

SAFERoad SOLUTIONS

EFFECTIVE ROAD DESIGNS EXPLAINED



Traffic Signals



Traffic signals are electronically operated devices that tell motorists when to stop, go and use caution by assigning right-of-way to each approach and movement.

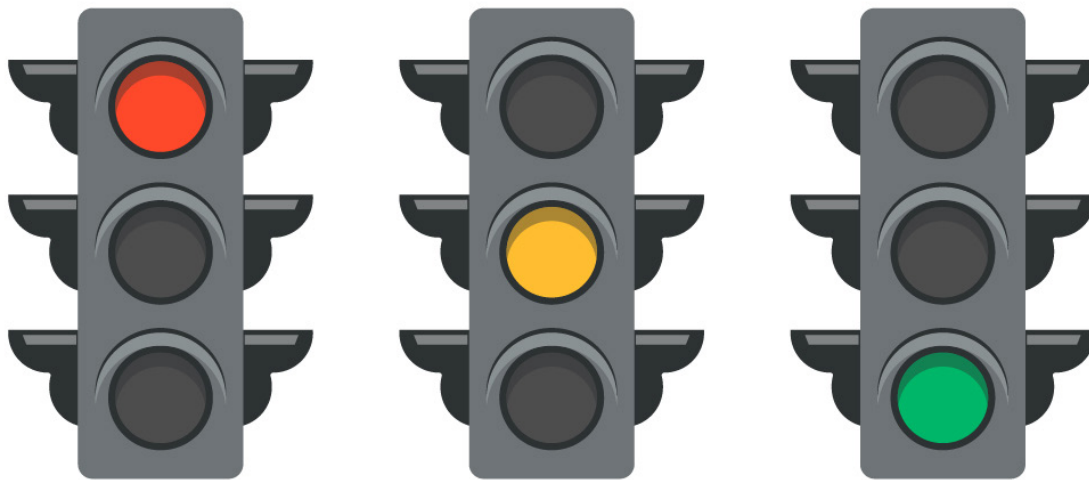


BENEFITS

- **Traffic flow** – traffic signals improve the orderly flow of traffic by controlling when vehicles stop or go in each direction at an intersection, which reduces back-ups and congestion.
- **Mobility** – traffic signals improve mobility by adjusting and coordinating signal times based on traffic volumes and times of day. Coordinated signal timing is especially helpful in improving mobility down a major corridor with multiple signals.
- **Safety** – when implemented at locations above certain traffic volume thresholds, traffic signals enhance safety by assigning right-of-way and managing crossing points between vehicles, pedestrians and other non-motorized vehicles.



Traffic Signals



WHAT TO KNOW ABOUT TRAFFIC SIGNALS

- One of the most used traffic control tools
- Operated by a computerized system that cycles through different color indications at specific intervals
- Every traffic signal in the U.S. is installed using the same federal guidelines

WHEN TO USE TRAFFIC SIGNALS

State and local agencies will often use traffic signals to:

- Control traffic flow
- Optimize travel times
- Prioritize movements, such as left turns or pedestrian crossings

WHEN NOT TO USE TRAFFIC SIGNALS

Signals placed at intersections that don't meet certain traffic volumes can lead to:

- Excessive delays
- Increased traffic congestion
- Increased air pollution and gas consumption
- Higher crash frequency, particularly with rear-end collisions
- More frequent use of less-adequate streets to avoid signals
- Drivers disobeying signals