NEDERVELD Nederveld Inc. Phone: 800.222.1868

Stephen Richards, PhD, PE

srichards@nederveld.com

Forensic Engineering Expertise

Dr. Richards has over 40 years of experience as a Professional Engineer with nationally recognized expertise in the areas of highway safety, traffic engineering and traffic control, highway design, and traffic crash reconstruction/causal analysis. He has additional unique specialization in rail-highway grade crossings and highway work zone safety. Dr. Richards joined Nederveld in 2024 with the acquisition of Parham Engineering Consultants (PEC). Dr. Richards has provided expert testimony in multiple states as well as internationally. For five years, he headed up the Southeast Regional NHTSA In-depth Accident Investigation Team (headquartered at the University of Tennessee at the time), investigating and analyzing more than 25 traffic crashes of national interest/significance. He has testified before the National Transportation Safety Board (NTSB) on railway grade crossing safety. Dr. Richards also developed and still teaches a graduate level course in Traffic Crash Reconstruction at the University of Tennessee.

Dr. Richards has had a distinguished academic and research career at the University of Tennessee (UT), spanning 40 years and continuing in a part-time role. Most notable, he served as Executive Director of the University's acclaimed Center for Transportation Research for 20 years and concurrently served as a tenured/tenure-track faculty member in the Civil and Environmental Engineering Department at UT - teaching undergraduate and graduate level courses in highway safety, traffic crash reconstruction, transportation engineering, highway design, and traffic engineering/operations. Beginning in 1994 (through 2019), Dr. Richards also served as Director of the Southeastern Transportation Center (STC), the US DOT Regional UTC for the southeast region. Before relocating to Tennessee (and UT), Dr. Richards was a Research Engineer at the Texas Transportation Institute, Texas A&M University (approximately eight years), worked in a Texas DOT District Traffic Engineering Office (approximately five years), and managed the Houston office of a Texas-based traffic engineering consulting firm (one year).

Dr. Richards has over 110 publications related to his areas of practice. He founded and is Co-Editor-in-Chief of the Journal for Transportation Safety and Security. Dr. Richards has been active in a number of professional organizations, including: serving as President and a Board Member of the Council of University Transportation Center (CUTC), six years as Chair of TRB Committee A3C04: Traffic Safety in Maintenance and Construction, and 12 years as a Member of TRB's Committee on Traffic Safety at Rail-Highway Grade Crossings.

Qualifications & Training

- Sigma Xi Scientific Research Society
- Who's Who in America, 1994-present
- Institute of Transportation Engineers, Texas Section, Outstanding Paper Award, 1983
- Institute of Transportation Engineers, Texas Section, Outstanding Student Award, 1978
- Highway Safety Fellowship, Federal Highway Administration, U.S. Department of Transportation
- Phi Kappa Phi, Texas A&M University, 1977
- Chi Epsilon, University of Texas at Austin, 1976

Stephen Richards Last Modified: 4/18/25



Education

Doctor of Philosophy, Civil Engineering University of Tennessee, Knoxville, TN 1989

Dissertation Title: An Evaluation of Undesirable Driver Actions at Railroad-Highway Grade Crossings with Active Traffic Control

Master of Engineering, Civil Engineering Texas A&M University, College Station, TX 1977

Bachelor of Science, Civil Engineering The University of Texas, Austin, TX 1976 Graduated with High Honors

Educational **Presentations**

College Courses Taught/Developed:

- CE 553 Geometric Design and Layout of Roadways and Community Facilities, University of Tennessee
- CE 595 Special Topics on the Highway Safety Manual, University of Tennessee Graduate Course
- CE 595 Special Topics in Highway Safety, University of Tennessee Graduate Course
- CE 556: Traffic Crash Reconstruction, University of Tennessee Graduate Course
- CE 550 Transportation Seminar, University of Tennessee Graduate Course
- CE 652 Analysis Techniques for Transportation Systems, University of Tennessee
- CE 452/551 Traffic Engineering, University of Tennessee Graduate Course
- CE 355 Transportation Engineering 1, University of Tennessee
- CE 352 Transportation Engineering 2, University of Tennessee
- CE 302 Transportation Engineering, Texas A&M University
- CE 402 Transportation Engineering, University of Houston

Selected Short Courses Developed/Revised:

