

## **Quarterly Progress Review Meeting No. 25 December 20, 2023**

Peninsula Corridor Electrification Project (PCEP)  
Peninsula Corridor Joint Powers Board (JPB)/Caltrain  
San Mateo, CA

January 17, 2024

PMOC Contract Number: 69319519D000019  
Task Order Number: **69319523F30077N**

OPs Referenced: #01 Administrative Conditions and Requirements  
#25 Recurring Oversight and Related Reports

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Length of Time Firm Assigned to Project: 8 Years, 4 Months  
Length of Time Person Assigned to Project: 8 Years, 4 Months

# **1 EXECUTIVE SUMMARY**

## **1.1 Introduction**

This report summarizes Quarterly Progress Review Meeting (QPRM) No. 25 between the Federal Transit Administration (FTA); the FTA's Project Management Oversight Contractor (PMOC), Kal Krishnan Consulting Services, Inc. (KKCS); and the Peninsula Corridor Joint Powers Board (JPB)/Caltrain. JPB/Caltrain is the Project Sponsor for the Peninsula Corridor Electrification Project (PCEP).

The in-person meeting was held at the JPB's headquarters in San Carlos, California on December 20, 2023. The meeting also used Microsoft Teams video collaboration software to communicate via the Internet and a call-in number was provided.

## **1.2 Project Description**

The Peninsula Corridor Electrification Project (PCEP) is a Core Capacity Improvement Project (CC) located on the peninsula between San Francisco and San Jose, California.

The PCEP consists of the electrification of 51 miles of Caltrain's double-tracked commuter rail line between the 4<sup>th</sup> and King Station in San Francisco and the Tamien Station in San Jose, and the purchase of 96 Electric Multiple Unit (EMU) vehicles that will be configured as sixteen (16) six-car trainsets. These EMUs will replace approximately 75 percent of Caltrain's current average weekday diesel powered service. The initial EMU order was supplemented in December 2018 when the JPB exercised an option to purchase an additional 37 EMUs; the resulting fleet will consist of nineteen (19) seven-car trainsets; the additional EMUs are not funded through the JPB's Core Capacity grant. *The JPB exercised part of its remaining options in August 2023 to purchase four (4) additional EMU trainsets for a total of twenty-three (23) seven-car trainsets; these vehicles will not be funded by the PCEP. The JPB also purchased a single hybrid Battery Electric Multiple Unit (BEMU) to provide wireless electrified service from San Jose to Gilroy at the south end of Caltrain's system.* The project also includes modifications to the wayside signal system and grade crossing warning systems to accommodate the new electrified rail system, and the installation of Supervisory Control and Data Acquisition (SCADA) equipment to monitor and control the electrification equipment. The infrastructure scope also includes modification by "notching" of four (4) existing rail tunnels to accommodate the expanded clearance envelope of the electrified vehicles. Caltrain's Central Equipment Maintenance and Operation Facility (CEMOF) will also be modified to service the electrified vehicles.

The PCEP is part of a larger JPB initiative known as the Caltrain Modernization Program (CalMod). The CalMod program has separately installed a Positive Train Control (PTC) system, which is an advanced signal system that includes federally mandated safety improvements. The JPB is in the extended Revenue Service Demonstration phase of the PTC project and is interoperable with all tenant railroads. The Federal Railroad Administration (FRA) approved the JPB's Positive Train Control Safety Plan (PTCSP) on December 17, 2020.

## **1.3 Project Status**

The PCEP has a Full Funding Grant Agreement (FFGA) under the FTA's Capital Investment Grant (CIG) program for Core Capacity Improvement Projects; the project is nearing the end of construction and has entered the testing and commissioning phase.

The FFGA for the PCEP was executed on May 23, 2017. The JPB issued a full notice to proceed (NTP) to the EMU supplier on June 1, 2017, and to the Electrification design-build contractor on June 19, 2017.

The PMOC, at the FTA's request, conducted a virtual Risk Refresh workshop consisting of four (4) half-day sessions that were held on December 8, 10, 15, and 17, 2020. The FTA, based on the results of the December 2020 Risk Refresh effort, designated the PCEP an "At-Risk" project in a letter dated June 30, 2021. The FTA took this action because the PCEP has experienced significant cost overruns and schedule delays. The FTA, following its designation of the PCEP as an at-risk project, requested that the JPB submit a Project Recovery Plan by October 8, 2021.

The JPB, in response to the FTA's at-risk designation, made significant changes to the PCEP management team in early September 2021. The JPB retained Pranaya Shrestha as the new Chief Officer (CO) to lead the PCEP team. The JPB, and the PCEP's new team, took immediate actions to respond to the underlying issues and put the project on a path toward recovery. The JPB requested that the due date for the Recovery Plan be extended to allow the new management team to complete a comprehensive assessment of the PCEP. The FTA agreed to defer the submittal of the plan until Mr. Shrestha and his team could complete additional risk and budget reviews. The JPB has submitted two drafts of its Recovery and Remediation Plan for the PMOC's review and submitted its Recovery Plan to the FTA on April 1, 2022. The FTA and the PMOC reviewed the April 1, 2022, Plan and provided comments to the JPB on May 25, 2022. The JPB submitted its Recovery Plan to the FTA on September 30, 2022. The PMOC completed its review of the Recovery Plan and submitted its report and recommendations to the FTA on February 10, 2023. The FTA asked the PMOC to provide its report and recommendations to the JPB for comments, and the JPB provided its comments to the FTA and PMOC on April 7, 2023. The FTA and the PMOC met to discuss the JPB's comments, and the FTA subsequently requested a work session with the JPB/PCEP's leadership; that work session occurred following the conclusion of QPRM No. 23. *The FTA accepted the JPB's Recovery Plan, with an updated Required Completion Date (RCD) of December 31, 2024, and a revised budget of \$2,393,109,097, on November 28, 2023.*

*BBII, the Electrification Design-Build contractor has revised its targeted Substantial Completion Date of December 31, 2023, to the contract Substantial Completion date of April 1, 2024. The contract Final Acceptance date remains July 30, 2024. The five (5) remaining short circuit tests are now scheduled for February 2024.*

*The JPB received two (2) more EMU trainsets on November 1, 2023. This will be the final shipment in 2023 because of storage restrictions at Caltrain. Two (2) of the first four (4) EMU trainsets have completed the 1,000 mile burn in test that is a requirement for final acceptance; the third trainset has completed 600 of the required 1,000 miles. Live run and burn-in testing of the remaining three trainsets is underway in Segments 3 and 4. A schedule for live run testing activities is attached as Appendix G.*

## **1.4 Project Cost and Funding**

The JPB received a grant for \$647 million in Section 5309 Core Capacity funding from the FTA. The balance of the project is being financed by a combination of regional, state, and local funds plus additional FTA funding under the Section 5307 Urbanized Area Formula

program. The estimated capital cost of the PCEP in the FFGA is \$1,930,670,934 in the year of expenditure (YOE).

The PCEP's new leadership focused on resolving the dispute with BBII, as noted above, and "scrubbing" the project budget; these activities were conducted concurrently. Based on the global settlement with BBII and its own scrubbing of the project budget and schedule, the PCEP team produced a re-baselined budget of \$2.44 billion for the PCEP. The re-baselined budget, excluding pre-Project Development expenditures, is \$2.39 billion in comparison to the FFGA budget of \$1.930.7 billion.

The JPB approved the \$2.44 billion budget on December 6, 2021; the budget was accompanied by a tentative funding strategy to support the additional \$462.4 million required by the JPB's Recovery Plan. The final component of funding for the plan was confirmed on January 31, 2023, when the State of California awarded \$367 million in funding from its Transit and Intercity Rail Capital Program (TIRCP). The final funding sources are shown in the following table.

TYPE	SOURCE	AMOUNT
Federal	ARPA Supplemental CIG	\$52.4 million
Federal	Supplemental FFGA CIG	\$33 million
Federal	FTA Community Project	\$10 million
State	California TIRCP	\$367 million
<b>TOTAL</b>		<b>\$462.4 million</b>

## 1.5 Project Schedule

The JPB had a very aggressive schedule for completing the PCEP. During the Project Development (PD) Phase, the JPB solicited and received proposals for a Design-Build (D-B) contract for the electrification system and for the supply of its EMU rail vehicles. The JPB executed a design-build (D-B) contract for the electrification work with Balfour-Beatty Infrastructure, Inc. (BBII) on August 15, 2016. The JPB executed a contract for the EMU vehicles with Stadler US on August 15, 2016. The JPB issued Limited Notices to Proceed (LNTPs) for both the Electrification and EMU contracts on September 6, 2016. The LNTPs were extended from March 1, 2017, to June 30, 2017, when the award of the FFGA was delayed. A full NTP was issued to the EMU supplier on June 1, 2017, and to the Electrification design-build contractor on June 19, 2017. The JPB issued a full Notice to Proceed (NTP) on its Tunnel Modifications contract on October 6, 2018. The tunnel contractor completed most of the work during a series of weekend outages in 2019 and completed the installation of the overhead contact system (OCS) hardware in March 2020. The tunnel contractor has completed unpowered testing of the OCS system. The Electrification contractor will complete the final powered testing after the OCS system is energized. The JPB issued a full NTP to the CEMOF modifications contractor on September 16, 2019. Construction work at the CEMOF was delayed by various factors but was completed on July 13, 2022; the project is now in close-out.

