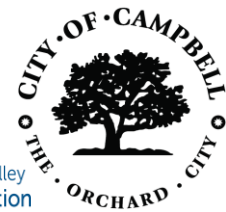# SMART
GRANTS PROGRAM

Transit Reliability Improvement and Performance System (TRIPS) Project

Santa Clara Valley Transportation Authority

PROJECT PARTNERS

Cities of San Jose, Campbell, Santa Clara, Milpitas, Sunnyvale, Saratoga, Cupertino, Mountain View, Los Gatos, Los Altos, Los Altos Hills, Monte Sereno, Morgan Hill, Gilroy, Palo Alto
Caltrans
County of Santa Clara

PROJECT CHALLENGE

Transit agencies suffer from slow and unreliable transit that is detrimental to the cost-effectiveness and usefulness of transit. Transit signal priority (TSP) system is a proven technology to keep transit vehicles moving through the transportation system providing more reliable and faster service. The TRIPS project seeks to implement a fully connected virtual TSP system that tracks a bus in real-time and is expected to transform the efficiencies and innovation in Santa Clara County's interrelated transportation systems by ensuring the bus arrives at an intersection on a green light. VTA will also seek to work with local agencies in establishing transit policies that work in concert with this system.

IMPACT

The goal of this effort is to keep transit vehicles moving through intersections across different jurisdictions to make transit a faster, more reliable, and an equable mobility option so people, particularly those living in historically disadvantaged communities (HDCs), have greater access to opportunities that make for a full life.

CURRENT STATE OF THE ISSUE

Signal delay is a primary contributor to slow transit with VTA riders on core routes spending 32% of their time in traffic signal related delay. According to VTA's 2017 On-Board Survey, 39% of people are dissatisfied with reliability and 41% are dissatisfied with frequency.

STAGE 1 OUTCOMES

VTA expects to have a solid understanding of the feasibility to move forward with TRIPS, including the costs, benefits, risks, and challenges of deploying centralized TSP seamlessly across multiple cities. Products will include the Systems Engineering Management Plan, and an implementation plan to demonstrate the technology on one or more multi-jurisdictional routes in Stage II, with recommendations for phased deployment across the system.

STAGE 2 VISION

In Stage 2 of the SMART program, VTA seeks to procure expansion of the centralized TSP system, replacement of obsolete traffic signal controllers, and needed communication devices to further the deployment of TSP on as many routes as possible. The goal of this effort is to provide a reliable and faster transit service throughout Santa Clara County with a focus on the mobility needs for HDCs.