

**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 May 31, 2024

**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 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.

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.

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.

The project's 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's new baseline cost and schedule estimates include 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.

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.

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 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.

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

PMOC is concerned that a key VTA BSVII position (Construction Director) is currently vacant. PMOC is aware that the VTA is currently recruiting for this position. PMOC is expecting that the qualifications and experience bar is quite high for this position considering that it will be managing one of the nation’s most difficult and challenging underground deep tunnels and stations transit project.

*PMOC is concerned about the recent and unanticipated vacancy for the key (Quality Manager) BSVII position.*

PMOC is suggesting that VTA should consider succession planning and transition planning for staff turnover situations.

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

*PMOC is concerned that the Construction Management Services (CMS) contract was awarded in April 2024 for the first ten years of the project and there is no action plan describing how the remaining duration will be managed after this contract expires.*

PMOC is concerned about differences in BART and VTA understanding of BART staff roles and authority in the review and approval process during various phases of project implementation (Engineering, Construction, Testing and Start-up).

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.

**D. Table 1 Core Accountability Items**

|  |   | FTA P65 Forecast (EPD Letter of Intent) (Oct 2021) | VTA New Starts Basis (Sept 2022) | New Baseline New Starts – Entry to Engineering (Oct 2023) | FTA P65 Forecast - Entry to Engineering (Mar 2024) |
|--|---|--|----------------------------------|---|--|
| <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>                                   | \$917.0  |                                  | 9.3%  |  |
| <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 (\$)</b>                                 |                                  | <b>Percent</b>  |  |
| <b>Total Contracts Awarded</b>         | Value of all contracts (design, support, construction, equipment) awarded: % of total value to be awarded | \$1,218  |                                  | 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>             | N/A   | 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 April 30, 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 May 31, 2024 (and including the April 2024 monthly progress reporting received May 31, 2024). The monthly PMOC oversight call was conducted on June 13, 2024, discussion at which covered those documents received in April 2024.*

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.

VTA staff presented the BSVII cost and schedule new baselines to the VTA Board of Directors on October 5, 2023, as an Information Item. On October 20, 2023, VTA staff and VTA Board of Directors held a workshop and discussed the BSVII Cost and Schedule new baselines. VTA transmitted to FTA/PMOC on October 11, 2023, these new baseline cost and schedule estimates 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 based on the use of 125% of the remaining critical path Stripped and Adjusted Base Schedule (SABS) duration.

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 and a Revenue Service Date (RSD) of February 2039.



## 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     |
| 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   |

| Document Title                | Revision |            |
|-------------------------------|----------|------------|
|                               | No.      | Dated      |
| 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 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      |
| Third-Party Agreement Management Plan (TAMP)   | 1.0      | November 1, 2023   |
| Project Delivery and Procurement Plan          | 0.G      | November 1, 2023   |

PMOC reviewed the new 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.

### **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.

*At the June 13, 2024, monthly meeting, VTA presented the VTA's BART Silicon Valley Phase II Extension Program Organization and provided the following updates:*

- *Actively recruiting for the VTA Construction Director position and anticipate completing the recruitment by July 1, 2024.*
- *Introduced two key members of the Bechtel Infrastructure Corporation Construction Management Services (CMS) team.*
- *The key (Quality Manager) BSVII position became vacant recently. BSVII is actively recruiting for the Quality Manager position.*
- *VTA plans to extend the current Program Management Services (PMS) contract that is set to expire on October 31, 2024. VTA is planning to release a Request for Proposal (RFP) for the next PMS contract in early summer 2024. VTA will ensure there is enough transition time between the current and future PMS contractors for knowledge transfer.*

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

FTA signed the BSVII Record of Decision (ROD) in June 2018. 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. 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.

At the June 13, 2024, monthly meeting, VTA reported the following NEPA / Environmental Mitigations Status:

- NEPA document approved March 2024
- CEQA document scheduled for VTA Board for end of June, 2024
- Ongoing preparation of the quarterly Environmental Commitments Record (ECR)
- Ongoing review of KST submittals for conformance with environmental requirements
- Ongoing implementation of the 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), Santa Clara Station/Newhall Yard (CP3), and Underground Stations (CP4).

| <b>Package Number</b> | <b>Construction Contract Package Name</b>            | <b>2022 Delivery Method</b> |
|-----------------------|--|-----------------------------|
| 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.

| <b>Construction Contract Package Name</b> | <b>2023 Delivery Method</b> |
|---|-----------------------------|
| 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 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.

