

# **Final Project Monitoring Report (PMR)**

## **January 2025**

### **Peninsula Corridor Electrification Project (PCEP)** **San Francisco to San Jose, CA**

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

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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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## **1.0 Executive Summary**

Kal Krishnan Consulting Services, Inc. (KKCS) is the Federal Transit Administration's (FTA) Project Management Oversight Contractor (PMOC) for the Peninsula Corridor Electrification Project (PCEP). The Peninsula Corridor Joint Powers Board (JPB) is the grantee which operates commuter rail service as Caltrain. The FTA awarded a \$647 million Full Funding Grant Agreement (FFGA) to the JPB on May 23, 2017. The FTA accepted the JPB's Recovery Plan, with an updated Required Completion Date (RCD) of December 31, 2024, and a revised budget of \$2,393,109,098 on November 28, 2023.

### **1.1 Project Description**

The PCEP corridor is approximately 51 miles in length. This Core Capacity Improvement Project (CC) includes two (2) components: infrastructure and rolling stock. The infrastructure component is comprised of the construction of Traction Power Substations (TPSS), the connection of those substations to the local utility system, and the installation of the Overhead Contact System (OCS) over the tracks beginning at the 4th and King Caltrain Station in San Francisco and ending at Tamien Station in San Jose. The infrastructure work also includes modifications to the wayside signal system and grade crossing signals to accommodate the new electrified rail system. In addition, four (4) existing rail tunnels have been enlarged to accommodate the expanded clearance envelope of the electrified vehicles. An alignment map is provided as information in Attachment I.

The rolling stock component includes the procurement of ninety-six (96) Electric Multiple Unit (EMU) rail vehicles to replace approximately 75% of Caltrain's existing diesel rolling stock. The initial EMU order was supplemented in December 2018 when the JPB exercised an option to purchase an additional thirty-seven (37) EMUs; the resulting electrified fleet will consist of nineteen (19) seven-car trainsets. The additional thirty-seven (37) EMUs are not part of the JPB's Core Capacity grant. Caltrain's Central Equipment Maintenance and Operation Facility (CEMOF) has been modified to service electrified vehicles.

The PCEP is part of a larger JPB initiative known as the Caltrain Modernization Program (CalMod). The CalMod program separately installed a Positive Train Control (PTC) system, which is an advanced signal system that includes federally mandated safety improvements. The PTC system is in operation and received final Federal Railroad Administration (FRA) approval on December 17, 2020.

### **1.2 Project Status**

The JPB (Caltrain) formally launched its fully-electrified main line service between the 4<sup>th</sup> and King Caltrain station in downtown San Francisco and the Tamien Caltrain station in San Jose on Saturday, September 21, 2024. Connecting service between San Jose and Gilroy is provided using diesel locomotives and passenger coaches from Caltrain's existing fleet.

The FTA, based on the results of a 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 had experienced significant cost overruns and schedule delays. The FTA requested that the JPB submit a Project Recovery Plan for the PCEP. The plan was originally due by October 8, 2021; however, the FTA agreed to defer receipt of the plan until the JPB completed a planned Risk Refresh and other project reviews following a change in the PCEP's leadership in September 2021. The JPB submitted its Recovery Plan to the FTA on April 1, 2022. The FTA and the PMOC reviewed the draft Recovery Plan and provided comments to the JPB. The JPB submitted its final Recovery Plan to the FTA on September 30, 2022. The FTA informed the JPB by letter dated November 28, 2023, that it "finds



the Recovery Plan with the proposed RCD of December 31, 2024, and the proposed budget of \$2.393 billion, sufficient to advance the PCEP to completion.”

The JPB Board approved an increased budget totaling \$2.44 billion for the PCEP at a Special Board Meeting held on December 6, 2021. The increased budget was based on the successful negotiation in late 2021 of a global settlement with Balfour Beatty Infrastructure, Inc. (BBII), the electrification design-build (D-B) contractor, and a contemporaneous scrub of the PCEP budget. The increased budget supported the completion of the project and delivery of electrified service in 2024.

BBII, the JPB’s design-build contractor, achieved substantial completion of its Electrification Design-Build contract on May 3, 2024. The contractual date for achieving final acceptance of the electrification contract was September 8, 2024. *BBII did not achieve its September 8, 2024 target date but achieved Final Acceptance of its contract on December 20, 2024. The Final Acceptance document includes a number of exhibits detailing the disposition of items or activities that are not yet complete, and the date the item or activity will be completed. The Final Completion documents will include a waiver, executed by BBII, of its right to assert any additional claims against the JPB related to its work on the PCEP. The waiver will be executed following the JPB’s execution of a final change order in the amount of \$13.5 million for unanticipated cost escalation. The final change order was approved by the PCEP’s Change Management Board on January 3, 2025, and because the amount exceeds the contract authority of Caltrain’s Executive Director, it must also be approved by the JPB Board. The JPB Board is expected to approve the final change order at its next meeting on February 6, 2025.*

The status of major project elements can be summarized as follows:

- Scope – The scope remains as planned.
- Schedule – *The JPB negotiated a global settlement with BBII in late 2021 which included a revised completion schedule and schedule performance incentives. The settlement and the resulting change orders were approved by a Special Meeting of the JPB Board on December 6, 2021. The JPB, following its global settlement with BBII, implemented a plan proposed by BBII that was intended to reach substantial completion of the contract by the end of the calendar year 2023. The plan required significant targeted (localized) changes to Caltrain’s operating schedule on weekends, with support by bus bridges, to provide BBII with longer uninterrupted periods of access to the corridor.*

*BBII did not achieve substantial completion by its December 31, 2023 target date and refocused its effort on achieving its substantial completion milestone of April 1, 2024. Unfortunately, the peninsula south of San Francisco was hit by a severe storm on February 3-4, 2024, with considerable damage to the PCEP OCS infrastructure in two (2) locations. That damage was repaired and despite the storm damage and associated delays, BBII was able to achieve substantial completion on May 3, 2024. The JPB initiated a soft opening for revenue service on August 11, 2024, and full revenue service on September 21, 2024. BBII, as noted above, achieved final acceptance of its contract on December 20, 2024.*

*The JPB’s initiation of revenue service on September 21, 2024, satisfied its FFGA Required Completion Date of December 31, 2024; however, the FTA granted the JPB a three (3)-year waiver of the stipulated level of service requirements on November 27, 2023. The grant will remain open to allow the JPB to complete the remaining work.*

- Cost – The FFGA budget is \$1.931 billion in year of expenditure (YOE) dollars. The JPB completed a “budget scrub” following its global settlement with BBII, which produced a revised PCEP budget of \$2.44 billion. The JPB approved this revised budget at its Special Meeting on

December 6, 2021. This new budget reflects a total increase of \$509 million from the FFGA budget. The JPB's revised budget for FTA reporting purposes (excluding pre-Project Development costs), is \$2,393,109,098. The JPB received \$410 million in additional funding from state and federal sources; this satisfies the funding gap created by the revised budget of \$2.393 billion. *JPB reports that as of November 30, 2024, the remaining contingency was \$ 21.3 million and the estimated contingency at completion was essentially zero.*

- Significant Project Activities and/or Key Milestones

- *BBII achieved Final Acceptance of its Design-Build Electrification contract on December 20, 2024. The Final Acceptance documentation includes exhibits that describe incomplete items or activities and the associated completion dates.*
- *A total of seventeen (17) EMU trainsets have been delivered to Caltrain and sixteen (16) trainsets are available for revenue service as of December 31, 2024. The remaining two (2) trainsets (TS-18 and TS-19) that are part of the first option order are expected to be delivered in April and June 2025, respectively.*

*EMU trainset 311 suffered damage to two (2) of the coaches during a repositioning move at the CEMOF in February 2024. The coaches were shipped back to Stadler's assembly plant in Salt Lake City where they were examined and a repair plan developed. The JPB has directed Stadler to commence work on the repairs which includes replacement of the damaged bike car and the repair of the damaged gallery car. The trainset is expected to be returned to Caltrain in early 2026.*

- The JPB "soft launched" its PCEP revenue service on August 11, 2024. Caltrain ran a single EMU trainset for invited guests from the downtown San Francisco station at 4<sup>th</sup> and King to the Millbrae station and returned on Saturday, August 10, 2024. Electrified revenue service began on Sunday, August 11, 2024, with two (2) EMU trainsets replacing two (2) diesel hauled trainsets running in mixed-service on the current schedule between San Francisco and San Jose. This process was repeated on the following four (4) Saturdays until there were ten (10) EMU trainsets in service. Caltrain's full fourteen (14) trainset electrified service between San Francisco and San Jose commenced on September 21, 2024, with the introduction of Caltrain's new fall service schedule; diesel service between San Jose and Gilroy continues. Caltrain's operation of electrified passenger service between San Francisco and San Jose with fourteen (14) seven (7) car EMUs will satisfy the physical capacity requirements of the core-capacity FFGA. The FTA issued a three (3) year waiver of the level of service requirements to the JPB on November 27, 2023.

