

## CORNER RADIUS REDUCTION

### Description

Reducing a corner radius means changing the curb line, permanently or temporarily, using materials such as paint and bollards. Motorists generally reduce their speed to navigate a sharper turn.

### Purpose

Reduce motor vehicle turning speeds, reduce pedestrian crossing distances, and expand waiting areas for pedestrians.



## CROSSING ISLANDS

### Description

Median crossing islands with a cut-out area for pedestrian refuge are used as a supplement to a crosswalk. These are also known as pedestrian refuge islands.

### Purpose

Shorten crossing distance, enable two-stage crossings, and increase pedestrian visibility.



## CURB EXTENSIONS

### Description

Also called bulb outs or neck downs, curb extensions extend a section of sidewalk into the roadway at intersections and other crossing locations.

### Purpose

Shorten crossing distances and increase pedestrian comfort and visibility.



## GATEWAYS / IN-STREET PEDESTRIAN CROSSING SIGNS

### Description

Yield to Pedestrian signs (MUTCD R1-6) are placed in between opposing travel lanes to improve motorist awareness of pedestrians crossing.

### Purpose

Reduce motor vehicle speeds and increase yielding at uncontrolled crosswalks.



## HARDENED CENTERLINES AND TURN WEDGES

### Description

Hardened centerlines are flexible delineators placed between opposing travel lanes. Turn wedges are raised curbs or flexible delineators and pavement markings on both sides of a crosswalk at an intersection.

### Purpose

Reduce motor vehicle turning speed and increase motorist yielding to pedestrians.



## LEADING PEDESTRIAN INTERVALS (LPI)

### Description

Leading pedestrian intervals (LPIs) are adjustments to traffic signals that give bicyclists or pedestrians a 3 to 7 second head start before motorists enter the intersection.

### Purpose

Extend crossing time for pedestrians and bicyclists at signalized intersections.



## NO TURN ON RED

### Description

No Turn on Red signs and signals prohibit motor vehicles turning right when the traffic light is red.

### Purpose

Reduce conflicts between turning vehicles and pedestrians and bicyclists.





## RAISED CROSSINGS AND RAISED INTERSECTIONS

### Description

Raised crossings and intersections are elevated to the level of the sidewalk or placed on a ramped speed table.

### Purpose

Reduce vehicle speeds, increase motorist yielding, and improve bicyclist and pedestrian crossing safety.



## ROUNDBABOUTS

### Description

Roundabouts are circular intersections controlled by yield-control rather than a signal or stop.

### Purpose

Reduce vehicle speeds, reduce high-speed collisions, and eliminate all left turns.



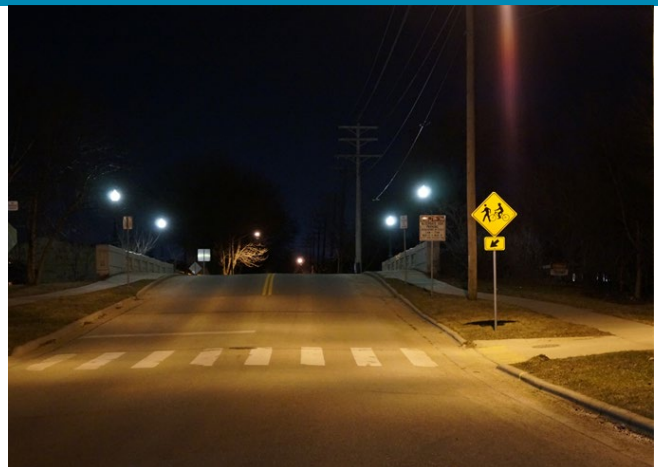
## LIGHTING

### Description

Well-placed lighting improves visibility for all road users. Pedestrian-scale lighting illuminates sidewalks and crossings and is not as tall as roadway-scale lighting.

### Purpose

Increase visibility for all road users at dusk and darkness, especially at crossings.



