David H. Fleisher, P.E.

dfleisher@fleisherforensics.com

Consulting Engineer in Civil Engineering, Structural Engineering, and Construction Management; Failures, Defects, Claims, and Loss Evaluations; Accident Reconstruction; Codes and Standards; Construction and Industrial Safety; Pedestrian Safety; Walkway Surface Evaluations; Storm Drainage; Highway and Traffic Safety; Railroads, and Structural Evaluations.

PROFESSIONAL ENGINEER: Pennsylvania, 1975; New Jersey, 1986.

EDUCATION: Bachelor of Science Degree in Engineering, Widener University, 1972.
Master of Science Degree in Civil Engineering, Drexel University, 1975.

PROFESSIONAL BACKGROUND

2002-Present – Fleisher Forensics – Ambler, Pennsylvania:
Consulting Engineer responsible for inspection of incidents; evaluation of vehicle, bicycle, and pedestrian accidents; determination of the safety of traffic elements, roadways, intersections, parking lots, and work zones; and the assessment of speed, time and distance. Consulting in analysis of construction and industrial safety devices and practices involving roofs, openings, scaffolds, trenches, platforms, guards, railings, steel erection, and demolition. Responsible for evaluation of pedestrian safety concerning slips, trips, and falls on floors, walkway surfaces, stairways, parking lots, bathrooms, and land. Consulting in assessment of flooding, ice accumulation, grading, storm water capacities, detention basins, soil erosion and sedimentation control. Consulting in the analysis of failed or collapsed steel, concrete, masonry, stone, and wood structures and devices. Responsible for determination of the safety, capacity, and stability of slabs, floors, roofs, foundations, columns, beams, walls, joists, decking, platforms, and equipment. Consulting in evaluation of compliance to codes and standards such as: BOCA, ADA, ICC, OSHA, ANSI, AASHTO, ASTM, ACI, AISC, SBCCI, and UBC.

1986-2002 – Consulting Engineers & Scientists, Inc. – Malvern, Pennsylvania:
Vice-President with 16 years experience in evaluating litigation and claim matters.

1980-1986 – United Engineers and Constructors, Inc. – Philadelphia, Pennsylvania:
Lead Structural Engineer responsible for engineering, analysis, and design of structures and components for power plants. Supervised engineers and designers. Responsible for construction safety. Designed for walkway surface safety, chimneys, fan and mat foundations, generator pedestals, and platforms. Performed static and dynamic analysis.

1979-1980 – Acme Markets, Inc. – Philadelphia, Pennsylvania:
Group Leader of Architecture, Structural Engineering, and Civil Engineering. Directed overall architecture, structural engineering and civil engineering. Designed new and renovated commercial facilities. Responsible for walkway safety, traffic safety, and construction safety. Resolved construction problems. Designed pile, strip, caisson, and deep foundations; masonry walls; steel structures; steel joist supported roof and floor slab systems; parking lots and storm drainage. Wrote specifications and estimated construction cost.

1972-1979 – Day & Zimmermann, Inc. – Philadelphia, Pennsylvania:
Civil Engineer, Structural Engineer, and Construction Manager on manufacturing, chemical, industrial, and municipal projects.

As a Civil Engineer at Day & Zimmermann, responsible for facility design on sites with multiple watersheds. Designed stormwater management systems, railroad, site geometry and layouts, cut and fill, and site details. Implemented traffic safety. Designed access roads, parking lots, storm drainage pipes and ditches, debris and detention basins, truck loading docks, tank farms, and retaining walls.

As a Structural Engineer at Day & Zimmermann, performed structural design of concrete foundations, grade beams, tank and equipment foundations, pipe trenches, steel structures, pipe supports, platforms, and pipe racks. Selected, designed, and specified corrosion control applications for structures in severe chemical environments. Designed hospitals with prefabricated, prestressed, reinforced concrete floor system.

As a Construction Manager at Day & Zimmermann, administered general construction progress. Resolved field related problems and field checked construction safety. Ensured construction conformance to plans and specifications. Reviewed and approved payment requests submitted by contractors. Prepared feasibility studies.

