

Transit Performance Initiative Investment Program Semi-Annual Update

The Transit Performance Initiative (TPI) Investment program funds low-cost capital investments that can be implemented rapidly to improve operations and customer experience on major transit corridors and systems. This report summarizes TPI-funded projects throughout the life of the program and provides progress updates for ongoing TPI projects.

Program Summary

Since 2012, \$132.2 million has been programmed to 49 capital and planning projects, and 29 of these have been completed or are substantially completed.

The TPI program utilizes a combination of federal One Bay Area Grant (OBAG) funds from the OBAG 1 and OBAG 2 programs and the state Low Carbon Transit Operations Program (LCTOP). Five rounds of the TPI program, including the majority of the TPI 2022-23 Program awarded in February 2023, were funded with OBAG funds, totaling \$97.5 million. In May 2016, the Commission committed one-third of the region's annual population-based LCTOP funds to augment the TPI program, subject to the region's Cap and Trade Framework in MTC Resolution No. 4130, Revised. Six cycles of LCTOP funds have been programmed by MTC, totaling \$34.7 million from FY 2016-17 to FY 2023-24.

Completed projects have benefited transit service and helped agencies build up tools and experience for getting transit out of traffic. Ongoing projects from STP/CMAQ rounds 1-4 are in or entering construction, and LCTOP projects are either in design or under construction. COVID-19 and supply-chain issues caused delays on many projects. Overall, projects are moving forward again, and most remaining projects awarded through FY 2022 are expected to be complete in 2025. Funding awarded in FY23 has seen challenges in access from state and federal funders, as detailed in the "Funding Delays" section.

Project Sponsor	Total TPI Awards (\$M)
AC Transit (11 projects*)	\$41.9
SFMTA (15 projects)	\$49.4
VTA (8 projects)	\$20.2
Other (13 projects)	\$20.7
Total	\$132.2

*Includes Bay Bridge Forward award to MTC implemented in coordination with AC Transit

Report Highlights

AC Transit completed several projects during this reporting period:

- Dumbarton IDEA: Install and implement Transit Signal Priority (TSP), queue jump lanes, and bus stop enhancements. This project was previously reported as completed, but closed out this period and savings were redirected to a new project as detailed below.
- San Pablo and Telegraph Rapid Bus Upgrades Project: a project to upgrade TSP equipment, implement signal coordination, and relocate key bus stops on the San Pablo and Telegraph Avenue bus corridors. Construction completed and the project closed out with savings, which will be redirected according to TPI policies.
- Quick Build Transit Lanes Project: construct colorized transit lanes on MacArthur Boulevard in Oakland and Durant Avenue in Berkeley. The project is in closeout and results of a before/after study will be included in a future semi-annual report.
- Mission Boulevard TSP: install and implement a TSP system along the Mission Boulevard Corridor. The project is in closeout; savings are anticipated and will be redirected according to TPI policies.

VTA continued construction on the Eastridge to BART Regional Connector. NVTA completed some portions of the Napa Valley Transit Safety and Efficiency Improvements project. Construction and implementation continued on most projects awarded through FY 2022. Progress on these projects is detailed in the “Individual Project Updates” section below.

Funding Delays

The underlying federal funding source for the OBAG funds programmed in February 2023 as part of the TPI 2022-23 program goes through a multi-step, multi-agency review and approval process prior to the award and allocation of funds. Most OBAG funds awarded to transit operators are transferred from FHWA to FTA as part of this process. Most projects receiving these funds experienced significant delays throughout the federal award process, and many of them have yet to receive their funds – part of a systemic issue in which receiving federal awards can take an extraordinarily long time. This has resulted in delays of a year or more to the start of work on these projects, and may result in cost increases, effectively reducing the purchasing power of the TPI funds.

Further, funding from the LCTOP program awarded in the TPI 2022-23 and 2023-24 programs was released by the state many months later than typical; LCTOP program staff have indicated this is to be the expected schedule going forward.

Staff will continue to monitor the status of these funds, and work with sponsors to ensure applications for future awards are handled as efficiently as possible.