The global settlement between the JPB and BBII established a new Final Completion Date (FCD) for the Electrification contract of July 31, 2024, and a new Overall Substantial Completion Date of April 30, 2024. The settlement includes incentives for early completion of cutovers, early substantial completion, early Final Completion, and early achievement of Revenue Service prior to the Final Completion Date. BBII prepared and submitted a re-baselined schedule as part of the global settlement negotiation process, and the JPB has

reviewed and accepted that schedule. The details of BBII's re-baselined schedule have been incorporated into the JPB's Master Project Schedule. *The JPB had proposed a December 31, 2024, Required Completion Date (RCD) in its Recovery Plan; that plan, and the associated RCD, was accepted by the FTA on November 28, 2023.*

*The signal system, which for a long time was the critical path to contract completion, was completed on August 20, 2023. Note there is a \$2 million incentive for completing all cutovers on or before September 30, 2023.*

The project's critical path continues to run through the completion of the OCS and integrated testing of the overall system. The JPB and BBII agreed to revise BBII's schedule to redefine Milestone 1 to include the completion of all work in Segments 3 and 4. This latest revision does not have any effect on the BBII's current substantial completion date or the JPB's RCD. *Milestone 1 was completed on September 15, 2023. The forecast dates for Substantial Completion and Final Acceptance of the BBII contract remain April 1, 2024, and July 30, 2024, respectively.*

Assembly of the EMU trainsets continues to be slightly affected by supply chain impacts. *Stadler had expected to deliver two (2) more trainsets in 2023, however, these are being held in Salt Lake City due to the lack of storage space at Caltrain.*

Fourteen (14) trainsets are required to satisfy the Core Capacity requirements of the FFGA. *Stadler's delivery schedule now shows delivery of the 14<sup>th</sup> trainset (TS-14) in July 2024. Caltrain has decided that two (2) additional trainsets should also be available as spares at the start of revenue service, for a total of sixteen (16). Caltrain is currently discussing the delivery schedule for trainsets 15 and 16 with Stadler.*

The commencement of the Electrified Revenue Service is dependent on the completion of the Electrification contract elements and the availability of permanent power from the Pacific Gas and Electric Company (PG&E) to complete testing and initiate full operations with the EMU fleet. The JPB is continuing to discuss how it will initiate electrified revenue service, i.e., incrementally or after the EMU fleet is sufficient to support regular service.

## **1.6 Significant Unresolved Issues**

- *The PCEP team and BBII are focused on the completion of the remaining electrification work and the other activities required of Caltrain before revenue service can be started. These activities require an extraordinary level of effort on the part of the discipline leads, supporting members of the JPB staff as well as Caltrain's operations and Transit America Services, Inc (TASI's) personnel, who also have to run the railroad on a daily basis. This work must be done safely so that all can celebrate the success of its completion. The leadership of the JPB, PCEP, TASI, BBII, and its subcontractors should encourage all those involved to work safely during the final months of the PCEP.*
- *Timely completion of the overhead contact system remains the critical path to the completion of the project. BBII's productivity in completing the regulation of the remaining OCS in Segments 1 and 2 has been less than required and BBII's project schedule shows only nine (9) days of contingency remain in its Substantial Completion date.*

## 1.7 PMOC Observations

- There is still a lot happening on the PCEP, but it seems that the activity is less visible and falls into two major categories;
  - The work needed to complete the electrification contract, which involves the contractor(s), the PCEP staff and consultants, some JPB staff, and TASI, its contract operator; and
  - The work needed to prepare Caltrain to commence operation of its newly electrified railroad, which involves more JPB staff, TASI, and some of the PCEP staff and consultants.
  - A third major category, which impacts both of the other two, is daily operation of the railroad. There is a lot of overlap amongst these three categories, and human resources are scarce, and avoiding interference, while working safely, is a significant challenge.
- BBII and its subcontractors and suppliers are focused on completing the relatively small amount of new work necessary to complete construction, e.g., regulation of the remaining OCS, plus a significant amount of punch list work needed to achieve Substantial Completion and Final Acceptance. Meanwhile, BBII's management is negotiating with the JPB/PCEP regarding how Substantial Completion and Final Acceptance will be defined (i.e., what is required) and the timing and sequencing of the required activities.
- The PCEP has brought in additional staff to assist with documentation, oversight, and punch listing of completed work. Inspections by PCEP/JPB and BBII personnel have identified over 11,000 items that have been entered into the Procore tracking database. The PMOC's opinion is that correcting these items is likely to be a lengthy and substantial effort, and the PMOC continues to recommend that PCEP estimate the time and effort that will be required to complete these activities. The volume of paperwork and documentation is very significant
- BBII has submitted drafts of its Roadmap to Completion, which was expected to be its October monthly schedule update. However, that schedule has apparently not been finalized, and there has been no discussion of BBII's schedule beyond analysis of its September update. The JPB/PCEP maintains that BBII will achieve Substantial Completion by the contract date of April 1, 2024, but the PMOC has seen no recent documentation to support that statement.
- The lack of a current accepted BBII schedule has delayed PCEP's Integrated Schedule update which in turn delayed the planned October 2023 Monte Carlo risk analysis.
- The PMOC is concerned that if BBII is further delayed in reaching its final milestones, JPB may decide to accept the project "as-is," in exchange for a credit for incomplete work, in order to achieve a planned revenue service date. This would leave the JPB and TASI with the very difficult task of completing the remaining work while operating an electrified service.

## 1.8 Action Items

*No new Action Items were identified during QPRM No. 25. Action Item 13.02 was recently updated to reflect the expected timing of its completion, and will remain open until completed. The current list of Action Items is attached as Appendix D.*

## Table of Contents

<b>1 EXECUTIVE SUMMARY .....</b>	<b>i</b>
1.1 Introduction.....	i
1.2 Project Description.....	i
1.3 Project Status .....	i
1.4 Project Cost and Funding.....	ii
1.5 Project Schedule.....	iii
1.6 Significant Unresolved Issues.....	iv
1.7 PMOC Observations .....	v
1.8 Action Items.....	v
<b>1 Welcome, Introductions and Introductory Comments .....</b>	<b>1</b>
1.1 FTA – Ray Tellis .....	1
1.2 Caltrain – Michelle Bouchard.....	1
<b>2 PCEP Program Update – Pranaya Shrestha.....</b>	<b>2</b>
<b>3 Safety- Sal Gilardi.....</b>	<b>3</b>
<b>4 Agency Trends – Ted Burgwyn .....</b>	<b>3</b>
<b>5 Legal Issues – Michelle Bouchard .....</b>	<b>4</b>
<b>6 Organization – Michelle Bouchard, Pranaya Shrestha.....</b>	<b>4</b>
<b>7 Key Project Issues – Pranaya Shrestha .....</b>	<b>4</b>
<b>8 Environmental Mitigation Status – Stacy Cocke .....</b>	<b>4</b>
<b>9 FRA/CPUC Update – Stacy Cocke.....</b>	<b>5</b>
<b>10 Third-party Agreement Update – Lin Guan.....</b>	<b>5</b>
<b>11 Real Estate – Brian Fitzpatrick .....</b>	<b>5</b>
<b>12 Construction Update – Lin Guan, Stacy Cocke .....</b>	<b>5</b>
<b>13 Vehicle Update – Greg Cameron.....</b>	<b>6</b>
<b>14 Schedule – Jim Gallegos .....</b>	<b>6</b>
<b>15 Budget and Cost – Ira Ray.....</b>	<b>6</b>
<b>16 Risk Update – Alan Brick-Turin .....</b>	<b>7</b>
<b>17 Quality Assurance and Quality Control – Brandon Roby and Stephen Chao.....</b>	<b>7</b>
<b>18 Testing and Commissioning – Russ Larson.....</b>	<b>7</b>
<b>19 Readiness for Electrified Operations – Mark Clendennen .....</b>	<b>8</b>
<b>20 Public Outreach – Pranaya Shrestha.....</b>	<b>8</b>
<b>21 PMOC Observations.....</b>	<b>8</b>

<b>22 Action Items – PMOC .....</b>	<b>9</b>
<b>23 Wrap-up –.....</b>	<b>9</b>
<b>Appendix A: List of Acronyms.....</b>	<b>A-1</b>
<b>Appendix B: QPRM No. 25 Meeting Agenda .....</b>	<b>B-1</b>
<b>Appendix C: Attendees .....</b>	<b>C-1</b>
<b>Appendix D: Action Items .....</b>	<b>D-1</b>
<b>Appendix E: PCEP CalMod Chart.....</b>	<b>E-1</b>
<b>Appendix F: PCEP Organization Chart .....</b>	<b>F-1</b>
<b>Appendix G-1: Program Schedule.....</b>	<b>G-1</b>
<b>Appendix G-2: Live Run Testing Schedule (December 12, 2023).....</b>	<b>G-2</b>
<b>Appendix H: Key Indicators (November 2023) .....</b>	<b>H-1</b>
<b>Appendix I: Core Accountability Items through October 31, 2023.....</b>	<b>I-1</b>



## **1 Welcome, Introductions and Introductory Comments**

FTA's Region IX Administrator Ray Tellis started the meeting by suggesting that those in the room and those attending virtually introduce themselves. An attendance list is provided in Appendix C.