### 1.3 Major Issues and/or Concerns

*None at this time.*

### 1.4 Status of Key Indicators Dashboard

KEY INDICATORS DASHBOARD (POST-GRANT STATUS)				
Project Sponsor:		Peninsula Corridor Joint Powers Board (JPB)		
Project Name:		Peninsula Corridor Electrification Project (PCEP)		
Date:		December 31, 2024		
Project Detail				
Oversight Frequency:		Monthly		
Element	Status		Prior Status	Issue or Concern
	<div><div></div></div>	<div><div></div></div>		

KEY INDICATORS DASHBOARD (POST-GRANT STATUS)					
	G	Y	R	(G/Y/R)	
PMP	●			●	The PMP, when combined with the Rail Activation Plan (RAP) and Close-out Plan, adequately addresses the requirements for testing and commissioning, and close-out of the PCEP.
MCC	●			●	<i>The JPB has budgeted for and retained staff to finalize the remaining documentation and related requirements. Staff reductions are largely complete. Most of the remaining staff are part-time on PCEP activities.</i>
Cost	●			●	<i>The JPB reports that they anticipate completing the project with effectively no remaining contingency. The JPB reports that they have reached an agreement on the last remaining change order/claim for unanticipated cost escalation which will be accompanied by a BBII waiver of further claims. The JPB anticipates that the final cost of \$2.393 billion is achievable barring an unexpected additional claim.</i>
Schedule	●			●	Caltrain initiated fully electrified revenue service with fourteen (14) EMU trainsets on September 21, 2024. BBII achieved Final Acceptance on December 20, 2024. The JPB will require an extension to the period of performance of its grant to allow it to complete various activities, such as environmental mitigation, that will extend beyond the current Required Completion Date of December 31, 2024.
Quality	●			●	<i>The JPB reports that some minor punch list work and other remaining items have been identified in the Final Acceptance documents and these have been taken back by the JPB for completion by Transit America Services, Inc (TASI) or another contractor in exchange for a credit.</i>
Safety	●			●	<i>There was one (1) recordable incident in August 2024 for a total of three (3) recordable injuries through November 2024. BBII's Recordable Incident Rate (RIR) through November 2024 was 1.06 and inception to date was 1.84, which is below the national average of 2.5.</i>
Risk	●			●	The majority of the remaining open risks were retired by the Risk Management Committee at its September 16, 2024, meeting. The remaining risks have been handed back to the JPB for continued tracking and disposition. The top risk remains theft of copper impedance bonds.
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.				

### 1.5 Core Accountability Items through November 30, 2024

Project Status: In Construction		Original (FFGA)	Current Forecast <sup>[1]</sup>	PMOC Assessment of Current Forecast
Cost	Cost Estimate	\$1,930,670,934	\$2,393,109,098	Forecast based on cost to date plus remaining base cost and anticipated cost for remaining change orders.
Contingency	Allocated Contingency	\$152,913,317	\$17,695,862	The expected contingency at completion is essentially zero.
	Unallocated Contingency	\$162,620,294	\$3,606,887	
	Total Contingency	\$315,533,611	\$21,302,749	
Schedule	Required Completion Date	August 22, 2022	December 31, 2024	As accepted by the FTA in the JPB's Recovery Plan.

Project Progress		Amount (\$)	Percent of Total
Total Expenditures <sup>[4]</sup>	Actual cost of all eligible expenditures completed to date <sup>[5]</sup>	\$2,312,503,510	96.6%
Planned Value to Date <sup>[2]</sup>	Estimated value of work planned to date <sup>[3]</sup>	\$2,393,109,908	100%
Actual Value to Date	Actual value of work completed to date <sup>[3]</sup>	\$2,312,503,510	96.6%

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>	\$2,296,845,887	96.8%
Construction Contracts Awarded	Value of construction contracts awarded; % of total construction value to be awarded <sup>[5]</sup>	\$1,853,403,023	100%
Physical Construction Completed	Value of physical construction (infrastructure) completed; % of total construction value completed	\$1,696,685,376	91.5%

Rolling Stock Vehicle Status	Date Awarded	No. Ordered	No. Delivered
Electric Multiple Unit (EMU) commuter rail vehicles	08/2016 (A)	133 EMUs 19 x 7- car trains	17 trains 119 EMUs
Next Monthly Meeting Date:		None Planned	
Next Quarterly Review Meeting Date:		None Planned	

#### NOTES:

- [1] "Current estimate" is based on the re-baseline budget adopted by the JPB Board in December 2021 and incorporated into the JPB's Recovery Plan and approved by the FTA in November 2023.
- [2] "Planned Value to Date" is based upon the Program Schedule and Estimate (Rev. 4B) that was updated in October 2017 to reflect the FFGA delay.
- [3] "Work" is defined as all construction as well as non-construction scopes (all project costs). Excludes unbudgeted upfront cost for PG&E's share of substation improvements prior to PG&E reimbursement.
- [4] "Actual Cost" is determined as follows:
- |                                  |                  |
|----------------------------------|------------------|
| Costs: Inception – November 2024 | \$2,362,085,1099 |
| Pre-FFGA Costs                   | (\$49,581,599)   |
| Post-FFGA Costs                  | \$2,312,503,510  |
- [5] "Percentage" is calculated based on a project new estimate of \$2,393,109,097
- [6] "Percentage" is calculated based on Contracts as budgeted in the Re-Baseline Budget excluding remaining forecasted contingency:
- |  |                 |
|--|-----------------|
| Budgeted Contracts (Pre-FFGA) – Re-Baseline Budget | \$2,442,690,697 |
| Pre-FFGA Costs                                     | (\$49,581,599)  |
| Forecasted Remaining Contingency                   | (\$21,302,749)  |

Budgeted Contracts (Post-FFGA)	\$2,371,806,349
[7] “Total construction contracts awarded to date (construction & vehicle contracts only)” includes design costs and executed change orders. Does not include Re-Baseline until executed for Contract amendment.	
[8] “Percentage” is calculated based on the total of the executed contract value of construction contracts and forecasted (including Re-Baseline items) changes to the contracts:	
Executed value of Construction Contracts	\$1,853,408,769
Forecasted Construction Contract Changes	\$0
Forecast of Value of Construction Contracts	\$1,853,408,769

## Grant Information

*Dollars in thousands reported as of December 31, 2024; this information is updated quarterly.*

FAIN (Source)	Funds Committed*	Funds Disbursed	% Disbursed
Local	\$1,363,521	\$1,298,168	95%
Federal	\$1,029,830	\$999,929	97%
<b>Total</b>	<b>\$2,393,351</b>	<b>\$2,298,097</b>	<b>96%</b>

\*Definitions from Guidelines and Standards for Assessing Local Financial Commitment, FTA, June 2007

## 2.0 PMOC Observations and Findings

*This is the PMOC’s final monitoring report on the PCEP. The report covers activity in December 2024 and early January 2025 and summarizes some significant events that occurred earlier in the project. The information contained in this report is based on the PMOC’s recent virtual project meeting attendance, document reviews, telephone conversations, and general interaction with the project sponsor’s personnel.*

### 2.1 Summary of Monitoring Activities

*The PMOC monitored the PCEP on a regular basis beginning with an initial visit to the project site on October 7, 2015. Monitoring was conducted through in-person visits, generally on a monthly basis, throughout the Project Development (PD) and Engineering phases. Monitoring and oversight changed from monthly to quarterly, in keeping with FTA procedures, following the award of the FFGA on May 23, 2017. The PMOC conducted quarterly on-site monitoring visits beginning in August 2017 through March 2020 when the onset of the COVID-19 pandemic resulted in the FTA’s limitation of in-person visits and the adoption of video conferencing as a substitute for on-site visits for an extended period.*

*The FTA’s concern regarding the project’s delayed progress led the FTA to initiate a formal PMOC conducted risk assessment in December 2020. The recommendations developed during the risk assessment were a substantial increase in the likely project cost and a more than two (2) year increase in the likely completion date. The FTA, as a result of these recommendations, designated the PCEP an “At-Risk” project in a letter dated June 30, 2021, and increased the PMOC’s oversight from quarterly to monthly. The PMOC continued to perform monthly oversight through December 31, 2024.*

*The PMOC altered its oversight somewhat following the PCEP’s achievement of electrified revenue service in September 2024. Following the start of revenue service, the project team shifted its focus to closing out the remaining open contracts and completing the remaining activities necessary to satisfy the FFGA. Monitoring included the following activities.*

- Completion of any remaining project scope including delivery of the last two (2) EMU trainsets.
- The JPB’s progress in completing its post-electrification activities including any significant operational problems or concerns, progress in closing any remaining items on its Safety Open Items List, closure of any unfinished systems integration work, punch list work that was not

completed prior to the start of electrified service, and any incomplete regulatory or third-party requirements.

- The JPB's progress in successfully negotiating the resolution of BBII's request for a change order due to unexpected inflation and achieving final acceptance of its design-build contract with BBII.
- The JPB's progress toward close-out of other outstanding contracts or agreements.
- The JPB's progress towards completion of the remaining requirements of its FFGA including its Environmental Mitigation Monitoring and Reporting obligations, and collection and archiving of the required before and after data.
- Development of final project costs and schedules.
- Development of any Lessons Learned reports or documents.
- The JPB's quality team's progress in obtaining the appropriate Buy America documentation from BBII to complete the current review.

