


Two-Tiered Quarterly Progress Review Meeting No. 20 April 26, 2022

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

May 12, 2022

PMOC Contract Number: 69319519D000019
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OPs Referenced: #01 Administrative Conditions and Requirements
#25 Recurring Oversight and Related Reports

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Length of Time Firm Assigned to Project: 6 Years, 10 Months
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1 EXECUTIVE SUMMARY

1.1 Introduction

This report summarizes Quarterly Progress Review Meeting (QPRM) No. 20 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 meeting was held virtually on April 26, 2022, due to public health restrictions imposed to combat the continued spread of the COVID-19 coronavirus pandemic. The meeting used Microsoft Teams video collaboration software to communicate via the Internet; a call-in number was also 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 4th 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 project also includes modifications to the wayside signal system and grade crossing warning systems to accommodate the new electrified rail system, and 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 in construction.

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 Interim Chief Officer (ICO) 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 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 re-organized JPB/PCEP team successfully negotiated a “global settlement” with BBII and its subcontractors and suppliers for the design-build electrification contract. The settlement resolves all outstanding changes, including prior claims related to the two speed check (2SC) grade crossing warning system, through October 31, 2021, and establishes a new completion schedule for the contract. The settlement includes incentives for early substantial completion, early revenue service, and early final completion. The settlement also includes a \$50 million shared risk pool that is part of the PCEP’s contingency. The JPB approved the three (3) change orders that implement the global settlement at its Special Meeting on December 6, 2021.

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 JPB, based on the results of the FTA’s December 2020 Risk Refresh, established an increased budget of \$2.254 billion for the PCEP in July 2021.

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 for comparison to the FFGA budget of \$1.930.7 billion.* The JPB approved the \$2.44 billion budget on December 6, 2021. The JPB has developed a potential funding strategy to support the additional expenditures, and continues to refine that strategy. One element of the funding plan is \$52.4 million in Capital Investment Grant (CIG) funds from the American Rescue Plan Act (ARPA) that has already been approved by the FTA. *The JPB’s funding plan for the remainder of the shortfall remains incomplete.*

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 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 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 installation of the overhead contact system (OCS) hardware in the tunnel during six (6) additional weekend outages in February and March 2020. The tunnel contractor has completed unpowered testing of the OCS system, and will return to complete 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 CEMOF has been delayed by various factors including the need to avoid or relocate some of the many underground utilities at the site. *Completion of the CEMOF modifications is now expected in May 2022 pending the contractor's timely receipt of specialized repair materials.* The CEMOF modifications contract is the last of the major contracts planned for the PCEP.

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, as noted above, 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 from BBII as part of the global settlement negotiation process, and the JPB has reviewed and accepted that schedule. The schedule that was re-baselined was the July 2021 progress schedule; that schedule was deemed the most complete and accurate in terms of both parties understanding of the activities influencing project completion. The details of BBII's re-baselined schedule are being incorporated in the JPB's Master Project Schedule. *The JPB's Recovery Plan, submitted on April 1, 2022, has proposed a new Required Completion Date (RCD) of December 31, 2024 for the FFGA. The most recent RCD proposed by the JPB was September 26, 2024; this was the date proposed by the PMOC in its December 2020 Risk Refresh report.*

The project's critical path is controlled by the completion of signal and communication scope (design, installation and cutovers) and integrated testing of the overall system. Assembly of the EMU trainsets continues to be affected by impacts associated with the COVID-19 pandemic. *Stadler has recently completed a re-baselining of its delivery schedule. The updated schedule shows delivery of the 14th trainset (TS-14) in October 2023 with Conditional Acceptance now projected in January 2024.* Fourteen (14) trainsets are required to satisfy the Core Capacity requirements of the FFGA. The commencement of 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.

1.6 Significant Unresolved Issues

- PG&E and Silicon Valley Power have required the PCEP to conduct a Single Phase Study to demonstrate that the electrified rail operations will not degrade service for existing customers. The study has been in progress for over a year but has failed to produce a result that satisfies the power companies. The issue was elevated earlier in 2021 to senior

management at PG&E. *PG&E's position is that no load may be placed on the system until the Single-Phase Study is completed and the Transmission Load Operating Agreement (TLOA) between the JPB and PG&E has been executed. The date for energizing Traction Power Substation -2 (TPSS-2) remains uncertain.*

- *Installation of the signal equipment, including cutovers, continues to go smoothly although somewhat slower than anticipated. The major cutover of 17 locations was delayed by the incident that occurred on March 10, 2022 and has been re-scheduled to start on May 2, 2022. The work will extend over a three (3) week period supported by single-tracking of Caltrain service. The JPB has been meeting with its contractor to determine whether the recent incident-related work stoppage will have an impact on the final completion of the signals work. The JPB reports that the team believes it can still complete the signals work as-planned in September 2023.*

1.7 PMOC Observations

- The incident that occurred on March 10, 2022 in San Bruno has already been discussed and we await the results from the investigations. I'm thankful that the injuries and property damage were not much worse.
- The arrival of Stadler's first two trainsets (TS-3 and TS-4) at the CEMOF is cause for celebration. I'm sure everyone is anxious to see them operate under their own power. On a related note, the completion of the required Post-Delivery Buy America Audit scheduled for June 2022 should clearly demonstrate that that Stadler's trains meet the requirements of the Buy America Act.
- The JPB's Recovery Plan was submitted to the FTA on April 1, 2022 and review of the Plan is underway. The Plan is much improved from the earlier version, but still lacks important details related to the sources of funding for the additional costs.
- Progress appears to be occurring related to the completion and acceptance of the southern portion of the Pacific Gas and Electric/Silicon Valley Power (PG&E/SVP) Single Phase Study, and the other requirements leading to the energization of TPSS-2. However, the re-emergence of the back-up battery problem at this late point in the project raises broader questions regarding the contractors' attention to detail and quality.
- The PMOC acknowledges that the PCEP Schedule Team has produced an Integrated Project Schedule for the project. The PMOC will continue to work with the PCEP team to improve the integrated schedule and its application to managing the complex remaining activities.

1.8 Action Items

One new Action Item 20.01 was identified during the meeting. Action Item 13.02 was updated and will remain open until completed. The list of Action Items is attached as Appendix D.

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TIER 1 – HIGH-LEVEL

1 Welcome

Bernardo Bustamante opened the virtual meeting and once again expressed his hope that the next meeting may be live rather than virtual. There were no introductions because the collaboration site keeps a record of those attending.

Ray Tellis expressed his concern over the recent accident, and said that he appreciated being informed immediately by Michelle Bouchard. Mr. Tellis said that he also appreciated the JPB's hosting of the National Transportation Safety Board (NTSB) during its investigation, and the JPB's immediate actions such as issuing the rule change.

Mr. Tellis said that the delivery of the first two EMUs is certainly noteworthy and good news for the project. He also commented that he had seen Caltrain's recent publicity on how it is dealing the changes to the COVID mask mandates.

Mr. Tellis offered Michelle Bouchard an opportunity to make opening remarks, and said that he does not have a formal presentation because the federal programs were discussed at the last QPRM.

1.1 JPB

Michelle Bouchard thanked Mr. Tellis for bringing up the March 10 incident. The JPB is focusing on what the organization can learn of a positive nature from the incident. Ms. Bouchard asked Pranaya Shrestha if he would provide a safety moment for the participants.

Mr. Shrestha reminded the attendees that the overhead contact system (OCS) will soon be energized at 25kV. Electrification Awareness Training has already been conducted for the PCEP team and anyone needing training to contact either Jim Brown or Sal Gilardi of the safety team.

- Ms. Bouchard offered some additional observations on the recent incident.
 - The incident was quite harrowing, and everyone is thankful there was no loss of life.
 - Thanks to everyone for contributing to the NTSB investigation.
 - Many were involved in supporting the investigation including Roadway Worker Protection Safety team and the internal Task Force that was assembled.
 - The immediate implementation of the Operating Rule Change with the support of Transit America Systems, Inc. (TASI) and BBII will be beneficial.
 - An independent firm has been retained to conduct an organization-wide study of the agency's safety culture and practices. The study will begin this week and the JPB hopes to be able to implement any recommendations immediately.
 - The immediate stand-down of all work in the corridor provided an opportunity for everyone to refocus following the incident.
 - Everyone is encouraged to look for immediate safety measures.
- Caltrain is offering 50% off all fares during April to encourage riders to return.
- Ridership was 90% of pre-COVID levels for the Giants opening weekend.
- Average weekday ridership is approximately 12,500 which is approximately 25% of pre-COVID ridership.

