

## MATERIALS & RESEARCH DIVISION

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### RESEARCH UPDATE

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#### REFLEXITE HI-IMPACT DELINEATORS

**HISTORY:** Presently Vermont specifies aluminum backed delineators on steel beam guardrail. These delineators are covered with high intensity reflective sheeting and cost \$2.05 per unit when purchased from Vermont Correctional Industries. They may be damaged by snow plowing as well as vehicular impact.

To identify potentially less costly delineators of equal or better performance, the Materials & Research Division, with the assistance of Maintenance District 6, has initiated an evaluation of REFLEXITE HI IMPACT guardrail delineators. These are made of polycarbonate plastic, the same plastic used in "bullet proof" windshields. The plastic material is covered with reflective sheeting. At \$2.13 each, the REFLEXITE delineators cost only slightly more than standard units. An overall savings could be achieved if the plastic units were less susceptible to damage and fewer replacements were needed.

**STATUS:** Twenty eight REFLEXITE delineators were installed during the week of October 1, 1990 on two sections of W beam guardrail on I-89 SB, south of Exit 8. The REFLEXITE units were alternated with standard units between MM 52.50 and MM 51.65. Several night observations were made at highway speeds, with no apparent difference in reflectivity observed.

An inspection on 12/27/90 revealed that a number of delineators have been damaged. Eighteen standard delineators were damaged and one REFLEXITE unit was knocked off the guardrail, but recovered undamaged.

The total material cost to replace eighteen standard units will be \$36.90. The REFLEXITE unit can be rehung at no material cost. If it had not been recovered a replacement would have cost \$2.13.

The horizontal mounting slot in the REFLEXITE units makes them more susceptible to demounting than the vertically slotted aluminum reflectors. REFLEXITE units are also made with vertical slots.

**FOLLOW UP:** The delineators will be observed through the Winter of 1990-91 during hours of darkness and will be thoroughly examined, as time permits, during daylight hours. District maintenance forces will repair damaged units as needed throughout the winter and document the labor and equipment costs. In the Spring of 1991 a final inspection will be made and conclusion drawn regarding the suitability and cost effectiveness of these delineators.

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