

**BART SILICON VALLEY PHASE II EXTENSION PROJECT**  
**SANTA CLARA VALLEY TRANSPORTATION AUTHORITY**  
**CITIES OF SAN JOSÉ AND SANTA CLARA, CA**

FTA Region IX

Status as of December 31, 2024

**PROJECT MONITORING REPORT**

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Project Number: 1

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Project Phase: Project Delivery

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**AtkinsRéalis USA Holdings LLC**

580 California Street, Suite 1248

San Francisco, CA 94105

Nadeem Tahir, Program Manager, 301.928.3288, [Nadeem.Tahir@AtkinsRealis.com](mailto:Nadeem.Tahir@AtkinsRealis.com)  
(On project since April 2024)

Emile Jilwan, Task Order Manager II, 510.506.3697, [Emile.Jilwan@AtkinsRealis.com](mailto:Emile.Jilwan@AtkinsRealis.com)  
(On project since August 2021)

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## **1. Executive Summary**

### **A. Project Description**

Bay Area Rapid Transit (BART) Silicon Valley Phase II (BSVII) is an approximately 6.0-mile extension of the BART system from the existing terminus at the Berryessa / North San José BART Station through downtown San José to the proposed Santa Clara Station in the City of Santa Clara.

BSVII includes four stations (three located in San José and one in Santa Clara) along with a maintenance facility at Newhall Yard. The project's easternmost station, 28th Street/Little Portugal, will be located underground near Santa Clara Street and U.S. 101. Two stations, also underground, are planned for downtown San José: Downtown San José Station at Santa Clara Street near Market Street; and Diridon Station at the Diridon Intermodal Transit Center. The westernmost station in the City of Santa Clara is planned to be at-grade adjacent to the Santa Clara Caltrain Station. The Newhall Yard and Maintenance Facility is planned to be located at the end of the alignment directly adjacent to the Santa Clara Station. Forty-eight vehicles will be paid for with project funds but are included in the procurement for BART Federal Transit Administration (FTA) Core Capacity grant program fleet upgrades.

VTA's BART Silicon Valley Phase II Extension Project includes the construction of a tunnel that will be approximately five-miles long. Tunnel construction will begin south of the Santa Clara Station within Newhall Yard and run underneath I-880 and the Caltrain tracks. It will be launched from the West Portal. From there, the tunnel will continue southeast and cross under the western side of the Caltrain tracks at Emory Street and then continue under Stockton Avenue and curve east before reaching Diridon Station. From Diridon Station, the tunnel will continue under Santa Clara Street for approximately one mile to the future Downtown San José Station. It will then curve northeast near 27th Street and Santa Clara Street to the future 28th Street/Little Portugal Station. From there, the tunnel will continue northeast under US 101 to McKee Road where it will run parallel to the highway until it surfaces at the East Portal, near Las Plumas Avenue and Marburg Way.

The project is being designed and constructed by Santa Clara Valley Transportation Authority (VTA), will be owned by VTA, and operated and maintained by BART. Service is planned to operate in the opening year from 4:00 AM to 1:00 AM on weekdays and from 6:00 AM to 1:00 AM on weekends, with trains every 7.5 minutes during the weekday peak period, every 7.5-15 minutes off-peak during the weekday, and every 20 minutes on evenings and weekends.

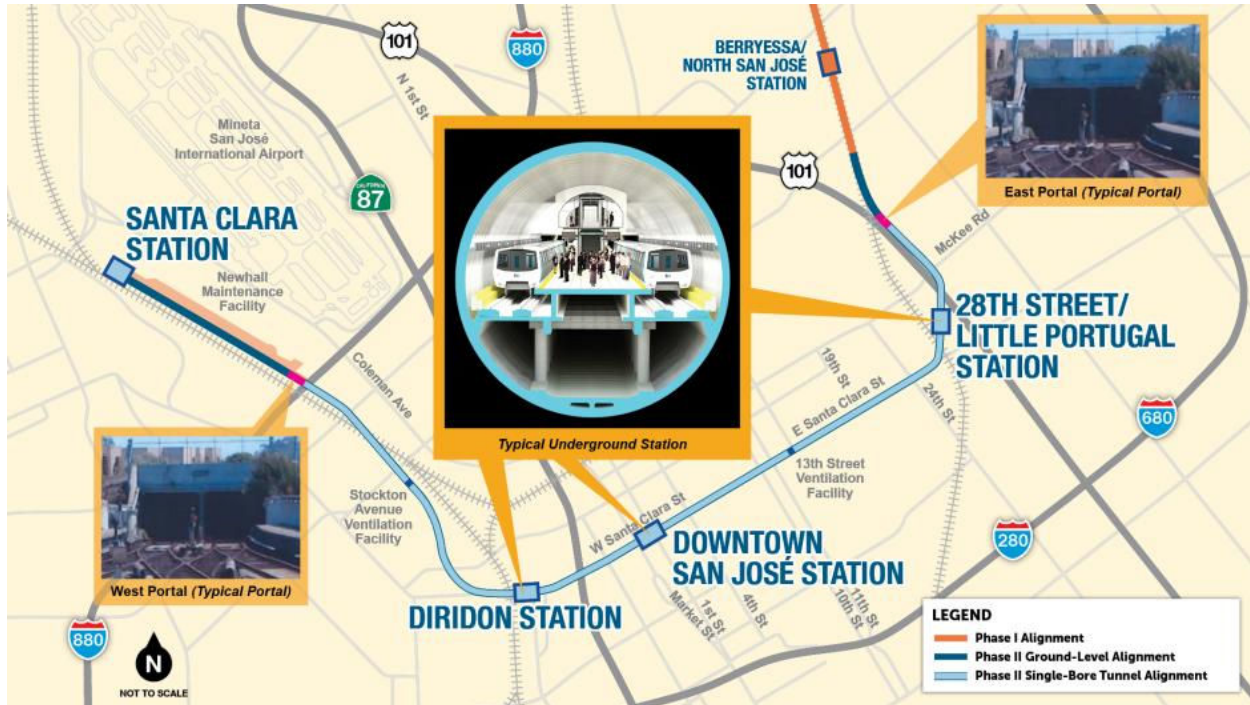


Figure 1– Proposed Alignment of the BSVII Extension

## B. Tunneling Construction

Construction of the subway tunnel is within the Tunnel and Trackwork contract (Contract Package 2). The tunnel will be built as a single, large-diameter tunnel, commonly called Single-Bore, and will contain two independent track ways, one for each direction of travel. The tunnel will be excavated by a Tunnel Boring Machine (TBM). The TBM is an electrically powered machine that removes soil, rocks, and debris to create the underground tunnel. It features a cutter-head, which rotates to dig through soil and rock. Excavated material is removed through a conveyor system within the machine. At the stations, mining techniques will be used to excavate the underground connections between the tunnel and stations (which contain the boarding platforms).

## C. Project Status

BSVII is in the New Starts Project Development phase.

VTA selected the locally preferred alternative (LPA) in November 2001. The project originally entered the Capital Investment Grants (CIG) program Project Development phase in March 2016. The locally preferred alternative (LPA) was adopted into the Metropolitan Transportation Commission’s financially constrained Long-Range Plan [Final Plan Bay Area 2040.pdf](#) ([planbayarea.org](http://planbayarea.org)) on July 26, 2017.

VTA began pursuing FTA’s Expedited Project Delivery (EPD) Pilot Program in early 2018. In April 2018, FTA agreed to extend CIG Project Development while VTA pursued funding through the EPD Pilot Program and stated the Project would be allowed to return to CIG Project

Development without penalty should the EPD Pilot Program be determined to no longer be a good fit. Per the National Environmental Policy Act of 1969 (NEPA), BSVII received a Record of Decision (ROD) from FTA on June 18, 2018. In April 2021, VTA submitted an EPD Pilot Program application to FTA. In October 2021, FTA issued a Letter of Intent (LOI) indicating it would obligate funds under the EPD Pilot Program on the condition that VTA demonstrate local funding commitment and readiness to receive a grant within two years.

In October 2022, VTA submitted a letter to FTA requesting the BSVII project be allowed to re-enter the New Starts Project Development phase of the Capital Investment Grants (CIG) program and seeking a Letter of No Prejudice (LONP). On December 1, 2022, FTA agreed to move the project from the (EPD) Pilot Program back into the Project Development phase as a New Starts project. FTA also approved a LONP covering expenses VTA incurred when it started in New Starts Project Development in March 2016, through the Project's migration to the EPD Pilot Program, as well as for all remaining work on the project, thereby matching the pre-award authority VTA had been given while it was in the EPD Pilot Program for the 2022 New Starts Basis total project cost of \$9.318 Billion.

On October 11, 2023, VTA transmitted to FTA/PMOC the BSVII cost and schedule new baselines including a total project cost of \$12.237B and Revenue Service Date in October of 2036.

FTA/PMOC held a Risk Workshop with VTA on January 16-18, 2024. Risk review results advised an increase in costs to \$12.746B and a recommended RSD of February 2039 based on the use of 125% of the remaining critical path Stripped and Adjusted Base Schedule (SABS) duration.

VTA formally requested FTA's approval to enter Engineering Phase in a letter dated March 29, 2024, with a total project cost of \$12.746B in year-of-expenditure dollars and a Revenue Service Date (RSD) of February 2039. VTA requested \$6.296B (49.4 percent) in CIG program funds.

On August 1, 2024, FTA informed VTA of the approval of BSVII to enter the New Starts Engineering phase of the FTA CIG Program. Although VTA requested a 49.4 percent CIG share, FTA notified VTA that \$5.098B (40 percent) represents the maximum amount of CIG funds that will be provided by FTA for the Project should a Full Funding Grant Agreement (FFGA) be approved. The FTA approval to enter engineering letter is attached. The project implementation plan had previously been that BSVII would be delivered through four major design-build construction contract packages: Systems Construction Package 1 (CP1); Tunnel and Trackwork Construction Package 2 (CP2); Newhall Yard and Maintenance Facility and Santa Clara Station Construction Package 3 (CP3); and Underground Stations Construction Package 4 (CP4).

CP2 has progressed based on its original procurement. The VTA Board of Directors approved the award of the CP2 Progressive Design Build contract on May 5, 2022. CP2 Limited Notice to Proceed (LNTP) for a 90-day innovations phase was issued on June 9, 2022; NTP1 was issued for Programming Services on September 7, 2022; and NTP1A was issued for Stage 1 Design Professional Services on February 21, 2023. Early Works Packages are progressing through design, pricing, and negotiations to support the launch of the Tunnel Boring Machine (TBM) that was ordered on October 31, 2023.

All major packages other than CP2 were re-evaluated and subject of a Peer Review in November 2022. Since then, VTA has selected Design-Bid-Build delivery for all work previously identified as CP1 – Systems, CP3 – Newhall Yard, Santa Clara Station, and Parking Garage, and CP4 – Underground Stations.

VTA is in the process of determining how this remaining construction work will be packaged for bids. Then it can be communicated to the PMOC and incorporated into the project management documents.

