

James “Scott” Hass, PE | Forensic Electrical Engineer

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Professional Summary:

Scott has extensive experience in both design and installation of electrical systems in a wide variety of facilities and buildings. His background includes being the simultaneous owner/operator of both an electrical engineering company and electrical contracting company in Colorado. Projects included new and remodel electrical design and/or installation in hospitals, colleges, schools, county/city facilities (jails, courts, maintenance buildings, water and wastewater plants, offices), cell tower sites, state maintenance facilities, federal testing facility, and many types of commercial, industrial, and residential buildings. His background also includes design and engineering support for field operations with petroleum pipeline facilities in the Gulf of Mexico, California, Texas, Louisiana, and Mississippi. Recently, he has worked over 100 loss investigations, including fires, equipment malfunctions and failures, lightning damage, water damage, and shipping damage.

Mr. Hass’s expertise includes design, installation, troubleshooting, and investigations involving:

- Switchgear, Motor Control Centers, Electrical Service Gear and Metering Equipment
- Panelboards, load centers, circuit breakers
- Transformers
- Service laterals, feeders, branch wiring
- Motor Controllers, Variable Frequency Drives, Programmable Logic Controllers
- Starters, Contactors, Relays
- Lighting Fixtures, Lighting Controls
- Athletic Field Lighting and Controls
- Generators, Uninterruptable Power Supplies, Inverters
- Elevator Equipment and Connection
- Motors, Equipment Connections & Controls
- Solar Systems, Charging Stations, Inverters
- Fire Alarm Systems
- Calculations: fault calculations, load calculations, voltage drop, and circuit/wire sizing

Licenses and Registrations:

Professional Engineer (Additional states available upon application):

Arizona, 79457

New Mexico, 28883

California, E 13667

Texas, 150945

Colorado, 30677

Washington, 25019353

Kansas, 30232

Wyoming, PE 19617

Nebraska, E-20309

Utah, 13368239-2202

Master Electrician, Colorado, 25098

Licenses and Registrations (continued):

National Engineering Registration, NCEES, 23-563-56

Project Experience:

The sample projects here outline a small sampling of the types of projects and losses Mr. Hass regularly investigates. For further information or additional examples, please contact EFI Global.

Multi-Story Office Building, Centennial, Colorado Electrical System Analysis

Represented the insurance carrier for the building to investigate the cause of the electrical switchgear failure analysis including equipment maintenance and testing practices and point of failure.

Lenny's Burgers, Phoenix, Arizona Hood Control Panel Failure Analysis

Represented the insurance carrier for the proprietor investigating the cause of a fire due to a control panel failure. Analysis of the premises electrical systems including roof equipment.

Arc-Flash Study, City of Seaside, California

Completed an arc-fault study for city water facilities calculating incident energy levels to determine selection of personal protective equipment requirements.

Power Plant, City of Broken Bow, Nebraska Electrical Equipment Assessment / Rough Order of Magnitude Cost Estimate

Performed site assessment of power plant equipment including medium voltage switchgear, protective relay control panels, auxiliary pumps/motors, SCADA system, substation and transformer determining replacement and/or equipment recovery/repair. Provided cost estimates to return facility to pre-loss condition. the cause of a fire due to a control panel failure.

Electrical Design – School Stadium

Project included electrical design for stadium facilities (press box, locker rooms, ticket booth, concessions, and maintenance building). Specifically, design/specifications for field lighting and controls, emergency power (generator, transfer switch), fire alarm electrical service equipment, power and lighting distribution, interior and exterior lighting and controls.

Electrical Design – Golf Course Clubhouse

Design and specifications for a new facility. Included electrical service equipment, panelboards, lighting fixtures and controls, golf cart charging circuits, branch wiring, and fire alarm system.

Electrical Installation – New Elementary School

Electrical contractor responsible for installation of electrical systems for school. Included service equipment, panelboards, transformers, lighting fixtures, generator, feeders and laterals, and branch wiring.

Electrical Installation – Cell Tower Sites

Electrical contractor responsible for installation of electrical systems for cell tower sites including remote sites and sites on existing buildings. Included service equipment, panelboards, transformers, lighting fixtures, feeders and laterals, and branch wiring.

Expert Witness Testimony: Court Qualifications/Depositions/Testimony:

Deposition and testimony for an arbitration case with strict NDA. 2024.

Professional Experience:

EFI Global, Denver, Colorado, Forensic Electrical Engineer, 2023 to Present

JSH and Associates, Parker, Colorado, Owner/Principal, 1995 to 2023

Hilltop Electric Inc., Parker, Colorado, President, 1995 to 2022

Shell Pipeline Corporation, New Orleans, Louisiana, Technical Supervisor, 1992 to 1995

Shell Pipeline Corporation, Houston, Texas, Electrical Engineer, 1991 to 1992

Shell Pipeline Corporation, Anaheim, California, Field Engineer, 1988 to 1991

Shell Pipeline Corporation, Houston, Texas, Electrical Engineer, 1986 to 1988

Formal Education:

Bachelor of Science, Electrical Engineering (Academic Dean's List), Colorado School of Mines, Golden, Colorado, 1986

Specialized Education/Training:

Lithium-Ion Battery Fires, 2025

Electric & Hybrid Vehicle Fires, 2025

Understanding of Solar PV and Energy Storage Systems, 2025

Texas Board of Professional Engineering & Surveying Practice Board Update & Ethics, 2024

Fire Scene Electrical Safety, 2024

Donning and Doffing Personal Protective Equipment, 2024

Personal Protective Equipment for Post-Fire Scenes, 2024

Analysis of Significant Changes in the 2023 NEC, 2023

2023 NEC Changes Impacting Pools, Hot Tubs, Fountains, 2023

NFPA 70e, 2021 Edition, Electrical Safety Updates Online Course, 2023

Expert Witness Courtroom Testimony, Amarillo, Texas, 2023

Personal Protective Equipment for Post-Fire Scenes, 2023

The Scientific Method for Fire and Explosion Investigation, 2023

Specialized Education/Training (continued):

Effective Investigation and Testimony, 2023

Documenting the Event, 2023

Arc Mapping Basics, 2023

2020 Wiring Methods and Material, 2019

2020 NEC Changes Part 1, Articles 90-455, 2019

2020 NEC Changes Part 2, Articles 500-820, 2019

Grounding and Bonding, 2017