

# ROAD DIET

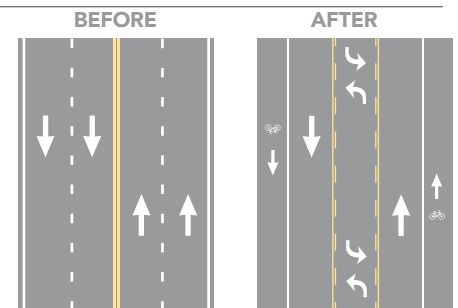


Safety | Livability | Low Cost

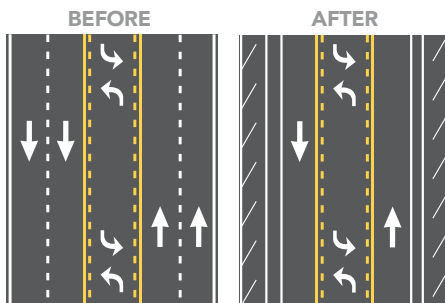
## Road Diet FAQ

### Q What is a Road Diet?

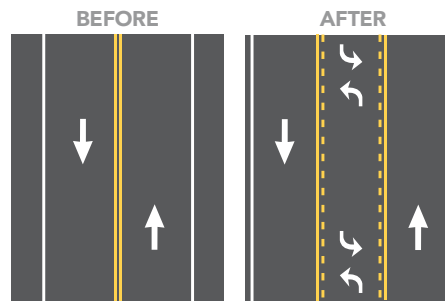
A Road Diet repositions pavement markings to better meet the needs of all road users. A classic Road Diet converts a four-lane undivided roadway to a three-lane roadway, but there are many other reconfigurations being used by States and locals. For example, a Road Diet could convert the roadway space from five to three lanes, two to three lanes, or vary lane of a three-lane roadway, as shown below. An agency could even use a Road Diet on a one-way street. For design guidance, see Chapter 4 of FHWA's [Road Diet Informational Guide](#).<sup>1</sup>



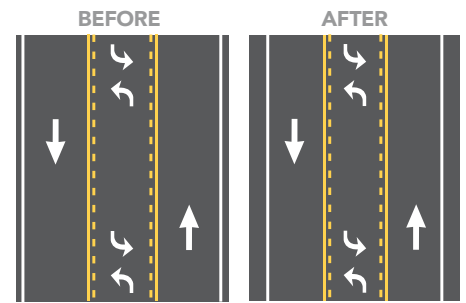
Classic Road Diet Conversion.



This five-lane to three-lane Road Diet removes lanes to allocate space for multipurpose use.



This two-lane to three-lane Road Diet reallocates shoulder width to add a TWLTL.



This three-lane to three-lane Road Diet narrows lanes to allocate space for wider shoulders.

### Q How do Road Diets improve roadway safety?

A study conducted by the Federal Highway Administration (FHWA) found that four-lane to three-lane Road Diet conversions reduce the total number of crashes by 19 to 47 percent.<sup>2</sup> Several features of a Road Diet contribute to this safety improvement.

- **A reduction in the number of through lanes** can calm traffic, reduce weaving, reduce the number of lanes for pedestrians to cross, and reduce left-turn conflicts.
- **A two-way left-turn lane (TWLTL)** may reduce head-on crashes by dividing opposing traffic and reduce rear-end crashes by providing left-turning vehicles their own lane.
- **Wider shoulders** provide recovery room should drivers depart the travel way. They can also provide buses or mail trucks room to pull out of the travel lane, allowing vehicles to pass.
- **Pedestrian, Bicycle, and Transit Facilities** provide a dedicated space for these users, which can increase motorists' recognition that they are using the roadway. Dedicated bicycle/transit lanes and pedestrian refuge islands provide visible cues that can improve driver awareness.

<sup>1</sup> FHWA, Road Diet Informational Guide. FHWA Report No. FHWA-SA-14-028. Washington, D.C. 2014. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/info\\_guide/](http://safety.fhwa.dot.gov/road_diets/info_guide/).

<sup>2</sup> FHWA, Evaluation of Lane Reduction "Road Diet" Measures on Crashes. FHWA Report No. FHWA-HRT-10-053. Washington, D.C. 2010. Accessible at: <https://www.fhwa.dot.gov/publications/research/safety/10053/>.

For more detail about each of these Road Diet features and examples of how agencies have implemented them, check out FHWA's [Road Diet Informational Guide](#)<sup>3</sup> and [Road Diet Case Studies](#).<sup>4</sup>

## **Q** How do agencies select candidate Road Diet locations?

Whether interested in implementing Road Diets on a large scale or screening potential locations to yield one or two ideal sites, agencies can employ several methods to systemically identify candidate locations.

1. **Citing Road Diets as a strategy in safety plans**—including the Strategic Highway Safety Plan (SHSP), speed management plans, or bicycle and pedestrian plans—can lead to systemic identification and low-cost implementation.
2. **Evaluating all four-lane undivided roads** can help agencies identify an appropriate starting point by screening a subset of the entire network.
3. **Identifying multimodal expansion or connectivity needs** can lead to Road Diets as a strategy to accomplish the goals of safer and more-connected bicycle networks.
4. **Screening all upcoming resurfacing projects** allows an agency to incorporate Road Diets for virtually no cost.