## 2.2 Oversight Triggers

The FTA, as noted in Section 1.2 above, designated the PCEP an At-Risk project because of cost overruns and schedule delays. As a result of the FTA's at-risk designation, the PCEP was put on a monthly oversight schedule. The monthly oversight schedule was maintained until December 31, 2024. The JPB, as noted above, formally adopted a revised budget for the PCEP at its meeting on December 6, 2021; the revised budget was based on project completion and the initiation of electrified rail service in 2024. The JPB submitted its final Recovery Plan to the FTA on September 30, 2022. The FTA accepted the JPB's Recovery Plan, with an updated Required Completion Date (RCD) of December 31, 2024, and a revised budget of \$2,393,109,098 on November 28, 2023. The PMOC continued to monitor and report on the JPB's progress relative to its adopted plans and schedule through December 31, 2024. BBII's achievement of Substantial Completion on May 3, 2024, and Caltrain's inauguration of electrified revenue service on August 11, 2024, followed by fully electrified operations on September 21, 2024, significantly reduced the remaining project risk. *The JPB recently reached an agreement with BBII on its change order request for unanticipated cost escalation not addressed in the 2021 global settlement, in the amount of \$13.5 million. That change order has been approved by the PCEP's Change Management Board and will be presented to the JPB Board for approval at its meeting on February 6, 2025. BBII achieved Final Acceptance of its design-build Electrification contract with the JPB effective December 20, 2024. BBII will execute a waiver of its right to assert any additional claims against the JPB related to its work on the PCEP upon execution of the final change order for unanticipated cost escalation.*

## 2.3 Project Management Plan (PMP) and Sub-Plans (*Unchanged*)

The JPB delayed updating its PMP for the testing and commissioning phase of the project, as well as its Rail Fleet Management Plan (RFMP) and Quality Management Plan (QMP) because of the change in project leadership. The JPB provided its updated PMP in June 2022 and the PMOC completed its review of this plan. The JPB provided an updated QMP in July 2022, however, the changes to the plan were limited to updates related to the JPB's and PCEP's organizational changes and no further review was performed.

The JPB provided a copy of its updated Rail Activation Plan to the PMOC on October 19, 2023. The PMOC's initial cursory review confirmed that this version includes the organization's readiness to operate an electrified railroad. The JPB's EMU consultant reported that the JPB accepted the Rail Storage Plan. The JPB also accepted the Interim Operating Plan, which focused on exercising the

EMUs once they begin electrified running. The JPB has accepted a plan for the retirement of Caltrain's legacy fleet of diesel hauled equipment after regular EMU service is initiated. *The PMOC notes that much of Caltrain's former diesel fleet was sold to the Municipality of Lima, Peru.* The EMU consultant also updated the JPB's Rail Fleet Management Plan. The PMOC has received copies of these plans as requested. The PMOC also received copies of additional documents prepared by the JPB and its contractors to support the completion of its Programmatic OP-54 Readiness for Service Review.

## **2.4 Management Capacity and Capability – (Unchanged)**

The PCEP organization continues to reduce its staff in keeping with the completion of most field work and the shift to routine electrified operations. The JPB reported that as of the end of October 2024, the management oversight staffing level was approximately 40 Full Time Equivalents (FTE), this was a reduction of eight (8) FTEs from September 2024. *The JPB reports that the budget includes staffing through June 30, 2025.* A copy of the most recent organization chart is located in Appendix J.

- **PMOC Comment:** *The JPB's recent settlement of BBII's change order request and BBII's achievement of Final Acceptance of its contract have resolved the most significant issues that were facing the project team.*
- *BBII is maintaining a small contingent of workers to complete the remaining work as identified in the exceptions to the Final Acceptance documents.*
- The PMOC recommends that the JPB maintain an adequate and appropriately qualified staff to address the remaining issues, including closing out accounts and archiving the appropriate records. The goal should be to leave complete and well-organized records that will be in a form that can be easily accessed by those who will operate and maintain the PCEP in the future.

## **2.5 NEPA Process and Environmental Mitigation (Unchanged)**

The JPB initiated permanent traffic mitigation measures in accordance with its environmental mitigation plan. The JPB will continue to coordinate with the City of Atherton regarding the timing of completing the mitigation at one location where current traffic projections are significantly lower than anticipated. The PCEP team met with the FTA and the PMOC on March 14, 2024, to discuss the timing and scope of the traffic mitigation measures and agreed to prepare a memorandum for the FTA describing its proposals with additional details. The JPB has completed its meetings with the other affected jurisdictions regarding its proposed traffic mitigation measures, and as agreed, provided materials to the FTA in late May 2024, further describing its proposed approach to satisfying its Traffic Mitigation obligations. The FTA and the PCEP team met on June 25, 2024, to further discuss the issue and the FTA's response. The PCEP team, in the course of its review of the proposed Memorandum of Understanding (MOU), concluded that the MOU, as drafted, might not be the best approach to resolving this issue. The PCEP team presented an alternative to the FTA's legal team that involved establishing escrow accounts, with appropriate distribution instructions, for the benefit of those jurisdictions where future mitigation was planned. The FTA did not accept the JPB's proposal. The JPB discussed the issue with the FTA and the FTA granted a three (3) year extension to the FFGA to allow the JPB to reassess traffic volumes at the end of the extension period and implement the required mitigation measures.

The JPB has continued to monitor the compliance of its construction contractors with the requirements of its FFGA and the supporting environmental documents. Annual surveys are being conducted as required. The PCEP reports that tree pruning and removal is nearing completion; the

number of replacement trees is higher than expected because of minor shifts in the location of the OCS. The JPB conducted an inspection of the corridor shortly after Labor Day 2024 as part of its final acceptance of BBII's work.

## **2.6 Project Delivery Method and Procurement**

The JPB completed all major procurements as of September 2019.

### ***Consultant Contracts (Unchanged)***

The JPB awarded contracts in early 2014 for Program Management Consultant Services; EMU Vehicle Consultant Services; and Electrification Services. The JPB awarded a five-year contract to Jacobs Project Management Company (Jacobs) of Oakland, CA in 2019 to support electrification construction, the tunnel notching contract, modifications to the CEMOF, reconstruction of the Santa Clara Drill Track, installation of mini-high block platforms, and other work, as needed. The JPB used its bench contracts to augment the PCEP staff as needed to address the demands of testing and startup.

### ***Electrification Design-Build Contract***

JPB used the Design-Build (D-B) project delivery method for the electrification and related facilities. BBII was selected as the D-B Contractor and was provided a Notice to Proceed (NTP) in June 2017. Primary design work is finished following the completion of the design of the remaining low-voltage wayside power units. *Design-support activities will continue as required to address issues encountered during the testing and commissioning and close-out of the remaining work. BBII achieved substantial completion on May 3, 2024, and Final Acceptance effective December 20, 2024. BBII will continue to address those items identified as incomplete in the Final Acceptance documents.*

### ***Supervisory Control and Data Acquisition (SCADA) Equipment***

The JPB executed a sole-source contract with Aeronautical Radio, Incorporated (ARINC), for the supply of SCADA equipment in September 2017. The SCADA contract is being managed by the Electrification consultant and installation of the SCADA equipment was performed by BBII under the Electrification contract. The equipment, following its installation, is being used to control the traction power system including the traction power substations (TPS), wayside power cubicles (WPC), and the OCS. The JPB negotiated a \$1.04 million modification to the SCADA contract to align its completion with the new project schedule. The SCADA system has been integrated with the base operating system for Caltrain Operations and Control, which is the Rail Operations Center System (ROCS). A separate control console has been established for the Power Director. The hardware has been installed in the Central Control Facility (CCF) and the backup CCF (BCCF). Testing and training activities are now complete. *Close-out of the contract is underway.*

### ***Tunnel Notching, OCS Installation, and Drainage Improvements (Unchanged)***

A contract was awarded to ProVen Management, Inc. of Oakland, California, for Tunnel Notching and Drainage Improvements on the tunnels in Segment 1 of the PCEP corridor. The contract consists of two (2) main elements: notching of the four (4) tunnels to increase clearance for the new EMU vehicles; and drainage improvements in tunnels 1 and 4 for the benefit of Caltrain operations. The drainage improvements were performed as a Concurrent Non-Project Activity (CNPA), and the work was paid for by Caltrain. The JPB issued a Notice to Proceed to the contractor on October 6, 2018. Installation of the Overhead Contact System (OCS) in the tunnel bores was later added by Change Order. Inspection of the OCS in the tunnel bores has been completed and the contractor has demobilized. The JPB has negotiated a settlement with ProVen that covers both the Tunnel Notching



and CEMOF Modifications contracts. The JPB reports that it has closed-out the ProVen Tunnel Notching Contract, however, no date was provided.

Final testing of the OCS in the tunnel was accomplished as part of BBII's live-run testing in Segment 1. Some groundwater impacts to the new OCS in the tunnels were noticed during testing and the JPB conducted investigations and implemented several mitigation strategies to remove the existing calcareous deposits and avoid any reoccurrence.

