

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT NEW YORK

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CLEAR CHANNEL OUTDOOR, INC., :
 :
Plaintiff, :
 :
- against - : Civil Action No.
 :
THE CITY OF NEW YORK and PATRICIA J. : 06 Civ. ____
LANCASTER, in her official capacity as :
Commissioner of the New York City Department : **DECLARATION OF**
of Buildings, : **DR. RONALD B. GIBBONS**
 :
Defendants. :
----- X

DR. RONALD B. GIBBONS hereby declares and states as follows:

1. I am the Group Leader of the Lighting and Infrastructure Technology Group at the Center for Advanced Safety Systems in the Virginia Tech Transportation Institute, at the Virginia Polytechnic Institute and State University in Blacksburg, Virginia.

Project Statement

2. I have been asked to evaluate the potential impact on motorists of the various advertising facilities in New York City.

Work Performed

3. During the course of this effort, the following work was performed:
- Site Visit and review of billboard and street advertising installations in New York City
 - Preparation of a literature review of suitable published scientific material.
 - Evaluation of the issues which impact driver attention in the presence of billboards.
 - Evaluation of the effects of advertising positioning for the driver.
 - Report Preparation

Site Visit Activities

4. During the site visit, several roadways, all classed as arterial highways, were reviewed. These included:

- Grand Concourse, the Bronx
- Interstate 95 North and South from the Cross Bronx Expressway to the New York City limit
- Cross Bronx Expressway
- Bronx River Parkway
- Bruckner Expressway
- Bruckner Boulevard
- Major Deegan Expressway
- FDR Drive

5. While touring the roadways, particular attention was paid to the location of, and advertising copy on, the various advertising fixtures located in close proximity to the roadways. Photographic images were taken which depicted the location of the advertising with respect to the typical line of sight of the driver.

Literature Review

6. During the literature review, two areas of interest were investigated. The first was the impact of driver distraction on driver safety. The second was the impact of advertising signage on driver behavior.

Distraction and Driver Safety

7. In a recent landmark study by Dingus et al (2006), driver behavior in 100 vehicles was monitored for one year through the use of inside the vehicle video surveillance and instrumentation. In all over 42,000 hours of driving were monitored. A total of 9138 crashes, near crashes and incidents were evaluated in terms of causation. The research determined that the primary causes of accidents were secondary task distraction such as cell phone use and eating, driving related inattention to the forward roadway such as monitoring the instrument panel, fatigue, and other non-driving related eye glances. Within this classification methodology, looking at advertising copy would be classified as a non-driving related eye glance. In the

research, this category of distraction was determined to be an issue in 112 of the 9138 crashes, near-crashes and incidents which is less than 1.3% of all of the events investigated. This category was further broken into five sub-categories: looking at an object, looking at a pedestrian, looking at a previous crash, distracted by construction and other indeterminable distractions. Within these sub-categories, 5 events were attributed to looking at objects, 6 were attributed to looking at a pedestrian, 3 were looking at previous crashes, 1 was looking at construction and finally 97 were other indeterminable distractions.

Advertising Signage and Driver Behavior

8. Given the evidence that a distracted driver can be an unsafe driver, the next question focuses on the influence of advertising signage on driver behavior would be the next consideration. As set forth below, studies indicate that signage does not lead to traffic accidents except in very limited circumstances.

9. Johnson and Cole (1976) determined that the addition of advertising to the visual scene had no impact on the performance of a tracking task until the perceptual load increases beyond an optimal arousal level. The tracking task in this research was one which required the experimental participant to control an experimental simulator to follow an arrow presented to them on a screen. The research also showed a benefit of advertising in that in times of low perceptual loading, the presence of advertising may assist in increasing the driver's arousal level to improve their driving performance.

10. A study by Lee, Olsen and DeHart (2003) provided a naturalistic driving assessment of the impact of advertising on driver behavior. They found that the presence of signage did not influence driving behavior significantly. They found that the presence of signage

can increase the driver's eye scan pattern frequency, that is to say the number of glances and eye movements per second, and due to this increase may actually result in a higher eyes-on-road time than in the situations with no signage at all.

11. Both Lee et al and Johnson and Cole found that the presence of advertising can increase the driver's arousal level and actually improve driver performance. In visually complex environments, where perceptual overloading may be an issue, the research also shows that a driver adapts to the task they are performing. Luoma (1986) tested the ability of a driver to perceive signage in the presence of complex visual environments. Here it was found that the drivers will seek out the information they require and were not negatively impacted by the presence of billboards.

