counsel: Julie M. Walker, Esq.
- Defendant: Path21 Architecture, Inc.
- Performed site inspection, reviewed documents and prepared HVAC load calculations to develop opinions regarding performance of design and construction administrations activities of defendant's sub-consultant.
- Prepared written report, October 25, 2021.
- Case settled, October, 2022 without further testimony.

2856 Maya Place Consulting – Gallogly Public Interest Law Fellow – Attorney for Plaintiff

- 2021
- Boulder, Colorado
- Counsel: Matthew Forstie, Esq.
- Defendant: Ms. Hannah Rice
- Tenant in single family residential building accused of causing sewer back-up and subsequent water damage. Subsequent investigation proved that sewer overflow was caused by long-term underground sewer damage.
- Prepared written report, dated November 11, 2021.

Charnoff Residence Consulting – Ruebel & Quillen, LLC – Attorney for Defense

- 2021
- Longmont, Colorado
- Counsel: Julia Morgenthau, Esq.
- Defendant: JK Plumbing, LLC.
- Homeowner complained of premature failure of miscellaneous galvanized water piping fittings soon after water heater and steam shower retrofit within home. Homeowner refused to allow site inspection. OFS was unable to determine cause of corrosion without access to fittings and water sample (well water) at home. Would not offer opinion based upon photographic evidence provided by homeowner.
- Provided verbal report January 26, 2022.

McAllister Research Center, University of Colorado-Boulder – Western Engineering & Research Company

- 2021
- Boulder, Colorado
- Client: CNA Insurance Company
Intact Insurance
- Insured: Fransen-Pittman Construction Co., Inc.
- Performed site inspection of laboratory space under construction which had experienced a failed chilled water buffer tank during testing procedures.
- Prepared preliminary summary of observations.
- Prepared rebuttal reports, October 14, 2022 and October 24, 2022
- Case settled November 8, 2022, without further testimony.

Billings Residence Consulting – Cozen-O'Connor – Subrogation Attorney

- 2021
- Boulder, Colorado
- Counsel: Ben Migliorino, Esq.
- Provide opinion regarding HVAC service contractors obligation to winterize evaporative coolers on residence due to past service history, while not currently entered into an annual service agreement of any sort. Unwinterized evaporative coolers froze and caused water damage to residence when homeowners were out of town during an early season cold weather event.
- Provided verbal report, November 23, 2012.

3601 South Clarkson, Suite 400 Consulting – Tri-Teel Properties

- 2021
- Englewood, Colorado
- Property Manager: Erica Castelo
- Performed site inspection and HVAC load calculations to determine sufficiency of installed HVAC system within dental suite. Tenant was threatening to break lease due to claimed inability of installed system to adequately cool this tenant space.
- Prepared written report, September 13, 2021.
- Case settled March 17, 2023 without further testimony.

Robinson-Ybarra Townhome Consulting – Hasson + Cables, LLC – Attorney for

Plaintiffs

- 2021
- Denver, Colorado
- Counsel: John Skari, Esq.
- Performed site inspection of townhouse unit within Berkeley Flats development to identify deficiencies which have led to unsatisfactory operation of HVAC systems.
- Prepared Preliminary List of Deficiencies, June 10, 2021.
- Prepared Preliminary List of Recommendations, July 28, 2021.
- Case Settled, Spring 2022 without further testimony.

Oak Street Station Apartments Consulting – Bohn-Aguilar, LLC – Attorney for Defense

- 2021
- Lakewood, Colorado
- Counsel: Armando Aguilar, Esq
- Defendant: Mia Mechanical, Inc.
- Performed site inspection of completed apartment house to observe areas of alleged deficiencies in plumbing systems and areas of building that were previously damaged by water/sewage leaks
- Provided verbal report to counsel, June 28, 2021.

Core Progression Consulting – Kutak Rock, LLP – Attorney for Plaintiff

- 2020
- Denver, Colorado
- Counsel: David E. Kay, Esq.
- Reviewed documents and performed site inspection to determine the degree of completion of mechanical construction and the adherence to the applicable Standard of Care attributable to the General Contractor and their mechanical sub-contractors. Opined on the installation of packaged rooftop HVAC units, open and uncapped natural gas piping, incomplete ductwork installation and plumbing installations.
- Prepared written report, December 30, 2020.

Arrabelle Resort Consulting – Murphy & Decker, PC – Attorney for Defense

- 2020
- Vail, Colorado
- Counsel: Greg R. Lindsay, Esq.
- Defendant: Shaw Construction
- Reviewed various disclosed contract documents, repair documents, photographs and communications. Attended site inspections to observe excavated snowmelt piping mains alleged to be corroded and failed by Plaintiff and Town of Vail. Obtained various hydronic (snowmelt system) water samples for testing.
- Participated in laboratory testing event at Spectrum Forensics, November 2, 2020.
- Case settled December, 2020 without further testimony.

West 24th Avenue Townhomes Consulting – Johnson Law, LLC – Attorney for Plaintiff

- 2020
- Denver, Colorado
- Counsel: Tessa R. DeVault, Esq.
- Performed site inspection to evaluate installation of HVAC systems in five townhomes

- due to inadequate performance. Prepared HVAC load calculations.
- Provide summary of findings, July 13, 2020, August 13, 2020.
- Provided repair recommendations, November 12, 2020.
- Participated in Settlement Conference with Defendants counsel and experts, November 23, 2020.
- Case settled in Mediation, February 26, 2021.

Peterson Residence Consulting – Johnson Law, LLC – Attorney for Plaintiff

- 2020
- Broomfield, Colorado
- Counsel: Tessa R. DeVault, Esq.
- Performed site inspection to evaluate installation of HVAC system due to inadequate performance. Reviewed HVAC load calculations and TAB Report prepared by HVAC contractor.
- Provided verbal report, September, 2020.

Woodside Village Consulting – Moeller Graf, PC – Attorney for Plaintiff

- 2020
- Denver, Colorado
- Counsel: Bujay Ahmeti, Esq.
- Performed site inspection and testing to determine the potential for cat litter deposited into a sanitary sewer building drain resulting in clogged sewer and subsequent water damage to multi-family building.
- Prepared written report dated August 3, 2020.

Parkinson Residence Consulting – Gelman & Norberg, LLC – Attorney for Plaintiff

- 2020 - 2022
- Littleton, Colorado
- Counsel: Scott Gelman, Esq.
Weston Cole, Esq.
- Reviewed home inspection report and contract documents. Performed site inspection to evaluate installation of HVAC system due to inadequate performance. Prepared HVAC load calculations.
- Provided verbal report to homeowner, May 12, 2020.
- Prepared Summary Report, May 11, 2021.
- Case settled May 5, 2022 without further testimony.

Denver Water Department – Murphy & Decker, PC – Attorney for Defense

- 2020
- Denver, Colorado
- Counsel: Greg R. Lindsay, Esq.
- Defendant: Encore Electric, Inc.
- Air cooled water chiller failed over holiday weekend leading to significant damage to data center. Observed site and relevant documents to determine cause of chiller failure and culpability.
- Prepared written rebuttal report, July 27, 2020.
- Case settled September 1, 2020 without further testimony.

455 Sunnyside Lane Consulting – Oates, Knezevich, Gardenswartz, Kelly & Morrow, P.C. – Attorney for Plaintiff

- 2020
- Aspen, Colorado
- Counsel: David B Kelly, Esq.
- Plaintiff alleges that installed air conditioning system is undersized and/or under performing resulting in occupant discomfort. Performed site inspection, prepared heat gain calculations and opined that discomfort in home is the result of large SW facing glass in the areas of concern. Determined that installed HVAC system was generally sufficient, and recommended external shading to mitigate the discomfort without impacting views.
- Prepared written report, May 8, 2020.