Sal Gilardi of the PCEP Safety team provided a safety moment focused on the hazards of working around High Voltage electricity. Mr. Gilardi said that High Voltage accidents claim over 1,000 lives each year. Electricians working on High-Voltage equipment (energized at over 600 Volts) require two (2) years of training to be fully certified. Injuries caused by accidental contact with a High-Voltage source can result in both external burns as well as internal injuries, and sometimes the visible burns mask the internal injuries. Anyone working around High-Voltage should use the proper personal protective equipment and appropriate safe work practices.

### **1.1 FTA – Ray Tellis**

Ray Tellis made the following brief introductory remarks:

- Mr. Tellis said that “it’s good to be here at such an exciting time.” And mentioned that there is already a date on the calendar for a visit by the FTA’s leadership.
- Mr. Tellis emphasized that it’s very important to stay cautious when approaching project completion.
- The PMOC will share its comments with the group and it’s important to remember that the FTA does oversight, not project management.
- Mr. Tellis thanked the FTA team for its remarkable efforts in supporting the JPB and the PCEP.
- Mr. Tellis thanked Stacy Cocke for her work in successfully completing a new Programmatic Agreement with the State Historic Preservation Office (SHPO). FTA Administrator Nuria Fernandez recently said that the project cannot be stopped.
- Today’s discussions will cover other issues such as the Guadalupe River Bridge replacement.
- Mr. Tellis asked if there are any comments from representatives from the State Safety Oversight Agency (California Public Utility Commission), the Federal Railroad Administration (FRA), and the California High Speed Rail Authority (CHSRA). There were no comments.
- Mr. Tellis acknowledged Sherry Bullock’s continuing back problem and wished her a speedy recovery.
- Mr. Tellis closed his remarks and acknowledged that this is winding down for the year.

### **1.2 Caltrain – Michelle Bouchard**

Ms. Bouchard thanked Mr. Tellis for his continued support and said that she very much appreciated his willingness to have candid conversations.

- Ms. Bouchard thanked Mr. Tellis for his help in getting the JPB’s recent waiver request approved. Caltrain will keep FTA Headquarters informed on changes in its ridership.
- Ms. Bouchard said she believes that starting electrified service will boost ridership; and followed by observing that it’s hard to believe that it’s already 2023.
- The State of California is contributing \$80 million to build a hybrid battery-electric EMU, that will allow Caltrain to extend electrified service to Gilroy.
- Caltrain was able to pass a two-year budget for the first time.
- Caltrain has identified a \$30 million “gap” in 2026, and the State has said that there may be \$25 million available to close that gap.
- Caltrain is holding and supporting lots of events to boost ridership, including showing off two of its new EMUs.
- Caltrain is celebrating 160 years of service to the Peninsula and San Francisco; this all began when Abraham Lincoln was the President.

- Caltrain is holding firm on its RSD of September 2024.
- Mike Meader, currently Caltrain's Chief Safety Officer, is a contractor and will be leaving soon. Caltrain is launching a nationwide search for a replacement.
- Ms. Bouchard thanked the FTA for its very recent help related to the Guadalupe River Bridge project.

Mr. Tellis interjected that he's seen the public notices regarding 160 years of service. He said he also appreciates getting prompt notice of issues, particularly any safety issues because FTA now has safety responsibilities.

- Ms. Bouchard continued and said that she recently did an east coast tour with Mike Meader and John Hogan. They did presentations on the Enhanced Employee Protection System (EEPS) to the National Transportation Safety Board (NTSB), FRA's Rail Share Conference in Kansas City, and the American Public Transportation Association (APTA).
- Ms. Bouchard said she expects the NTSB's report on the March 2022 incident in a few weeks. This concluded her remarks.

Mr. Tellis thanked Ms. Bouchard for hosting the FTA Administrator on her recent visit and turned the program over to Pranaya Shrestha.

## **2 PCEP Program Update – Pranaya Shrestha**

Mr. Shrestha thanked the FTA and the rest of the partners for their support and continued with his presentation summarizing recent activities.

- BBII reported in October 2023 that they would be unable to meet their goal of Substantial Completion by December 31, 2023. The PCEP team asked BBII to prepare a Roadmap to achieve Substantial Completion by the contractual date of April 1, 2024.
- BBII has brought in additional resources.
- One of the problems is that BBII's lineman's union does not have to work in the rain.
- Per the Roadmap, the challenge is regulating the remaining OCS. BBII is getting real-time information on its productivity and is updating the PCEP twice-per-week.
- The Global CEO of BBII is coming out for a meeting on the Path to Completion on January 2, 2024.
- The objective of the JPB and PCEP teams is to ensure that BBII meets all the requirements in its contract.
- There is remaining risk, especially in testing and commissioning work.
- An important open issue is the corrosion of TPS equipment; BBII will receive a report from the manufacturer next week.
- BBII has hired PG&E to help it with the corrosion issue; Mr. Shrestha views this as a positive action.
- Another open issue is leakage from some of the gas insulated switchgear. This must be fixed before Substantial Completion.
- Documentation must all be in place before the remaining short-circuit tests are performed.
- The short-circuit test dates have been approved by PG&E.
- The JPB/PCEP/BBII team members are doing Readiness Reviews prior to each activity.
- With regard to the completion of punch list items, BBII is permitted to complete the Category 3 (or Category C) items after it achieves Substantial Completion, but all punch list items must be completed before Final Acceptance.
- The JPB will not release any of BBII's contract retainage until all items are complete and all subcontractors have been paid.
- PG&E has agreed to refund the JPB's overpayments on March 15, 2024.

*Mr. Tellis asked if the PMOC had any comments related to the information just presented by Mr. Shrestha. The PMOC responded that any comments will be held until later.*

*Mr. Tellis asked if there was any consideration being given to having someone else complete the remaining work. Mr. Tellis' question led to a substantial discussion related to finishing up the BBII contract. Mr. Shrestha said that there is a significant dispute with BBII, over money, at the present time. Ms. Bouchard said she gives the PCEP team a lot of credit for holding firm with BBII.*

- JPB has had meetings with BBII's Global leadership and North American leadership. BBII's Program Director and Mr. Shrestha report to the Joint Powers Board members every month.

### **3 Safety- Sal Gilardi**

- BBII had eight (8) Recordable Incidents in 2023. BBII's Recordable Incident Rate from Inception to Date is 1.93, which is below the construction industry average of 2.5.

#### Emergency Preparedness Training

- There have been 92 training sessions related to electrical safety, with over 800 first responders having been trained.
- Additional EMU hands-on training is being scheduled for the first responders in the spring of 2024.
- The EEPS system is being rolled-out. There was an initial test that identified a few "bugs" and ARINC is fixing the software. EEPS is expected to go live this month, December 2023.
- Training videos are being updated and will be distributed to the local fire departments.
- The JPB's annual emergency preparedness drill was held on December 10, 2024, and a debriefing was held last Monday, December 18, 2023. Comments from the participants were favorable.

#### Safety and Security Certification Committee

- All Safety and Security Certification packages for Segments 3 and 4 have been submitted.
- The Committee is waiting for BBII to submit its Certificate of Operational Conformance (COC).
- JPB and BBII have agreed to the list of required documents, and the JPB is waiting for BBII to submit the remaining required documents.
- Temporary Use Permits (TUP) have been issued by the JPB to allow testing to begin on Segments 3 and 4, the Santa Clara Drill Track (SCDT), and at the CEMOF.

### **4 Agency Trends – Ted Burgwyn**

- An additional roundtrip train to Gilroy was added beginning on September 25, 2023.
- Caltrain has finalized an initial Electrified Service Plan for fall 2024; it will provide a 59 minute express trip from San Francisco to San Jose, and a 75 minute trip making all stops between San Francisco and San Jose.
- Weekend service levels will increase from hourly to every half-hour.
- Average Weekday Ridership is up about 7% from 2022.
- Caltrain will be providing quarterly updates to the FTA
- Caltrain plans to run up to six (6) trains per hour after it achieves the 63,000 trips per day objective.
- Caltrain expects to see a 20% increase in boardings and alighting when electrified service begins.

*Mr. Tellis asked if the JPB has produced a new ridership model. Mr. Burgwyn replied it is not ready yet; end-to-end electrified run times are needed for model validation.*

*Mr. Tellis said the reporting requirement is for three (3) years from December 2024 or until the 63,000 riders per day is achieved. Mr. Tellis asked if quarterly reporting makes sense, or would be an additional*

*burden.* Ms. Bouchard said it was no additional burden because Mr. Burgwyn is now reporting every week.

## **5 Legal Issues – Michelle Bouchard**

Ms. Bouchard said there are no lawsuits.

## **6 Organization – Michelle Bouchard, Pranaya Shrestha**

- Ms. Bouchard said that hiring for the JPB has been difficult; the agency is currently doing a compensation study.
- The JPB feels very lucky to have attracted Jianmin (Jamie) Fong from BART to lead its Capital Program.
- Mr. Shrestha mentioned that John Hartman has joined the PCEP team as Project Controls Director.

*Mr. Tellis asked about the priority of the JPB's internal capital projects as compared to the PCEP.* Ms. Bouchard said that the PCEP is definitely the #1 priority. A big problem is the shortage of high-voltage electricians.

- Ms. Bullock said that the PCEP team has added resources in close-out, document control, and site inspection.
- PCEP is now also doing Quality Control in addition to Quality Assurance.
- It is vital that all the Category A and B punch list items get completed before Substantial Completion occurs.

## **7 Key Project Issues – Pranaya Shrestha**

Mr. Shrestha focused his remarks on BBII's Roadmap to Completion.

