

# STREET STRIPING MODIFICATION

A street striping modification—sometimes called a road diet—is a change in roadway striping, typically accomplished by removing motor vehicle travel lanes. This strategy can be applied broadly to a wide variety of street types where one or more travel lanes are repurposed for other uses in order to discourage speeding and weaving; reduce the potential for rear end and side swipe collisions; improve sight distances for left-turning vehicles; reallocate space for sidewalks, standard bicycle lanes, bicycle lanes, bus bulbs, or curbside parking, which in turn creates a buffer between motor vehicle traffic and pedestrians; and improve

access for emergency vehicles by allowing them to use the center turn lane to bypass traffic if a continuous two-way left turn lane is provided.

## USE

- The most common configuration involves converting a four-lane road to three lanes, with two travel lanes with a turn lane in the center of the roadway.
- Four lane streets with traffic volumes less than 15,000 vehicles per day are generally good candidates for four to three lane conversions.
- Four lane streets with volumes between 15,000 to 20,000 vehicles per day may be good candidates for four to three lane conversions. A traffic analysis examining speed, volume and types of traffic is needed to determine feasibility.

## DESIGN

- The minimum width of the center turn lane is 10 feet.
- Four to three lane conversions typically have minimal effects on the vehicular capacity of the roadway because left-turning vehicles are moved into a common two-way left turn lane. If the remaining space is utilized for designated bicycle lanes, slower moving bicycle traffic is moved into its own lanes, which minimizes delays between vehicles and bicycles.

- If considered during reconstruction, raised center islands may be incorporated in between intersections to provide improved pedestrian crossings, incorporate landscape elements, and reduce travel speeds. Bulb-outs may also be added if reconstruction work is involved.
-  The space gained for a center turn lane is often supplemented with painted, textured, or raised center islands, with opportunities for green infrastructure such as bioswales.

## SPECIAL CONSIDERATIONS

- The design of street reconfigurations should consider signal placement and alignment, signal timing, intersection capacity, and turn movements with traffic shifts at major intersections

## OPERATIONS AND MAINTENANCE

- Intersection design and operation should be monitored to determine the results of the project.

## REFERENCES

- City of Grand Rapids Street Classification Policy, 1996
  - Section 12. Traffic Calming, 12.9
- AASHTO: Guide for the Development of Bicycle Facilities, 2012
  - Section 4.9.2: Retrofitting Bicycle Facilities Without Roadway Widening
- FHWA: Road Diet Information Guide
  - [http://safety.fhwa.dot.gov/road\\_diets/info\\_guide/rdig.pdf](http://safety.fhwa.dot.gov/road_diets/info_guide/rdig.pdf)