#### **D. Major Issues and/or Concerns**

Below are FTA/PMOC’s issues, concerns, and observations with VTA’s updates:

- FTA/PMOC is concerned about the delay in executing the UPRR draft Mitigation and Reimbursement Agreement (formerly called the Final Engineering Cost Reimbursement Agreement) prior to the Support of Excavation Early Works at the West portal. *VTA staff reported that VTA and UPRR executives met on December 10, 2024, and that the resolution of the differences has been escalated to the VTA General Manager.*
- FTA/PMOC is concerned with the increase of the cost of the Early Work Package 3 (West Portal/TBM Launch Structure) from \$140M estimate in December 2022 to \$398M in December 2024 and the impact of the cost increases on the project budget including a major draw from the budget contingency. *VTA continues to pursue several optimizations and deductive change orders that have the potential to further reduce Early Work Package 3 construction costs.*
- FTA/PMOC is concerned that the order of magnitude cost saving ideas VTA is considering are not adequate to address the BSVII program funding gap and to allow adequate cost and schedule contingencies. *VTA continues to identify additional cost-saving candidates and will develop an action plan to evaluate the additional value engineering ideas from the VE Workshop conducted on December 18, 2024.*
- FTA/PMOC is concerned with the potential of VTA not securing a lump-sum price and reaching agreement with KST resulting in off-ramp with impacts on CP2 contract scope, increased interface risk, design completion delays, construction escalation costs, etc. . *VTA continues to negotiate with KST and concurrently VTA is exploring off-ramp steps, including reaching out to the industry (January 15, 2025).*

**E. Table 1 Core Accountability Items**

		<b>FTA P65 Forecast (EPD Letter of Intent) (Oct 2021)</b>	<b>VTA New Starts Basis (Sept 2022)</b>	<b>New Baseline New Starts – Entry to Engineering (Oct 2023)</b>	<b>FTA P65 Forecast - Entry to Engineering (Mar 2024)</b>
<b>Cost</b>	Capital Cost Estimate	\$9.148B	\$9.318B	\$12.237B	\$12.746B
<b>Contingency</b>	Allocated and Unallocated Contingency	\$2.653B	\$1.729B	\$2.878B	\$3.119B <sup>1</sup>
<b>Schedule</b>	Revenue Service Date	June 21, 2034	March 1, 2033	October 22, 2036	February 28, 2039 <sup>2</sup>
<b>Project Progress</b>		<b>Amount (\$M)</b>		<b>Percent of Total</b>	
<b>Total Expenditures</b>	Actual cost of all eligible expenditures completed to date <sup>3</sup>	\$1,217.9		9.56%	
<b>Planned Value to Date</b>	Estimated value of work planned to date	N/A		N/A	
<b>Actual Value to Date</b>	Actual value of work completed to date	N/A		N/A	
<b>Contract Status</b>		<b>Amount (\$M)</b>		<b>Percent</b>	
<b>Total Contracts Awarded</b>	Value of all contracts (design, support, construction, equipment) awarded: % of total value to be awarded	\$1,605.8		N/A	
<b>Construction Contracts Awarded</b>	Value of construction contracts awarded: % of total construction value to be awarded	0		0	
<b>Physical Construction Completed</b>	Value of physical construction (infrastructure) completed: % of total construction value completed	0		0	
<b>Rolling Stock Vehicle Status</b>	<b>Date Awarded</b>	<b>No. Ordered</b>		<b>No. Delivered</b>	
<b>Heavy Rail Vehicles</b>	May 2024	48 (planned)		0	

<sup>1</sup> Includes \$1.657 of Unallocated Contingency.

<sup>2</sup> Recommended Revenue Service Date of February 28, 2039, based on the use of 125% of the remaining critical path Stripped and Adjusted Base Schedule (SABS) duration.

<sup>3</sup> Includes standard cost categories (SCC) 10, 40, 60 and 80 expenditures in Project Development, reported through October 31, 2024, based on accruals.



## **2. PMOC Observations and Findings**

### **A. Summary of Monitoring Activities**

The PMOC oversight commenced in July 2020. PMOC has since received documents and coordinated with VTA via email and telephone conversations. *This report covers project status, and documents received through November 30, 2024, including the October 2024 monthly progress reporting received December 2, 2024). VTA provided FTA PMOC Monthly Meeting presentation. The monthly PMOC oversight call originally scheduled for December 12, 2024, was cancelled to allow VTA more time to prepare for the December 18, 2024, Cost Savings Value Engineering and Brainstorming Workshop with FTA and the PMOC.*

VTA submitted their Expedited Project Delivery (EPD) Pilot Program application on April 7, 2021, and FTA/PMOC Risk Workshops were held on May 10-12, 2021. FTA selected the Bay Area Rapid Transit (BART) Silicon Valley Phase II (BSVII) project to advance in the EPD Pilot Program in September 2021 and on October 25, 2021, FTA issued a Letter of Intent (LOI) to obligate funds for BSVII contingent upon VTA meeting specified conditions by October 25, 2023.

In October 2022, VTA submitted a letter to FTA requesting the BSVII project be allowed to re-enter the New Starts Project Development phase of the Capital Investment Grants (CIG) program and seeking a Letter of No Prejudice (LONP). On December 1, 2022, FTA agreed to move the project from the EPD Pilot Program back into the Project Development phase as a New Starts project. FTA also approved a LONP allowing the extension of pre-award authority to the activities that are not allowed under Project Development phase of the New Starts (NS) CIG program, activities such as long lead procurement and construction.

On October 11, 2023, VTA transmitted to FTA/PMOC the BSVII cost and schedule new baselines including a total project budget of \$12.237B and Revenue Service Date (RSD) in October of 2036.

FTA/PMOC held a Risk Workshop with VTA on January 16-18, 2024. Risk review results advised an increase in costs to \$12.746B and a recommended RSD of February 2039. VTA adopted the results of January 2024 risk review and formally requested FTA's approval to enter Engineering Phase in a letter dated March 29, 2024, with a total project cost of \$12.746B in year-of-expenditure dollars and a Revenue Service Date (RSD) of February 2039. VTA requested \$6.296B (49.4 percent) in CIG program funds.

On August 1, 2024, FTA informed VTA of the approval of BSVII to enter the New Starts Engineering phase of the FTA CIG Program. Although VTA requested a 49.4 percent CIG share, FTA notified VTA that \$5.098B (40 percent) represents the maximum amount of CIG funds that will be provided by FTA for the Project should a Full Funding Grant Agreement (FFGA) be approved.

VTA met with FTA and the PMOC on December 18, 2024, to continue to address the funding gap. The following are the Cost Savings candidates that VTA reported at the November 14, 2024, monthly meeting:

- Tunnel interior reconfiguration;
- Concurrent Tunneling from the East;
- Newhall Yard reconfiguration;
- Criteria / Requirements variances;
- Refining station design; and
- Conversion of station parking structure to surface.
- The PMOC provided the following suggestions that will be examined at the workshop:
  - CP2 Tunnel & Trackwork
    - Revert tunnel diameter to original approved 43 feet tunnel:
      - Revert tunnel diameter to original approved 43 feet tunnel but only the one downtown station is over under configuration. The remaining three stations are cut and cover. Diridon station is off-street.
    - Consider twin bore with three cut and cover and one SEM station
    - Consider 30- or 35-foot single bore
    - Consider minimizing the cut-and-cover impact by utilizing de-watering wells and soil stabilization techniques in the Downtown stations.
    - Station cut and cover excavation for the station platform in the sidewalk area as an alternative to the cut-and-cover station construction.
    - Consider significantly reduced TBM shaft by going 53 feet to ~30 feet (minimum tunnel diameter to be evaluated)
    - For the 53 feet tunnel, consider lowering the trackwork guideway to near the invert level and eliminate the inverted U or segmental bridge

**B. Project Management Plan (PMP) and Sub-Plans**

The following PMP and Sub-Plan documents include documents that were reviewed by the PMOC for BSVII program EPD readiness:

Document Title	Revision	
	No.	Dated
Project Management Plan (PMP)	0.C	April 9, 2021
Management Capacity and Capability Plan (MCCP)	0.E	April 16, 2021
Risk and Contingency Management Plan (RCMP)	0.C	April 16, 2021
Quality Management Plan (QMP)	0.D	April 19, 2021
Real Estate Acquisition Management Plan (RAMP)	0.B	September 30, 2020
Safety and Security Management Plan (SSMP)	0.B	April 20, 2021

Document Title	Revision	
	No.	Dated
BART Rail Fleet Management Plan (RFMP) FY2020 to FY2036	D	September 2019
Third Party Agreement Management Plan	0.C	April 18, 2021
Project Delivery and Procurement Plan	0.F	April 16, 2021
Project Implementation Plan	C	September 30, 2020

On December 1, 2022, FTA agreed to allow the BSVII program to re-enter the New Starts Project Development phase of the Capital Investment Grants (CIG) program. Around the same time as the change in federal funding source and the update of the project budget, VTA also re-evaluated the project delivery scheme. Looking ahead to the New Starts Entry to Engineering request, VTA submitted 39 documents on May 26, 2023, including the following updates to the PMP and sub-Plans to FTA to be reviewed by the PMOC:

Document Title	Revision	
	No.	Dated
Project Management Plan (PMP)	1	May 1, 2023
Management Capacity and Capability Plan (MCCP)	1.A	May 1, 2023
Risk and Contingency Management Plan (RCMP)	0.D	May 22, 2023
Quality Management Plan (QMP)	2	May 1, 2023
Real Estate Acquisition Management Plan (RAMP)	0.C	May 1, 2023
Safety and Security Management Plan (SSMP)	0.C	May 1, 2023
BART Rail Fleet Management Plan (RFMP) FY2020 to FY2034	F	February 2023
Third Party Agreement Management Plan	1	May 1, 2023
Project Delivery and Procurement Plan	0.G	May 1, 2023
VTA Bus Fleet Management Plan	1	May 2023
VTA LRT Fleet Management Plan	1	April 2023

PMOC recommendations and comments from the EPD readiness review as related to OP20, OP22, OP23, and OP24 were provided to VTA informally to help VTA prepare for the submissions needed for Entry to Engineering readiness. PMOC reviewed the new submissions in support of the Entry to Engineering risk assessment and readiness review and provided preliminary summary comments about inconsistencies and incomplete elements to VTA on June 27, 2023.

VTA submitted 37 documents in November 2023 and 11 additional documents in December 2023, including the following updates to the PMP sub-Plans to FTA:

Document Title	Revision	
	No.	Dated
Project Management Plan (PMP)	2	December 15, 2023
Management Capacity and Capability Plan (MCCP)	2	December 15, 2023
Risk and Contingency Management Plan (RCMP)	B	September 14, 2023
Safety and Security Management Plan (SSMP)	0.D	December 8, 2023
Real Estate Acquisition Management Plan (RAMP)	0.C	December 8, 2023
Quality Management Plan (QMP)	2	November 1, 2023
VTA 2023 Bus Fleet Management Plan (BFMP)	1.0	November 2023
VTA 2023 Light Rail Fleet Management Plan (LRFMP)	1.0	April 2023
BART Rail Fleet Management Plan	F	February 2023
Third-Party Agreement Management Plan	1.0	November 1, 2023
Project Delivery and Procurement Plan	0.G	November 1, 2023

PMOC reviewed the submissions from November 2023 and December 2023 and provided input to PMOC’s risk assessment and Oversight Procedure (OP) 51 Readiness to Enter Engineering review. PMOC’s OP 51 report will be one input to FTA’s determination regarding Santa Clara Valley Transportation Authority’s (VTA’s) Capital Investment Grants (CIG) Program application. On March 29, 2024, along with the application to enter the New Starts Engineering Phase, VTA submitted revised PMPs and sub-Plans. The PMOC current assessment of the PMP and sub-Plans is based on the PMP and Sub-Plans submissions from November 2023 and December 2023 and only includes significant changes from the revised PMPs and sub-Plans that were submitted on March 29, 2024.