- The priority is getting BBII to meet pre-test requirements.
- BBII has problems producing the necessary documentation and paperwork.
- They have started on the wire work on the Guadalupe River bridge.
- Kevin Jolin has re-joined BBII's PCEP team, he is highly qualified and knowledgeable.
- BBII is participating in regular readiness reviews.
- The PCEP team is meeting with John Hogan (Operations) weekly.

*The PMOC asked if the PCEP team has enough resources to complete the punch lists.* Ms. Cocke replied that only the Category A and B items must be completed before they can begin live running on the remaining Segments. Mr. Hogan observed that more crews will be available after the regulation work is completed.

## **8 Environmental Mitigation Status – Stacy Cocke**

- The Programmatic Agreement with SHPO was fully executed on November 11, 2023.
- There are two (2) locations where the JPB must report to SHPO before any work is conducted.
- The tree replacement program is continuing. There are approximately 1,000 trees to be planted on JPB property and about 300 on private and public property. The trees must be maintained for three (3) years.
- Traffic mitigation measures are being initiated. There are approximately ten (10) locations where various changes will be made. Seven (7) intersections will require signal timing adjustments; one new signal will be installed, and one turn lane will be extended.

*Mr. Tellis mentioned that Mary Nguyen, the Region IX Planning Director, will be in today if Ms. Cocke needs to speak with her.*

*Mr. Tellis congratulated Ms. Cocke and Mr. Guan on their promotions.*

*Mr. Tellis said he was pleased to learn that the contractor at the Guadalupe River Bridge project has been notified of the requirements to avoid environmental violations.*

**9 FRA/CPUC Update – Stacy Cocke**

- All California Public Utility Commission (CPUC) GO-88B permits have been issued.

*Mr. Tellis commented that the CPUC slide can be dropped from future presentations.*

**10 Third-party Agreement Update – Lin Guan**

- There is one (1) location where PG&E must de-energize a line to allow BBII to complete its work; the timing of this work falls within BBII's schedule.
- The remaining aerial communications line in San Bruno is being moved underground and the utility's work is not causing any delays.

**11 Real Estate – Brian Fitzpatrick**

- Mr. Fitzpatrick said that the real estate team continues to monitor the few remaining design activities to try to avoid more real estate acquisitions.
- Mr. Fitzpatrick said that he had a good conversation with Mr. Tellis and Ms. Luu earlier this morning regarding the UPC property and the requested FTA Concurrence and the associated property valuation.
- Mr. Fitzpatrick pointed out that the landowner had given the JPB possession of the property and permission to construct its equipment, and has agreed to the price of the sale.

*Mr. Tellis said that he will forward the letter and the supporting documents to FTA Headquarters for its review. If the Headquarters' staff wants to discuss the transaction, the FTA will initiate that conversation. Mr. Fitzpatrick said he will deliver the documents to Mr. Tellis and Ms. Luu by tomorrow at the latest.*

**12 Construction Update – Lin Guan, Stacy Cocke**

Mr. Guan highlighted recent construction activities and stated that the tables in the presentation are current as of December 1, 2023.

- The OCS that was taken down for the Guadalupe River Bridge construction is back in place as of December 17, 2023, and the regulation of the wire is approximately 40% complete.
- Punch listing of PS-7 in Segment 4 is underway.
- Sectionalization testing of TPSS-1 is scheduled for January 14, 2023.
- OCS regulation work is underway in the vicinity of the 4<sup>th</sup> and King Station in San Francisco.

Ms. Cocke described recent and planned activities related to short-circuit testing and the remaining SCADA and Communications work.

- PG&E has approved the schedules for the remaining five (5) short-circuit tests.
- It is important that all the OCS be completed before the short-circuit tests are performed.
- Documentation must be completed and complete before the tests are run.
- 48 Wayside Power Cabinets remain to be completed; eight (8) of these are in BBII's hands for action.

There was a brief discussion about the number of WPCs still being powered by generators. Ms. Bullock said that there were 41 left as of last Monday, December 18, 2023. Mr. Shrestha is having a weekly meeting with BBII to encourage them to complete the work and get rid of the expensive generators.

The signal cutovers are all complete and BBII earned its full incentive payment for that work.

## Communications and SCADA

- Punchlist and testing of SCADA is underway.
- Jason McFarlane was doing SCADA testing last week.
- ARINC is getting to the end of producing new points lists; they are now on Version #21.

Sherry Bullock reported that BBII continues to exceed its Disadvantage Business Enterprise (DBE) participation goal of 5.2%.

- BBII reports that it has paid DBEs a total of \$70,835,018 compared to an updated goal of \$57,051,794 based on the current contract value of \$1,097,149,880.
- 29 DBE firms have been identified as of October 31, 2023.

### **13 Vehicle Update – Greg Cameron**

- Six (6) out of the nineteen (19) trainsets on order have been delivered to Caltrain.
- Shipments of additional units have been paused until the storage areas at the 4<sup>th</sup> and King station have been cleaned up and security has been improved.
- Discussions are underway with Stadler regarding the delivery of the requested sixteen (16) trainsets prior to the RSD.
- Nineteen (19) trainsets will be delivered before the end of 2024.
- The third delivered trainset has completed 600 of the required 1,000 mile burn-in.
- Trainset #309, which was damaged during pantograph testing, will begin re-acceptance testing in early 2024.

### **14 Schedule – Jim Gallegos**

- BBII is behind in its production of schedule updates.
- The October 2023 update was just received and is under review.
- The JPB has received Stadler's October and November 2023 updates.
- Stadler has been using twenty-five (25) days per trainset for burn-in, but that is now being accomplished in ten (10) days; a big improvement. This will be important to the trains being delivered in July and August 2024 and when they are finally accepted.
- The Rail Activation activities are being carefully reviewed before they are incorporated into the Integrated Master Schedule.
- The JPB is maintaining a list of issues related to BBII's schedule and potential remediation opportunities.
- Track Access Delays are being resolved each month and settled by incorporation into the Shared Risk Pool.

### **15 Budget and Cost – Ira Ray**

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	CURRENT FFGA BUDGET	EXPENDITURES	ESTIMATE TO COMPLETE	CURRENT FORECAST
	TOTAL FFGA PROJECT ACTIVITIES (10-100)	\$1,930,670,934	\$2,393,109,098	\$2,181,151,684	\$211,957,414	\$2,393,109,098

ITEM	AMOUNT	EXECUTED TO DATE	AMOUNT REMAINING
BBII Shared Risk Pool	\$50.00M	\$15.05M	\$34.95M
Project Contingency	\$40.00M	\$34.30M	\$5.70M
Total	\$90.00M	\$49.35M	\$40.65M

- Total contingency presently stands at \$40.6 million.
- PG&E has agreed to reimburse the JPB on March 15, 2024. This will resolve the current cash flow concerns.

#### **16 Risk Update – Alan Brick-Turin**

- There are currently 59 active risks out of a total of 355 risks identified since the inception of the PCEP.
- The top five (5) risks remain unchanged; a score of 9 or greater is the cutoff for top risks.
- We are waiting for the BBII October schedule update to be accepted so that the Monte Carlo cost and schedule risk analysis can be completed. There are approximately 24 risks impacting the schedule. Answers should be available in a few weeks.
- A Rail Activation Risk Workshop was conducted on December 4, 2023. Approximately 150 issues were identified through the use of a pre-workshop questionnaire. Three (3) new rail activation risks were identified.
- The rail activation risks will not be integrated into the PCEP risk register because the rail activation risks are viewed from the perspective of Caltrain's rail operations group. It's likely that the risks from the two registers will be cross-referenced for the benefit of both user groups.
- The Rail Activation risks have been distributed to the risk owners for review and rating; a response date of December 29, 2023, was established.

*The PMOC asked if any members of the Operations workforce were invited to attend the workshop. Ms. Bouchard replied that since this was a first of its kind exercise for Caltrain, she asked that the participants be limited to provide the best opportunity for frank and open dialogue. A meeting with TASI is scheduled for the third week of January 2024.*

#### **17 Quality Assurance and Quality Control – Brandon Roby and Stephen Chao**

- Mr. Roby reported that the PCEP and JPB quality teams reviewed the 3 surveillance audits and 2 project audits conducted by BBII during the last quarter of 2023. All audit findings were followed to resolution including NCRs and Corrective Action Requests.
- A large number of test procedures were reviewed during the quarter.
- All NCRs must be closed prior to Substantial Completion.
- Mr. Chao reported that the quality focus at Stadler is aimed at correcting all open items at the factory, so they do not have to be fixed upon arrival at Caltrain.

##### Buy America

- Mr. Chao said that he is still working with BBII on refining its Indented Bill of Materials.
- JPB is starting to receive Buy America documentation from ARINC and ProVen.

#### **18 Testing and Commissioning – Russ Larson**

- EMU trainset 309 will go through acceptance testing after January 1, 2024.
- New software was introduced for the EMUs and also for the PTC system
- ADA compliant Boarding Ramps are slightly short at some stations and all stations will be surveyed to confirm the status of compliance.
- Problems have been identified related to downloading of passenger counting data and EMU video data at the CEMOF; these are being addressed.
- Live-wire testing to the Tamien station is scheduled for February 2-3, 2024.
- PTC and Wireless Crossing tests are underway.
- Caltrain Operations has been great to work with.

## **19 Readiness for Electrified Operations – Mark Clendennen**

- A second round of OCS Awareness training has been initiated.
- FRA’s on-site visit to review Caltrain’s Passenger Train Emergency Procedures (PTEP) has been postponed and will likely occur in January 2024.
- Caltrain Standard Operating Procedures (SOP) and Plans have been completed but will be reviewed and updated prior to energizing the full alignment.

