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STATE OF NORTH CAROLINA
COUNTY OF WAKE

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

BRIAN CECCARELLI and LORI
MILLETTE,

Plaintiffs,

v.

TOWN OF CARY,

Defendant.

AFFIDAVIT OF
GREG FULLER, P.E.

I, Greg Fuller, am currently over twenty-one and I am competent to testify to the following facts that are known to me.

1. I am currently employed by the North Carolina Department of Transportation (NCDOT) as the State ITS & Signals Engineer.

2. I am a licensed professional engineer and I have been the State ITS & Signals Engineer since December 2001.

3. Part of my responsibilities as the State ITS & Signals Engineer is to understand and review the engineering practices used and recommended by the State ITS & Signals Unit of NCDOT.

4. I am an affiliate of the North Carolina Section of the Institute of Transportation Engineers (ITE) and I am familiar with ITE practices. ITE is an international educational and scientific association of transportation professional engineers. ITE publishes practices that are adopted through ITE established procedures and that sets forth formal ITE positions and recommendations. ITE has published a Yellow Change Interval and Red Clearance Interval formula that has been used and relied on by traffic signal professional engineers in this state and, upon information and belief, in the vast majority of states.

5. In my job as the State ITS & Signals Engineer I am familiar with and use the Manual of Uniform Traffic Control Devices (MUTCD). The MUTCD 2003 version cites to ITE publications such as the ITE Traffic Engineering Handbook (6th Edition), as one of its recommended "useful sources of information with respect for use of this Manual (MUTCD)" The ITE Traffic Engineering Handbook (6th Edition) contains a formula for calculating Yellow Change Intervals and All-Red Times that is used by traffic signal engineers across this country, including North Carolina. The ITE Yellow Change Interval formula is generally accepted by professional traffic signal engineers as a standard in the profession for calculating Yellow Change Intervals.

6. In December, 2004, I asked the North Carolina Section of the Institute of Transportation Engineers (NCSITE) to form a task force ("Task Force") to investigate and make recommendations for implementing a statewide practice for determining Yellow Change Intervals and All-Red Times at signalized intersections in North Carolina.

7. The NCSITE Task Force was made up of numerous traffic signal professional engineers from across the state. I, along with Dave Jones, were the co-chairs of the Task Force. The Task Force was made up of at least 31 volunteer professional traffic engineers from NCDOT, municipalities, consultants, and non-profit organizations. A list of Task Force

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members is attached hereto as Exhibit A. The Task Force was additionally broken down into different committees.

8. The Task Force looked at the various practices currently in use for determining Yellow Change Intervals and All-Red times from different organizations from across the state. The Task Force examined the previous practice of NCDOT Signal Engineers of using 20 miles per hour in the Yellow Change Interval formula for calculating Yellow Change Intervals for dedicated left turn signals. While there were various opinions about the best practice for determining Yellow Change Intervals for all intersections, including for dedicated left turns, the consensus of the Task Force members and the ultimate recommendation of the Task Force was to continue the engineering practice of using 20 - 30 miles per hour range as the design speed in the Yellow Change Interval formula for calculating Yellow Change Intervals for dedicated left turn signals, "with the understanding that, as in the past, 20 mph is an appropriate left turn design speed for most intersections." A copy of an ITE published article that describes the work of the Task Force and its ultimate conclusions and recommendations to NCDOT is attached hereto as Exhibit B.

9. The ITS & Signals Unit of NCDOT adopted the recommendations set forth by the Task Force and distributed the recommendations on or about July 15, 2005. The recommendations went into effect on or about August 1, 2005.

10. The ITS & Signal Unit adopted these recommendations and published its suggested formula for determining Yellow Change Intervals and All-Red Times in its next revision of Section 5.2.2, Change and Clearance Intervals of the Signals & Geometrics Section, Traffic Engineering and Safety Systems Branch, NCDOT. A copy of the July 2005 NCDOT recommendation for determining Yellow Times is attached hereto as Exhibit C.