- "Traffic Engineering Principles and Intelligent Vehicles Highway Systems," Raytheon Company, 1993
- "Work Zone Safety for Rural Local Agencies," Rural Technical Assistance Program, Federal Highway Administration, 1990
- "Work Zone Traffic Control/Safety," North Carolina Department of Transportation, 1988
- "Procedures for Completing the Tennessee Uniform Traffic Accident Report," Transportation Center, The University of Tennessee, 1988
- "Traffic Control for Local Roads: Signs and Pavement Markings," Transportation Center, The University of Tennessee, 1985
- "Planning and Implementing Work Zone Traffic Control," Texas Engineering Extension Service, Texas A&M University, 1984
- "Handling of Traffic in Construction and Maintenance Work Areas," Texas Engineering Extension Service, Texas A&M University, 1984



Selected Short Courses Taught:

- "Design and Operation of Work Zone Traffic Control (National Highway Institute)"
- "Railroad-Highway Grade Crossing Safety (National Highway Institute)"
- "Traffic Engineering Principles and Intelligent Vehicle Highway Systems"
- "Procedures for Completing the Tennessee Uniform Traffic Accident Report" (10 courses)
- "Traffic Control for Local Roads: Signs and Pavement Markings" (four courses)
- "Traffic Control in Construction and Maintenance Work Zones" (20 courses)
- "Planning and Implementing Work Zone Traffic Control" (four courses)
- "Handling of Traffic in Construction and Maintenance Work Areas" (22 courses)
- "Basic Traffic Engineering" (seven courses)
- "Advanced Traffic Engineering" (two courses)
- "Basic Traffic Signal Maintenance" (two courses)
- "Driveway Design Workshop" (one course)

Licenses & Certifications

PE - Professional Engineer

Licensed by the State of Tennessee 17532

Employment History

Senior Forensic Engineer Nederveld, Inc., Knoxville, TN

2024 - Present

Responsible for the investigation, analysis, and reconstruction of motor vehicle and railway collisions, highway design, and transportation system failures. Focused on evaluation of highway geometric design, traffic engineering, temporary traffic control in highway work zones, rail-highway grade crossing incidents, and others and other incidents as they relate to motor vehicle, pedestrian, bicycle and other modal collision events and their causative factors. Supervision of associates in documentation, diagramming, simulation and analysis of motor vehicle collisions and other highway-related failure events. Conducted research, complete engineering calculations and analysis, prepared expert records, developed conclusions, and provided forensics engineering testimony relative to results, findings, and conclusions.

Principal Professional Engineer

Parham Engineering Consultants, Knoxville, TN

2015 - 2024

Investigated, analyzed, and reconstructed traffic incidents; assessed roadway, traffic control, vehicle, and environmental factors relative to crash causation and outcome; provided expert witness testimony in traffic accident litigation; performed traffic engineering and safety evaluations.

Traffic Engineering Consultant Self-employed 1976 - 2015

Duties included providing expert witness testimony in traffic incident litigation, performing traffic engineering and safety evaluations, and developing and teaching seminars and short courses.



Deputy Director and Vice President

National Transportation Research Center/NTRC, Inc., Knoxville, TN

2000 - 2003

Duties included managing the resources and personnel of the National Transportation Research Center facility in Knox County, Tennessee, serving as Vice President of NTRC, Inc., a non-profit corporation established to perform administrative and business functions at the NTRC facility.

Engineer/Manager

Walton & Associates/Consulting Engineers, Inc., Houston, TX

Managed local office of civil/traffic engineering consulting firm, developed proposals and project budgets, managed technical and clerical staff, supervised traffic engineering studies, designed traffic signal systems, and provided expert witness testimony.

Engineering Aide

Texas State Department of Highways and Public Transportation, District 14, Austin, TX

1970 - 1976

Conducted traffic engineering studies/surveys, maintained district-wide incident and pavement data files, designed safety improvement projects, construction inspection, drafting, right-of-way surveys, and installed traffic signs and pavement markings.

Director Emeritus/Associate Research Professor

Center for Transportation Research, The University of Tennessee, Knoxville, TN 2019 - Present

Director

Southeastern Transportation Research Center, The University of Tennessee, Knoxville, TN

1994 - 2012 and 2013 - 2019

Duties included educational, research, and technology transfer activities of the U.S. Department of Transportation regional university transportation center.

