



# Memorandum

**Date:** May 19, 2014

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

## Summary

Van Ness Avenue Bus Rapid Transit 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 core Van Ness Avenue BRT project is being developed in conjunction with several parallel, separately-funded projects for design, management, and eventual construction as a unified Van Ness Corridor Transit Improvements Project. Environmental review for the project was completed in December 2013, and the project is currently concluding the preliminary engineering phase. Final design will commence once preliminary engineering deliverables are signed.

In May 2014, SFMTA is circulating the final Conceptual Engineering Report (CER) for internal signatures, and anticipates releasing the final document this month. The SFMTA/DPW engineering team has incorporated scope, schedule and design comments received on the draft CER, and SFMTA has worked with its on-call consultant HNTB to include project delivery, construction sequencing, and scheduling recommendations. The team has prepared an updated cost estimate which includes the parallel projects that have been combined in the CER. The SFMTA held cost workshops with several engineering disciplines, the FTA and Transportation Authority staff, resulting in a more limited increase on the core BRT project to approximately \$36 million (a 28% increase), whereas initial inputs had showed a potential cost increase of up to \$60 million (a nearly 50% increase). The final CER will include an updated cost and funding plan that includes specific sources to cover the anticipated cost increase.

Two policy-level design issues are currently escalated to Director-level discussions, and must be resolved during the final design phase. These issues are platform architectural features including shelters; and platform height and the potential for level passenger boarding. SFMTA has held Director-level meetings to discuss the policy implications and has requested additional work from the design team on these two issues.

## 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

(SFDPW), Public Utilities Commission (SFPUC), and Planning Department. SFMTA is also using 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.

## **STATUS AND KEY ACTIVITIES**

In May 2014, SFMTA is circulating the final Conceptual Engineering Report (CER) for internal signatures, and anticipates releasing the final document this month. The SFMTA/DPW engineering team has incorporated scope, schedule and design comments received on the draft CER, and SFMTA has worked with its on-call consultant HNTB to include project delivery, construction sequencing, and scheduling recommendations. The team has prepared an updated cost estimate which includes the parallel projects that have been combined in the CER.

SFMTA on-call consultant HNTB has been engaged to provide analysis and recommendations for construction sequencing, schedule, and project delivery method, and has conducted extensive discussions with stakeholders at SFMTA, Caltrans, and other organizations. In April, HNTB submitted draft versions of reports on these topics to SFMTA. The delivery method report recommends a design-bid-build delivery, but identifies opportunities for innovative procurement approaches that may incentivize timely delivery.

HNTB continues to develop construction sequencing plans and a construction schedule. The schedule will likely be increased due to a greater amount of utility (sewer and water lines) work than anticipated during the Environmental phase, as part of the separate-but-related sewer and water projects. HNTB has also found construction duration to be sensitive to assumed restrictions on allowable work hours and number of initial work headings. In order to maintain an aggressive schedule, variances will be sought from Caltrans and City permitting agencies that allow the greatest work productivity. HNTB and SFMTA Sustainable Streets are developing a traffic management plan (TMP) that will model traffic disruptions and should provide justification for easing the restrictions. This development will be ongoing into the next project phase; however, the final CER will include a range of potential durations based on different scenarios.

## **CURRENT ISSUES AND RISKS**

**Civic Design Review of Platform Features:** As discussed in previous Board Updates, Arts Commission (SFAC) Civic Design Review Committee has jurisdiction over the project architectural and landscape features, but denied Phase I approval at their February meeting. The primary objection was to the inclusion of SFMTA’s red “seismic wave” shelters; however, there is a strong desire on the part of the SFMTA to use those shelters so that the Van Ness BRT can share common design and branding elements with the SFMTA’s Rapid Network. Aside from the Arts Commission, the Planning Department has also raised concerns about urban design, and note that Historic Preservation Commission approval will also be

needed for the Civic Center station. Meanwhile, SFCTA is primarily concerned with passenger comfort while waiting on boarding islands, including wind/rain protection, separation from traffic, and adequate seating.

