



**1.0 General**

This guideline sets forth minimum standards for truck conspicuity marking in the form of retroreflective sheeting. Equip trucks with retroreflective sheeting when used for state maintenance operations during the night or during the day under conditions of reduced visibility.

**2.0 Truck Definition**

This guideline applies to trucks defined in equipment classes 101 through 118, 1118, and 1128 (see HMM 02-25-50, Classified Equipment Rates) which are used for maintenance operations on state trunk highways--except for pickup trucks. Those vehicles, as well as other vehicles or pieces of equipment, may be equipped with the retroreflective sheeting in a manner consistent with this guideline.

**3.0 Implementation**

Trucks with retroreflective sheeting in good operating condition are exempt from this guideline.

Equip new trucks purchased by a county highway department with retroreflective sheeting when they will be used for maintenance operations on state trunk highways. Existing trucks without sheeting should be retrofitted.

County highway departments may retrofit their trucks to meet this guideline. If a truck gets retrofitted to an extent that new sheeting is required, place sheeting on that truck in accordance with this guideline. These costs should be charged directly to the vehicle. It is considered an operating expense and is charged directly to the vehicle through the machinery operation cost pool. An exception may be made if the expense for the retrofit exceeds 25% of the original cost and in this instance the cost may be capitalized.

**4.0 Material Specifications**

The retroreflective sheeting shall have a minimum width of two inches and be of Grade DOT-C2. It shall consist of alternating red and white color segments with a length of 12 inches ± 6 inches. White or red sheeting shall not represent more than two thirds of the aggregate of any continuous strip marking the length or width of the truck.

Use sheeting consisting of a smooth, flat, transparent exterior film with retroreflective elements embedded or suspended beneath the film to form a non-exposed retroreflective optical system. Use sheeting that meets the requirements of ASTM D 4956-90, Standard Specification for Retroreflective Sheeting for Traffic Control, for type 5 sheeting, except for the photometric requirements, and meets or exceeds the minimum photometric performance requirements specified below:



**MINIMUM PHOTOMETRIC PERFORMANCE OF GRADE DOT-C2 RETROREFLECTIVE SHEETING  
 IN CANDELA/LUX/SQUARE METER**

Entrance Angle	Observation Angle			
	0.2 Degree		0.5 Degree	
	White	Red	White	Red
-4 degree	250	60	65	15
30 degree	250	60	65	15
45 degree	60	15	15	4

The letters "DOT-C2" which constitutes certification the retroreflective sheeting conforms to the requirements of this guideline are required to appear at least once on the exposed surface of each white or red segment of

sheeting. Provide characters greater than or equal to 1/8-inch high and permanently stamped, etched, or molded, or printed in indelible ink.

### 5.0 Location Requirements

Retroreflective sheeting must be visible from the sides and rear of trucks under normal operating conditions. Apply the sheeting in a continuous strip to the rear of a truck to outline its true shape, when viewed from behind. It should also be applied to both sides of a vehicle in either an “” or “” shape with the vertical portion of the shape near the rear of the truck. Examples are shown in section 6.

Place the retroreflective sheeting as close to the edges of a truck as practicable in a way that the pattern is not broken. Place sheeting on any piece of equipment that protrudes from the truck (e.g. a salt spreader) and that may cover the sheeting on the truck. If necessary to clear rivet heads or other similar obstructions, the sheeting may be separated into two, 1-inch wide strips of the same length and color separated by a space of not more than one inch.

### 6.0 Examples



Figure 1. A small patrol truck showing the inverted “L” shape.



Figure 2. The back of the same patrol truck outlining the tailgate.



Figure 3. The back of a V-box salt spreader.



**Figure 4.** Showing the side of the V-box salt spreader.