## **20 Public Outreach – Pranava Shrestha**

- There will be a small number of service shutdowns in early 2024.
- The Community Engagement team is working on a number of programs and presentations to promote classroom safety at schools along the alignment.

## **21 PMOC Observations**

- There is still a lot happening on the PCEP, but it seems that the activity is less visible and falls into two (2) major categories;
  - The work needed to complete the electrification contract, which involves the contractor(s), the PCEP staff and consultants, some JPB staff, and TASI, its contract operator; and
  - The work needed to prepare Caltrain to commence operation of its newly electrified railroad, which involves more JPB staff, TASI, and some of the PCEP staff and consultants.
  - A third major category, which impacts both of the other two, is daily operation of the railroad. There is a lot of overlap amongst these three categories, and human resources are scarce, and avoiding interference, while working safely, is a significant challenge.
- BBII and its subcontractors and suppliers are focused on completing the relatively small amount of new work necessary to complete construction, e.g., regulation of the remaining OCS, plus a significant amount of punch list work needed to achieve Substantial Completion and Final Acceptance. Meanwhile, BBII’s management is negotiating with the JPB/PCEP regarding how Substantial Completion and Final Acceptance will be defined (i.e., what is required) and the timing and sequencing of the required activities.
- The PCEP has brought in additional staff to assist with documentation, oversight, and punch listing of completed work. Inspections by PCEP/JPB and BBII personnel have identified over 11,000 items that have been entered into the Procore tracking database. The PMOC’s opinion is that correcting these items is likely to be a lengthy and substantial effort, and the PMOC continues to recommend that PCEP estimate the time and effort that will be required to complete these activities. The volume of paperwork and documentation is very significant
- BBII has submitted drafts of its Roadmap to Completion, which was expected to be its October monthly schedule update. However, that schedule has apparently not been finalized, and there has been no discussion of BBII’s schedule beyond analysis of its September update. The JPB/PCEP maintains that BBII will achieve Substantial Completion by the contract date of April 1, 2024, but the PMOC has seen no recent documentation to support that statement.
- The lack of a current accepted BBII schedule has delayed PCEP’s Integrated Schedule update which in turn delayed the planned October 2023 Monte Carlo risk analysis.
- The PMOC is concerned that if BBII is further delayed in reaching its final milestones, JPB may decide to accept the project “as-is,” in exchange for a credit for incomplete work, in order to achieve a planned revenue service date. This would leave the JPB and TASI with the very difficult task of completing the remaining work while operating electrified service.



## **22 Action Items – PMOC**

- No Action Items were added to the list; the status of Action Item 13.02 was updated since the last QPRM, but not since the most recent monthly report.

## **23 Wrap-up –**

*Mr. Tellis closed the meeting by mentioning that Region IX currently has the largest capital program among all the FTA Regions.*

The meeting was adjourned at 11:50 a.m. PST.

## Appendix A: List of Acronyms

AAR	Association of American Railroads
ADA	Americans with Disabilities Act
AIM	Accelerating Innovative Mobility
APTA	American Public Transportation Association
APC	Automated Passenger Counter
ARINC	Aeronautical Radio, Incorporated
ARPA	American Rescue Plan Act of 2021
ASME	American Society of Mechanical Engineers
AVT	Alternative Vehicle Technology
BA	Buy America
BAAH	breaker- and-a-half
BAFO	Best and Final Offer
BART	Bay Area Rapid Transit District
BBII	Balfour-Beatty Infrastructure, Inc.
BIL	Bipartisan Infrastructure Law
BUILD	Better Utilizing Investments to Leverage Development
CalMod	Caltrain Modernization Program
CAR	Corrective Action Request
CARB	California Air Resources Board
CARES	Coronavirus Aid, Relief, and Economic Security Act
CBOSS	Communications Based Overlay Signal System
CC	FTA's Core Capacity Improvement Program
CCIP	Contractor Controlled Insurance Program
CCSF	City and County of San Francisco
CDFW	California Department of Fish and Wildlife
CDRL	Contract Document Requirement List
CEMOF	Central Equipment Operations and Maintenance Facility
CEO	Chief Executive Officer
CEQA	California Environmental Quality Act
CFO	Chief Financial Officer
CGA	Construction Grant Agreement
CHSRA	California High Speed Rail Authority
CIG	Capital Investment Grant
CMB	Change Management Board
CNPA	Concurrent Non-Project Activity
CO	Change Order
COC	Certificate of Operational Conformance
CP	Control Point
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CRISI	Consolidated Rail Infrastructure and Safety Improvements
CRRSAA	Coronavirus Response and Relief Supplemental Appropriations Act of 2021
CSCG	City/County Staff Coordinating Group

CWT	Constant Warning Time
DART	Days Away, Restricted or Transferred
D-B	Design-Build
DBE	Disadvantaged Business Enterprise
DCN	Design Change Notice
DEIR	Draft Environmental Impact Report
DMU	Diesel Multiple Units
DOT	Department of Transportation
DRB	Dispute Resolution Board
DSC	Differing Site Conditions
EA	Environmental Assessment
EAC	Estimate at Completion
ECHO	Electronic Clearing House Operation
ED	Executive Director
EE	Entry into Engineering
EEO	Equal Employment Opportunity
EEPS	Enhanced Employee Protection System
EIC	Employee in Charge
EIR	Environmental Impact Report
EMI	Electromagnetic Interference
EMU	Electric Multiple Unit Rail Vehicle
EPREP	Emergency Preparedness Plan
EOI	Electrical Operating Instruction
ESA	Environmental Site Assessment
ESZ	Electrical Safety Zone
FAI	First Article Inspection
FAQ	Frequently Asked Questions
FAST	Fixing America's Surface Transportation Act
FASTER	Faster Bay Area Initiative
FAT	First Article Test
FCA	Financial Capacity Assessment
FCD	Final Completion Date
FEIR	Final Environmental Impact Report
FERC	Federal Energy Regulatory Commission
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FLSC	Fire Life Safety Committee
FMOC	Financial Management Oversight Consultant
FMP	Fleet Management Plan
FONSI	Finding of No Significant Impact
FQT	Field Qualification Test
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FTE	Full-time Equivalent
FY	Fiscal Year

GO	California Public Utilities Commission General Order
HART	Honolulu Authority for Rapid Transportation
HEALS	Health, Economic Assistance, Liability Protection and Schools Act
HEROES	Health and Economic Recovery Omnibus Emergency Solutions Act
HISEP	High-Intensity Strategic Enforcement Program
H.R.2	116th Congress (2019-2020)
HSR	High Speed Rail
HVAC	Heating, Ventilation, and Air Conditioning
IBEW	International Brotherhood of Electrical Workers
ICAP	Internal Cost Allocation Plan
ICO	Interim Chief Officer
IDR	Inspector Daily Report
IFB	Invitation for Bids
I-ETMS	Wabtec's Interoperable - Electronic Train Management System
IFC	Issue for Construction
IMS	Integrated Master Schedule
INVEST	Investing in a New Vision for Environment and Surface Transportation in America Act
IRR	Incident Rate Ratio (Safety)
JPB	Peninsula Corridor Joint Powers Board
KKCS	Kal Krishnan Consulting Services, Inc.
LNTP	Limited Notice to Proceed
LPMG	Local Policy Makers Group
MCC	Management Capacity and Capability
MCP	Major Capital Project
MCS	Modern Communication Systems
MMRP	Mitigation Monitoring and Reporting Program (Environmental)
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MPS	Master Project Schedule
MRR	Material Receiving Report
MRS	Modern Railway Systems
MTC	Metropolitan Transportation Commission
NCR	Non-Conformance Report
NCTD	North County Transit District
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOFO	Notice of Funding Opportunity
NPRM	Notice of Proposed Rulemaking
NTI	National Transit Institute
NTP	Notice to Proceed
NTSB	National Transportation Safety Board
NYCTA	New York City Transit Authority
OCS	Overhead Contact System
OHA	Operational Hazard Analysis

O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
P3	Public-Private Partnership
PA	Programmatic Agreement
PCEP	Peninsula Corridor Electrification Program
PCWG	Peninsula Corridor Working Group
PD	Project Development Phase
PEPRA	California Public Employees' Pension Reform Act
PG&E	Pacific Gas and Electric
PHA	Preliminary Hazard Analysis
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
PRO	Pre-Revenue Operation
PRS	Phased Revenue Service
PS	Paralleling Station
PSP	Product Safety Plan (FRA)
PTASP	Public Transportation Agency Safety Plan
PTC	Positive Train Control
PTCSP	Positive Train Control Safety Plan
PTEPP	Passenger Train Emergency Preparedness Plan
PTG	Parsons Transportation Group
QA	Quality Assurance
QC	Quality Control
QMP	Quality Management Plan
RAB	Rail Alignment and Benefits Study
RAC	Rail Activation Committee
RAMP	Real Estate Acquisition Management Plan
RAP	Rail Activation Plan
RCD	Required Completion Date (FFGA)
RFA	Request for Amendment (FRA)
RFMP	Rail Fleet Management Plan
RFP	Request for Proposal
RIMP	Risk Identification and Management Plan
RIR	Recordable Incident Rate
ROW	Right of Way
RSD	Revenue Service Demonstration (FRA)
RTD	Regional Transportation District
RWIC	Roadway Worker in Charge
RWP	Roadway Worker Protection
SamTrans	San Mateo County Transit District
S&P	Standard & Poor's
SCADA	Supervisory Control and Data Acquisition
SCC	Standard Cost Category
SCVTA/VTA	Santa Clara Valley Transportation Authority
SCVWD	Santa Clara Valley Water District