#### ***Used Electrified Locomotives (Unchanged)***

The JPB acquired and overhauled two (2) used AM-7 electrified locomotives to perform initial testing of the electrification system. The locomotives were placed in long-term storage after their delivery in June 2019 until needed for testing of the electrified system. The used locomotives were not used in the start-up and testing of the newly installed OCS or TPS systems. Caltrain Operations reports that the electric locomotives will be used as rescue vehicles on the electrified railroad.

#### ***CEMOF Modifications (Unchanged)***

The JPB awarded a contract to ProVen Management, Inc. for \$6,550,777 to modify the Central Equipment Maintenance and Operations Facility (CEMOF) to accommodate the new EMUs. ProVen was issued a full Notice to Proceed (NTP) on September 16, 2019. The CEMOF contract was the last of the PCEP's major construction contracts. The JPB, as noted above, negotiated a settlement with ProVen that covered both the Tunnel Notching and CEMOF Modifications contracts. ProVen completed work on the CEMOF modification on July 13, 2022. The JPB reports that it achieved final acceptance of the CEMOF Modifications contract on September 5, 2023.

#### ***PG&E Interconnection Construction***

The JPB executed a modification of its Master Agreement with PG&E to construct the interconnections between PG&E's two (2) substations and the JPB's two (2) corresponding TPSS. Construction of the interconnections between PG&E's FMC substation in San Jose and the PCEP's TPSS 2 was completed on January 18, 2021. *Construction of the interconnections between PG&E's East Grand Ave substation in South San Francisco and the PCEP's TPSS 1 was completed in June 2022.*

Transmission Load Operating Agreements (TLOA) between PG&E and the JPB were executed prior to the energization of each of the two (2) TPSS. Energization of the PG&E interconnection and TPSS-2 occurred on August 27, 2022; *energization of the PG&E interconnection and TPSS-1 occurred on August 26, 2023.*

#### ***Caltrain Operations (Unchanged)***

The JPB concluded an agreement with Transit America Services, Inc. (TASI), its contract rail operator, to perform operating and maintenance functions for the new Traction Power System (TPS) and Overhead Contact System (OCS). TASI increased staffing and trained its personnel for duties on the electrified railroad and initially took over the isolation responsibilities for the energized OCS in Segments 3 and 4 on October 1, 2023. TASI now operates and maintains the TPS and OCS to support Caltrain's electrified passenger service in addition to its other responsibilities.

## **2.7 Design (Unchanged)**

BBII is responsible for the Final Design (FD) of the electrification and related facilities under the terms of its D-B contract with the JPB. PGH Wong Engineering, Inc., is the Engineer of Record (EOR) for the electrification work. Alstom is the EOR for the signals work including Two Speed

Check Grade Crossing Approach Warning System (2SC). All primary OCS, TPS, and Signals design work is complete. The following issues remain active:

- The remaining design work associated with the low-voltage wayside power units is complete. The design team remains active as required to prepare the documentation required for Final Acceptance.

## **2.8 Value Engineering and Constructability Reviews (*Unchanged*)**

The project sponsor did not undertake a formal VE effort. However, the PCEP team undertook a significant cost reduction effort in late 2014 which identified an estimated \$84.3M in potential cost savings achieved by eliminating or deferring certain tasks previously included in the baseline program. In addition, the procurement process for the Electrification D-B contract included the submission of alternate technical proposals (ATPs) to reduce costs or improve the schedule. In addition to those ATPs that were incorporated into the Electrification contract, that contract contains a Value Engineering Change Proposal (VECP) clause whereby any savings that result from an accepted VECP are shared by the contractor and the JPB.

## **2.9 Real Estate Acquisition and Relocation**

The project was constructed primarily in the existing Caltrain corridor on right-of-way (ROW) controlled by JPB/Caltrain. The PCEP acquired real estate for three (3) primary purposes: (1) for the placement of Overhead Contact System (OCS) poles; (2) for the two (2) primary Traction Power Substations (TPSS); and (3) to provide electrical clearance and safety zones for the OCS wires.

### ***Real Estate Activities***

The JPB's Real Estate Department continues to assist Caltrain's Rail Operations in acquiring areas/buildings for storage of spare parts and equipment needed to support the electrified railroad. The JPB is acquiring a license agreement and will purchase a small area in fee from SamTrans, for poles, and appurtenances in the vicinity of the Switching Station.

*The JPB's Real Estate Manager recently initiated a comparison of the final design documents with the real property rights that were acquired during the project. The objective was to verify that all changes in the placement of project elements, or associated safety zones, had been accurately accommodated by the necessary property rights. The review determined that there are fourteen cases where insufficient property rights were acquired. The real estate team is moving forward to acquire the necessary property rights.*

*The last major activity will be closing the acquisition of the Bayshore property described below. The final closing was delayed because the property owner proposed an alternative which would have reduced the acquisition cost to the JPB. Unfortunately, the property owner's plan did not work out and the final closing is expected to occur mid-2025.*

Bayshore Property (Segment 1 South of tunnels) – The parties have reached a final agreement on price and construction was completed using permits issued by the owner, pending completion of the transaction. The JPB submitted a draft request for concurrence to the FTA. The FTA provided comments and requested an explanatory letter from the JPB's legal counsel. The JPB provided a package of the requested materials to the FTA following the Quarterly Progress Review Meeting (QPRM) #25. The FTA concurred in the settlement proposed by the JPB on April 17, 2024.

## 2.10 Third-Party Agreements and Utilities

A significant number of third-party agreements were required to support the PCEP. These agreements are grouped into the following general categories, with status comments as appropriate to each:

### ***Jurisdictional Agreements for Construction and Maintenance***

The JPB has executed all agreements except the one with the Town of Atherton (Segment 2), which was not pursued following a legal dispute between the parties. The Town of Atherton issued traffic control permits to the contractor, and the Town staff was cooperative in those actions.

### ***Jurisdictional Agreements for Exercise of Eminent Domain Powers (Unchanged)***

The JPB executed agreements with the Santa Clara Valley Transportation Authority (VTA) and the San Mateo County Transportation District (SamTrans) under which the VTA and SamTrans exercised eminent domain authority on behalf of the JPB, when such action was required, to acquire the real property rights located in the respective counties for the PCEP. The City and County of San Francisco (CCSF) declined to approve an agreement for the use of its eminent domain powers on behalf of the PCEP.

### ***Utility Relocation Agreements***

The JPB's right to relocate utilities that exist within its PCEP corridor exists by virtue of the property rights it acquired when it purchased the corridor from the Southern Pacific Transportation Company (SP) in November 1991. The JPB has the right to cause the relocation of both overhead and underground utilities to accommodate its railroad activities upon thirty (30) days' notice to the utilities, at the utilities expense. *Numerous utility relocations were required to accommodate the construction of the PCEP, including power and communications lines.*

### ***Other Agreements***

The JPB negotiated specialized agreements with the following entities:

#### ***Pacific Gas & Electric (PG&E)***

PG&E supplies power from two (2) existing substations to the new PCEP Traction Power System. Both substations were modified to provide the required power. The JPB executed a Master Agreement with PG&E as well as Supplements 1 through 5 to that agreement. Supplement 4, which includes the cost of constructing the substation modifications, was fully executed on October 18, 2018. The parties disagreed on the allocation of costs for the work, and following discussions between the parties, PG&E filed an application with the CPUC for a cost allocation plan. The CPUC's Administrative Law Judge announced a decision on May 7, 2020, that adopted a modified order affirming the cost allocation principles agreed to by the JPB and PG&E. The cost allocation process requires audited costs for PG&E's sub-station improvements. Those costs were expected to be available for inclusion in PG&E's 2023 General Rate Case which was filed in 2021. However, due to construction delays, only approximately 95% of audited costs are available. PG&E petitioned the CPUC to consider including the 95% of costs that have been audited in PG&E's current rate case. That petition was positively received by the CPUC. The JPB requested that PG&E make earlier payments of the funds that were due to the JPB under the cost allocation agreement to improve the PCEP's cash flow position. The JPB reports that PG&E made its First Reimbursement Payment of \$87,586,392.10 on February 22, 2024; and Caltrain made the first of the Equivalent One Time Payments (EOTP) of \$5,157,067.62 to PG&E on February 29, 2024. *Caltrain made the second Equivalent One Time Payment (EOTP) of \$237,876 to PG&E in January 2025.* PG&E accommodated the JPB's request to reschedule the remaining short-circuit tests following the severe

storm in early February 2024. The final short-circuit test was successfully conducted on April 5, 2024. Modifications to the TLOA will be required to address the regeneration of power by the EMUs, but this did not impact the start of revenue service.

#### ***California Public Utilities Commission (CPUC) (Unchanged)***

The CPUC is the FTA's Certified State Safety Oversight Agency (SSOA) for the State of California and also has responsibility for grade crossing safety in the state. The JPB worked with both CPUC and the FRA to develop the 2SC solution to provide the required grade crossing warning time after the system was electrified. CPUC and the FRA observed the initial cutovers at the signal locations in Segment 4 and were satisfied with the results. All signal cutovers are now complete.

