

Replace TWLTL with Raised Median



A raised median is a physical barrier, typically made of concrete, asphalt, or landscaping, installed in the center of a roadway to separate opposing directions of traffic.

Implementation Strategy

How and Where to Apply

- Raised medians are typically installed on multilane urban or suburban arterials where midblock left-turns, pedestrian activity, or crash frequency is a concern.
- They are most effective on roadways with high volumes, frequent turning movements, or a history of head-on or angle crashes. Raised medians can also serve as pedestrian refuge islands where crosswalks are present.

Use in a Safe System Approach

This treatment aligns with Safe System principles of separation and crash severity reduction by minimizing the chances of head-on and side-impact collisions. Raised medians also improve safe speeds by narrowing perceived roadway width and limiting erratic turning behavior.

Key Stakeholders

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

Proactive Implementation

Agencies can implement raised medians proactively through corridor safety studies, access management programs, or systemic risk assessments. Target corridors often include those with high crash rates, uncontrolled left-turn activity, or significant pedestrian crossing volumes.

Countermeasure Overview

Objective: Reduce the severity of the crash.

Strategy: Improve design and application of barrier and attenuation systems.

Selected Related Countermeasures

- CM1 Install Pedestrian Refuge Islands
- CM2 Restrict Left-Turn Access with Channelization
- CM3 Install Curb Extensions or Bulb-Outs

Cost: \$\$\$\$ (High)
Service Life: 20 years
Benefit-Cost Ratio: 11.2:1

Targeted Solution



CONTRIBUTING FACTORS

- Lack of physical separation between opposing traffic directions
- Risky turning maneuver
- Midblock crossing



TARGET CRASH TYPE

- Run-off-road
- Head-on



ROAD FACILITY TYPE

- All



AREA TYPE

- Urban

Safety Linkage



NCHRP 500 Series

Run-off Road



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

23%

Reduces angle, fixed object, head on, rear end, run off road, sideswipe, single vehicle crashes and all severity levels on urban all types of roads ([CMF ID: 2514](#))

21%

Reduces angle, fixed object, head on, rear end, run off road, sideswipe, single vehicle crashes and A, B, C severity levels on urban all types of roads ([CMF ID: 2519](#))

Resources

- [FHWA Medians and Pedestrian Refuge Islands](#)
- [Roadway Design Manual Chapter 5.9](#)
- [NCHRP Report 500: A Guide for Reducing Collisions Involving Pedestrians, Page 49](#)

Replace TWLTL with Raised Median Source: FHWA.

