

TEMPORARY SHOULDER USE

Description

Temporary shoulder use, also known as hard shoulder running, is a strategy designed to adapt roadway capacity to high traffic flow on a temporary basis. By allowing vehicles (either all vehicles or only transit vehicles) on the shoulder with reduced speed limits, it is possible to serve a higher number of vehicles and avoid congestion, either totally or partially, during peak periods. The decision to implement shoulder use on a segment is taken by the operator in the traffic management center based on traffic conditions, after a check for obstacles and in accordance with operations policies.



Target Market

- Freeways or roads experiencing frequent congestion
- Freeways serving multiple bus routes that experience significant travel time reliability problems

How Will This Help?

- Delay the onset of congestion by increasing capacity and improving trip reliability.
- Increase throughput by temporarily increasing capacity.

Cost:	●●○○○
Time:	Moderate
Impact:	Corridor
Who:	State
Hurdles:	Right-of-Way, Public Support, Design, Operations

Success Stories

- Minneapolis, MN
https://support.mnpass.net/kayako/index.php?_m=knowledgebase&_a=viewarticle&kbarticleid=123
- England
<http://www.highways.gov.uk/roads/projects/22988.aspx>
- The Netherlands
- Germany

Implementation Issues

While successful in Europe for many years, temporary shoulder use in the U.S. has been limited and varies considerably. In the Boston area, all vehicles are permitted on shoulders in the peak periods only, which is also the case in Virginia around the Washington, D.C. area. In the Seattle area, the right shoulder on the US 2 trestle near Everett is opened to all traffic in the eastbound direction during the afternoon peak period. A unique combination of strategies is operational on IH 35W in Minneapolis where the left shoulder of a segment is open during the peak periods. Known as priced dynamic shoulder lanes (PDSL), transit and carpools use the shoulder for free, and MnPASS customers (the electronic tolling system) can use the shoulder for a fee.