For more detail about each of these methods and examples of how agencies have implemented them, check out FHWA's flyer on [Systemically Identifying Candidate Road Diet Locations](#).<sup>5</sup>

## **Q** What is the maximum traffic volume for a four-lane to three-lane Road Diet conversion?

Several agencies have developed guidelines for selecting candidate Road Diet locations to mitigate any negative effect on traffic operations. FHWA has summarized average daily traffic (ADT) volume threshold guidelines for four-lane roadways:

**Less than 10,000 ADT:** A great candidate for Road Diets in most instances. Capacity will most likely not be affected.

**10,000-15,000 ADT:** A good candidate for Road Diets in many instances. Agencies should conduct intersection analyses and consider signal retiming in conjunction with implementation.

**15,000-20,000 ADT:** A good candidate for Road Diets in some instances; however, capacity may be affected depending on conditions. Agencies should conduct a corridor analysis.

**Greater than 20,000 ADT:** Agencies should complete a feasibility study to determine whether the location is a good candidate. Some agencies have had success with Road Diets at higher traffic volumes.

For more information about a Road Diet's relationship to capacity, check out FHWA's Road Diet Myth Busters flyer titled [Myth: Road Diets Make Traffic Worse](#).<sup>6</sup>

## **Q** How much does a Road Diet cost?

Road Diets are much more economical than typical roadway expansions (e.g., right-of-way, asphalt, concrete, drainage modifications) because the primary expense is restriping the existing roadway. As a stand-alone project a Road Diet is relatively inexpensive, and agencies can reduce project costs even further by coupling Road Diets with regularly scheduled resurfacing. For more information about Road Diet costs, check out FHWA's flyer on [How Much does a Road Diet Cost](#).<sup>7</sup>

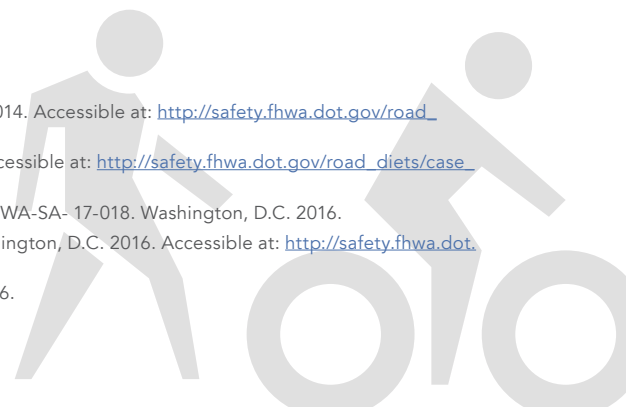
3 FHWA, Road Diet Informational Guide. FHWA Report No. FHWA-SA-14-028. Washington, D.C. 2014. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/info\\_guide/](http://safety.fhwa.dot.gov/road_diets/info_guide/).

4 FHWA, Road Diet Case Studies. FHWA Report No. FHWA-SA-15-052. Washington, D.C. 2015. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/case\\_studies/](http://safety.fhwa.dot.gov/road_diets/case_studies/).

5 FHWA, Road Diet: Systemically Identifying Candidate Road Diet Locations. FHWA Report No. FHWA-SA-17-018. Washington, D.C. 2016.

6 FHWA, "Road Diet Myth Busters, Myth: Road Diets Make Traffic Worse," FHWA-SA-16-036, Washington, D.C. 2016. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/resources/pdf/roadDiet\\_MythBuster.pdf](http://safety.fhwa.dot.gov/road_diets/resources/pdf/roadDiet_MythBuster.pdf).

7 FHWA, "Road Diet: How Much Does a Road Diet Cost?" FHWA-SA-16-100, Washington, D.C. 2016.



## QA What are the effects of Road Diets on emergency response services?

Multi-lane undivided roads can be problematic for emergency responders, as drivers may not be aware of protocols for allowing emergency vehicles to pass. Road Diets can significantly improve response times by allowing emergency vehicles to bypass traffic by using the center two-way left-turn lane. For examples of how Road Diets have positively affected emergency response times, check out FHWA’s flyer on *Road Diets and Emergency Response: Friends, Not Foes*<sup>8</sup>.