On July 2, 2024. FTA transmitted to VTA the final PMP and sub-Plans PMOC review reports. Over-the-shoulder review sessions with VTA PMOC and FTA were held in July to clarify and review VTA’s responses to FTA/PMOC comments on PMP and sub-plans. VTA submitted responses to FTA/PMOC comments on PMP and Sub-plan on July 31, 2024.

At the November 14, 2024, monthly meeting, VTA did not report any updates to the following Status from September 12, 2024. monthly meeting:

- PMP and sub-plans have been updated to reflect Q3 2024.
- All previous FTA/PMOC comments on PMP and sub-plans comments have been addressed; and
- Additional updates to the PMP and sub-plans will be made prior to FFGA Readiness submittal.

## **C. Management Capacity and Capability**

Refer to Section B above for revision and submittal status of the Management Capacity and Capability Plan (MCCP) and other PMP Subplans to support VTA's New Starts request to enter Engineering.

VTA has several professional services contracts awarded by which consultants have been supporting VTA in the project development phase. VTA consultants are managed under the HNTB/WSP joint venture Project Management Team (PMT), the MM/W joint venture General Engineering Consultant (GEC) and the Bechtel Infrastructure Corporation Construction Management Services (CMS). The PMT, the GEC, and the CMS include professional resources providing program management and multiple specialized engineering and construction management services.

In consultation with the FTA Staff, the PMOC assessed BSVII Management Capacity and Capability by conducting interviews of key BSVII staff on January 9, 2024, August 27 and 29, 2024, and October 17, 2024. The PMOC reviewed resumes of key BSVII staff and prepared interview questionnaires that were tailored specifically for the BSVII project needs and requirements. The experience requirement was divided into three categories: sufficient experience (5-7 years), considerable experience (7-12 years), and significant experience (12-20+ years). It was suggested for VTA to consider introducing additional resources that would strengthen the capabilities for a number of positions where the requirements are not fully met.

*The monthly December 12, 2024, meeting presentation provided the following updates:*

- *The key (Quality Manager) BSVII position has been filled.*
- *Request for Proposal (RFP) for Program Management*
  - *The RFP was issued on 9/24/24.*
  - *The pre-proposal conference was held on 10/8/24.*
  - *Extension of the current contract.*

#### **D. National Environmental Policy Act (NEPA) Process and Environmental Mitigation**

Since FTA issued the ROD in 2018, VTA has closely coordinated with FTA to determine when and if additional analysis was needed to maintain compliance with NEPA. FTA determined that a NEPA Re-evaluation was required for project changes at the EPD stage and again for project changes introduced by the Progressive Design Builder Innovations and Value Engineering initiatives adopted for the Entry to Engineering design. Both Re-evaluations confirmed the conclusions in the 2018 ROD are still valid. FTA approved the Re-evaluation associated with the Entry to Engineering preliminary design baseline in March of 2024. BSVII project staff converted the Mitigation Monitoring and Reporting Program (MMRP) from the ROD into a new format for tracking called the Environmental Commitments Record (ECR). Applicable environmental mitigation requirements were integrated into each of the contract packages via the ECR and the Design Requirements and Best Management Practices matrix.

*The VTA's BART Silicon Valley Phase II Extension Program Organization in the FTA PMOC Monthly December 12, 2024, provided the following NEPA / Environmental Mitigations Status updates:*

- *Preparing the Programmatic Agreement Annual Report for FTA Review;*
- *4th Quarter 2024 ECR in process*
- *Reviewing cost savings measures;*
- *Reviewing submittals for conformance with environmental requirements; and*
- *Ongoing efforts for Archaeological Testing Program.*

#### **E. Project Delivery Method and Procurement**

VTA's plan for project delivery has evolved over recent years. VTA developed a Project Delivery and Procurement Plan (Revision 0.F dated April 16, 2021) which referenced the Project Implementation Plan. Those documents reflected the BSVII project baseline contracting plan which consisted of four distinct Design-Build contract packages for Systems (CP1), Tunnel and Trackwork (CP2), Newhall Yard and Santa Clara Station (CP3), and Underground Stations (CP4).

In November 2022, VTA held the Contract Packaging and Delivery Peer Review to receive feedback on the delivery approaches to be used for all contract packages other than CP2 (Tunnel and Trackwork). The RFPs for CP1 (Systems) and CP3 (Newhall Yard and Santa Clara Station) were cancelled pending reevaluation of contract packaging and delivery methods.

On March 2, 2023, VTA transmitted to FTA and the PMOC the "Contract Packaging and Project Delivery Draft Report" dated February 28, 2023. Taking the Contract Packaging and Project Delivery Peer Review panel feedback into account, VTA concluded that Design Bid Build will

be used to procure the Systems (CP1), Newhall Yard and Santa Clara Station (CP3), and Underground Stations (CP4).

<b>Package Number</b>	<b>Construction Contract Package Name</b>	<b>2022 Delivery Method</b>	<b>2023 Delivery Method</b>
CP1	Systems	Design Build	Design-Bid-Build
CP2	Tunnel and Trackwork	Progressive Design Build	Progressive Design Build
CP3	Newhall Yard, Santa Clara Station, and Parking Garage	Design Build	Design-Bid-Build
CP4	Underground Stations	Design Build	Design-Bid-Build

Between fall 2020 and 2022, VTA initiated a three-step procurement process for the BSVII contract packages, including Requests for Industry Feedback (RFIF), Requests for Qualifications (RFQ), and Requests for Proposals (RFP). Historic data documenting dates for select procurement activities are reported in the following table for the four contract packages included in baseline contracting plan.

<b>Milestones</b>		<b>Contract Packages</b>			
		<b>CP1</b>	<b>CP2</b>	<b>CP3</b>	<b>CP4</b>
Request for Qualifications	RFQ Release	2/26/21	12/29/20	9/13/21	6/29/21
	SOQ Response	5/18/21	3/19/21	11/30/21	9/23/21
	Shortlist	6/30/21	5/11/21	2/3/22	RFQ was cancelled 3/1/2022.
Request for Proposals	Pre-Final	4/15/22	7/19/21	5/20/22	
	Final	RFP was cancelled 12/31/2022.	9/24/21	RFP was cancelled 12/31/2022.	
	RFP Response		12/10/21		

Requests For Qualifications were issued for all 4 packages. The RFQ of CP4 (Stations) was cancelled on March 1, 2022. The Statements of Qualifications (SOQs) for CP1 (Systems), CP2 (Tunnel and Trackwork), and CP3 (Newhall Yard and Santa Clara Station) were evaluated and resulted in the following:

- CP1 (Systems) – 2 Prime contractors being shortlisted.

- CP2 (Tunnel and Trackwork) – 3 Prime contractors being shortlisted.
- CP3 (Newhall Yard and Santa Clara Station) – 3 Prime contractors being shortlisted.

The Final Tunnel and Trackwork (CP2) RFP was released on September 24, 2021, with the final addendum to this RFP released November 24, 2021. BART Silicon Valley Phase II Tunnel Partners (B2TP) and Kiewit Shea Traylor (KST) Joint Venture submitted proposals on December 10, 2021. VTA completed negotiations with the highest ranked team and issued a Notice of Recommended Award to KST. The Contract award was approved by the VTA Board of Directors on May 5, 2022. Limited Notice to Proceed (NTP) was issued June 9, 2022, NTP1 was issued for Programming Services on September 7, 2022, and subsequently increased the lump sum not to exceed with Letter #12, dated November 10, 2022, authorizing KST to proceed with Early Works Packages design and estimating. VTA issued KST NTP1A for Stage 1 Design Professional Services on February 21, 2023. Amendment #1, valued at \$144M was executed in October 2023 for the Tunnel Boring Machine Purchase Order.

The Construction Management Services (CMS) Request for Proposal (RFP) was released on September 25, 2023. VTA Board authorized the award of the CMS contract to Bechtel Infrastructure Corporation on April 4, 2024. The CMS contract was executed on April 11, 2024. The scope of the CM Services contract is for the first ten years of the project.

*The monthly December 12, 2024, meeting presentation provided the following Project Delivery Method and Procurement Status:*

- Contract Package 1 (CP1) Systems
  - Current delivery method is Design-Bid-Build
  - 60% of the design is completed and comments assembled; focus on cost savings.
- *CP2 Tunnel & Trackwork - Progressive Design-Build, Contract V20221*
  - Contract executed 5/5/2022 and in Stage 1 (Preconstruction Services).
  - 85% design is in progress for all design except tunnel (D10) progressing from 85% to 100%.
  - *Contract amendments 1 through 5, and 7 executed.*
  - *Contract amendments 6 and 8 being finalized and awaiting approval.*
- CP3 – Newhall Yard and Santa Clara station
  - Current delivery method is Design-Bid-Build
  - 60% of the design is completed and comments assembled; focus on cost savings.
- CP4 Underground stations
  - Current delivery method is Design-Bid-Build
  - 60% design complete and comments assembled; focus on cost savings.
- *Railcar Procurement Update –*
  - Procurement of 48 vehicles for BSVII
  - This is in addition to the 60 vehicles for Silicon Valley Berryessa Extension (SVBX)
  - *830 Fleet of The Future (FOTF) railcars delivered to BART.*
  - *Alstom will begin delivering the 48 vehicles for BSVII in 2025.*



## F. Design

VTA has been progressing designs and reassessing the division of scopes of work for all major packages other than CP2.

### CP2 Tunnel and Trackwork

*The monthly December 12, 2024, meeting presentation provided the following progress:*

- *Ongoing design optimization process to evaluate possible savings.*
- *Third Party / Stakeholder review periods are coordinated by KST, sometimes with review periods different than VTA's reviews.*
- *Advance Partial Design Units (APDU):*
  - *APDU 2 Pre-Cast tunnel liner 100% complete design – In VTA review.*
  - *APDU 3C - West Portal U-Wall Support of Excavation (SOE) Rev. 2 –Approved for Construction (AFC) complete – to VTA Board for approval 12/5/2024.*
  - *APDU 3D – West Portal Caterpillar SOE Final Design Rev. 2–AFC complete – to VTA Board for approval 12/5/2024.*
  - *APDU 3E – West Portal Ground Improvement Design Rev. 2 - AFC complete – to VTA Board for approval 12/5/2024.*
  - *APDU 5A – Downtown San Jose Station (DTSJ) Enabling Work (Civil & Maintenance of Traffic (MOT)) – 100% Rev. 1 design in VTA/Stakeholder review.*
  - *APDU 8B – East Portal Enabling Works - Over the Shoulder (OTS) review of 85% complete, comment resolution in progress.*
  - *APDU 11B – West portal Temporary Power High Voltage Substation - 85% design review complete, VTA/Stakeholder review in progress.*
  - *APDU 12A – Diridon Station Enabling Works and Utilities – APDU 12A Rev. 1 pending.*
  - *APDU 14 – 28th Street Station Enabling Works – APDU 14 Rev. 1 pending.*
  - *APDU 20 – Track and Tunnel Alignment– Comment resolution on 100% complete.*
- *KST Design paused to evaluate optimizations – No update from previous month.*
  - *D05 – Program-wide Specifications – 85% review complete, resubmittal required, not paused.*
  - *D10 – Bored Tunnel Design –85% design review complete, KST reviewing VTA comments, not paused.*
  - *D15 – Tunnel Internal Structures - 85% design review complete, paused.*
  - *D20 – Track and Tunnel – 85% design review complete, KST reviewing VTA comments, paused.*
  - *D25 – Diridon Station Design – 85% design paused.*
  - *D30 – Downtown San José Station - 85% design paused.*
  - *D35 – 28<sup>th</sup> Street / Little Portugal Station - 85% design paused.*
  - *D40 – East Portal Design - 85% design review complete.*
  - *D45 – West Portal Design –85% design paused.*

## **Program-wide, Facilities and Systems Engineering**

*The monthly December 12, 2024, meeting presentation provided the following progress:*

- Design resources "pivoted" to optimizations and cost saving candidates by KST (CP-2) and Mott MacDonald Wong (MMW) (GEC);
- *Produce cost estimates for the optimization proposals and cost saving candidates;*
- Conducting technical working group meetings with BART stakeholders relating to the proposed Requests for Variances (RFV)s
- *Developing change control proforma to formalize agreement on the proposed changes.*

## **G. Value Engineering and Constructability Reviews**

VTA conducted a Value Engineering (VE) workshop in early 2020 based upon the 10% design (submitted December 2019) which consisted of a revised design of a 53-foot diameter deep single bore running tunnel with center platform stations with the addition of station mezzanines for platform access. The VE workshop was facilitated by a third-party consultant and the resulting report remains in draft status. The workshop was “a shortened version of a formal Value Engineering Study” required by FTA for Capital Investment Grants (CIG) projects. However, several of the recommended VE elements were applicable and incorporated into the EPD configuration. Stage 1 initial innovations vetting, as well as iterative design and cost estimating exercises, will accomplish further value engineering under the CP2 PDB procurement.