Executive Director/Director

Transportation Research Center, The University of Tennessee, Knoxville, TN 1989 - 2008

Duties included directing activities and personnel of a multidisciplinary, multi-modal university research center with over 75 staff members and an annual budget exceeding \$9 million. Managed the center's traffic engineering and safety division; supervised and conducted research projects in the areas of accident investigation, occupant restraint, work zone safety, highway design, traffic operations, and grade crossings; proposal and budget development; strategic planning for future activities and funding of the division; prepared and negotiated research contracts, and liaison with sponsors, public agencies, and private sector interests.

Acting Director

Transportation Research Center, The University of Tennessee, Knoxville, TN 1987 - 1989

Duties included directing activities and personnel of a multidisciplinary, multi-modal university research center (see above).

Stephen Richards



Assistant Director
Transportation Research Center
The University of Tennessee, Knoxville, TN
1984 - 1987

Duties included managing the center's traffic engineering and safety division, supervising and conducting research projects in the areas of traffic incident investigation, occupant restraint, work zone safety, highway design, traffic operations, and grade crossings; proposal and budget development, strategic planning for future activities and funding of the division; preparing and negotiating research contracts; and liaison with sponsors, public agencies, and private sector interests; director of the Tennessee T² Center.

Assistant Research Engineer

Texas Transportation Institute, Texas A&M University 1982 - 1984

Duties included supervising and conducting federal and state research projects in the areas of work zone traffic control, real-time information displays, highway design, access management, traffic control devices, roadway lighting, and incident analysis; preparing proposals and budgets, supervising project staff; assisting Program Manager in strategic planning and budget preparation for program area.

Engineering Research Associate

Texas Transportation Institute, Texas A&M University

1977 - 1981

Duties included conducting federal and state research projects in the areas of transportation systems and traffic management and assisting in proposal and project budget preparation.

Research Assistant

Texas Transportation Institute, Texas A&M University, College Station, TX 1976 - 1977

Duties included collecting and reducing data for traffic signal and signing research and assisting in the analysis of the research data.

Associate Research Professor

Center for Transportation Research, The University of Tennessee, Knoxville, TN 2013 - 2024

Duties included developing and teaching graduate courses in highway safety and crash reconstruction and supervising graduate student research.

Associate Professor

Civil and Environmental Engineering, The University of Tennessee, Knoxville, TN 1989 - 2013

Duties included developing and teaching graduate and undergraduate courses in transportation engineering, traffic engineering, highway safety, traffic operations, highway design, crash reconstruction, and transportation system analysis; supervising graduate student research; advising undergraduate civil and environmental engineering students; faculty advisor to Institute of Transportation Engineers Student Chapter.



Instructor

Civil Engineering, Texas A&M University, College Station, TX 1978 - 1981 and 1983 - 1984

Duties included developing and teaching short courses in basic and advanced traffic engineering, work zone traffic control, highway design, traffic signal design/operation, and access management.

Instructor

Civil Engineering, University of Houston, Houston, TX 1982

Duties included teaching undergraduate course in transportation engineering.

Professional Affiliations

International:

Co-Editor-in-Chief, Journal of Transportation Safety and Security, 2008 – present

National:

Planning Committee, Executive Committee and Plenary Session Chair, National Workforce Development Summit, USDOT and CUTC Sponsors, 2011

Council of University Transportation Centers (CUTC), President, 1996; Vice President, 1995; Secretary, 1994; Board of Directors, 1992-1994, 2011-present; University of Tennessee representative 1987-2008; Southeastern Transportation Center Representative 1994-present

Traffic Safety in Maintenance and Construction (Committee A3C04), Transportation Research Board, Chair, 1995-2001; Secretary, 1981-1986; member, 1979-2002

Technical Advisor, National Research Council Project IVHS-43, "A Sequential Hypothesis Testing Based Decision-Making System for Freeway Incident Response," 1994-97

ASCE Joint Publication Committee, Highway and Urban Transportation Divisions, 1994-1996

Technical Advisor, National Research Council Project IVHS-2, "Models for Real-Time Incident Prediction," 1993-2001

IVHS IDEA Project Selection Panels, National Academy of Sciences, 1993-2002

Railroad-Highway Grade Crossing (Committee A3A05), Transportation Research Board, 1992-present

Vehicle Technology (Committee A3B12), Transportation Research Board, 1992-1996

Southeastern Transportation Centers Education Committee, 1992-present

Southeastern Consortium of University Transportation Centers, Executive Director, 1992-present