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.

*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.*

At the May 9, 2024, monthly meeting VTA reported that they are on-boarding a core group of the Construction Management Services (CMS) using a 60 days workplan. An annual workplan is being prepared to staff up the CMS for the following year.

## **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 June 13, 2024, monthly meeting, VTA noted the following progress:*

- *Ongoing design optimization process to evaluate possible savings.*
- *Advance Partial Design Units (APDU):*
  - *APDU 2 Pre-Cast tunnel liner 100% complete design pending – VTA reviewing portion.*
  - *APDU 3C - West Portal design-Wall SOE Rev. 2 - 100% Design Rev.2 complete, all comments resolved.*
  - *APDU 3D – West Portal Caterpillar SOE Final Design Rev. 2– 100% Design Rev.2 complete, all comments resolved.*
  - *APDU 5A - DTSJ Chase building demolition, civil & Maintenance of Traffic (MOT) packages – 100% Design reviewed – comment resolution complete.*
  - *APDU 8B – East Portal Enabling Works - Over the Shoulder (OTS) review of 85% Design complete, comment resolution in progress.*
  - *APDU 11B – West portal Temporary Power High Voltage Sub-station 85% Design - 85% design review complete, comment resolution in progress.*
  - *APDU 12A – Diridon Station Enabling Works and Utilities – Comment resolution on 100% complete.*
  - *APDU 14 – 28th Street Station Enabling Works – Comment resolution on 100% complete.*
  - *APDU 20 – Track and Tunnel Alignment– Comment resolution on 100% complete.*
  - *D10 – Bored Tunnel Design –85% Design submittal received, VTA review in progress.*
  - *D15 – Tunnel Internal Structures - 85% Design –review complete, comment resolution in progress.*

- *D20 – Track and Tunnel – 85% design submittal received, VTA review in progress.*
- *D25 – Diridon Station Design –60% Design review complete, comment resolution complete.*
- *D30 – Downtown San José Station - 60% Design – submittal to VTA pending.*
- *D35 – 28<sup>th</sup> Street / Little Portugal Station - 60% Design review complete, comment resolution complete.*
- *D40 – East Portal Design - 60% Design review complete, comment resolution complete.*
- *D45 – West Portal Design – 60% Design review complete, comment resolution in progress.*

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

*At the June 13, 2024, monthly meeting, VTA noted the following progress:*

- *Design Status and advancing to FFGA submission.*

| <i>CP1</i>    | <i>CP3</i>    | <i>CP4</i>    |
|---------------|---------------|---------------|
| <i>Design</i> | <i>Design</i> | <i>Design</i> |
| <i>61%</i>    | <i>59%</i>    | <i>62%</i>    |

- *Technical assurance / design reviews continue with KST submittals in support of the CP2 Management Team.*
- *Continue the collaborative development of interface design requirements definition (KST & GEC).*
- *Supporting BART engagement by participating in technical working groups.*
- *Implementing changes to the technical requirements within the BSVII Program DCM*

Due to the cancellation of procurements for CP1, 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 and documented in the Contract Implementation Plan.

**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.

## **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.

*During the June 13, 2024, monthly meeting VTA presented a high-level summary, as of March 2024, of the Real Estate Acquisition / Relocation Status per the following Real Estate Summary Table:*



| 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: 75 *                  | 77    | 26                  | 51                     | 16   | 7                     | 10          | 0                           | 1                         | 17                       | 37              | 12        |
| Type of Take: Quantity               |       |                     |                        |  |                       |             |                             |                           |                          |                 |           |
| BPE ** & Other Takes:                | 5     |                     | 5                      | 1  |                       | 2           |                             |                           | 2                        | 3               |           |
| Full Fee:                            | 9     | 7                   | 2                      | 1  |                       |             |                             |                           |                          | 15              | 8         |
| Other Multiple Takes (Easement/Fee): | 3     |                     | 3                      | 1  |                       |             |                             |                           | 3                        | 15              | 4         |
| Tunnel Easement:                     | 46    | 19                  | 27                     | 13   | 6                     | 2           |                             | 1                         | 5                        |                 |           |
| Roadway Easement:                    | 3     |                     | 3                      |  |                       |             |                             |                           | 3                        |                 |           |
| Utility Easement:                    | 4     |                     | 4                      |  |                       |             |                             |                           | 4                        |                 |           |
| Temporary Construction Easement:     | 7     |                     | 7                      |  | 1                     | 6           |                             |                           |                          | 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

*Changes for April 2024:*

1. Moved Newhall Street acquisition to "Full Fee Only" category;
2. Required Relocation count reduced to 37 total (from 38);
3. Completed Relocations increased to 12 (from 10) with revised categorization.