The JPB was required to file a General Order (GO) 88B form for each modified grade crossing for approval by the CPUC; these plans were developed in conjunction with the local jurisdictions. The JPB reported that the CPUC has issued all GO 88B permits. The PCEP will send a GO-88 Form G to the CPUC once all required modifications are completed in a jurisdiction. The FRA does not approve the crossings but has both regulatory and enforcement authority if the crossings do not perform as required by its regulations.

#### ***Union Pacific Railroad (UPRR) (Unchanged)***

The JPB has a continuing relationship with the UPRR, which is a tenant and operates service on tracks owned by Caltrain in the PCEP corridor; Caltrain operates service on tracks owned by the UPRR south of the PCEP corridor.

#### ***California High Speed Rail Authority (CHSRA) (Unchanged)***

The California High-Speed Rail Authority (CHSRA) is a funding-partner for the PCEP and proposes to operate in blended service with Caltrain in the PCEP corridor in the future. The JPB relocated some OCS poles to permit future curve-straightening by the CHSRA without impacting the electrification system. Straightening of some curves will allow the CHSRA to achieve higher operating speeds. All costs associated with the pole relocation work were paid for by the CHSRA. Representatives of the CHSRA participated regularly in a variety of PCEP meetings. The JPB submitted a final Project Remediation Plan to the CHSRA; the plan is a requirement of the funding agreement between the parties. The plan was reviewed by the CHSRA and appropriate portions of the plan were incorporated into the Recovery Plan accepted by the FTA on November 28, 2023.

#### ***Federal Railroad Administration (FRA)***

The FRA has authority over the JPB's rail operations. As noted above and elsewhere in this report, the JPB coordinated with the FRA on several issues, including technical issues related to the EMUs and implementation of the 2SC issue. The JPB's PTC program has received FRA approval. Issues related to the EMUs are discussed in Section 2.12 of this report. The JPB continues to hold monthly conference calls with the FRA to discuss EMU issues, and another call to discuss any open questions related to the 2SC implementation. The FRA approved, by letter dated February 8, 2024, the JPB's request to extend the existing waiver for the Stadler KISS units for the life of the equipment, as discussed in Docket Number FRA-2018-0067.

Independent of the PCEP, the JPB filed a test request with the FRA on November 29, 2021, for the installation of a Crossing Optimization Project. The project modified grade crossing controls to improve gate down-time performance. Wabtec, the JPB's contractor for the crossing optimization project, completed installing the wireless crossing modifications on the grade crossings, all of which have been successfully cutover for 2SC operation.

*The FRA conducted its on-site audit of Caltrain’s Passenger Train Emergency Preparedness Plan (PTEPP) in late January 2025 and Caltrain described the feedback as “good, thorough, and constructive.” The FRA must complete its review of all records provided prior to the site visit in order to close out that portion of the audit. The FRA’s local Motive Power and Equipment Division (MP&E) Inspector is scheduled to conduct a review of the 238-equipment inspection in February 2025, which was delayed due to FRA resource availability. The PTEPP cannot be approved until the 238 inspection is complete and a final close-out meeting is held.*

The rail industry submitted a Request for Amendment (RFA) to the FRA for modification of the on-board software used in Positive Train Control systems; Caltrain is a participant in that request. The FRA announced its approval of the RFA on July 22, 2024.

The JPB submitted an RFA to the FRA related to its wireless crossing activation system; the FRA approved this request on approximately August 5, 2024.

*The JPB states that it submitted its RFA for the 2SC grade crossing system in approximately October 2024; the FRA is reviewing the documents. The 2SC system is currently operating under an FRA approved test plan.*

## 2.11 Construction

*BBII achieved Final Acceptance of its contract by the JPB as of December 20, 2024. BBII’s Request for Final Acceptance documents include attachments that list items or activities that remain outstanding as of the final acceptance date. The following Table A lists the major categories of items or activities, the number of each category that remained outstanding, the due date for completing that category, and whether the details have been included in Appendix K.*

**Table 1 – Electrification Contract Incomplete Items as of December 20, 2024**

<b>Category</b>	<b>Description</b>	<b>Details</b>	<b>Proposed Completion</b>	<b>Attachment K</b>
	<i>BBII Letter Requesting Final Acceptance</i>			<i>Yes</i>
<i>Exhibit A</i>	<i>Open Punchlist Items</i>	<i>3 pages, 65 items</i>	<i>9/1/2025</i>	<i>Yes</i>
<i>Exhibit B</i>	<i>Yard Reclamation</i>	<i>3 of 20 remain to be reclaimed</i>	<i>9/1/2025</i>	<i>No</i>
<i>Exhibit C</i>	<i>Non-Conformance Reports (NCR's)</i>	<i>3 open items</i>	<i>4/1/2025</i>	<i>Yes</i>
<i>Exhibit D</i>	<i>CAD Drawings Status</i>	<i>7 pages</i>	<i>7/1/2025</i>	<i>No</i>
<i>Exhibit E</i>	<i>Open Permits on 12/3/24</i>	<i>14 remain open 2 are JPB</i>	<i>3/31/2025</i>	<i>Yes</i>
<i>Exhibit F</i>	<i>Spare Parts Delivery</i>	<i>21 pages, 11 categories</i>	<i>9/1/2025</i>	<i>No</i>
<i>Exhibit G</i>	<i>Schedule - As-built Plans</i>	<i>4 pages</i>	<i>6/1/2025</i>	<i>No</i>
<i>Exhibit H</i>	<i>Open Submittals</i>	<i>Statement of Objection - 7 Statement of No Objection w/ Comments - 18 Workflow Incomplete - 36</i>	<i>4/30/2025</i>	<i>No</i>
<i>Exhibit I</i>	<i>Safety Open Items List (SOIL)</i>	<i>7 Total, 2 remain Open</i>	<i>1/6/2025</i>	<i>Yes</i>
<i>Exhibit J</i>	<i>Schedule to Complete Remaining</i>	<i>7 pages</i>	<i>9/1/2025</i>	<i>Yes</i>

- The JPB reported on November 22, 2024, that four (4) of 118 low-voltage connections remain to be completed. One connection was scheduled for completion on December 20, 2024, according to PG&E.
- BBII continues to maintain crews to complete punch list and other incomplete work.

### ***Signal System (Unchanged)***

Cutover of the signal system was complete as of August 20, 2023. Early completion of the signal cutovers was incentivized (see Table 7) in the global settlement. Submission and approval of final documentation will continue until it is completed. Installation of the JPB's wireless crossing optimization system is complete. BBII continued installing the remaining low voltage connection conduits for signal locations.

### ***Supervisory Control and Data Acquisition (SCADA) (Unchanged)***

- The SCADA software has been installed and tested and is now in production mode.
- A Field SCADA Endurance Test and Office SCADA Availability and Reliability test have been successfully completed. Final acceptance of the SCADA contract will be established following the review and acceptance of the test reports.

### ***Concurrent Non-Project Activities:***

The JPB has an on-going capital construction program that includes several projects that will share some common elements with the PCEP. These projects have been designated as Concurrent Non-Project Activities (CNPAs), and the project elements that will be constructed for the benefit of the PCEP will be appropriately segregated for cost purposes. The Guadalupe Bridge Replacement Project continues at the south end of Segment 4.

The installation of additional flip-up seats in EMU bike cars, which is locally funded, will remain open until all cars are delivered.

## **2.12 Vehicle Technology and Procurement**

The JPB placed an order for ninety-six (96) new bi-level EMU vehicles to be produced by Stadler US, Inc. and delivered in six-car trainsets. The JPB ordered an additional thirty-seven (37) EMUs in December 2018 using an option in the Stadler contract. The JPB ordered an electrified fleet of one hundred thirty-three (133) EMUs configured as nineteen (19) seven-car trainsets. The JPB has remaining options to purchase up to fifty-nine (59) additional EMUs at prices based on the date when the option is exercised.

The JPB exercised part of its remaining options in August 2023 to purchase four (4) additional EMU 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 EMU contract contained an option for Stadler to maintain the vehicles; the JPB did not exercise this option and the vehicles will be maintained by TASI, the JPB's current rail operator. The JPB states that Stadler will provide on-site training and assistance for TASI's personnel for two (2) years following vehicle acceptance.

The EMUs were ordered with two (2) sets of doors, one set at approximately 22" above the top of the rail, and one at approximately 50.5" above the top of the rail. Initially, only the lower set of doors will be activated, and a small step will automatically deploy outside the vehicle to reduce the boarding height to the current platforms. The PCEP's Change Management Board, at its September 2019 meeting, approved the JPB's request for a change order to install temporary panels in place of

the high-level doors until the trains operate in blended service with the CHSRA. The high-level doors will be placed in storage until they are installed for blended service with the CHSRA. When the EMUs operate in blended service with the CHSRA vehicles, the high-level doors will be operated to provide level boarding at the higher CHSRA platforms at those stations served by both systems. See additional discussion under Regulatory Issues below.

