

Provide a Right-Turn Lane

Adding right-turn lanes on one or 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

- Apply on one or both major-road approaches with high right-turn volumes or crash history, reducing delays and collisions by separating turning traffic.
- Ensure pedestrian and bicyclist safety with proper markings, signals, and protected crossings in the turn lane design.
- Not recommended on low-volume roads or intersections where rightturn demand is minimal, or where adding a turn lane would create pedestrian and bicyclist safety risks without clear operational benefits.

Use in a Safe System Approach

Providing a right-turn lane separates movements, reduces conflicts, and protects vulnerable users, supporting shared responsibility, proactive safety, and redundancy while addressing human mistakes and preventing severe crashes in the Safe System framework.

Key Stakeholders

consultants, transit agencies, active road users.

Proactive Implementation

Proactively implement dedicated right-turn lanes at intersections showing rising turn volumes or minor crash trends. Use traffic studies to guide placement and ensure designs include pedestrian and bicyclist safety features.

Countermeasure Overview

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

Strategy: Provide right-turn lanes at intersections.

State DOTs, MPOs, engineering

TARGET

CONTRIBUTING

FACTORS

CRASH TYPE

Angle

All

Targeted Solution

Right-turn

Time



Principal Arterial

Stopped vehicle in

through lane

Slower Reaction

Minor Arterial



AREA

Safety Linkage



Signalized Intersection



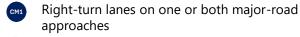
Safer Infrastructure



ROADWAY DESIGN TIER 1

Tier 1

Selected Related Countermeasures



Channelized right turn lane

Roundabout conversion

Cost: \$\$ (Moderate) Service Life: 20 years **Benefit-Cost Ratio: 4.9:1 to** 16.9:1

Right-turn Lane on Major-road Approach. Source: FHWA.



Right turn at one major-road approaches reduces crashes for all types and K, A, B, C severities on all types of area (CMF ID: 287)



Right turn at both major-road approaches