*During the June 13, 2024, monthly meeting VTA reported the following progress as of April 2024 (75 active parcels):*

- *Legal/Plats Approved: 78%*
- *Appraisals Completed: 77%*
- *Offers made: 77%*
- *Purchase Agreements Signed: 34%*

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

*At the June 13, 2024, monthly meeting, VTA provided the following Public Involvement/Outreach/Communications updates:*

- **Public and Stakeholder Meetings and Presentations**
  - *Community Working Group Series –June 25-27*
  - *5<sup>th</sup> Advocacy Breakfast (June)*
  - *Design Review Committee Meetings for 3 San Jose Stations (Summer)*
  - *Downtown/Diridon Construction Transportation Management Plan – City & Stakeholder Engagement Kickoff (June – July)*
  - *Third Party 60% Design Review (June)*
- **Communications and Public Relations**
  - *TBM Naming Selection June*
  - *Groundbreaking Event June 14*
  - *Business Resource Program Launch (Summer 2024)*
  - *Summer Newsletter*

- *Spotlight Project Feature August*
- **Tabling Events**
  - *Dia de Portugal Festival 6/8, VTA's EBRC Project groundbreaking and Community Resource Fair Celebration 6/8/2024.*

## **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 June 13, 2024, monthly meeting, VTA provided the following Third-Party Agreements updates:*

- *Received the UPRR draft Mitigation and Reimbursement Agreement for West Portal Early Works (formerly called the Final Engineering Agreement). The draft agreement is currently under review by VTA.*
- *KST's Property Protection Studies and Instrumentation & Monitoring Plan includes all major utilities. Excerpts of the 85% PPS and I&M Plan related to utilities of concerns will be provided to PMOC.*
- *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 draft Mitigation and Reimbursement Agreement for West Portal Early Works (formerly called the Final Engineering Agreement) is anticipated to be executed by July 19, 2024, with a Need by Date of August 14, 2024*
- *Critical Agreements post FFGA (Construction): 4 (BART IL, UPRR C&M, 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                  | 2                           |
| 28 <sup>th</sup> Street / Little Portugal Station | 7                  | 0                           |
| East Portal                                       | 5                  | 0                           |
| <b>Sub Total</b>                                  | <b>32</b>          | <b>11</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>11</b>                   |

During the June 13, 2024, monthly meeting VTA reported the following:

- *West Portal:*
  - *PG&E 115kV interconnection Construction started April 30, 2024*
  - *Cogent/Sprint relocation design review complete – awaiting final design package*
- *Diridon West Vent Shaft:*
  - *AT&T pre-construction activities in progress*
  - *SJWC construction complete pending final pavement restoration*
  - *PG&E gas relocation Construction NTO executed*
- *Downtown Station:*
  - *PG&E gas and Electrical relocations in-progress*
  - *AT&T preliminary design review complete – AT&T to submit final design package*
- *East Portal:*
  - *KST finalizing the utility relocation alignments for Sewer, Storm Water, PG&E gas and Electric at East Portal*

## **K. Construction**

During the June 13, 2024, monthly meeting VTA reported the following early works procurement / negotiations activities and status of progress:

- *Early Works Package 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): negotiations ongoing.*
  - *EWP 3C.1 – Preparation for West Portal Enabling Works: partial NTP issued May 2024.*