Gray Residence Consulting – Champagne Law Firm, LLC – Attorney for Plaintiff

- 2020-2021
- Elizabeth, Colorado
- Counsel: Martin J. Champagne, Jr., Esq.
- Observed existing HVAC and plumbing systems installation. Conducted HVAC heat gain-heat loss calculations. Prepared report summarizing code and construction deficiencies. Provided recommendations for remedial actions to correct various code and construction deficiencies.
- Prepared written report, March 19, 2020.
- Prepared written rebuttal report, December 28, 2020.
- Case settled October 18, 2021 without further testimony.

Dunn Residence Consulting – Frederick and Carol Dunn – Homeowners

- 2020
- Estes Park, Colorado
- Observed existing water heater installation which was resulted in carbon monoxide spillage into occupied home. Provide recommendations for alleviating risks from CO poisoning to residents of home.
- Prepared written report, March 10, 2020.

15030 Roller Coaster Road Consulting – Western Engineering and Research Corporation – Forensic Consultant for Defense

- 2020
- Monument, Colorado
- Counsel: Ron Wells, Esq
Kumpf Charsley & Hansen, LLC
- Defendant: Allegiance Construction, LLC
- Observed home and detached garage HVAC and plumbing systems for overall construction quality and appropriateness.
- Prepared written report, February 19, 2020.

Pioneer Manor Consulting – Overturf, McGath & Hull, PC – Attorney for Defense

- 2019 – 2020
- Gillette, Wyoming

- Counsel: Brandon P. Hull, Esq.
Ike M. Eckert, Esq.
- Defendant: Given & Associates, Inc.
- Reviewed contract documents and other disclosed documents relevant to the matter. Performed site inspection to observe alleged defects regarding placement of packaged rooftop HVAC units in vicinity of adjacent outside air intakes.
- Participated in Settlement Conference, October 2, 2020.
- Case settled October 20, 2020 without further testimony

Hub at RiNo Station – Ireland Stapleton Pryor & Pascoe, PC – Attorney for Defense

- 2019 - 2020
- Denver, Colorado
- Counsel: Julie M. Walker, Esq.
- Plaintiff: Heating & Plumbing Engineers, Inc.
- Defendant: IMEG
- Reviewed documents, attended meetings and phone conferences and performed a brief site inspection in preparation for offering opinion regarding responsibility for failed life-safety smoke control system testing and modifications.
- Prepared preliminary written report, submitted July 3, 2019.
- Prepared rebuttal report, submitted July 7, 2020.
- Case settled December, 2020, without further testimony

714A Baseline Road Consulting – McConnell Flichner Houghtaling, LLC – Attorney for Defense

- 2019
- Lafayette, Colorado
- Counsel: James M. Miletich, Esq.
- Defendant: Classic Property Management, LLC
- Observed repairs to a 4-inch diameter building sewer and provided written report discussing cause of sewer failure and subsequent repairs.
- Prepared written report dated December 11, 2019.
- Case settled January 14, 2020 without further testimony.

Davey Daycare Consulting – Bohn Aguilar, LLC – Attorney for Defense

- 2019
- Castle Rock, Colorado
- Counsel: Armando Y. Aguilar, Esq.
- Defendant: Villaggio Daycare
- Reviewed documents, provided site inspections, prepared HVAC load calculations, investigate and opine if the Design-Build General Contractor and their Sub-Contractors and Sub-A/E Consultants met the Standard of Care with respect to the design and construction of improvements to an existing building converted to use as a daycare center.
- Provided written report, submitted December 18, 2019.
- Provided supplemental rebuttal report, submitted February 24, 2020.
- Case settled February 26, 2020 without further testimony.

Leprino Food's - Hall & Evans, LLC – Attorney for Defense

- 2019
- Lemoore, California
- Counsel: Levy P. Johnson, Esq.
 Steven M. Hamilton, Esq.
- Plaintiff: Leprino Foods Company
- Defendants: Paul Mueller Company
 Kelvion
 Pumping Solutions
- Provided site inspection to review installation of twenty-six marine grade brazed plate heat exchangers which failed prematurely. Received ten water samples of various fluids utilized in the heat exchange process and arranged testing of said water samples.
- Case settled without written report or further testimony.

3601 South Clarkson Consulting – Senn Visciano Changes, P.C. – Attorney for Plaintiff

- 2019
- Englewood, Colorado
- Counsel: Mark D. Gruskin, Esq.
- Defendant: Avalanche Mechanical
- Conducted inspection of newly constructed boiler plant and offered opinions regarding code compliance, quality of construction and adherence to boiler manufacturer's standard installation instructions.
- Prepared written report, September 12, 2019.

Palmer Ridge High School – Hall & Evans, LLC – Attorney for Defense

- 2019
- Monument, Colorado
- Counsel: Christopher D. Bryan, Esq.
 Todd H. Fleckenstein, Esq.
 Nicholas C. Snow, Esq.
- Defendant: H+L Architects
- Reviewed documents, provided site inspections, investigate and opine if the Architect met the Standard of Care when performing design and construction administration services, they provided for the construction of a new 217,000 square foot high school building in 2006-2008 time period.
- Provided written report, submitted June 28, 2019.
- Case settled October 23, 2019 without further testimony.

Aspen High School Consulting – Harris Karstaedt Jamison & Powers, PC – Attorney for Plaintiff

- 2018
- Aspen, Colorado
- Counsel: Mark Neider, Esq.
- Performed site inspection to investigate cause of failed PVC water filter installed on domestic water supply to gymnasium drinking fountain leading to significant damage to installed gymnasium flooring.
- Obtained multiple water filters for material testing by others.

- Provided verbal summary report.
- Case settled without further testimony.

Balfour Senior Living Community – Dorsey & Whitney, LLP – Attorney for Plaintiff

- 2018
- Littleton, Colorado
- Counsel: Eric A. O. Ruzicka, Esq.
- Following pre-occupancy fire event within one dwelling unit, reviewed contract documents, provided site inspection services of multiple terminal air conditioners installed at building to determine contractor's compliance with the contract documents, the governing building codes and manufacturer's installation instructions.
- Attended non-destructive testing event for vertical air conditioner involved in fire, April 10, 2019.
- Provide written report, submitted November 21, 2018.

Finnegan's Restaurant – Hammer, Quinn & Shaw, PLLC – Attorney for Defense

- 2018
- Kalispell, Montana
- Counsel: Todd A. Hammer, Esq.
- Defendant: Mahugh Fire & Safety, LLC
- Reviewed documents and photographs regarding fire located beneath Type I kitchen hood at subject property. Attended destructive testing event for fire suppression system and kitchen appliance.
- Attended non-destructive testing event for kitchen hood fire suppression system, July 26, 2018.
- Provided oral report, November 15, 2018.

10 Polo Club Drive – Lyda Law Firm, LLC – Attorney for Plaintiff

- 2018
- Denver, Colorado
- Counsel: Mark Lyda, Esq.
Ekta Patel, Esq.
- Defendant: Roto-Rooter Services Company
- Reviewed documents and photographs regarding replacement of a functioning building sewer in a failed attempt to correct a subterranean sewer blockage. Replacement building sewer installation subsequently failed inspection and had to be replaced with a code-compliant building sewer and duplex lift station.
- Provided written report, submitted July 9, 2018.
- Case settled August, 2018 without further testimony.

Rare Dankness – Ulmer & Berne, LLP – Attorney for Defense

- 2018
- Denver, Colorado
- Counsel: Frederick (Fritz) X. Shadley, Esq.
- Defendant: Delta T Solutions
- Investigate root cause of chiller evaporator freeze within two 250-ton air-cooled water chillers serving marijuana cultivation facility.
- Provided oral report April 23, 2018.