The SFMTA Executive Director held a meeting May 9 with Directors of SFCTA, DPW, the Planning Department, and the Arts Commission. The Directors agreed that staff should develop an option for the platforms that provides information displays and advertisement panels positioned to provide some wind protection, but omits the red seismic wave roofs. 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. In order to maintain schedule, the SFMTA is finalizing the CER without gaining the approval of the Commission and will continue work to resolve this issue during the final design phase.

**Platform Height and Level Boarding:** Also discussed in previous updates, SFMTA has identified significant challenges to providing level boarding between the platform and the vehicle floor. Since level boarding is widely considered a key BRT feature, and has been implemented by other transit agencies, SFCTA requested a Director-level meeting to discuss level boarding and its implications for Van Ness BRT and other rapid network projects. At the meeting in late April, the agencies agreed that bridge plates would be required to minimize gaps between platforms and vehicles, as recommended by bus manufacturers and seen in other projects that are using or proposing level boarding. Due to the nature of the SFMTA system, 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. SFMTA also states that bridge plates would have additional capital and maintenance costs, and could impact vehicle reliability. SFMTA is recommending that Van Ness BRT platforms be built at standard curb height, but preserve room to lengthen ramps and raise the platforms in the future if circumstances change. SFCTA has asked for more detailed information documenting this recommendation. SFMTA has also agreed to develop BRT/Rapid Network standards and branding guidelines to guide future Muni Rapid system and project-level design efforts.

**Cost Estimate Update:** The design team has prepared a new cost estimate as part of the CER process. SFMTA has conducted extensive review of the basis for these estimates with input from the Transportation Authority. Both agencies have worked to ensure proper assumptions, definitions of the core BRT project scope, cost-sharing arrangements, and allocations of resources to complete the project. Cost workshops were conducted with several engineering disciplines, along with FTA and Transportation Authority staff. This work has limited the increase on the core BRT project to approximately \$36 million (a 28% increase), while initial inputs had showed a potential cost increase of up to \$60 million (a nearly 50% increase). The final CER will include an updated cost and funding plan that includes specific sources to cover the increase. The Transportation Authority will continue to closely monitor the cost estimates as the design develops further.

## 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 in the process of execution. This report allows the project to proceed into the next phase of the Caltrans process.

SFMTA has general agreement on scope 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. These designs have been included in the draft CER and will be reviewed concurrently with the BRT project. 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.

**Outreach:** The environmental review phase Citizens Advisory Committee (CAC) held its final meeting in September 2013. The SFMTA is currently reviewing applications for a new CAC for design and construction.

**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 will be completed in May 2014. Budget, funding, and schedule updates will be issued along with the CER and will be further detailed in the June Board memo.

The next application for Prop K funds will be to match FTA funds for the final design phase. SFMTA expects to bring this allocation request forward for the July Board cycle.

## PROJECT SCHEDULE AND BUDGET

**Schedule:** Figure 1 shows the project schedule. The current phase of work continues to be on schedule, with completion of 30% design anticipated this month. Final Design would be completed by mid-2015 with Construction beginning in early 2016. As analyzed in the Construction Sequencing report that is part of the CER, 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 1: Van Ness Avenue BRT 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 project by phase as well as expenditures to date for the Core BRT project. A cost estimate update is in process as part of the CER, and a budget revision is anticipated to be reported in the June Board memo. In this memo, the expected budget revision is shown in the Estimate at Completion column. The total project cost is expected to increase from \$125.6 million to \$162 million. See the “Current Issues and Risks” section of this memo for more detail.

Appendix 1 shows the project funding plan. The project will use a mix of Prop K, FTA Small Starts, and other local funds. With approval of the 2014 Prop K 5-Year Prioritization Program update for the Bus Rapid Transit/Transit Preferential Streets/Muni Metro Network Expenditure Plan category anticipated in the next few months, additional Prop K funds will be programmed for the project. SFMTA and SFCTA have agreed to increase the funds from Central Freeway land sales and CPMC development fees into this project, and are actively working to identify other fund sources. As part of the cost estimate updates in the CER, the project funding plan will continue to be revised. These revisions will be detailed in the June Board memo.