SEPTA	Southeastern Pennsylvania Transportation Authority
SF	City of San Francisco
SFCTA	San Francisco County Transportation Authority
SHPO	State Historic Preservation Office
SIT	System Integration Testing
SITP	System Integration and Testing Plan
SJ	City of San Jose
SMART	Sonoma Marin Area Rail Transit
SMCTA	San Mateo County Transportation Authority
SMCTD	San Mateo County Transportation District
SME	Subject Matter Expert
SMS	Safety Management System
SOGR	State of Good Repair
SOP	Standard Operating Procedure
SPUR	San Francisco Planning and Urban Research
SSCC	Safety and Security Certification Committee
SSCP	System Safety Certification Plan
SSDCC	Safety and Security Design Certification Committee
SSF	South San Francisco
SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSF	South San Francisco
SSPP	System Safety Program Plan
SSWP	Site Specific Work Plans
SVP	Silicon Valley Power
SWS	Switching Station
TAD	Track Access Delay
TAM	Transit Asset Management
TASI	Transit America Services, Inc.
TES	Traction Electrification System
TIA	Time Impact Analysis
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TIRCP	Transit and Intercity Rail Capital Program
TJPA	Transbay Joint Powers Authority
TLOA	Transmission Load Operating Agreement
TOD	Transit Oriented Development
TPD	Trains per Day
TPG	Traction Power Group (BBII)
TPS	Traction Power System
TPSS	Traction Power Substation
TrAMS	Transportation Award Management System
TSA	Transportation Security Administration
TSO	Transit Safety Office
TTCI	Transportation Technology Center, Inc.

TriMet	Tri-County Metropolitan Transportation District of Oregon
TUP	Temporary Use Permit
TVA	Threat and Vulnerability Analysis
2SC	Two Speed Check
UPRR	Union Pacific Railroad
USDOE	United States Department of Energy
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
VE	Value Engineering
VRTA	Santa Clara Valley Transportation Authority
WA	Work Area
WPC	Wayside Power Cubicle
YOE	Year of Expenditure

## Appendix B: QPRM No. 25 Meeting Agenda

### AGENDA

#### FTA QUARTERLY PROGRESS REVIEW MEETING NO. 25

**Grantee/Project Sponsor:** Peninsula Corridor Joint Powers Board (Caltrain)

**Project:** Peninsula Corridor Electrification Project (PCEP)

**Location:** 1250 San Carlos Ave., San Carlos, CA 94070

**Date:** Wednesday, December 20, 2023

**Time:** 9:00 AM to 12:00 AM (PST)

Microsoft Teams meeting Link

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**Participants:** Federal Transit Administration (FTA)  
Caltrain  
Federal Railroad Administration  
California Public Utilities Commission (CPUC)  
Project Management Oversight Contractor (PMOC)

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#### 1. Opening Remarks

- FTA
  - General Updates
- Caltrain
- FRA
- CPUC
- PMOC

Ray Tellis

Michelle Bouchard

#### 2. Participants Introduction

All

#### 3. Executive Summary

Pranaya Shrestha

#### 4. Safety

Jim Brown

- System-wide Trends/Update
- Incidents/Training/Safety Task Force
- Emergency Preparedness
- Project Safety and Security Certification



## AGENDA

### FTA QUARTERLY PROGRESS REVIEW MEETING NO. 25

- |   |                                    |
|---|------------------------------------|
| <b>5. Financial Trends</b>                        | Ted Burgwyn                        |
| • Agency Trends – Service/Ridership               |                                    |
| <b>6. Legal Issues</b>                            | Michelle Bouchard/Pranaya Shrestha |
| • Lawsuits, Civil Rights                          |                                    |
| <b>7. Organization</b>                            | Michelle Bouchard/Pranaya Shrestha |
| • Caltrain Organization                           |                                    |
| • PCEP Organization                               |                                    |
| <b>8. Key Project Issues</b>                      | Pranaya Shrestha                   |
| • Path to Completion                              |                                    |
| <b>9. Environmental Mitigation Status</b>         | Stacy Cocke                        |
| <b>10. CPUC Update</b>                            | Stacy Cocke                        |
| <b>11. Third-party Update/PG&amp;E</b>            | Lin Guan                           |
| • Third-Party Agreements and Utilities            |                                    |
| <b>12. Real Estate Update</b>                     | Brian Fitzpatrick                  |
| • Real Estate Acquisition and Relocation          |                                    |
| <b>13. Construction Update</b>                    | Lin Guan / Stacy Cocke             |
| • OCS   |                                    |
| • TPS   |                                    |
| • Short Circuit Test                              |                                    |
| • TPF   |                                    |
| • Signals   |                                    |
| • Communications/SCADA                            |                                    |
| • DBE   |                                    |
| <b>14. Vehicle Update</b>                         | Sherry Bullock/Greg Cameron        |
| <b>15. Project Controls</b>                       | John Hartman                       |
| • Project Schedule                                |                                    |
| ○ Status of Schedule Integration                  |                                    |
| ○ Project Schedule Recordkeeping                  |                                    |
| ○ Remediation Measures Against Potential Disputes |                                    |
| • Project Budget and Cash Flow                    | Ira Ray                            |
| <b>16. Risk Update</b>                            | Alan Brick-Turin                   |
| <b>17. Quality Assurance and Quality Control</b>  | Brandon Roby / Greg Cameron        |

## **AGENDA**

### **FTA QUARTERLY PROGRESS REVIEW MEETING NO. 25**

- Electrification
- EMU
- Buy America

#### **18. Readiness for Electrified Operation**

- Testing and Commissioning
- Systems Integration
- Rail Activation

Russ Larson

Russ Larson

Mark Clendennen

#### **19. Public Outreach**

Brent Tietjen

#### **20. Current/Future Projects**

Rob Barnard

- Concurrent Non-Project Activities
  - Broadband Wireless Communications System
  - Bayshore Station Overpass Pedestrian Bridge Rehab
  - Guadalupe River Bridge Replacement

#### **21. PMOC Observations**

**PMOC**

#### **22. Action Items**

**PMOC**

#### **23. Wrap Up Discussions**

**All**

#### **24. Next Meeting**

**FTA**

## Appendix C: Attendees

### PENINSULA JOINT POWERS BOARD (JPB)/CALTRAIN PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP) QUARTERLY PROGRESS REVIEW MEETING NO. 25

**Meeting Date/Time:** Wednesday, December 20, 2023, 9:00 A.M. – Noon PDT

**Meeting Location:** 1250 San Carlos Ave., San Carlos, CA 94070

Peninsula Joint Powers Board/Caltrain (JPB)		
Michelle Bouchard	<a href="mailto:bouchardm@samtrans.com">bouchardm@samtrans.com</a>	650-508-6420
Pranaya Shrestha	<a href="mailto:shresthap@samtrans.com">shresthap@samtrans.com</a>	720-757-9191
<del>Andy Robbins</del>		
<del>April Chan</del>	<a href="mailto:ehana@samtrans.com">ehana@samtrans.com</a>	650-508-6228
Sal Gilardi (remote)	<a href="mailto:gilardis@samtrans.com">gilardis@samtrans.com</a>	650-722-2898
<del>Jim Brown</del>	<a href="mailto:brownja@samtrans.com">brownja@samtrans.com</a>	508-725-4900
Stacy Cocke	<a href="mailto:cockes@samtrans.com">cockes@samtrans.com</a>	650-508-6207
Brian Fitzpatrick	<a href="mailto:fitzpatrickb@samtrans.com">fitzpatrickb@samtrans.com</a>	650-508-7781
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<del>Jadie Wasileo</del>	<a href="mailto:wasileoj@samtrans.com">wasileoj@samtrans.com</a>	
<del>Peter Skinner</del>	<a href="mailto:skinnerp@samtrans.com">skinnerp@samtrans.com</a>	650-622-7818
Lin Guan	<a href="mailto:guanz@samtrans.com">guanz@samtrans.com</a>	650-508-8976
Alan Brick-Turin (remote)	<a href="mailto:brick-turina@samtrans.com">brick-turina@samtrans.com</a>	786-417-9405
Greg Cameron	<a href="mailto:gcameron@ltk.com">gcameron@ltk.com</a>	503-298-0877
Brent Tietjen	<a href="mailto:tietjenb@samtrans.com">tietjenb@samtrans.com</a>	
<del>Derek Hensel</del>	<a href="mailto:henseld@samtrans.com">henseld@samtrans.com</a>	
Caroline Smith	<a href="mailto:SmithCa@samtrans.com">SmithCa@samtrans.com</a>	650-632-6841
<del>Dapri Hong</del>	<a href="mailto:hongd@samtrans.com">hongd@samtrans.com</a>	
Sherry Bullock	<a href="mailto:bullocks@samtrans.com">bullocks@samtrans.com</a>	510-301-8954
<del>Jane Huang (remote)</del>	<a href="mailto:Jane.huang@jacobs.com">Jane.huang@jacobs.com</a>	
Robert Barnard	<a href="mailto:barnardr@samtrans.com">barnardr@samtrans.com</a>	
Stephen Chao	<a href="mailto:chaos@samtrans.com">chaos@samtrans.com</a>	650-508-6301
Russ Larson (remote)	<a href="mailto:larsonr@samtrans.com">larsonr@samtrans.com</a>	714-567-2400
<del>David Santoro</del>	<a href="mailto:santorod@samtrans.com">santorod@samtrans.com</a>	
Brandon Roby	<a href="mailto:RobyB@samtrans.com">RobyB@samtrans.com</a>	559-441-3751
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Franklin Wong	<a href="mailto:Franklin.Wong@VTA.org">Franklin.Wong@VTA.org</a>	