12. Combining the driver distraction work of Dingus et al and the signage research suggests that the presence of signage will aid in overcoming some of the limitations due to fatigue by increasing the driver's arousal level but that minimizing the eyes off road time is also important for driver safety.

Evaluation of Advertising Fixtures in New York City

13. In the site review conducted for this project, it was observed that, in general, the billboard signage was located as close to the center of the line of sight of the driver as possible. This was particularly noticed on the Interstate type of arterial highway where road curves and elevation changes were used to position the signage in optimal locations. These situations are shown in Figure 1 in Exhibit 1 where the large size of the advertisements allows for perception from a long distance. An important factor in determining the level of potential distraction is the scan pattern which means the area where a person's eye will fixate or glance at while driving. Billboards along the arterial highways have been placed in locations that have the benefit of

minimizing the distracting capabilities of the signage by reducing the magnitude of the required scan pattern and therefore minimizing any possible impact on the driver behavior. In general, large type and simple text was also used which will further minimize the required viewing time.

14. On the arterial highways which are not interstate rated, such as the Grand Concourse, the advertising on Bus shelters, phone kiosks and urban panel signage were all noted. Many of these advertisements had the same text and imaging as the large billboards but on a smaller scale. The advertisements are all located at road level and on the side of the road. These are shown in Figures 2 and 3 in Exhibit 1. Due to their size, the distance at which one of these is legible is much shorter than a large billboard and since these fixtures are usually located on the far right hand side of the road, a driver will be required to have a wide scan pattern in order to see the signage. Referring to Figure 2 and 3, it should be noted that in Figure 2 the bus shelter advertisement is not yet legible, so the driver would have to be much closer for perception and in Figure 3 the urban panel is just legible but the driver focus should be on the driving lane in the left portion of the image. This wide positioning of the advertising fixtures may increase the driver's eyes off road time due to the magnitude of the eye scan pattern.

Conclusions

15. The conclusions of this report are:
- Where possible, large scale signage such as billboards has been positioned such that it is conspicuous and close to the center of the drivers line of sight which in turn minimizes the glance requirements of the driver. Thus such signs will tend not to take the drivers eyes off the road for significant periods of time.
 - Due to the proximity to the roadway and the size of the advertising copy, the advertisements on small scale advertising fixtures such as bus shelters, telephone kiosks and urban panels

will likely increase the width driver eye scan pattern, thereby reducing the driver's eyes on road time and therefore increasing driver risk.

- While both advertisements on billboards and street furniture are unlikely to cause traffic accidents, the advertisements on the bus shelters, urban panels and telephone kiosks will increase the width of the driver's eye scanning pattern and may pose a somewhat greater risk than billboards on New York City's arterial highways.

References

Dingus, T. A., Klauer, S. G., Neale, V. L., Petersen, A., Lee, S. E., Sudweeks, J., Perez, M. A., Hankey, J., Ramsey, D., Gupta, S., Bucher, C., Doerzaph, Z. R., Jermeland, J., and Knipling, R. R., "The 100-Car Naturalistic Driving Study, Phase II - Results of the 100-Car Field Experiment", National Highway Traffic Safety Administration, Washington, D.C., April 2006, DOT HS 810 593- April 2006

Johnston, A.W. and Cole, B. L, (1976), "Investigations of Distractions by Irrelevant Information", *Australian Road Research*, 6(3), 3-23

Lee, S. E. , Olsen, E. C . B., and DeHart, M C., "Driving Performance in the Presence and Absence of Billboards", Foundation for Outdoor Advertising Research and Education, 2003

Louma, J. (1986). The acquisition of visual information by the driver: Interaction of relevant and irrelevant information. , Central Organization for Traffic Safety: Helsinki, Finland.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 3, 2006.



