

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 November 30, 2023

PROJECT MONITORING REPORT

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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 Jose BART Station through downtown San Jose to the proposed Santa Clara Station in the City of Santa Clara. BSVII includes a total of four stations: three below-grade (28th Street / Little Portugal Station, Downtown San Jose Station, and Diridon Station) and one at grade (Santa Clara Station). BSVII also includes two parking garages, two mid-tunnel ventilation/emergency egress facilities and the Newhall storage Yard and Maintenance Facility (NYMF). 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. 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.

B. Project Status

BSVII is in the New Starts Project Development phase. The project new baseline cost and schedule estimates for a New Starts Entry to Engineering review and risk assessment were submitted to FTA/PMOC on October 11, 2023. The project new baseline cost and schedule estimates are total project cost of \$12.237B and Revenue Service Date in October of 2036.

FTA issued a Record of Decision (ROD) to the BSVII project in June 2018. BSVII was selected for advancement under the Expedited Project Delivery (EPD) Pilot Program on September 21, 2021. 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 New Starts Basis total project cost of \$9.318 billion.

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 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.

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, CP3 and CP4, and now described as Systems and Facilities. *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.*

C. Major Issues and/or Concerns

The December 2022 schedule was updated to reflect the New Starts Basis and monthly updates were generated through April 2023. The April 2023 schedule update moved the Revenue Service Date (RSD) out from July 29, 2033, to February 22, 2034. This further extends the schedule delay beyond VTA's New Starts Basis RSD of March 2033. The Project Management Oversight Contractor (PMOC) remains concerned that much of that extension is due to delays experienced in early activities. Further delays are occurring while some activities have paused while value engineering and the new baseline development have been underway.

PMOC has long been concerned that until VTA reconfigured its contract implementation planning, updates schedule, cost, and risk assessment for the program, the project estimate is under-representing the total cost due in part to contingency, inflation, and an optimistic base schedule and risk profile. *VTA's current cost and schedule baseline and risk and contingency management plan reflect a substantial increase in the project cost and extension of the project schedule. VTA's new baseline documents are under review by PMOC in preparation for an upcoming risk workshop and assessment.*

PMOC is concerned that two key VTA BSVII positions (Program Director and Construction Director) are currently vacant and that VTA may have difficulties filling these key positions with qualified transit individuals due to the high demand for transit professionals in the U.S. and especially in the California market.

Due to frequent turnover and vacancies in key BSVII positions, PMOC is concerned about the lack of succession planning and inadequate transition periods in dealing with attrition and turnover.

D. Table 1 Core Accountability Items

		Original (Grant)	FTA Current P65 Forecast (EPD Letter of Intent)	VTA New Starts Basis (Sept 2022)⁷	PMOC Assessment of Current Forecast⁷
Cost	Capital Cost Estimate ¹	N/A	\$9.148B	\$9.318B	No change from LOI. Pending VTA project delivery re-packaging, new baseline, and risk refresh.
Contingency	Unallocated Contingency	N/A		\$875M ²	
	Allocated Contingency	N/A		\$854M ²	
	Total Contingency	N/A	\$2.653B ³	\$1.729B ²	
Schedule	Revenue Service Date	N/A	June 21, 2034 ⁵	March 1, 2033 ⁴	
Project Progress				Amount (\$M)	Percent of Total
Total Expenditures	Actual cost of all eligible expenditures completed to date ⁶		\$758	8.13%	
Planned Value to Date	Estimated value of work planned to date		N/A	N/A	
Actual Value to Date	Actual value of work completed to date		N/A	N/A	
Contract Status				Amount (\$)	Percent
Total Contracts Awarded	Value of all contracts (design, support, construction, equipment) awarded: % of total value to be awarded		\$1,122	N/A	
Construction Contracts Awarded	Value of construction contracts awarded: % of total construction value to be awarded		0	0	
Physical Construction Completed	Value of physical construction (infrastructure) completed: % of total construction value completed		0	0	
Rolling Stock Vehicle Status	Date Awarded	No. Ordered	No. Delivered		
Heavy Rail Vehicles	N/A	48 (planned)	0		

¹ FTA P65 Capital Costs include a sum of year of expenditure (YOE) \$389.72M in finance costs based on the EPD submission, whereas VTA New Starts Basis includes YOE \$564.95M in finance costs.

² Contingency amounts are base year dollars taken from VTA's New Starts Basis SCC Cost Estimate (September 2022).

³ PMOC P65 risk on Stripped and Adjusted Base Cost of \$6.495B at EPD risk assessment.

⁴ VTA's New Starts Basis RSD was not supported with a detailed schedule submission, and the project baseline has yet to be revised to reflect the revised project delivery methodology.

⁵ Based upon recommended 125% of remaining duration of critical path as of PMOC risk assessment conducted May 2021 (PMOC P65 RSD was February 2, 2034).

⁶ Includes standard cost categories (SCC) 40, 60 and 80 expenditures in Project Development, reported through October 30, 2023, based on accruals. Percentage calculated based on New Starts Basis Total \$9.318B.

⁷ The BSVII team has prepared new baseline documents for Entry to Engineering which are currently under review.

2. PMOC Observations and Findings

A. Summary of Monitoring Activities

The PMOC oversight commenced in July 2020. PMOC has since received numerous documents and coordinated with VTA via email and telephone conversations. *This report covers project status and documents received through November 30, 2023 (and including the October monthly reporting that was received December 2, 2023). The monthly PMOC oversight call was conducted on December 14, 2023, discussion at which covered those documents received in November 2023.*

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.

In October 2022, VTA also presented FTA with a roadmap of activities and milestones assuming they progress to a Full Funding Grant Agreement (FFGA) in the CIG Program. FTA will continue to work with VTA regarding the roadmap and anticipated time limits for the various milestones and activities with initial focus on the roadmap to Entry to Engineering.

October 5, 2023, VTA staff presented the BSVII Cost and Schedule new baselines to the VTA Board of Directors as an Information Item. October 20, 2023, VTA staff and VTA Board of Directors held a workshop and discussed the BSVII Cost and Schedule new baselines. VTA transmitted the cost and schedule new baselines to FTA/PMOC on October 11, 2023. BSVII baseline cost and schedule estimates submitted to FTA are total project cost of \$12.237B and Revenue Service Date in October of 2036.