- *EWP 7A – West Portal Instrumentation & Monitoring: installations in June 2024.*
- *EWP 9A – TBM Tunnel Support Equipment: negotiations ongoing.*
- *EWP 11A – West Portal TBM and Plant Power: KST receiving the initial equipment shop drawings.*
- *EMP 11B – West Portal TBM and Plant Power Phase 2: NTP issued May 2024.*
- *Construction – West Portal:*
  - *Completed initial mobilization in May 2024.*
  - *Started weekly construction meeting with KST.*
  - *Started Site Clearing and Removal of existing facilities*
  - *Started Site Grading operations, (scarify and compact subgrade).*
  - *Ongoing weekly construction meetings with KST.*
  - *Continuing coordination with Caltrain and UPRR for the installation of existing track instrumentation and monitoring devices.*
  - *Updating VTA policies and procedures for construction – Construction Administration Procedures.*
  - *Reviewing Construction site specific work plans.*
  - *Preparing for Milestone Event (Groundbreaking) in June 2024.*
- *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.*
  - *Completed additional geotechnical investigation (borings) at Downtown and Diridon BOH locations.*
- *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 June 13, 2024, monthly meeting, VTA reported that BART executed the option with Alstom to purchase 48 revenue vehicles for the BSVII Extension Project.*

## 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 April 30, 2024, including accruals, which total \$971.2. Project costs have been expended in SCC 10, SCC 40, SCC 60, and SCC 80. Project commitments include SCC 10, SCC 40, SCC 60, and SCC 80 and total \$1,211M through April 30, 2024.*

*At the During the June 13, 2024, monthly meeting VTA reported the following Budget / Cost updates for the April 2024 reporting period:*

- *No changes to budgets in current period.*
- *Budget updates / transfers in process to reflect executed CP2 amendments.*

## **N. Project Schedule**

*VTA provided an April updated schedule with a data date of 01MAY24. 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, along with the Substantial Completion (Completion of Phase 2 Testing, Systems (CP1) Contractor Oversight by BART) activity with a date of 09NOV35.*

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

*The critical path on the overall schedule has total float at 0. There are three activities driving the critical path. One of the activities is the CP2 Santa Clara Station Enabling Works Demolition Concrete Silo. Then there is CP2 Santa Clara Station Enabling Works Site Grading and finally CP2 Newhall Yard Enabling Works I&M Installation. After CP2 the path leads to Systems (CP1) to Testing.*

*The ROW, Design and Third-Party schedules have a mix of Duration percent complete and Physical percent complete. With Physical percent default, the percentage must be manually entered along with the actual finish date. It appears as if the information is not being manually entered as the percentages have remained at zero.*

*Right of Way: Updates to various ROW activities Effective Possession dates caused slippage in the schedule. A couple of major parcel dates slipped, i.e., Diridon station Google parcel moved from October 2024 to April 2025; Diridon station West Vent Shaft moved from July 2025 to December 2025; 28th Street Station Parcel moved from October 2024 to August 2025. Various parcels at the East Portal area slipped by one to two months.*

*Updates to various utility owners' activities dates cause slippage in the schedule but did not impact the critical path. East Portal Temporary and Final relocations slipped based on the latest information from utility owners.*

*Third party: Updates to various Third-Party Agreements activity dates slipped in the schedule.*

*In the Systems (CP1) Schedule the milestone for Underground Stations/Systems Interface Diridon station (Shared access with Underground Stations and Systems) has moved out by 51 days. This is due to the interface activity "Underground Stations/Systems Interface Diridon station (Shared access with Underground Stations and Systems)".*

*For the CP2 Construction: The start of enabling work at Diridon station and 28th Street station slipped due to the ROW slippage.*

*For the Underground Stations (CP4) schedule the overall schedule has lost 51 days and this is due to the "Underground Stations/Systems Interface Diridon station (Shared access with Underground Stations and Systems)" from the Systems (CP1) schedule.*

## **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 (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 has included the FTA and PMOC in the BSVII Risk review sessions for May, June, July, August, September, and October 2023. *VTA has now included 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 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 has completed a refreshed 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) 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 a few 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 Risk:***

***BSV-213 - Additional redesign costs and design time to address optimizations:*** *Per VTA, this is a new risk pertaining to additional design costs associated with implementing optimizations. Implementing optimizations may require a redo of 85% design and, in some cases, potentially going back to 60% design. Optimizations are currently being reviewed by the steering committee, anticipating a final direction by the end of May 2024.*

*The PMOC acknowledges this new risk.*

***BSV-214 - Diridon Station design changes due to stakeholders' input:*** *Per VTA, the City of San Jose has requested changes to Station Redesign of BOH to put it below ground, providing underground connection for the future Diridon Station. This will require significant re-configuration of the Diridon Station to account for the City's request, which may add capital cost thereby reversing the value engineering savings. This new risk is added to capture the redesign cost and design delay of this effort.*

*The PMOC acknowledges this new risk.*

***BSV-215 - FFGA execution delays:*** *Though VTA and FTA are proactively working to meet the timeline, there is the potential that the FFGA timeline reflected in the MPS could be delayed based on FTA's assessment. This could result in a lack of availability of Federal and other non-federal funding sources to support timely issuance of contract commitments or may require a*



greater level of debt financing. This new risk is added to account for the potential increase in overall project cost and delay in planned schedule milestones.

