



# Memorandum

**Date:** 11.24.14

**RE:** Citizens Advisory Committee  
December 3, 2014

**To:** Citizens Advisory Committee

**From:** Lee Saage – Deputy Director for Capital Projects

**Subject:** **INFORMATION** – Major Capital Projects Update – Caltrain Early Investment Program

## Summary

The Caltrain Early Investment Program consists of three components: the Communications Based Overlay Signal System (CBOSS) to provide Positive Train Control; the electrification of the Caltrain line between San Jose and San Francisco; and the purchase of electric-multiple unit vehicles to operate on the electrified railroad. With a total budget of \$1.45 billion, it is one of Prop K signature projects. In accordance with the 2012 Memorandum of Understanding (MOU) that established the funding framework for the project, San Francisco's share is \$60 million. Of this amount, the Transportation Authority identified approximately \$21 million (primarily sales tax) and, with the approval by the voters of the city's General Obligation Bonds on November 4, 2014, the remaining \$39 million were secured. However, the overall budget and schedule, which were developed in 2009, have been recently updated by Caltrain staff, resulting in a projected budget increase in the range of \$249 to \$306 million (resulting in a projected total cost of \$1.7 to 1.76 billion) and an extension of the project duration of one to two years. Caltrain is evaluating potential mitigation measures in preparation for Board action on adoption of a new budget and schedule. Meanwhile, options for closing the funding gap are being explored. Work on CBOSS construction is underway, with completion planned for 2016. Work is also underway on the procurement process for the selection of the design-build contractor for electrification and the vehicle manufacturer, informed by discussions with the California High Speed Rail Authority regarding compatibility of Caltrain's future electrified vehicles with High-Speed Rail as needed to support blended service along the peninsula corridor as envisioned in the MOU. In parallel, work is approaching conclusion on the Environmental Impact Report for the Electrification project, which is scheduled for certification in January 2015. **This is an information item.**

## BACKGROUND

The Peninsula Corridor Joint Powers Board's (PCJPB) Electrification project will replace Caltrain's existing diesel service with a fully-electrified service from the 4<sup>th</sup> and King station in San Francisco to the Tamien station in San Jose. This project is one of the signature projects of the Prop K Expenditure Plan. It is also one of the main components of the Caltrain Modernization program, which provides the commuter rail system with the strategic vision to improve system performance while minimizing equipment and operating costs, and is critical to the long-term financial sustainability of Caltrain. The electrification infrastructure project includes the installation of two substations for traction power, poles and an overhead contact system, signal and grade crossing circuitry changes, and the acquisition of electric rolling stock, known as electric multiple units (EMUs), to replace the majority of the current diesel trains. The project will extend for 52 miles from San Francisco to San Jose. It will result in faster and more frequent service, and reduction of air pollutant emissions, noise, and vibration.

On April 24, 2012, through Resolution 12-62, the Transportation Authority Board authorized the Executive Director to execute, with conditions, a Memorandum of Understanding (MOU) with the California High Speed Rail Authority (CHSRA), the Metropolitan Transportation Commission, and six other local and regional entities to establish a funding framework for a High-Speed Rail Early Investment Strategy for a blended system in the Peninsula Corridor. The Early Investment Strategy, also

known as the Early Investment Program, consists of three components: the Communications Based Overlay Signal System (CBOSS) (also known as Positive Train Control (PTC)), the electrification of the Caltrain line between San Jose and San Francisco, and the purchase of electric-multiple unit (EMU) vehicles to operate on the electrified railroad. The program will modernize the corridor, reduce train related emissions by up to 90 percent, provide faster and increased service to more stations, and will prepare the Caltrain system for shared use with High-Speed Rail.

## DISCUSSION

The purpose of this memorandum is to update the Citizens Advisory Committee (CAC) on the status of the Early Investment Program.

**Budget:** As summarized below, the total Early Investment Program budget established in 2009 and included in the 2012 MOU referenced in the prior section was estimated at \$1.456 billion. However, the initial budget has been recently updated by Caltrain staff, resulting in an increase in the range of \$249 to \$306 million, resulting in a new projected cost of \$1.7 to \$1.76 billion. The cost increases only impact the electrification portion of the program and not CBOSS. Caltrain staff is in the process of evaluating mitigation measures in preparation for recommending a new budget to their Board. The current adopted cost estimate is shown below.

Early Investment Program Costs ( <i>in \$ millions</i> )	
CBOSS/Positive Train Control	\$231
Electrification	\$785
Vehicles - Electric Multiple Units	\$440
<b>TOTAL</b>	<b>\$1,456</b>

**Funding:** The 2012 Blended System MOU Funding Plan for the previously adopted budget is shown below. It commits each of the three PCJPB members (San Francisco, San Mateo and Santa Clara counties) to a local contribution of \$60 million each for the Early Investment Program for the Peninsula Corridor. The Transportation Authority has committed funds to cover a total of \$20,860,000 of San Francisco's \$60 million JPB member local contribution. These funds are primarily Prop K sales tax with a small amount of previously programmed State Regional Improvement Program funds. With the approval by the voters of the city's General Obligation Bonds on November 4, 2014, the remaining \$39 million of San Francisco's commitment were secured. Allocation of a third tranche of Prop K funds for the Early Investment Program is included as a separate Prop K allocation item on the December 3 CAC agenda.