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	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
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	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

Document Title	Revision	Dated
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 conducted an initial review of the new submissions in support of the Entry to Engineering risk assessment and readiness review and provided preliminary summary comments regarding inconsistencies and incomplete elements to VTA on June 27, 2023. *VTA submitted 37 documents on November 22, 2023, including the following updates to the PMP sub-Plans to FTA to be reviewed by the PMOC:*

Document Title	Revision	Dated
<i>Quality Management Plan (QMP)</i>	<i>2</i>	<i>November 1, 2023</i>
<i>Real Estate Acquisition Management Plan (RAMP)</i>	<i>0.C</i>	<i>November 1, 2023</i>
<i>Project Delivery and Procurement Plan</i>	<i>0.G</i>	<i>November 1, 2023</i>
<i>2023 Bus Fleet Management Plan</i>	<i>1.0</i>	<i>November 2023</i>

PMOC will be reviewing the new submissions and will provide input to PMOC’s upcoming Oversight Procedure (OP) 51 Readiness to Enter Engineering review. PMOC’s OP 51 report will be one of the inputs to FTA’s determination regarding BSVII’s status in entry into Engineering Phase of the Capital Investment Grants (CIG) Program.

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) and the MM/W joint venture General Engineering Consultant (GEC). The PMT and the GEC include professional resources providing program management and multiple specialized engineering services.

At the December 14, 2023, monthly meeting, VTA presented an updated “VTA’s BART Silicon Valley Phase II Extension Program Organization” of the Key Positions reflecting the following updates:

- *A new VTA Chief Megaprojects Officer replacing the outgoing VTA BSV Chief Program Delivery Officer.*
- *A new VTA Program Director (currently vacant) will oversee the consultant Program Manager.*
- *A new VTA Construction Director (currently vacant) will oversee the Contract Package 2 (CP2) Project Manager.*
- *VTA introduced the new Contract Package 2 (CP2) Project Manager.*

At the December 14, 2023, monthly meeting, VTA indicated they are actively recruiting for the VTA Program Director and the VTA Construction Director positions currently vacant.

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

FTA signed the BSVII Record of Decision (ROD) in June 2018. BSVII project staff has converted the Mitigation Monitoring and Reporting Program (MMRP) from the ROD into a new format for tracking that is 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. A NEPA re-evaluation was completed, submitted to FTA, and approved by FTA HQ in March 2021 in support of the requirements associated with VTA’s EPD selection. 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.

Coordination between VTA and FTA is ongoing as VTA continues to conduct technical analysis required to re-evaluate NEPA in support of the requirements associated with New Starts and recent changes to the project. At the December 14, 2023, monthly meeting VTA reiterated that they are targeting the end of the year 2023 for FTA’s approval of the NEPA re-evaluation.

At the December 14, 2023, monthly meeting, VTA reported the following NEPA / Environmental Mitigations Status:

- *Review of KST Submittals for Compliance with Environmental Requirements*
 - *Design and Construction Noise and Vibration Submittals*
 - *Architectural Historic Resource Instrumentation and Monitoring Plans*
- *Preparation of Quarterly Environmental Compliance Record Update*
- *Preparation of NEPA/CEQA Document and Supporting Technical Report*

The BSVII Project 2023 Q3 MMRP Report was the latest reported to be posted on VTA’s website.

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), Santa Clara Station/Newhall Yard (CP3), and Underground Stations (CP4).

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

VTA determined in early 2023 that Design Bid Build will be used to procure the Systems and Facilities construction that is not completed by the Progressive Design Builder for CP2. VTA has yet to determine, and communicate, the contract packaging scheme for all scope other than CP2 and the Diridon Temporary Parking. This remaining scope is sometimes still referred to as CP1, CP3, and CP4 as identified above, but more generically described as Systems and Facilities. In the below table, the decision to procure the Systems and Facilities construction via Design Bid Build is documented.

Construction Contract Package Name	2023 Delivery Method
Systems (formerly CP1)	Design Bid Build
Tunnel and Trackwork (CP2)	Progressive Design Build
Facilities (formerly CP3 and CP4)	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.

Milestones		Contract Packages			
		CP1	CP2	CP3	CP4
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 cancelled March 1, 2022.
Request for Proposals	Pre-Final	4/15/22	7/19/21	5/20/22	
	Final	RFP was cancelled December 31, 2022.	9/24/21	RFP was cancelled December 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.*

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 on December 31, 2022, 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-Build (DB) was not the preferred approach for the remaining contracts other than CP2. Since then, VTA has selected Design-Bid-Build delivery for all work previously identified as CP1, CP3 and CP4, and now described as Systems and Facilities.

At the October 12, 2023, monthly meeting VTA reported the Construction Management Services RFP was released on September 25, 2023, with a schedule for the final addendum to be issued October 24, 2023, and proposals due on November 15, 2023, then anticipated oral interviews on December 11, 2023, and award in January 2024. The scope of the CM Services contract is the entire construction program, not just CP2 as previously reported. *VTA did not provide an update of the CM Services procurement at the December 14, 2023, monthly meeting.*

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 – *At the December 14, 2023, monthly meeting, VTA noted the following progress:*

Advance Partial Design Units (APDU) – Final Design:

- *APDU 1 – TBM General Arrangement Drawings – In VTA Review*
- *APDU 2 Pre-Cast tunnel liner 85% design submittal (with reinforcement) – KST incorporating VTA comments.*
- *APDU 3C - West Portal TBM launch structure SOE (Support of Excavation) and 3E ground improvement design - KST incorporating VTA comments.*
- *APDU 3D – West Portal Caterpillar SOE Final Design – KST incorporating VTA comments.*
- *APDU 5A - DTSJ Chase building demolition, civil & maintenance of traffic (MOT) packages – KST incorporating VTA comments.*
- *APDU 12A – Diridon Station Enabling Works and Utilities 100% - in VTA review.*
- *APDU 14 – 28th Street Station Enabling Works 100% - in VTA review.*
- *APDU 20 – Track and Tunnel Alignment 100% design – KST incorporating VTA comments.*