- Caltrain believes that significant increases in ridership will accompany “back to the office” decisions. The JPB is also considering what “back to the office” looks like for its organization.
- Regarding mask mandates, masks will be required for TASI employees and strongly encouraged for patrons.
- Ms. Bouchard expressed her appreciation for the additional federal funds, including \$38.8 million in funding for operations.
- The agency is looking forward to a balanced budget, and continuing to distribute service to match the needs of its riders.
- There was a ribbon-cutting ceremony in April to celebrate the re-opening of the South San Francisco Station. This is a major safety improvement.
- Milestones to celebrate include pouring the final OCS foundation and the arrival of the first two EMUs on-property. There will be an event around the new trains.
- There is the major upcoming cutover of 17 crossings in Burlingame and San Mateo starting on May 2; this work was to start in March but was postponed due to the incident. There has been great cooperation amongst the entire team in preparing for this work.
- Finally, the JPB is happy to deliver its Recovery Plan to the FTA on April 1, and looks forward to getting the FTA’s comments and finalizing the plan.

Mr. Tellis thanked Ms. Bouchard for her comments and turned the meeting back over to Mr. Bustamante to go through the agenda.

Bernardo Bustamante called on Pranaya Shrestha to give the program update.

2 **PCEP Program Update** – Pranaya Shrestha

Mr. Shrestha said that he has recently learned about the level of understanding and engagement of Caltrain’s riders and stakeholders as he and Ms. Bouchard have made a number of joint presentations to local General managers and other groups. Another interesting opportunity recently appeared when the Santa Clara Valley Transportation Authority (VTA) asked the JPB/PCEP to participate in peer reviews of the Bay Area Rapid Transit District (BART) to San Jose Phase 2 Project.

- The budget for the project remains at \$2.44 billion.
- During the last 6 months, only \$376,000 has been drawn from the shared risk pool.
- Approximately 25% of the potential changes have been resolved with no commercial impact.
- The FTA Recovery Plan and the California High Speed Rail Authority (CHSRA) Remediation Plans have been submitted.
 - CHSRA had only one comment, which related to the recent change to the JPB’s Internal Cost Allocation Plan (ICAP). A meeting is being arranged with CHSRA to discuss this issue.
- Ms. Bouchard and her counterpart at PG&E are meeting weekly to resolve the remaining issues related to the Single Phase Study. Additional weekly meetings are taking place at different levels of the organizations to continue to progress the study and other outstanding issues.
- THE JPB’s Board approved \$150 million in financing for the PCEP.

- The JPB is continuing to partner with BBII and confidential feedback from the participants shows that collaboration between the parties is improving.
- The forecasted Revenue Service Date (RSD) remains September 2024.

3 COVID-19 Impacts to Cost and Schedule – Pranaya Shrestha

- COVID seems to be impacting the supply chain for almost everything. Very little specialized material or equipment is available off-the-shelf.
- Inflation effects are also starting to impact the project.

Bernard Bustamante said that the FTA is collecting comments on the Recovery Plan and expects to provide them to the JPB within a week or two. This latest draft is greatly improved.

4 Safety- Sal Gilardi

- The project's Reportable Incident Rate (RIR) from inception to date is 1.74 compared to the industry average of 2.5.
- The RIR is 2.37 for the period January thru March 2022; there were three (3) reportable incidents during the period.
- Mr. Gilardi briefly described the incident that occurred on March 10, 2022.
 - A southbound passenger train struck a PCEP on-track work crew.
 - One BBII employee was hospitalized with burns and was released after several operations.
 - Eleven (11) passengers were treated and released.
 - The train crew evacuated the passengers through the rear of the train, then went back to ensure that no one remained in the train.
 - All construction projects on the railroad were shut down.
 - A Caltrain Safety Task Force was created to review the incident and recommend proactive measures.
 - All operations at the time of the incident were being conducted in accordance with the Operating Rules.
 - A Rule Change was adopted to improve safety.
 - Observations included hours of service fatigue, on-track protection, shunting , train approach warning.
 - Lessons Learned are also being collected from other projects.

Bernardo Bustamante said that he understands that the NTSB investigation is still in progress, and it will likely be several months before any findings are available.

5 Financial Trends – Dapri Hong

- JPB is thankful for the federal assistance, including,
 - \$116 million from the ARPA.
 - \$111 million from earlier COVID relief programs.
- Service changes are improving ridership, but slower than anticipated.

6 Legal Issues –Sherry Bullock

- There is no litigation or pending litigation to report.
- The Communications Based Overlay Signal System – Positive Train Control (CBOSS-PTC) litigation between the JPB and Parsons Transportation Group (PTG) has settled, and the remaining litigation related to Alstom was assigned to PTG.
- Litigation related activities such as depositions and support appear to be over.

7 Organization – Michelle Bouchard

- Ms. Bouchard said that right now the San Francisco Bay Area is a tough place to hire.
- Leadership has recognized that the PCEP team was “thin” from early on.
- A Human Resources “Business Partner” has been hired into the Rail organization.
- Congratulations to Lin Guan who was promoted and will now be responsible for Rail Activation and Transition.

Bernardo Bustamante asked about the status of the “Governance” discussions involving the structure of the JPB and Caltrain, and whether Caltrain is now fully independent. Ms. Bouchard said that question is not fully resolved. There is an 8-1 agreement on a “term sheet” which will form the structure of a Memorandum of Understanding (MOU). Caltrain will continue to rely on a “shared service” organization which is supplemented by “Rail Only” positions such as a Chief Financial Officer (CFO) for Rail. There will be a permanent Executive Director position for the railroad.

8 Project Description – Pranaya Shrestha

- Forecast Required Completion Date is December 31, 2024.
- Forecast Contingency 99.6% remaining.
- Forecast FFGA Budget \$2.39 billion.

9 Key Project Issues – Pranaya Shrestha

- Obtaining the correct replacement battery for TPSS-2 will delay energization of Segment 4.
- The JPB plans to submit its Single Phase Study materials to PG&E on May 23, 2022.
- The major cutover in Segment 2 was re-scheduled and will now start on May 2, 2022; approximately 150 individuals will be involved.
- The JPB needs an additional \$410 million in funding to close the budget gap.
- OCS productivity continues to be a concern. BBII is bringing in two experts from the United Kingdom to assist with the field work.
- The JPB has concluded that some installed work does not meet contract requirements, or may not have been properly maintained since installation.
- Lead times on batteries is a particular problem; BBII is buying new replacements.
- Partnering continues with good results.

10 Job Creation

- Approximately 25,000 jobs have been created across the US.

11 Environmental Mitigation Status – Stacy Cocke

- Work on the new Programmatic Agreement with the State Historic Preservation Office (SHPO) continues. Letters have been sent to tribal representative offering consultation.
- The JPB continues to monitor the design-build contractor's environmental compliance and mitigation activities.

Dominique Kraft, the FTA's environmental representative had nothing to add on the topic.

12 Design Update – Lin Guan

- Signals design is now complete in all segments and system-wide.

13 Real Estate – Brian Fitzpatrick

- The status of real estate activities has been largely unchanged for the last year.
- The Brisbane transaction has been proceeding sporadically, however, there are no concerning issues. The transaction should be closed before the next quarterly meeting.
- No new parcels have been identified recently, although close coordination continues with the design team to avoid any disruptive surprises.

Bernardo Bustamante asked what type of parcels might present problems at this stage. Mr. Fitzpatrick said there could be minor changes in the Electrical Safety Zones (ESZs), but these are not on the critical path. ESZs are not an issue until the wires are electrified.

14 Construction Update - Lin Guan, Stacy Cocke

- Several slides were presented showing the progress of a variety of construction activities.
- Recent construction progress:
 - All OCS foundations are complete.
 - OCS poles are 81% complete in Segment 2 and 15% complete in Segment 1.
 - Regulation of OSC continues in Segments 3 and 4.
 - OSC wiring in Segment 3 is complete with 47% testing complete. OCS wire installation is complete in Segment 4, but testing has not started.
 - OCS testing in Segment 4 is projected to be complete May 24, 2022.
- Planning is focused on the cutover in Segment 2 which begins May 2, 2022.

