

Explanation of Some of the Traffic-Calming Elements in the MCDOT Plan

Centerline Hardening

The purpose of [centerline hardening](#) is to slow down left-turning vehicles and force drivers to take wider, squarer turns instead of cutting across intersections at a dangerous diagonal. [\[1, 2\]](#)

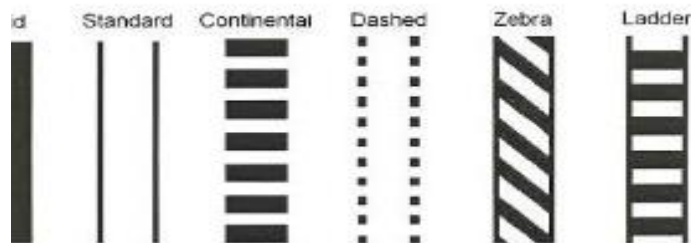
How It Works

- Physical barriers: Uses rubber modular curbs and vertical plastic bollards placed along the centerline of a street near an intersection. [\[1, 2\]](#)
- Tighter angles: Compels drivers to steer around the obstruction, changing a sweeping, high-speed turn into a sharper, nearly right-angle turn. [\[1, 2\]](#)

Key Benefits

- Lower speeds: Reduces vehicle turning speeds and cuts the odds of drivers exceeding 15 mph while turning.
- Better visibility: Improves sight lines between motorists and people in the crosswalk.
- Fewer crashes: Decreases pedestrian conflicts and lowers the risk of severe or fatal failure-to-yield collisions.

Continental Crosswalk Markings



Continental crosswalk markings are high-visibility pedestrian crossings featuring thick, wide stripes that run parallel to the flow of traffic. [\[1\]](#)

Design and Appearance

- Pattern: Often called "piano keys" or "zebra stripes," they use bold longitudinal bars instead of just two thin lines.
- Colors: Most stripes are painted white, but yellow markings are often used near K-12 schools.
- Layout: The thick bars are typically spaced so that car tires roll *between* the painted lines, which helps the paint last longer. [\[1, 2, 3, 4\]](#)

Why They Are Used

- Better Visibility: Drivers can spot continental markings from much farther away than traditional parallel lines, especially in bad weather or dim light. [\[1, 2\]](#)
- Safer Crossings: Studies prove that drivers are more likely to slow down and yield to pedestrians when these high-visibility markings are present. [\[1, 2\]](#)

- **Durability:** Because tires miss the main bars, the paint or thermoplastic tape wears out slower and saves maintenance costs. [\[1\]](#)

Floating Curb Extension

A floating curb detaches the extension from the main sidewalk to allow for stormwater drainage.

Vertical Deflection

Vertical deflection is a traffic-calming method that uses raised physical features in the road to change a vehicle's height and force drivers to slow down.

How It Works

- **Physical Discomfort:** The upward movement and jolt force drivers to reduce speed to maintain personal and vehicle comfort.
- **Design Speed:** Most devices are engineered for safe, slow crossings at speeds around 15 to 25 mph.
- **Safety Boost:** Lower vehicle speeds dramatically reduce the risk of severe or fatal crashes, especially for pedestrians. [\[1, 2, 3, 4, 5\]](#)

Common Types of Vertical Deflection

- **Speed Bumps:** Short, abrupt raised bumps usually found in parking lots or private roads.
- **Speed Humps:** Longer, rounded mounds on residential streets that allow smoother crossings at slightly higher speeds.
- **Speed Tables:** Flat-topped raised areas that accommodate longer vehicles and allow slightly higher speeds than humps.
- **Speed Cushions:** Raised lumps with gaps that let wide emergency vehicles or buses pass unhindered while still slowing down cars.
- **Raised Crosswalks & Intersections:** Pedestrian paths or entire intersections elevated to sidewalk level to maximize visibility and safety.