

Five to Six Lane Conversion



Modifying a five-lane roadway to a six-lane setup frees up room for biking, transit, or pedestrian infrastructure, all focused on better safety and access.

Implementation Strategy

How and Where to Apply

- Urban and suburban corridors with moderate traffic volumes (usually below 20,000 AADT), high crash frequency, or strong pedestrian and bicycle activity are good candidates for Road Diets.
- Reconfigure lane markings to transform four undivided lanes into two through lanes and a center left-turn lane, reallocating excess space for bike lanes, sidewalks, or on-street parking, in accordance with FHWA design guidelines and local conditions.

Use in a Safe System Approach

This countermeasure advances the Safe System Approach by managing vehicle speeds and reducing the likelihood and severity of sideswipe collisions. It supports the 'Safer People' pillar by addressing unsafe lane-changing behaviors common in fast-moving urban corridors.

Key Stakeholders

Agency maintenance personnel, DOT, Active road users

Proactive Implementation

Proactively implementing Road Diets means targeting corridors with moderate traffic, crash trends, and multimodal gaps before serious safety issues emerge. Agencies should perform traffic evaluations and involve the community to determine feasibility and support. Early implementation helps improve safety, slow down traffic, and better accommodate pedestrians, cyclists, and transit users.

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** Pedestrian curb extensions
- CM2** Protected median pedestrian islands
- CM3** Buffered bike lanes with reduced vehicle lanes

Cost: \$(High)

Service Life: 20 years

Benefit-Cost Ratio: xx

Targeted Solution



CONTRIBUTING FACTORS

- Limited passing opportunities



TARGET CRASH TYPE

- Sideswipe



ROAD FACILITY TYPE

- Principal Arterial
- Freeways
- Expressways



AREA TYPE

- Urban

Safety Linkage



NCHRP 500 Series

Signalized Intersection



AASHTO'S TOWARD ZERO DEATHS

Safer Infrastructure

SAFE SYSTEM APPROACH

Safe Roads

SAFE SYSTEM ROADWAY DESIGN

TIER 1

TIER 2

TIER 3

TIER 4

Tier 1

Road diet basic design. Source: FHWA

Safety Benefits

- Converting a five-lane to a six-lane road (adding a through lane) increases the number of crashes.
- To improve safety, pair lane additions with raised medians, dedicated turn lanes, and access management to better control vehicle movements and reduce conflicts.

¹ CMF ID: 7

² CMF ID: 8

Resources

- [FHWA Road Diet](#)