Advance Partial Design Units (APDU) - Issued for Construction

- *APDU 3A – West Portal initial sitework*

5 of 8 total 60% design units received to-date:

- *D10 – Bored Tunnel Design – Basis of Design complete. 60% Design Approved as Noted, comment resolution in process.*

- *D15 – Tunnel Internal Structures - Basis of Design complete. 60% Design Approved as Noted, comment resolution in process.*
- *D25 – Diridon Station Design – Basis of Design complete. 60% Design Approved as Noted, comment resolution in process.*
- *D45 – West Portal Design – Basis of Design complete. 60% Design Approved as Noted, comment resolution complete.*
- *D20 – Trackwork - 60% Design – In VTA review.*

3 pending 60% design units:

- *D30 – Downtown San Jose Station – Basis of Design complete. Anticipated receipt on January 25, 2024.*
- *D35 – 28th Street / Little Portugal Station – Basis of Design complete. Received December 14, 2023.*
- *D40 – East Portal – Basis of Design complete. Anticipated receipt end of December 2023.*

Program-wide, Facilities and Systems Engineering – *At the December 14, 2023, monthly meeting, VTA noted the following progress:*

- *Design Status:*
 - *Systems (CPI) - 35%*
 - *NYMF and Santa Clara Station (CP3) - 28%*
 - *Underground Stations (CP4) - 31%*
- *Establishing the DCM changes to be included in Group 4, Prioritizing DCM changes that impact KST's designs. BART engaged in review of items requiring DCM modification.*
- *GEC conducting engineering analysis for few outstanding Value Engineering (VE) options. Direction provided to the GEC to incorporate approved VE items.*
- *Refining interface design requirements definition (between KST and GEC) due to VE, design development and code requirements.*

At the December 14, 2023, monthly meeting, in response to Action Item 151, the BART representative clarified that the train control system for the Mainline and Yard Transfer Tracks will be Communication Based Train Control (CBTC). The Yard and Shop tracks will be on manual under the control of the Transportation Yard control.

Due to the cancellation of procurements for CPI, CP3, and CP4 and potential re-packaging of scope, the completion status for the RFP volumes is on hold and was not included in VTA's reporting for this period. Percent complete and RFP volume status reporting will resume as appropriate after the procurement strategy and timeline is finalized.

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 the 55-foot diameter single bore running tunnel with center platforms. 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. No update has been received on this report or any of the proposals originated within it.

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.

At the July 13, 2023, meeting VTA reported that a three-day facilitated Value Engineering (VE) workshop was held the week of June 19, 2023, and the report is in development. At the August 10, 2023, meeting VTA reported that Constructability reviews were held on July 20 and 21, 2023. *At the December 14, 2023, meeting, VTA stated that the Constructability Report is being finalized and is anticipated to be submitted to FTA/PMOC in December 2023.*

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 previously provided a ROW Acquisition Summary, Appendix B, to their Monthly Progress Report, which has been omitted since the May 2023 report. VTA had previously identified 82 total parcels with acquisitions needed, including full and partial acquisitions, subsurface tunnel easements, temporary construction easements (construction staging areas), and permanent easements. During the December 14, 2023, monthly meeting VTA presented a high-level summary, as of October 2023, of the Real Estate Acquisition / Relocation Status per the following Real Estate Summary Table:*

Description	Approved Legals and Plats	Appraisal process Completed	Offers Made	Purchase Agreements Signed	Board Adoption of RON	Eminent Domain Actions Filed	RELOCATION		Possession Obtained
							Required	Completed	
Total Parcels = 75 ¹	59	58	58	21	32	24	38/12 parcels	10	24

¹ Total Parcels 75 (6 additional building protective easements may be required pending design)

During the December 14, 2023, monthly meeting VTA reported the following:

- *The parcels that were previously identified for mid-tunnel ventilation facilities have been eliminated from the count of total parcels, dropping that number from 82 to 75.*

- Progress (75 active parcels):
 - Legal/Plats Approved: 79%
 - Appraisals Completed: 77%
 - Offers made: 77%
 - Possession: 32%
 - Purchase Agreements Signed: 28%
- Outstanding parcels (16 parcels):
 - 7 Parcels near Santa Clara station (different LLCs, but same principal)
 - 2 East portal properties (private property)
 - 2 Tunnel Easements (private property)
 - 5 Public agency owned parcels (Diridon, tunnel easements, JPB, County)

I. Public Involvement/Outreach/Communications

At the December 14, 2023, monthly meeting, VTA provided the following Public Involvement/Outreach/Communications updates:

- *Public and Stakeholder Meetings and Presentations - 34 (First half Q4 2023)*
 - *Design Review Committee Meetings*
 - *Santa Clara: Nov. 17, Dec. 8, Jan. 5, and Jan. 19.*
 - *28th Street, Downtown San José, and Diridon: 4 meetings each beginning late January.*
 - *December 14 meeting postponed – Station Configuration update for Ad Hoc Steering Committee for VTA’s BSVII.*
 - *January 4 – Business Resource Program Board Presentation*
- *Tabling Events - 750 Engagements (First half Q4 2023)*
 - *Creative Cultural Event of East San José – December 3*
 - *Fiesta Navideña - December 8*
 - *Station Area Pop-Ups - Whole Foods (November 14), Santa Clara Caltrain (November 20)*
- *Electronic and social media (First half Q4 2023)*
 - *19 Social Media Posts, 6300 engagements*
 - *4 Construction Notices*
 - *7 Blogs*

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.”