PROFESSIONAL ORGANIZATIONS

ASTM International
- Board of Directors – Task Group on Slip-Resistance
- Committee F-13, Pedestrian/Walkway Safety and Footwear:
  - Committee Chair, 1998-2002
  - Sub-Committee Chair, F13.10 Traction, 1991-1997
  - Sub-Committee Chair, F13.50 Walkway Surfaces, 2002 – 2023
  - Sub-Committee Vice-Chair, F15.03, Consumer Products, *Safety Standards for Bathtub and Shower Structures*.
- Committees: C-21, Ceramic [Tile]; D-1, Paint; D-21.06, Floor Polishes; F-6, Resilient Floors; F-8, Sports; F15, Consumer Products

American Society of Civil Engineers (ASCE)
American Society of Safety Professionals
International Code Conference [Formerly, Building Officials and Code Administrators, International]
Pennsylvania Society of Professional Engineers (PSPE)
National Society of Professional Engineers (NSPE)

CONTINUING EDUCATION

Steel Design, American Institute of Steel Construction, 1984.
Traffic Accident Reconstruction, Northwestern University, 1986.
Steel Connection Design, American Institute of Steel Construction, 1987.
Roadway Maintenance, Penn State University, 1987.
Work Zone Traffic Control, Penn State University, 1988.
Facility Accessibility Requirements for Physically Handicapped People, 1989.
Masonry Building Code, American Society of Civil Engineers, 1989.
Slips, Stumbles, and Falls Symposium, ASTM, 1989.

Concrete Building Code, American Concrete Institute, 1990.
Penn State University Workshop on Tribology, ASTM, 1993.
International Symposium on Slip Resistance, National Institute of Standards & Technology, 1995.
Evolution of Slip-Resistance Standards, National Institute of Standards & Technology, 1996.
Symposium on the Metrology of Pedestrian Locomotion and Slip Resistance, ASTM, 2001.
Transition from The BOCA National Building Code/1996 to the ICC International Building Code/2000 & update on Pennsylvania Construction Code Act, 2002.
Human Ambulation Factors in Slip and Fall Events, ASTM, 2003.
International Code Council Accessibility 2000 Seminar, 2003.
American Association of Forensic Sciences, 2004.
Engineering Service Contracts, PSPE, 2011.
Concrete Anchors, PSPE, 2013.
Infrastructure Performance, PSPE, 2013.
Elements of CPM Schedule Analysis I & II, PSPE, 2014.
Legal Aspects of Engineering and Construction Planning, PSPE, 2014.
Pennsylvania Turnpike / I-95 Interchange, PSPE, 2015.
An Overview of Rehabilitation Engineering, PSPE, 2016.
I 676 (Vine Street Expressway) Overhead Bridge Reconstruction Project, PSPE, 2016.
Sink Holes: Formation, Prevention and Repair, PSPE, 2016.
West Maple Avenue Bridge Replacement and Roundabout Project, PSPE, 2016.
Maintenance and Protection of Traffic (Traffic Control During Construction), PSPE, 2016.
Safety Planning; PSPE, 2016.
Engineering Risk; PSPE, 2016.
Workshop on the Multifactorial Analysis of Slip and Fall Events; Implications for Forensic and Safety Professionals; ASTM International Headquarters, 2017.
Stormwater Management; PSPE, 2017.
Adhesive Anchoring; PSPE, 2018.
Engineering Safety Through Design; PSPE, 2018.
Helical Pile Design; PSPE, 2018.
3D Laser Scanning Technology; PSPE, 2019.
Philadelphia Floodplain Development and Regulations; PSPE, 2019.
Fracking – Hydraulic Fracturing; PSPE, 2019.
Replacement of Arch Tram MG Sets with Variable Frequency Drives at the Gateway Arch; PSPE, 2019.
Runway Rehabilitation at Trenton Mercer Airport and College Park Airport; PSPE, 2019.
Footwear and Preventing Slips-Ergonomic Solutions for Preventing Falls; ASTM, 2020.
Influence of Averaging Time-Interval on Shoe-Floor-Contaminant Available Coefficient of Friction Measurements; ASTM, 2020.
Research update of Walkway Surface Testing Methodology; ASTM F13, 2020.
Helical Piles; PSPE, 2020.
Neuromechanical Role of the Foot and Footwear in Gait and Balance; ASTM F13, 2021.
Ethics and Dispute Resolution; PSPE, 2022.
Scudder Falls Bridge Replacement Overcoming Construction Challenges; PSPE, 2022.
Clinch Fasteners, Use and Design Considerations; PSPE, 2022.
Environmental Sustainability Panel Air, Soil, Water/Wastewater, and Waste; PSPE, 2022.
Bicycling Beyond the Big Cities; Enhancing On-Road Cycling in Small Towns and Suburban Communities; PSPE, 2022.
Elevators - Complex Machines in Today's World; PSPE, 2023.