14.1 Pacific Gas & Electric (PG&E) – Lin Guan

- PG&E's East Grand Ave. substation is 97% complete; FMC substation is 88% complete.
- The redundant fiber circuit #2 for TPSS-2 is scheduled for completion in August 2022; this will not delay the start of integrated testing of the OCS or the exercising and burn in of the EMUs.

14.2 Central Equipment Maintenance and Operation Facility (CEMOF) – Lin Guan

- Pit construction is complete and 480V power has been installed.
- The contractor is waiting for delivery of injection grout to complete crack repairs in the north pit.
- The JPB reached a final settlement with ProVen for an additional \$2 million; this was approved by the Change Management Board (CMB) in April 2022.

14.3 **Infrastructure Change Order Exceeding \$100,000** – Lin Guan

- There were no Change Orders exceeding \$100,000 issued during the last quarter.

15 **Testing and Systems Integration Update** – Nitant Sethi

- Testing and Commissioning has focused on:
 - PG&E Test Report submittals for TPSS-2.
 - Development of a test procedure tracker.
- Systems Integration has focused on preparing a draft list of integrated tests.

16 **Electric Multiple Unit (EMU) Vehicle Update** - Greg Cameron

- A post-delivery Buy America Audit will be conducted in June 2022.
- The next two trainsets (TS-2 and TS-5) will be delivered in June 2022.
- Carshells are complete for trainsets thru TS-16.
- Stadler has resumed production in Switzerland on carshells for TS 17-19.
- Static testing of TS-3 and TS-4 at JPB is in progress.
- Stadler's re-baselined delivery schedule project Conditional Acceptance of TS-14 in January 2024.

16.1 **Vehicle Change Orders Exceeding \$100,000**

- The final power bill for testing at the Transportation Technology Center, Inc. (TTCI) in Pueblo was received and paid by Stadler.
- This represents a shortfall of \$100,000 from the revised budget and will become a Change Order next month.

17 **Project Budget** – Sherry Bullock

- The budget shows a transfer of \$1 million from Standard Cost Category (SCC) 10 to SCC 30 for settlement costs at CEMOF.
- The TTCI power bill for EMU testing will be recognized in April.
- The only contingency drawdown has been \$376,000 from the BBII shared risk pool.
- Contract status is approximately 65% complete on a composite basis thru March 31, 2022. This status does not include the \$6.5 million ProVen settlement.
- Pranaya Shrestha commented that the \$6.5 million settlement with ProVen was anticipated in the budget scrub.

18 **Project Schedule** – Sherry Bullock

- Interim Milestone 1 is now August 2, 2022.
- Permanent Power is now August 13, 2022.
- The delivery dates for the EMU trainset will change with the re-baselining of Stadler's schedule.
- The proposed Required Completion Date for the FFGA is December 31, 2024.
- The Schedule Contingency Drawdown Curve has been adjusted and shows 178 days of contingency for the proposed Revenue Service Date of September 26, 2024.

19 Concurrent Non-Project Activities – Rob Barnard

- The Marin and Napoleon bridge replacements are complete.
- A Notice to Proceed (NTP) has been issued for the Bayshore Pedestrian Overpass.
- South San Francisco Station is complete and in close-out.
- 25th Avenue Grade Separation is complete and in close-out.
- The Guadalupe River Bridge Replacement in Segment 4 will be advertised in May 2022. The MT-2 bridge will be replaced first, and the OCS will be lowered by BBII to avoid and questions about damage or warranty. All work on the project should be complete one year prior to the December 31, 2024 RCD.

20 Risk Update – Sherry Bullock

- The Risk management Committee met during the last month, and closed out some risks associated with the Global Settlement.
- Some risks have been realized, e.g., EMUs arrive before Segment 4 ready for testing. JPB is working with Stadler to complete some testing using wayside power.
- The risks related to timely completion of the 2SC work and cutovers are still high. A workshop was held with BBII and MRS and the team believes that the impacts related to the March 10 incident can be recovered and all Segment 2 cutovers can be completed by the second week in November 2022.
- Completion of the Single Phase Study and energization of TPSS-2 are also significant risks.
- The JPB plans to re-run the risk models soon.

21 Quality Update

21.1 Infrastructure – Steven Chao

- QA audits were performed on the cabinet replacement program.
- A quality surveillance is being performed on the document control program.
- A review of the need for battery replacement at the Wayside Power Cubicles (WPCs) is underway.
- Quality Assurance staff (QA) is also reviewing the timely submittal of test procedures by BBII.

21.2 EMU Vehicles – Greg Cameron

- JPB continues to employ two (2) inspectors in Stadler's Salt Lake City plant.
- Top concerns are workmanship and accurate work instructions. This concern is related to high workforce turnover in the Salt Lake City plant.
- Sub-supplier audits have resumed after a two-year hiatus with a focus on Voith and Aurora.
- The JPB will conduct a quality audit of Stadler's Salt Lake City plant during second-quarter 2022.

22 Disadvantaged Business Enterprise (DBE) Update – Sherry Bullock

- BBII's has exceeded its 5.2% goal based on its updated contract value.

23 Readiness for Operations – Sal Gilardi

- The Rail Activation Committee (RAC) continues to meet.

- Recent focus is on Training, Safety Certification, and Emergency Preparedness.
- A tabletop safety exercise was held this morning with 39 participants.
- The first responders will be brought to CEMOF to train on the new EMU sometime around May 20, 2022.
- The Temporary Use Notice is being reviewed prior to the completion of Interim Milestone 1.
- OCS training programs are being developed; however, because BBII will maintain the OCS until final acceptance, this is not critical from a timing standpoint.
- OCS Safety Awareness training has been conducted for staff and contractors, and is still available.

Sherry Bullock added the following comments:

- A Rail Activation Manager is being hired, and Lin Guan is now the new Transition Director.
- David Santoro is Acting Chief of Rail Operations. The department is being restructured, and a full-time manager will begin in May 2022.
- Rail Operations is working with TASI and on other union agreements.

The PMOC mentioned that some years before there was a situation at a Southern California property where it was important to access institutional knowledge, however, only one individual was still employed with the pertinent knowledge. It's really important to keep the talent at the agency.

24 Public Outreach – Brent Tietjen

- There has been a very active public outreach effort.
- A “train tracker” app was deployed so the public could track the shipment of the new EMUs from Salt Lake City to the JPB.
- The Public Safety campaign is being developed for roll-out prior to electrifying Segment 4.

25 Current and Future Projects – Rob Barnard

- JPB is continuing to fill vacancies to grow its management capacity and capability (MCC).
- The JPB anticipates 10 full-time staff in Rail Development in FY 2023.
- There will be a new position for Manager, Vehicle Engineering.
- The State of Good Repair budget is \$12.2 million.
- JPB is about to launch a corridor-wide grade separation program. It will begin with fact gathering, studying the grouping of crossings, etc.
- JPB is also engaged with the Downtown Extension to the Salesforce Center and BART to San Jose Phase 2.

26 PMOC Comments

- The incident that occurred on March 10, 2022 in San Bruno has already been discussed and we await the results from the investigations. I'm thankful that the injuries and property damage were not much worse.
- The arrival of Stadler's first two trainsets (TS-3 and TS-4) at the CEMOF is cause for celebration. I'm sure everyone is anxious to see them operate under their own power. On a related note, the completion

of the required Post-Delivery Buy America Audit, scheduled for June 2022, should clearly demonstrate that that Stadler's trains meet the requirements of the Buy America Act.

- The JPB's Recovery Plan was submitted to the FTA on April 1, 2022 and review of the Plan is underway. The Plan is much improved from the earlier version, but still lacks important details related to the sources of funding for the additional costs.
- Progress appears to be occurring related to the completion and acceptance of the southern portion of the PG&E/SVP Single Phase Study, and the other requirements leading to the energization of TPSS-2. However, the re-emergence of the back-up battery problem at this late point in the project raises broader questions regarding the contractors' attention to detail and quality.
- The PMOC acknowledges that the PCEP Schedule Team has produced an Integrated Project Schedule for the project. The PMOC will continue to work with the PCEP team to improve the integrated schedule and its application to managing the complex remaining activities.

