



Transit Signal Priority



Transit signal priority (TSP) prioritizes transit vehicles at signalized intersections as a method of decreasing transit delay and increasing the person throughput at intersections.

HOW IT WORKS

TSP uses vehicle-to-infrastructure (V2I) communications to allow transit vehicles to request priority at one or a series of intersections. These communications include strategies such as passive priority, active priority, and queue jumping (ARC-IT) (FTA).

BENEFITS

TSP can be a powerful tool to improve both reliability and travel time, especially on corridor streets with long signal cycles and distances between signals. These benefits are usually amplified when combined with other strategies, such as Bus Rapid Transit (NACTO).



- In Georgia, TSP tested on connected school buses resulted in a more than 40 percent decrease in the number of stops and a more than 13 percent reduction in travel time ([2023-B01804](#)).
- In Salt Lake City, TSP communications logged between buses and signal controllers improved planning for signal retiming efforts at 30 signalized intersections, which improved bus run-time reliability by up to nearly 3 percent ([2023-B01721](#)).
- In Utah, TSP improved bus system on-time performance, schedule deviation, and travel time as bus priority request lead times approached zero ([2022-B01628](#)).

Source: iStock