

STATE OF NORTH CAROLINA
COUNTY OF WAKE

IN THE GENERAL COURT OF JUSTICE
SUPERIOR COURT DIVISION
10-CVS-019930

BRIAN CECCARELLI and LORI MILLETTE individually and as class representatives,

Plaintiffs,

v.

TOWN OF CARY,

Defendant.

**DEFENDANT TOWN OF CARY'S
DESIGNATION OF EXPERT WITNESSES**

NOW COMES the Town of Cary, by and through its attorneys, pursuant to Rule 26(b)(4) of the North Carolina Rules of Civil Procedure, and hereby designates the following experts that the Defendant expects to call at the trial of this matter:

1. Joseph E. Hummer, Ph.D., P.E.
Wayne State University
Department of Civil and Environmental Engineering
5050 Anthony Lane Drive
Detroit, MI 48202

Dr. Hummer, is a North Carolina licensed engineer who was, until recently, a Professor at North Carolina State University, Department of Civil, Construction, and Environmental Engineering. A copy of his CV is attached and/or will be sent via electronic mail due to its size. Dr. Hummer is expected to opine that the yellow times in question on the signal plans of record were signed and sealed by a licensed N.C. Professional Engineer in accordance with Chapter 89C and were in full conformance with the requirements of the Manual on Uniform Traffic Control Devices. Additionally Dr. Hummer is expected to testify that the yellow times at issue were designed within the standard of care for engineers, and were done using engineering practices and sound engineering judgment. Dr. Hummer's opinion is based upon his education, training and background, his work and teaching experience, and his review or expected review of the relevant pleadings, discovery, and depositions given in this matter.

2. Lisa Moon, P.E.
Senior Project Engineer
Atkins
1616 E. Millbrook Road
Raleigh, NC 27609

Ms. Moon is a Senior Project Engineer with Atkins in Raleigh, North Carolina. A copy of her CV is attached. Ms. Moon is expected to opine that the yellow times at issue on the signal plans of record were signed and sealed by a licensed N.C. Professional Engineer in accordance with Chapter 89C and were in full conformance with the requirements of the Manual on Uniform Traffic Control Devices. Additionally, Ms. Moon is expected to testify that the yellow times at issue were designed within the standard of care for engineers, and were done using engineering practices and sound

engineering judgment. Ms. Moon's opinions are based upon her education, training, and background, her work experience, and her review or expected review of the relevant pleadings, discovery, and depositions given in this matter.

3. Greg Fuller, P.E.

While Mr. Fuller is not a retained expert, the Defendant reserves its right to elicit expert opinions from Mr. Fuller at the trial of this matter. See also Affidavit of Greg Fuller already produced. Mr. Fuller would be expected to opine that the state of North Carolina owns the roads in question and that NCDOT is responsible for designating signal plans to be the official signal plans of record on such state owned roads. Mr. Fuller would be able to identify which NCDOT signal plans were the official signal plans for the yellow times in question. Mr. Fuller would also be expected to opine that the yellow times on the signal plans at issue in this case were signed and sealed by a licensed N.C. Professional Engineer in accordance with Chapter 89C and were in full conformance with the requirements of the Manual on Uniform Traffic Control Devices. Additionally, Mr. Fuller is expected to testify that the yellow times at issue were designed within the standard of care for engineers, and were done using engineering practices and sound engineering judgment.

4. The engineers of record for the signal plans at issue in this case.

While said engineers are also fact witnesses, Defendant reserves its right to elicit expert opinion testimony from said engineer of record at the trial of this matter. These engineers would be expected to opine that they were licensed Professional Engineers at the time they designed the signal plan or plans in question in accordance with Chapter 98C and that the said yellow time or times were in full conformance with the requirements of the Manual on Uniform Traffic Control Devices, and that said yellow time or times were designed within the standard of care for engineers, and were done using engineering practices and sound engineering judgment.

5. Experts identified by Plaintiffs

6. The Defendants reserve their right to identify other or additional experts as allowed by the North Carolina Rules of Civil Procedure and the local rules of this court.

This the 5th Day of September, 2012.