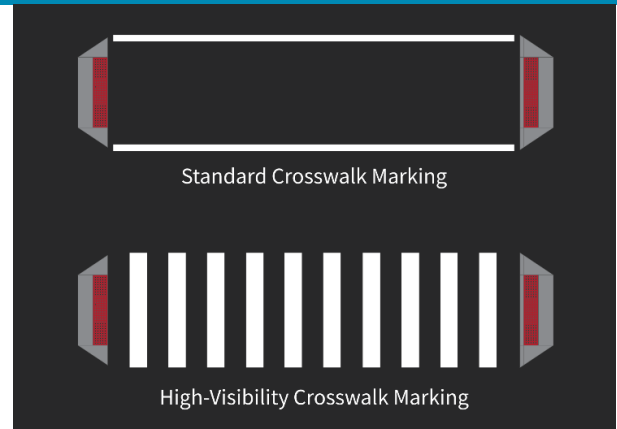
## HIGH-VISIBILITY CROSSWALKS

### Description

High-visibility crosswalks use parallel bar markings that motorists see more easily than traditional crosswalk markings, which are located perpendicular to the motor vehicle path of travel.

### Purpose

Improve visibility of pedestrians to approaching motorists.



## DAYLIGHTING / PARKING RESTRICTIONS AT CROSSINGS

### Description

Daylighting and parking restrictions at crossings can be signs, pavement markings, curb extensions, or vertical delineators that restrict on-street parking near a crossing.

### Purpose

Improve sightlines between motorists and pedestrians or bicyclists crossing the street.



## RECTANGULAR RAPID FLASHING BEACONS (RRFB)

### Description

A rectangular rapid flashing beacon has bright, irregularly flashing LEDs mounted with pedestrian crossing signs, which increase pedestrian visibility to drivers at uncontrolled crossings.

### Purpose

Increase driver yielding to pedestrians at mid-block crossings.



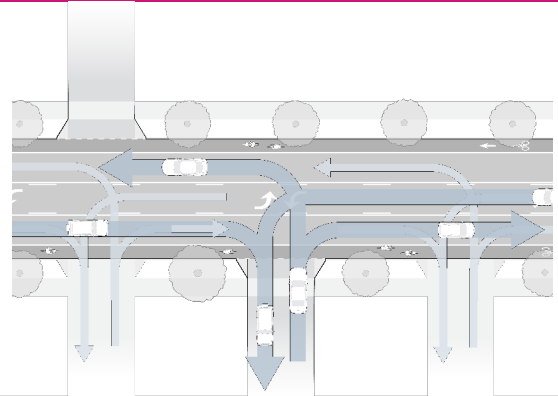
## ACCESS MANAGEMENT

### Description

Access management refers to strategies that reduce or redesign driveways or intersections to limit the number and/or width of motor vehicle entry and exit points.

### Purpose

Reduce or eliminate conflicts between road users.



## AUTOMATED ENFORCEMENT

### Description

Automated enforcement is a system for automatically issuing fines for running red lights or speeding. Mounted cameras record images of vehicles that speed or run red lights.

### Purpose

Reduce serious injuries and fatalities caused by red light running and speeding.



## POSTED SPEED LIMIT

### Description

This countermeasure includes speed limit signs, pavement markings, and other speed reduction measures to achieve target speeds on roadways.

### Purpose

Reduce motor vehicle speeds to prevent severe and fatal crashes.





## PROTECTED TURN PHASES

### Description

Protected turn phases are green or red arrow signals that restrict drivers from left or right turns, allowing through vehicles, pedestrians, and bicyclists to cross without interference from turning vehicles.

### Purpose

Separate vehicular turns from other vehicle, pedestrian, and bicyclist movements to eliminate conflicts.



## ROAD DIETS AND LANE NARROWING

### Description

These countermeasures reduce the number of lanes (road diets) or the width of lanes (lane width reductions).

### Purpose

Reduce the speed of traffic, reduce crossing distances, and/or provide additional space for other elements within the roadway.