Roofing Technology; PSPE, 2023.
Accessibility; PSPE, 2023.
Walkway Surfaces | Traction; ASTM International, 2023.
Managing a Project with Karst Geology; PSPE, 2023.
Amusement Rides: How much thrill; PSPE, 2023.

PRESENTATIONS

Bucknell University Workshop on Slip-Resistance Testers, Co-Chairman, 1991.
National Recreation and Park Association Congress, Slip-Resistance for Physically Disabled Accessibility, 1993.
Footwear Industry of America, Slip-Resistance Update for Testing Footwear, 1994.
Premises Liability, Pennsylvania Trial Lawyers Association, 1995.
ASTM F-13 Meeting, Slip-Resistance Results from the Bucknell Workshop, 1995.
International Symposium of Slip Resistance, Comparison of Tribometers, 1996.
Premises Liability, Pennsylvania Trial Lawyers Association, 2001.
Symposium on the Metrology of Pedestrian Locomotion and Slip Resistance, American Society of Testing and Materials, Chaired Concluding Remarks, 2001.
Effect Surface Texture on Slip Resistance in Walkway-Safety Tribometry, American Assoc. of Forensic Sciences, 2004.
Slip-Resistance Measurement of Walkway Surfaces – What Next?, American Assoc. of Forensic Sciences, 2007.
Open Architecture Slip Resistance Test Methodology, STLE Annual, 2007.
Premises Liability, New Jersey Institute for Continuing Legal Education, 2009.
Premises Liability, Pennsylvania Association for Justice, 2010.
Premises Liability, New Jersey Institute for Continuing Legal Education, 2011
Premises Liability, Mercer County Bar Association, 2011.
Engineering Lessons to be Learned from Accidents and Claims, PSPE, 2012, 2013.
Construction & Premises Liability, New Jersey Institute for Continuing Legal Education, 2014.
Engineering Lessons to be Learned to Reduce Falls, PSPE, 2016.
Expert Witness Discovery in Personal Injury Litigation: Establishing or Challenging Admissibility of Expert Evidence, Webinar; Strafford, 2017.
Engineering Lessons to be Learned on Demolition Projects, PSPE, 2018, 2019(2).
Engineering Lessons to be Learned to Reduce Falls - The #1 Cause of Accidents in Buildings & Sites, PSPE, 2019.
ASTM Walkway Surface Safety Standards, PSPE Philadelphia Chapter Continuing Education Boot Camp 2019.
ASTM Walkway Surface Safety Standards, PSPE Bucks, Valley Forge Chapter, and Philadelphia Chapters, 2020.
Screening and Evaluating Cases Through the Pandemic Lens; Northeast Pennsylvania Trial Lawyers Association (NEPATLA), 2020.
ASTM Walkways; PSPE, 2021.
Staying on Your Feet in Slip and Fall Cases; New Jersey Institute for Continuing Legal Education, 2021.
Engineering Lessons to be Learned on Demolition Projects – The Market Street Building Collapse Tragedy, PSPE, 2021.
ASTM Walkways Standardization Process, Walkway Surface Standards Update, PSPE, 2021.

Guide for Premises Design Considering Snow and Ice Management for the Reduction of Pedestrian Slips; PSPE, 2023.

AWARDS

Distinguished Service Award, Philadelphia Chapter, Pennsylvania Society of Professional Engineers, 2012/2013.
Philadelphia Engineer of the Year, American Society of Civil Engineers, Philadelphia Section, 2016.