



TRAFFIC AND SAFETY MANUAL

Chapter 3 – Pavement Markings 3C – Application

Application of Pavement Markings

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General

All markings placed shall be in accordance with requirements in [Section 3B-1](#), Pavement Marking Standards and illustrations in [Section 3B-2](#), Typical Pavement Marking Layouts.

Surface Preparation and Spotting

Arrangements shall be made to remove any dirt, gravel, debris, or vegetation from the pavement surface before pavement markings are placed. Normally, the broom truck will remove most of these materials. The GOA should make arrangements with area crews to use rotary mowers or other equipment to remove overhanging vegetation so pavement-marking operations can proceed without stopping or delay.

Streets that are normally maintained by cities under contract with the Department are to be cleaned by local authorities before markings are placed. In other cities, cleaning will be done by the District Paint Crew or Area Maintenance Crews.

Where needed, spotting of the lateral location of lines and terminal points shall be done by assigned District personnel in advance of the pavement marking operation.

Application Rates and Quantities

Specifications on color, line width, wet film thickness, bead application rate, and paint application rates are contained in Table 1. Efforts should be made to meet these specifications insofar as possible. Periodic checks should be made to assure that line width, film thickness, and bead application rates are within reasonable compliance with standards. If substantial deviations are found, operations should be suspended and adjustments made to correct the problem.

Table 1

Application Rate Guidelines for placing Pavement Marking Lines

Line Description	Broken Center Line	Broken Lane Line	Double Center Line	No Passing Zone Line	Right Edge Line	Left Edge Line
Line Type From Fig 1, Sec 3B-1	2	6	3	(1) 5	7	8
Color	Yellow	White	Yellow	Yellow	White	Yellow
Width	4"	4"	2@4"	2@4"	4"	4"
Lbs. of Beads Per Gal of Paint	8	8	8	8	8	8
Wet Film Thickness (mils)	12	12	12	12	12	12
Gals. of Paint Per Mile	3.25	3.25	26.0	16.25	13.0	13.0
Feet Per Gal. Of Paint	1625	1625	203	304.5	406	406

Notes:

(1) Includes broken line and solid line.

Operating Speed

The paint truck shall be operated at the optimum speed to result in a high quality line while achieving an adequate level of productivity. This will generally be within the range of 12 mph to 17 mph. Available controls shall be used to maintain a uniform speed as accurately as possible.

Matching Existing Markings

The majority of pavement markings are renewals of previously applied markings. In most cases, the original lines are partially visible. Care must be taken to match the new marking as closely as possible with the original marking. This includes both the beginning and ending of broken or intermittent lines and the lateral position on the pavement. The GOA shall assure that responsible operators are used that have adequate training and experience to produce quality workmanship. Where serious problems develop, whether they are due to human error or mechanical malfunction of equipment, operations shall be suspended until the problem has been solved. Markings are a highly visible element of the highway facility and poor workmanship cannot be tolerated.

Where pavement markings are revised, remaining portions of the original markings shall be removed or obliterated to avoid conflict with the new markings or confusion for the motorists. Area Maintenance Crews should be contacted to provide assistance in removing lines by sandblasting, burning, or grinding.

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