NCHRP 17-113 COUNTERMEASURES

SPEEDING

Install Automated Section Speed Enforcement System on Tangents

By detecting speed violations and capturing images, ASE technology enables steady and objective enforcement of speed limits without requiring on-site officers.

Implementation Strategy

How and Where to Apply

- 1. ASE systems are typically implemented in locations with consistent speeding patterns or where manual enforcement is difficult to sustain.
- They are particularly suitable for environments like school zones, work zones, high-crash locations, and heavily traveled urban streets.
- Systems can be configured as stationary, vehicle-mounted mobile units, or point-to-point enforcement depending on roadway characteristics and enforcement goals.

Use in a Safe System Approach

Automated speed enforcement cameras advance the Safe System Approach by promoting safer travel speeds. Their consistent enforcement complements design and education efforts to reduce crash risk and severity.

Key Stakeholders

Traffic engineering departments, law enforcement agencies

Proactive Implementation

Agencies can proactively implement ASE cameras in locations with documented speeding, using data from speed studies, crash histories, or public feedback. A systemic approach may also prioritize corridors with elevated pedestrian activity, limited enforcement presence, or recurring speed-related incidents.

Countermeasure Overview

Objective: Keep vehicles from encroaching into opposite lane

Strategy: Provide center two-way left-turn lanes for four- and two-lane roads

Selected Related Countermeasures

- CM1 Radar-based speed feedback displays
- CM2 Focused traffic law enforcement
- CM3 Community speed limit change initiatives

Cost: $ (Moderate to High)

Service Life: 10 years

Benefit-Cost Ratio: 4.66:1

Targeted Solution

CONTRIBUTING FACTORS	▪ Unsafe speed ▪ Aggressive driving behaviors
TARGET CRASH TYPE	▪ Speeding
ROAD FACILITY TYPE (ARTERIAL, COLLECTOR, LOCAL)	▪ Principal Arterial ▪ Freeways ▪ Expressways
AREA TYPE	▪ All

Safety Linkage

NCHRP 500 Series

- Speeding-related Crashes
- AASHTO'S TOWARD ZERO DEATHS
- Improved Safety management

SAFE SYSTEM APPROACH

- Safe Speeds
- SAFE SYSTEM ROADWAY DESIGN (TIER 1, TIER 2, TIER 3, TIER 4)
- Tier 4

ASE cameras. Source: NCSL

Safety Benefits

28% Reduce crashes on freeways and arterials[1]

[1] CMF ID: 4145

Resources

- FHWA Speed Safety Camera Program Guide
- FHWA Speed Safety Cameras