

# Install Two-Way Left-Turn Lane (TWLTL)



A TWLTL is a center lane on a four-lane undivided road or on a two-lane rural road that allows left turns from both directions, improving safety by separating turning vehicles from through traffic.

## Implementation Strategy

### How and Where to Apply

- TWLTLs are intended to reduce midblock conflicts by providing a dedicated lane for left-turning vehicles on four-lane undivided roads.
- TWLTLs are most effective in rural areas with higher speeds and wider intersection spacing, where removing turning vehicles from the through lane greatly improves safety.
- Best suited for corridors with high left-turn volumes, frequent driveways, or minor intersections, where a center turn lane can improve safety.

### Use in a Safe System Approach

TWLTLs support the Safe Roads and Safe Road Users elements of the Safe System Approach by separating turning vehicles from through traffic, reducing conflict points and rear-end collisions. They promote predictable movements and reinforce the principle that roads should accommodate human mistakes.

### Key Stakeholders

State DOTs, MPOs, engineering consultants, community associations, business owners.

### Proactive Implementation

TWLTLs can be applied proactively by identifying corridors with midblock turning conflicts, crash clusters, and high driveway density. They are commonly implemented during corridor restriping or resurfacing projects where widening is not feasible but safety and multimodal improvements are needed.

## Countermeasure Overview

**Objective:** Keep vehicles from encroaching into opposite lane.  
**Strategy:** Provide center two-way left-turn lanes for four- and two-lane roads.

**Cost:** \$\$\$ (Moderate to High)

**Service Life:** 20 years

## Selected Related Countermeasures

- CM1 Dedicated left-turn lanes at intersections
- CM2 Raised medians and turn bays
- CM3 Offset left-turn lanes

## Targeted Solution



### CONTRIBUTING FACTORS

- Lack of separation between opposing traffic



### TARGET CRASH TYPE

- Head-on
- Rear-end
- Sideswipe



### ROAD FACILITY TYPE

- N/A



### AREA TYPE

- All

## Safety Linkage



### NCHRP 500

Head-on Crashes



### 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 1

TWLTL on Four Lane Road. Source: [Google Earth](#).

35%

TWLTL at 2-lane road reduces crashes of all types and severities A, B, and C on rural two-lane roads (CMF ID: 584)

30%

TWLTL at 4-lane road reduces non-intersection crashes across all severity levels on urban undivided roads (CMF ID: 10375)

## Resources

- [FHWA Proven Safety Countermeasures](#)
- [FHWA Highway Safety Programs](#)