Mr. Tellis thanked the PMOC for its observations and said that the discussions have been positive. He emphasized the importance of getting a complete Post-Delivery Buy America Audit on the EMUs. Stadler must provide the necessary information in the appropriate form. Michelle Bouchard responded that she appreciates Mr. Tellis' comments and the PMOC's observations. She looks forward to receiving comments on the Recovery Plan so that work can be completed. The December reset has helped everyone re-focus on the value of the program to both the funders and the riders.

27 Action Items – PMOC

- *One additional Action Item (20.01) was identified. The Action Item relates to the satisfactory completion of the Post-Delivery Buy America Audit of 'to demonstrate that Stadler's EMUs meet the appropriate domestic content requirement.*
- *Action Item 13.02 will be updated to reflect the potential new plan, which may involve a joint submission to the FRA including both the 2-Speed Check and the Crossing Optimization Program, and timing for submission of the requested materials to the FRA.*

Concluding Remarks – Tier 1

Mr. Tellis thanked everyone for their participation in the Tier 1 program. He said that he hopes the next meeting will be in-person, and looks forward to a local visit by Region IX staff to see the new EMUs.

TIER 2 – IN-DEPTH DISCUSSION

28 Project Management Plans and Sub-Plans – Sherry Bullock

- The updated Fleet Management Plan (FMP) was distributed today.
- The Project Management Plan (PMP) and some sub-plans, including Document Control, are currently being revised and drafts should be ready for review by the end of May 2022. The revisions, including the Quality Management Plan (QMP), should be complete by the end of 2022.

29 Organization / Open Positions – Pranaya Shrestha

- Linn Guan has a new position as Director of Rail Activation and Transition.
- Other new/open positions include:
 - There is also a new lead for the Rail Activation Committee with prior experience with Denver Regional Transportation District (RTD) and BBII.

- Andy Mutz will be reviewing the construction organization and its role going forward.
- TASI Liaison Manager
- The team is looking at Operations and Maintenance staffing requirements, including integration with TASI, going forward, and is also reviewing spare parts requirements, especially long-lead replacement parts.

The PMOC asked about the status of the external review being conducted by Triunity. Mr. Shrestha said that the JPB had a meeting earlier today and an initial focus will be on document control and staffing.

The PMOC asked if there was commonality between the component parts of the Denver RTD system and PCEP, and whether a parts-pool is being considered for hard to obtain parts. Mr. Shrestha said that the JPB is looking at starting an operating group of agencies west of the Mississippi.

- A copy of the current PCEP organization chart will be in the Appendices.

30 National Environmental Policy Act (NEPA) and Environmental Monitoring – Stacy Cocke

- Nothing additional to report.

31 Procurement – Sherry Bullock

- A time extension is being processed for the Aeronautical Radio, Incorporated (ARINC) contract for SCADA support.
 - This will provide coverage for end-to-end testing.
 - The initial cost proposal was determined to be too high and is being negotiated.

32 Design Update

32.1 Signals Design – Stacy Cocke

The PMOC asked if the team has identified any opportunities to improve the schedule for the signals work. Ms. Cocke said that the simulation logic design element could be improved by running and reviewing simulations prior to performing the cutovers. The JPB is looking for more transparency with MRS, the signal installer.

- Two (2) more big cutovers are being planned.
- The contractor produced a plan for the seven (7) mile section with 17 crossings.
- Availability of resources seems to be improving.
- JPB is developing detailed tracking tools to monitor progress.

Pranaya Shrestha mentioned that the team has put together Lessons Learned from the previous cutovers and was reviewing them in advance.

- The March cutover will require between 160 -180 personnel.
 - 80+ BBII and Modern Railway Systems (MRS).
 - 38-40 TASI Flaggers and Roadway Worker in Charge (RWIC)
 - 20+ JPB/PCEP
- MRS had personnel who tested positive for COVID, and Plan B is to bring personnel from a job in Florida.
- Alstom received money as part of the global settlement.

33 Value Engineering and Constructability Reviews – Lin Guan

- Nothing to report.

34 Real Estate – Brian Fitzpatrick

- Nothing additional to report.

35 Third Party Agreements and Utilities – Lin Guan

- AT&T – All relocations have been completed.
- Comcast – All relocations in Segments 4 and 3 are complete; some remain in Segment 2.
- Information sharing with Comcast has improved.

Janice Abaray suggested that the number of detailed tables could be minimized, since much of the quantity related work is complete, and the status of the work summarized using bullets. Mr. Guan agreed and gave the example of deleting the slide showing detailed foundation progress.

36 Construction Update – Lin Guan, Stacy Cocke

36.1 Overhead Contact System (OCS) – Lin Guan

- Nothing new to report. Mr. Guan agreed with Ms. Abaray and gave the example of deleting the slide showing detailed foundation progress.

36.2 Signals – Stacy Cocke

- The details of the upcoming cutovers are shown on Slides 56 and 57.

The PMOC asked about the status of California Public Utilities Commission General Order (GO) 88B production. Ms. Cocke said it is shown on Slide 94, and that the applications for Burlingame and San Mateo have been completed. South San Francisco and San Bruno will be next.

The PMOC asked if the one remaining crossing that is under UPRR control is being resolved. Ms. Cocke said that this involves the Union Pacific Railroad (UPRR) MT-3 in the City of Santa Clara, and that the JPB has met with the City to explain the situation. The actual signal cutover work is straightforward and can be completed in one night. The Reed Street cutover is currently in the schedule for mid-August. However, if that date cannot be met, this cutover can be performed in between other cutovers without impacting the overall signal cutover completion date.

- The summary pie charts for signals work were mentioned and Ms. Cocke said these can be dropped if they are not useful.

36.3 Traction Power Systems (TPS) – Lin Guan

- Mr. Shrestha mentioned that the paralleling stations are mostly pre-fabricated and go through factory acceptance testing before they are shipped.

36.4 Pacific Gas & Electric (PG&E) – Lin Guan

- Modifications to PG&E's East Grand Ave. substation is essentially complete, with only site clean-up remaining.
- The temporary power arrangement at PG&E's FMC substation has been removed and the permanent breaker-and-a-half (BAAF) configuration is complete and ready to be energized. All remaining work should be complete by August 2022.

- The Interconnection between PG&E's East Grand Ave. substation and TPSS-1 is essentially complete, with some minor repair work in progress on the underground cable. This work is expected to be complete in June 2022.

36.5 **Disadvantaged Business Enterprise Participation**

- DBE participation on the BBII contract exceeds the 5.2% goal.

37 **Testing and Systems Integration** – Nitant Sethi

- A number of tracking tools are being used as shown on slides 68-70.
- The status of Testing and Systems Integration activities is capture in one of three categories.
 - Resolved
 - Under Review
 - Watch List

38 **Vehicle Technology and Procurement** - Greg Cameron

- An auditor-to-auditor meeting between the JPB's auditor and Stadler's auditor is scheduled for Friday, April 29, 2022.

Janice Abaray asked about the credentials of the JPB's new auditor, because Arun Virginkar has retired. Mr. Cameron said that Jim Matthews has done more than 40 Buy America audits and is well respected. The PMOC confirmed Jim Matthews' reputation based on conversations with the PMOC's Buy America team. Mr. Cameron said that Mr. Matthews stated that push-back by the manufacturers is not unusual. Mr. Shrestha said that he is requesting a high-level meeting with Stadler to discuss this issue soon.

The PMOC asked how Stadler's manufacturing of the ceiling panels and luggage racks is going. Mr. Cameron said it is going very well and seems to be a win all-around.

- TS-1 remains at TTCI because there is no room for it at Stadler's Salt Lake City facility at this time. The plan is to bring it back to Stadler after TS-2 and TS-5 are shipped to the JPB in June 2022.
- All routine tests will be redone on TS-1 before it leaves Stadler for final delivery to the JPB.

39 **Project Cost** – Ira Ray

- The Core Accountability information for March 2022 will be sent to the PMOC and included in the Appendices.

40 **Project Schedule** Sherry Bullock

- Nothing additional to report.

