

# Install Wider Longitudinal Pavement Markings



Wider pavement markings improve lane visibility and reduce roadway departure crashes.

## Implementation Strategy

### How and Where to Apply

- Wider edge and centerline markings are most effective on rural roads with a high risk of lane departure or limited visibility.
- They can be implemented during resurfacing, restriping, or safety improvement projects.
- Wider longitudinal pavement markings improve visibility and lane guidance on rural highways and multilane arterials. On low-speed urban streets, they may offer little added benefit while raising maintenance costs and reducing space for cyclists.

### Use in a Safe System Approach

This treatment supports the Safe System Approach by improving Safe Roads and Safe Vehicles, enhancing visual guidance and lane discipline to address human error and vulnerability, especially in low-visibility conditions.

### Key Stakeholders

State DOTs, MPOs, engineering consultants, construction contractors, safety advocacy groups.

### Proactive Implementation

Agencies can proactively install wider markings on corridors identified through systemic safety analysis, especially on road segments with narrow lanes, curves, or a history of roadway departure crashes. Wider markings can also be bundled with low-cost countermeasures like rumble strips and safety edge treatments for greater benefit.

## Countermeasure Overview

**Objective:** Keep vehicles from encroaching on the roadside.

**Strategy:** Provide enhanced pavement markings.

## Targeted Solution



### CONTRIBUTING FACTORS

- Reduced visibility
- Driver inattention/distraction



### TARGET CRASH TYPE

- Run-off-road



### ROAD FACILITY TYPE

- All



### AREA TYPE

- Rural

## Safety Linkage



### NCHRP 500 Series

Run-off-road



### SAFE SYSTEM APPROACH

Safe Roads



### AASHTO'S TOWARD ZERO DEATHS

Safer Infrastructure

### SAFE SYSTEM ROADWAY DESIGN

TIER 1  
TIER 2  
TIER 3  
TIER 4

Tier 4

## Selected Related Countermeasures

- CM1** Improve pavement marking retroreflectivity
- CM2** Upgrade edge line width
- CM3** Wider edge line pavement markings

**Cost:** \$ (Low)

**Service Life:** 5 years

**Benefit-Cost Ratio:** 33-55

Wider Longitudinal Pavement Markings. Source: FHWA.

29%

Reduces run off road crashes for all types of severities on rural roads (CMF ID: 10643)

28%

Reduces all types of crashes and severities on rural roads (CMF ID: 10644)

## Resources

- MUTCD Chapter 3A.06: Functions, widths, and Patterns of Longitudinal Pavement Markings
- FHWA Pavement Making Width