Stephen Richards Last Modified: 4/18/25



IVHS-America, Committee and Task Force Member, 1991-2000

Traffic Control Devices (Committee A3A02), Transportation Research Board, 1991-2000

Advisory Committee, Georgia State University Transportation Center, 1989-2001

Traffic Control Device Subcommittee, Transportation Research Board, 1989-1991

Guidelines for Driveway Design and Location (Committee 5B-13), Institute of Transportation Engineers, 1983

Institute of Transportation Engineers, Member and University of Tennessee Student Chapter Advisor

American Society of Civil Engineers

Transportation Research Board

Intelligent Transportation Society of America

Society of Professional Engineers

State and Local:

Chair, Southeast Regional Workforce Development Conference, Nashville, Tennessee, 2010

2004 Strategic Planning Committee, Chair, City of Farragut, 1994

Cumberland Gateway Committee, 1993-1995

Tennessee Transportation Technology Coalition, Planning Committee Chairman, 1993-1995

Knoxville Transportation Authority, Chairman, 1992-1993; Vice-chairman, 1990-1992, 1996-present; Commissioner, 1989-1993, 1994-present

Knoxville Area Mobility Task Force, 1988-1991

Chairman, Technical Committee, Institute of Transportation Engineers, Tennessee Section, 1988-1992

Main Street Parking Committee, Knoxville, Tennessee, 1988

Technical Advisor, Knoxville/Knox County Safety Belt Task Force, 1987-1995

City of Knoxville Bicycle Advisory Committee, 1984-1988



Area Coordinator, Texas Section of Institute of Transportation Engineers, 1982-1984

Selected Academic Service:

Assessment Committee, Department of Civil and Environmental Engineering, The University of Tennessee, 2010-2013

Chair, Special Events Traffic and Parking Planning Committee, The University of Tennessee, 1985-2013

Institute of Transportation Engineers, Faculty Advisor, The University of Tennessee, 1992-1998 and 2009-2012

Mission and Goals Committee, Department of Civil and Environmental Engineering, The University of Tennessee, 2000, 1996, 1993

Traffic and Parking Authority, The University of Tennessee, Ex-officio member, 1994-2007

Dwight D. Eisenhower Fellowship Review Committee, Tennessee State University, 1993-2005

Bicentennial Planning Committee, The University of Tennessee, 1993

Dwight D. Eisenhower Fellowship Review Committee, North Carolina A&T University, 1992-present

Director, Program for Minority Student Recruitment into Transportation Careers, The University of Tennessee, 1992-1994

College of Engineering Awards Committee, The University of Tennessee, 1991-1994

Publications

Dong, Chunjiao, Stephen H. Richards, and Qingfang Yang, and Chunfu Shawo, "Combining the Statistical Model and Heuristic Model to Predict Flow Rate," Journal of Transportation Engineering, American Society of Civil Engineers, Volume 140, Number 7, 2014

Dong, Chunjiao, Chunfu Shao, Larry G. Bray, Stephen H. Richards, and Chengxiang Zhuge, "Jam-traffic Short-Term State-space Prediction Model Based on Space-time Characteristics of Traffic Flow," Transportation Research Record (submitted for review)

Chunjiao Dong, David B. Clarke, Stephen H. Richards, Baoshan Huang, Accept. "Differences in Passenger Car and Large Truck-involved Crash Frequencies at Urban Signalized Intersections: An Exploratory Analysis," Accident Analysis & Prevention, Impact factor: 2.391, 2014

Chunjiao Dong, Stephen H. Richards, Baoshan Huang, Ximiao Jiang, Accept. "Identifying the factors contributing to the severity of truck-involved crashes," International Journal of Injury Control and Safety Promotion, Impact factor: 0.786, 2013



Stephen H. Richards, Chunjiao Dong, Qiang Yang, Ximiao Jiang, Pending. "Guidelines of selecting reasonable speed limit for multilane highways with curbs and gutters," Journal of Transportation Engineering

Chunjiao Dong, David B. Clarke, Baoshan Huang, Stephen H. Richards, Xuemei Zhou, Pending. "A study of factors affecting intersection disabling and non-disabling crash frequencies using random-parameters bivariate zero-inflated Poisson model," Accident Analysis & Prevention

Chunjiao Dong, David B. Clarke, Stephen H. Richards, Xuemei Zhou, Pending. "Multivariate Zero-Inflated Poisson Regression for Jointly Modeling Crash Frequency by Severity," Transportation Research Board 93rd Annual Meeting

Chunjiao Dong, Stephen H. Richards, Lee Han, Chunfu Shao, Pending. "Flow Rate and Time Mean Speed Predictions for the Urban Freeway Network Using State Space Models," Transportation Research Part C: Emerging Technologies, 2014.

