

Medians and Pedestrian Refuge Islands



This is a median area designed to protect pedestrians crossing multi-lane roads by providing a safe midpoint between opposing traffic lanes.

Implementation Strategy

How and Where to Apply

- Use on multilane roads with three or more lanes, speeds of 35 mph or higher, and traffic volumes exceeding 9,000 vehicles daily.
- Apply at midblock or unsignalized crossings where high pedestrian activity and insufficient crossing time increase exposure and crash risk.
- The FHWA states that this marking can be used "Raised medians and pedestrian refuge islands at marked crosswalks reduce pedestrian crashes by 46% and 56%, respectively."

Use in a Safe System Approach

Medians and refuge islands support the Safe System Approach by reducing pedestrian exposure time, managing speeds, simplifying crossings, and providing protection in multilane environments with high-speed or high-volume traffic.

Key Stakeholders

City and state transportation agencies, traffic engineers and urban planners, pedestrian and accessibility advocacy groups

Proactive Implementation

Identify multilane corridors with high pedestrian activity, crash history, or speed issues using safety audits and traffic data. Install medians and refuge islands during repaving, safety upgrades, or corridor redesigns to reduce pedestrian risk before severe incidents occur, especially near schools, transit, or senior facilities.

Countermeasure Overview

Objective: Reduce Pedestrian Exposure to Vehicular Traffic.
Strategy: Construct Pedestrian Refuge Islands and Raised Medians.

Selected Related Countermeasures

- CM1** Raised Crosswalks
- CM2** Leading Pedestrian Intervals (LPI)
- CM3** High-Visibility Crosswalk Markings

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

Service Life: 20 years

Medians and Pedestrian Refuge Islands. Source: VHB

Targeted Solution



CONTRIBUTING FACTORS

- Difficulty for pedestrians crossing wide roads
- Midblock pedestrian-vehicle conflicts



TARGET CRASH TYPE

- Crossing-related



ROAD FACILITY TYPE

- N/A



AREA TYPE

- Urban

Safety Linkage



NCHRP 500 Series

Pedestrians and Bicyclists



AASHTO'S TOWARD ZERO DEATHS

Safer Vulnerable Users

SAFE SYSTEM APPROACH

Safe Road Users

SAFE SYSTEM ROADWAY DESIGN

TIER 1

TIER 2

TIER 3

TIER 4

Tier1



Provides safe waiting areas for pedestrians crossing multi-lane roads.

Resources

- [Medians and Pedestrian Refuge Islands in Urban and Suburban Areas, FHWA-SA-21-044](#)