Women's Health Group Consulting – Bohn Aguilar, LLC – Attorney for Plaintiff

- 2018
- Thornton, Colorado
- Counsel: Armando, Aguilar, Esq.
- Investigate air pressure within procedure room of women's clinic to help ensure that air pressure within room remains positive with respect to surrounding areas of clinic. Monitored air pressure with electronic recording device for extended period of time.
- Prepared written report, submitted December 19, 2018

Garage Restaurant – Carl H. Tessler, PC – Attorney for Plaintiff

- 2017 – 2018
- Denver, Colorado
- Counsel: Carl H. Tessler, Esq.
- Defendants: Williams Construction Corporation
Ethos Architecture Group
- Investigate allegations of inadequate air conditioning systems serving the newly constructed building and opine regarding cause and recommended repairs.
- Provided written report, submitted December 16, 2018.
- Case settled July 3, 2019 without further testimony.

Rawlins High School - McConaughy & Sarkissian, PC – Attorney for Defense

- 2017 – 2018
- Rawlins, Wyoming
- Counsel: Kate L. McDonald, Esq.
Jessica C. Stieber, Esq.
- Defendant: Barnum Construction Services, LLC
- Review documents, photographs and deposition transcripts to gain objective understanding of events that led to the catastrophic failure of reduced pressure backflow preventer following site utility construction and resultant water main recharge.
- Provided written report, Submitted October 29, 2018.
- Case Settled November 5, 2018 without further testimony.

Terra Village II Apartments – Kutak Rock, LLP – Attorney for Plaintiff

- 2017 – 2018
- Edgewater, Colorado
- Counsel: Michael E. Bonifazi, Esq.
David E. Kay, Esq.
- Defendants: Wolf Steel USA – dba Napoleon
McMillan Sales Corporation
Energy Delivery Systems
- Twelve building – three story apartment complex with recently replaced VRF HVAC systems is incapable of meeting the heating needs of apartments throughout facility, leading Plaintiffs to seek relief from the manufacturer and sales organizations involved in the sale of the various VRF systems
- Prepared written report, submitted September 28, 2018.
- Prepared written rebuttal report, submitted November 21, 2019.

- Case settled January 9, 2020 without further testimony.

The Spot Consulting – McConaughy & Sarkissian, PC – Attorney for Defense

- 2017
- Pueblo, Colorado
- Counsel: Ivan A. Sarkissian, Esq.
Melissa D. Marks, Esq.
- Defendant: Vision Mechanical, Inc.
- Investigate allegations of improperly sized and installed HVAC systems for newly constructed Cannabis grow facility.
- Prepared written report, dated April 30, 2018.
- Case settled January 21, 2019 without further testimony.

Tetrahydrocenter Consulting – Hall & Evans, LLC. – Attorney for Defense

- 2017 – 2018
- Denver, Colorado
- Counsel: Brian Molzahn, Esq.
Andrew P. Reitman, Esq.
- Defendant: BA Consultants, Inc.
- Investigate various allegations of mechanical design and construction deficiencies which are claimed to have impacted growing operations and resultant water damage. Offer opinions regarding alleged defects.
- Prepared written report, submitted April 16, 2018.
- Prepared written cost allocation report, submitted May 4, 2018.
- Deposed by Plaintiff's and Co-Defendants Legal Teams, October 9, 2018.
- Case settled November 2, 2018 without further testimony.

Prowers Medical Center Consulting – Allen-Curry, PC – Attorney for Plaintiff

- 2017 – 2018
- Lamar, Colorado
- Counsel: Jerome Joseph, Esq.
- Plaintiff: CPI Group
- Plaintiff sought relief from Mechanical Engineer of Record due to alleged errors on drawings involving fire-smoke damper locations, medical gas outlet locations and quantities, emergency generator exhaust venting, propane supply system and plumbing fixture counts.
- Reviewed documents and participated in meeting with client.
- Case settled following negotiations between parties, 2018.

Care Meridian – Hall & Evans, LLC – Attorney for Defense/3rd Party Plaintiff

- 2017 – 2018
- Littleton, Colorado
- Counsel: Paige Treptow, Esq.
Laura I. Pearson, Esq.
- Defendant: The Cirrus Group, LLC
Littleton Med Partners, LP
- Investigate allegations of mechanical system design and construction deficiencies which have led to numerous frozen heating coils and subsequent disruption in

residential acute care facility. Offer opinions regarding responsibility for mechanical system defects.

- Prepared written report, submitted March 6, 2018.
- Case Settled August 17, 2018 without further testimony.

Peak One Surgery Center Consulting – Hall & Evans, LLC – Attorney for Defense

- 2017
- Frisco, Colorado
- Counsel: Josh I. Berry, Esq.
Chad K. Gillam, Esq.
- Defendant: Saint Anthony's Medical Center
- Investigate allegations of improper hospital staff behavior, temperature controls and applicable regulatory codes and standards for ambulatory surgery centers in defense of defendant following the failure of a two major pieces of mechanical equipment and subsequent freezing of fire sprinkler system.
- Prepared written report, submitted August 31, 2017.
- Case Settled October, 2017 without further testimony.

J.D.'s Bait Shop and Sports Bar Consulting – Dennis McCann, Owner - Operator

- 2017
- Centennial, Colorado
- Client: J.D.'s Bait Shop and Sports Bar
- Investigate source of sanitary sewer gas odor which occurs within sports bar and restaurant periodically. Provided recommendations for remedial action to avoid sewer gas reoccurrences.
- Prepared written report, dated June 27, 2017.

**Poudre Valley Hospital Consulting – Hensel Phelps Construction
On behalf of Poudre Valley Hospital**

- 2017
- Fort Collins, Colorado
- Client: Hensel Phelps Construction Company
- Investigated cause and effect of sanitary sewer system settlement and resultant puddling being experienced within certain areas of newly constructed hospital addition. Offered recommendations for supplemental testing and piping replacement to correct ongoing sewer blockage caused by pools within settled cast-iron piping.
- Prepared written report, dated July 11, 2017.

Kokoro Restaurant Consulting – Mas Torito – District Manager

- 2017
- Denver, Colorado
- Client: Kokoro Restaurant
- Investigate source of sanitary sewer gas odor which occurs within sports bar and restaurant periodically. Provided recommendations for remedial action to avoid sewer gas reoccurrence.
- Prepared written report, dated June 21, 2017.

Cherry Creek Country Club Consulting – BAB Construction, Inc.

On behalf of Cherry Creek Country Club

- 2017
- Denver, Colorado
- Client: Cherry Creek Country Club
- Investigate cause of on-going cast iron sanitary vent piping corrosion which has resulted in numerous incidents of sewer gas odor escape into occupied portions of building. Provide recommendations to prevent re-occurrence of vent system corrosion.
- Prepared written report, dated July 19, 2017.

Glaser Residence Consulting – Cozen O'Connor – Subrogation Attorney

- 2017
- Omaha, Nebraska
- Counsel: Cheri MacArthur, Esq.
- Review all available project documents and provide opinion regarding adherence to necessary Standard of Care owed by construction General Contractor and Plumbing Contractor. Significant water damage occurred when domestic water line within garage wall froze and burst.
- Performed various calculations and reported orally to client.

Murphy Creek Self Storage – McConaughy & Sarkissian, PC – Attorney for Defense

- 2017
- Aurora, Colorado
- Counsel: Jessica Stieber, Esq.
- Defendant: NCB, LLC
- Investigate allegations of mechanical system miss-installation leading to the dismissal of the project General Contractor.
- Prepared written report, submitted July 7, 2017.
- Case settled October 10, 2017 without further testimony.

Wheeler Residence – Cozen O'Connor – Subrogation Attorney

- 2017
- Denver, Colorado
- Counsel: Cheri MacArthur, Esq.
- Review all available project documents and provide opinion regarding adherence to necessary Standard of Care owed by construction General Contractor and Mechanical Contractor. Significant water damage occurred when hot water heating coil within attic mounted make-up air unit froze and burst.
- Prepared written report, submitted May 30, 2017.
- Case settled Fall, 2017 without further testimony.