Chunjiao Dong, Stephen H. Richards, Qingfang Yang, Chunfu Shao, Pending. "Combining Statistical Model and Heuristic Model to Predict Flow Rate," Journal of Transportation Engineering

Dong, Chunjiao, Chunfu Shao, Stephen H. Richards, and L. Gay. "Short-term Traffic Flow Prediction in Free Flow Traffic on Urban Expressway Network," Transportation Research Record, 2011 (submitted for review)

Jiang, X., X. Yan, B. Huang, and S. Richards, "Influence of Curbs on Traffic Crash Frequency in High-Speed Roadways," Traffic Injury Prevention, 2011 (in publication)

Yan, Xuedong and Stephen H. Richards. "Using Hierarchical Tree-Based Regression Model to Analyze and Predict Crash Risk at Passive Rail-Highway Grade Crossings," Journal of Transportation Safety and Security (in publication)

Yan, Xuedong, Stephen H. Richards, Hal Milligan and Lee Han. "Train-Vehicle Crash Risk Comparison between Before and After Stop Signs Installed at Rail-Highway Grade Crossings," Journal of Accident Analysis and Prevention, 2011 (submitted for review)

Chan, Chun Yip, Baoshan Huang, Xuedong Yan and Stephen Richards. "Investigating the Effects of Asphalt Pavement Conditions on Traffic Accidents in Tennessee Based on the Pavement Managements Systems (PMS)," Journal of Advanced Transportation, Vol. 44, pp. 150-161, 2010

Yan, X., L.D. Han, S.H. Richards, and H. Millegan, "Train-Vehicle Crash Risk Comparison between Before and After Stop Signs Installed at Highway-Rail Grade Crossings," Traffic Injury Prevention, Vol.11, Issue 5, pp. 535-542, 2010

Milligan, Hal, Xuedong Yan, Stephen H. Richards and Lee Han. "Do Stop Signs Improve Safety at Highway-Railroad Grade Crossings?" ITE Journal, February 2010

Chan, Y.C., B. Huang, X. Yan, and S. Richards. "Relationship between Highway Pavement Condition, Crash Frequency, and Crash Type," Journal of Transportation Safety & Security, Vol. 1, No.4, pp. 268-281, 2009.

Milligan, Hal, Xuedong Yan, Stephen H. Richards, and Lee Han. "Evaluation of



Effectiveness of Stop Signs Treatment at Highway-Railroad Garde Crossing." Journal of Transportation Safety and Security, Vol. 1, No. 1, pp. 46-60, 2009

Yan, Xuedong, Essam Radwan, Kranthi Kiran Mannila, and Stephen H. Richards. "Investigation of Truck-Involved Angle Crashes Based on GES and FARS Crash Databases." The Open Access Journal, Vol. 3, pp. 49-49, 2009

Millegan, H., X. Yan, S. Richards, and L.D. Han. "Evaluation of Effectiveness of Stop-Sign Treatment at Highway - Railroad Grade Crossings," Transportation Research Record, Vol. 2122, pp. 78-85, December 2009

Yan, Xuedong, Essam Radwan, Dahai Guo, and Stephen H. Richards. "Impact of 'Signal Ahead' Pavement Marking on Driver Behavior at Signalized Intersections." Journal of Transportation Research - Part F: Traffic Psychology and Behavior, Vol. 2, No.1, pp. 50-67, 2009

Anderson, B.O., T.A. Kress, J.C. Hungerford, S.H. Richards, L.D. Han, and K Kirby. "Bumper Paint Damage in Low Speed Impacts," Accident Reconstruction, No. 2063, Society of Automotive Engineers, pp. 119-136, April 2007

Cate, Matthew and Stephen H. Richards. "An Evaluation of Large Truck Rollover Crashes on Tennessee Interstate Highways." TRB Journal, January 2001

Qureshi, Mohammad, S. H. Richards, B Jennings, and D. Clarke. "A National Survey of Railroad-Highway Grade Crossing Issues." ITE Journal, November 2000 (submitted for publication)

Zacharia, Zach G., John E. Tidwell, and Stephen H. Richards. "An Overview of Truck and Bus Safety: 1999 Knoxville Symposium." International Journal of Vehicle Design, March 2000