PCEP and Stadler reported the following progress on the vehicles:

- The seventeenth (17) trainset was delivered to Caltrain on November 25, 2024.
- *Trainsets 18 and 19 (total 14 vehicles) are in production in Salt Lake City and are expected to be delivered in April and June 2025 respectively.* These are the last two (2) trainsets purchased in the initial order and the first option order.
- The JPB, following consultation with its insurance carrier, decided on the repair of the two (2) damaged coaches in trainset 311. The JPB accepted Stadler's suggestion and will replace one (1) of the coaches and Stadler will repair the second coach. Stadler reported that a flood has temporarily closed its car body production plant, and it considers this an event of force majeure. This problem may impact to repair of trainset 311. *Stadler has revised its estimate and schedule for the work based on the JPB's recent decision and the JPB is reviewing the proposal.*

### 2.13 Project Cost

The FFGA budget for the PCEP is \$1.931 billion in year of expenditure (YOE) dollars. The JPB adopted a revised budget of \$2.44 billion (\$2.39 billion for FTA reporting purposes due to exclusion of ineligible costs) on December 6, 2021. This new budget reflected an increase of \$462 million from the FFGA budget. The new budget was incorporated into the JPB's Recovery Plan, which was accepted by the FTA on November 28, 2023.

*Table 2 below presents the PCEP costs as of November 30, 2024.* The JPB forecasts the estimated cost at completion (EAC) monthly.

**Table 2 – Project Cost Table 11-30-2024<sup>[1]</sup>**

FTA SCC Monthly - MPR Appendix D		with CCOs		Per 114 - 2024-11			
Description of Work	FFGA Grant Budget (A)	Re-Baseline Budget (B)	Approved Budget with Approved CCOs (B2)	Cost This Month (C)	Cost To Date (D)	Estimate To Complete (E)	Estimate At Completion (F) = (D) + (E)
<b>10 - GUIDEWAY &amp; TRACK ELEMENTS</b>	<b>\$14,256,739</b>	<b>\$34,031,358</b>	<b>\$32,998,866</b>	<b>\$0</b>	<b>\$30,957,439</b>	<b>\$2,041,427</b>	<b>\$32,998,866</b>
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	\$2,500,000	\$2,387,096	\$2,387,096	\$0	\$369,077	\$2,018,019	\$2,387,096
10.07 Guideway: Underground tunnel	\$8,110,649	\$31,644,262	\$30,611,770	\$0	\$30,588,362	\$23,408	\$30,611,770
10.07a Allocated Contingency	\$3,646,090	\$0	\$0	\$0	\$0	\$0	\$0
<b>30 - SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS</b>	<b>\$2,265,200</b>	<b>\$10,046,714</b>	<b>\$10,466,497</b>	<b>\$0</b>	<b>\$10,266,497</b>	<b>\$200,000</b>	<b>\$10,466,497</b>
30.03 Heavy Maintenance Facility	\$1,344,000	\$9,846,714	\$10,266,497	\$0	\$10,266,497	\$0	\$10,266,497
30.03a Allocated Contingency	\$421,200	\$200,000	\$200,000	\$0	\$0	\$200,000	\$200,000
30.05 Yard and Yard Track	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0
<b>40 - SITEWORK &amp; SPECIAL CONDITIONS</b>	<b>\$255,072,402</b>	<b>\$438,895,518</b>	<b>\$453,452,319</b>	<b>(\$692,431)</b>	<b>\$460,620,606</b>	<b>(\$5,972,530)</b>	<b>\$454,648,075</b>
40.01 Demolition, Clearing, Earthwork	\$3,077,685	\$10,748,067	\$10,748,067	(\$9,000)	\$10,960,321	(\$212,254)	\$10,748,067
40.02 Site Utilities, Utility Relocation	\$62,192,517	\$103,275,822	\$101,479,160	\$433,108	\$106,305,130	(\$1,676,558)	\$104,628,572
40.02a Allocated Contingency	\$25,862,000	\$2,370,765	\$2,370,765	\$0	\$0	\$2,370,765	\$2,370,765
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$2,200,000	\$12,042,192	\$12,042,192	\$0	\$12,042,193	(\$1)	\$12,042,192
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$32,579,208	\$20,989,303	\$20,560,800	(\$368,000)	\$10,717,809	\$6,823,099	\$17,540,908
40.05 Site structures including retaining walls, sound walls	\$568,188	\$0	\$0	\$0	\$0	\$0	\$0
40.06 Pedestrian / bike access and accommodation, landscaping	\$804,933	\$2,735,000	\$2,735,000	\$0	\$2,735,000	(\$0)	\$2,735,000
40.07 Automobile, bus, van accessways including roads, parking lots	\$284,094	(\$0)	(\$0)	\$0	\$0	(\$0)	(\$0)
40.08 Temporary Facilities and other indirect costs during construction	\$107,343,777	\$264,435,606	\$296,626,447	(\$748,540)	\$317,860,153	(\$20,167,469)	\$297,692,684
40.08a Allocated Contingency	\$20,160,000	\$22,298,763	\$6,889,888	\$0	\$0	\$6,889,888	\$6,889,888
<b>50 - SYSTEMS</b>	<b>\$504,445,419</b>	<b>\$679,821,865</b>	<b>\$682,695,479</b>	<b>\$1,206,892</b>	<b>\$651,961,609</b>	<b>\$32,691,444</b>	<b>\$684,653,053</b>
50.01 Train control and signals	\$97,589,149	\$112,460,517	\$113,249,592	\$54,464	\$146,622,458	\$33,372,866	\$113,249,592
50.01a Allocated Contingency	\$1,651,000	\$4,950,000	\$4,147,742	\$0	\$0	\$4,147,742	\$4,147,742
50.02 Traffic signals and crossing protection	\$23,879,905	\$79,475,273	\$80,511,400	\$0	\$32,306,979	\$48,204,421	\$80,511,400
50.02a Allocated Contingency	\$1,140,000	\$500,000	(\$519,626)	\$0	\$0	(\$519,626)	(\$519,626)
50.03 Traction power supply: substations	\$69,120,009	\$127,642,222	\$134,937,849	\$0	\$130,432,731	\$4,505,118	\$134,937,849
50.03a Allocated Contingency	\$31,755,013	\$2,861,411	(\$5,434,216)	\$0	\$0	(\$5,434,216)	(\$5,434,216)
50.04 Traction power distribution: catenary and third rail	\$253,683,045	\$336,585,173	\$337,123,694	\$0	\$330,379,844	\$6,743,850	\$337,123,694
50.04a Allocated Contingency	\$18,064,000	\$6,350,000	\$4,841,019	\$0	\$0	\$4,841,019	\$4,841,019
50.05 Communications	\$5,455,000	\$5,547,000	\$10,835,183	\$1,152,428	\$12,219,597	\$573,160	\$12,792,757
50.05a Allocated Contingency	\$0	\$3,150,000	\$2,702,573	\$0	\$0	\$2,702,573	\$2,702,573
50.07 Central Control	\$2,090,298	\$300,269	\$300,269	\$0	\$0	\$300,269	\$300,269
50.07a Allocated Contingency	\$18,000	\$0	\$0	\$0	\$0	\$0	\$0
<b>60 - ROW, LAND, EXISTING IMPROVEMENTS</b>	<b>\$35,675,084</b>	<b>\$33,344,581</b>	<b>\$30,812,121</b>	<b>\$27,696</b>	<b>\$23,758,220</b>	<b>\$8,368,466</b>	<b>\$32,126,686</b>
60.01 Purchase or lease of real estate	\$25,927,074	\$33,160,590	\$30,628,130	\$27,696	\$23,624,229	\$8,318,466	\$31,942,695
60.01a Allocated Contingency	\$8,748,010	(\$1)	(\$1)	\$0	\$0	(\$1)	(\$1)
60.02 Relocation of existing households and businesses	\$1,000,000	\$183,992	\$183,992	\$0	\$133,992	\$50,000	\$183,992
<b>70 - VEHICLES (96)</b>	<b>\$625,544,147</b>	<b>\$694,286,192</b>	<b>\$692,707,934</b>	<b>\$10,165,648</b>	<b>\$639,956,048</b>	<b>\$48,248,863</b>	<b>\$688,204,911</b>
70.03 Commuter Rail	\$589,167,291	\$642,183,381	\$654,539,766	\$10,165,648	\$624,696,096	\$25,340,647	\$650,036,743
70.03a Allocated Contingency	\$9,472,924	\$15,555,307	\$2,000,000	\$0	\$0	\$2,000,000	\$2,000,000
70.06 Non-revenue vehicles	\$8,140,000	\$17,239,237	\$17,239,237	\$0	\$538,280	\$16,700,958	\$17,239,237
70.06a Allocated Contingency	\$0	\$379,335	\$0	\$0	\$0	\$0	\$0
70.07 Spare parts	\$18,763,931	\$18,928,931	\$18,928,931	\$0	\$14,721,672	\$4,207,259	\$18,928,931
<b>80 - PROFESSIONAL SERVICES (applies to Cats. 10-50)</b>	<b>\$323,793,010</b>	<b>\$464,899,724</b>	<b>\$473,180,318</b>	<b>\$949,495</b>	<b>\$482,036,183</b>	<b>(\$8,578,970)</b>	<b>\$473,457,213</b>
80.01 Project Development	\$130,350	\$289,233	\$289,233	\$0	\$289,233	(\$0)	\$289,233
80.02 Engineering (not applicable to Small Starts)	\$180,227,311	\$241,386,730	\$241,347,619	(\$49,175)	\$245,032,541	(\$5,318,017)	\$239,714,523
80.02a Allocated Contingency	\$1,866,000	\$500,000	(\$2,430,361)	\$0	\$0	(\$2,430,361)	(\$2,430,361)
80.03 Project Management for Design and Construction	\$72,029,265	\$151,617,659	\$157,778,816	\$799,402	\$161,091,514	(\$3,397,176)	\$157,694,338
80.03a Allocated Contingency	\$9,388,080	(\$0)	(\$0)	\$0	\$0	(\$0)	(\$0)
80.04 Construction Administration & Management	\$23,677,949	\$50,737,213	\$55,051,237	\$185,062	\$54,862,937	\$2,379,773	\$57,242,710
80.04a Allocated Contingency	\$19,537,000	(\$0)	(\$0)	\$0	\$0	(\$0)	(\$0)
80.05 Professional Liability and other Non-Construction Insurance	\$3,500,000	\$6,581,851	\$6,581,851	\$0	\$6,304,001	\$277,850	\$6,581,851
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	\$7,167,275	\$10,183,908	\$10,850,898	\$14,205	\$8,006,819	\$2,788,558	\$10,795,377
80.06a Allocated Contingency	\$556,000	\$650,000	\$650,000	\$0	\$0	\$650,000	\$650,000
80.07 Surveys, Testing, Investigation, Inspection	\$3,287,824	\$210,957	\$318,853	\$0	\$61,782	\$115,588	\$177,370
80.08 Start up	\$1,797,957	\$392,173	\$464,093	\$0	\$6,387,356	(\$5,923,263)	\$464,093
80.08a Allocated Contingency	\$628,000	\$2,350,000	\$2,278,080	\$0	\$0	\$2,278,080	\$2,278,080
<b>Subtotal (10 - 80)</b>	<b>\$1,761,052,001</b>	<b>\$2,355,325,952</b>	<b>\$2,376,313,534</b>	<b>\$11,657,300</b>	<b>\$2,299,556,601</b>	<b>\$76,998,701</b>	<b>\$2,376,555,302</b>
<b>90 UNALLOCATED CONTINGENCY</b>	<b>\$162,620,295</b>	<b>\$27,884,507</b>	<b>\$6,896,926</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,606,887</b>	<b>\$3,606,887</b>
<b>Subtotal (10 - 90)</b>	<b>\$1,923,672,296</b>	<b>\$2,383,210,460</b>	<b>\$2,383,210,460</b>	<b>\$11,657,300</b>	<b>\$2,299,556,601</b>	<b>\$80,605,588</b>	<b>\$2,380,162,189</b>
<b>100 FINANCE CHARGES</b>	<b>\$6,998,638</b>	<b>\$9,898,638</b>	<b>\$9,898,638</b>	<b>\$0</b>	<b>\$12,946,910</b>	<b>\$0</b>	<b>\$12,946,910</b>
<b>Total Project Cost (10 - 100)</b>	<b>\$1,930,670,934</b>	<b>\$2,393,109,098</b>	<b>\$2,393,109,098</b>	<b>\$11,657,300</b>	<b>\$2,312,503,511</b>	<b>\$80,605,588</b>	<b>\$2,393,109,099</b>
Allocated Contingency	\$152,913,317	\$62,115,582	\$17,695,862	\$0	\$0	\$17,695,862	\$17,695,862
Unallocated Contingency	\$162,620,295	\$27,884,507	\$6,896,926	\$0	\$0	\$3,606,887	\$3,606,887
<b>Total Contingency</b>	<b>\$315,533,612</b>	<b>\$90,000,089</b>	<b>\$24,592,788</b>	<b>\$0</b>	<b>\$0</b>	<b>\$21,302,750</b>	<b>\$21,302,750</b>