## QA How does a Road Diet affect businesses?

A Road Diet can improve economic vitality by changing the corridor from a place people “drive-through” to one that they “drive-to.” Replacing vehicle travel lanes with on-street parking options, walking areas, and bicycle lanes can make the street a more attractive “park once” place. With these improved facilities, a motorist is more likely to park, walk around, shop, and enjoy the setting. For examples of how Road Diets have positively affected surrounding businesses, check out FHWA’s flyer on *Road Diets’ Economic Impacts*.<sup>9</sup>

## QA What metrics can I use to evaluate a Road Diet?

Effective assessment of Road Diet operational, safety, and livability success can use a mixture of quantitative and qualitative metrics. The table below outlines commonly used metrics for evaluating the performance of a Road Diet. For more information about each of these evaluation metrics, check out FHWA’s *Road Diet Informational Guide*.<sup>10</sup> For examples of how agencies have used these metrics, see FHWA’s flyer on *Road Diets Evaluation Metrics*.<sup>11</sup>

| Operational  | Safety   | Livability/Economic Development     |
|--|--|-------------------------------------|
| Daily traffic counts                                     | Travel speeds  | Transit ridership                   |
| Peak hour traffic counts                                 | Percent of drivers over the speed limit                            | Availability of on-street parking   |
| Turning movement traffic counts                          | Percent of top-end speeders (Greater than 10 mph over speed limit) | Overall public satisfaction         |
| Intersection queue lengths (main street and side street) | Crash frequency, type, severity, and rate                          | Property values                     |
| Travel times (vehicles)                                  | Perceived level of safety  | Resident/public feedback            |
| Travel time (transit)                                    |  | Business feedback/sales records     |
| Adjacent street traffic counts and speeds                |  | Number of new businesses/residences |
| Bicycle counts   |  |                                     |
| Pedestrian counts  |  |                                     |

## QA How do agencies incorporate Road Diets into design guidelines and policies?

Agencies incorporate Road Diets into their policies as both stand-alone documents and parts of existing agency plans and practices. Stand-alone policies add Road Diets to the agency’s toolbox as a first-tier solution. Including Road Diets into a Strategic Highway Safety Plan, transportation planning process, or design guidance distinguishes it as a broader safety improvement strategy. Examples of how States have incorporated Road Diets into their guidance and policies are included in FHWA’s brochure on *Road Diet Policies: Expanding Beyond a Single Implementation*.<sup>12</sup>

8 FHWA, “Road Diet and Emergency Response: Friends, Not Foes.” FHWA-SA-17-020, Washington, D.C. 2016.

9 FHWA, “Road Diets’ Economic Impacts.” FHWA-SA-17-019, Washington, D.C. 2016.

10 FHWA, “Road Diet Informational Guide,” FHWA-SA-14-028, Washington, D.C. 2014. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/info\\_guide/](http://safety.fhwa.dot.gov/road_diets/info_guide/).

11 FHWA, “Road Diet Evaluation Metrics,” FHWA-SA-17-022, Washington, D.C. 2016.

12 FHWA, *Road Diet Policies: Expanding Beyond a Single Implementation*, FHWA-SA-16-072. Washington, D.C. 2016. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/resources/fhwasa16072/](http://safety.fhwa.dot.gov/road_diets/resources/fhwasa16072/).



## QA How can I communicate Road Diet benefits to the public?

FHWA's Office of Safety has developed two educational handouts that agencies can use at public meetings. *The Common Questions and Answers* handout provides high-level information about Road Diets and their benefits.<sup>13</sup> *The Debunking Road Diet Myths* handout addresses common concerns that sometimes arise at public meetings.<sup>14</sup> FHWA has also developed a Road Diet video targeted at increasing public awareness and support.<sup>15,16</sup>

FHWA also provides free technical assistance that can include help for developing materials that can be used at an agency's public meetings. For more information or to request technical assistance, please contact Rebecca Crowe ([rebecca.crowe@dot.gov](mailto:rebecca.crowe@dot.gov)) at the FHWA Office of Safety.

## QA Are Federal funds available for Road Diet projects?

Yes, Road Diet projects are typically eligible for funding through Federal programs like the Surface Transportation Program (STP) and Highway Safety Improvement Program (HSIP), as well as other funding mechanisms. Some agencies have also used funding from Safe Routes to School programs, pedestrian and bicycle funds, and transit grants. Several agencies monitor their jurisdiction's resurfacing projects to see whether streets scheduled for upcoming resurfacing are good candidates for Road Diets, allowing them to use a small portion of annual paving program funds for some Road Diet installations.<sup>17</sup> To learn more about funding opportunities, contact your FHWA Division office.



13 FHWA, "Road Diet: Common Questions and Answers," FHWA-SA-16-073. Washington, D.C. 2016.

14 FHWA, "Road Diet: Debunking Common Road Diet Myths," FHWA-SA-16-074. Washington, D.C. 2016. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/resources/fhwasa16074/](http://safety.fhwa.dot.gov/road_diets/resources/fhwasa16074/).

15 FHWA, "Road Diet Video (short)," 2016. Accessible at: <https://www.youtube.com/watch?v=n3ucpaCigig>.

16 FHWA, "Road Diet Video (long)," 2016. Accessible at: [https://www.youtube.com/watch?v=m\\_xTUCPWG78](https://www.youtube.com/watch?v=m_xTUCPWG78).

17 FHWA, "Road Diet Informational Guide," FHWA-SA-14-028. Washington, D.C. 2014. Accessible at: [http://safety.fhwa.dot.gov/road\\_diets/info\\_guide/](http://safety.fhwa.dot.gov/road_diets/info_guide/).