Bosch, Donald A., Beverley S. Cornett and Stephen H. Richards. .10% Solution. The Champion National Association of Criminal Defense Attorneys. Vol. XXII, No. 5, June 1998

Richards, Stephen H. "Forming a Defense Conversion Coalition Team Building and Organization." Transportation Research Circular, January 1995

Chatterjee, Arun, Gwynn Evans, Stephen H. Richards, and Helen Hafford. "Safety Belt Use in Tennessee." ITE Journal, Volume 61, Number 1, January 1991, pp. 23-27

Richards, Stephen H., and K. W. Heathington. "Assessment of Warning Time Needs at Railroad-Highway Grade Crossings with Active Traffic Control." Transportation Research Record, Number 1254, 1990, pp. 72-84

Richards, Stephen H., K. W. Heathington, and Daniel B. Fambro. "Evaluation of Constant Warning Times Using Train Predictors at a Grade Crossing with Flashing Light Signals." Transportation Research Record, Number 1254, 1990, pp. 60-71

Heathington, K. W., Stephen H. Richards, and Daniel B. Fambro. "Guidelines for the

obtained through a mutually agreed upon Letter of Engagement.



Use of Selected Active Traffic Control Devices at Railroad-Highway Grade Crossings." Transportation Research Record, Number 1254, 1990, pp. 50-59

Fambro, Daniel B., K. W. Heathington, and Stephen H. Richards. "Evaluation of Two Active Traffic Control Devices for Use at Railroad-Highway Grade Crossings." Transportation Research Record, Number 1244, 1989, pp. 52-62

Heathington, K. W., Daniel B. Fambro, and Stephen H. Richards. "Field Evaluation of Four-Quadrant Gate System for Use at Railroad-Highway Grade Crossings." Transportation Research Record, Number 1244, 1989, pp. 39-51

Richards, Stephen H., and K. W. Heathington. "Motorist Understanding of Railroad-Highway Grade Crossing Traffic Control Devices and Associated Traffic Laws." Transportation Research Record, Number 1160, 1988, pp. 52-59

Dudek, Conrad L., Stephen H. Richards, and Jesse L. Buffington. "Some Effects of Traffic Control on Four-Lane Divided Highways." Transportation Research Record, Number 1086, 1986, pp. 20-30

Richards, Stephen H., and Conrad L. Dudek. "Implementation of Work Zone Speed Control Measures." Transportation Research Record, Number 1086, 1986, pp. 36-42

Richards, Stephen H., and Conrad L. Dudek. "Selection of Work Zone Channelizing Devices Using the Value Engineering Approach (Abridgment)." Transportation Research Record, Number 1035, 1985, p. 65

Richards, Stephen H., Robert C. Wunderlich, and Conrad L. Dudek. "Field Evaluation of Work Zone Speed Control Techniques." Transportation Research Record, Number 1035, 1985, pp. 66-77

Richards, Stephen H. "Analysis of Exiting Vehicle Paths at Undivided Two-Way Driveways." ITE Technical Journal, Volume XXIX, Number 3, April 1983

Richards, Stephen H. "A Review of Local Driveway Ordinances in Texas Cities." ITE Technical Notes, Volume 8, Number 3, July 1983, pp. 12-18

Richards, Stephen H. "A Review of Local Driveway Ordinances in Texas Cities." TexITE Newsletter, Volume XXIX, Number 2, January 1983

Dudek, Conrad L., and Stephen H. Richards. "Traffic Capacity Through Urban Freeway Work Zones in Texas." Transportation Research Record, Number 869, 1982, pp. 14-18

Huddleston, Nada D., Stephen H. Richards, and Conrad L. Dudek. "Driver Understanding of Work Zone, Flagging Signals." Transportation Research Record, Number 864, pp. 8-13

Richards, Stephen L., and Conrad L. Dudek. "Sight Distance Requirements at Lane Closure Work Zones on Urban Freeways." Transportation Research Record, Number

Stephen Richards 11 Last Modified: 4/18/25



864, 1982, pp. 14-19

Richards, Stephen H., and Conrad L. Dudek. "Motorists Response to Selected Driveway Systems" (Abridgment). Transportation Research Record, Number 855, 1982, pp. 49-52

Richards, Stephen H. "Operational Effects of Driveway Width and Curb Return Radius." Transportation Research Record, Number 819, 1981, pp. 22-37

