

## Technical Report Documentation Page

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<p>16. Abstract</p> <p>During the summer of 1997, permanent pavement markings were placed on a rehabilitated concrete surface section of I-20 from just west of US 378 to just west of SC 6. Epoxy markings were placed along the entire length of the project in the westbound direction. 3M Series 380 tape and the five permanent preformed tapes on the DOT's Approval List (3M Series 5730, Swarco Director Series, Advance Traffic Markings - Series 300, Brite Lite Series 1000, Linear Dynamic A4320) were placed in 1-mile sections in the eastbound direction. The Department's Traffic Engineering office requested that the Research section conduct an evaluation of these markings. Therefore, this study was initiated to evaluate different permanent pavement marking materials used by the South Carolina Department of Transportation.</p> <p>For this study, a Mirolux Model 12 handheld retroreflectometer was used to gather the retro-reflectivity data. Visual inspections were also conducted to check the appearance and durability of each pavement marking material. Both daytime and nighttime inspections were conducted on the test sections. Based on these inspections, the 3M Series 380 had the highest average retro-reflectivity measurements and had good visibility both daytime and at night. Epoxy markings had the next highest average retro-reflectivity measurements and also had good visibility in the daytime and at night.</p> <p>While information obtained from this study was useful to the Department's Traffic Engineering office, it became apparent that a more detailed study needed to be conducted. Several factors led to this conclusion but the most important was the fact that there was only one test section for each material, which is far too limited to draw conclusions and support meaningful recommendations. Therefore, in February of 1998, the Department's Research and Development Executive Committee (RDEC) approved a more detailed project entitled "Evaluation of Retroreflectivity of Interstate Markings" for funding. This project conducted by Clemson University should be completed in the summer of 2002.</p>			
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