Elizabeth A. Martineau
Martineau King PLLC
PO Box 31188
Charlotte, NC 28231
704 247 8524
emartineau@martineauking.com

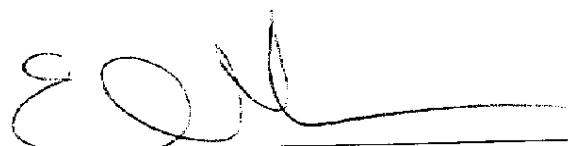
Certificate of Service

I hereby certify that a copy of the foregoing document was served upon all counsel of Record by fax addressed to the attorney for each said party as follows:

William Peaslee
102 Commonwealth Court
Cary, NC 27511
FAX: 919.481.2919

Paul Stam
Stam & Danchi, PLLC
PO Box 1600
Apex, NC 27502
Attorneys for Plaintiffs
FAX: 919.387.7329

This 5 day of Sept., 2012.


Elizabeth A. Martineau

CV of Dr. Hummer sent via email due to its size

Lisa M. Moon, PE

Project Engineer
Atkins

Education

B.S., Civil Engineering, North
Carolina State University

Registrations/Licenses

Professional Engineer
North Carolina 022516, 1997
South Carolina 27340, 2009
Virginia 46356, 2009

Employment

1998-current
Atkins
Senior Project Engineer

1991-1998
North Carolina Department of
Transportation
Signal & Geometrics Section

Lisa Moon has 21 years of traffic engineering experience in traffic engineering, with a focus on traffic-signal analysis and design. She has designed over 750 traffic signals, either isolated or in arterial closed-loop traffic-signal systems, for private, municipal, and state clients and has recently personally inventoried over 700 traffic signals throughout North Carolina. Ms. Moon was also as a member of a joint North Carolina Section Institute of Transportation Engineers (NCSITE)/NCDOT Task Force that developed new, uniform procedures for computing yellow and all-red interval timing for traffic signals.

While at Atkins, Ms. Moon's project experience includes:

Limited Traffic Engineering Services Agreements, 1998-2012, North Carolina Department of Transportation (NCDOT). Led or contributed to numerous on-call traffic signal projects to provide traffic engineering services to the NCDOT's Traffic Engineering and Safety Systems Branch. Design included the review of and/or the new calculations for change intervals of the signals. Relevant projects are listed below:

- B-2225 Greenville - Greene St/Pitt St Closed-Loop System
- U-2414B Conover - Tate Blvd. Ext. Traffic Signals & FOC Cable Routing
- U-2916 Kinston Closed-Loop Signal System Design
- U-3116 Wilmington - Signal Plans
- I-0306DB I-85 in Durham County - Traffic Signals & FOC Cable Routing
- U-2520 Fayetteville - Cliffdale Road Traffic Signals & FOC Cable Routing
- R-2906C Durham - NC 55 Traffic Signals & FOC Cable Routing
- R-1030D Wilson - US 301 Bypass Traffic Signals & FOC Cable Routing
- Wallace Closed-Loop Signal System
- Dunn Closed-Loop Signal System
- Laurinburg Closed-Loop Signal System
- Fairmont Closed-Loop Signal System
- Clinton Closed-Loop Signal System
- R-0967CB Signal Plans
- Smithfield Closed-Loop Signal System
- R-2533B Concord US 601 Signal Upgrades
- R-2417BB Sanford - NC 42 Traffic Signals & FOC Cable Routing
- U-4448 Concord/Kannapolis Closed-Loop Signal System
- R-0617C Linclonton - Traffic Signal and Cable Routing Plans
- R-2201 King - Traffic Signal and Cable Routing Plans
- U-3810 Jacksonville - Traffic Signal Plans

Winston-Salem Traffic Signal System Upgrade and Expansion, North Carolina Department of Transportation (NCDOT), Winston-Salem, NC. This project involves the plans, specifications, and estimates (PS&E) for the rehabilitation and expansion of the City of Winston-Salem's existing computerized traffic signal system. Work includes replacement of the existing copper-wire communications system with a new Ethernet communications system comprised of predominately of new fiber-optic communications cable with potential for wireless

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Project Engineer
Atkins

communications, particularly in the downtown area. **Employee Role:** Task manager responsible for data collection (signal cabinets and cable routing), signal designs, and cable routing plans.