The DRAFT Constructability Review Report was written in August 2020 addressing biddability and buildability of the EPD configuration.

VTA conducted a peer review September 22, 23, and 25, 2020. VTA established action items to implement based on the peer recommendations and is tracking the implementation of those action items in their risk register.

A three-day facilitated Value Engineering (VE) workshop was held the week of June 19, 2023, and the Value Engineering Workshop Report was submitted to FTA/PMOC, documenting VE efforts from June 2023 through September 2023.

Constructability reviews were held on July 20 and 21, 2023. and the Draft Constructability Review Report was submitted to FTA/PMOC in December 2023.

*Considering the FTA approval of 40% funding participation for the project, the FTA/PMOC and the VTA participated in an informal Value Engineering workshop on December 18, 2024, to examine potential cost savings that could be realized by further examination of project cost elements and value engineering suggestions and considerations.*

To address the BSVII program funding gap and to allow adequate cost and schedule contingencies, VTA is evaluating various cost savings candidates including the following:

- *Tunnel interior reconfiguration;*

- *Concurrent Tunneling from the East;*
- *Newhall Yard reconfiguration;*
- *Criteria / Requirements variances;*
- *Refining station design; and*
- *Conversion of station parking structure to surface.*

## H. Real Estate Acquisition and Relocation

Refer to Section B above for revision and submittal status of the Real Estate Acquisition Management Plan (RAMP) and other PMP Subplans to support VTA’s New Starts request to enter Engineering.

VTA’s implementation of the acquisition program is in progress. VTA has identified 75 total parcels with acquisitions needed, including full and partial acquisitions, subsurface tunnel easements, temporary construction easements (construction staging areas), and permanent easements.

*The monthly December 12, 2024, meeting presentation did not provide any update to the Real Estate Summary Table, as of July 2024:*

PROJECT ACQUISITION STATUS											
Description	Total	Possession Obtained	In Acquisition Process	Status of "Parcels in Acquisition Process"						Relocation ****	
				Eminent Domain Actions Filed **	Board Adoption of RON	Offers Made	Appraisal Process Completed	Legals and Plats Approved	Pending Legals and Plats	Required	Completed
<b>SUMMARY OF REQUIRED TAKES</b>											
Total Parcels: *	77	29	48	18	4	9	0	2	15	37	21
<b>Type of Take: Quantity</b>											
BPE ** & Other Takes:	4		4	1		2			1	3	
Full Fee:	9	7	2	1					1	15	9
Other Multiple Takes (Easement/Fee):	3	1	2			1			1	15	12
Tunnel Easement:	47	20	27	16	3	1		2	5		
Roadway Easement:	3		3						3		
Utility Easement:	4		4						4		
Temporary Construction Easement:	7	1	6		1	5				4	

\* Six Building Protective Easements were removed due to elimination of DTSJ Secondary HH; pending Property Protection Study report

\*\* BPE: Building Protective Easements – Parcels have additional acquisitions, such as Tieback Easement

\*\*\*\* Total includes two parcels removed from the elimination of DTSJ Secondary HH

\*\*\*\* Represents total tenants not parcels

## **I. Public Involvement/Outreach/Communications**

*The monthly December 12, 2024, meeting presentation provided the following Public Involvement/Outreach/Communications updates:*

- **Public and Stakeholder Meetings and Presentations**
  - *Community Meeting (December 2 and 4)*
  - *Downtown/Diridon Construction Transportation Management Plan Stakeholder Engagement (ongoing)*
  
- **Communications and Public Relations**
  - *Fencing Signage Program*
  - *Thriving Business Program Surveying (Winter 2025)*
  - *Stakeholder Social Media Toolkit*
  - *Blogs & Social Media (Acquired Property and 2024 Recap)*
  - *YouTube Videos*
  - *Early Works Notifications*
  - *Downtown/Diridon Construction Traffic Management Plan (CTMP)*

## **J. Third-Party Agreements and Utilities**

Refer to Section B above for revision and submittal status of the Third-Party Agreement Management Plan and other PMP Subplans to support VTA's New Starts request to enter Engineering.

The Third-Party agreement tracking matrix is updated and submitted to the FTA/PMOC monthly. The third-party agreement tracking matrix provides detailed information including a listing of all the critical and non-critical agreements and permits, and their anticipated or actual execution dates. Per OP39, "critical third-party agreements are required before Construction, or Operations can begin, the absence of which may significantly change the cost, scope, and schedule."

*The monthly December 12, 2024, meeting presentation provided the following Third-Party Agreements updates:*

- *A meeting between VTA and Union Pacific Railroad (UPRR) executives is scheduled for December 12, 2024, to discuss the resolution of one remaining issue and to finalize and execute the Mitigation and Reimbursement Agreement for the West Portal*
- *The total number of Third-Party Agreements is now 43.*
- *Critical Agreements prior to FFGA: 31*
  - *30 Executed, and 1 Open. The open critical agreement (UPRR Mitigation and Reimbursement Agreement for West Portal Early Works) is anticipated to be executed by January 2025 upon a positive outcome of discussions between VTA and UPRR executives. The need by date for this agreement is revised to late Q1, 2025.*
- *Critical Agreements post FFGA (Construction): 4 (BART IL, UPRR C&M, and SJWC (2))*
- *Critical Agreements post FFGA (Operations): 5 (BART, JPB, CT, CSJ, CSC)*

As noted in previous reports, VTA is pursuing a re-use strategy for the tunnel spoils that will require environmental clearance (by a lead agency other than FTA) and permits prior to implementation of that sustainability solution. The latest Third-Party Agreement tracking log has a separate tab that identifies associated permits needed for the re-use of the tunnel spoils at the South San Francisco Salt Pond. This is regardless of the funding source for the environmental clearance and with the understanding that if not obtained (either by BSVII or others), the contractor will use alternative disposal.

***Summary of Utility Relocation Design and Construction Progress***

LOCATION	RELOCATIONS DESIGN	RELOCATIONS IN CONSTRUCTION
<b>OWNER LED RELOCATIONS</b>		
West Portal / NHY / SCS	7	3
Diridon Station	8	6
Downtown San José Station	5	3
28 <sup>th</sup> Street / Little Portugal Station	7	0
East Portal	5	0
<b>Sub Total</b>	<b>32</b>	<b>12</b>
<b>CONTRACTOR LED RELOCATIONS</b>		
West Portal / NHY / SCS	3	0
Diridon Station	3	0
Downtown San José Station	0	0
28 <sup>th</sup> Street / Little Portugal Station	3	0
East Portal	2	0
<b>Sub Total</b>	<b>11</b>	<b>0</b>
<b>Total</b>	<b>43</b>	<b>12</b>

*The monthly December 12, 2024, meeting presentation reported the following:*

- *West Portal:*
  - *Pacific Gas & Electric (PG&E) 115kV interconnection – PG&E remobilization pending advancement of KST work.*
  - *Cogent/Sprint final design package pending construction agreement & easement acquisition.*
  - *PG&E Overhead Electrical (OHE) construction in-progress.*
  - *Zayo Construction Notice to Owner (NTO) in-progress*
- *Diridon Station and West Vent Shaft:*
  - *PG&E gas relocation constructions (DS-G-07 & DS-G-04) pending pavement restoration.*
  - *AT&T Construction to resume after moratorium.*
- *Downtown Station:*
  - *AT&T Construction NTO executed – work to commence after moratorium.*

- *PG&E Electric relocation (DSJS-E-32) postponed to 2025 due to Real Estate.*
- *East Portal:*
  - *SJWC relocation design finalized.*

## **K. Construction**

*The monthly December 12, 2024, meeting presentation reported the following early works procurement / negotiations activities and status of progress:*

- Early Works Projects – Procurement / Negotiations:
  - *EWP 2A – Precast Final lining, Material & Plant Procurement: negotiations ongoing.*
  - *EWP 3A – West Portal Initial Sitework: Construction ongoing.*
  - *EWP 3B – West Portal Sitework (Phase 2): approved by VTA Board in November, NTP issued.*
  - *EWP 3C.1 – Preparation for West Portal Enabling Works: Processing long-lead submittals; to restart December 4.*
  - *EWP 3C.2 – Launch Structure: Seeking VTA Board approval December 5. NTP December 12.*
  - *EWP 7A – West Portal Instrumentation & Monitoring: Ongoing monitoring; developing baseline report.*
  - *EWP 9A – TBM Tunnel Support Equipment: Negotiations ongoing.*
  - *EWP 11A - West Portal TBM and Plant Power: KST started technical clarifications with vendors for electrical equipment*
  - *EWP 11B - West Portal TBM and Plant Power Phase 2: KST started technical clarifications with vendors for electrical equipment*
- Construction – West Portal:
  - *Completed underground utilities: Electrical, Sanitary Sewer & Storm Drain, Industrial Water*
  - *Started Water Line installation*
  - *Completed Site Grading operations (first phase)*
    - *Completed site winterization SWPPP measures (BMPs), ongoing maintenance*
  - *Hazardous Material Removal (removal of underground storage tanks) on-going.*
  - *Ongoing Instrumentation and Monitoring existing UPRR / JPB track; continue maintenance of devices.*
    - *Started baseline monitoring report development*
  - *Continued access roadway concrete paving; completed access roadway AC paving*
  - *Ongoing weekly Construction meetings with KST*

- West Portal area – Underground Storage Tank (UST) Steel Removal Process:
  - 9/16/24- 3 steel tanks uncovered during duct bank installation
  - 9/17/24-9/25/24 - KST sampled oily sludge; County Health required new permit & work plan; San Jose Fire inspected site
  - 10/22/24 - County Health approved cleaning/removal plan
  - 11/7/24-11/9/24 - VTA sub cleaned the tanks (12 drums filled with residue); drums stored onsite; San Jose Fire onsite
  - 11/12/24 - County Health onsite certified tanks clean; KST removed from excavation
    - Two cylindrical tanks deemed non-hazardous and recycled. Rectangular tank stored onsite.
  - 11/12/24 - Present; VTA sampled soil; awaiting analysis, profile and disposal options for drums and rectangular tank. KST backfilled excavation prior to rain events.
- Construction – Facilities–Downtown San José, Diridon Station, 28<sup>th</sup> Street/ Little Portugal:
  - Property protection assessment development ongoing.
  - Developing enabling Works packages for the station facilities
  - *CTMP and CSA planning and coordination with KST on-hold*
- Construction – Project-wide:
  - KST developing Pre and Post Construction Property Survey plans.
  - Reviewing obstructions report/plan for existing structure foundation investigations along the tunnel alignment.