41 **Project Risk** – Alan Brick-Turin

- All individual risk lists have been reviewed; there are currently 75 active risks on the risk register.
- An internal Risk Refresh lasting approximately one to one and one-half days is being planned, possibly in May 2022.
- When the quantitative risk assessment is performed, the JPB proposes to carry the full weight of each risk, but then subtract any dollars associated with that risk in the BBII shared risk pool.

42 **Quality Assurance and Quality Control** – Steven Chao

- Nothing additional to report.

43 Safety and Security – Sal Gilardi

- Nothing additional to report.

44 Americans with Disabilities Act (ADA) Update – Greg Cameron

- Nothing additional to report.

45 Buy America – Stephen Chao

The JPB is expecting additional information from BBII on its calculation of domestic content of its supplied equipment and materials. A separate review of ProVen's Buy America compliance is continuing.

46 Start Up, Commissioning and Testing – Sal Gilardi

- All Contract Document Requirement Lists (CDRLs) for OCS and TPS equipment have been received and reviewed by the JPB and Rail Operations with no comments.
- BBII is not providing a robust schedule for testing and commissioning activities.

The PMOC suggested that the JPB review the design-build contract documents to see how they might be improved with respect to the testing and commissioning activities.

47 Before and After Study – Sherry Bullock

- The location of the FFGA information archive will be identified.

48 California Public Utilities Commission (CPUC) Update – Stacy Cocke

- The GO 88B forms have been completed for Burlingame and San Mateo. The virtual diagnostic process has been streamlined.

49 Other Adjacent and Related Projects – Rob Barnard

- He will provide the internal Monthly Capital Projects report for the PMOC's use.

The PMOC suggested that Mr. Shrestha consider using some of HNTB's well-qualified signals personnel to take an independent look at how the JPB/BBII/MRS has arranged the remaining signal cutovers to see if it is a sound approach or could be improved. The concern is that the JPB/BBII/MRS team is intimately involved in the work and might find it difficult to view it as objectively as a neutral party.

50 Public Involvement Update – Casey Fromson

- A variety of outreach programs have been and are being developed to introduce the new EMUs to the community and prepare for the electrification of the overhead.

51 Wrap Up Discussions

Mr. Bustamante again thanked everyone for their participation and said that FTA plans to go back to the standard approach for Quarterly meetings when they resume in-person because the two-tier approach will be unnecessary.

Next Meeting: TBD – July 2022

Adjournment: The meeting adjourned at 4:15 p.m. PDT.

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
<i>ARINC</i>	<i>Aeronautical Radio, Incorporated</i>
ARPA	American Rescue Plan Act of 2021
ASME	American Society of Mechanical Engineers
AVT	Alternative Vehicle Technology
BA	Buy America
<i>BAAH</i>	<i>breaker- and-a-half</i>
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
<i>CDRL</i>	<i>Contract Document Requirement List</i>
CEMOF	Central Equipment Operations and Maintenance Facility
CEO	Chief Executive Officer
CEQA	California Environmental Quality Act
<i>CFO</i>	<i>Chief Financial Officer</i>
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
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
EE	Entry into Engineering
EEO	Equal Employment Opportunity
EIC	Employee in Charge
EIR	Environmental Impact Report
EMI	Electromagnetic Interference
EMU	Electric Multiple Unit Rail Vehicle
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
<i>ICAP</i>	<i>Internal Cost Allocation Plan</i>
<i>ICO</i>	<i>Interim Chief Officer</i>
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
<i>NTSB</i>	<i>National Transportation Safety Board</i>
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
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
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
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
<i>TLOA</i>	<i>Transmission Load Operating Agreement</i>
TOD	Transit Oriented Development
TPD	Trains per Day
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
TVA	Threat and Vulnerability Analysis
2SC	Two Speed Check
UPRR	Union Pacific Railroad
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
VE	Value Engineering
VTA	Santa Clara Valley Transportation Authority
WA	Work Area
WPC	Wayside Power Cubicle
YOE	Year of Expenditure

Appendix B: QPRM No. 20 Meeting Agenda

AGENDA

FTA TWO-TIERED QUARTERLY REVIEW MEETING

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

Project/s: Peninsula Corridor Electrification Project (PCEP)

Location: Microsoft Teams: Meeting Link: [Click here to join the meeting](#)
Call-in: +1 213-204-6178; Conference ID: 519 188 029#

Date: April 26, 2022

Time: Tier 1 – 1:00 PM to 2:30 PM (PST)
Tier 2 – 2:30 PM to 4:00 PM (PST)

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

TIER 1 EXECUTIVE SESSION: 1:00PM-2:30PM

1. Opening Remarks

- FTA
 - General Updates
- Caltrain

Ray Tellis

Michelle Bouchard

2. Participants Introduction

All

3. Executive Summary

Pranaya Shrestha

4. COVID-19 Impacts to Cost & Schedule

Pranaya Shrestha

5. Safety

Sal Gilardi

- System-wide trends/update
- Injuries/Incident

6. Financial Trends

Dapri Hong

- Federal Aid in Response to the Pandemic
- Service Changes

7. Legal Issues

Michelle Bouchard/Sherry Bullock

- Lawsuits, Civil Rights

AGENDA
FTA TWO-TIERED QUARTERLY REVIEW MEETING

8. Organization	Michelle Bouchard
9. Project Description	Pranaya Shrestha
10. Key Project Issues	Pranaya Shrestha
11. Environmental Mitigation Status	Stacy Cocke
12. Design Update	Lin Guan
13. Real Estate	Brian Fitzpatrick
14. Construction Update	Lin Guan, Stacy Cocke
15. Testing and System Integration	Nitant Sethi
16. Vehicle Update	Greg Cameron
17. Project Budget	Sherry Bullock/Rob Barnard
18. Project Schedule	Sherry Bullock/Rob Barnard
19. Concurrent Non-Project Activities	Sherry Bullock/Rob Barnard
20. Risk Update	Alan Brick-Turin
21. Quality Assurance/Quality Control	Stephen Chao/Greg Cameron
22. Disadvantaged Business Enterprise	Sherry Bullock
23. Readiness for Operations Activities	Sherry Bullock
24. Public Outreach	Brent Tietjen
25. Current/Future Projects	Rob Barnard
26. PMOC Observations	PMOC
27. Action Items	PMOC

AGENDA
FTA TWO-TIERED QUARTERLY REVIEW MEETING

TIER 2 DETAILED PROJECT PROGRESS STATUS/ISSUES: 2:30PM to 4:00PM

- | | |
|--|---------------------------------|
| 28. Project Management Plan (PMP) and Sub-Plans | Sherry Bullock |
| 29. Organization / Open Positions | Pranaya Shrestha/Sherry Bullock |
| 30. NEPA and Environmental Mitigation | Stacy Cocke |
| 31. Procurement | Sherry Bullock |
| 32. Design | Lin Guan/Stacy Cocke |
| 33. Value Engineering and Constructability Reviews | Lin Guan |
| 34. Real Estate Acquisition and Relocation | Brian Fitzpatrick |
| 35. Third Party Agreements and Utilities | Lin Guan |
| 36. Construction | Lin Guan/Stacy Cocke |
| <ul style="list-style-type: none">• Foundation and pole installation progress• OCS Wires• Signal Update – Design, Installation and Testing• Traction Power Facilities Progress• PG&E Substations• PG&E Interconnection Updates• DBE Compliance | |
| 37. Testing and System Integration | Nitant Sethi |
| 38. Vehicle Technology and Procurement | Greg Cameron |
| 39. Project Cost | |
| <ul style="list-style-type: none">• Expenditure Review / Budget• Budget Contingency Drawdown• Core Accountability Matrix• TIFIA | |

AGENDA

FTA TWO-TIERED QUARTERLY REVIEW MEETING

- Change Orders (executed and potential)

40. Project Schedule

Sherry Bullock

- Critical path review
- Review of any changes in schedule

41. Risk Update

Alan Brick-Turin

Risk register updated / Top 5 risks

42. Quality Assurance and Quality Control

Pranaya Shrestha/Greg Cameron

43. Safety and Security

Sal Gilardi

44. Americans with Disabilities Act (ADA)

Greg Cameron

45. Buy America

Stephen Chao

46. Start Up, Commissioning, & Testing

Sherry Bullock

- Current activities and status

47. Before and After Study

Sherry Bullock

48. CPUC Update

Stacy Cocke

49. Other Adjacent and Related Projects

Rob Barnard

50. Public Outreach

Brent Tietjen

51. Wrap Up Discussions

All

- Action Items

PMOC

- Next Meeting

FTA

Appendix C: Attendees

PENINSULA JOINT POWERS BOARD (JPB)/CALTRAIN PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP) TWO-TIER QUARTERLY PROGRESS REVIEW MEETING NO. 20