Dr. Ronald B. Gibbons

EXHIBIT 1

Exhibit 1 – Images of Roadway Signage from Site Visit

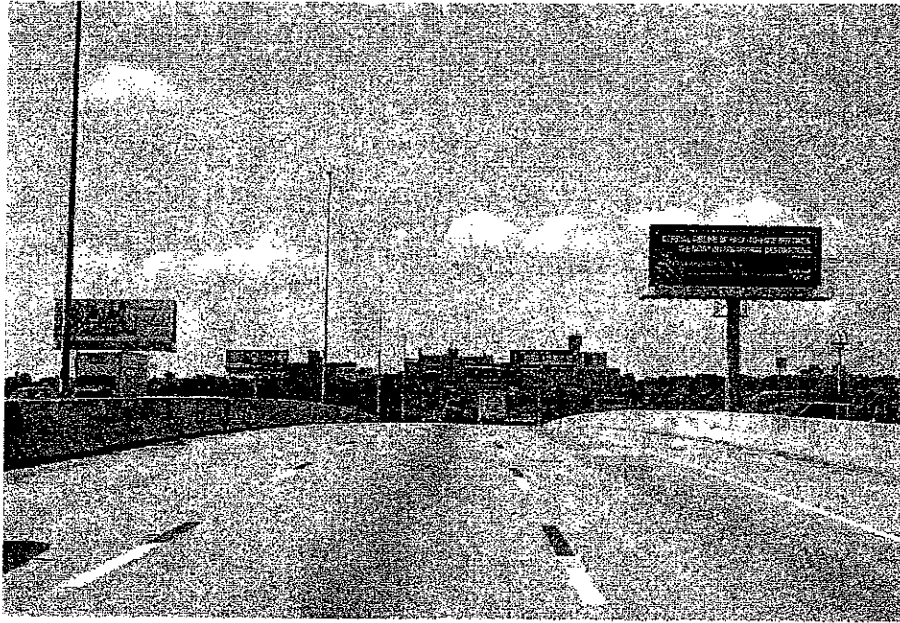


Figure 1 – Billboard Positioning on Interstate.



Figure 2 – Bus Shelter Positioning



Figure 3 – Urban Panel Positioning

EXHIBIT 2

Exhibit 2 – Resume of Dr. Ronald B. Gibbons

Ronald B. Gibbons, Ph. D.

Group Leader, Lighting and Infrastructure Technology

Center for Advanced Safety Systems

Experience Related to the Project

Gibbons is a Group Leader of the Lighting and Infrastructure Technology section of the Center for Advanced Safety Systems at VTTI. He is also the Institute's lead Lighting Research Scientist. The Center for Advanced Safety Systems specializes in evaluating the safety, usability, and performance of new transportation related products and systems. Gibbons is responsible for lighting and visibility associated research projects. He is currently the PI on a project developing guidelines for crosswalk lighting. He is the Co-PI on a project involving night visibility of pavement markings. Gibbons is the author of several published papers on roadway lighting, photometry and target visibility. He is currently serving as the Vice President, Technical and Research of the Illuminating Engineering Society of North America.

Gibbons joined the Philips Lighting Company in 1995 as the Manager of the Corporate Calibration and Standards Laboratory where he was responsible for the measurement and calibration of light sources for the entire North American region. He has also worked as a luminaire designer, operations manager, and project engineer. Gibbons obtained his Ph.D. from the University of Waterloo, Canada in 1998. His field of research involved the reflection properties of pavement surfaces and the impact on target visibility. He also worked on several projects studying visual performance, visual acuity, and peripheral vision.

Education

Ph.D. in Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada, 1997

M.S. in Systems Design Engineering, University of Waterloo, 1993

B.S. in Systems Design Engineering, University of Waterloo, 1991

Professional Experience

Group Leader, Lighting and Infrastructure Technology, Virginia Tech Transportation Institute, Blacksburg, VA (August 2001 – Present)

- Responsible for lighting related research on the Virginia Smart Road.
- Areas of research include headlamps, fixed overhead roadway lighting, pavement markings, crosswalk lighting, and maintenance vehicle lighting.
- Other activities include proposal writing, in-vehicle experimentation, and weather system development.

Manager, Corporate Calibration and Standards Laboratory, Philips Lighting Company, Fairmont, WV (May 1995 – August 2001)

- Responsible for monitoring and providing measurement accuracy and traceability of photometry activities for all North American operations.
- Responsible for providing spectroradiometric and goniophotometric measurements on all Philips lamp types.

- Responsible for certifying compliance of all Philips lamp types to energy legislation and CSA standards.
- Provided both internal and external support for customer quality complaints, design issues and lamp applications issues.
- Responsible for the technical documentation activities of North American Operations.
- Responsible for designing and implementing several information and automation systems to support photometry and technical documentation groups.
- Represented Philips Lighting to industry organizations and acted as designated signatory for the Philips NVLAP certified measurement laboratory.
- Responsible for 4 staff members and \$1,300,000 annual budget.