At the December 14, 2023, monthly meeting, VTA provided the following Third-Party Agreements updates:

- *Critical Agreements required prior to FFGA: 26.*
 - *25 Executed, and 1 Open.*
 - *The open critical agreement (UPRR Final Engineering Agreement for CP2 work) is anticipated to be executed prior to the end of December 2023.*
- *Critical Agreements post FFGA: 6 (mainly Operations and Maintenance Agreements, not started).*

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 Planned Utility Relocations

Utility Type	Planned Relocations ¹
Communications	30
Electrical	9
Gas	6
Sanitary Sewer	6
Storm Drain	7
Water	7
Total Relocations	65

¹ *Utilities to be protected in place are not included in this summary.*

During the December 14, 2023, monthly meeting VTA reported the following:

- *West Portal:*
 - *PG&E 115kV interconnection service: Estimated power available Q2 2025. Relocation of overhead power poles associated with 115kV started in November 2023 by PG&E.*
 - *Cogent (formerly Sprint) preliminary relocation layout design for Cogent facility has UPRR concurrence. Cogent review is ongoing. Anticipated to be completed by February 2024.*
- *Diridon West Vent Shaft (WVS):*
 - *Caltrain is reviewing the WVS SOE (Support of Excavation) design, a follow up meeting is scheduled in February 2024.*

- Zayo construction Notice to Owner (NTO) has been issued.
- AT&T relocations layouts are under design by Utility owner.
- PG&E electrical relocation is under design by PG&E.
- *East Portal:*
 - KST continues to advance the design of the utility relocation layouts at the east portal with utility owners.
 - San Jose Water Company relocation alignment is completed.

K. Construction

During the December 14, 2023, monthly meeting VTA reported the following construction activities and status of progress:

Construction Early Work Packages update - Early Works Package Negotiations:

- *EWP 1A - TBM procurement executed - Technical review initiated in Germany.*
- *EWP 2A - Segment molds: under final negotiation*
- *EWP 3A - West Portal initial sitework: negotiations completed December 13, 2023.*
- *EWP 7A - Instrumentation & Monitoring: negotiations complete, incorporation into contract via future amendment number 4.*
- *EWP 11A – TBM and Plant Power (Design and Long Lead Items) – negotiations expected to be complete by end of December 2023.*

Construction – West Portal:

- *EWP 3A – West Portal starts soon – KST/VTA cost negotiations recently closed.*
- *EWP 7A - Instrumentation & Monitoring:*
 - *Continuing Right of Entry discussions with UPRR and SSWP process with Caltrain for the installation of existing track instrumentation and monitoring devices.*
 - *Developing SSWP with Caltrain to pothole existing utilities in Caltrain Right of Way.*
- *Completed additional exploratory geotechnical borings and investigations for the TBM Launch structure.*
- *PG&E to remove two non-energized service drops in the West Portal yard by the end of December 2023.*

Facilities–Downtown San Jose, Diridon Station, 28thStreet/ Little Portugal:

- *Developing early work and major construction facilities CTMP (Construction Traffic Management Plan) No. 4.*
- *Completed Supplemental geotechnical boring investigations.*
- *Property protection assessment development ongoing.*

Project-wide:

- *KST developing Pre and Post Construction Property Survey plans.*
- *Developing obstructions report/plan for existing structure foundation investigations.*

Diridon Station Temporary Parking. Contract V22160:

- Concrete column edge protection prime painting completed. Yellow safety painting of interior columns and bases in progress.
- Rooms build-out stud framing complete. Drywall in progress pending structural framing inspection by City.
- Trash area canopy roof and framing complete.
- Interior bay lights installed.
- Conduits for cameras and fire alarm horns and strobes in progress.
- Exterior elevation painting in progress.

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. *BART’s current RFMP includes sixty vehicles that VTA will be capitally responsible for, but only the forty-eight required for BSVII will have a federal interest through the BSVII grant. No update was provided at the December 14, 2023, monthly meeting.*

M. Project Cost

VTA did not provide a Cost Report and Trends Register covering October 2023 as part of their monthly reporting. VTA has provided FTA and the PMOC their new baseline cost estimate reflecting status through July 2023. This new baseline cost estimate will be reviewed in accordance with FTA’s OP 33 Project Cost Review. The PMOC has received those documents for supporting VTA’s Entry to Engineering and are currently conducting a completeness review. Until VTA resumes standard reporting and review of the new baseline is complete, PMOC will have limited updates to this section of our monthly report.

The following is a summary of VTA’s SCC Cost Estimate Workbook submission associated with their New Starts rating request in August 2022. This working budget, also referred to as VTA’s New Starts Basis, is in place until the new baseline effort is complete.

SCC	Base Year Dollars w/o Contingency (\$)	Base Year Dollars Allocated Contingency (\$)	Base Year Dollars TOTAL (\$)	YOE Dollars TOTAL (\$)
10 GUIDEWAY & TRACK ELEMENTS	1,402,611,590	211,095,837	1,613,707,427	1,781,417,743
20 STATIONS, STOPS, TERMINALS, INTERMODAL	1,401,548,777	227,335,502	1,628,884,280	1,876,483,510
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	208,610,864	61,691,476	270,302,339	315,238,795
40 SITEWORK & SPECIAL CONDITIONS	249,180,987	39,672,536	288,853,523	315,018,472
50 SYSTEMS	489,311,625	75,839,731	565,151,356	685,070,957

SCC	Base Year Dollars w/o Contingency (\$)	Base Year Dollars Allocated Contingency (\$)	Base Year Dollars TOTAL (\$)	YOE Dollars TOTAL (\$)
60 ROW, LAND, EXIST. IMPROV.	168,313,887	145,550,424	313,864,311	321,581,867
70 VEHICLES (48)	173,880,000	8,694,000	182,574,000	208,440,828
80 PROFESSIONAL SERVICES	1,950,744,657	83,817,088	2,034,561,745	2,257,833,697
90 UNALLOCATED CONTINGENCY			875,000,000	991,570,760
100 FINANCE CHARGES			431,059,911	564,953,067
TOTAL (SCC 10-100):			8,203,958,892	9,317,609,696

VTA has reported expenditures through October 31, 2023, including accruals, which total \$758M. Project costs have remained within SCC 40, SCC 60, and SCC 80 thus far. Project commitments have been updated to include SCC 10, Guideway & Track Elements for the procurement of the TBM, as well as SCC 40, SCC 60, and SCC 80 and total \$1,122M through October 31, 2023.