Meeting Date/Time: Tuesday, April 26, 2022, 1:00 P.M. - 4:15 P.M. PDT

Meeting Location: Virtual Meeting via Microsoft Teams

Peninsula Joint Powers Board/Caltrain (JPB)		
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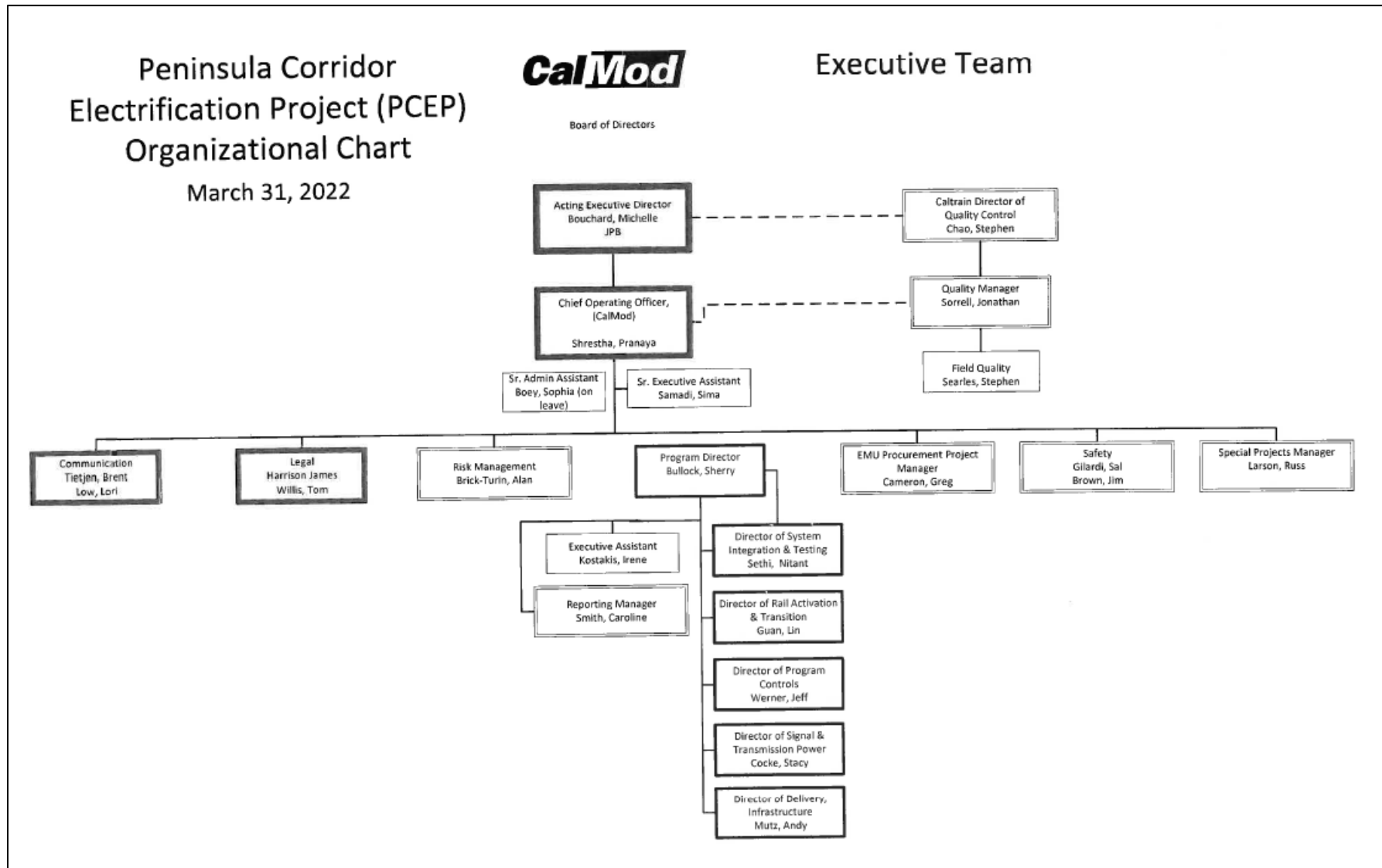
Appendix D: Action Items

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 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.	<i>FRA is considering a combined RFA for both the 2SC solution and the Crossing Optimization Process.</i> <i>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.</i>	<i>TBD.</i> <i>Awaiting direction from FRA.</i>	<i>Cocke</i>	<i>A draft of the 2SC RFA has been submitted to FRA. However, FRA must now determine if there will be two separate RFAs or one combined RFA.</i>
20.01	<i>The JPB to inform Stadler of the importance of a successful Post-Delivery Buy America Audit to confirm that its EMUs comply with the required domestic content.</i>	<i>Stadler did not provide the required documentation in a form that could be used by the auditor during the October 2021 Intermediate Buy America Audit.</i>	<i>The post-delivery audit will occur in June 2022.</i> <i>The results of the Post-Delivery should be available at QPRM No. 21 in July 2022.</i>	<i>Shrestha/Cameron</i>	<i>A teleconference between the JPB's leadership and Stadler has been scheduled for May 2, 2022 to underscore the importance of this matter.</i>

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

Appendix E: JPB CalMod Chart



Appendix F: PCEP Organization Chart

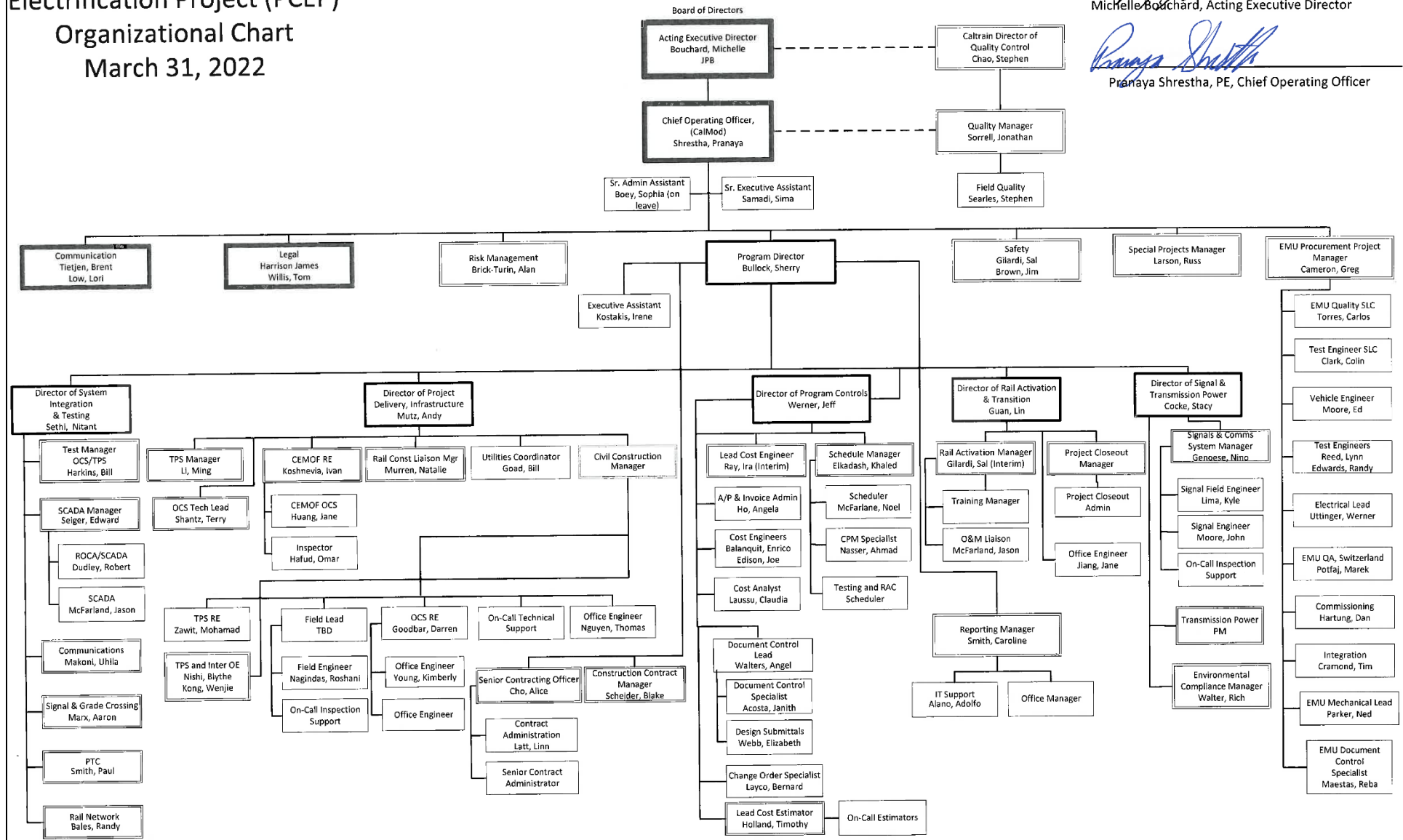
Peninsula Corridor Electrification Project (PCEP) Organizational Chart March 31, 2022