Richards, Stephen H. "Analysis of Exiting Vehicle Parts at Undivided Two-Way Driveways (Abridgment)," Transportation Research Record, Number 819, 1981, pp. 20-22

Faulkner, Michael J. S., and Stephen H. Richards. "Field Evaluation of Highway Advisory radio for Traffic management in Work Zones (Abridgement)." Transportation Research Record, Number 833, 1981, pp. 1-3

Rogness, Ramey O., and Stephen H. Richards. "Evaluation of Driveway-related Accidents in Texas (Abridgement)." Transportation Research Record, Number 811, 1981, pp. 17-19

Richards, Stephen H. "The Effects of Turning Off Selected Roadway Lighting as an Energy Conservation Measure," Transportation Research Record, Number 811, 1981, pp. 23-25

Richards, Stephen H. "The Effects of Reducing Continuous Roadway Lighting to Conserve Energy: A Case Study." SAFE Journal, Volume 9, Number 1, 1979

Richards, Stephen H., and Conrad L. Dudek. "Field Evaluation of Traffic Management Strategies for Maintenance Operations in Freeway Middle Lanes." Transportation Research Record, Number 703, 1979, pp. 31-36

Richards, Stephen H., William R. Stockton, and Stephen H. Richards. "Analysis of Driver Responses to Point Diversion for Special Events." Transportation Research Record, Number 682, 1978, pp. 46-51

Dudek, Conrad L., Graeme D. Weaver, Donald R. Hatcher, and Stephen H. Richards. "Field Evaluation of Messages for Real-Time Diversion of Freeway Traffic for Special Events." Transportation Research Record, Number 682, 1978, pp. 37-45

Messer, Carrol J., Daniel B. Fambro, and Stephen H. Richards. "Optimization of Pretimed Signalized Diamond Interchanges." Transportation Research Record, Number 644, 1977, pp. 78-84

Cate, Matthew and Stephen H. Richards. "Development of a System to Prioritize Sites for the Installation of Automated Truck Rollover Warning Systems in Tennessee." Center for Transportation Research, The University of Tennessee, August 2000

Roberson, Michael and Stephen H. Richards. "Safety Review of the Governor's Highway Safety Office Sign Grant Program." Center for Transportation Research, The University of Tennessee, August 2000

Stephen Richards 12 Last Modified: 4/18/25



Stevens, Scott, S. H. Richards, and M. Cate. "Initial Operation of a Truck Rollover Warning System." Proceedings of the Second International Truck and Bus Safety Symposium, Knoxville, Tennessee, October 1999

Richards, Stephen H., B. Jennings, M. Qureshi, and D. Clarke. "Railroad-Highway Grade Crossing Legislative Issues Assessment for Tennessee." Center for Transportation Research, The University of Tennessee, April 1999

Bosch, Donald A., Beverley S. Cornett, and Stephen H. Richards. ".10% Solution: Traffic and Automobile Factors Influencing DUI Arrests," The Champion, Vol. XXII No. 5, June 1998

Stevens, Scott, S. H. Richards, and M. Cate. "Condition Responsive Truck Rollover Warning Systems." Proceedings of the First International Truck and Bus Safety Symposium, Knoxville, Tennessee, October 1997

Stevens, Scott, and Stephen H. Richards. "Condition Responsive Truck Rollover Warning Systems: Alternative System Designs," Oak Ridge National Laboratory/U.S. Department of Energy, October 1997

Richards, Stephen H., and T. Darcy Sullivan, "Human Factors Issues of the Information Transfer Process." Transportation Center, The University of Tennessee, August 1996

Ford, Robert E., Stephen H. Richards, and John C. Hungerford. "Evaluation of Retroreflective Markings to Increase Rail Car Conspicuity." Transportation Center, The University of Tennessee, June 1996

Richards, S. H., and R. Gorman. "Evaluation of a Fog Detection System on I-181 in Kingsport, Tennessee," Transportation Center, The University of Tennessee, May 1996

Richards, Stephen H. "Farragut 2004 Plan: A Vision of the Town of Farragut, Tennessee for the Year 2004," Part II. April 1995

Richards, Stephen H., and Tony Wright. "Sampling and Analysis Plan for the Mississippi Safety Belt and Motorcycle Helmet Use Surveys." Mississippi Governor's Highway Safety Office, March 1994