Ongoing Projects

Below is a list of ongoing TPI-funded projects by operator covered in this report. The full list of TPI projects by round and by operator, including completed projects, is included in Attachment B.

AC Transit
<ul style="list-style-type: none">• San Pablo and Telegraph Rapid Bus Upgrades Project (Substantially completed)• Dumbarton IDEA (Completed)• Quick Build Transit Lanes (Substantially completed)• Mission Boulevard TSP (Substantially completed)• MacDonald Avenue Transit Signal Priority Project Phase 1• Foothill Corridor Planning Study• Cutting Boulevard Project• Fruitvale Corridor TSP*
SFMTA
<ul style="list-style-type: none">• N-Judah Customer First• Colored Lanes on MTA Rapid Network (Substantially completed)• Geary Rapid Project (Substantially completed)• 5-Fulton Arguello to 25th Ave Muni Forward• 29-Sunset Muni Forward Phase 1• Next Generation Transit Lane and Bus Zone Enforcement Pilot Program• 29-Sunset Improvement Project Phase 2• Third Street Dynamic Traffic Signal Optimization Project• Muni Forward Five-Minute Network Corridor Planning Program• Cloud-Based TSP
VTA
<ul style="list-style-type: none">• Light Rail Transit Signal Priority Improvements (Substantially completed)• Stevens Creek Ltd 323 TSP (Substantially completed)• Eastridge to BART Regional Connector• Transit Reliability Improvement and Performance System (TRIPS)• Monterey Road Transit Lane Project• Senter Road Bus Boarding Islands and Bulb Outs

Other
<ul style="list-style-type: none">• SamTrans – Traffic Signal Priority on El Camino Real (Expanded Scope)• TAM/Marin Transit – Marin County Hwy 101 Part Time Transit Lane• NVTA – Napa Valley Transit Safety and Efficiency Improvements• SamTrans – El Camino Real Mid-County Transit and Multimodal Corridor Plan• CCTA/County Connection – Transit Corridors Study

*As noted below, this is a new project to be implemented with LCTOP project savings and will begin reporting in the next reporting period.

Programming Updates

SFMTA 27 Bryant Tenderloin Transit Reliability Project: After completing this project, SFMTA requested that \$952,989 in savings from their FY20 LCTOP award be reprogrammed to expand the scope of the 5-Fulton: Arguello to 25th Ave. Muni Forward project, which was originally awarded FY21 LCTOP funds. MTC approved this reprogramming request via the Executive Director's Administrative Authority, and SFMTA subsequently worked with Caltrans to revise their LCTOP award.

AC Transit Dumbarton IDEA: At project completion, AC Transit requested that \$216,830 in savings from the FY19 LCTOP award for this project be reprogrammed to a new, TPI-eligible project to install and implement TSP on the Fruitvale Corridor. MTC approved this reprogramming request via the Executive Director's Administrative Authority, and AC Transit is working with Caltrans to revise their LCTOP award. Staff will begin collecting semi-annual reports for this project during the next semi-annual reporting period.

Individual Project Updates

Round 1

VTA

Light Rail TSP (substantially complete)

- Completion and closeout delayed by ATU labor dispute
- In-vehicle and intersection installations are nearly complete
- Moved into revenue service with completed intersections, remaining will be put into service after final approvals

Stevens Creek – Limited 323 TSP (substantially complete)

- Original scope complete
- Savings directed towards additional TSP Central Monitoring System – the server has been activated and field devices installed
- Closeout anticipated by the end of 2025

Muni

N-Judah

- TSP, lane colorization, camera elements complete
- Stop branding design is complete; installation is anticipated in the coming months

Round 2

Muni

Geary Rapid Project Phase 1 (Substantially Complete)

- Initial implementation resulted in 1-2 minutes of peak hour transit travel time savings
- Construction of Phase 1, including transit lane colorization, was completed in 2024
- Closeout is dependent on other project components and is expected by the end of 2025

Colored Lanes on Rapid Network

- All original colored lanes segments and segments added before 2024 are complete
- Additional savings redirected via staff approval to additional segments on Mission Blvd and additional red thermoplastic paint
- Implementation of added scope awaiting FTA to approve grant extension

Round 3

AC Transit

AC Transit San Pablo/Telegraph Rapid Bus Upgrades Project

- Telegraph Avenue
 - Construction in both Berkeley and Oakland completed this reporting period and the project closed out
- San Pablo Avenue
 - Previously reported as completed and closed out
- The project has savings on the original OBAG award; staff are working with AC Transit to redirect these funds according to TPI policies.