The updated project capital cost estimate, including SCC Workbook, Baseline Schedule, Basis of Schedule, and Basis of Estimate is currently under review with VTA's new baseline of the project cost and schedule as of October 2023. At the December 14, 2023, meeting, VTA indicated that most elements are available and the PMOC is awaiting back-up information and conducting the completeness review.

During the December 14, 2023, monthly meeting VTA provided the following updates regarding the ongoing cost new baseline effort:

- o New baseline cost estimate documents were submitted to FTA/PMOC on October 11, 2023.*
- o New baseline cost estimate presented to the VTA Board in October.*
- o Ongoing discussions with FTA/PMOC regarding new baseline cost estimate.*
- o Various additional detail data was provided to PMOC in November.*

N. Project Schedule

VTA did not provide a schedule report or schedule files covering October 2023 as part of their monthly reporting. VTA has provided FTA and the PMOC with a second revision of the new baseline schedule which has a data date of August 1, 2023. This new baseline schedule will be reviewed in accordance with FTA's OP 34 Project Schedule Review as part of the risk assessment process. Until VTA resumes standard reporting and review of the new baseline is complete, PMOC will have limited updates to this section.

The Integrated Master Project Schedule (IMPS) 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

VTA previously reported several provisional extensions to the RSD since the EPD baseline was submitted in April 2021. *Prior to the new baseline, the most recent schedule update was for the April 2023 reporting period (data date May 1, 2023), the Revenue Service Date was last adjusted from July 29, 2033, to February 22, 2034, and the Substantial Completion to May 12, 2033.*

During the December 14, 2023, monthly meeting VTA reported the following updates regarding the schedule new baseline effort in progress:

- *New baseline schedule presented to the VTA Board in October.*
- *A revised new baseline schedule was submitted to FTA/PMOC on November 8, 2023.*
- *Ongoing discussions with FTA/PMOC regarding new baseline schedule.*
- *Progress update through October period to be issued in early December.*
- *Monthly schedule updates after baseline data date to be provided to FTA/PMOC.*

O. Project Risk

Overall Status

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 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 has (or will have) included the FTA and PMOC in the BSVII Risk review sessions for May, June, July, August, September, and October 2023.*

VTA also indicated, as per CP2 contract requirements, the KST team is anticipated to include a risk register following the review of the Configuration Design submittal. The BSVII team will review KST's identified risks with BSVII disciplines and revise the Program Risk Register as appropriate and establish a dedicated joint VTA/KST CP2 Project Risk Register that will be reviewed with the KST team on a regular basis.

The project risk profile may well have changed either favorably or unfavorably since the EPD submission and is likely further impacted as the project has moved back into the New Starts program.

The PMOC is currently unable to make any factually based risk assessment given the new baseline efforts underway by VTA to re-establish the Project Cost and Schedule that reflects their planned delivery and updated packaging strategy, along with awarded CP2 contractor (KST) approved innovations. For the period ending *October 31, 2023*, VTA reported the following risk updates.

New Risk: *None for the period*

Retired Risk: *None for the period*

Increased Risk: *None for the period*

Reduced Risk:

BSV-136 Unanticipated BART objections to agreed EVS. *Continued resolution of EVS approach with BART to address their OM&S concerns including mid-tunnel facilities and other innovation related changes to requirements.*

Per VTA, the Safety and Security Review Committee (SSRC) met on 10/25/23 and, based upon the recommendation of the FLSSC, accepted the Emergency Ventilation System (EVS) concept of design and deletion of the mid-tunnel facilities (the SSRC includes BART safety and executive members). With this, the probability and impacts of the risk are reduced. As the design matures, any further issues from BART mechanical can be solved through design adjustments.

The PMOC acknowledges this reduced risk scoring.

Note: There were three other risk reductions, but their scoring changes were minimal and did not move the risk from their current “Medium” coded category (e.g., BSV-135, BSV-180, and BSV-199). 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, 2023 Risk Register Top 10		
Risk ID	Risk Title	VTA Risk Score
BSV-203	Timely readiness and cost of the West Portal TBM launch facility.	20
BSV-005	Unanticipated or inadvertent damage to historic buildings, critical utility & other structures due to vibration and/or settlement.	12
BSV-029	VTA financial capacity / funding plan to finance potential project cost increases.	12
BSV-036	Shortage of construction labor to support aggressive schedule resulting in competition for resources.	12
BSV-096	Testing and Commissioning delays due to various factors.	12
BSV-132	Management capacity with staff continuity and availability of employees with technical experience to replace departing staff.	12
BSV-170	KST proposed Stage 2 Lump Sum price increase VTA CP2 budget.	12
BSV-201	East Portal - Complicated ROW acquisitions with Kolander and A&B properties.	12
BSV-204	Delays in Temporary Power S&H construction and long-lead transformer procurement.	12
BSV-208	KST Overall Design approach leading to higher project cost and potential for delays due to redesign to fit within budget.	12

During the PMOC monthly meeting held December 14, 2023, VTA presented the following progress updates:

- *Ongoing internal Risk Review meetings with Program, Project, Discipline Leads and key stakeholders.*
- *Continue refresh of Program Risk Register consistent with cost and schedule new baseline submitted to the FTA/PMOC.*
- *Continue review of key BSVII Program Risks with BART and FTA/PMOC members.*
- *No new risk added, or existing risk retired during this period.*

NOTE: Previous PMOC reporting provided combined risk analysis and assessment documentation, but until VTA completes their revised bottom-up estimates for each contract package and schedule new baseline as well as a risk refresh effort being completed, these analyses have been postponed.

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.

During the December 14, 2023, monthly meeting VTA reported the following quality activities:

- *Completed Quality Specifications 01 43 00 and 01 45 00*
- *Continue review of the KST QMP (QMP, QAP, DQMP and CQMP)*

- *Updated the BSVII QMP and addressed PMOC comments*

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 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. The second FLSSC meeting was scheduled for May 11, 2023, then cancelled; the next meeting was held on October 18, 2023, when removal of the mid-tunnel ventilation facilities and the current design for the EVS were discussed.

