

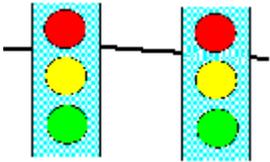


## Street Department

901 N. Nelson  
Spokane, WA 99202

Informational Handouts

# Traffic Signals



## Won't a traffic signal reduce crashes at our intersection?

Traffic signals don't always prevent collisions. In many circumstances, the total number of crashes and injuries increase after they are installed. Where signals are used, the most common results are a reduction in right-angle collisions but an increase in rear-ends and total crashes. In addition, pedestrians could be lulled into a false sense of security.

## When are traffic signals installed?

Traffic signals are intended to facilitate the orderly movement of traffic. As the most restrictive form of traffic control, traffic signals are installed only where less restrictive signs or markings do not provide a sufficient level of control. Most intersections would not necessarily be improved or made safer by the installation of a traffic signal.

Unnecessary signals cause hazardous and annoying delays to the flow of traffic. They can increase traffic on the side streets as drivers seek alternative routes. Excessive starting and stopping burns needless amounts of fuel and results in pollution and economic loss. As previously mentioned, they also may increase the total amount of collisions at an intersection.

## What are the official guidelines?

The City of Spokane follows the Revised Code of Washington (RCW or State Law). The RCW's require us to follow the national guidelines outlined in the Manual of Uniform Traffic Control Devices (MUTCD). Traffic control devices include signal lights, traffic signs, and paint markings. The MUTCD covers all aspects of the placement, construction and maintenance of every form of approved traffic control.

## What are the installation criteria for traffic signals?

In determining the need for signalization, traffic engineers ask several standard questions about the intersection.

- Is the volume of traffic at the intersection such that a signal is needed to decrease congestion or confusion?
- Does the intersection have a high volume of pedestrians, in relation to traffic, whose crossing creates a dangerous situation?



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- Does the number of school children crossing at the intersection warrant special protection? If so, would a signal be the best solution?
- At an intersection with a significant percentage of the volume levels of the first two questions above, are there the number and type of reported collisions whose probability of occurrence would be significantly reduced by a signal?
- Do a significant number of drivers on the side street experience excessive delays in attempting to cross or enter the major streets?
- Will the installation of a signal allow for continuous, uniform traffic flow with a minimum number of vehicle stops?

### Traffic Studies

In order to answer these questions, a traffic study by a qualified and experienced traffic engineer would be required of the intersection. As part of the study, traffic volume levels and collision history are compared with established national standards for signalization. Intersections, which conform to these standards or warrants, are the best candidates for signalization, where such a measure would be an asset to traffic control.

Installation of a traffic signal typically cost in excess of \$200,000 per location. Factors that contribute to this cost include highly specialized type of control equipment and hardware that is needed, and the extent of the system installed underground.

An intersection which meets the minimum requirements for signalization may not be signalized for many years as the City attempts to secure funding, usually through State and Federal sources.

If you have any questions about Traffic Signals, please contact the City of Spokane, Traffic Operations Division at (509) 232-8800.