As mentioned above, the updated budget for the project has resulted in projected increases in the range of \$249 to \$306 million. These increases only affect the Electrification project. CBOSS remains fully funded. Further, conversations with the CHSRA regarding compatibility of the future electrified Caltrain vehicles with a blended High-Speed Rail/electrified Caltrain system in the peninsula corridor are ongoing and could result in additional changes (see Challenges section). The funding partners are in the process of identifying potential sources of additional funds and developing strategies to secure them.

Some of the ideas being considered to bridge the funding gap include: PCJPB fare increases, bridge tolls, state cap and trade (including High-Speed Rail funds), Federal Transit Administration (FTA) Core Capacity, and FTA Vehicle Replacement program. PCJPB is also evaluate financing mechanisms such as a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan or revenue bonds backed by fare revenues.

<b>Program Funding by Source (<i>in \$ millions</i>)</b>	
PCJPB Member Agency Contributions	\$180
San Mateo County Transportation Authority (Currently Available)	\$11
Caltrain CBOSS/PTC	\$4
<b><i>Subtotal Local</i></b>	<b><i>\$195</i></b>
Prop 1A Connectivity	\$106
Prop 1A High Speed Rail Authority	\$600
Prop 1B Caltrain	\$24
<b><i>Subtotal State</i></b>	<b><i>\$730</i></b>
Federal RR Admin. for CBOSS/PTC	\$17
Federal Transit Admin prior/current obligations	\$43
Federal Transit Admin future obligations	\$440
<b><i>Subtotal Federal</i></b>	<b><i>\$500</i></b>
MTC Bridge Tolls	\$11
BAAQMD Carl Moyer*	\$20
<b><i>Subtotal Regional</i></b>	<b><i>\$31</i></b>
<b>TOTAL</b>	<b>\$1,456</b>

\*Bay Area Air Quality Management District (BAAQMD) Carl Moyer funds.

**Schedule:** Caltrain is proceeding with the implementation of the Early Investment Program. Work is underway on the design/build contract for CBOSS. Its schedule anticipates system installation from September 2013 to June 2015, testing/commissioning from September 2014 to October 2015, and system acceptance from October 2015 to May 2016. The CBOSS schedule is depicted below.

## CBOSS Schedule

Activities	2012					2013					2014					2015					2016															
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
1. Preliminary Design																																				
2. Critical Design																																				
3. Final Design																																				
4. System Procurement																																				
5. System Installation																																				
6. Testing/Commissioning																																				
7. System Acceptance																																				

The schedule for Electrification was recently updated but has not been adopted yet. PJPB's new schedule projection is that electrified service will begin between winter 2020 and spring 2021 compared to the original winter 2019 projection. RFPs for Electrification and vehicles are scheduled to be released in early 2015, with the latter pending the outcome of discussions between PCJPB and CHSRA regarding compatibility of the vehicle specifications.

**Status:** On January 27, 2012 the PCJPB issued the notice-to-proceed for the \$231 million CBOSS design-build contract. Since then, the contractor has completed final design and started construction and equipment installation in November 2013. In August 2014, the contractor completed the buildout and equipment installation of the Backup Central Control Facility. The project is on track for completion by May 2016.

The PCJPB and its consultants are nearing completion of the environmental work required to clear the Electrification project. This work consists of an update of the California Environmental Quality Act Environmental Impact Report (EIR) completed in 2009, when the project was put on hold due to lack of funding. On the National Environmental Policy side, the FTA issued a Finding of No Significant Impact in 2009. Certification of the EIR is scheduled for January 2015. In parallel, Caltrain staff has started the procurement process for the design-build electrification contract and the vehicles manufacture contract.

In accordance with the MOU, the Transportation Authority, together with the other signatories established the Peninsula Corridor Working Group, which is tasked with providing oversight and guidance to Caltrain. The group meets on a monthly basis to discuss progress and issues.

**DBE/SBE Program:** Caltrain's policy is to have an agency-wide goal for DBE participation rather than project-specific goals. The current goal is 10.5%. Actual DBE participation for the third quarter of Fiscal Year 2013 was 21%. Actual participation to date on the CBOSS project is 2.9%; Caltrain expects this participation to increase during the implementation phase.

**Challenges:** The budget for the program was developed in 2009, when electrification was scheduled for completion in 2015. As noted above, Caltrain staff and consultants recently completed an update to the cost and schedule, which resulted in projected cost increases in the range of \$249 to \$306 million and a schedule extension of one to two years for electrification. The PCJPB and the funding partners need to identify potential sources of funds and develop strategies to secure them.

Caltrain's decisions about the design of electric rail vehicles will fundamentally affect service in the peninsula for the foreseeable future. While the CHSRA has selected a vehicle design whose floor height is approximately 50", Caltrain has indicated intent to specify vehicles whose floor height is approximately 25". Caltrain and the CHSRA must embrace compatibility as a policy imperative in order

to accommodate ridership demand. That is why we have been advocating for compatibility for over two years. Platform height is possibly the most important factor in achieving compatibility and true interoperability. We're happy to report that significant progress has been made on this issue. Caltrain and CHSRA have recently become very engaged in discussions on compatibility and preliminary reports indicate that they may be near to a resolution on a common platform height.

**This is an information item.**

## **ALTERNATIVES**

None. This is an information item.

## **FINANCIAL IMPACTS**

None. This is an information item.

## **RECOMMENDATION**

None. This is an information item.