On August 30, 2023, VTA issued the FLSSC charter. The FLSSC charter is co-chaired by VTA Chief Program Delivery Officer and BART Assistant General Manager of Operations. It includes committee members from the Cities of San Jose 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.

During the December 14, 2023, monthly meeting VTA reported the following System Safety and Security Risk Management / Certification activities:

- *The draft TVA has been distributed to SSI-cleared individuals for review.*
- *The draft PHA is undergoing internal quality review. This PHA has been combined with a FLSSC PHA that was provided as part of previous FLSS activities.*
- *The SSMP and SSCP (Safety and Security Certification Plan) were updated to address additional PMOC comments and comments from CPUC. The drafts will be submitted with other documents for PMOC and CPUC review.*
- *Due to VTA leadership changes, the SSRC and FLSSC were not held in November. The SSRC scheduled for December will be cancelled due to the unavailability of enough regular attendees.*

- *KST hosted an Operational Hazard Assessment for tunnel structures November 14, 2023, to gather information about BART processes and procedures and assess if there are issues that need to be addressed further.*

PMOC notes a potential concern associated with Management Capacity and Capability that the November committee meetings were reportedly cancelled due to leadership changes. Project progress and committee activities should be maintained as changes in leadership are implemented. The change in VTA staffing and leadership should include an overlap to facilitate a smooth transition of committee leadership.

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). *No update was provided at the December 14, 2023, monthly meeting.*

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 will be required to 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 at the December 14, 2023, monthly meeting. PMOC recommends that VTA revisit their plan for Buy America implementation and management with respect to Buy America Build America changes as well as 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 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.

No update was provided at the December 14, 2023, monthly meeting.

U. Action Items Table

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Complete	Status / Action Required
133	Confirm Baseline regarding Tunnel Excavated Materials	VTA	5/11/2023	6/8/2023		Open Provide associated CP2 contract reference(s) documenting the baseline. Closure pending meeting in action item #144 below.
139	Provide a copy of the Salt Ponds Clearance Project schedule to PMOC.	VTA	9/14/2023		10/11/2023	Closed – <i>Select dates were inserted to the BSVII integrated master schedule in lieu of providing the Salt Ponds Project Schedule.</i>
144	Set breakout meeting for Salt Ponds discussion and resolution of Action Item #133	VTA	10/12/2023	10/31/2023		Open – <i>meeting scheduled 1/11/2024</i>
146	Provide new baseline cost estimate backup in spreadsheet format (including the independent cost estimate)	VTA	10/12/2023	10/20/2023	12/14/2023	Closed
147	Identify where contract packaging plan is spelled out or provide a narrative	VTA	10/12/2023	11/30/2023	12/15/2023	Closed – <i>Contract Implementation Plan (CIP) provided with latest PMP documents.</i>
148	<i>Conduct a transition and introduction meeting with FTA (Region 9) and PMOC regarding Program Chief staffing.</i>	VTA	11/9/2023	11/30/2023	11/16/2023	Closed

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Complete	Status / Action Required
149	<i>Provide list of DCM amendments included in Group 3 and Group 4, including status of development and/or approval.</i>	VTA	11/9/2023	11/30/2023		Open
150	<i>Generate documentation supporting the change in scope for elimination of the Mid-Tunnel Facilities.</i>	VTA	11/9/2023	12/31/2023		Open
151	<i>Provide scope change backup for going straight to CBTC on the mainline but not the yard</i>	VTA	11/9/2023	12/31/2023	12/14/2023	Closed – Mainline and Transfer Track will be CBTC. Yard and Shop tracks will be on manual under the control of Yard control.
152	<i>Provide timeline for CBTC Implementation between Warm Springs & Berryessa</i>	VTA	12/14/2023	01/11/2024		New
153	<i>Provide detailed design completion prior to Risk Assessment workshop</i>	VTA	12/14/2023	01/11/2024		New
154	<i>Provide Construction Management Services Procurement update</i>	VTA	12/14/2023	1/11/2024		New

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. PMOC Memorialized Risk Analyses

Attachment G. Project Milestones/Key Events

Attachment H. Project Map

Attachment I. Memorialized Summary Risk Schedule

A. List of Acronyms

ADA	Americans with Disabilities Act
BART	Bay Area Rapid Transit
BIM	Building Information Modeling
BSVII	BART Silicon Valley Phase II
CAGR	Compound Annual Growth Rate
Caltrans	California Department of Transportation
CBC	California Building Codes
CBTC	Communications Based Train Control
CCB	Change Control Board
CIG	Capital Investment Grants
CMGC	Construction Manager / General Contractor
CoC	Certificate of Conformance
CPUC	California Public Utilities Commission
CQMP	Construction Quality Management Plan
CSC	City of Santa Clara
CSJ	City of San Jose
CQMP	Construction Quality Management Plan
CTMP	Construction Transportation Management Plan
DMP	Design Quality Management Plan
EVS	Emergency Ventilation Structure
EPD	Expedited Project Delivery
FLSS	Fire, Life, Safety and Security
FTA	Federal Transit Administration
GMP	Guaranteed Maximum Price
IDR	Interdisciplinary Review
IMPS	Integrated Master Project Schedule
IWP	Integrated Work Program
LOE	Level of Effort
LS	Lump Sum
MCCP	Management Capacity and Capability Plan
MSS	Market Saturation Study
NDA	Non-disclosure Agreement
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NOFO	Notice of Funding Opportunity
NYMF	Newhall Yard and Maintenance Facility
NTO	Notice to Owner
OP	Oversight Procedure
PCJPB	Peninsula Corridor Joint Powers Board
PDB	Progressive Design Build
PHA	Preliminary Hazard Analysis
PM	Project Manager
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
QA/QC	Quality Assurance/Quality Control

QAP	Quality Assurance 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
RVTM	Requirements Verification Traceability Matrix
SCC	Standard Cost Categories
SOQ	Statement of Qualifications
SSI	Sensitive Security Information
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
TOD	Transit Oriented Development
TVA	Threat and Vulnerability Analysis
TWG	Technical Working Group
U.S.C.	United States Code
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 14, 2023 – 1:00pm (Pacific)
Conference Connection: MS Teams