Leyden Rock Patio Homes Consulting – Wiss Janney Elstner Associates - Forensic Consultant to Cal Atlantic Homes

- 2017
- Arvada, Colorado
- Client: Cal Atlantic Homes
- Investigate building code compliance for mechanical and plumbing construction for multiple home sites in various states of completion following fire that destroyed two duplex buildings on site.

- Prepared written report, submitted February 8, 2017.

Pueblo YMCA – McConaughy & Sarkissian, PC – Attorney for Defense

- 2017
- Pueblo, Colorado
- Counsel: Steven D. Laman, Esq.
- Defendant: Bochnak Mechanical, Inc.
- Investigate installation of shower and associated water piping and support. Prepare report of opinions regarding the suitability of pipe support and its contribution, if any, to the failure that occurred at the shower installation.
- Prepared written report, submitted January 10, 2017.
- Prepared written rebuttal report, submitted February 8, 2017.
- Case settled June, 2017 without further testimony.

Legacy Chiller Consulting – Western Engineering & Research Corporation

- 2016
- Lakewood, Colorado
- Client: Liberty Mutual Insurance Company
- Insured: Legacy Chiller Systems, Inc.
- Claimant: Health Images of Denver West
- Investigation facts surrounding the failure of a pump package over a holiday weekend and prepare report describing sequence of events and opinion of application of manufacturer's standard equipment warranty to reimburse Claimant for repair costs.
- Prepared written report, submitted December 9, 2016.

RT Café Consulting – Ian T. Hicks Law – Attorney for Plaintiff

- 2016
- Denver, Colorado
- Counsel: Ian T. Hicks, Esq.
- Plaintiff: Roman Tsyporyn– Owner – Operator
- Investigated source of strong sanitary sewer gas odor occurring from deteriorated under-slab cast-iron sewer piping.
- Prepared written report, dated October 18, 2016.
- Appeared on 9News – *9 Wants to Know*, May 15, 2017.
- Case settled May 15, 2019 without further testimony.

Simon Residence Consulting – Timmons Attorneys, LLC. – Attorney for Plaintiff

- 2016
- Denver, Colorado
- Counsel: Adam Aldrich, Esq.
- Homeowner experienced concerns regarding operation of kitchen exhaust hood within their condominium following an extensive remodel of the neighboring condominium. Investigation proved that while capacity of kitchen hood was marginal, the neighbor's contractor had not performed any work that impacted the kitchen hood operation.
- Prepared written report, submitted November 2, 2016.

Doty Residence Consulting – The Nelson Law Firm – Attorney for Plaintiff

- 2016

- Colorado Springs, Colorado
- Counsel: Mark W. Nelson, Esq.
- Plaintiff: Elizabeth Doty
- Plaintiff seeks correction of certain items of plumbing and general construction resulting from construction of her replacement structure. Issues include improperly installed water heater flue/combustion air, excessive sanitary vent piping length, inaccessible well pressure tank, electric shut-off and pump control, inaccessible building water shut-off valve, inaccessible cleanout, lack of thermal expansion tank and reduced pressure backflow preventer, poorly flushing toilets and missing roof drainage downspouts and inadequate downspout extensions.
- Prepared written report, submitted November 8, 2016.
- Case settled November, 2017 without further testimony.

Integrated Technology Building– Hall & Evans, LLC - Attorney for Plaintiff

- 2016
- Fort Collins, Colorado
- Counsel: David E. Leavenworth, Esq.
- Plaintiff: Front Range Community College
- Plaintiffs seeks relief from Engineer of Record due to faulty engineering design resulting in poor indoor air quality, excessive operating temperatures and building air pressure within newly constructed welding shop.
- Prepared written report, submitted October 17, 2016.
- Case settled October 28, 2016 without further testimony.

95 Hummingbird Consulting – Cozen O’Connor – Subrogation Attorney

- 2016 – 2018
- Edwards, Colorado (Bachelor Gulch)
- Counsel: Thomas M. Dunford, Esq.
- Defendant: R&H Mechanical, Inc.
- Dispute regarding responsibility for frozen baseboard radiation system. Baseboard radiation was operated with depleted hydronic anti-freeze system following faulty boiler replacement effort by defendant. Errors within installation and operation of boiler systems led to freeze failure.
- Prepared written report, submitted August 15, 2017.
- Prepared written rebuttal report, submitted October 13, 2017.
- Case settled January 30, 2018 without further testimony.

Meridian Tower– Cardi, Schulte & Ford, LLC – Attorney for Defense

- 2015
- Greenwood Village, Colorado
- Counsel: Timothy M. Schulte, Esq.
- Defendant: MKK Consulting Engineers, Inc.
- Plaintiffs seek relief from engineer regarding value engineering items implemented by contractors, allegedly with engineer’s approval.
- Prepared written report, submitted November 2, 2015.
- Case settled, Spring, 2016 without further testimony.

Breen vs. Front Range Refrigeration – Cardi, Schulte & Ford, LLC – Attorney for Plaintiff

- 2015
- Adams County, Colorado
- Counsel: Andrew S. Ford, Esq.
- Plaintiff: Breen Design
- Defendant: Front Range Refrigeration
- Plaintiff seeks relief from former client in effort to gain payment for services rendered.
- Prepared written report, submitted October 5, 2015.
- Prepared affidavit, submitted November 11, 2015.
- Deposed by defendant's legal counsel Dennis Polk, Esq. on December 16, 2015.
- Case settled February 12, 2016 without further testimony.

Glasshouse Contribution Action Consulting, - Berg Hill Greenleaf Ruscitti, LLP – Attorney for Plaintiff

- 2015
- Denver, Colorado
- Counsel: Giovanni M. Ruschitti, Esq.
Jack P. Storti, Esq.
- Plaintiff: Design Mechanical, Inc.
- Defendant: Goodman Manufacturing Company, LP
- Plaintiff is seeking relief from equipment manufacturer due to receipt of faulty installation instructions from manufacturer and subsequent settlement during previous arbitration.
- Prepared written report, submitted November 20, 2015.
- Case settled January 25, 2016 without further testimony.

Cheyenne Liquor Warehouse– Weil & Drage, APC – Attorney for Defense

- 2015
- Cheyenne, Wyoming
- Counsel: Jeremy R. Kilber, Esq.
- Defendant: MKK Consulting Engineers, Inc.
- Defensive forensic investigation of make-up air system specified by defendant and installed at project site. Fatal accident occurred when the owner of the mechanical contractor entered the interior of an operating fan plenum and subsequently accidentally fell into fan resulting in his death. Equipment manufacture was responsible for providing fan inlet guards, included in project submittal, but failed to do so when constructing the make-up air handler.
- Prepared written report, submitted June 15, 2015.
- Case settled in July, 2015 without further testimony.

Cache at Union Creek– Bodin & Gaity, LLC & Sweetbaum Sands, PC, Co-Counsel for Defense

- 2015
- Copper Mountain, Colorado
- Counsel: Steven L. Heisdorffer, Esq.,
Thomas L. DeVine, Jr., Esq.,
Carin Ramirez, Esq.
- Defendant: TCD, Inc.
- Defensive forensic investigation of allegations of improperly installed hydronic heating

system and anti-freeze fire protection systems in multiple building condominium complex near the base of major ski resort.

- Prepared written report, submitted July 15, 2015.
- Prepared rebuttal report, submitted October 7, 2015.
- Case settled during week of December 7, 2015 without further testimony.

744 Whale Drive Consulting – Gordon & Rees, LLP – Attorney for Defense

- 2015
- Lake George, Colorado
- Counsel: Daniel E. Evans, Esq.
- Defendant: Cash Acme
- Investigation into responsibility for boiler malfunction resulting in significant water and mold damage to single family residence.
- Prepared written report, submitted June 18, 2015.

