LIVERMORE
ASSET MANAGEMENT PROGRAM
INVEST • MAINTAIN • SHINE

SPOTLIGHT ON: TRAFFIC SIGNALS

The City owns and operates more than 100 signalized intersections which are vital in maintaining the flow and safety of traffic throughout Livermore.

All together, the City's traffic signals and related components are worth over **$54 million.** Each of these signals requires constant monitoring and monthly maintenance.

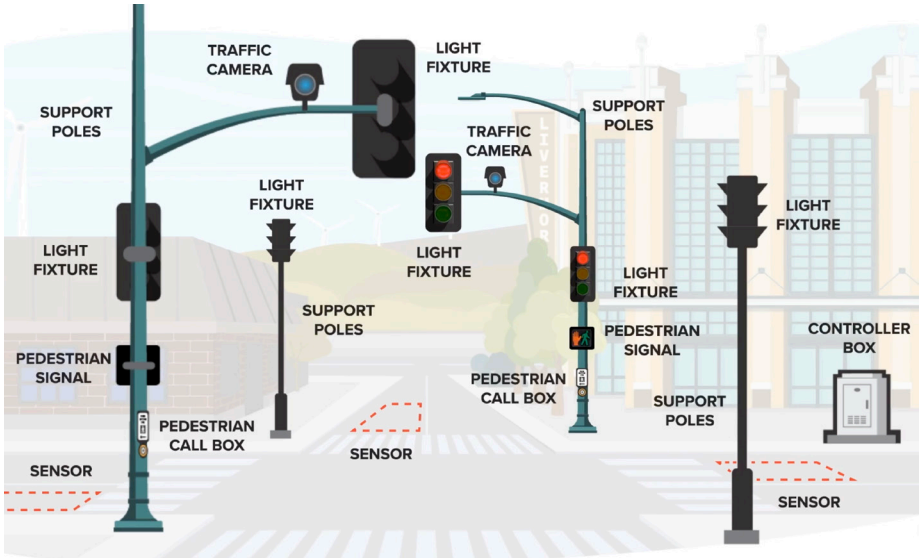
Currently, signalized intersections have an **Asset Health grade of B+.** This tells us that most signals are in good condition. However, budget projections indicate that we will face funding shortages of $1.3M/year (on average) for repair and replacement activities over time.

Quick Facts

Number of Signalized Intersections:	108
Cost to replace one signalized intersection:	$450K
Asset Components:	6,449
Total Replacement Cost:	$54.1M
Asset Health Grade:	B+
Funding Gap:	$1.3M/year

Traffic Signal Components

A signalized intersection includes dozens of components, including signal heads, detection systems, pedestrian push buttons, fiber and wireless interconnects, and many other elements.



Did you know?
The first traffic signal in Livermore was activated on June 26, 1951 at the intersection of First and L Streets.


Photo from the collection of the Livermore Heritage Guild

This fact sheet is part of the Asset Spotlights series. Find more at **www.LivermoreAssets.net/documents**

Asset Health

The many different **components** that make up a traffic signal need to be regularly monitored and maintained. Over time, these components must be repaired or replaced as they age.

The City assigns an overall **Asset Health Grade** for all traffic signals using the following process:

1 LEVEL OF RISK

First, we routinely inspect every component to determine its level of risk based on the following:

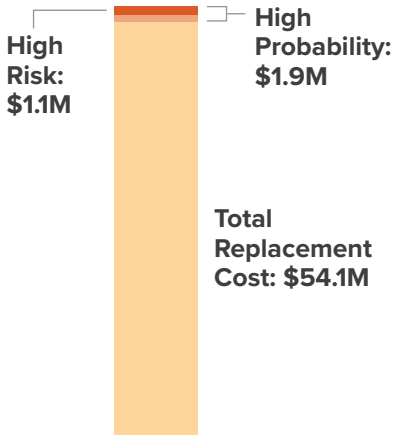
Probability of Failure:
How soon will the component need to be replaced?

Consequence of Failure: What would happen if the component failed? We consider both the role of the component and the type of intersection it serves.

Components with high probability and high consequence of failure are considered **high risk**.

2 REPLACEMENT COSTS

Next, we calculate the one-time **cost to replace** all components in each risk category, including High Probability and High Risk (shown below).



More components will move to the High Risk category as they age.

3 HEALTH GRADES

Finally, we compare the replacement cost of High Probability components versus the total replacement cost of ALL components, and then we do the same for High Risk components only. This gives us the **Asset Health grades** shown below.

High Probability: B

High Risk: A

These grades show us that most of our traffic signal components are in good condition, with relatively few high risk components.

Asset Health Grade: B+

The Road Ahead

Based on 30-year projections, City traffic signals are underfunded by an average of $1.3M/year. If this persists, traffic signals may begin to fail, which will impact vehicle and pedestrian mobility.

Learn more about Livermore's Asset Management Program at **LivermoreAssets.net**

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