1. Introductions/Roll Call
2. Key Agency-level updates (organization, financial, legal, safety, COVID-19, 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. Update on the EVS and the Mid-Tunnel Ventilation Facilities
 - ii. Update on Temporary Power S&H construction and long-lead transformer procurement.
 - iii. TBM Procurement Update
 - iv. Release date of the Cost and Schedule new baselines
 - d. NEPA / Environmental Mitigations
 - e. Project Delivery Method and Procurement Status
 - i. Project-Wide
 - ii. Systems DBB (Design Bid Build)
 - iii. CP2 PDB
 - iv. Facilities DBB/CMGC
 - v. Stations DBB/CMGC
 - 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. February 08, 2024, 1:00pm (Pacific)
 - b. March 14, 2024, 1:00pm (Pacific)

C. Monthly Meeting Attendees

Organization	Name	E-mail	12/14/2023
FTA Region IX	Susan Ko	susan.ko@dot.gov	X
VTA	Afshin Abtahi	aabtahi@vtabsv.com	X
VTA	Bernice Alaniz	bernice.alaniz@vta.org	X
VTA	Khair Amini	KhairMohammad.Amini@vta.org	X
VTA	Kannu Balan	kbalan@vtabsv.com	X
VTA	Hassan Basma	hassan.basma@vta.org	X
VTA	Erik Blum	eblum@vtabsv.com	X
VTA	Allison Daniels	allison.daniels@vta.org	X
VTA	Krishna Davey	krishna.davey@vta.org	X
VTA	John Funghi	jfunghi@vtabsv.com	X
VTA	Rosemarrie Gonzalez	rosemarrie.gonzalez@vta.org	X
VTA	Kevin Kurimoto	kevin.kurimoto@vta.org	X
VTA	Samantha Mcclary	Samantha.mccleary@vta.org	X
VTA	Ronak Naik	ronak.naik@vta.org	X
VTA	Robert Ostermiller	rostermiller@vtabsv.com	X
VTA	Jonathan Sorrell	jsorrell@vtabsv.com	X
BART	Shane Edwards	medward@bart.gov	X
BART	Ni Lee	nlee@bart.gov	X
CPUC	Stephen Artus	stephen.artus@cpuc.ca.gov	X
CPUC	Daren Gilbert	Daren.gilbert@cpuc.ca.gov	X
CPUC	Daniel Kwok	daniel.kwok@cpuc.ca.gov	X
CPUC	Rupa Shitole	rupa.shitole@cpuc.ca.gov	X
HNTB	Suresh Kataria	skataria@hntb.com	X
HNTB	Sean Libberton	slibberton@HNTB.com	X
HNTB	Chuck Morganson	cmorganson@hntb.com	X
WSP	Anthony Murphy	tony.murphy@wsp.com	X
WSP	Lurae Stuart	lurae.stuart@wsp.com	X
PMOC	Emile Jilwan	emile.jilwan@atkinsrealis.com	X
PMOC	Kyle Knudson	kyle.knudson@atkinsrealis.com	X
PMOC	Don Schneck	donald_schneck@msn.com	X
PMOC	Mignon Allen	amallen@dovetailconsulting.net	X
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D. List of Documents Received

Document	Received
<i>Amendment to the KST Contract for TBM Procurement</i>	<i>11/2/2023</i>
<i>New Baseline Schedule, Cost, and Risk Documents</i>	<i>11/15/2023</i>
<i>SCC New Starts Finance Cost</i>	<i>11/17/2023</i>
<i>PMPs and Sub Plans Rev B</i>	<i>11/22/2023</i>
<i>Response to comments</i>	<i>11/22/2023</i>
<i>Craft Labor Estimate Manual Calculation</i>	<i>11/30/2023</i>

E. VTA Top 10 Project Risks

Risk ID	Risk Title	Risk Description	Risk Score	Action Items Description
BSV-203	Timely readiness and cost of the West Portal TBM launch facility	Cause: Constructability challenges of the West Portal caterpillar shaft; permit/design review coordination with UPRR, disagreement between KST / VTA on EWP estimates, approval of EWP. Risk: Longer time to design and construct West Portal facility Impact: Delays to launch of TBM operations	20	1. Following input from constructability review workshop, KST to finalize design of EWP 3C (SOE) construction & CP2 to finalize scope and make a Go/No Go decision. 2. Develop documentation for VTA Nov Board approval on EWP Budgets. 2. Start Caterpillar Shaft construction by Jan 2024
BSV-005	Unanticipated or inadvertent damage to historic buildings, critical utility and other structures due to vibration and/or settlement.	Unanticipated or inadvertent damage to buildings (especially historic buildings), structures and/or utilities caused by vibration and/or settlement during construction leading to additional cost to mitigate. Mainly focused downtown along Santa Clara St, but extending to the area encompassed by settlement trough.	12	7. Obtain access (PTE) to perform structural inspection on properties which are identified as Group A structures in the technical requirements - this will help contractor in expediting mitigation designs. 8. KST to develop instrumentation and monitoring program for the sensitive structures. VTA to support KST in obtaining access to install and monitor instrumentation as appropriate.
BSV-029	VTA financial capacity / funding plan to finance potential future project cost increases.	Project is currently at an early stage of design. Changes in cost may result from further design development and coordination with stakeholders. It is conceivable that future cost estimates will exceed current available funding, necessitating the identification of additional funding sources and/or debt financing. This could result in a) delays in progressing the project, b) changes to scope in order to align with identified funding and project cost.	12	1. Complete cost estimate on 30% design, including incorporating input from VE efforts into program cost estimate for submission to FTA. 2. Update the financial plan following completion of cost estimates and agreement with FTA on project cost. 3. Identify secondary mitigation and review with BART as applicable.
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 creating the need to pay a premium.	12	1. Perform an update of Market Saturation Study to include assessment of the post-COVID economic cycle as related to labor market. 2. Continue to monitor economic trends and impacts. 3. Continue the project public outreach efforts.
BSV-096	Testing and Commissioning delays due to various factors.	Testing and commissioning delays due to: - Insufficient time allocated to the schedule for testing activities. - Inadequate installation verification and QA/QC processes implemented. - Failed testing of equipment and/or testing parts requiring major rework. - Improper handoff from other CPs to systems contractor	12	1. Elicit and define requirements from stakeholders and capture in the contract documents. 2. Develop detailed resources loaded schedule for system's testing, commissioning and training activities. 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. 4. Agree on the framework and durations of the T&C program. 5. Introduce the Rail Acceptance Officer early on during the testing phase. 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.
BSV-132	Program staffing capacity and continuity (VTA/ PM/CM/ Design) to support long program timeline	Cause: BSVII Program continues over 10+ years, key personnel changes, limited availability of talent locally Impact: Knowledge gaps during project implementation, lead to ineffective contract interface management and integration / turn-overs from one to another contractor and finally to BART, resulting in impacts to scope, schedule and budget.	12	1. Develop succession plan for each key personnel that includes a second or an identified person that can take over for the individual that retires or leaves the project so that there are no gaps in the knowledge and effectiveness of key performers. 2. Extend this plan to VTA, VTA's consultant team and BART given the importance of the management of scope, schedule, and budget to achieve project goals.
BSV-170	KST proposed Stage 2 Lump Sum price increase VTA CP2 budget.	During the design development, potential challenges arising with scope growth, complicated means and methods, and current market conditions may result in KST proposed Stage 2 GMP higher than VTA's current NSPD basis.	12	4. Review KST's Configuration Design estimate to identify potential areas of major difference between VTA and KST and work throughout the Stage 1 period to resolve the difference. 5. Identify secondary mitigations to relieve pressure on VTA budget.