## **L. Vehicle Technology and Procurement**

Expansion of BART’s existing fleet to serve the BSVII service to Santa Clara is included in BART’s Rail Fleet Management Plan (RFMP). Forty-eight vehicles have been identified in the BSVII budget. However, all vehicles will be procured under BART’s vehicle procurement contracts not through a separate VTA procurement.

On May 2, 2024, the VTA Board of Directors authorized the General Manager/CEO to enter into an agreement with the San Francisco Bay Area Rapid Transit (BART) for the purchase of 48 revenue vehicles for the BSVII Extension Project through BART’s existing contract with Alstom (formerly Bombardier). The costs related to these revenue vehicles are estimated to total \$172,600,000.

At the November 14, 2024, monthly meeting, VTA reported that Alstom will begin delivering the 48 vehicles for BSVII in 2025.

## **M. Project Cost**

VTA transmitted to FTA/PMOC on October 11, 2023, their new baseline cost estimate that included a total project budget of \$12.237B. The new baseline cost, with a status date of June 30, 2023, was developed reflecting the CP2 Stage 1 baseline, and the updated design-bid-build (DBB) contract packaging strategy for CP1, CP3 and CP4.

This new baseline cost estimate was reviewed in accordance with FTA’s OP 33 Project Cost Review in coordination with the January 2024 Entry to Engineering risk assessment. The risk review resulted in P65 Forecast cost of \$12.746B that was accepted and adopted by VTA. VTA formally requested FTA’s approval to enter Engineering Phase in a letter dated March 29, 2024, with a total project cost of \$12.746B and a Revenue Service Date (RSD) of February 2039.

The BSVII project budget of \$12.746B supporting VTA’s March 29, 2024, request for FTA’s approval to enter Engineering is summarized below.

SCC	Title	Cost Estimate – YOE (in \$M)
10	Guideway & Track Elements	\$2,900
20	Stations, Stops, Terminals, Intermodal	\$2,037
30	Support Facilities: Yards, Shops, Admin. Buildings	\$352
40	Sitework & Special Conditions	\$582
50	Systems	\$1,409
<b>Construction Subtotal (10 – 50)</b>		<b>\$7,280</b>
60	ROW, Land, Existing Improvements	\$241
70	Vehicles (48)	\$205
80	Professional Services	\$2,973
<b>Subtotal (60 – 80)</b>		<b>\$3,419</b>
90	Unallocated Contingency	\$1,657
100	Finance Charges	\$390
<b>TOTAL (SCC 10-100)</b>		<b>\$12,746</b>

*VTA has reported expenditures through October 31, 2024, including accruals, which total \$1,217.9M Project costs have been expended in SCC 10, SCC 40, SCC 60, SCC 70, and SCC 80. Project commitments include SCC 10, SCC 40, SCC 60, SCC 70, and SCC 80 and total \$1,610.7 through October 31, 2024.*

*The monthly December 12, 2024, meeting presentation reported the following Budget / Cost updates for the October 2024 reporting period:*

- No budget transfers were executed during this period*
- No change orders executed during this period.*
- No budget transfers or contingency updates reported for this period against the baseline budget*



- *Contingency draw-down curves are included in the monthly report to reflect current status of both cost and schedule contingency and will be anticipated for the Early Works NTP in Nov. 2024*

## **N. Project Schedule**

*VTA provided an October updated schedule with a data date of 01NOV24. A full analysis was completed on this schedule.*

The new VTA baseline schedule has a target Revenue Service Date (RSD) of Q2-2037. The preliminary risk assessment by PMOC indicated a projected RSD of February 2039, inclusive of FTA-assessed schedule contingency. VTA is adopting the FTA-recommended schedule contingency that indicates a Q1-2039 RSD while managing to the target RSD of Q2-2037.

*The activities for “VTA Target RSD” with a date of 12MAY37, and “FFGA RSD” with a date of 28FEB39 have remained the same. Systems Substantial Completion has been adjusted to 01APR36 from 29JAN36 for a loss of 44 working days.*

VTA noted that the critical path excluding the contingency and reserve includes the following items:

1. West Portal Enabling work and Launch Structure (CP2)
2. TBM Procurement: Assembly and Testing (CP2)
3. Tunnel mining from West Portal to East Portal (CP2)
4. West Portal: Final concrete work and finishes (CP2)
5. West Portal: Train Control Building (CP2)
6. Newhall Yard: Systems installation (CP1)
7. Phase 2 testing by CP1 with BART oversight
8. BART OCC Validation / Testing

The near-critical items as of this update are:

1. CP2 – TBM procurement, fabrication, and delivery
2. TBM Plant temporary power at the West Portal

The Master Project Schedule (MPS) is comprised of a summary schedule plus the following twelve individual schedules:

1. Program Management and Administration
2. Right-of-Way Acquisition
3. Design
4. Advertise, Bid, and Award
5. Utilities
6. Third Party
7. Vehicles & Parking
8. Testing and Commissioning
9. Systems
10. Contract Package 2
11. Yard/SC Station

## 12. Underground

*Since the project has been re-baselined (schedule with a 01APR24 data date) the revenue ready dates have remained the same however there has been reduction in some of the internal contingency durations. The Utility schedule has reduced its two contingency activities by twenty (20) days. The contingency activities in the CP 2 schedule have been reduced anywhere from 52 to 127 days. The ROW has been adjusting the “Effective Possession” activity durations.*

*The critical path on the overall schedule has total float at 0. CP2 Newhall Yard Enabling Works Instrumentation & Monitoring (I&M) Baseline Monitoring and CP2 Newhall Yard Enabling Works Prepare for TIBO, Pre-Cast Tunnel Lining (PCTL) & Power are driving the critical path. CP2 Newhall Yard Enabling Works I&M Baseline Monitoring leads to Support and Excavation of the West Portal and then to TBM activities all of which have been pushed out by 44 working days.*

*There are three contingency activities on the longest/critical path. They are CP2 West Portal SOE & Caterpillar Structure Contingency, CP2 TBM Assembly Contingency and Project Contingency. These three activities add up to 378 working days. The two contingency activities in CP 2 on the longest path have been pushed out by 44 working days which is what pushed the date for Systems Substantial Completion.*

*On the Right of Way schedule there continues to be activities indicating 100% Complete with the Physical % type in place however there are no Actual Finish Dates. Therefore, are these actually completed or not. Of the thirty activities which had a percent completed change to them this month all but one was for Cost Loaded Activity Easements. There are many activities that have actual start dates but are showing 0% complete. These activities have a Physical % which mean they need to be manually adjusted each update with a percentage, and it appears this is not being done. There are 50 activities this period with no progress.*

*On the Right of Way schedule there continues to be activities indicating 100% Complete with the Physical % Complete type in place however there are no Actual Finish Dates. Therefore, it makes determination of if these items are actually completed difficult. Of the thirty activities which had a percent completed change to them this month all but one was for Cost Loaded Activity Easements. There are many activities that have actual start dates but are showing 0% complete. These activities have a Physical % which mean they need to be manually adjusted each update with a percentage, and it appears this is not being done. There are 50 activities this period with no progress.*

*In the CP2 schedule Original Duration adjustments were anywhere from a loss of 26 to 242 working days. Procurement and fabrication of the TBM pushed by 35 working days and the CP2 TBM launch has been pushed out by 44 working days. 85% Design submittals for Diridon Station, DTSJ, East Portal, 28<sup>th</sup> Street Station and the West Portal are indicating no progress this period. Issuance of CP2 NTP2 has been adjusted from September 2025 to January 2026 for a loss of 74 working days. Twenty milestones have lost time and three of these are on*

*the critical/longest path. There are activities without finish relationships. There are thirty-one (31) activities on the longest path which is one more than last month. The entire Yard/SC Station (CP3) schedule has shift out by up to 24 working days however there are activities which adjust out by 44 working days. But the NTP, mobilization and procurement have remained the same. There one activity on the longest path and that is Yard/SC Station NTP. A portion of Underground Stations (CP4) had a loss of 44 working day, but the overall completion has remained the same. There are no activities on the longest path.*

*The monthly December 12, 2024, meeting presentation reported the following Project Schedule updates for the October 2024 reporting period:*

*Major changes to the schedule this month are as follows:*

- *Design activities: Added revised 60% design activities due to Cost Saving Candidates (CSC)s incorporation.*
- *Right of Way: Updates to various ROW activities. Effective Possession dates caused slippage in the schedule. The changes in ROW dates did not affect the critical path.*
- *Utilities: Updates to various utility owners' activities dates caused slippage in the schedule but did not impact the critical path.*
- *CP2 Construction: The start of heavy construction at the West Portal launch structure part of EWP 3C slipped from October 2024 to January 2025. The change at the start of construction affected the critical path and caused two months of delays.*

*Schedule Contingency Drawdown is as follows:*

- *CP2 Construction: The start of heavy construction at the West Portal launch structure part of EWP 3C slipped from October 2024 to January 2025. VTA is planning to take EWP 3C to the December 2024 Board for approval and authorization. The change in the start of construction affected the critical path and caused two months (44 working days) of delays. VTA has been tracking a specific risk (#BSV-218 – Potential for delayed start of EWP 3C) in the Program Risk Register.*
- *44 working days of contingency duration drawdown was applied to Project Contingency activity to maintain the RSD. The Project Reserve activity duration was not impacted. This reduced the combined total of Project Contingency and Project Reserve from 33.9 months to 31.9 months.*

## **O. Project Risk**

### **Overall Status**

The PMOC reviewed various versions of the Risk and Contingency Management Plan (RCMP) leading up to VTA's EPD selection. On May 26, 2023, VTA submitted an updated RCMP (Rev. 0.D dated May 22, 2023) with the above-noted PMP Subplans to support VTA's New Starts request to enter Engineering. On October 11, 2023, VTA submitted another revision of the RCMP (Rev. B dated September 14, 2023) associated with the new baseline cost and schedule.