[1] Caltrain Capital Overhead includes actuals to date using the new method ICAP as reported in Budget Scrub.

**PMOC Note:** The JPB publicly reports expenditures against a total project budget of \$1.980 billion which translates to the revised budget of \$2.442 billion when adjusted for additional Board approved funding. This higher amount includes ineligible federal expenditures incurred prior to project entry into the Project Development (PD) phase. Costs incurred prior to the project's entry into the PD phase were removed from the estimate at the FTA's request during its pre-award review of the FFGA materials. The revised budget for FTA reporting purposes is \$2.393 billion.



## Cost Contingency Status

Table 3 below summarizes the project contingency as of November 30, 2024, for the revised PCEP project budget of \$2.44 billion. PCEP anticipates spending essentially all currently remaining contingency by the end of the project on base costs not yet expended, professional services required through the end of the project and negotiated but unpaid change orders.

**Table 3 – Contingency Status (\$ millions) <sup>[3]</sup>**

Contingency Category	Original Baseline Contingency (YOE)	Revised Contingency Budget (YOE)	Current Contingency (YOE)	Percent Revised Contingency Remaining <sup>[2]</sup>
Allocated	\$152.9	\$62.1	\$17.7	28.4%
Unallocated	\$162.6	\$27.9	\$3.6	12.9%
<b>TOTAL<sup>[1]</sup></b>	<b>\$315.5</b>	<b>\$90.0</b>	<b>\$21.3</b>	<b>23.7%</b>

[1] Totals may not add due to rounding.

[2] Estimate at Completion

[3] Data as of November 30, 2024.

The JPB presented the following information in its Executive Monthly Progress Report dated November 30, 2024. The information consolidates both the contingency balance in the \$50 million shared risk pool established in the Global Settlement with BBII and the \$40 million in the PCEP program contingency. PCEP estimates remaining contingency at completion of \$444 thousand which the PMOC regards as effectively zero contingency at completion.

**Table 4 Contingency Drawdown as of November 2024**

		Shared Risk Pool with BBII	Program Contingency		
	Total E = (A+D)	BBII Risk Pool (A)	Allocated (B)	Unallocated (C)	Subtotal D = (B+C)
PCEP Contingency	\$90,000,088	\$50,000,000	\$24,115,581	\$15,884,507	\$40,000,088
Drawn Contingency	(\$65,407,301)	(\$27,183,439)	(\$24,115,581)	(\$14,108,281)	(\$38,223,862)
Remaining Contingency	\$24,592,787	\$22,816,561	\$0	\$1,776,226	\$1,776,226
Pending Changes	(\$3,290,038)	(\$1,957,574)	\$0	(\$1,332,464)	(\$1,332,464)
Forecasted Remaining Contingency	\$21,302,749	\$20,858,987	\$0	\$443,762	\$443,762

## Contingency Management – Electrification

The global settlement with BBII included the establishment of a shared risk pool of \$50 million which is considered part of the PCEP contingency. Upon final acceptance of the work, any balance remaining in the pool will be shared equally between BBII and the JPB. The objective of this pool was to reduce the number of change orders and incentivize collaboration between the JPB and BBII. The pool consists of 27 identified risk items, each with a forecast risk amount, with an aggregate total of \$49.95 million, including \$12 million in contingency, plus one minor unidentified item valued at \$0.54 million. As changes are identified in the course of the work, they are added to an Issue Resolution Log (IRL), screened against the identified risk items, and negotiated by the parties. The cost of the change, as negotiated, is deducted from the appropriate shared risk item, or if outside the shared risk list, from project contingency. Table 5 provides final accounting of the shared risk pool money as presented in the Change Management Board (CMB) supplemental presentation dated January 3, 2025.

**Table 5 – Shared Risk Pool Summary (January 2025)**

<b>Description</b>	<b>Amount</b>
<i>Shared Risk Contingency Allowance</i>	<i>\$50,000,000</i>
<i>Fully Executed IRLs (projection)</i>	<i>\$30,110,111</i>
<i>Allowance Balance (projection)</i>	<i>\$19,889,889</i>
<i>Equal Share (projection)</i>	<i>\$9,944,944</i>
<i>IRL – Issue Resolution Log</i>	

### **Project Funding (Unchanged)**

The JPB approved a new budget of \$2.44 billion for the PCEP at its Special Meeting on December 6, 2021. That budget was supported by additional funding of \$462.4 million beyond the original funding plan which applied to the original project cost of \$1.931 billion. Figure 1 below is the awarded funding as of January 31, 2023. The approved budget is now fully funded.

**Figure 1 – PCEP Funding to Support Budget Increase**

<b>TYPE</b>	<b>SOURCE</b>	<b>AMOUNT</b>
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>

The following details relate to the successful funding strategy shown above.

### **Additional Federal Funding (Unchanged)**

The JPB received \$52.4 million in Supplemental Capital Investment Grant funds from the 2022 American Rescue Plan Act (ARPA). The JPB also received an additional \$43 million from the Consolidated Appropriations Act of 2023; \$33 million in supplemental FTA CIG FFGA funding, and \$10 million in Community Project funding.

### **California State Funding (Unchanged)**

The approved FY 2023 State budget included \$4.2 billion for high-speed rail and \$7.65 billion for transit. \$900 million was set aside for existing projects to leverage federal and local fund reserves. The PCEP was awarded \$367 million from the State of California's Transit and Intercity Rail Capital Program (TIRCP).