Eagle County Airport Consulting – Rocky Mountain Trane

- 2015
- Gypsum, Colorado
- Counsel: Nicole M. Brunson, Esq.
- Defendant: Ingersoll-Rand Company
- Cause and origin investigation to determine cause of fire within recently installed nominal 5-ton rooftop HVAC unit.
- Case resolved without written report or testimony.

Peaks Hotel Consulting – Yates Law Firm – Attorney for Plaintiffs

- 2014
- Telluride, Colorado
- Counsel: Scott Baker, Esq.
- Defendants: Johnson Controls, Inc.
Trane Company
- Dispute regarding culpability for discharge of freezing airflow by make-up air unit following failures by heating water pump and installed freeze-stat.
- Case resolved without written report or testimony.

Atrium Place Consulting – Hall & Evans, LLC – Attorney for Defense

- 2014
- Greenwood Village, Colorado
- Counsel: Benton J. Barton, Esq.
- Defendant: Burkett Design, Inc.
- Dispute regarding responsibility for underperforming HVAC system following remodel of atrium and replacement of skylight glass.
- Performed review of construction documents and provided expert consulting services for attorney.

National Archives and Records Administration – Kelly & Walker, LLC, Attorney for Defense

- 2014, 2017
- Broomfield, Colorado

- Counsel: Julie M Walker, Esq.
- Defendant: Wiegmann Associates, Inc.
- Dispute regarding performance of direct fired heating and ventilating system designed and installed by Wiegmann Associates.
- Prepared written report, dated September 8, 2014.
- Prepared written rebuttal report, dated July 21, 2017.
- Case settled July 20, 2017 without further testimony.

680 Hawn Lane - Western Engineering and Research Company, Forensic Representative for Hoffman Crews Nies Wagener & Foster, Attorney for Plaintiff

- 2014
- Telluride, Colorado
- Counsel: S. Kato Crews, Esq.
- Defendants:
 - Tandem, Inc.
 - Reid Rutherford Plumbing & Heating, Inc.
- Consulting to determine potential legal proceedings regarding sizing and performance of radiant heating system, solar thermal domestic hot water heating system and associated controls.
- Prepared written summary report, submitted July 29, 2014.
- Prepared written report, submitted April 15, 2015.

Johnson Sport & Ski Consulting – Cozen O’Connor, Subrogation Attorney

- 2014
- Pueblo, Colorado
- Counsel: Richard Rardin, Esq.
- Insured: Johnson Sport & Ski
- Subrogation investigation into cause of property and contents destroying fire, alleged to have resulted from the repair of HVAC equipment at site. Performed site investigation as part of a team of experts and concluded that HVAC system repairs did not likely contribute to the initiation of combustion during the event.
- Cause of fire remains undetermined.

University of Colorado Student Recreation Center Consulting – Construction Analytics, LLC.

- 2014
- Boulder, Colorado
- Client: Stephan K. Tobias
- Insured: Saunders Construction, Inc.
- Consulting to assist in the review of insurance claim for damages and construction delay resulting from September, 2013 weather event and subsequent flooding at ongoing construction project.
- Prepared written report, submitted January 19, 2015.
- Claim settled January, 2015 without further testimony.

373 Penstemon Road – Western Engineering and Research Company, Forensic Representative for Sweetbaum Sands Anderson, PC, Attorney for Plaintiff

- 2014

- Dillon, Colorado
- Counsel: Alan Sweetbaum, Esq.
- Defendants:
 - Colorado Real Estate Company – Barbara J. Schneeman
 - Remax Properties of the Summit, RLLP
 - David L Petersen
 - Glenn Montgomery, Jr.
- Dispute regarding performance of existing hydronic heating system and conditions not disclosed during sale of property to current homeowner.
- Prepared written report, dated August 6, 2014.
- Deposed by defendant's legal team, Laura M. Martinez, Esq., October 17, 2014.
- Case Settled February, 2015 without further testimony.

Village Plaza Lofts – Murphy & Decker, PC, Attorney for Defense

- 2013
- Greenwood Village, Colorado
- Counsel: Greg Lindsay, Esq.
- Defendant:
 - Village Plaza Lofts, LLC
 - Friedman Properties, LLC
 - David Friedman
- Dispute regarding claims of undersized deck drainage.
- Prepared written report, submitted October 15, 2013.
- Case settled without further testimony.

Palomino Ranch Consulting – McKenzie Rhody Hearn – Attorney for Plaintiffs

- 2013
- Colorado Springs, Colorado
- Counsel: Keith Hoagland, Esq.
- Defendant: Central Fire Protection Contractors
- Dispute regarding leaking fire sprinkler piping and resultant water damage allegedly caused by undersized expansion tanks and improperly installed sprinkler drops.
- Provided site inspection and oral report to attorney.

Fruita Recreation Center Consulting – Western Engineering and Research Company

- 2013
- Fruita, Colorado
- Client: Wyatt Bellman, Esq.
- Cause and origin investigation of fire in controls compartment of packaged roof mounted HVAC unit.
- Submitted written report, submitted December 28, 2012.

Grant Park Consulting– Holley Albertson Polk, PC, Attorney for Defense

- 2013
- Denver, Colorado
- Counsel: Scott D. Albertson, Esq.
- Defendant: CDS Investors, LLC
- Dispute regarding claims of various construction defects including defective temperature mixing valves, frozen domestic water piping, inadequate domestic hot

water and space heating system, inadequate domestic water piping sizing and inadequate scald protection.

- Prepared written report, dated June 30, 2013.
- Case settled December, 2013 without further testimony.

Nandi v. Frankland - Foster Graham Milstein & Calisher, LLP, Attorney for Defense

- 2013
- Denver, Colorado
- Counsel: Laura M. Martinez, Esq.
- Defendant: David A. Frankland
- Dispute regarding claims of inadequate heating furnace and air distribution system sizing.
- Prepared written report, submitted May 9, 2013.
- Case settled without further testimony.

One Willow Bridge Road – Cozen O’Connor, Subrogation Attorney

- 2013
- Vail, Colorado
- Counsel: Sarah Kileen, Esq.
- Defendants:
 - Frontier Fire Protection, Inc.
 - The Weitz Company
- Dispute regarding responsibility for fire sprinkler piping freeze in attic space above residential storage area within top floor dwelling unit.
- Case settled without further testimony.

Charter at Beaver Creek – Cozen O’Connor, Subrogation Attorney

- 2012
- Beaver Creek, Colorado
- Counsel: Thomas Dunford, Esq.
- Defendants:
 - InsulVail, LLC
 - Fire Sprinkler Services, Inc.
- Dispute regarding responsibility for fire sprinkler piping freeze/thaw and resulting in a pipe fitting break and subsequent damage to condominium building. Focus on heat loss from dwelling unit to enclosed attic space where frozen sprinkler line resided.
- Prepared written rebuttal report, submitted October 12, 2012.
- Deposed by defendant’s legal team, Richard A. Waltz, Esq., and Gale R. Monahan, Esq., March 4, 2013.
- Case settled February, 2015 without further testimony.

STEF – Project Analytics Group, LLC, Consultant for Plaintiff

- 2012
- Colorado Springs, Colorado
- Counsel: Hubert Farbes, Jr., Esq.
Brownstein Hyatt Farber Schreck
- Plaintiff: MWH Constructors
- Client: David Norfleet, Principal – Project Analytics Group

- Dispute between design architectural – engineering firm and plaintiff regarding responsibility for numerous change orders which occurred during construction of military facility. Reviewed numerous documents and photographs provided by others and developed opinions regarding responsibility for change orders.
- Prepared written report, submitted September 28, 2012.
- Case settled January, 2013 without further testimony.