The PMOC acknowledges this new risk.

**BSV-216 - Instrumentation & Monitoring work (EWP 7A) delays start of West Portal Construction:** Per VTA, JPB's/KST's disagreement on the JPB Right of Entry (ROE) Agreement terms may result in delays in obtaining ROE from JPB and NTP delays to Instrumentation and Monitoring (EWP 7A). This could cause a late start of West Portal construction and delays in TBM launch. This new risk has been added for the schedule impacts of this delay.

The PMOC acknowledges this new risk.

**BSV-217 - TBM storage additional costs:** Per VTA, this new risk pertains to the possibility of delays in completion of West Portal which would require TBM storage for an extended time. If the West Portal structure is not ready for the TBM when it arrives, Herrenknecht/KST may issue a change order to store the TBM, resulting in additional costs.

The PMOC acknowledges this new risk.

#### **Retired Risk:**

**BSV-139 - Delays in fabrication and delivery of TBM:** Per VTA, this risk originally pertained to potential fabrication and delivery delays of the TBM given the complexity associated with this specialized equipment as well as overall market conditions and disruptions. This risk is now retired because fabrication and delivery are no longer on the critical path. Instead, a new risk BSV-217 (see above) is added to accommodate delivery and storage of TBM in accordance with completion of the West Portal Launch Facility.

The PMOC acknowledges the retirement of this risk.

#### **Increased Risk:**

**BSV-196 - Failure to secure a lump-sum price with KST resulting in Off-ramp:** Per VTA, based on trending of current EWP cost estimates, this risk of VTA/KST not coming to agreement for the agreed cost for overall scope continues, resulting in a full or a partial off-ramp. Risk probability was therefore increased.

The PMOC acknowledges this increased risk.

#### **Reduced Risk:**

**BSV-132 - Program staffing capacity and continuity (VTA/ PM/CM/ Design) to support long program timeline:** Per VTA, with the onboarding of VTA Program Manager/Deputy Chief in early April and CM team also on board to provide continuity, this risk is now reduced. Risk probability reduced as a result.



## **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

*During the June 13, 2024, monthly meeting VTA reported the following quality activities:*

- *Contract Package-2 KST*
  - *Initiated Early Works Construction Audit of KST Inspection & Test Plans, Construction Quality Management Plan and Requirements Management Plan*
  - *Closed one Corrective Action Request (CAR-2024-001) based on satisfactory KST response*
  - *Completed review of Early Works Concrete Test Program Plan and Early Works Earthwork Test Program Plan Rev. 1*
  - *Attended site specific Safety Plan training in preparation for QA Oversight field activities.*
- *BSVII Program*
  - *Responded to PMOC Report on the BSVII Quality Management Plan*

## **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 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.

*During the June 13, 2024, monthly meeting VTA reported the following System Safety and Security Risk Management / Certification activities:*

- *Safety and Security Review Committee (SSRC):*
  - *The May 22, 2024, SSRC meeting included two important updates:*
    - *A tunnel safety system overview with discussion of how all the relevant systems (cross-passages, ventilation, standpipes, operating practices) support a safety tunnel environment.*
    - *A CP2 Certification status with first design certificates being prepared.*
- *Fire Life Safety and Security (FLSS) Activities:*
  - *Two (2) FLSS working group meetings with San Jose Fire Department Committee Meeting have been held to discuss specific tunnel fire life safety issues including cross-passage spacing and standpipes. Additional working group meetings are scheduled.*
  - *The Fire Life Safety and Security Committee meeting was held May 21, 2024, with a report out from the working group discussions and a scenario discussion related to a medical emergency on the platform at an underground station. This is the second of a series of mini-tabletop discussions to explore potential issues in the tunnel that might require first responder involvement.*

## **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 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 June 13, 2024, 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 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 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 at the June 13, 2024, monthly meeting.*

