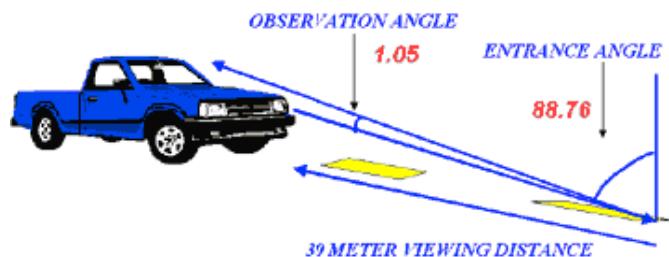


Evaluation of the Performance of Permanent Pavement Markings and Retroreflectors in Snowplowable Raised Pavement Markers

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This project evaluated New Jersey Department of Transportation's three year fixed schedule re-stripping program to see if it is consistent with the actual service life of the pavement markings. One of the primary tasks was to develop a threshold value of retroreflectivity below which a pavement marking will no longer be considered "bright enough" to be useful for motorist nighttime guidance.

Two types of data pertaining to pavement markings were collected – measured retroreflectivity and subjective ratings of brightness/visibility by New Jersey drivers. Multiple regression techniques were used to relate the drivers' ratings and the corresponding measured retroreflectivity.



The results pertaining to the threshold value of acceptable levels of retroreflectivity were consistent with those found in similar studies. The analysis suggested that concentrating resources on re-stripping New Jersey pavement markings with retroreflectivity below the acceptable level would achieve a greater relative increase in driver satisfaction than re-stripping pavement markings whose retroreflectivity was above the acceptable level. Interim Visibility Indices were developed for each age group based on pavement marking type to aid NJDOT when developing a new pavement marking management system. These indices also allow for cost benefit/life cycle analysis for different pavement marking material.

Lessons from this study were published in: N.A. Parker and M.S.J. Meja (2003), "Evaluation of Performance of Permanent Pavement Markings," Transportation Research Record, No. 1824.



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