VTA reported having continued their on-going risk review meetings with project and discipline teams, updating risk response plans and risk register. *VTA continues to include the PMOC in their monthly risk review meetings going forward.*

*VTA has indicated, as per CP2 contract requirements, the KST team is expected to include a risk register after the review of the Configuration Design submittal. The BSVII team will review KST's identified risks with BSVII disciplines, revise the Program Risk Register as appropriate and establish a joint VTA/KST CP2 Project Risk Register that will be reviewed with the KST team regularly. As of the risk workshop held in January 2024, this register has not been provided to PMOC.*

*The project risk profile has changed either since the EPD submission and is likely further impacted as the project has moved back into the New Starts program. The PMOC has completed a risk assessment given the new baseline cost and schedule by VTA that reflects their planned delivery and updated packaging strategy, along with awarded CP2 contractor (KST's) approved innovations. The Entry to Engineering risk workshop for the project was conducted in January 2024 with the FTA, the project sponsor and PMOC. The PMOC has proposed additional new risks related to geotechnical conditions, Buy America requirements, interface requirements associated with changing scope, Real Estate management plan, TBM productivity assumptions, agency capacity, timely decision with BART and external stakeholder impacts including potential delays from Board of Directors. VTA has incorporated the FTA/PMOC risk assessment results into their new baseline and request to Enter Engineering.*

#### ***New Risks:***

***BSV-230 - CP2 Off-ramp requiring re-procurement resulting in potential lack of competitive bidders:*** *With the potential CP2 off-ramp, procurement of additional contract packages may be required to support the program. Due to the limited marketplace for tunnel contractors and lack of competitive bidders, contractors may include a premium on bids which may result in higher contract costs. This new risk was created to capture this issue.*

***BSV-231 - Extended design pause has potential to delay schedule:*** *Various design elements are currently paused to address cost saving measures and optimizations. This extended design pause may increase costs due to escalation. This new risk was created to capture this issue.*

***BSV-232 - Diridon station in-tunnel design changes to accommodate future Diridon Business Case:*** *Diridon Intermodal Partners requested changes to accommodate an underground connection for the future Diridon Station (Diridon Business Case). This will necessitate significant re-configuration of the Diridon Station, resulting in redesign costs, extended design duration, and added capital cost to accommodate the future connection. This new risk was created to capture this issue.*

#### ***Increased Risk Score:***

***BSV-215 - FFGA execution delays:*** *Per VTA, FTA's approval of BSVII's New Starts Entry to Engineering (NSEE) application resulted in a significant funding shortfall. This risk captured the longer time to address the funding gap and resulting FFGA execution delay which could cause cost and schedule increases. As the FFGA application may now require 60% design completion, it is unlikely to be completed by December 2024. Therefore, the risk probability has increased.*

**BSV-218 - Delayed start of EWP 3C pushing critical path work but within NSEE approved baseline:** Per VTA, this risk pertains to potential delays in critical path work due to budget authorization uncertainty and funding availability delaying NTP of EWP 3C West Portal work. As board approval of EWP 3C happened in December, the cost impact has been revised to align with monthly escalation cost of delay. Therefore, cost impacts have increased.

**BSV-221 - Various CP1,3,4 refinements (PGW-001-2,4-5,9) identified by GEC team to reduce costs for CP1, CP3 and CP4 scope:** Per VTA, this opportunity pertains to potential refinements. Most of the optimizations are moving forward, and GEC is currently undertaking engineering analysis. Therefore, probability has increased, and cost impacts have decreased.

**BSV-222 - Refinements PGW-006 to Combine Fans and Eliminate 1 Fan Plant at 28th Station & PGW-010 to Eliminate Fan Plant at Diridon West Vent Shaft:** Per VTA, this opportunity pertains to eliminating one fan plant at 28th Station by co-locating three fans into one room and providing one fan plant with three fans on a N+1 basis at North Vent Structure. GEC completed engineering analysis and TWG is scheduled with BART in November 2024. Therefore, probability and cost impacts have increased.

**Reduced Risk Score:**

**BSV-214 - Diridon Station Back of the House (BOH) redesign to accommodate stakeholders' input:** Per VTA, this risk originally captured the potential significant re-configuration of Diridon Station to accommodate City requested changes to put BOH below ground. An additional design has been presented to Community Working Group (CWG) which will not require putting BOH below ground. Due to a positive response from CWG and BSVII oversight committees and progress on cost sharing with partner agencies, risk probability and cost impacts have decreased.

**BSV-223 - CP2 Optimization 3.03: Replace current segmental structure into a concept similar to a Box Culvert:** Per VTA, this opportunity pertains to replacing the current segmental structure with a concept similar to that of a Box Culvert with earthen fill on the sides supporting the tracks. A meeting has been scheduled between the PMT and KST to reconcile savings estimates, and the probability has decreased.

**Retired Risk:**

**BSV-063 - Yard site layout may not yield a layout for the number of cars requested by BART to be accommodated:** Per VTA, this risk originally pertained to the possibility of the yard site not accommodating the number of cars requested by BART. Since all BART requested storage can now be accommodated, this risk is retired.

Provided in the table below are the Top 10 risks as reported by VTA for the period (please also refer to Attachment E for additional risk detail).

VTA October, 2024 Risk Register Top 10		
Risk ID	Risk Title	VTA Risk Score
BSV-196	Failure to secure a lump-sum price with KST resulting in Off-ramp.	20
BSV-203	Higher cost of the West Portal TBM launch facility.	20
BSV-218	Delayed start of EWP 3C pushing critical path work but within NSEE approved baseline.	20
BSV-215	FFGA execution delays.	16
BSV-211	Opportunity for eliminating DTSJ secondary HH.	15
BSV-222	Refinements PGW-006: Combine Fans and Eliminate 1 Fan Plant at 28th Station & PGW-010: Eliminate Fan Plant at Diridon West Vent Shaft.	15
BSV-005	Unanticipated damage to historic buildings & other structures.	12
BSV-029	VTA financial capacity / funding plan to finance potential project cost increases.	12
BSV-036	General construction labor shortage / labor premiums resulting in delays or increased cost.	12
BSV-096	Testing and Commissioning delays due to various factors.	12
	<b>Threat</b> <b>Opportunity</b>	

The monthly December 12, 2024, meeting presentation provided the following progress updates:

- Ongoing internal risk review meetings with Program, Project, Discipline Leads and key stakeholders.
- Key changes to the Program Risk Register summarized below:

Change <sup>1</sup>	Risk	Notes
Retired	• None	
Upgrade	• BSV-218 - Delayed start of EWP 3C pushing critical path work but within NSEE approved baseline	• Cost saving measures are currently ongoing and further design completion could take longer than previously planned. With the Board approval pushing to Dec 2024, added 2 months of schedule delay. Schedule impact increased to high and associated cost impact increased to very high as a result.
Downgrade	• BSV-204 - Delays in Temporary Power SNH and long-lead transformer procurement and construction	• Based on the schedule verification from KST, fabrication and delivery risk is now lowered. Schedule impact reduced as a result. Remaining schedule risk continues to be monitored until construction timeline is finalized.
New	• None	

Note 1: Only major changes including addition of new risk, retirement of existing risk or change in risk score from one risk zone to the another (i.e., from red to yellow and so forth) are reported in this table. Monthly update to the BSVII Program Risk Register include other changes to the risk scoring.

**P. Quality Assurance/Quality Control**

PMOC reviewed various versions of the Quality Management Plan (QMP) leading up to VTA’s EPD selection. On May 26, 2023, VTA submitted an updated QMP (Rev. 2 dated May 1, 2023) with the above-noted PMP Subplans to support VTA’s New Starts request to enter Engineering. PMOC reviewed the revised QMP and provided preliminary summary comments to VTA on June 27, 2023. The QMP (Rev. 2 dated November 1, 2023) was submitted to the PMOC on November 22, 2023. On July 2, 2024, FTA transmitted to VTA the final QMP PMOC review report.

*The monthly December 12, 2024, meeting presentation reported the following quality activities:*

- *Contract Package-2 KST*
  - *Continued KST Procurement Procedure Pre-Audit Activities (Purchasing, Fabrication, Installations)*
  - *Continued review of CP-2 Pre-Final Construction Specifications Volume 4*
  - *Completed revisions of Volume 1 Quality related Specifications for Contract Amendment*
  - *Reviewed KST proposed Non-Conformance Report (NCR) management system*
- *General Engineering Consultant- Stations, Facilities, Systems*
  - *Continued QA Oversight of Stations, Facilities and Systems Designs*
  - *Continued QA Oversight Design Quality Program Audit of Interim Design*
- *BSVII Program*
  - *Continued Utility Surveillance focusing on temporary power infrastructure for TBM*
  - *Continued QA Oversight Audit of Document Control Plan Rev. 1*
- *BSVII Construction Management (CM)*
  - *Continuing weekly VTA/KST/Bechtel quality meetings*

## **Q. Safety and Security**

VTA and BART previously indicated an intent to conduct joint Fire Life Safety and Security Committee (FLSSC) and Safety and Security Review Committee (SSRC) meetings for the early phase of the BSVII program.

The monthly SSRC meetings commenced in January 2021, with the latest meeting held October 25, 2023. On August 30, 2023, VTA issued the SSRC charter. The SSRC is chaired by VTA Deputy Director, Program Administrator and includes VTA (Security Specialist, Chief of System Safety & Security, System Safety & Security Lead, and project managers), BART (engineering, operations, system safety, and police), BSVII Program Management Team, Federal Transit Administration, and the Project Management Oversight Contractor.

The first FLSSC meeting was conducted on October 7, 2021. FLS (Fire Life Safety) continues to monitor project progress, but there are no significant updates to report. On August 30, 2023, VTA issued the FLSSC charter. The FLSSC charter is co-chaired by VTA Chief Megaprojects Officer and BART Assistant General Manager of Operations. It includes committee members from the Cities of San José and Santa Clara fire and police departments, Santa Clara Sheriff, California Public Utilities Commission (CPUC), BART (engineering, system safety, and police), and VTA (System Safety & Security, and project managers). The CPUC is the State Safety Oversight Agency (SSOA) as certified by FTA.

*The monthly December 12, 2024, meeting presentation reported the following System Safety and Security Risk Management / Certification activities:*

- *The Safety and Security team has been evaluating risks related to cost saving measure that would change DCM language and have safety or security impacts.*
- *Safety and Security Review Committee (SSRC)*

- *The November 21, 2024, SSRC meeting included an update to status of cost saving measures anticipated to have safety or security risk implications. One risk assessment was presented for review and approval:*
  - *Alternative Sump Pump design for the tunnel was approved pending changes to the risk assessment recommended by BART safety. Updated memo will be attached to the record of decision.*
- *Three measures were approved and one tabled for next month's SSRC*
- *Fire Life Safety and Security (FLSS) Activities*
  - *One (1) FLSSWG meeting was held in November, to further review potential FLSS issues being tracked*
  - *No FLSSC was held in November as the group is awaiting some decisions to come out of FLSSWG activities*

## **R. Americans with Disabilities Act (ADA)**

VTA produced an Accessibility Report to meet the EPD application requirements specified in the NOFO (Notice of Funding Opportunity).

## **S. Buy America**

VTA has committed to meeting the Buy America requirements in their PMP documentation. Additional details regarding how they intend to meet the 70-percent content threshold, and their management of contractor requirements have yet to be made available to the PMOC for review.

VTA is including a notification in the RFQ to all prospective bidders that Buy America requirements will be part of each contract. VTA sets the expectation that each supplier and subcontractor must research and present findings for verification. Additional work is needed to coordinate the requirements and compliance at a program level. VTA indicated that their contract technical teams will provide input regarding that program coordination.

*No update was provided in the monthly December 12, 2024, meeting presentation. PMOC recommends that VTA revisit their plan for Buy America implementation and management regarding Buy America Build America changes and the program's adjusted delivery plan.*

## **T. Start-Up, Commissioning, Testing**

VTA and their contractors will be responsible for Phase 1 and 2 system integration testing. Upon successful completion of Phase 2 system integration testing, the system will be turned over to BART to complete Phase 3 system integration and pre-revenue testing. As noted above, VTA has established a Rail Systems Organization (RSO) teaming with BART to manage systems and operations input to project development and address related issues. The RSO is developing the System Integration Testing Program Plan. The testing plan will define BART Phase 3 System Integration Testing (SIT) to be Operations Control Center (OCC) validation of tests previously performed. The intent of Phase 3 SIT is not to introduce new tests to be performed. However, if there are system validation failures during SIT Phase 3, BART will have the right to perform new tests until all testing discrepancies are cleared.