APPENDIX ITEM 1

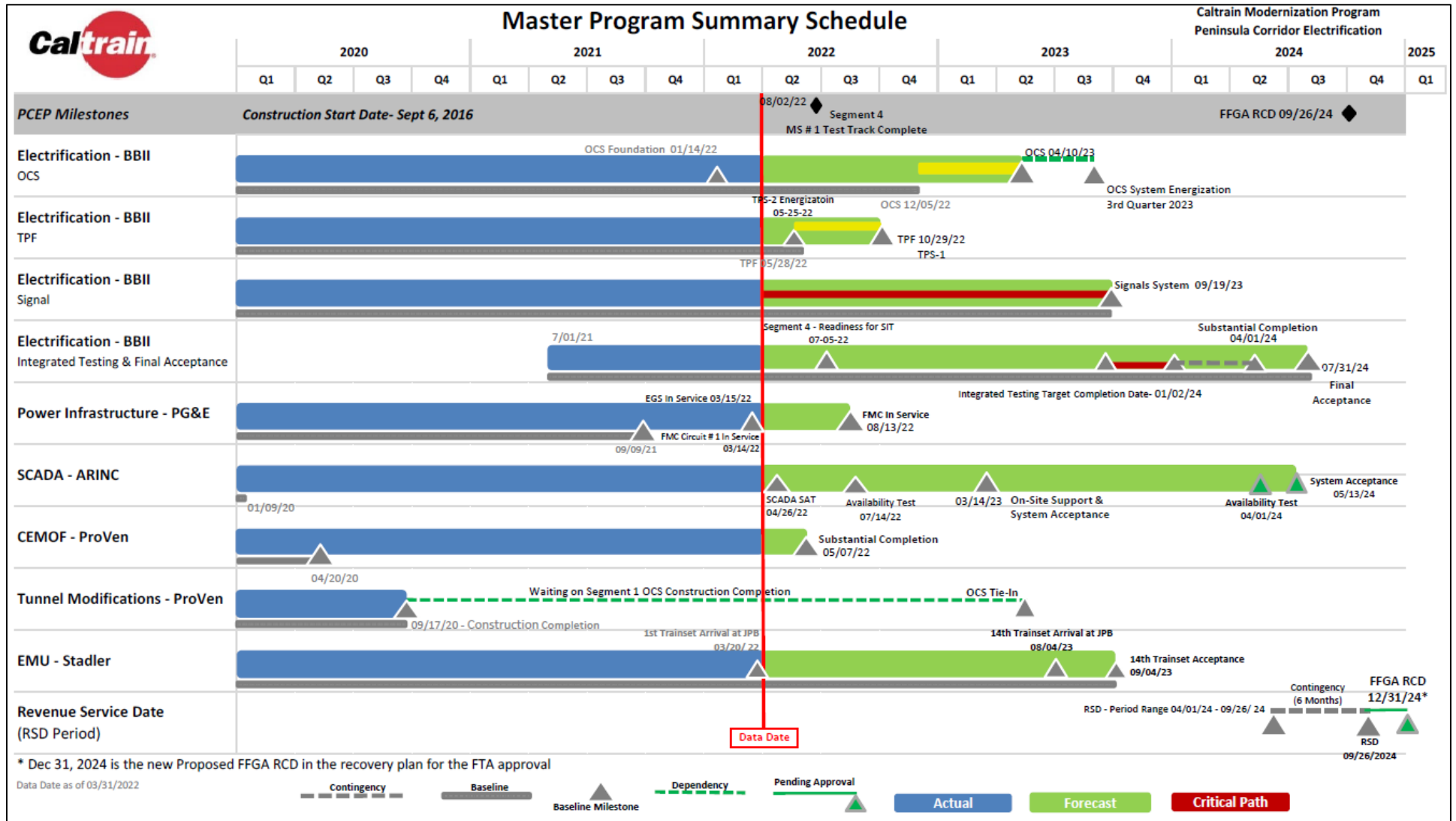


Michelle Bouchard
Michelle Bouchard, Acting Executive Director

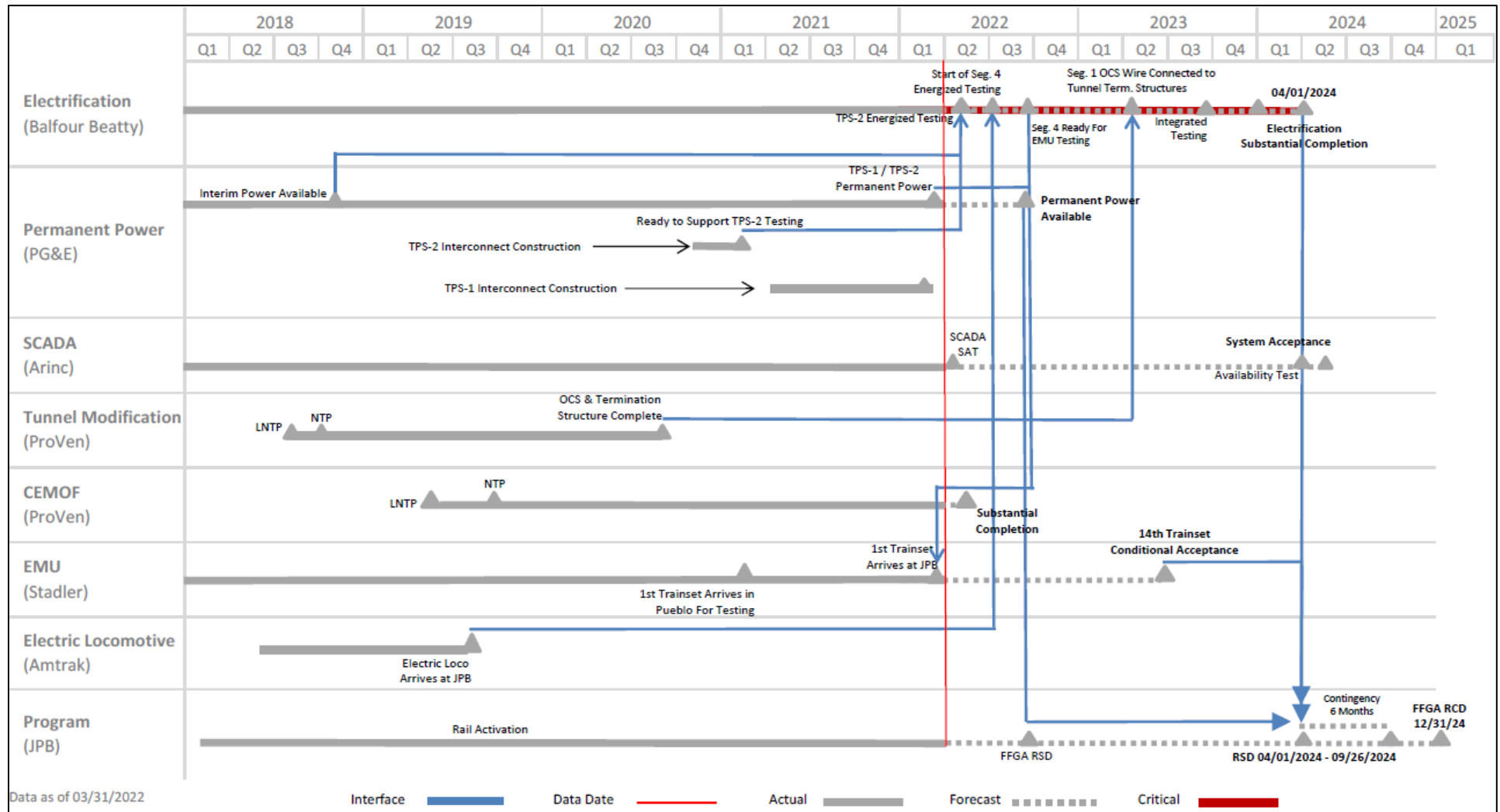
Pranaya Shrestha
Pranaya Shrestha, PE, Chief Operating Officer