Photo: Completed bus boarding island on Dana St., part of Telegraph Rapid Bus Upgrade project, AC Transit Photo

SamTrans

Traffic Signal Priority on El Camino Real

- Original scope complete
- MTC approved a proposal in 2022 to use savings to expand TSP equipment to the remainder of the bus fleet, including incoming expansion buses
- Installation completed on 198 buses, and 178 of these have completed testing and are in service, out of a total fleet of 322 buses.
- The remaining buses are nearing their end-of-life; TSP equipment will be installed when replacement buses are delivered in 2026 and 2027.

LCTOP Projects – FY18 through FY22 and FY24

AC Transit

Dumbarton IDEA

- Scope: extend AC Transit's TSP network across the Dumbarton/SR-84 corridor and install queue jump lanes and bus stop enhancements
- Construction and implementation complete; savings transferred to new Fruitvale Corridor TSP project

Quick Build Transit Lanes

- Scope: Quick-build red transit lanes on MacArthur Blvd in Oakland and Durant Ave in Berkeley
- Construction on both segments is complete and the project is in closeout



Photo: Quick Build bus lane on Durant Avenue in Berkeley, AC Transit photo

Mission Boulevard TSP

- Scope: Implement TSP along the Mission Blvd. corridor in Hayward and Union City to close the gap in the Adaptive Traffic Control Systems
- Project complete and in closeout; savings are anticipated

Cutting Boulevard Project

- Scope: Bus stop relocations, bus bulbs, longer bus stops, and accessibility improvements along Cutting Boulevard
- Project complements MTC's RM3-funded Richmond-San Rafael Forward Cutting Boulevard project
- Design progressed alongside coordination with the City of Richmond and Caltrans
- Anticipate sharing a construction contract with the MacDonald Avenue TSP project for efficiency

SFMTA

5-Fulton Arguello to 25th Ave Muni Forward

- Scope: Transit bulb-outs and signal upgrades, including additional locations added with savings from the 27-Bryant project
- Construction continued on transit bulbs and signal upgrades
- Expected complete by the end of 2025

29-Sunset Muni Forward Phase 1

- Scope: stop consolidation, traffic signal upgrades, and other improvements to improve reliability, travel time, and safety
- Work on Sunset Blvd is complete; remaining construction expected to be complete in 2026

Cloud-Based TSP

- Scope: Upgrade network equipment and software to implement next-generation TSP across the Muni system
- Work began on the project to identify locations that need upgrades and investigate TSP software projects
- Equipment procurement and installation will follow next year

VTA

Eastridge to BART Regional Connector

- TPI funding for this project includes:
 - Reprogrammed FY 18 LCTOP funds
 - Replacement project for the LCTOP-funded FY 2019 ZEB project (which is not TPI eligible)
 - FY21 LCTOP funds
- Commission also allocated \$130M in RM3 bridge toll funds for construction
- Construction continued
- Revenue service anticipated to start in 2028



Aerial view of the Eastridge connector superstructure under construction. VTA images

Senter Road Bus Boarding Islands and Bulb Outs

- Scope: Construct bus boarding islands and bulb outs to reduce transit delays and maintain frequencies
- Project began the design phase; construction expected to start in 2026

TPI 2022-23 Program

AC Transit

Foothill Corridor Planning Study

- Scope: Study to identify service and design improvements to reduce delay and improve bus operations
- Funds awarded, expect to start procurement by the end of 2025

