ROAD DIET

Safety | Livability | Low Cost

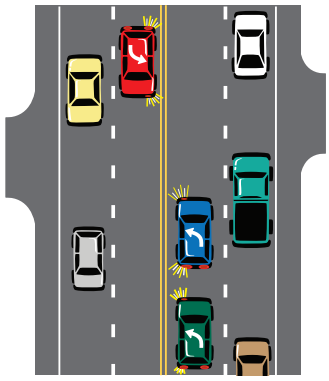
M·Y·T·H·B·U·S·T·E·R·S

Myth: Road Diets Make Traffic Worse

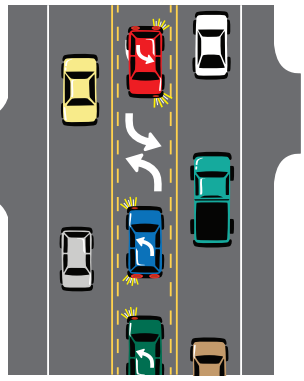
A common misconception is that reducing the number of through lanes by installing a Road Diet will cause traffic to become more congested. However, when applied correctly in the right locations, Road Diets can maintain a roadway's effective capacity. Several scenarios provided below bust this myth.

A four-lane roadway may already operate like a three-lane road.

When a corridor contains a large number of access points (driveways) the majority of through traffic will tend to utilize the outside lanes to avoid being delayed by left-turning vehicles slowing and stopping in the inside lanes. These four-lane corridors essentially behave like a three-lane road (one through lane in each direction and one two-way left turn lane), so when they are converted to a three-lane section they are unlikely to experience a change in capacity.



Before
A four-lane undivided road operating as a de facto three-lane cross section.



After
A Road Diet providing a two-way left-turn lane.

Road Diets can be successful for a broad range of traffic volumes.

FHWA and several other transportation agencies have developed guidelines for selecting candidate Road Diet locations to ensure that the effect on traffic operations is minimized. These volume guidelines for four-lane undivided roadways are summarized below.[1, 2, 3]

LESS THAN 10,000 ADT

Great candidate for Road Diets in most instances. Capacity will most likely not be affected.

10,000 – 15,000 ADT

Good candidate for Road Diets in many instances. Agencies should conduct intersection analysis and consider signal retiming to determine any effect on capacity.

15,000 – 20,000 ADT

Good candidate for Road Diets in some instances. Agencies should conduct a corridor analysis. Capacity may be affected at this volume depending on the "before" condition.

GREATER THAN 20,000 ADT

Agencies should complete a feasibility study to determine whether this is a good location for a Road Diet. There are several examples across the country where Road Diets have been successful with ADTs as high as 26,000. Capacity may be affected at this volume.

1 FHWA, Road Diet Informational Guide, FHWA-SA-14-028 (Washington, DC: FHWA, 2014). Available at: http://safety.fhwa.dot.gov/road_diets/case_studies/roaddiet_cs.pdf.

2 City of Seattle Modeling Flow Chart for Road Diet Feasibility Determination. Available at: http://safety.fhwa.dot.gov/road_diets/info_guide/ch3.cfm#f1.

3 MnDOT Office of Traffic, Safety and Technology, Minnesota's Best Practices for Pedestrian/Bicycle Safety, Report 2013-22 (Roseville, MN: MNDOT, 2013). Available at: http://www.dot.state.mn.us/stateaid/trafficsafety/reference/ped-bike-handbook-09.18.2013-v1.pdf.

Intersections may determine true capacity.

Often, signalized intersections are the most significant constraint on roadway capacity. Converting four through lanes to two through lanes makes it possible to install dedicated turn lanes at the intersection. If the intersection experiences a large number of turning vehicles, this design can help reduce intersection delay. Alternative intersection configurations, like roundabouts, can offer even more opportunities for enhanced traffic operations.

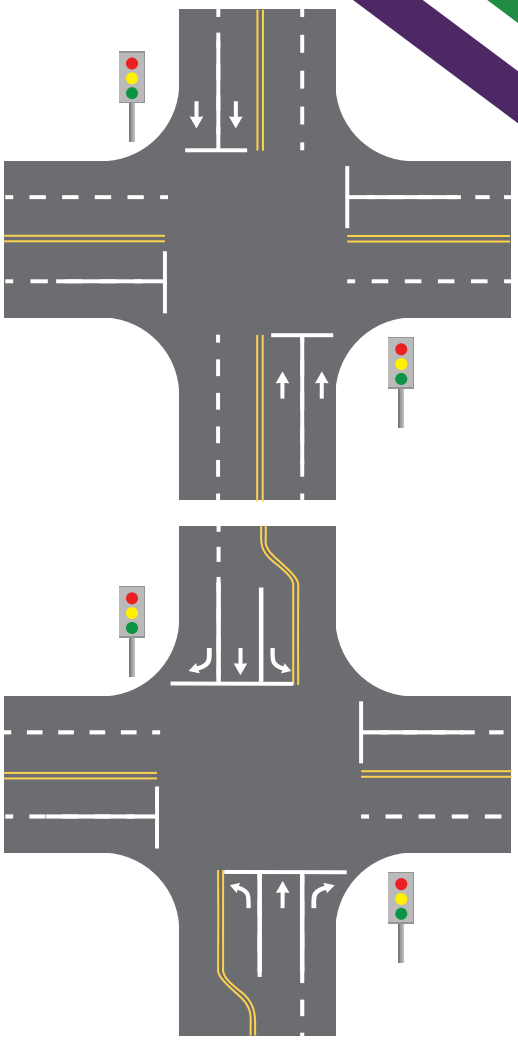
Level of service (LOS) isn't just for motorists.

Maintaining a satisfactory LOS for motorists is important, but people who walk or bike also appreciate efficient road networks. Road Diets can improve travel conditions for these users, too. In most cases, these travelers' usage is linked directly to perceived safety and comfort. When these factors improve, non-motorized and transit usage tend to increase.[4] Factors that affect travelers' perceptions of safety and comfort and are improved by Road Diets include:[5]

- Reduced motor-vehicle speeds
- Increased space and/or barriers between motor-vehicle lanes and pedestrians and bicyclists
- Shorter crossing length for pedestrians
- Pedestrian refuge islands and dedicated bicycle lanes at intersections
- Safer and more comfortable access to transit stops

Trading a little capacity can be worth it.

It is important to consider the big picture when selecting a Road Diet location. The countermeasure's primary objective is to improve safety for all roadway users. Occasionally, this can require accepting a small decrease in mobility to gain a large increase in safety. Additionally, Road Diets can increase livability by creating a friendly bicycle and pedestrian environment as well as encourage economic growth by increasing property values and attracting businesses.



Example of intersection with added turning movements.

Source: PeopleForBikes

Intersection in Chicago, IL after Road Diet Installation.

Source: PeopleForBikes

Dexter Ave, Seattle, WA after Road Diet Installation.

4 FHWA, Road Diet Case Studies, FHWA-SA-15-052 (Washington, DC: FHWA, 2015). Available at: http://safety.fhwa.dot.gov/road_diets/case_studies/roaddiet_cs.pdf.

5 Transportation Research Board of the National Academies, *Highway Capacity Manual 2010* (Washington, DC: TRB, 2010).