

From: Eric Marcus [mailto:eric.marcus@woofdorf.com]
Sent: Friday, April 24, 2009 5:36 PM
To: Sadowski, Matthew; Heller, Richard
Cc: OConnell, Brian
Subject: Electronic Signs

Hi Rick & Matt,

As I mentioned at the last Plan Commission meeting, I did some Internet research on the safety issues around electronic signs. While I do not think the current state of the research is definitive I do think there are substantial safety issues worth our consideration. Several studies have been done to consider the traffic safety regarding electronic display signs. Here is a sampling of the research:

1) A study was conducted by the Federal Highway Administration, National Highway Traffic Safety Administration, University of North Carolina Highway Research Center and the Wisconsin Department of Transportation: "All of the studies reveal that driver distraction continues to be a significant underlying cause of traffic accidents. **Drivers can be distracted not only by a changing message, but also by knowing that the sign has a changing message.** Drivers may watch a sign waiting for the next change to occur."

2) The Wisconsin DOT examined the crash rates on Interstate 94 eastbound and westbound adjacent to the Milwaukee County Stadium. The analysis compared the crash rates three years before and three years after the installation of a variable message advertising sign. The sign, installed April 13, 1984, displayed sporting scores and advertisements, and changed images an average of 12 frames per minute. The purpose of the comparison was to assess whether the presence of the sign correlated with a change in the crash history of I-94.

Eastbound Segment. The crash rate for the three years before installation was 3.12 crashes per million vehicle miles traveled (VMT). The three-year crash rate after installation was 4.25 crashes per million VMT. **The increase in crash rate after installation was 1.13 crashes per million VMT, or 36 percent.** Specifically, the rate of increase for sideswipe crashes was 8 percent, and the rate of increase was 21 percent for rear-end crashes.

Westbound Segment. The crash rate before installation was 2.91 crashes per million VMT, and 3.53 per million VMT after installation, an increase of 0.62 crashes per million VMT or 21 percent. **The rate of increase was 35 percent for both sideswipe crashes and rear-end crashes.**

The Wisconsin DOT concluded from its analysis that the variable message sign had an effect on traffic safety.

3) University of Toronto conducted a study of electronic signage in 2004 and found that 88% of the subjects made glances and **22% of all glances made at signs were long glances** (greater than 0.75 seconds).

While, as I noted above, the final word on the impact of electronic signage is not in, I am concerned especially considering:

1) The purpose of electronic display signs is to relay a message, which places them in direct competition for the attention needed to operate a motor vehicle.

2) Most of the studies that have been conducted involve highways. The proposed ordinance would be for city streets near schools. Considering the higher likelihood of cars and kids jumping out from sidewalks onto streets, etc. I think the potential problems become even more serious.

While the staff's proposed ordinance goes a long way to minimize the distracting effect of electronic signs, I think more research is needed before we recommend adoption of an ordinance.

As of 2008, the Federal Highway Administration (FHWA) has taken a neutral stance, "FHWA currently has no scientific basis on which to prohibit the signs. FHWA is not endorsing the billboards ..." FHWA is currently updating their 1980 and 2001 studies with the results anticipated later this year. The National Cooperative Highway Research Program expects to release a study this year and the Transportation Research Board subcommittee for Display Signage is expected to conduct research in this area.

I would appreciate your thoughts (and you are welcome to distribute this email to other members of the Plan Commission if you like).

Best regards,

Eric

Eric Marcus
President
Woofdorf-Astoria Dog Hotel & Day Spa
1308 18th Street
Racine, WI 53403
(t) 262-636-WOOF (9663)
(f) 262.636.9661
eric.marcus@woofdorf.com
www.woofdorf.com