Research Assistant, University of Waterloo, School of Optometry (April 1991 - August 1992 and September 1993 - April 1995)

- Performed research for Master of Applied Science degree and Doctor of Philosophy degree.
- Research into pavement reflection and roadway lighting for application to luminaire design and lighting quality.
- Specialized in the application of human visual models to lighting design methodology.
- Teaching Assistant for courses on Physiology of Vision, Colour Vision, and Ergonomics.

Lighting Engineering Manager, Vision Unlimited Equipment Inc., Guelph, Ontario (February 1992 - September 1993)

- Responsible for all product development and technical support for photometric, design and installation.
- Active in everyday operations of business including vendor liaison, production management, customer service, and bookkeeping.

Selected Research

Wet Night Visibility of Pavement Markings (PI), sponsored by the Virginia Transportation Research Council, 11/01/01 – 12/31/06.

Enhanced Night Visibility (project researcher), sponsored by the Federal Highway Administration, 03/01/98 – 02/28/06.

Night Visibility (PI), sponsored by a major automobile company, (PI) (09/01/05 – 12/01/06)

Adaptive Lighting (project researcher), sponsored by a major automobile company, 01/25/02 – 01/24/03 and (PI) (09/01/03 – 09/01/04)

Design Guidelines for Crosswalk Lighting, (PI) sponsored by the Federal Highway Administration (09/01/02 – 09/30/06)

NCHRP Project 13-02, "Guidelines for the Selection and Application of Warning Lights on Roadway Operations Equipment." (PI) Sponsored by the National Cooperative Highway Research Program. (09/01/04-10/31/2006)

Selected Publications

Adrian, W. K. and Gibbons, R. B. (1993). Visibility level und die sichtbarkeit in der strassenbeleuchtung. [Visibility level and visibility for street lighting.] *Licht*, 45(10), 734-739.

Adrian, W. K. and Gibbons, R. B. (1994). Visual performance and its metric. *Lighting and Engineering*, 2(3), 1-34, 1994. (Also published in Russian in *Svetotekhnika*, 10, 2-17, 1994.)

- Adrian, W. K. and Gibbons, R. B. (1997). Fields of visibility for the night time driver. Proceedings of PAL 97, Progress in Automotive Lighting, 8-23.
- Georgalas, A. M. and Gibbons, R. B. (1997). Sphere photometry correction factors. Proceedings of the 1997 IESNA Annual Conference.
- Gibbons R. B. and Adrian, W. K. (1997). Influence of observation angles on road surface reflection characteristics. Journal of the Illuminating Engineering Society, 26(2), 139-149. (Also Presented at the 1996 IESNA Annual Conference.)
- Gibbons, R. B. and Adrian, W. K. (1994). Reflection properties of pavement surfaces for observation angles greater than 1° (DTFH 61-93-P-01429). Washington, DC: Federal Highway Administration.
- Gibbons, R. B., Adrian, W. K., and Thomas, L. (1993, October). Amendments in calculating STV: Influence of light reflected from the road surface. Proceedings of the 2nd International Symposium on Visibility and Luminance in Roadway Lighting, Lighting Research Institute.
- Gibbons, R. B., and Adrian, W. K. (1999). Influence of pavement reflection on target visibility. Journal of the Illuminating Engineering Society, 28(2), 102-112. (Also Presented at the 1998 IESNA Annual Conference.)
- Houser, K. and Gibbons, R. B. (2000). Composite CRI. Journal of the Illuminating Engineering Society, 29(2), 119-134. (Also presented at the 1999 IESNA Annual Conference.)
- International Commission on Illumination. (2002). The Correlation of Models for Vision and Visual Performance (Technical Report, drafted by W. Adrian and R. Gibbons, University of Waterloo, Canada). Vienna, Austria: author.
- Gibbons, R.B., Hankey, J. M. and Pashaj, I, Wet Night Visibility of Pavement Markings, Virginia Transportation research Council, VTRC 05-CR4, October 2004.
- Gibbons, R.B., Andersen, C and Hankey, J, Wet Night Visibility of Pavement Markings: Static Experiments, Transportation Research Record (in Press)
- Hankey, J. M., Blanco, M., Gibbons, R. B., McLaughlin, S. B., & Dingus, T. A. (2005). *Enhanced Night Visibility Series, Volume I: Executive Summary* (Report no. FHWA-HRT-04-132). Washington, DC: Federal Highway Administration.
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- Gibbons, R. B., & Hankey, J. M. (2005). *Enhanced Night Visibility Series, Volume IX: Phase II—Characterization of Experimental Objects* (Report no. FHWA-HRT-04-140). Washington, DC: Federal Highway Administration.
- Hankey, J. M., Blanco, M., Neurauter, M. L., Gibbons, R. B., Porter, R. J., & Dingus, T. A. (2005). *Enhanced Night Visibility Series, Volume XII: Overview of Phase II and Development of Phase III Experimental Plan* (Report no. FHWA-HRT-04-143). Washington, DC: Federal Highway Administration.
- Williams, V. H., Gibbons, R. B., & Hankey, J. M. (2005). *Enhanced Night Visibility Series, Volume XIV: Phase III—Study 2: Comparison of Near Infrared, Far Infrared, and Halogen Headlamps on Object Detection in Nighttime Rain* (Report no. FHWA-HRT-04-145). Washington, DC: Federal Highway Administration.
- Clark, J., Gibbons, R. B., & Hankey, J. M. (2005). *Enhanced Night Visibility Series, Volume XV: Phase III—Study 3: Influence of Beam Characteristics on Discomfort and Disability*