Rocky Mount Signal System, North Carolina Department of Transportation (NCDOT), Rocky Mount, NC. This project involved the preparation of plans, specifications, and estimates (PS&E) for the rehabilitation and expansion of the existing Rocky Mount computerized traffic signal system. The system was initially comprised of 150 signalized intersections, 15 closed-circuit television (CCTV) cameras and approximately 46 miles of new fiber-optic communications cable. **Employee Role:** Task manager responsible for signal inventories, signal design, utility make-ready (UMR) data collection, and cable routing plan preparation.

City of Newport News On-Call – Newport News Signal Designs, Newport News, Virginia (City of Newport News). Served as project engineer for signal designs. Signal designs included metal poles with mastarms, video detection, emergency preemption, and pedestrian features. Projects include:

- **Jefferson Avenue Streetscape and Utility Underground Project.** Included five signal upgrades with one temporary each. Design integration with ongoing Newport News signal system project.
- **Warwick Boulevard Signal Replacement.** Included four signal upgrade plans. As a pilot project, designed red light confirmation features to assist the local police force with red light enforcement for three of the four locations.
- **Mercer Avenue at Warwick Boulevard.**
- **Old Oyster Point at Canon Back Entrance.** Design for a new signal with the incorporation of the new signal into the ongoing Newport News signal system project including splice diagrams and ¾-mile fiber-optic cable route.
- **Oyster Point Transportation Public Opportunity Fund.** Prepared signal upgrade plans for three intersections with roadway improvements.

Wilmington Signal System Rehabilitation and Expansion, North Carolina Department of Transportation (NCDOT), Wilmington, NC. This project involved the plans, specifications, and estimates (PS&E) for the rehabilitation and expansion of the City of Wilmington's computerized traffic signal system. The project included display upgrades and controller replacement for the approximately 215 intersections that will comprise the expanded system. Work included traffic signal inventories, field inventories of utility poles along candidate communications cable routes, preparation of preliminary UMR plans, communications cable routing plans, and fiber-optic splice diagrams. **Employee Role:** Task Manager for data collection (signal cabinets and cable routing) and cable routing plans.

Raleigh Traffic Signal System Design, City of Raleigh, Raleigh, NC. This project where Atkins assisted with the preparation of PS&E for the rehabilitation and expansion of Raleigh's traffic signal system. Atkins was

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Project Engineer
Atkins

the technical lead on communications system architecture, CCTV surveillance system, traffic control center (TCC) enhancements, specifications and design standards, and was responsible for 35 percent of the overall project work. **Employee Role:** Project engineer and signal design/data collection task manager.

Cary Opticom, Town of Cary, Cary, NC. Project manager for this project that involved designing emergency vehicle (EV) preemption for 37 signalized intersections. Services included verification of the existing conditions, the preparation of traffic signal plans, and preparation of electrical and programming details. **Employee Role:** Project manager responsible for the development of signal plans.

Knightdale Opticom, Town of Knightdale, NC. The signal upgrade plans for US 64 Business (Knightdale Boulevard) at Smithfield Road to be updated with Opticom emergency preemption equipment. Project included signal design, wiring diagram update, and special provisions, as well as assisting client with obtaining bids from signal contractors and assisting with the preparation of the contract bid documents. **Employee Role:** Project manager responsible for leading the design work for this signal upgrade.

Chapel Hill Traffic Signal Designs, Town of Chapel Hill, Chapel Hill, NC. Served as project manager for the preparation of traffic signal plans for upgrading four existing traffic signals in downtown Chapel Hill and for one propose new signal at the intersection of Millhouse Road and Eubanks Road. The signal upgrades include new signal head upgrades to LEDs, the addition of countdown pedestrian signals, and bicycle detection. The new signal included railroad preemption and preparation of a railroad encroachment agreement application.

