

# Traffic Signals



Traffic Engineering  
Department

200 Old Bernal Avenue  
Pleasanton, CA 94566

925-931-5650

## Description:

All of Pleasanton's traffic signals are traffic actuated. Traffic actuated signals detect vehicles (including bicycles) and adjust the timing to optimize traffic flow at the intersection.

## Some of the common questions we get about traffic signals include:

- How does a traffic signal detect vehicles?
- Why are there cameras on some of the traffic signals?
- How do you decide on where to install traffic signals?
- How much does a traffic signal cost? Who pays for it?
- What is signal coordination?
- How do I report a traffic signal problem?



## How does a traffic signal detect the vehicles?

There are two ways that the traffic controllers detect vehicles:

- The most common way is through inductive loops. These are coiled wires in the pavement that can detect the presence of something metal passing over them. This sends a signal to the controller that a vehicle is waiting at a red light.
- The second way is through digital cameras that are installed above the intersection. These detect the change in contrast when a vehicle passes through the detection zone of the camera. The same signal tells the controller that a vehicle is waiting.

## Why are there cameras on some of the traffic signals in town?

A common myth with modern-day traffic signals lies in the use of cameras. The City of Pleasanton is in the process of updating the detection system from induction loops in the ground, to digital cameras mounted on traffic signals and/or streetlights. Detection is how the traffic signal senses whether or not a car is at the intersection. The cameras are connected directly to the intersection controller equipment and are rarely viewed by City staff. Video from these cameras is not recorded by the City.

## How do you decide on where to install traffic signals?

The California MUTCD (Manual on Uniform Traffic Control Devices) dictates the location, size, shape and color of all traffic control devices. The City of Pleasanton is required by State law to comply with the guidelines of this manual. In this manual there are specific requirements that would indicate the need for installation of traffic signals. These requirements include:

- The amount of vehicular and pedestrian traffic
- The need to provide interruption to the major street flow so that side street vehicles and pedestrians may enter or cross
- Special conditions such as hills, curves and vehicular speeds.
- The collision history of the intersection

## How much does a traffic signal cost? Who pays for it?

Traffic signals are installed using various funding sources, including your gas tax dollars, measure B funds (1/2 cent sales tax), developer fees and other special assessment fees. A new traffic signal costs in the range of \$175,000 to \$225,000. Therefore, their installation must be carefully considered

## What is signal coordination?

Along major arterials which have a number of traffic signals spaced at periodic intervals, the traffic signals may be synchronized to provide coordinated movement along the major street.

The timing is set such that vehicles traveling at the speed limit may meet the least amount of delay along the arterial. These specially coordinated systems include all or some of the following streets:

- Stoneridge Drive (am/pm peak hours)
- Hopyard Road (all day)
- Santa Rita Road (all day and weekend)
- Stanley Boulevard (am/pm peak hours)
- First Street (am/pm peak hours)
- Sunol Boulevard (am/pm peak hours)
- Valley Avenue (pm peak hours)

Coordinating traffic signals helps the main street traffic flow but can cause some extra delay for the side street traffic. During off-peak hours and late at night, most signals are taken out of coordination and run fully actuated cycling.

## How do I report a traffic signal problem?

The Traffic Engineering Division requests that you contact us immediately if you suspect that a traffic signal is not functioning properly. Your input is appreciated. If this occurs after hours and you think it is a concern that needs to be addressed immediately please call the Police Department at 925-931-5100.



If you need further information please call the Traffic Engineering Department at:

925-931-5650