MacDonald Ave Transit Signal Priority Project Phase 1

- Scope: Install TSP equipment along MacDonald Ave in Richmond
- Design underway and expected to be complete by the end of summer 2025
- Anticipate sharing a construction contract with the Cutting Blvd project for efficiency

SFMTA

Muni Forward Five-Minute Network Corridor Planning

- Scope: Develop next generation of Muni Forward corridor projects to support five-minute headways
- Project not yet started, awaiting FTA award

Next Generation Transit Lane and Bus Zone Enforcement Pilot

- Scope: Modernize a quarter of the Muni bus fleet with next generation camera technology to improve lane violation detection
- Coordinated with stakeholders and prepared for procurement

29-Sunset Improvement Project Phase 2

- Scope: Removal of some stops, relocation of stops, improved amenities, implementation of TSP on the Muni 29 Sunset Bus Route
- Awaiting FTA award
- Began preliminary engineering with local funds

Third Street Dynamic Traffic Signal Optimization Project

- Scope: Implement Smart technology traffic signals on the T-Third Street light rail line
- Project not yet started, awaiting FTA award

VTA

Monterey Road Transit Lane (Planning)

- Scope: Transportation Analysis and Final Design for dedicated bus lanes on Monterey Road
- Project not yet started, awaiting FTA award

Transit Reliability Improvement and Performance System (TRIPS)

- Scope: Implement a centralized TSP system
- Consultant engaged
- Developed funding agreements with Cities of Cambell and Sunnyvale to integrate local intersections into the TSP system

Other Operators

County Connection – Transit Corridors Study

- Scope: Analyze current conditions on four major bus corridors, gather feedback, and identify speed and reliability improvements
- Kicked off project with consultant, established TAC, and completed existing conditions assessment

SamTrans – El Camino Real Mid-County Transit and Multimodal Corridor Plan

- Scope: Develop preferred conceptual design for the ECR mid-county corridor
- Began existing conditions and community engagement tasks

Marin Transit – Marin County Highway 101 Part Time Transit Lane

- Scope: Pilot a Part Time Transit lane on the shoulder of SB US-101 in Marin County, implemented by the Transportation Authority of Marin (TAM)
- Initiated coordination with Caltrans and consultant in preparation for Project Initiation Document (project scoping) phase

Napa Valley Transportation Authority – Napa Valley Transit Safety and Efficiency Improvements

- Scope: Suite of improvements at three transit facilities and to vehicles serving the Vine transit network
- Soscol Gateway Transit Center wayfinding and signage complete
- Vehicle surveillance system installed and in operation
- Imola Park and Ride surveillance system and electronic signage installation continued, anticipated to be complete this summer
- Redwood PnR improvements design phase began, environmental clearance completed

Look Ahead

Staff will continue to monitor project progress and work with project sponsors to apply project savings to additional improvements consistent with the TPI Savings Policy.

For future transit priority funding, including annual LCTOP funding allocations, staff anticipate identifying projects through the Bus Accelerated Infrastructure Delivery (BusAID) program or other Regional Network Management transit priority efforts.

Background and Context

Additional background information on TPI funds and projects can be found in the Committee and Commission items for the following actions:

Initial Programming of each TPI round:

- [STP/CMAQ Round 1 – May 17, 2012](#)
- [STP/CMAQ Round 2 – September 24, 2014](#)
- [STP/CMAQ Round 3 – May 27, 2015](#)
- [STP/CMAQ Round 4 – July 26, 2017](#)
- [LCTOP FY 17-18 – March 28, 2018](#)
- [LCTOP FY 18-19 – April 24, 2019](#)
- [LCTOP FY 19-20 – March 25, 2020](#)
- [LCTOP FY 20-21 – March 24, 2021](#)
- [LCTOP FY 21-22 – March 23, 2022](#)
- [FY2022-23 Round – February 22, 2023](#)
- [LCTOP FY 23-24 – March 27, 2024](#)

Major Reprogramming Actions:

- Round 1
 - [July 22, 2015](#)
- Round 2
 - [January 25, 2017](#)
- Round 3
 - [April 26, 2017](#)
- LCTOP FY 17-18
 - [December 16, 2020](#)