Safety Studies South Carolina Department of Transportation (SCDOT) – Task manager for operational analysis efforts for twelve study areas, including 26 signalized and unsignalized intersections, in South Carolina. The existing networks were analyzed to gain insight into any existing capacity issues in 2005. The estimated 2025 design year traffic volumes were applied to conceptual designs of proposed safety improvements to review the traffic operations. The analysis led to recommendations for intersection geometrics, specifically turn bay lengths.

US 117 Bypass - No Oversight Project, North Carolina Department of Transportation (NCDOT), Wilson, NC. For US 117 Bypass on new location between the US 264 Bypass and a point south of US 301 south of Wilson, served as task manager for preparation of signing plans, including existing and proposed regulatory and route marker designs, and design of freeway guide signs for one existing and two new interchanges.

Cary Parkway at Lochmere Drive, North Carolina Department of Transportation (NCDOT), Cary, NC. Project manager for the preparation of plans for the installation of a new traffic signal with non-standard metal poles with mastarms and equipment compatible with future city signal system.

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Computerized Traffic Signal System Feasibility Study, Town of Cary, Cary, NC. Project engineer for a computerized traffic signal system feasibility study for approximately 100 traffic signals in and around Cary, North Carolina.

Cary Emergency Vehicle Pre-emption System Design, Temple, Inc. Cary, NC. Serving as project engineer to design and implement an emergency vehicle pre-emption system for 11 signalized intersections.

Kinston Closed-Loop Signal System Design (U-2916), North Carolina Department of Transportation (NCDOT), Kinston, NC. Served as project manager assisting with the preparation of plans, specifications, and estimates (PS&E) for a closed-loop city signal system, which included closed-circuit television (CCTV) surveillance capabilities. Plan preparation included utility make-ready plans, fiber-optic cable layout plans, and special detail sheets. Gained experience with the new Model 2070 "Lite" controllers.

Hillsborough Street and Boundary Lane/Entrance to DSS Building – Prepared signal design with materials list for a new signal location.

Garner Computerized Traffic Signal System Feasibility Study, North Carolina Department of Transportation (NCDOT), Garner, NC. Project engineer for a computerized traffic signal system feasibility study for approximately 100 traffic signals in and around Garner, North Carolina.

Concord Mills Boulevard Traffic Signals. Assisted with the preparation of plans, special provisions, and estimates for two signals that will be incorporated into a fiber-optic system in the future by NCDOT. Plans included a layout of the underground conduit necessary for the connection of the signals into an adjacent arterial closed-loop system.

Emergency Vehicle Pre-emption System, Lexington, NC. Assisted project manager in adding 3M Opticom emergency vehicle pre-emption to 16 existing traffic signals.

Tate Boulevard Extension Signal Design (U-2414B), North Carolina Department of Transportation (NCDOT), Hickory, NC. Assisted with the preparation of plans, special provisions, and estimates for an arterial closed-loop system to be included in the existing city of Hickory signal system utilizing 170 type controllers and cabinets.

Y2K Compliance Signal Inventory Project, North Carolina Department of Transportation (NCDOT). Assisted in the management of field personnel, as well as planning and organizing the gathering of field data. Compiled field data for over 1,200 signals into a comprehensive master database for the use of NCDOT. Coordinated with personnel from NCDOT and municipalities in the divisions of our responsibility.

Roadway and Signal Design for Lowes Foods, Lowes Foods, Asheboro, NC. Prepared the plans, special provisions, and estimate for signalizing a new location and interconnecting it into an existing arterial

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Project Engineer
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closed-loop signal system. Signal design included trip generation for proposed development, as well as an HCM analysis. The plans for interconnection included ¼ mile of twisted-pair communications cable with appropriate signal equipment for integration.

Fayetteville Signal System Design, City of Fayetteville, Fayetteville, NC. Prepared signal design with materials list for a new signal location in the city of Fayetteville, North Carolina.

