



# Memorandum

**Date:** 06.23.14

**To:** Transportation Authority Board: Commissioners Avalos (Chair), Wiener (Vice Chair), Breed, Campos, Chiu, Cohen, Farrell, Kim, Mar, Tang and Yee

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

**Through:** Tilly Chang – Executive Director *TC*

**Subject:** June 2014 Monthly Progress Report for Van Ness Avenue Bus Rapid Transit Project

## Summary

Van Ness Avenue Bus Rapid Transit (BRT) Project comprises a package of transit improvements along a 2-mile corridor of Van Ness Avenue between Mission and Lombard Streets, including dedicated bus lanes, consolidated transit stops, and pedestrian safety enhancements. The Transportation Authority completed environmental review for the project in December 2013 and at that time transferred project lead to the San Francisco Municipal Transportation Agency (SFMTA). SFMTA completed preliminary engineering in June 2014 with approval of its Conceptual Engineering Report (CER). SFMTA began final design in May 2014 and expects to conclude in mid-2015. Under current assumptions, construction would begin in late 2015 and revenue service would begin in 2018. The CER recommends use of the Construction Manager at Risk project delivery method as opposed to traditional design-bid-build. Cost of the core BRT project is now estimated at \$162 million and a total of \$250 million when separate but related projects are included. The design team expects to obtain conceptual approval in July 2014 from the San Francisco Arts Commission for station platforms. SFMTA is concerned that cost and maintenance implications of providing level boarding between the platform and the vehicle floor may outweigh the benefit of speedier passenger loading times. SFMTA is, therefore, recommending a curb height platform for the Van Ness Avenue BRT project.

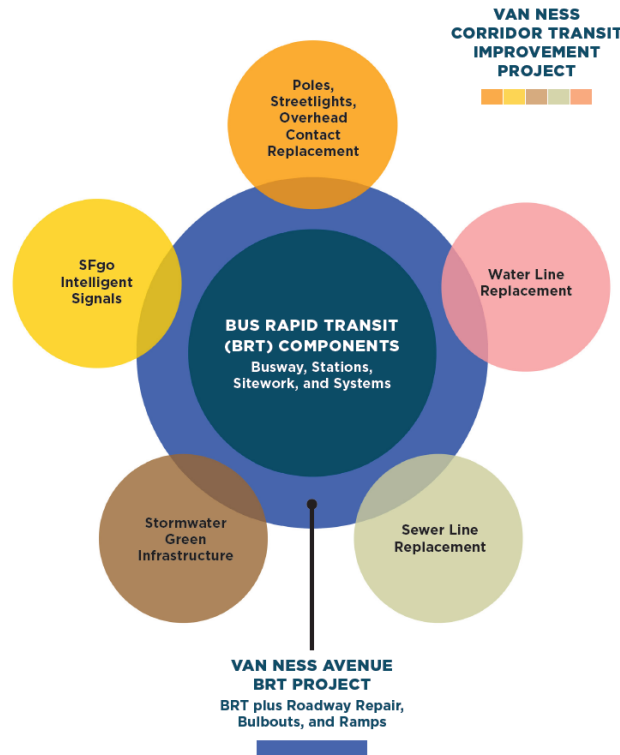
## BACKGROUND

Van Ness Avenue Bus Rapid Transit (BRT) Project comprises a package of transit improvements along a 2-mile corridor of Van Ness Avenue between Mission and Lombard Streets. Key features include: dedicated bus lanes, level or near level boarding, consolidated transit stops, high quality stations, transit signal priority, elimination of most left turn opportunities for mixed traffic, and pedestrian safety enhancements. Van Ness Avenue BRT is a signature project in the Prop K Expenditure Plan, a regional priority through the Metropolitan Transportation Commission's Resolution 3434, and a Federal Transit Administration (FTA) Small Starts program project. The project is a partnership between the Transportation Authority, which led the environmental review, and the San Francisco Municipal Transportation Agency (SFMTA), which is leading the preliminary and detailed design phases and will be responsible for construction and operation of the facilities. SFMTA's preliminary engineering team includes internal SFMTA engineers with design support from the Department of Public Works (DPW), Public Utilities Commission (SFPUC), and Planning Department. SFMTA is also working with its on-call consultant HNTB for some specialized tasks.

As part of preliminary engineering, the core Van Ness Avenue BRT project has been combined with several parallel projects for design, management, and eventual construction. These projects overlap the geography and will result in lower overall cost and construction duration when combined, compared to if they were built separately, but may increase the construction duration when added to the core Van

Ness Avenue BRT project. The projects include Overhead Contact System, Streetlights, and Poles replacement; SFgo traffic signal replacement; sewer line replacement; water line replacement; and stormwater “green infrastructure” installation. Meanwhile, pavement resurfacing, curb ramp upgrades, and sidewalk bulb outs have always been considered part of the core BRT project. The parallel projects have largely independent funding, but many scope items will be cost-shared with the BRT project. The Conceptual Engineering Report (CER) includes all these projects as part of a single Van Ness Corridor Transit Improvements Project, as shown in Figure 1.