## 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><br>6/13/2024 – VTA notified PMOC about execution of additional EWP's |
| 160  | <i>VTA to provide UPRR and JPB agreements impacts on EWP's</i>                                       | VTA               | 4/11/2024  | 5/9/2024  |           | <b><i>Open</i></b>   |
| 162  | <i>Provide PMOC with Valley Water's letter confirming their preference to use its permit process</i> | VTA               | 5/9/2024   | 6/13/2024 | 5/21/2024 | <b><i>Closed</i></b>   |
| 163  | <i>Provide PMOC with a job description / qualifications of the Construction Director position</i>    | VTA               | 6/13/2024  | 7/11/2024 | 6/20/2024 | <b><i>New &amp; Closed</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 G. Project Milestones/Key Events

Attachment H. Project Map

## 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              |
| 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                       |
| 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, June 13, 2024 – 10:00am (Pacific)  
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. Construction Management Procurement update
    - iii. CP2 Early Work packages update
    - iv. Revenue Vehicle procurement update
  - 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. July 11, 2024, 10:00am (Pacific)
  - b. August 8, 2024, 10:00am (Pacific)

### C. Monthly Meeting Attendees

| <b>Organization</b> | <b>Name</b>         | <b>E-mail</b>  |
|---------------------|---------------------|--|
| FTA Region IX       | Susan Ko            | <a href="mailto:susan.ko@dot.gov">susan.ko@dot.gov</a>                                   |
| FTA                 | Alec Edges          | <a href="mailto:alec.edges@dot.gov">alec.edges@dot.gov</a>                               |
| FTA                 | Tahir Khattak       | <a href="mailto:m.khattak@dot.gov">m.khattak@dot.gov</a>                                 |
| FTA                 | Serra Marquez       | <a href="mailto:serra.marquez.ctr@dot.gov">serra.marquez.ctr@dot.gov</a>                 |
| FTA                 | Murat Omay          | <a href="mailto:murat.omay@dot.gov">murat.omay@dot.gov</a>                               |
| VTA                 | Afshin Abtahi       | <a href="mailto:aabtahi@vtabsv.com">aabtahi@vtabsv.com</a>                               |
| VTA                 | Bernice Alaniz      | <a href="mailto:bernice.alaniz@vta.org">bernice.alaniz@vta.org</a>                       |
| VTA                 | Khair Amini         | <a href="mailto:KhairMohammad.Amini@vta.org">KhairMohammad.Amini@vta.org</a>             |
| VTA                 | Kannu Balan         | <a href="mailto:kbalan@vtabsv.com">kbalan@vtabsv.com</a>                                 |
| VTA                 | Erik Blum           | <a href="mailto:eblum@vtabsv.com">eblum@vtabsv.com</a>                                   |
| VTA                 | Monica Born         | <a href="mailto:mborn@vtabsv.com">mborn@vtabsv.com</a>                                   |
| VTA                 | Krishna Davey       | <a href="mailto:krishna.davey@vta.org">krishna.davey@vta.org</a>                         |
| VTA                 | Chris DuVilla       | <a href="mailto:cduvilla@vtabsv.com">cduvilla@vtabsv.com</a>                             |
| VTA                 | Andrew Ghofrani     | <a href="mailto:aghofrani@vtabsv.com">aghofrani@vtabsv.com</a>                           |
| VTA                 | Rosemarrie Gonzalez | <a href="mailto:rosemarrie.gonzalez@vta.org">rosemarrie.gonzalez@vta.org</a>             |
| VTA                 | Kevin Kurimoto      | <a href="mailto:kevin.kurimoto@vta.org">kevin.kurimoto@vta.org</a>                       |
| VTA                 | Tom Maguire         | <a href="mailto:tom.maguire@vta.org">tom.maguire@vta.org</a>                             |
| VTA                 | Ronak Naik          | <a href="mailto:ronak.naik@vta.org">ronak.naik@vta.org</a>                               |
| VTA                 | Rob Ostermiller     | <a href="mailto:rostermiller@vtabsv.com">rostermiller@vtabsv.com</a>                     |
| BART                | Ni Lee              | <a href="mailto:nlee@bart.gov">nlee@bart.gov</a>   |
| CPUC                | Daniel Kwok         | <a href="mailto:daniel.kwok@cpuc.ca.gov">daniel.kwok@cpuc.ca.gov</a>                     |
| CPUC                | Rupa Shitole        | <a href="mailto:rupa.shitole@cpuc.ca.gov">rupa.shitole@cpuc.ca.gov</a>                   |
| HNTB                | Craig Constant      | <a href="mailto:cconstant.hntb.com">cconstant.hntb.com</a>                               |
| HNTB                | Sean Libberton      | <a href="mailto:slibberton@HNTB.com">slibberton@HNTB.com</a>                             |
| Bechtel             | Jorge Martinez      | <a href="mailto:jxmartin@bechtel.com">jxmartin@bechtel.com</a>                           |
| BKF                 | Andrew Michel       | <a href="mailto:AMichel@BKF.com">AMichel@BKF.com</a>                                     |
| Bechtel             | Linda Miller        | <a href="mailto:ljmiller@bechtel.com">ljmiller@bechtel.com</a>                           |
| HNTB                | Chuck Morganson     | <a href="mailto:cmorganson@hntb.com">cmorganson@hntb.com</a>                             |
| WSP                 | Anthony Murphy      | <a href="mailto:tony.murphy@wsp.com">tony.murphy@wsp.com</a>                             |
| WSP                 | Lurae Stuart        | <a href="mailto:lurae.stuart@wsp.com">lurae.stuart@wsp.com</a>                           |
| PMOC                | Emile Jilwan        | <a href="mailto:emile.jilwan@atkinsrealis.com">emile.jilwan@atkinsrealis.com</a>         |
| PMOC                | Kyle Knudson        | <a href="mailto:kyle.knudson@atkinsrealis.com">kyle.knudson@atkinsrealis.com</a>         |
| PMOC                | Laurel Espenlaub    | <a href="mailto:laurel.espenlaub@atkinsrealis.com">laurel.espenlaub@atkinsrealis.com</a> |
| PMOC                | Heidi Nelkie        | <a href="mailto:heidi.nelkie@atkinsrealis.com">heidi.nelkie@atkinsrealis.com</a>         |
| PMOC                | Beth Sprague        | <a href="mailto:beth.sprague@atkinsrealis.com">beth.sprague@atkinsrealis.com</a>         |
| PMOC                | Nadeem Tahir        | <a href="mailto:nadeem.tahir@atkinsrealis.com">nadeem.tahir@atkinsrealis.com</a>         |

