CTDOT
CONNECTICUT DEPARTMENT OF TRANSPORTATION
IMPROVING LIVES THROUGH TRANSPORTATION

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ROAD TO SAVING LIVES

STRATEGY AT-A-GLANCE

Road Diets

Four-lane undivided roadways have historically had relatively high crash rates and experience a number of crash types as traffic volumes increase including rear-end, sideswipe, left-turn, angle, bicycle, and pedestrian crashes. From 2015 to 2022, an average of 31 fatal crashes occurred on four-lane undivided highways annually in Connecticut.

A road diet, or roadway reconfiguration, involves reducing the number of vehicular travel lanes, and enhancing facilities for other modes of travel, such as biking and walking. The most common type of road diet converts a four-lane undivided roadway into a three-lane roadway with two through lanes and a center two-way left turn lane (TWLTL). The remaining width can be reallocated to accommodate wider shoulders, bicycle lanes, pedestrian crossing islands, bus stops, sidewalks, or on-street parking. Other types of roadway reconfigurations, such as reducing lanes through median installation or narrowing existing lanes to allow for on-street parking , can also provide safety benefits.

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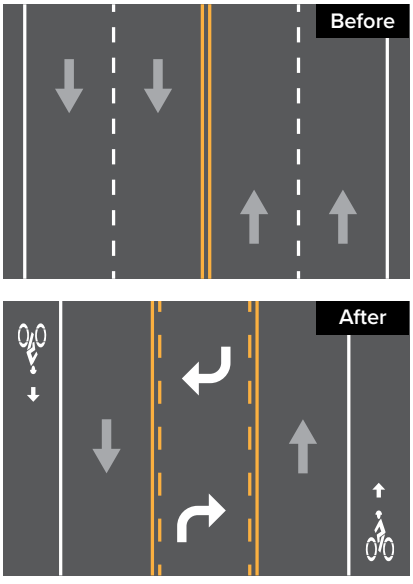
The average number of fatal crashes annually between 2015 to 2022 that occurred on four-lane undivided highways.

MOST COMMON TYPE OF ROAD DIET



Before and after example of a road diet application including TWLTL.[3]

Benefits

The benefits of road diets include:

- **Improved Safety:** Road diets are an FHWA Proven Safety Countermeasure that can lead to a 19-47% reduction in total crashes for four-lane to three-lane conversions due to reduction in conflict points. Pedestrian safety also increases due to reduction of crossing lanes.
- **Traffic Calming:** Road diets slow speeds by 3-5 miles per hour (mph) and decrease the frequency of people driving more than 5 mph over the speed limit by up to 70%.[4]
- **Enhanced Accommodations for Pedestrians and Cyclists:** Road diets offer the opportunity to provide wider shoulders, and bike lanes, promoting safer and more accessible roadways for vulnerable users.
- **Operational Benefits:** TWLTL promotes consistent traffic flow, reduces delay and slow-and-go operations by separating left turn movements along the corridor. It also improves side-street delay by decreasing the number of through lanes to cross.
- **Community Benefits:** Road diets can foster a more community-focused environment and help to improve aesthetics. Enriched street environments can attract more foot traffic, benefiting local businesses.

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Cost Considerations

Road diets can be accomplished at little to no additional cost when planned in conjunction with pavement rehabilitation, as the modified lane configuration involves restriping the roadway corridor with the proposed road diet configuration along with potential minor traffic signal modifications.[5] Road diets can also be installed as standalone projects, which may include construction of pedestrian and bicycle facilities, curb and roadway width modifications, and traffic control signal upgrades.

The U.S. Route 1 Road Diet project between Pease Avenue and Beaumont Street in Fairfield, CT is an example of a current standalone project scheduled for implementation in 2025. The length of the road diet is approximately 1.5 miles and includes a mill and overlay with sidewalk ramp upgrades, catch basin top replacements and repairs, and minor traffic signal work. The project has an estimated cost of $2.15 million.

Funding sources for road diet studies, trial programs, and installation can be found through the Surface Transportation Program (STP), Highway Safety Improvement Program (HSIP), or additional Federal-aid funds that support road diet implementation. Funding from Safe Routes to School and local pedestrian and bicycle program advocacy groups can also be leveraged towards road diet implementation.[6]

Where should Connecticut municipalities consider implementing road diets?[7]

1. **TRAFFIC VOLUME**
   On roadways with an average daily traffic of 22,000 vehicles per day or less.
2. **ROADWAY CROSS SECTION**
   Roadway segments without a median or where a median can be removed to accommodate a road diet. Removal of medians should not be considered where they have been installed as a safety countermeasure, such as for a pedestrian refuge island.
3. **SEGMENT LENGTH**
   Continuous segments at least a quarter mile in length.
4. **SIDE STREET/DRIVEWAY DENSITY**
   Consider the number of side streets and driveways along a corridor. Driveways are effectively low volume intersections.
5. **CRASH HISTORY**
   Segments with existing safety concerns based on crash and target crash history.
6. **ADJACENT LAND USES**
   Adjacent land uses that provide opportunities for alternative travel modes. A corridor surrounded by residential neighborhoods may be suitable for the installation of dedicated bike lanes. In commercial areas with heavy pedestrian activities, a road diet may facilitate installation of on-street parking and may present opportunities to improve pedestrian crossings.

Application in Connecticut

Road diets are not new to Connecticut. In 2011, a road diet was implemented on Route 100 (Main Street) in East Haven between Route 142 (Hemingway Avenue) and U.S. Route 1 (Saltonstall Parkway). In 2016, a road diet was constructed on U.S. Route 44 (Burnside Avenue) between U.S. Route 5 (Main Street) and Mary Street in East Hartford under a state project. In 2021, CTDOT performed a Statewide Road Diet Feasibility Study which identified 70 state-owned roadway segments as potential locations for road diet implementation based on FHWA guidance. As noted in the Cost Considerations section, CTDOT is currently completing the design of a road diet on U.S. Route 1 (Post Road) between Pease Avenue and Beaumont Street in Fairfield, CT.

Before and After photos of a road diet installation on Route 156 (Rope Ferry Road) in Waterford, CT between West Street and Gardners Wood Road. This segment was identified in the Road Diet Study and constructed by CTDOT in 2019 in conjunction with a VIP paving project.

CTDOT has implemented road diets in conjunction with Pavement Preservation (PP) projects and Vendor-in-Place (VIP) paving projects in recent years. Based on the feasible corridors identified in the 2021 Statewide Road Diet Feasibility Study, it is anticipated that there will also be standalone projects proposed in the coming years, especially where paving projects are not proposed. The concepts are context specific, so implementation will depend on local conditions as well as community support. Public outreach will continue to be conducted prior to implementation of any road diet. Municipalities should consider road diet implementation during annual resurfacing or paving projects and utilize statewide public outreach efforts to garner support within their local towns and communities for road diets.

CTDOT is currently conducting a study to review municipally-owned roadway segments that were identified as candidates for road diets. This study aims to identify roadway segments that are appropriate and would benefit from road diet implementation, and the findings will be shared with the municipalities.

North Main Street, West Hartford, CT (*Source: Google Earth™*)

The Town of West Hartford also conducted a road diet study and trial installation on North Main Street between U.S. Route 44 (Albany Avenue) and Farmington Avenue. The purpose of the trial was to evaluate the effectiveness of road diet by analyzing the traffic volumes and crash trends before and after implementation. The road diet trial achieved the objectives of reducing crash frequency and operating speeds, and improving accessibility for pedestrians and bicyclists, with an overall favorable public response. Based on the results of the trial, West Hartford made the road diet permanent.

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