

James E. Norris II, PE

Forensic Engineering Expertise

Mr. Norris has over 18 years of practice in Civil and Forensic Engineering, specializing in Traffic Crash Reconstruction. His Forensic Engineering and Traffic Crash Reconstruction experience involves passenger and commercial motor vehicles, motorcycles, bicyclists, pedestrians, and other incidents involving transportation and recreational vehicles. Mr. Norris has developed expertise in the engineering determination of vehicle speeds, incident timing and distances, collision avoidability, human factors, contributing factors related to incidents, and roadway design among others. He has extensive training and experience in the retrieval and interpretation of data imaged from passenger vehicle Event Data Recorders (EDR), Airbag Control Modules (ACM), and commercial vehicle Electronic Control Units (ECU). He has provided expert witness testimony in his areas of practice at both trials and depositions.

Mr. Norris's experience involves work related to general civil engineering, traffic operations and engineering, civil site design, design plan review, and transportation planning. His unique variety of engineering experience broadens his capabilities in the Traffic Crash Reconstruction arena. While working in various roles for the Federal Government, as well as the local Knoxville government, Mr. Norris developed an ability to explain complex engineering issues in clear and understandable terms to laypersons and peers alike.

Qualifications & Training

- Synercon Technologies – Smart Sensor Simulator #2 Advanced Direct to Module Training, 2024
- SAE International – Accessing and Interpreting Heavy Vehicle Event Data Recorders, 2024
- National Association of Professional Accident Reconstruction Specialists (NAPARS) – Nighttime Crash Scene Investigation, 2024
- SAE International – Applying Automotive EDR Data to Traffic Crash Reconstruction, 2023
- Institute of Transportation Engineers – Wrong-Way Driving Crashes: Predictive Models and Low-Cost Countermeasures, 2022
- Institute of Transportation Engineers – Forensic Accident Reconstruction & Human Factors in Collisions, 2022
- SAE International – Vehicle Crash Reconstruction: Principles and Technology, 2022
- SAE International – Reconstruction and Analysis of Rollover Crashes of Light Vehicles, 2021
- Crash Data Group – EDR Summit, Houston, Texas, 2019
- SAE International – Accessing and Interpreting Heavy Vehicle Event Data Recorders, 2018
- National Academy of Forensic Engineers, NAFE Regular Seminar – Application of Engineering in the Jurisprudence System, Atlanta, Georgia, July 2017
- National Academy of Forensic Engineers, NAFE Special Seminar – Forensic Engineering and Analytical Techniques, Atlanta, Georgia, July 2017
- Crash Data Group – EDR Summit 2017, Houston, Texas
- SAE International – Tire Forensic Analysis, Detroit, Michigan, 2016

- Tennessee Transportation Assistance Program: Work Zone Traffic Control & Flagging Certification, Knoxville, Tennessee, 2014
- Institute of Police Technology and Management, University of North Florida – Event Data Recorder Use in Traffic Crash Reconstruction, Jacksonville, Florida, 2013
- Advanced Crash Reconstruction Utilizing Human Factors Research, Evanston, Illinois, 2012
- Bendix Spicer Foundation Brake LLC – Heavy Duty Vehicle Air Brake Systems Training, 2011
- SAE International – Accessing and Interpreting Heavy Vehicle Event Data Recorders, 2010
- American Traffic Safety Services Association, Traffic Control Technician, 2010
- Northwestern University – Heavy Vehicle Accident Reconstruction, Evanston, Illinois, 2009
- Northwestern University – Accident Investigation I Online, 2008
- Southern District ITE Annual Meeting, Knoxville, Tennessee, 2007
- University of Tennessee – Designing Streets for Bicyclists & Pedestrians, Knoxville, Tennessee, 2007
- FHWA/US DOT Road Safety Audits, Knoxville, Tennessee, 2006
- NHI Advancing Transportation Systems Management & Operations, Nashville, Tennessee, 2006
- TRB “Tools of the Trade” 10th National Conference, Nashville, Tennessee, 2006
- Southern District ITE Annual Meeting, Savannah, Georgia, 2006
- NTI Introduction to Transportation Air Quality Conformity, Chattanooga, Tennessee, 2006
- Transportation Research Board Annual International Meeting, Washington, D.C., 2005

Education

Master of Science Degree in Civil Engineering
University of Tennessee, Knoxville, TN
2005

Bachelor of Science in Civil Engineering
University of Tennessee, Knoxville, TN
2004

Educational Presentations

- University of Tennessee, College of Civil Engineering, CE 556/CE409 Traffic Crash Reconstruction, Guest Lecturer: “Heavy Vehicle Accident Reconstruction,” 2021
- University of Tennessee, College of Civil Engineering, CE 556/CE409 Traffic Crash Reconstruction, Guest Lecturer: “Event Data Recorders,” 2021
- Tennessee Society of Professional Engineers – Knoxville Chapter Meeting – Presenter: “Forensic Engineering for Motor Vehicle Accident Reconstruction,” May 2021
- International Association of Defense Counsel – Webinar – Presenter: “Legal Challenges Regarding Event Data Recorder Evidence,” January 2021
- Crash Data Group – EDR Summit, Houston, Texas – Presenter: “Legal Challenges Regarding EDR Data in Testimony,” 2020
- University of Tennessee, College of Civil Engineering, CE 556/CE409 Traffic Crash Reconstruction, Guest Lecturer: “Heavy Vehicle Accident Reconstruction,” 2019
- University of Tennessee, College of Civil Engineering, CE 556/CE409 Traffic Crash Reconstruction, Guest Lecturer: “Event Data Recorders,” 2019
- Tennessee Professional Investigators Association – Professional Education Seminar Presenter: “Accident Reconstruction,” 2019