#### D. List of Documents Received

| Document  | Received         |
|---|------------------|
| <i>BSVII FTA-VTA PMOC Monthly Meeting 2024-05-09_Draft.pdf</i>                                    | <i>5/9/2024</i>  |
| <i>2024-04-CA-BSVII-OP20-ProjectManagementPlanReport_Draft VTA Observations.docx</i>              | <i>5/27/2024</i> |
| <i>2024-04-CA-BSVII-OP21-ManagementCapacityCapabilityReport_Draft VTA Observations.docx</i>       | <i>5/27/2024</i> |
| <i>2024-04-CA-BSVII-OP22-SafetySecurityManagementPlanReport_Draft VTA Observations.docx</i>       | <i>5/27/2024</i> |
| <i>2024-04-CA-BSVII-OP23-RealEstateAcquisitionManagementReport_Draft VTA Observations.docx</i>    | <i>5/27/2024</i> |
| <i>2024-04-CA-BSVII-OP24-QAQCReport_Draft VTA Observations.docx</i>                               | <i>5/27/2024</i> |
| <i>2024-05-CA-BSVII-OP25-Project Monitoring Report_Draft.docx</i>                                 | <i>5/27/2024</i> |
| <i>2024-04-CA-BSVII-OP37-FleetManagementPlanReport_Draft VTA Observations – None.docx</i>         | <i>5/27/2024</i> |
| <i>2024-04-CA-BSVII-OP39-ThirdPartyAgreementsManagementPlanReport_Draft VTA Observations.docx</i> | <i>5/27/2024</i> |