11. The recommendations of the Task Force for Yellow Change Intervals and All-Red Times represent the best collective engineering judgment of the North Carolina traffic signal engineering community. These recommendations, as adopted by NCDOT, consist of generally accepted engineering practices, that meet the standard of care for designing Yellow Change Intervals for the State of North Carolina.

12. While the length of a yellow light does not account for all driving behaviors of all drivers, the Yellow Change Intervals recommended for use by the Task Force and used by NCDOT do allow for the vast majority of drivers to make a reasonable decision to stop or go that should successfully allow that driver to navigate the intersection without entering the intersection on a red light.

13. Further this affiant says naught.


Greg Fuller, P.E.

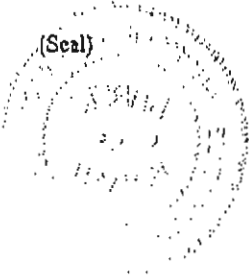
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WAKE County, North Carolina

Sworn to and subscribed before me this day by GREG FULLER

Date: 12/10/2012



Elizabeth Honeycutt
Notary Public

ELIZABETH HONEYCUTT
Notary Public Printed Name

My Commission Expires: MAY 12, 2014

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document was served upon all counsel of Record by Fax and by depositing a copy hereof, postage prepaid, in the United States Mail, addressed to the attorney for each said party as follows:

+ William Peaslee
919 481-2919

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This 10 day of Dec, 2011.

EM
Elizabeth A. Martineau

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YELLOW & RED CLEARANCE TIME TASK FORCE - KICK-OFF MEETING
Kick-off Meeting Attendees
27-Jan-05

NAME	Organization	Title	Phone	Email
Adam Fisher	City of Greensboro	Tranpo Engr. Mgr	336-373-2861	adam.fischer@greensboro.nc.gov
Agnieszka Nau	MAB	Engineer	919-881-1243	agnieszkanau@mabtrans.com
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Bobby Croom	City of Raleigh	Safe Light Engineer	909-890-3430	bobby.croom@ci.raleigh.nc.us
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Bruce Friedman	Kimley-Horn & Assoc.	Vice President	919-653-2944	bruce.friedman@kimley-horn.com
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Dick Moore	Town of Cary	Traffic Sys. Manger	919-462-3937	dickmoore@townofcary.org
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Greg Fuller	NCDOT	State ITS Signals Eng	919-733-8021	gfuller@dot.state.nc.us
Joe Mullinax	City of Greensboro	Signal System Mgr	336-373-2860	joe.mullinax@greensboro.nc.gov
Larry Walker	Winston-Salem DOT	Signal Systems Mngr	336-727-2707	larryw@cityofws.org
Larry Young	NCDOT	Staff Engineer	919-733-5036	lyoung@dot.state.nc.us
Lisa Moon	PBS&J	Sr. Engineer	919-876-6888	lmoon@pbsj.com
Matt Carpenter	City of High Point	Signal System Engineer	336-883-3228	matthew.carpenter@highpointnc.gov
Melissa Cooney	PBS&J	Sr. Engineer	919-876-6888	mrcooney@pbsj.com
Pam Alexander	NCDOT	S&G Special Projects	919-715-8333	palexander@dot.state.nc.us
Richard Mullinax	NCDOT	Signal & Geometrics	919-733-5569	rmullinax@dot.state.nc.us
Rusty Thompson	City of Fayetteville	City Traffic Engineer	910-433-1660	rthompson@ci.fay.nc.us
Stephanie Privette	Kimley-Horn & Assoc.	Traffic Engineer	919-877-2187	stephanie.privette@kimley-horn.com
Steven Click	Signal & Geometrics	Sr. Systems Engineer	919-733-3915	smclick@dot.state.nc.us
Tony Tagliaterra	NCSU	Grad Student	919-606-1756	eptaglis@unity.ncsu.edu
Will Garner	NCDOT Div. B	Div. Traffic Engineer	910-944-2344	wgarner@dot.state.nc.us
Others who have expressed interest but could not attend:				
Chris Cunningham	ITRE			cmcunnin@ncsu.edu
Don Darity	RK&A			ddarity@rameykemp.com
Joe Milazzo	RTA			Joe@the-chamber.org