- Crash Data Group – EDR Summit, Houston, Texas – Presenter: “Legal Challenges regarding EDR Data – Consultant Perspective,” 2018

Licenses & Certifications

PE - Professional Engineer

Licensed by the State of Tennessee - 112904
Licensed by the State of Alabama - 30952-E
Licensed by the State of Florida - PE99794
Licensed by the State of Georgia - PE043571
Licensed by the State of Kentucky - 33781
Licensed by the State of South Carolina - 38843
Licensed by the State of Colorado - PE.0066996
Licensed by the State of Idaho - 7071370
Licensed by the State of Utah - 14235460-2202

NAFE - Board Certified Diplomate in Forensic Engineering (BCDFE) by the National Academy of Forensic Engineers

Remote Pilot - Small Unmanned Aircraft Systems, FAA Certificate #4667579

Accreditation Commission for Traffic Accident Reconstruction (ACTAR), Number 1993

Employment History

Forensic Engineer

Nederveld, Inc.

2024 - Present

Responsible for the investigation, analysis, and reconstruction of vehicle collisions, occupant safety, highway design, and vehicle component failures. Download and interpret electronic data from passenger vehicles, including airbag control modules. Mechanical examinations and documentation of commercial vehicles and Electronic Control Module (ECM) imaging and interpretation of data from commercial vehicles. Rapid response for collision evidence documentation, vehicle examinations, and incident scene surveys/documentation. Plan, execute, and compile High-Definition Survey (HDS) scans of vehicles, objects, and incident scenes for precise measurement, documentation, and simulation purposes. Plan, execute, and process aerial drone survey documentation of collision scenes. Supervision of associates in documentation, diagramming, simulation, and analysis of motor vehicle collisions and other failure events and their causative factors. Conduct research, complete engineering calculations and analysis, prepare expert records, develop conclusions, and provide forensics engineering testimony relative to results, findings, and conclusions.

Professional Engineer

Parham Engineering Consultants, Inc., Knoxville, TN

2007 - 2024

Responsible for the investigation, analysis, and reconstruction of vehicle collisions, occupant safety, highway design, and vehicle component failures. Download and interpret electronic data from passenger vehicles, including airbag control modules. Mechanical examinations and documentation of commercial vehicles and Electronic Control Module (ECM) imaging and interpretation of data from commercial vehicles. Rapid response for collision evidence documentation, vehicle examinations, and incident scene surveys/documentation. Plan, execute, and process aerial drone survey documentation of collision scenes. Supervision of associates in documentation, diagramming, simulation, and analysis of motor vehicle collisions and other failure events and their causative factors. Conduct research, complete engineering calculations and analysis, prepare expert records, develop conclusions,

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and provide forensics engineering testimony relative to results, findings, and conclusions.

Transportation Engineer

Knoxville Regional Transportation Planning Organization, Knoxville, TN
2006-2007

Responsible for monthly reviews of residential and commercial developments submitted for approval by the Metropolitan Planning Commission (MPC) with respect to all aspects of transportation design and planning and made recommendations for corrections as well as approvals/disapprovals. Reviewed Traffic Impact Studies for developments to assess their impact to the transportation network. Reviewed prospective and current Tennessee Department of Transportation (TDOT) projects for aspects pertaining to transportation engineering and planning and presented these projects to citizens through public meetings and other forums. Produced several government-mandated planning documents for the region and was responsible for the upkeep of several transportation software modeling systems utilized for projects/planning assessment.

Transportation Intern

Knoxville Regional Transportation Planning Organization, Knoxville, TN
2004 - 2005

Worked under lead bicycle planner, assisting with public documents, meetings, and outreach. Assisted with development of bicycle safety routes. Researched documents and information to assist other staff members.

Civil Engineering Co-op Student

James H. Quillen VA Medical Center, Johnson City, TN
2002 - 2004

Worked under lead engineer for facilities management, coordinating with staff and outside contractors on projects. Basic project management for on-premise projects and construction. Estimations of project quantities, costs, etc., and review of project bids from outside contractors. Day-to-day reviews of on-premise work and safety procedures. Updates to building and facility plans in CAD.

Professional Affiliations

Senior Member: National Academy of Forensic Engineers, Senior Member -SM791
Member: Society of Automotive Engineers International
Member: National Society of Professional Engineers
Member: Tennessee Society of Professional Engineers, Knoxville Chapter
Member: Institute of Transportation Engineers

Publications

"Legal Challenges Regarding EDR Data in Testimony," James Norris, PE, and David Chapman, Collision Magazine, Volume 15, Issue 1, 2021

Expert Witness Experience

Available upon request