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

<b>Project Name(in \$ millions)</b>	<b>Budget (\$ millions)</b>	<b>Estimate at Completion (\$ 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%
<b>Total</b>	<b>\$125.6</b>	<b>\$ 162.0</b>	<b>\$ 10.55</b>	<b>8.4%</b>

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

Attachments (1)

1. Funding Plan

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

**Attachment 1: Van Ness Bus Rapid Transit Funding Plan**  
**Updated: April 2014**

Source	Type	Status	Project Phases <sup>1</sup>			Total by Status	TOTAL
			ENV, CER/PE	PS&E	CON		
5309 Small Starts <sup>2</sup>	Federal	Allocated	\$7,818,310	\$6,371,063	\$810,627	\$15,000,000	\$75,000,000
		Programmed			\$30,000,000	\$30,000,000	
		Planned			\$30,000,000	\$30,000,000	
SHOPP <sup>3</sup>	State	Allocated				\$0	\$7,304,867
		Programmed				\$0	
		Planned			\$7,304,867	\$7,304,867	
PPM Funds <sup>4</sup>	Local	Allocated	\$197,907			\$197,907	\$197,907
		Programmed				\$0	
		Planned				\$0	
AB 664 Funds <sup>5</sup>	Local	Allocated	\$196,777			\$196,777	\$196,777
		Programmed				\$0	
		Planned				\$0	
Prop K <sup>6</sup>	Local	Allocated	\$6,977,180			\$6,977,180	\$36,302,454
		Programmed		\$1,594,280	\$12,367,440	\$13,961,720	
		Planned			\$15,363,554	\$15,363,554	
California Pacific Medical Center Contribution <sup>7</sup>	Local	Allocated				\$0	\$5,000,000
		Programmed			\$5,000,000	\$5,000,000	
		Planned				\$0	
Central Freeway Parcel Revenues <sup>8</sup>	Local	Allocated				\$0	\$4,130,995
		Programmed				\$0	
		Planned			\$4,130,995	\$4,130,995	
<b>Totals</b>		<b>Allocated</b>	<b>\$15,190,174</b>	<b>\$6,371,063</b>	<b>\$810,627</b>	<b>\$22,371,864</b>	<b>\$128,133,000</b>
		<b>Programmed</b>	<b>\$0</b>	<b>\$1,594,280</b>	<b>\$47,367,440</b>	<b>\$48,961,720</b>	
		<b>Planned</b>	<b>\$0</b>	<b>\$0</b>	<b>\$56,799,416</b>	<b>\$56,799,416</b>	
			<b>\$15,190,174</b>	<b>\$7,965,343</b>	<b>\$104,977,483</b>	<b>\$128,133,000</b>	

<sup>1</sup> Acronyms used for project phases include: ENV - Environmental Documentation, CER/PE - Conceptual Engineering Report/Preliminary Engineering (30% Design), PS&E - Plans, Specifications & Estimates or Final Design, CON - Construction. The construction phase includes the incremental cost for procuring new BRT vehicles for the project.

<sup>2</sup> \$15 million appropriated in the FY 2010/11 federal budget and \$30 million appropriated in FY 2011/12 federal budget.

<sup>3</sup> State Highway Operation and Protection Program (SHOPP) funding amount based on Caltrans Project Initiation Document, completed in fall 2013.

<sup>4</sup> PPM: Planning, Programming and Monitoring funds

<sup>5</sup> AB 664: Bridge tolls collected on the San Francisco-Oakland Bay, Dumbarton, and San Mateo-Hayward Bridges to further the development of public transportation near these toll

<sup>6</sup> Prop K amount includes \$420,900 in Authority operating funds in Fiscal Years 2009/10 and 2010/11.

<sup>7</sup> The development agreement with the California Pacific Medical Center was approved by the San Francisco Board of Supervisors through Ordinance 138-13 on July 11, 2013.

<sup>8</sup> The amount of funding from Central Freeway Parcel Revenues for the core BRT project will be determined upon completion of the Conceptual Engineering Report scheduled to be completed in May 2014. \$12.7 million in Central Freeway Parcel Revenues is dedicated for Van Ness Avenue State of Good Repair improvements.