



Provide a Right-turn Lane on Both Major-road Approaches

Adding right-turn lanes on both major-road approaches improves traffic operations by separating turning and through movements, helping to enhance roadway capacity and reduce crash risk.

Implementation Strategy

How and Where to Apply

- Use in locations with high right-turn volumes or crash patterns indicating operational or safety concerns. Separating turning traffic can reduce delays and conflict points
- Incorporate clear pavement markings, appropriate signalization, and protected crossings to ensure the safety of pedestrians and bicyclists in the turn lane design.
- Adding right-turn lanes on both major-road approaches is recognized as an effective strategy for enhancing intersection safety and improving traffic flow."

Use in a Safe System Approach

Exclusive right-turn lanes advance the Safe System approach by minimizing vehicle conflicts, optimizing traffic movement, and improving visibility at high-volume intersections.

Key Stakeholders

State DOT, Local enforcement, active road users

Proactive Implementation

Proactively install dedicated right-turn lanes at intersections with increasing turn volumes or emerging crash patterns. Use traffic analysis to determine optimal placement, and incorporate safety features for pedestrians and bicyclists in the design.

Countermeasure Overview

Objective: Reduce the frequency and severity of intersection conflicts through geometric design improvements.

Strategy: Provide right-turn lanes at intersections.

Targeted Solution



CONTRIBUTING FACTORS

- Stopped vehicle in through lane
- Delayed driver reaction



TARGET CRASH TYPE

- Right Turn
- Angle



ROAD FACILITY TYPE

- Not Specified



AREA TYPE

- All

Safety Linkage



NCHRP 500 Series

Signalized Intersection



AASHTO'S TOWARD ZERO DEATHS

Safer Infrastructure

SAFE SYSTEM APPROACH

Safe Speeds

SAFE SYSTEM ROADWAY DESIGN

TIER 1

TIER 2

TIER 3

TIER 4

Tier 1

Selected Related Countermeasures

- CM1 Exclusive left-turn lane
- CM2 Guided right-turn channel
- CM3 Intersection redesign to roundabout

Cost: \$ (Moderate)

Service Life: 20 years

Benefit-Cost Ratio: 16.9:1

Dedicated Right turn lanes. Source: The Wise Drive

Safety Benefits

33%

Reduce crashes of all types and severities¹

8%

Reduce rear-end collision crashes

¹ CMF 289

² CMF 290

Resources

- FHWA proven-safety-countermeasures/dedicated-left-and-right-turn-lanes-intersections
- Chanellization tech brief.pdf?