As previously noted, VTA has determined that Communication Based Train Control (CBTC) design will be progressed for implementation on the BSVII extension. To accommodate the technology, BART CBTC implementation from Warm Springs to Berryessa needs to be completed. VTA provided the following milestones related to this phase/segment of BART’s project:

- Migration design from Q3 2025 to Q4 2029
- Procurement from Q4 2025 to Q3 2028
- Installation from Q1 2029 to Q4 2029
- Testing and Commissioning from Q3 2029 to Q4 2030
- Revenue service expected at the end of 2030

*No update was provided in the monthly December 12, 2024, meeting presentation.*

**U. Action Items Table**

Item		Responsible Party	Date			Status / Action Required
No.	Description		Identified	Due	Complete	
155	Notify PMOC when EWP’s are executed	VTA	2/8/2024	3/1/2024		<b><i>In-Progress</i></b> <i>12/13/2024 – VTA updated PMOC about latest status of EWP’s</i>
168	<i>Provide PMOC status update on coordination with TBM builder</i>	VTA	8/8/2024	9/12/2024		<b><i>Open</i></b>
172	<i>Provide Cost Savings Candidate materials for FTA/PMOC review. VTA and PMOC to coordinate on establishing the objectives and timeframe of a future workshop.</i>	VTA	10/10/2024	11/14/2024		<b><i>Open</i></b>
174	<i>Provide response regarding the storage of cables</i>	VTA	10/10/2024	11/14/2024		<b><i>Open</i></b>
175	<i>Provide a list of Request for Variances pertaining to system safety and security</i>	VTA	10/10/2024	11/14/2024		<b><i>Open</i></b>

### **3. Project Monitoring Report Attachments**

Attachment A. List of Acronyms

Attachment B. Monthly Meeting Agenda

Attachment C. Monthly Meeting Attendees

Attachment D. List of Documents Received

Attachment E. VTA Top 10 Project Risks

Attachment F. Project Milestones/Key Events Attachment G. Project Map

Attachment H. FTA Grant approval letter dated August 1, 2024.

## **A. List of Acronyms**

ADA	Americans with Disabilities Act
BART	Bay Area Rapid Transit
BSVII	BART Silicon Valley Phase II
CBTC	Communications Based Train Control
CIG	Capital Investment Grants
CPUC	California Public Utilities Commission
CSC	City of Santa Clara
CSJ	City of San José
DCM	Design Criteria Manual
EVS	Emergency Ventilation Structure
EPD	Expedited Project Delivery
FLSS	Fire, Life, Safety and Security
FTA	Federal Transit Administration
FOTF	Fleet of the Future
LS	Lump Sum
MCCP	Management Capacity and Capability Plan
NDA	Non-disclosure Agreement
NEPA	National Environmental Policy Act
NOFO	Notice of Funding Opportunity
OP	Oversight Procedure
PDB	Progressive Design Build
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
QMP	Quality Management Plan
RAMP	Real Estate Acquisition Plan
RCMP	Risk and Contingency Management Plan
RFIF	Request for Industry Feedback
RFMP	Rail Fleet Management Plan
RFP	Request for Proposal
RFQ	Request for Qualifications
ROW	Right of Way
RSO	Rail Systems Organization
SCC	Standard Cost Categories
SOQ	Statement of Qualifications
SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSRC	Safety and Security Review Committee
STOPS	Simplified Trips-On-Project Software
SVBX	Silicon Valley Berryessa Extension
SVTC	Silicon Valley Transit Consultants
TBM	Tunnel Boring Machine
UPRR	Union Pacific Railroad
VE	Value Engineering
VTA	Santa Clara Valley Transportation Authority

## **B. Monthly Meeting Agenda**

### **Monthly Coordination Meeting/Teleconference VTA BART Silicon Valley Extension Phase II**

Thursday, December 12, 2024 – 10:00am (Pacific) *(Meeting cancelled)*

Conference Connection: MS Teams

1. Introductions/Roll Call
2. Key Agency-level updates (organization, financial, legal, safety, etc.)
3. Action Items from latest Monthly Call
4. Issues and Concerns from latest Monthly Meeting
5. Project Status
  - a. Project Management Organization Updates
    - i. PMP and sub-plans
    - ii. Management Capacity and Capability
  - b. Project Summary Description
  - c. Key Project Issues
    - i. Key Personnel staffing update
    - ii. Program Management Services Procurement Update
    - iii. Update on Agreements for Early Works Packages
    - iv. Status of Cost Reduction / Optimization
    - v. BSVII Project Progress:
      - a. TBM manufacture shipping, assembly and mobilization
      - b. Schedule critical path
      - c. CP2 Stages 1 & 2
  - d. NEPA / Environmental Mitigations
  - e. Project Delivery Method and Procurement Status
    - i. Project-Wide
    - ii. Systems DBB
    - iii. CP2 PDB
    - iv. Facilities DBB
    - v. Stations DBB
  - f. Design Status
    - i. Project-Wide
    - ii. Systems
    - iii. CP2 – Tunnel & Trackwork
    - iv. Facilities
    - v. Stations
  - g. Real Estate Acquisition/Relocation Status
  - h. Public Involvement/Outreach
  - i. Third-Party Agreements
  - j. Utilities
  - k. Construction
  - l. Project Controls
    - i. Schedule Updates
    - ii. Cost and Expenditures Updates
    - iii. Change Order Status

- iv. Contingency Status
  - m. Project Risk Management
  - n. Quality Assurance / Quality Control
  - o. System Safety and Security
- 6. New Action Items
- 7. Upcoming Monthly Coordination Meetings:
  - a. January 16, 2025, 10:00am (Pacific)
  - b. February 20, 2025, 10:00am (Pacific)

**C. Monthly Meeting Attendees**

*The December 12, 2024, meeting was cancelled.*

**D. List of Documents Received**

<b>Document</b>	<b>Received</b>
<i>RFV list with DCM Sections and Safety Identified.xlsx</i>	<i>11/5/2024</i>
<i>2024-11-08 Board of Directors – Full Agenda-4065.pdf</i>	<i>11/7/2024</i>
<i>2024-11-08 Board of Directors – Full Agenda 4066.pdf</i>	<i>11/7/2024</i>
<i>2024-11-07 Board of Directors – Full Agenda-4052.pdf</i>	<i>11/7/2024</i>
<i>BSVII FTA-VTA PMOC Monthly Meeting_2024-11-14_Draft.pdf</i>	<i>11/7/2024</i>
<i>BSVII FTA-VTA PMOC Monthly Meeting_2024-11-14_Draft.pdf</i>	<i>11/12/2024</i>
<i>2024-11-CA-BSVII-OP25-ProjectMonitoringReport_Draft_VTA Comments.docx</i>	<i>11/27/2024</i>
<i>BSVII-BART-Program Mgmt_Org Chart.pdf</i>	<i>11/26/2024</i>

## E. VTA Top 10 Project Risks

Risk ID	Risk Title	Risk Description	Risk Score	Action Items Description
BSV-196	Failure to secure a lump-sum price with KST resulting in Off-ramp.	Cause: KST's unwillingness to accept reasonable risk strategies/sharing within VTA budget. Risk: Failure to agree on lump-sum and come to terms with KST. Impact: Off-ramp with CP2 contract scope, increased interface risk, design completion delays, construction escalation costs, etc.	20	1. Implement EWPs (like West Portal development) as early construction item during Stage 1 to lessen the impacts/delays of implementing an off-ramp. 5. Compare Tunnel Package cost proposal with the ICE. 6. Update VTA Board on current status of CP2 Stage 2 scope and ongoing negotiations.
BSV-203	Higher cost of the West Portal TBM launch facility	Cause: Finalized negotiations that have resulted in agreed value of EWPs (3A and 3C). Risk: Higher than anticipated cost and longer time to construct the West Portal facility Impact: Delays to launch of TBM operations	20	5. Following VTA Board Approval, implement contingency drawdown/budget transfer to augment CP2 budget.
BSV-218	Delayed start of EWP 3C pushing critical path work but within NSEE approved baseline	Cause: Uncertainty with budget authorization and/or available funding Risk: Delayed NTP of EWP 3C West Portal work Impact: Potential delays to critical path work	20	2. Obtain approval from the Board for the full value of EWP 3C and utilize LNTPs to "meter" KST's spend while still focusing on the critical path activities. 3. Work with KST to identify potential schedule workarounds to minimize delays.
BSV-215	FFGA execution delays	Cause: FTA's approval of BSVII's NSEE application resulted in significant funding shortfall Risk: Longer time to address funding gap and resulting FFGA execution delay Impact: Delay in execution of near-term critical path schedule milestones and associated increase in overall program cost	16	1. Identify additional local funding sources to address funding shortfall. 3. Incorporate approved optimizations/cost savings measures in design and update program cost forecast. 4. Update financial plan to support FFGA execution by Fall 2025.
BSV-211	Opportunity for eliminating DTSJ Secondary Headhouse	Cause: VTA's VE study identified elimination of DTSJ Secondary Headhouse Risk: Reduction in capital cost for eliminating DTSJ SH as well as all ROW parcels associated with it Impact: Direct cost savings	15	1. Implement the approved VE and realize savings as part of 60% design estimate.
BSV-222	Refinements PGW-006: Combine Fans and Eliminate 1 Fan Plant at 28th Station & PGW-010: Eliminate Fan Plant at Diridon West Vent Shaft	Opportunity to eliminate 1 fan plant at 28th Station by co-locating three fans into one room and providing one fan plant with three fans on a N+1 basis at North Vent Structure. Cost saving is generated from: a) Reduction of footprint; b) Reduction of power loads; c) Elimination of one fan plant. Opportunity to eliminate the fan plants at DIWVS by utilizing the fan plants at West Portal and DTSJS. Cost savings would be generated from: a) Reduced footprint / elimination of fan plants; b) Reduced power supply needs.	15	2. Obtain BART agreement on PGW-010
BSV-005	Unanticipated damage to historic buildings & other structures	Cause: Vibration and/or settlement during construction. Risk: Unanticipated or inadvertent damage to buildings (especially historic buildings) and structures. Impact: Additional cost to mitigate; along Santa Clara St, but extending to the area encompassed by settlement trough.	12	8. KST to develop instrumentation and monitoring program for sensitive structures. VTA to support KST in obtaining access to install and monitor instrumentation as appropriate. 9. KST to prepare mitigation design following findings of PPS.
BSV-029	VTA financial capacity / funding plan to finance potential future project cost increases	Cause: Changes in cost may result from further design development and coordination with stakeholders. Risk: Future cost estimates may exceed current available funding and/or local funds may expire, necessitating the identification of additional funding sources and/or debt financing. Impact: a) delays in progressing the project, b) changes to scope in order to align with identified funding and project cost.	12	3. Identify secondary mitigation and review with BART if additional cost pressures arise as applicable. 4. VTA CFO continues to perform stress test of the financial plan to address potential cost increases