Risk ID	Risk Title	Risk Description	Risk Score	Action Items Description
BSV-201	East Portal - Complicated ROW acquisitions with Kolander and A&B properties	Cause: Kolander and A&B properties - Potential for litigation with owner, unclear BPE requirements, removal of access to street, cell tower and business relocations Risk: Potential untimely finalization of technical documents needed for BPE, access closure, delays in tunnel easement language finalization Impact: Delays in obtaining either easement or final acquisition	12	<ol style="list-style-type: none"> 1. VTA to obtain access (PTE) to A&B for building strengthening and status of Billboards. 2. VTA to work with property owner to redesign access, obtain city permits and reconstruct new access. Target Aug 2025. 3. VTA Real Estate to acquire Kolander property and relocate business by Aug 2025. 4. KST to develop detailed schedule that forecasts need-by dates. 5. For A&B properties, KST to confirm that the Marburg Way solution is acceptable to them. 6. VTA to develop a list of priority issues to discuss/resolve with KST.
BSV-204	Delays in Temporary Power SNH construction and long-lead transformer procurement	Cause: Long-lead procurement of step-down transformer (from 115kV to 34.5kV) for TBM temporary power. Impact: Delays in construction of SNH and power ready for PG&E drop-in.	12	<ol style="list-style-type: none"> 1. Complete design and PO support documentation for early works package. 2. Execute early works package #11 to avoid delay to TBM assembly. 3. Direct KST to expedite step-down transformer procurement. 4. Explore availability of step-down transformer within BART to avoid delays.
BSV-208	KST Overall Design approach leading to higher project cost and potential for delays due to redesign to fit within budget	Cause: KST design packages not providing all design elements required in the said design level (e.g. 60% design not including all necessary design functions); Also, not demonstrating design capability to fit design into budget. Risk: design to de-risk contractor, higher contractor mark-ups, Impact: Complicated and costly project profile leading to challenges with VTA in effectively negotiating with KST on costs resulting in added costs and schedule.	12	<ol style="list-style-type: none"> 1. Explore risk sharing with KST - direct contractor on certain design concepts vs. nudging them. 2. Direct Contractor to obtain competitive price on various packages. 3. Look into negotiating Stage 1 contract to include in contract, for KST to meet, a target price and target schedule. 4. Conduct constructability meetings with KST to pinpoint/ address cost increases. 5. Bring on additional resources on-site to support Stage 2 negotiations and bring estimate down within the ICE range. 6. Explore developing alt. design concepts in-house to highlight efficiency-related opportunities for use in price negotiation.

Source: BSVII Monthly Progress Report October2023

F. Project Milestones/Key Events

Milestone	Planned Date
General Key Milestones	
Contract Package 1 Systems Design Bid Ready & Review	10-Mar-27
Contract Package 3 Newhall Yard and Santa Clara Station Design Bid Ready & Review	22-Jan-26
Contract Package 4 Stations and Support Facilities Design Bid Ready & Review	9-Jan-26
Start of Revenue Service	22-Oct-36
Construction Contracts Key Milestones	
Contract Package 1 Systems	
Contract Package 1 NTP Systems	18-Apr-28
Track Testing Completion	17-Jan-36
Systems Testing Completion Turn Over to BART	18-Jan-36
Contract Package 2 Tunnel and Trackwork	
Contract Package 2 NTP2 Tunnel & Trackwork	15-Nov-24
Order TBM	29-Sep-23
Deliver TBM	30-Jun-25
Start of Tunneling	4-Dec-25
Start of Trackwork	7-Aug-28
Contract Package 3 Newhall Yard and Santa Clara Station	
Contract Package 3 NTP Newhall Yard and Santa Clara Station and Parking Garage	3-Feb-27
Santa Clara Station Fit-Out Completion	26-Dec-29
Santa Clara Station Parking Garage Construction Completion	20-Sep-30
Newhall Yard Trackwork Completion	18-Sep-31
Contract Package 4 Stations	
Contract Package 4 NTP Stations and Support Facilities	25-Mar-27
Diridon Station Fit-Out Completion	27-Jun-33
DTSJ Station Fit-Out Completion	20-Sep-32
28th Street Station Fit-Out Completion	6-Oct-33
28th Street Station Parking Garage Construction Completion	12-Nov-32

Source: VTA's BART Silicon Valley Phase II Extension Project Basis of Schedule, New Starts Entry to Engineering Revision A, September 19, 2023

G. Project Map

