

Traffic Signal Information



There are approximately 120 signalized intersections in Mountain View, including City, State and County owned signals. This document answers commonly asked questions about City owned traffic signals, how they operate and how new signal locations are selected.

What is the Purpose of a Traffic Signal?

A traffic signal is designed to provide orderly movement of traffic through an intersection.

Requests for New Signals

New signals are requested by residents, property owners and from various public and private sources. Before a signal can be installed, a traffic signal warrant study must be performed to determine if the minimum criteria can be met.

Signal warrant studies will analyze:

- The number of vehicles and pedestrians using an intersection.
- Accident history.
- Proximity to major traffic routes, other traffic signals, schools and parks.
- Unusual considerations such as road curvature.

Funding for New Signals

The City will also take cost into account when new signals are considered. The typical cost for a new signal is approximately \$250,000-\$350,000.

The City's Capital Improvement Program (CIP) funds most new traffic signals. Developers, as part of residential or commercial construction projects, also finance traffic signals.

Benefits and Disadvantages of Traffic Signals

A traffic signal can change traffic patterns in and around an intersection. When evaluating potential signal locations, the City takes into account all possible benefits and disadvantages. These include:

Benefits

- Interrupts heavy traffic on major streets to permit cross traffic, including pedestrians and bicyclists, to move safely through an intersection.
- Moves traffic more efficiently, allowing a larger number of vehicles to travel through the intersection.
- Reduces certain types of accidents, especially broadside accidents, at some intersections.

Disadvantages

- Increases overall travel time as a result of additional stops.
- May result in increased number of rear end collisions.
- May cause diversion of traffic onto other streets as a result of motorists avoiding the signal.
- Increases vehicle wear from additional stops and starts.

Traffic Signal Equipment

Traffic signals are comprised of more than just the light poles with red, yellow and green lights. They contain two important pieces of equipment which help direct the flow of traffic in an efficient manner.

Traffic controller: This is the "brain" of the signal, which is programmed to operate the signal's various phases.

Loop detectors: These are wire circuits cut into the road just before the painted limit line. Metal objects, such as a car or bicycle, passing over or stopping on them, activates the detector and tells the traffic controller vehicles are present or are proceeding through the intersection. Video detection is used at some intersections.

Signal Timing

All traffic signals in Mountain View are traffic actuated. The loop detectors and video detection mentioned earlier allow the traffic controller to monitor traffic and assign the

most “green” time to the heaviest traffic movements and provide sufficient crossing time for bicyclists and pedestrians.

Signal Preemption

Many traffic signals are equipped with devices allowing emergency vehicles to “preempt” the signal to pass on a green light.

Interconnected Signals

On some streets, traffic signals are linked together, allowing groups of vehicles to progress through several signals.

In Mountain View, several streets, including Shoreline Boulevard and Grant Road are equipped with this system.

El Camino Real, owned and operated by Caltrans, is also interconnected. Central Expressway, which is owned and operated by Santa Clara County, is also interconnected.

Signal Operations

Flashing Red: On a flashing red, all motorists must stop at the intersection as if stop signs are present.

Flashing Yellow: When a traffic signal is flashing yellow, motorists proceed with caution through the intersection.

Dark Signals: If a traffic signal is out, treat it as a stop sign.

Manual Control: If traffic is directed by a police officer, their instructions override any traffic signal.

City Contact Information

To report any malfunctioning signal within the City of Mountain View, including signals on Central Expressway and El Camino Real, contact the City Traffic Engineer (650) 903-6311 during normal business hours. You can also send an email to public.works@mountainview.gov.

The Traffic Engineer can answer your questions about traffic signals and other traffic related issues.

To report malfunctioning signals after hours, please contact the City’s Emergency Communications Center at (650) 903-6395.