American Butchers Consulting – Continental Western Group, Insurance Company for Defense

- 2012
- Beaver City, Nebraska
- Insured: Mr. Corey Chapman, Chapman Refrigeration, Inc.
- Claimant: Mr. Calvin Wineland, American Butchers
- Insurance Company Representative: Ms. Teresa Gorton
- Dispute regarding the sizing of replacement refrigeration equipment at existing meat processing plant and storage locker. Involvement included review of available documents and photographs and conducting telephone interviews of involved parties to develop opinions of responsibility.
- Prepared written report, submitted September 27, 2012.

Levy Residence – Bertram Law Firm, Attorney for Plaintiff

- 2012
- Denver, Colorado
- Counsel: D. A. Bertram, Esq.
- Defendant:
 - S & R Mechanical
- Dispute regarding design and installation of solar assisted gas fired heating plant intended to serve existing house and addition space heating, existing swimming pool, new snow melt area, and domestic hot water generation.
- Prepared written report, submitted September 25, 2012.

Park 100 Condominiums – McKenzie Rhody & Hearn, LLC, Attorney for Plaintiff

- 2012
- Denver, Colorado
- Counsel: Allan Mena, Esq.
- Defendants:
 - Silverstone Development – Colorado LLC
 - Hearthstone Inc
 - SSCC Park 100 – Denver, LLC
 - Jeffrey A. Wikstrom
 - Tammy Sotomayor
- Dispute regarding proper funding of reserve account during conversion of existing apartment building to individually owned condominium units. Focus on existing mechanical equipment and required maintenance and replacement history.
- Prepared written report, dated September 14, 2012.
- Deposed by defendant's legal team, Travis Campbell, Esq., and Melissa Shisler, Esq., February 4, 2013.
- Case settled May 27, 2013 without further testimony.

5600 South Quebec Consulting – Cozen-O’Connor, Subrogation Attorney

- 2012
- Greenwood Village, Colorado
- Counsel: Brad Breslau, Esq.
- Investigated smoke exfiltration throughout wing of building due to fire within 2nd floor, SW wing server room. Provided explanation of HVAC system configuration and means of distributing smoke throughout the building.
- Provided verbal report July 31, 2012.

Park Hill Village Condominiums – McKenzie Rhody & Hearn, LLC, Attorney for Plaintiff

- 2012
- Denver, Colorado
- Counsel: Allan Mena, Esq.
- Defendants:
 - Park Hill Properties, LLC
 - 1292 Management, LLC f/k/a Delwest Management, LLC
 - Joseph A. Delzotto
 - Park Hill Condominiums, LLC
- Participated in initial site walk-through, performed HVAC load calculations and duct static calculations, reviewed mechanical equipment selection and installation, investigated combustion air system for swimming pool and spa heating systems, scrutinized heating system employed in mechanical and water service entry closets.
- Prepared written report, submitted June 1, 2012.
- Case settled December, 2012 without further testimony.

Simms Residence – Arnold & Arnold, LLP, Attorney for Defense

- 2012
- Greenwood Village, Colorado
- Counsel: Jean Arnold, Esq.
- Plaintiff: Coggeshall Construction
- Defendant: Michael and Michelle Simms
- Dispute regarding final payment for non-approved revisions to crawlspace ventilation and natural gas piping system. Poor construction quality resulted in significant additional cost and modifications by Defendants correcting work performed by contractor.
- Prepared multiple written reports dated:
 - February 10, 2012,
 - March 2, 2012,
 - March 19, 2012,
 - April 9, 2012.
- Provided expert testimony in Arbitration hearing, August 13, 2013.

Hyatt Cottages – Harris, Karstaedt, Jamison & Powers, PC, Attorney for Defense

- 2012
- Highlands Ranch, Colorado
- Counsel: Thomas Falivene, Esq.
- Defendant: Friend Climate Control

- Participated at initial site walk-through, performed duct sizing calculations and prepared written report. Alleged defect involves contractor modifications to specified return air system sizes and air device quantity and location.
- Prepared Letter of Response, dated March 12, 2012.
- Case settled Spring 2012 without further testimony.

Glass House – McKenzie Rhody & Hearn, LLC, Attorney for Plaintiff

- 2011
- Denver, Colorado
- Counsel: Michael Hearn, Esq.
- Defendants:
 - Wood Partners, LLC
 - East-West Partners – Denver, LLC
 - Alta Riverfront, LLC
 - J.E. Dunn Construction Company
 - Design Mechanical, Inc.
- Participated at initial site walk-through and assisted with preparation of Description of Claims. Defects include deficiencies with installed dx air conditioning systems and associated refrigerant piping, domestic water heating systems and thermal expansion tanks. Conducted testing of mechanical system components within dwelling units. Organized and attended testing of electric water heaters at off-site forensic test laboratory.
- Prepared rebuttal report on defendant's response letter, dated February 21, 2012.
- Prepared written report, submitted October 11, 2013.
- Prepared rebuttal reports dated January 25, 2014 & March 12, 2014.
- Deposed by defendant's legal team, Giovanni M. Ruscitti, Esq., April 11, 2014.
- Case settled May 22, 2014 without further testimony.

RiverGate Lofts – Solutions Before, Solutions After, Forensic Representative for Sullan, Sandgrund, Smith & Perczak, PC - Attorney for Plaintiff

- 2011
- Durango, Colorado
- Counsel: Mari Perczak, Esq.
- Defendants:
 - RiverGate Lofts Partners, LLC
 - Okland Construction Co, Inc.
 - Vendola Plumbing & Heating
- Prepared rebuttal report on behalf of SBSA (following departure of staff engineer initially responsible for SBSA report). Alleged defects included faulty water source heat pump sizing and installation, air distribution installation defects, excessive system noise experienced within residential units and failure of HVAC system to adequately mitigate formation of winter condensate on fenestration.
- Rebuttal report dated May 25, 2011.
- Deposed by defendant's legal team, Stephen Laman, Esq., Todd Fleckenstein, Esq., and Kristin Anderson, Esq., August 29, 2011.
- Case settled December, 2011 without further testimony.

Central City Water Main Break – Western Engineering & Research Company

- 2011
- Central City, Colorado
- Client: James Royston, PE
- Investigated breakage of building of building water service piping where it passed below foundation of vintage building.
- Provided site observation with verbal report.

Cherry Creek Gun Club – Arnold & Arnold, LLP, Attorney for Defense

- 2011
- Denver, Colorado
- Counsel: Jean C. Arnold, Esq.
- Defendant: Westco Systems, Inc.
- Investigated construction defects alleged by plaintiff regarding construction at this indoor shooting range facility to replace aging HVAC system.
- Prepared report, submitted May 25, 2011.
- Case settled June, 2011 without further testimony.

Lincoln Square Lofts – Western Engineering and Research Company, Forensic Representative for Harris, Karstaedt, Jamison & Powers, PC – Attorney for Defense

- 2011
- Lone Tree, Colorado
- Counsel: Thomas H. Falivene, Esq.
- Defendant: Trammell Crow Residential Company
- Dispute regarding frozen fire sprinkler piping and resultant water damage within residential condominium unit.
- Prepared written rebuttal report, dated December 1, 2012.

Goodman Residence Consulting – Bennington Johnson Biermann & Craigmile, LLC, Attorney for Plaintiff

- 2011
- Vail, Colorado
- Counsel: Phillip E. Johnson, Esq.
- Plaintiff: B. A. Goodman
- Investigated construction defects resulting in excessively warm temperatures and resultant discomfort within condominium unit owned and occupied by plaintiff.
- Prepared written report, submitted May 4, 2011..

STEF – Solutions Before, Solutions After, Forensic Representative for Plaintiff

- 2011
- Colorado Springs, Colorado
- Client: David Norfleet, Director SBSA
- Plaintiff: MWH Constructors
- Dispute between design architectural – engineering firm and plaintiff regarding responsibility for numerous change orders which occurred during construction of military facility. Reviewed numerous documents and photographs provided by others and developed opinions regarding responsibility for change orders.
- Prepared written report, dated March 14, 2011.