Richards, Stephen H. "Safety Belt and Motorcycle Helmet Use in Tennessee: 1994 Survey Results." Transportation Center, The University of Tennessee, October 1994

Wegmann, Frederick J., Stephen H. Richards, and Pasam Reddy. "APTS Applications in the Southeast Region." Proceedings, Third ASCE International Conference — Applications of Advanced Technologies in Transportation Engineering, Vol. I, Seattle, Washington, August 1993, pp. 127-133

Richards, S. H., T. D. Sullivan, and W. Kervin. "Sugar Ridge Coal Company Traffic Control Plan." Transportation Center, The University of Tennessee, August 1993

Wegmann, Frederick J., Stephen H. Richards, and Pasam Reddy. "Applications of IVHS Technologies to Public Transportation in Rural and Smaller Urban Areas."

Stephen Richards 13 Last Modified: 4/18/25



Proceedings, IVHS America 1993 Annual Meeting, June 1993, pp. 520-530

Richards, Stephen H. "Identifying Potential Crossing Violators." Proceedings, Second International Symposium on Railroad-Highway Grade Crossing Research and Safety, Knoxville, Tennessee, December 1992, pp. 107-126

Richards, Stephen H, and David Lindsay. "Safety Belt and Motorcycle Helmet Use in Tennessee." Governor's Highway Safety Program, Tennessee Department of Transportation, October 1992

Richards, S., and W. Kervin. "Congestion Management Plan I-40/75 in West Knoxville: Evaluation and Monitoring." Transportation Center, The University of Tennessee, 1992

Richards, Stephen H., and Madhav Pappu. "1991 CUTC Member Profile." Council of University Transportation Centers, December 1991

Richards, S. H., T. D. Sullivan, and R. A. Margiotta. "National Governors' Association Truck Accident Data Collection Program: Officer's Manual." Federal Highway Administration, November 1991

Richards, S. H., T. D. Sullivan, and R. A. Margiotta. "National Governors' Association Truck Accident Data Collection Program: Instructor's Manual." Federal Highway Administration, 1991

Richards, Stephen H. "An Overview of the International Symposium on Rail-Highway Grade Crossing Safety and Research: Innovative Traffic Control Devices." Proceedings, 1991 Improving Safety at Railway Level Crossings Conference, Adelaide, Australia, September 1991, pp. 3-16

Richards, Stephen A. "An Overview of the International Symposium on Railroad-Highway Grade Crossing Safety and Research." Proceedings, 1991 National Conference on Rail-Highway Safety, Philadelphia, Pennsylvania, July 1991

Richards, S. H., R. E. Ford, D. N. Lindsay, and J. B. Humphreys. Fourteen case studies on airbag deployment. National Highway Traffic Safety Administration, 1991

Richards, S. H., R. A. Margiotta, and G. A. Evans. "Warning Time Requirements at Railroad-Highway Grade Crossings with Active Traffic Control," Report No. FHWA-SA-91-007. Federal Highway Administration, February 1991

Richards, Stephen H. "Human Factors Issues Affecting Driver Behavior at Rail-Highway Grade Crossings with Active Traffic Control." Proceedings, International Symposium on Railroad-Highway Grade Crossing Research and Safety, Knoxville, Tennessee, October-November 1990, pp. 398-419

Richards, Stephen H. An Evaluation of Undesirable Driver Actions at Railroad-Highway Grade Crossings With Active Traffic Control. Doctoral Dissertation, The University of Tennessee, December 1989

Richards, Stephen H. "Driver Response to Innovative Rail-Highway Warning Devices." Proceedings, 1989 National Conference on Rail-Highway Safety, July 1989, pp. 53-68

> Stephen Richards 14 Last Modified: 4/18/25



Richards, Stephen H., W. W. Heathington, and Daniel B. Fambro. "Evaluation of Train Predictions and Constant Warning Times at a Grade Crossing with Flashing Light Signals." Transportation Center, The University of Tennessee, 1989

Heathington, K. W., D. B. Fambro, and S. H. Richards. "Field Evaluation of Innovative Active Warning Devices for Use at Railroad-Highway Grade Crossings," Report No. FHWA-RD-88-135. Federal Highway Administration, August 1988

Heathington, K. W., D. B. Fambro, and S. H. Richards. "Field Evaluation of Innovative Active Warning Devices for Use at Railroad-Highway Grade Crossings: Executive Summary." Federal Highway Administration, August 1988

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Expert Witness Experience

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