Risk ID	Risk Title	Risk Description	Risk Score	Action Items Description
BSV-036	General construction labor shortage / labor premiums resulting in delays or increased cost	With so many on-going concurrent projects in the state, and the potential for more projects ramping up due to Federal /State stimulus to create jobs, there may be a shortage of skilled labor to support aggressive project milestones. In addition, competition of resources for skilled labor (operators, electricians, tunnel moles, etc.) and equipment may create the need to pay a premium.	12	<ul style="list-style-type: none"> <li>2. Continue to monitor economic trends.</li> <li>3. Continue project public outreach efforts.</li> </ul>
BSV-096	Testing and Commissioning delays due to various factors	Testing and commissioning delays due to: <ul style="list-style-type: none"> <li>- Insufficient time allocated to the schedule for testing activities.</li> <li>- Unanticipated systems integration/interface issues.</li> <li>- Inadequate installation verification and QA/QC processes implemented.</li> <li>- Failed testing of equipment and/or testing parts requiring major rework.</li> <li>- Improper handoff from other CPs to systems contractor.</li> </ul>	12	<ul style="list-style-type: none"> <li>2. Develop detailed resources loaded schedule for system's testing, commissioning and training activities.</li> <li>3. Rigorous implementation of lessons learned including integrating BART's Operations (Maintenance and Engineering) team into the design, construction and testing phases of the program.</li> <li>4. PMT to work with GEC to ensure clear definition of the inspection and test conditions to be included in the CP1/3/4 contract documents as they constitute SOW definition. Also, PMT to work with the CP 2 Management Team to ensure KST technical deliverables clearly specify equivalent requirements for their contracted SOW. As part of the review process with BART and other stakeholders the intent is to give reviewers the opportunity to comment on the stated installation and test conditions specified.</li> <li>5. Introduce the Rail Acceptance Officer early on during the testing phase.</li> <li>6. Establish joint testing and commissioning organization, under an experienced systems integration manager. Ensure Project key personnel include Interface/Integration Manager (Facilities Design), Systems Design Integration and Systems Testing/Start-Up Manager.</li> <li>7. VTA, BART and other stakeholders jointly develop all technical, operational and maintenance requirements for the rail systems, and fixed facility systems.</li> </ul>

Source: BSVII Monthly Progress Report October 2024

## F. Project Milestones/Key Events

Milestone	Planned Date
<b>General Key Milestones</b>	
Contract Package 1_Systems Design Bid Ready & Review	9-Mar-28
Contract Package 3_Newhall Yard and Santa Clara Station Design Bid Ready & Review	22-Jan-27
Contract Package 4_Stations and Support Facilities Design Bid Ready & Review	5-Oct-27
VTA Target Start of Revenue Service	12-May-37
FTA Target Start of Revenue Service	28-Feb-39
<b>Construction Contracts Key Milestones</b>	
<b>Contract Package 1_Systems</b>	
Contract Package 1 NTP Systems	18-Apr-29
Track Testing Completion	16-Oct-34
Systems Testing Completion Turn Over to BART	9-Nov-35
<b>Contract Package 2_Tunnel and Trackwork</b>	
Order TBM	<b>31-Oct-23</b>
Contract Package 2 NTP2 Tunnel & Trackwork	6-Jan-25
Deliver TBM	21-May-26
Start of Tunneling	6-Nov-26
Start of Trackwork	1-Nov-29
<b>Contract Package 3_Newhall Yard and Santa Clara Station</b>	
Contract Package 3 NTP Newhall Yard and Santa Clara Station and Parking Garage	3-Feb-28
Santa Clara Station Fit-Out Completion	4-Feb-32
Santa Clara Station Parking Garage Construction Completion	18-Dec-31
Newhall Yard Trackwork Completion	22-Jul-33
<b>Contract Package 4_Stations</b>	
Contract Package 4 NTP Stations and Support Facilities	18-Dec-28
Diridon Station Fit-Out Completion	12-Dec-33
DTSJ Station Fit-Out Completion	19-Aug-33
28th Street Station Fit-Out Completion	26-Aug-33
28th Street Station Parking Garage Construction Completion	5-Dec-33

Source: VTA's BART Silicon Valley Phase II Extension Project Basis of Schedule, New Starts Entry to Engineering Revision 0, March 25, 2024

## G. Project Map





**U.S. Department  
of Transportation**  
**Federal Transit  
Administration**

Region IX  
Arizona, California,  
Hawaii, Nevada, Guam  
American Samoa,  
Northern Mariana Islands

90 7<sup>th</sup> Street  
Suite 15-300  
San Francisco, CA 94103-6701  
415-734-9490

888 South Figueroa Street  
Suite 440  
Los Angeles, CA 90017-5467  
213-202-3950

Ms. Carolyn Gonot  
General Manager and Chief Executive Officer  
3331 North First Street  
San Jose, CA 94134

Dear Ms. Gonot:

The Federal Transit Administration (FTA) is pleased to inform you that the Santa Clara Valley Transportation Authority's (VTA) request for the Bay Area Rapid Transit (BART) Silicon Valley Phase II Extension Project (the Project) to enter the New Starts Engineering phase of the FTA Capital Investment Grants (CIG) Program is approved. This approval to initiate Engineering is a requirement of Federal transit law [49 U.S.C. 5309(g)] governing the Program.

The FTA is required by law to evaluate proposed projects against a number of criteria and ensure that prospective grant recipients demonstrate the technical, legal, and financial capability to implement the project. As a result of FTA's evaluation of the Project, an overall project rating of Medium-High was assigned.

Please note that the VTA undertakes Engineering work at its own risk, and that the Project must still progress through further steps in the CIG program to be eligible for consideration to receive CIG funding.

FTA approved a Letter of No Prejudice covering expenses VTA incurred when it started in New Starts Project Development in March 2016, through the Project's migration to the Expedited Project Development (EPD) Pilot Program, as well as for all remaining work on the project, thereby matching the pre-award authority VTA had been given while it was in the EPD Pilot Program for the estimated total project cost of \$9.318 billion.

With this Engineering approval, the VTA can continue automatic pre-award authority to incur costs for engineering activities, utility relocation, real estate acquisition, construction and other non-construction activities such as the procurement of rails, ties, commodities, and other specialized equipment. The VTA should consult with the FTA Region IX office for a determination of whether any other non-construction activity falls within the automatic pre-award authority granted with the Engineering approval of the Project.

Under this extended pre-awarded authority, FTA reminds VTA that the procurement of vehicles must comply with all Federal requirements including, but not limited to, competitive procurement practices, the Americans with Disabilities Act, and the Buy America Act

requirements. The FTA encourages the VTA to discuss the procurement of vehicles with FTA prior to exercising the pre-award authority.

This pre-award authority does not constitute any FTA commitment that future Federal funds will be approved for the Project or for any element of the Project. As with all pre-award authority, all Federal requirements must be met prior to incurring costs in order to retain eligibility for future FTA grant assistance. Additional guidance regarding pre-award authority for the CIG Program is provided in the FTA Fiscal Year 2024 Apportionments, Allocations, and Program Information Notice, that was published in the Federal Register Notice on May 31, 2024.

### **Local Financial Commitment**

The capital cost of the Project is estimated to be \$12,745,606,428 in year-of-expenditure dollars. The VTA is seeking \$6,296,329,575 (49.4 percent) in CIG program funds. The FTA determined that approximately 84 percent of the non-CIG capital funds are committed or budgeted.

Please be advised that the amount of CIG funding for the Project is fixed at the time of entry into Engineering. The FTA considers multiple factors when deciding on the CIG funding level that can be provided to an individual project. These factors include the size of the project and the CIG dollar amount being requested, the demand for CIG funding from other projects in the program, and the availability of funds from Congress. Although the VTA requested a 49.4 percent CIG share, FTA is notifying VTA that \$5,098,242,571 (40 percent) represents the maximum amount of CIG funds that will be provided by FTA for the Project should a Full Funding Grant Agreement (FFGA) be approved. The FTA will work with VTA during Engineering to identify appropriate annual CIG funding amounts to assume.

Prior to the Project's consideration for an FFGA, VTA must submit a revised financial plan. VTA is required by statute to secure and document all commitments of the non-CIG funding for the Project to be able to receive an FFGA. VTA must secure explicit board approval to commit 2000 Measure A and 2016 Measure B in sales tax funds to the Project beyond the timeline of the current biennial budget. In addition, without an extension in the Measure A and Measure B sales taxes, the Project runs the risk of a system-wide deficit in cash reserves shortly after the revenue service date in February 2039, therefore VTA must account for this possibility in its financial plan. Additionally, the Metropolitan Transportation Commission (MTC) needs an administrative action to release \$375 million in state TIRCP funding to VTA. The VTA and MTC must also execute an agreement regarding use of the State Transportation funds. FTA wants to bring to your attention the opportunity for Federal loans. The Build America Bureau offers several customizable credit instruments that can reduce project costs and increase flexibility.

### **Scope, Schedule, Cost, and Technical Capacity**

The FTA and its Project Management Oversight Contractor (PMOC) conducted a readiness review of the Project's scope, schedule, cost, and project risks as well as VTA's technical capacity and capability to manage the project. The PMOC provided a final Readiness to Enter Engineering Review Report in May 2024. The report indicated the current cost estimate and project schedule are acceptable for a project at this phase of development. The risk and contingency review indicated the current contingency is within the acceptable range at this phase of the Project. Therefore, FTA and the PMOC found that the current cost estimate is reasonable and acceptable for a project at this phase of development.

The VTA's Project Schedule reflects a Revenue Service Date (RSD) of February 28, 2039. The FTA and PMOC's schedule review found the project schedule is sufficient for entry into Engineering. The FTA has determined that the VTA has the management capacity and capability to effectively manage the Engineering phase of the Project. However, during Engineering, the VTA must address all recommendations noted in the FTA's Readiness to Enter Engineering Review Report, which represent risks to the project cost and schedule, including the key items listed below:

- Update the Project Management Plan to reflect project advancement.
- Update the Risk and Contingency Management Plan, the Management Capacity and Capability Plan, the Real Estate Acquisition and Management Plan, the Quality Assurance/Quality Control Plan, the Operations and Maintenance Plan, the Fleet Management Plan, the Safety and Security Management Plan, and Scope documents to address PMOC comments/ recommendations.
- Execute all critical third-party agreements.

### **Civil Rights**

Pursuant to the Civil Rights Act of 1964 and its implementing regulations, as well as FTA Circular 4702.1 (Title VI Program Guidelines for FTA Recipients, Part II, Section 114), VTA submitted an updated Title VI program on November 15, 2022. The current program remains effective through January 31, 2026.

VTA's Equal Employment Opportunity Plan was submitted on February 24, 2022. The current program remains effective through April 30, 2026.

VTA's Disadvantaged Business Enterprise program was submitted on March 18, 2021, and was approved by FTA on May 3, 2021. VTA's Project goal was submitted on August 1, 2022, and was approved by FTA on October 18, 2022.

The VTA is required to ensure that the vehicles, stations, and facilities are designed and engineered to ensure compliance with current standards for accessibility under U.S. Department of Transportation regulations implementing the transportation provisions of the

Ms. Carolyn Gonot  
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Americans with Disabilities Act of 1990 (ADA). VTA is advised to independently verify manufacturers' claims of ADA compliance, and to consult with FTA's Office of Civil Rights concerning ADA requirements as project construction and implementation progresses.

**Information Collection and Analysis Plan**

Within four months of entry into Engineering, VTA should complete the milestone activities required for the Information Collection and Analysis Plan of the Project, namely the documentation, analysis, and archiving of the predicted physical scope, capital cost, transit service levels, operating and maintenance costs, and ridership. The VTA should coordinate this work, as it is underway, with the FTA Office of Planning and Environment.

The FTA looks forward to working with VTA on the BART Silicon Valley Phase II Extension Project. For any questions, please contact Ms. Jean Mazur, Transportation Program Specialist, at [jean.mazur@dot.gov](mailto:jean.mazur@dot.gov) or by phone at (415) 734-9456.

Sincerely,

X 

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Ray Tellis

Signed by: RAYMOND SELVIN TELLIS

Regional Administrator