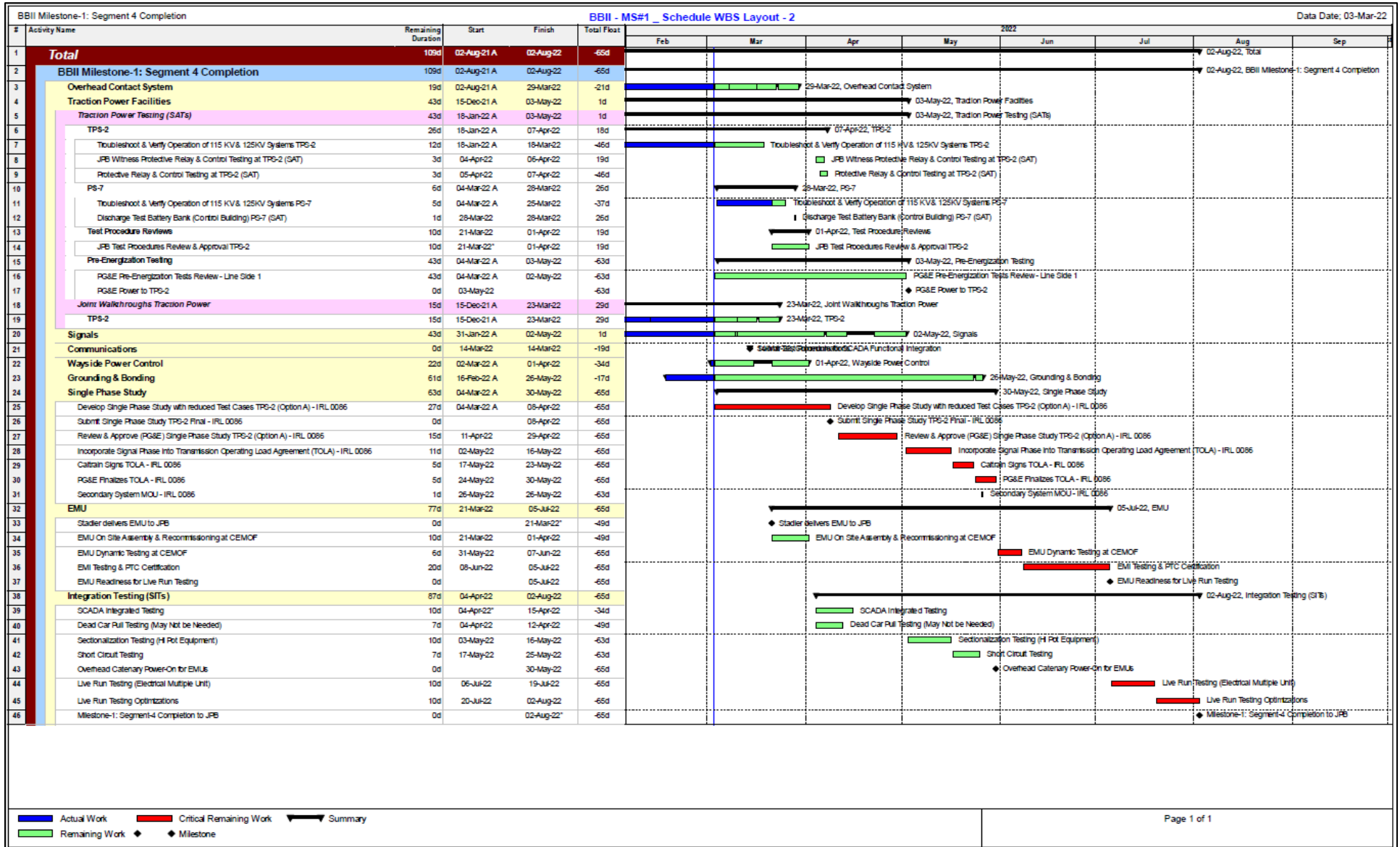
Appendix G: Program Schedule




















Appendix G: Summary Interface Schedule



Appendix G: Segment 4 Testing and Commissioning Schedule



Appendix H: Key Indicators (April 2022)

Project Sponsor:		Peninsula Corridor Joint Powers Board (JPB)			
Project Name:		Peninsula Corridor Electrification Project (PCEP)			
Date:		April 1, 2022			
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.
MCC					New resources are being deployed but the reconfiguration of the PCEP team is not complete, however, improvements are noted.
Cost					<i>The approved budget for the PCEP budget is \$2.44 billion. This budget includes the cost of the global settlements with BBII and ProVen, and the budget scrub completed by the PCEP team. The JPB has developed a financial plan to support the new budget, and this plan is being further refined for presentation to the FTA in the Recovery Plan delivered on April 1, 2022. A recent bond sale provides \$150 million in funding.</i>
Schedule					<i>The Recovery Plan delivered to the FTA on April 1, 2022 proposes a revised Required Completion Date of December 31, 2024. The global settlement concluded with BBII is based on achieving substantial completion by April 1, 2024 and final completion by July 31, 2024. The global settlement includes incentives for earlier initiation of revenue service, earlier completion of signal cutovers and earlier completion of contract work.</i>
Quality					Some uncertainty related to Electrification contractor’s Buy America compliance.
Safety					<i>The serious safety incident that occurred on March 10, 2022 remains under investigation by the NTSB, CPUC, FRA and CalOSHA. The performance by the Electrification contractor has improved.</i>
Risk					The global settlement with BBII has significantly reduced uncertainty related to that contract. Lack of agreement by PG&E that the electrified rail system will not produce problems for its network and customers. EMU delays, workforce retention and supplier problems.
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.				

Appendix I: Core Accountability Items through February 28, 2022

Project Status: In Construction		Original (FFGA)	Current Forecast ^[1]	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	\$62,115,581	Current contingency usage is being tracked closely and has been modest since the global settlement.
	Unallocated Contingency	\$162,620,294	\$27,884,507	
	Total Contingency	\$315,533,611	\$90,000,088	
Schedule	Required Completion Date	August 22, 2022	December 31, 2024	Current forecast is based on the JPB’s Recovery Plan Rev 5 submitted to the FTA on April 1, 2022.
Project Progress			Amount (\$)	Percent of Total
Total Expenditures ^[4]	Actual cost of all eligible expenditures completed to date ^[5]		\$1,558,554,562	65.13%
Planned Value to Date ^[2]	Estimated value of work planned to date ^[3]		\$1,925,397,857	80.46%
Actual Value to Date	Actual value of work completed to date ^[3]		\$1,479,282,903	61.81%
Contracts Status			Amount (\$)	Percent
Total Contracts Awarded	Value of all contracts (design, support, construction, equipment) awarded; % of total value to be awarded ^[6]		\$2,171,553,856	94.29%
Construction Contracts Awarded	Value of construction contracts awarded; % of total construction value to be awarded ^[5]		\$1,836,754,450	99.54%
Physical Construction Completed	Value of physical construction (infrastructure) completed; % of total construction value completed		\$1,037,270,401	56.21%
Rolling Stock Vehicle Status		Date Awarded	No. Ordered	No. Delivered
Electric Multiple Unit (EMU) commuter rail vehicles		08/2016 (A)	133	2
Next Monthly Meeting Date:			May 2022 (TBD)	
Next Quarterly Review Meeting Date:			April 26, 2022	