312 Benchmark Drive – Cozen O’Connor, PC, Subrogation Attorney

- 2010-2011
- Mountain Village, Colorado
- Counsel: Brad Breslau, Esq.
- Plaintiff: Great Northern Insurance Company
- Home constructed with electrically driven steam generator located in unheated, insulated attic enclosure. Performed heat loss and energy balance calculations to substantiate cause of domestic water line freezing in residential ventilated attic.
- Prepared report, submitted May 11, 2011.
- Case settled fall 2011 without further testimony.

1024 Anaconda – Cozen O’Connor, PC, Subrogation Attorney

- 2010-2011
- Castle Rock, Colorado
- Counsel: Sarah Killeen, Esq.
- Plaintiff: Great Northern Insurance Company
- Home constructed with electrically driven steam generator located in unheated, insulated attic enclosure. Performed heat loss and energy balance calculations to substantiate cause of domestic water line freezing in residential ventilated attic.
- Prepared written report, submitted January 24, 2011 and rebuttal report dated March 21, 2011.
- Deposed by defendants’ legal team, David Bost, Esq., and Colin Campbell, Esq., March 25, 2011.
- Case settled January, 2012 without further testimony.

McKenzie Place - Oakridge – Godin & Baity, LLC, Attorney for Plaintiff

- 2010-2011
- Fort Collins, Colorado
- Counsel: Jerome Joseph, Esq.
- Plaintiff: McKenzie Simms
- Unresolved noise issues within residential dwelling units and common areas within complex, excessive sizing of mechanical equipment.
- Prepared written report, submitted December 22, 2010.
- Case settled May, 2011 without further testimony.

Merage Residence Consulting – Bennington Johnson Biermann & Craigmile, LLC, Attorney for Plaintiff

- 2010
- Grand Lake, Colorado
- Counsel: Tami Sapp, Esq.
- Plaintiff: Lin Merage
- Conducted pre-settlement walk-through of property, previously litigated, to review terms of mechanical systems issues settlement.
- Prepared written report, submitted March 4, 2010.

Simpson Residence – Bennington Johnson Biermann & Craigmile, LLC, Attorney for Plaintiff

- 2009-2010
- Newcastle, Colorado
- Counsel: Adam F. Aldrich, Esq.
- Plaintiff: Pat and Julia Simpson
- Unresolved mechanical system operational issues such as faulty wiring, zoning boundaries, leaking components, Owners concerns regarding zoning requirements expressed during design were not complied with resulting in dissatisfaction.
- Prepared written report, submitted March 25, 2009.
- Provided expert testimony in Arbitration hearing, April 14, 2010.

Hanabi Grill – Senter Goldfarb & Rice, LLC., Attorney for Defense

- 2008
- Denver, Colorado
- Counsel: Russell W. Sinnett, Esq.
- Defendant: Norse Contractors, Inc
- Grease exhaust duct system failure affecting fourteen hibachi style down flow exhaust systems.
- Prepared written report, submitted September 2, 2008.
- Deposed by Third Party Defendants legal team, September 8, 2008, Philip B Cardi, Esq., Jackson Kelly, PLLC.
- Deposed by Architects legal team, September 8, 2008, Steven L. Heisdorffer, Esq., Godin & Baity, LLC.
- Deposed by Plaintiff's legal team, November 11, 2008, Jeffrey M. Villanueva, PC.
- Litigation completed without further testimony.

Gore Creek Place Residences – Brownstein Hyatt Farber Schreck, Attorney for Plaintiff

- 2007-2008
- Vail, Colorado
- Counsel: Hubert A. Farbes, Jr., Esq.
- Plaintiff: Vail Resorts and Development, Inc.
- Investigation into non-ventilated and overheating boiler rooms, mis-installed boiler piping systems, water treatment deficiencies leading to advanced premature corrosion within boiler systems.
- Prepared written report, submitted February 28, 2008.

Horizon Pass Lodge – Sherman & Howard, Attorney for Plaintiff

- 2007-2008
- Avon, Colorado
- Counsel: Durward E. Timmons, Jr., Esq.
- Plaintiff: East – West Partners, Inc.
- Investigation into causes for excessive infiltration leading to cold space temperatures and inadequately venting gas fireplaces leading to spillage of products of combustion.
- Prepared written report, submitted May, 11, 2007.
- Inspected installation of supplemental make-up air equipment.
- Negotiated settlement without further testimony.

Hanabi Grill – Dodson and Associates, PC, Attorney for Defense

- 2006-2007
- Denver, Colorado
- Counsel: Rocco Dodson, Esq.
- Defendant: Norse Contractors, Inc
- Grease exhaust duct system failure affecting fourteen hibachi style down flow exhaust systems.
- Prepared written report, submitted January 16, 2007.
- Counsel relationship with defendant terminated.

Greko Residence Consulting – Cambell Bohn, LLC, Attorney for Plaintiff

- 2006
- Denver, Colorado
- Counsel: Armando Y. Aguilar, Esq.
Mike Bohn, Esq.
- Plaintiff: Barbara Greko
- Residential plumbing system failure
- Investigated defective plumbing installation and recommended necessary repairs.
- No further action taken.

Red Rocks Health Care Facility Consulting – Icenogle, Norton, Smith & Blieszner, Attorney for Defense

- 2004-2005
- Denver, Colorado
- Counsel: Edward J. Blieszner, Esq.
- Defendant: Colorado Department of Transportation
- Plaintiff alleged that heat gain to residential care facility increased significantly as a result of elimination of shade trees during the TREX improvements to northbound Interstate I-25.
- Prepared load calculations that proved the heat gain to building was not significant, and that plaintiff's claims were overstated.
- Case resolved without testimony.

Embassy House – Antonio Bates Barnard, P.C., Attorney for Plaintiff

- 2003-2004
- Denver, Colorado
- Counsel: Sandra A. Lilley, Esq.
- Plaintiff: Dr. Robert Powers
- Plaintiff claimed that poor indoor air quality within residential dwelling unit was damaging to his health, requiring plaintiff to vacate the property.
- Prepared report that indicated that common area ventilation within area surrounding residential dwelling unit met the minimum standards set by the governing Denver Building Code at the time of construction. Exhaust ventilation from dwelling unit was sufficient to remove indoor pollutants generated in kitchen and restrooms. Neighbor immediately below plaintiff repeatedly violated building smoking ordinance and was believed to be responsible for plaintiff's medical difficulties.
- Prepared written report, submitted May 21, 2004.

DPS Credit Union – White & Steele, P.C., Attorney for Defense

- 2003
- Denver, Colorado
- Counsel: Joseph King, Esq.
- Defendant: Levary Engineering Consultants
- Construction documents prepared by the Defendant included errors regarding the sizing of the heating water supply and return piping. Defendant initially hired to solve HVAC problems in the building but failed to solve the heating problems. Solution presented by Defendant resulted in temperature control difficulty and energy waste.
- Prepared written report, submitted July 10, 2003.

Clune Residence Consulting – Bennington Johnson Reeves, P.C., Attorney for Plaintiff

- 2002
- Wolcott, Colorado
- Counsel: Kenneth R. Bennington, Esq.
- Plaintiff: Mrs. Eileen Clune
- Plaintiff claimed that propane usage for new residence was excessive. Prepared report and load calculations that proved that propane use was reasonable for the construction, location and heating system employed.
- Prepared written report, submitted October 4, 2002.

California Café – Park Meadows Mall – Lee & Associates, P.C., Attorney for Defense

- 2001
- Lone Tree, Colorado
- Counsel: Armando Y. Aguilar, Esq.
- Defendant: California Café
- Initially, dispute was between California Café and furniture store immediately below. It was alleged that poor floor sealing had resulted in spilled wine leaking through floor and subsequently damaging furniture beneath. My investigation of site led to discovery of defective plumbing piping, leading to minute leakage and corrosion.
- Case was settled prior to issuing final report.