**Figure 1: Relationship of Van Ness Avenue BRT and Van Ness Corridor Transit Improvement Project**



**STATUS AND KEY ACTIVITIES**

In June 2014, SFMTA signed the final Conceptual Engineering Report (CER). With the completion of the CER, Final Design for the project is now underway. After extensive review and after conducting a number of cost workshops, the design team has prepared a new cost estimate as part of the CER. Cost of the core BRT project has increased approximately \$36 million, or 28%, as compared to the cost estimate prepared as part of the environmental document, although the BRT transit facility components (not including mixed flow lane resurfacing and related curb-work) remain in the \$125 million cost range. Cost increases are associated with changes in design standards, electrical and communications components, construction duration and continued uncertainty about platform architecture and other features requiring conservative assumptions (see Current Issues and Risks section of this memo). The final CER includes an updated cost and funding plan that identifies specific sources to cover the increase.

SFMTA’s on-call consultant HNTB has prepared a construction sequencing plan and a construction schedule. A construction duration of about 2.5 years can be achieved with variances from the California

Department of Transportation (Caltrans) and City permitting agencies that allow the greater productivity. HNTB and SFMTA are developing a traffic management plan that will model traffic disruptions and should provide justification for easing the restrictions. This effort will continue during Final Design and the schedule will be updated as planning progresses. The Transportation Authority will continue to closely monitor the schedule. See the Schedule section of this memo for more detail.

SFMTA's project delivery analysis has concluded with a recommendation to use the Construction Manager at Risk (CMAR, also known as Construction Manager-General Contractor or CMGC) method of procurement. This method allows SFMTA to advertise and award a contract before the completion of Final design, with a potential of gaining valuable input from the contractor on design details. However, this alternative delivery method may take longer to procure and may produce fewer bids due to its novelty. CMAR also does not lock in a total contract price until after design is complete; if the price cannot be agreed upon, the work would be re-bid as a traditional contract.

## **CURRENT ISSUES AND RISKS**

**Civic Design Review of Platform Features:** The architectural features of the BRT platforms were not finalized with the CER. The San Francisco Arts Commission (SFAC) Civic Design Review Committee has jurisdiction over the project architectural and landscape features, and at a preliminary hearing, SFAC members did not grant the expected Phase I approval for the platform design, and objected to the inclusion of SFMTA's red "seismic wave" shelters. The SFMTA Director of Transportation held a meeting May 9, 2014 with Directors of SFCTA, DPW, the Planning Department, and the Arts Commission. The Directors agreed that staff should develop a platform design that provides information displays and advertisement panels positioned to provide some wind protection, but omits the red seismic wave roofs (i.e., no station roofs or canopies). The staff will also evaluate the possibility of providing seating. Additional features including railings, lighting, and branding flags will also be developed in cooperation with the Arts Commission. Based on this direction, the project team is developing station designs and plans to present them at the July Civic Design Review Committee meeting in order to secure Phase I approval.

**Platform Height and Level Boarding:** SFMTA has identified significant challenges to providing level boarding between the platform and the vehicle floor and is recommending a curb height platform for the Van Ness Avenue BRT project. Bus manufacturers have indicated that bridge plates would be necessary at middle doors to meet Americans with Disabilities Act standards for gaps between platforms and vehicles. Buses would continue to need standard wheelchair ramps at the front door in order to operate at both level-platform and curb heights outside the BRT corridor. SFMTA believes that low-floor articulated buses and all-door boarding already achieve most of the benefit that level boarding would provide, and that having level boarding at only some stops or certain doors would limit the additional benefit. Meanwhile, bridge plates would have additional capital and maintenance costs, and could impact vehicle reliability. After analyzing these tradeoffs, SFMTA is recommending that Van Ness Avenue BRT platforms be built at standard curb height, but preserve room to lengthen ramps and raise the platforms in the future if circumstances change. SFMTA's level boarding alternatives analysis is attached to this memo.

## **ONGOING ACTIVITIES**

**Agreements and Approvals:** The project team has finalized a maintenance agreement with Caltrans, the final item needed for approval of the Project Study Report/Project Report (PSR/PR). The final PSR/PR, including the agreement, has been assembled for distribution and is circulating for Caltrans signatures. The report allows the project to proceed into the next phase of the Caltrans process.

SFMTA is in general agreement with the sewer replacement and other parallel projects, including water service replacement, green stormwater infrastructure, overhead contact system and pole replacement and SFgo signal work. The SFMTA and SFPUC have a tentative agreement on cost sharing for sewer replacement work to be coordinated with the Van Ness Avenue BRT Project. The next priority will be to establish cost-sharing agreements with the various partners.

SFCTA has also completed an Addendum to the Archaeological and Native American Cultural Resources Sensitivity Assessment. This document has been submitted to the FTA and will be transmitted to the State Historic Preservation Officer for concurrence as part of the federal Section 106 process.

