

Accident Analysis Before and After Installation of Expanded Metal Glare Screen

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ABRIDGMENT

•THE PURPOSE of this project was to determine the effect an expanded metal glare screen in the median of a horizontal curve had on accidents on the Interstate System in Columbus, Ohio. Accidents were analyzed before and after installation of the glare screen by direction of travel, time of day, and type. Daytime and nighttime field observations were also conducted to measure the effects of the glare screen on motorists.

The primary conclusions reached in this study are that the installation of expanded metal glare screen on a horizontal curve of an urban freeway produces improvement in specific types of accidents under certain conditions. The expected reduction in the number of accidents at night in the northbound direction of travel was found even though traffic volumes increased. The overall accident rate for the northbound direction had the greatest accident reduction, which supported the nighttime reduction. The complete elimination of headlight glare was recorded where there was objectionable glare before the screen was installed.