La Quinta Inn Consulting – Lee & Associates, P.C., Attorney for Potential Defense

- 2001
- Greenwood Village, Colorado
- Potential Defendant: Pahl, Pahl, Pahl, P.C.
- Precautionary investigation into causes of boiler venting system failure that led to serious injuries to two hotel guests. Identified path taken by flue gas following catastrophic failure of boiler vent and combustion air systems.
- Potential Defendant not named in litigation; engagement concluded.

Chars Restaurant - Montgomery Little & McGrew, P.C., Attorney for Defense

- 2001
- Aspen, Colorado
- Defendant: Bill Poss & Associates, Inc.
- Defendant was the architect of record for this failed restaurant project. Defendant argued that the use of the basement space was inappropriate for its intended purpose and that the owner (plaintiff) had insisted upon its use in this manner.

- Prepared written report, submitted October 15, 2001.

Chars Restaurant – White & Steele, P.C., Attorney for Defense

- 2001
- Aspen, Colorado
- Counsel: Joseph King, Esq.
- Defendant: Yoder Engineering, Inc.
- Plaintiff claimed that HVAC system was undersized for basement restaurant space with wood fired pizza oven. Defendant argued that existing HVAC system was utilized for new restaurant occupying space once used by previous restaurant. Prepared HVAC load calculations that confirmed that HVAC system was undersized for loads produced by new restaurant configuration.
- Prepared written report, submitted February 10, 2001.

El Sombrero Restaurant – Holley, Albertson & Polk, P.C., Attorney for Plaintiff

- 2000-2001
- Sheridan, Colorado
- Counsel: Howard R. Stone, Esq.
- Plaintiff: Motor Crane Services, Inc.
- Plaintiff took legal action to recover lost rent due to Defendants abandonment of premises where they had a binding lease. Defendant argued unsuccessfully that plaintiff was responsible for sewer gas odor within restaurant. Investigation led to the discovery of numerous leaking and/or open sanitary vent lines within building and hidden and un-primed traps of floor drains below dining areas carpeted by Defendant. Allegations of sewer gas from nearby landfill and cracked floor slab were proven false.
- Prepared initial written report November 28, 2000.
- Prepared report answering interrogatories, April 26, 2001.
- Deposed by Defendants attorney, Mr. Scott Levin, Esq., Fisher Sweetbaum & Levin, P.C., October 25, 2001.
- Case settled prior to litigation without further testimony.

642 Skysail Street Consulting – Bennington Johnson Reeves, P.C., Attorney for Plaintiff

- 2000
- Fort Collins, Colorado
- Counsel: Kenneth R. Bennington, Esq.
- Homeowner (plaintiff) of new home was concerned that HVAC system was undersized. Performed HVAC load calculations to prove that residential HVAC system was sized adequately.
- Provide verbal report to plaintiff's attorney.

Canyon Ranch Apartments – Burdman & Benson, LLP, Attorney for Plaintiff

- 1998
- Highlands Ranch, Colorado
- Counsel: Milo Miller III, Esq.
- Plaintiff: Canyon Ranch Apartments HOA
- Plaintiffs argued that improper plumbing/heating system installation led to premature failure of water heater tanks. Investigation proved that reduced pressure backflow

preventers were installed on the domestic water service to apartment buildings. This caused tank failure due to lack of thermal expansion device on water heaters.

- Prepared written report, submitted January 19, 1999.

Eben Ezer Lutheran Care Center – Bertram and Associates, P.C., Attorney for Plaintiff

- 1998
- Brush, Colorado
- Counsel: D. A. Bertram, Esq.
- Plaintiff: Eben Ezer Lutheran Care Center
- Investigated poorly functioning HVAC system within retrofitted building and made recommendations for corrective system modifications.
- Following initial investigation and meetings, asked to design necessary modifications to convert indirect-direct evaporative cooling system in conjunction with variable temperature – variable volume (VVT) system to a direct expansion cooled variable air volume (VAV) system.
- Recommended colleague to continue as HVAC Expert for ongoing legal case.

Peak Health Club Consulting – Chrisman Bynum Johnson, P.C., Attorney for Defense

- 1995
- Nederland, Colorado
- Defendant: Peak Health Club
- Investigated ventilation system in vicinity of indoor whirlpool to dispute allegation of indoor air quality deficiency brought by club member. Successfully argued that existing ventilation system was adequate and within standard of care for similar facilities.
- Prepared written report.

Security Life Building – Bennington Johnson Reeve, P.C., Attorney for Plaintiff

- 1993
- Denver, Colorado
- Counsel: Kenneth R. Bennington, Esq.
- Plaintiff: Security Life Building
- Prepared calculations proving that failure of PPG spandrel panels caused the building central cooling plant to be undersized.
- Prepared written report.

Young Residence – Anderson Campbell Laugeson, P.C., Attorney for Plaintiff

- 1990-1991
- Evergreen, Colorado
- Plaintiff: Young
- Investigated cause of propane explosion resulting after poor water heater repair.
- Prepared written report.

Ridgehill Condominiums – Brownstein Hyatt Madden, P.C., Attorney for Plaintiff

- 1990
- Aurora, Colorado
- Counsel: Kenneth R. Bennington, Esq.
- Plaintiff: Ridgehill Condominiums HOA

- Investigated cause of malfunctioning wood burning fireplaces within condominiums. Concluded that negative pressure caused by toilet and kitchen exhaust and laundry operation created a downdraft condition at wood burning fireplaces, causing smoke entry into dwelling units.
- Prepared written report.
- Testified at Arbitration hearing, October 23, 1990.
- Arbitrator found for the Plaintiff.

Kelly Walsh High School Consulting – McKenzie & McPhail, P.C., Attorney for Plaintiff

- 1990
- Casper, Wyoming
- Counsel: Michael McKenzie, Esq.
- Plaintiff: Insurance Company for Natrona County School District
- Investigated cause of failed asbestos abatement exercise. Following abatement of multi-pod high school facility, change in federal testing procedure resulted in failure of cleaning process. Successfully determined the source of unabated asbestos within HVAC outdoor air supply ductwork.
- Prepared written report.

Silverthorne Comfort Inn Consulting – Forcon International, Inc., Forensic Representative for Defense

- 1990
- Silverthorne, Colorado
- Defendant: Silverthorne Comfort Inn
- Investigated and identified the cause of a swimming pool boiler vent system failure which had previously resulted in the hospitalization of multiple hotel guests.
- Prepared written report.

The Trails Apartments – Brownstein Hyatt Madden, P.C., Attorney for Plaintiff

- 1989-1990
- Aurora, Colorado
- Counsel: Kenneth R. Bennington, Esq.
- Plaintiff: The Trails Apartments
- Investigated the cause of frozen piping and subsequent failure and water damage from domestic water piping designed for installation within exterior building walls.
- Prepared written report.

Sable Cove Apartments Consulting - Forcon International, Inc., Forensic Representative for Plaintiff

- 1989-1990
- Aurora, Colorado
- Plaintiff: Sable Cove Apartments
- Investigated the cause of frozen piping and subsequent failure and water damage from domestic water piping designed for installation within exterior building walls.
- Prepared written report.

Cherry North Condominiums – Silver & Debosky, P.C., Attorney for Plaintiff

- 1985-1986

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- Denver, Colorado
- Counsel: Bruce Debosky, Esq.
- Plaintiff: Barton Brothers Concrete
- Investigated plaintiff's claims that the designed and installed HVAC system was undersized for its intended purpose, leading to occupant discomfort.
- Prepared written report.
- Deposed by Defendants legal team, Miller Associates, January 22, 1986.
- Case settled prior to litigation without further testimony.