**Outreach:** The environmental review phase Citizens Advisory Committee (CAC) held its final meeting in September 2013. The SFMTA has created a new CAC for design and construction, and the first meeting will be held on June 26, 6:00 to 7:30 p.m. at One South Van Ness Avenue, 7th Floor, Union Square Conference Room. The meeting is open to members of the public.

**Next Steps/Upcoming Key Milestones:** The environmental documentation phase was completed with the publication of the Federal Record of Decision on January 2, 2014. The Final CER was completed in June 2014, and the Caltrans PSR/PR document is expected to be executed by the end of June. Budget, funding, and schedule updates based on the CER are detailed in the following sections.

The next application for Prop K funds will be for the final design phase. SFMTA expects to bring this allocation request forward for the September Board cycle and concurrent with Board consideration of the 2014 Prop K 5-Year Prioritization Program update for the BRT/Transit Preferential Streets/Muni Metro Network category.

## PROJECT SCHEDULE AND BUDGET

**Schedule:** Figure 2 shows the project schedule for the consolidated Van Ness Corridor Transit Improvement Project. Preliminary Engineering was completed in June. Final Design activities began in late May, and will be completed by mid-2015 with Construction beginning in late 2015. Construction is expected to last approximately 2-1/2 years under aggressive but reasonable assumptions. Revenue service is still anticipated to begin in 2018.

**Figure 2: Van Ness Avenue Corridor Transit Improvement Project Schedule**

Activities	2013				2014				2015				2016				2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Conceptual Engineering + Environmental Studies <sup>1</sup>																								
2. Preliminary Engineering (CER)																								
3. Final Design																								
4. Advertise + Award Contract																								
5. Construction																								
6. Testing/Startup																								
7. Revenue Operations Begin																								

1. Conceptual Engineering and Environmental Studies began in 2007

**Budget:** Table 1 shows the budget for the BRT project by phase as well as expenditures to date, not including the parallel projects. A cost estimate update was performed as part of the CER, and SFMTA has revised the budget in accordance. The table shows the Environmental budget and the CER budget. The total project cost is expected to increase from \$125.6 million to \$162 million, although BRT transit facility components remain in the \$125 million cost range. See the Status and Key Activities section of this memo for more detail.

Appendix 1 shows the BRT project funding plan. The project will use a mix of Prop K, FTA Small Starts, and other local funds. With Board approval of the 2014 Prop K 5YPP update for the BRT/Transit Preferential Streets/Muni Metro Network Expenditure Plan category anticipated in September 2014, \$15.4 million in additional Prop K funds will be programmed for the project. FTA Small Starts funds are expected to be committed by Spring 2015, and the project should receive the maximum allowable funds under this program. Caltrans has programmed State Highway Operations Protection Program funds to the project. The funding plan also includes revenues from Central Freeway land sales for state of good repair improvements on Van Ness Avenue and CPMC development fees for BRT. SFMTA has stated its intention to use revenue bonds to cover the remaining cost of the BRT.

Parallel projects are not shown in this memo, but have separate funding sources for betterments above and beyond what is needed to build and operate the BRT. These include Prop K and FTA funds for guideways, which will contribute to Overhead Contact System work needed to maintain a state of good repair.

**Table 1: Van Ness Avenue Bus Rapid Transit Budget and Expenditures to Date**

<b>Project Name (in \$ millions)</b>	<b>Budget as of Environmental Phase (\$ millions)</b>	<b>Budget in CER (\$ millions)</b>	<b>Expended to Date (\$ millions)<sup>1</sup></b>	<b>% Complete</b>
Conceptual Engineering + Environmental Studies	\$ 7.4	\$ 7.4	\$ 7.31	99%
Preliminary Engineering (CER)	\$ 6.8	\$ 6.8	\$ 3.24	48%
Final Design (PS+E)	\$ 9.4	\$ 7.1	\$0	0%
Construction (Including Testing/Startup)	\$ 92.7	\$ 136.7	\$0	0%
Procurement	\$ 9.4	\$ 4.0	\$0	0%
Total	\$125.6	\$ 162.0	\$ 10.55	8.4%

<sup>1</sup>As of April 30, 2014. Budget update anticipated with July Board Memo.

**Table 2: TIP Cost and individual parallel project costs**

<b>Project Description</b>	<b>Project Cost (\$ Million)</b>
Core Van Ness Avenue BRT	\$158.1
OCS and Pole Replacement	\$29.14
SFgo Traffic Signal	\$23.46
Lighting	\$16.56
Sewer Replacement	\$12.56
Water Line Replacement	\$6.62
Green Infrastructure	\$3.67
Total	\$250.1

Attachments (2)

1. Van Ness Avenue BRT funding plan
2. SFMTA Platform Height Alternatives Analysis

cc: E. Reiskin, V. Harris, J. Haley, P. Gabancho, T. Papandreou, D. Auyoung, R. Boomer – SFMTA  
M. McDole – LS Gallegos & Associates, Inc (FTA)  
TC, MEL, CF, AL, ES, STR, MS, RAM – Chron, File: Van Ness BRT