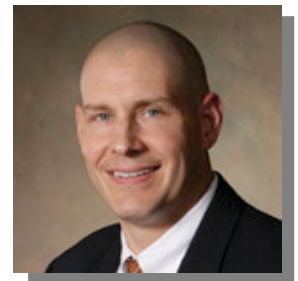
Professional Development

Synchro in Traffic, Understanding the Project Management Process, Managing Multiple Priorities, NMA Human Factors in Traffic Operations, NCDOTAASHTO Roadside Design Guide, FHATraffic Signals, NCDOT Pavement Markings, NCDOT Traffic Signal Operations and Design, NCDOT Traffic Engineering, NCDOT CADD Training Program, NCDOT Highway Capacity Manual Workshop, ITRE Concepts of Leadership Workshop, NCDOT

Curriculum Vitae

Daren E. Marceau, P.E.

President, Forensic Traffic Specialists, PLLC



Professional Summary

After several years as a police officer followed by many years in the engineering design business Daren Marceau now serves as an investigator and expert witness with a focus on traffic crash reconstruction involving traffic control devices. Mr. Marceau is a nationally recognized author and lecturer on traffic signals, signs, and pavement markings, their role in traffic crashes, and reconstructing crashes involving traffic control devices. His experience includes investigating and reconstructing passenger and commercial vehicle, bicycle, pedestrian, sport utility, and motorcycle accidents. In addition to being a court-qualified expert in traffic signal design, civil and traffic engineering, and several other areas of engineering and human factors, Mr. Marceau also possesses significant professional and personal experience in bicycling and motorcycling.

Professional Development

Pedestrian and Bicycle Accident Reconstruction, Institute of Police Technology and Management
Basic, Intermediate, and Advanced Highway Work Zone Safety, Institute for Transportation Research and Education
Work Zone Traffic Control Safety Certification, International Municipal Signal Association
Traffic Signal Technician Certification, International Municipal Signal Association
Commercial Vehicle Inspection, Accident Investigation, and Reconstruction, Institute of Police Technology and Management
Basic Law Enforcement Training, Raleigh Police Department, North Carolina
Traffic Signal Design at Local Intersections, Georgia Institute of Technology
Traffic Signal Design, North Carolina Department of Transportation
Traffic Signal Operation in Signal Systems, Institute for Transportation Research and Education
Crash Data Retrieval Tool Operator Course, Institute of Police Technology and Management

Instructor

Traffic Control Devices and Their Role in Traffic Crashes
Numerous technical sessions on traffic signal design and special topics in traffic signal operations
Low speed/soft tissue injury collisions: understanding the collision, vehicle, and occupant dynamics
Bicycle and pedestrian collisions
Accident Reconstruction at Traffic Signal Intersections, basic and advanced classes
Traffic Crashes Waiting To Happen: Traffic Control Devices That Violate Expectancy

Affiliations

National Society of Professional Engineers
International Law Enforcement Educators and Trainers Association
Institute of Transportation Engineers
Expert Witness Council, Institute of Transportation Engineers
National Association of Professional Accident Reconstructionists
National Association of Traffic Accident Reconstructionists and Investigators
International Municipal Signal Association

Authored Publications

Accident Reconstruction at Traffic Signal Intersections, © 2006 Kinetic Energy Press

Professional Experience

President, Forensic Traffic Specialists, PLLC, 2007-present

Forensics and Traffic Signal Design Practice Builder, Kimley-Horn and Associates, Inc., Raleigh, NC, 2003–2007

Associate and Project Manager, Kimley-Horn and Associates, Inc., 1995–2003

Graduate Research Assistant, North Carolina State University, 1994-1995

Survey Instrument Technician, J.Y. Phelps Surveying, 1992-1994

Police Officer, Raleigh, NC Police Department, 1986-1988

Professional Credentials

Master of Science in Civil Engineering, North Carolina State University, 1995

Bachelor of Science in Civil Engineering, North Carolina State University, 1994

Registered Professional Engineer: North Carolina #24910, Virginia #40957, South Carolina #24139, Florida #63229, and Georgia #PE030533

Certified Property and Liability Claims Instructor, North Carolina Department of Insurance

Certified Traffic Signal Technician and Signal Inspector, and Signs and Markings Technician, IMSA