## E. VTA Top 10 Project Risks

| Risk ID | Risk Title   | Risk Description  | Risk Score | Action Items Description  |
|---------|--|---|------------|---|
| 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).<br>Risk: Higher than anticipated cost and longer time to construct the West Portal facility<br>Impact: Delays to launch of TBM operations   | 20         | 2. Develop documentation for VTA Board approval on remaining EWP 3C Budgets during June 2024 Board meeting.<br>3. Implementing partial NTP for KST sub-contractor to start submittals, shop drawings and procurement long lead items prior to start of Caterpillar Shaft construction. Incorporate partial NTP into the schedule to evaluate time savings / critical path.<br>4. Strategic review of EWP 3C scope to validate going ahead with balance of 3C.   |
| 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.<br>Risk: Failure to agree on lump-sum and come to terms with KST.<br>Impact: Off-ramp with CP2 contract scope, resulting in 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.<br>3. Identify KST costs by Work Packages versus the budget to identify potential options to have KST perform vs Subcontracting to others either via KST or separate procurement packages.<br>4. Develop details of off-ramp plan (including options for design completion, novating TBM procurement contract), partial termination, and other procurement packages to reduce costs and complete the remaining Work Packages.  |
| BSV-211 | Opportunity for eliminating DTSJ Secondary Headhouse                                       | Cause: VTA's VE study identified elimination of DTSJ Secondary Headhouse<br>Risk: Reduction in capital cost for eliminating DTSJ SH as well as all ROW parcels associated with it<br>Impact: Direct cost savings  | 15         | 1. Implement the approved VE and realize savings as part of 60% design estimate.  |
| BSV-005 | Unanticipated damage to historic buildings, critical utilities & other structures          | Cause: Vibration and/or settlement during construction.<br>Risk: Unanticipated or inadvertent damage to buildings (especially historic buildings), structures and/or utilities.<br>Impact: 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 historic, sensitive structures and utilities.<br>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 and/or local funds may expire, 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         | 3. Identify secondary mitigation and review with BART if additional cost pressures arise as applicable.<br>4. VTA CFO continues to perform stress test of the financial plan to address potential cost increases  |
| 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         | 2. Continue to monitor economic trends.<br>3. Continue project public outreach efforts.   |
| BSV-096 | Testing and Commissioning delays due to various factors                                    | Testing and commissioning delays due to:<br>- Insufficient time allocated to the schedule for testing activities.<br>- Unanticipated systems integration/interface issues.<br>- Inadequate installation verification and QA/QC processes implemented.<br>- Failed testing of equipment and/or testing parts requiring major rework.<br>- Improper handoff from other CPs to systems contractor.   | 12         | 2. Develop detailed resources loaded schedule for system's testing, commissioning and training activities.<br>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.<br>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.<br>5. Introduce the Rail Acceptance Officer early on during the testing phase.<br>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. |

| Risk ID | Risk Title  | Risk Description  | Risk Score | Action Items Description  |
|---------|---|---|------------|---|
| BSV-152 | Truck traffic volume for disposal of muck from the tunnel resulting in additional costs | The Oct 2023 revised cost estimate already includes cost of muck disposal via traditional haul/disposal (i.e., at disposal sites with added cost) via trucks at market rate. As the muck disposal is very costly, there is a risk that eventual disposal cost may be higher than currently estimated due to actual volume of trucks at West Portal that may strain public traffic requiring additional work constraints or limitations. | 12         | <ul style="list-style-type: none"> <li>4. Determine maximum and average truck count per day during TBM mining for removal of spoils.</li> <li>5. Investigate market capacity of trucks.</li> <li>6. Maximize truck capacity (load size) to increase spoils removal per truck.</li> <li>7. Establish potential overflow location(s) on-site.</li> <li>8. Consider weekend, extended hour hauling if required and allowed.</li> </ul> |
| 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 preliminary baseline.  | 12         | <ul style="list-style-type: none"> <li>4. Review KST's 60% Design estimate to identify potential areas of major difference between VTA and KST and work throughout the Stage 1 period to resolve the difference.</li> <li>5. Identify secondary mitigations to relieve pressure on VTA budget.</li> <li>6. Collaborate on potential optimizations to reduce price of CP2 Lump Sum.</li> </ul>                                       |
| BSV-204 | Delays in Temporary Power SNH construction and long-lead transformer procurement        | <p>Cause: Long-lead procurement of step-down transformer (from 115kV to 34.5kV) for TBM temporary power.</p> <p>Impact: Delays in construction of Substation Hameline (SNH) and power ready for PG&amp;E drop-in.</p>   | 12         | <ul style="list-style-type: none"> <li>4. Coordinate with KST to obtain status of transformer order.</li> </ul>   |

Source: BSVII Monthly Progress Report April 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