- Glare* (Report no. FHWA-HRT-04-146). Washington, DC: Federal Highway Administration.
- Gibbons, R. B., Edwards, C. J., & Gupta, S. (2005). *Enhanced Night Visibility Series, Volume XVI: Phase III—Characterization of Experimental Objects* (Report no. FHWA-HRT-04-147). Washington, DC: Federal Highway Administration.
- Gibbons, R. B., & Moulton, C. (2005). *Enhanced Night Visibility Series, Volume XVII: Phases II and III—Characterization of Experimental Vision Enhancement Systems* (Report no. FHWA-HRT-04-148). Washington, DC: Federal Highway Administration.
- Hankey, J. M., McLaughlin, S. B., Gibbons, R. B., Williams, V. H., Clark, J., & Dingus, T. A. (2005). *Enhanced Night Visibility Series, Volume XVIII: Overview of Phase III* (Report no. FHWA-HRT-04-149). Washington, DC: Federal Highway Administration.

Presentations and Recognition

Dateline NBC – Getting out alive, Driving in Fog, original air date December 10, 2004

Professional Activities

- Vice President, Research and Technical for the Illumination Engineering Society of North America (July 2001 – Present)
- Member of the Illumination Engineering Society of North America:
- Roadway Lighting Committee (1992 – Present)
 - Testing Procedures Committee (1995 – Present)
 - Computer Committee (1998 – Present)
- Candidate for certification by the Association of Professional Engineers of Ontario
- Advisory Member of the Canadian National Committee for the International Illumination Commission (CIE) (1992 – Present)
- Member of the United States National Committee for the International Illumination Commission (CIE) (1996 – Present)

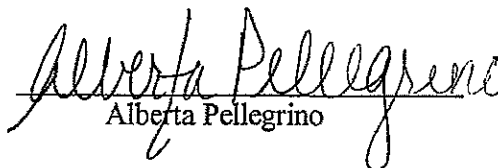
CERTIFICATE OF SERVICE

Alberta Pellegrino, states as follows:


1. The statements made herein are true of my own personal knowledge, If called upon to testify, I could and would testify competently thereto.
2. I am over 18 years of age, I reside in Staten Island, New York, and am not a party to this action. I am employed by the law firm of Davis Wright Tremaine LLP.
3. On October 24, 2006, I caused to be served BY HAND, the attached **NOTICE OF MOTION, PROPOSED ORDER, MEMORANDUM OF LAW IN SUPPORT OF PLAINTIFF'S MOTION FOR A PRELIMINARY INJUNCTION, AFFIDAVIT OF TIMOTHY STAUNING, AFFIDAVIT OF MICHELLE COSTA, AFFIDAVIT OF RANDALL MAYS, DECLARATION OF DR. ROBERT B. GIBBONS AND AFFIRMATION OF MARK D. GERAGHTY**, to the addressed as follows:

Gabriel Taussig, Esq.
Sheryl Neufeld, Esq.
New York City Law Department
100 Church Street
New York, NY 10007

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed in New York, New York on this 24th day of October, 2006.


Alberta Pellegrino

Sworn to before me this
24th day of October, 2006


Notary Public

JOHN BELIVE
NOTARY PUBLIC, State of New York
No. 01BB4949725
Qualified in Westchester County
Commission Expires April 17, 2007

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