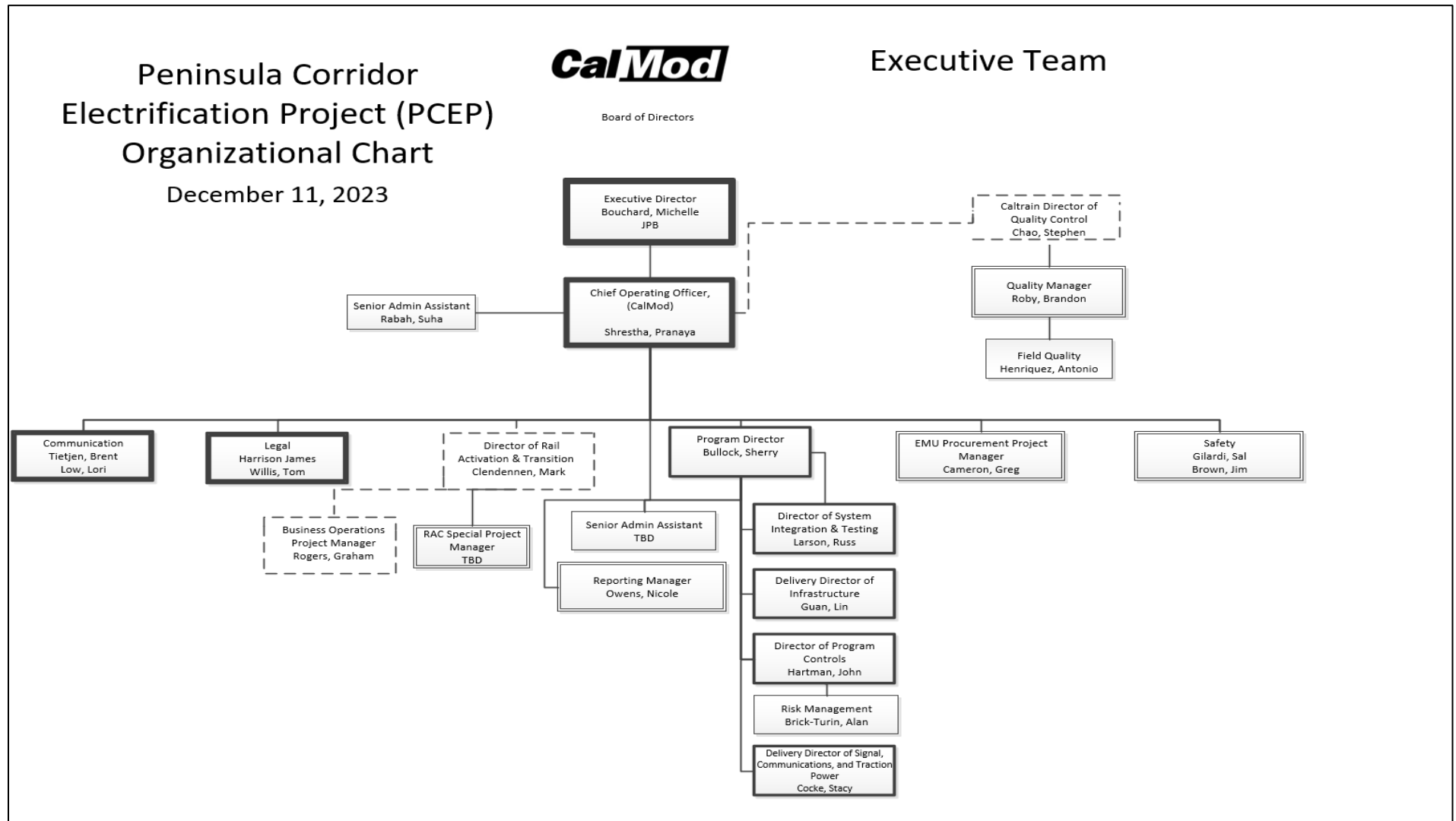
## Appendix D: Action Items

The following action items were identified during the meeting; the list also includes the status of unresolved or recently resolved Action Items from past Quarterly Progress Review Meetings and from the PMOC's monitoring activities. New items are indicated by the colored text, items whose status has changed from the prior listing are italicized and completed items have been shaded.

No.	Action Item	Discussion	Agreed Due Date	Responsibility Agency/Name	Status
13.02	JPB to submit a Request for Amendment (RFA) to Caltrain's Positive Train Control Safety Plan (PTCSP) under 49 CFR Sec. 236, Subpart I; the RFA will document the design and performance of its 2SC grade crossing warning system.	<p>FRA has determined that JPB should submit a combined RFA for both the 2SC solution and the Crossing Optimization Process.</p> <p>Because both 2SC and Crossing Optimization Projects have FRA approved Test Plans, completion of the RFA(s) is not and will not impact work for either project.</p>	Likely mid-2024.	Cocke	<p>All cutovers have been completed.</p> <p>The RFA will be submitted after the completion of the 2SC installations and after the completion of the Crossing Optimization program.</p> <p>The JPB is staying in close touch with the FRA, and the FRA has witnessed the cutovers.</p>

**Legend:** Colored italics indicate a new entry from the previous version. Shaded cells indicate a completed item.

## Appendix E: PCEP CalMod Chart



# CalMod

## APPENDIX ITEM 1



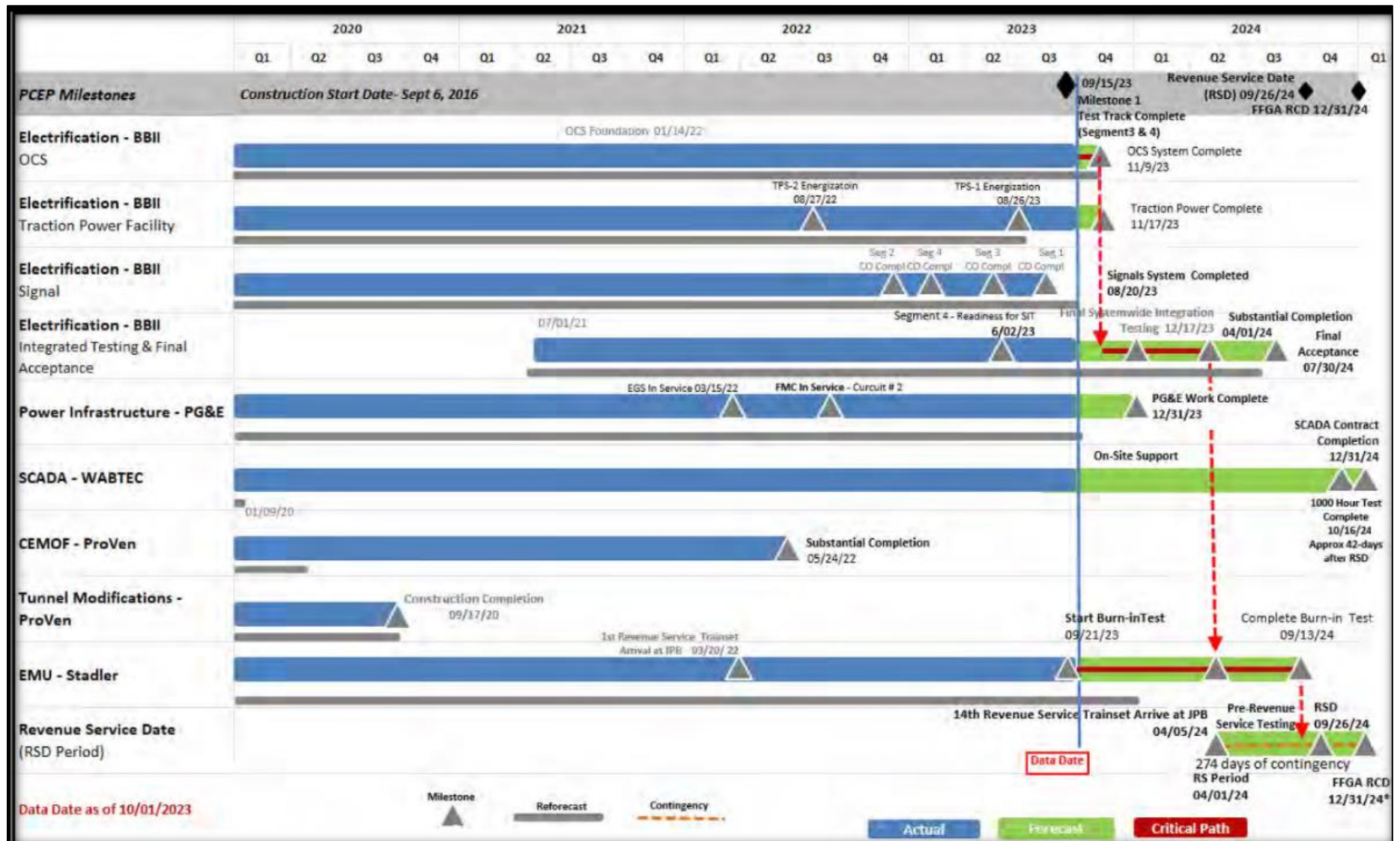
Michelle Bouchard, Executive Director

Insert signature and date

Pranaya Shrestha, PE, Chief Operating Officer



## Appendix G-1: Program Schedule



The forecasted dates above are based on BBII's and Stadler's September 2023 schedule updates with Data Dates of 10/1/2023.

## Appendix G-2: Live Run Testing Schedule (December 12, 2023)



### Peninsula Corridor Electrification Project

Version 3.8

12/12/2023

## 2023/2024

## Live Run Testing

Week		December '23							Week		January '24							Week		February '24							Week		March '24						
#		M	T	W	T	F	S	S	#		M	T	W	T	F	S	S	#		M	T	W	T	F	S	S	#		M	T	W	T	F	S	S
48							1	2	3	1	1	2	3	4	5	6	7	5						1	2	3	4	9					1	2	3
49		4	5	6	7	8	9	10	2	8	9	10	11	12	13	14		6		5	6	7	8	9	10	11	10	4	5	6	7	8	9	10	
50		11	12	13	14	15	16	17	3	15	16	17	18	19	20	21		7		12	13	14	15	16	17	18	11	11	12	13	14	15	16	17	
51		18	19	20	21	22	23	24	4	22	23	24	25	26	27	28		8		19	20	21	22	23	24	25	12	18	19	20	21	22	23	24	
52		25	26	27	28	29	30	31	5	29	30	31						9		26	27	28	29				13	25	26	27	28	29	30	31	

Week		April '24							Week		May '24						
#		M	T	W	T	F	S	S	#		M	T	W	T	F	S	S
14		1	2	3	4	5	6	7	18				1	2	3	4	5
15		8	9	10	11	12	13	14	19		6	7	8	9	10	11	12
16		15	16	17	18	19	20	21	20		13	14	15	16	17	18	19
17		22	23	24	25	26	27	28	21		20	21	22	23	24	25	26
18		29	30						22		27	28	29	30	31		

**Notes:**

**Week 3:** Double Traction Test on Mainline - Tuesday and Wednesday

**Week 3:** Burn In Train works 6 days a week and to 0600 on Saturday and Sunday

**Week 4:** January 25 - Night Burn In Train 2000 - 0400 hours, PAT/VAT EMU 311 using Train Crew, and PTC II/VT EMU 311/317 During the Day @ CEMOF Need Train Crew

**Week 4/7/8:** No Burn In Train on January 26, February 16, February 23

**Week 5:** Burn In Train Shifted to Days - January 29, 30, 31. No Burn In Train February 1

#### Notes:

**Week 3:** Double Traction Test on Mainline - Tuesday and Wednesday

**Week 3:** Burn In Train works 6 days a week and to 0600 on Saturday and Sunday

**Week 4:** January 25 - Night Burn In Train 2000 - 0400 hours, PAT/VAT EMU 311 using Burn In Train Crew, and PTC IIVT EMU 311/317 During the Day @ CEMOF Need Train Crew


















**Week 4/7/8:** No Burn In Train on January 26, February 16, February 23

**Week 5:** Burn In Train Shifted to Days - January 29, 30, 31. No Burn In Train February 1. Night Burn In Train Resumes Feb 2

#### Legend

	Train Crew	Trainsets
	QTY	QTY EMU #
<b>Night Burn In Train:</b> Segment 3/4 EMU Burn In from 2000 hours to 0400 hours - CEMOF Safety Briefing @ 1930 hours	1	1 305
Drill Track, Stadler Re-Commission of EMU 309 - 0930 to 1630 hours	1	1 309
Post Arrival Test and Vehicle Acceptance Test (PAT/VAT) - January 8: EMU 309, January 25: EMU 311	1	1 309, 311
<b>Two Coupled Trains:</b> Dynamic Testing in Segment 3/4 Double Traction Qualification - CEMOF Safety Briefing @ 0830 hours	1	2 303, 307
Segment 3 Pull Away Test - San Jose Diridon Station Safety Briefing @ 0130 hours (2nd Train is Burn In Train)	2	2 TBD
Mini-High Ramp Check and Cab Spotting - Burn In Crew to Perform - 0130 to 0530 hours	1	1 TBD
PTC IIVT Testing During the Day @ CEMOF Yard (1 Train Crew Needed) - January 25: EMU 311/317, February 21: EMU 301/321	1	4 Various
<b>Day Burn In Train:</b> Segment 3/4 EMU Burn In from 0930 hours to 1600 hours - CEMOF Safety Briefing @ 0900 hours	1	1 TBD
BBII OCS Live Run Testing Segment 4 - Diridon Station to Tamien Station	1	1 TBD
Various Segments Traction Power Short Circuit Tests	0	0 N/A
BBII OCS Live Run Testing Segments 1 and 2 - San Antonio Station to San Francisco Station - from 0000 hours to 1200 hours	1	1 TBD
BBII End to End Live Run Testing All Segments	2	2 TBD
Live Run Test Completed		

## Appendix H: Key Indicators (November 2023)

KEY INDICATORS DASHBOARD (POST-GRANT STATUS)					
Project Sponsor:		Peninsula Corridor Joint Powers Board (JPB)			
Project Name:		Peninsula Corridor Electrification Project (PCEP)			
Date:		November 30, 2023			
Project Detail					
Oversight Frequency:		Monthly			
Element	Status			Prior Status (G/Y/R)	Issue or Concern
					
	G	Y	R		
PMP					The PMP requires updating to address testing and commissioning. An updated PMP has been received and is under review.
MCC					<i>The JPB continues to bring on additional staff to address specific requirements leading to project completion.</i>
Cost					The JPB has received \$410 million in additional funding from state and federal sources. This satisfies the requirements of the revised \$2.44 billion budget. <i>The JPB reports that the forecasted remaining contingency is \$45.9 million out of the \$90 million in the scrubbed budget.</i>
Schedule					Signal cutovers were completed in August 2023 as expected. OCS Construction was completed on September 17, 2023. Milestone 1, Segments 3 and 4 ready for live-wire testing, was completed on September 15, 2023. <i>BBII is now targeting to achieve Substantial Completion by the contractual date of April 1, 2024.</i> The 14 <sup>th</sup> trainset is scheduled for delivery on March 12, 2024. Barring very significant problems during integrated testing of the system the project should complete prior to its proposed Required Completion Date of December 31, 2024.
Quality					<i>The JPB continues to report that a significant number of uncorrected items are being identified during punch list walks.</i> BBII has not fully explained the cause of the unexpected breaker activations during BBII’s third short-circuit test of the Segment 4 TPS. BBII has provided additional Buy America documentation which is under review by the JPB.
Safety					There were three (3) recordable incidents in October 2023 and a total of eight (8) recordable incidents in 2023. BBII’s Recordable Incident Rate (RIR) for 2023 is 1.93 and remains below the national average. The March 10, 2022, incident remains under investigation by the NTSB.
Risk					The number and severity of risks continues to decline.
Key Indicators Legend					
Green	Satisfactory: No Corrective Action necessary.				
Yellow	Caution: Risk/Issues exist. Corrective Action may be necessary.				
Red	Elevated for immediate Corrective Action: Significant risk to the health of the project.				

**PMOC Note: Key Indicator Status Change refers to the most recent November 2023 Monitoring Report.**

## Appendix I: Core Accountability Items through October 31, 2023

Project Status: In Construction		Original (FFGA)	Current Forecast <sup>[1]</sup>	PMOC Assessment of Current Forecast
Cost	Cost Estimate	\$1,930,670,934	\$2,393,109,097	Forecast based on JPB’s approved budget, adjusted to remove pre-PD costs.
Contingency	Allocated Contingency	\$152,913,317	\$30,231,463	Current contingency usage is being tracked closely and has been modest since the global settlement.
	Unallocated Contingency	\$162,620,294	\$15,703,375	
	Total Contingency	\$315,533,611	\$45,934,839	
Schedule	Required Completion Date	August 22, 2022	December 31, 2024	The FTA has accepted the JPB’s Recovery Plan and the revised RCD of December 31, 2024.
Project Progress			Amount (\$)	Percent of Total
Total Expenditures <sup>[4]</sup>	Actual cost of all eligible expenditures completed to date <sup>[5]</sup>		\$2,166,411,813	90.53%
Planned Value to Date <sup>[2]</sup>	Estimated value of work planned to date <sup>[3]</sup>		\$1,925,397,857	80.46%
Actual Value to Date	Actual value of work completed to date <sup>[3]</sup>		\$2,166,411,813	90.53%
Contracts Status			Amount (\$)	Percent
Total Contracts Awarded	Value of all contracts (design, support, construction, equipment) awarded; % of total value to be awarded <sup>[6]</sup>		\$2,269,789,367	96.7%
Construction Contracts Awarded	Value of construction contracts awarded; % of total construction value to be awarded <sup>[5]</sup>		\$1,854,293,443	100%
Physical Construction Completed	Value of physical construction (infrastructure) completed; % of total construction value completed		\$1,575,061,694	84.94%
Rolling Stock Vehicle Status		Date Awarded	No. Ordered	No. Delivered
Electric Multiple Unit (EMU) commuter rail vehicles		08/2016 (A)	133	42
Next Monthly Meeting Date:			January 2024 - TBD	
Next Quarterly Review Meeting Date:			TBD - March 2024	