### **Original PCEP Funding Plan**

The PCEP relied on several sources of funding to complete the project. The Grants Table in the Executive Summary summarizes the JPB's funding plan, as updated through December 31, 2024. The updated funding plan includes the original FFGA funding of \$1,930.7 billion which included \$647 million in Section 5309 funds and \$287 million from the Section 5307 Urbanized Area Formula program. *The JPB has drawn down a total of \$2,298.097 million as of December 31, 2024, or 96% of the combined federal and local funds of \$2,393.351 million.* This total includes recently received funding from the State of California and \$43 million in new federal funds.

The JPB has in place an interim financing agreement for up to \$150 million to provide additional cash flow flexibility to address differences in the timing of contractor invoices and the availability of drawdowns from funding sources.

The State of California awarded the JPB a \$164.5 million grant in 2018 under its Transportation and Intercity Rail Capital Program (TIRCP). The grant will fund the purchase of additional EMUs using options included in the base contract with Stadler. The grant also includes targeted funding for 8-car platforms, improves wayside bicycle facilities (bike sharing and bike parking), and installs a broadband communications system that expands onboard Wi-Fi and enhances reliability by creating the capability to conduct remote diagnostics and optimize ongoing operations and maintenance.

### ***Change Orders***

PCEP Changes: *The Change Management Board (CMB) executed shared risk item IRL 330 Wayside Enclosure Stairs and approved shared risk IRL 398 – Non-Balfour Isolations in the amount of \$1.125 million drawn from the shared risk contingency allowance.*

Electrification Contract Changes: *The CMB approved two (2) change orders at its January 3, 2025 meeting. The first was to compensate BBII for costs incurred as a result of the March 2022 Incident. The second was for unanticipated escalation experienced by BBII that was not accounted for in the 2021 Global Settlement.*

*The PMOC understands that both of these items have been settled, however, they have not been executed as of January 18, 2025. The second change order exceeds the Executive Director’s contract authority and is expected to be authorized by the JPB Board at its February 6, 2025 meeting. These two change orders are expected to be the final change orders for the project and account in part for the likely drawdown of remaining contingency to effectively zero by the end of the project.*

EMU Contract Changes: No activity this period.

SCADA Contract: No activity this period.

Tunnel Contract Changes: No activity this period.

CEMOF Contract Changes: No activity this period.

PG&E Contract Changes: No activity this period.

## **2.14 Project Schedule**

The FFGA was executed on May 23, 2017, with a Required Completion Date of August 22, 2022. The JPB, following a December 2020 risk assessment, adopted the PMOC’s recommended date of September 26, 2024, as the revised Required Completion Date (RCD) for the project. The JPB did not formally adopt a particular schedule document when it approved the revised PCEP budget of \$2.44 billion at its December 6, 2021 meeting; however, the revised budget was based on completing the project by September 26, 2024. The JPB proposed an FFGA RCD of December 31, 2024, in its Recovery Plan submitted September 30, 2022. The FTA accepted the JPB’s Recovery Plan on November 28, 2023, which established December 31, 2024, as the RCD for PCEP.

### ***Infrastructure Schedule***

*BBII achieved Substantial Completion of its contract on May 3, 2024; Final Acceptance of the contract occurred on December 20, 2024. The Final Acceptance request included several attachments that describe work that remains to be completed with a projected completion date of September 1, 2025.*

The PCEP team, following the start of regular revenue service with the EMUs, revised its scheduling priorities to focus on the remaining rail activation activities post-electrification, the work remaining for BBII to achieve final acceptance, and Stadler’s remaining EMU production. The PCEP leadership recommended to its Change Management Board (CMB), at the October 16, 2024 meeting,

that the monthly schedule review meeting be discontinued as of the prior meeting on September 23, 2024. The CMB agreed and the meeting has been discontinued.

### **EMU Schedule**

The PCEP team accepted a re-baselined schedule from Stadler for the completion of the EMU order. Stadler’s re-baselined schedule was incorporated into the Integrated Project Schedule (IPS) and monitored regularly by the PCEP. The JPB began its soft start of revenue service on August 11, 2024 and gradually increased the number of EMUs in revenue service leading up to its grand opening on Saturday, September 21, 2024. Fully electrified revenue service on a new fall schedule is conducted using fourteen (14) trainsets plus one trainset in reserve. The 15<sup>th</sup> and 16<sup>th</sup> trainsets arrived on September 6, 2024, and were prepared for service and burned-in prior to the grand opening on September 21, 2024. Trainset 17 arrived on November 25, 2024, and completed its acceptance tests and burn-in and has joined the fleet and provides a second spare. *The final two (2) trainsets in the initial and first option orders are now expected to be delivered in April and June 2025.* TS-311, as noted earlier, was damaged and has been returned to the factory for repairs. *Stadler has updated its cost estimate and schedule for repair of TS-311 and its proposal is being reviewed by Caltrain.*

The JPB issued a change order for the installation of Broadband Wi-Fi equipment on the new EMUs. Part of the fleet is having the equipment installed by Stadler in Salt Lake City prior to shipment to JPB. The remaining units, including those that had been received by the JPB, were modified at the CEMOF prior to being placed into revenue service. All the EMUs being placed in revenue service have fully operational Wi-Fi. Caltrain reported that initially, the Wi-Fi experienced some gaps in coverage at various points along the 51-mile alignment and two (2) new antennas were installed to address the problem.

### **Schedule Incentives**

The JPB’s global settlement with BBII includes incentives for early completion of signal cutovers, early substantial completion, and early achievement of revenue service. The schedule incentives are shown in Table 6 below. The table has been updated to reflect expected awards.

**Table 6 – BBII Schedule Performance Incentives**

<b>Objective</b>	<b>Date of Completion</b>	<b>Amount</b>	<b>Awarded</b>
<b>Achieve Electrified Revenue Service prior to the Final Acceptance Date of July 31, 2024</b>	On or before 4/30/2024	\$3,000,000	\$1,000,000(P)
	Between 5/1 and 5/31/2024	\$2,000,000	
	Between 6/1 and 6/30/2024	\$1,000,000	
<b>Achieve Overall Substantial Completion prior to April 30, 2024</b>	On or before 3/31/2024	\$4,100,000	\$4,220,000(P)
	After 2/29 and before 3/31/2024	\$30,000/day	
	After 1/31 and before 2/29/2024	\$40,000/day	
	On or before 1/31/2024	\$50,000/day	
		<b>Max \$8,000,000</b>	
<b>Completion of all 2SC Cutovers in Segment 2</b>	On or before 11/10/2022		\$2,000,000
<b>Completion of 2SC cutovers in all 4 Segments</b>	On or before 9/30/2023		\$2,000,000
<b>Maximum Schedule Incentives Available</b>		<b>\$15,000,000</b>	<b>\$9,220,000(P)</b>

(P) JPB Projections

### **Revenue Service Date**

The JPB successfully conducted a “soft launch” of revenue service on August 11, 2024. Caltrain ran a single EMU trainset for invited guests from the downtown San Francisco station at 4<sup>th</sup> and King to the Millbrae station and returned on Saturday, August 10, 2024. Revenue service began on Sunday, August 11, 2024, with two (2) EMU trainsets replacing two (2) diesel hauled trainsets running the

current schedule. This process was repeated on the following four (4) Saturdays for a total of ten (10) EMU trainsets in revenue service. Caltrain inaugurated fully electrified service using fourteen (14) trainsets between San Francisco and San Jose on its new fall schedule beginning on September 21, 2024. *Diesel service is provided to serve the area between San Jose and Gilroy.*

The JPB planned to have two (2) spare EMUs available when full revenue service was initiated. This was not possible because of the damage to TS-311 and Stadler's inability to deliver a 17<sup>th</sup> trainset prior to the planned start of service. *Trainset number 17 arrived on November 25, 2024, and is now in revenue service; this provides a total of sixteen (16) operable trainsets to satisfy the operational requirement for fourteen (14) trains.* Caltrain reports that it was challenging to operate and maintain a fleet of new vehicles with only a single train in reserve.

### ***Project Completion Schedule***

The PCEP is a core capacity project. The core capacity completion objective was satisfied on September 21, 2024, when the JPB began operating a total of fourteen (14) seven-car trainsets in electrified service. The JPB, on August 21, 2023, requested a temporary waiver of the ridership Level of Service requirement in the FFGA; the FTA approved a three (3) year waiver of the level of service requirement on November 27, 2023. The Required Completion Date (RCD) for the PCEP under its FFGA is December 31, 2024. *The JPB has identified some grant funded activities that will not be complete by the RCD and the JPB has requested an extension to the FFGA closure date.*

Attachment G – Project Milestones / Key Events shows the projected and final dates for various significant project activities.

**PMOC Observations:** *The PMOC recommends that well qualified field and administrative staff be assigned to monitor the completion of BBII's remaining deliverables, and that BBII be required to provide competent supervision, including safety supervision of its remaining crews.*

- *The PMOC's opinion is that the drawdown in the number of project staff available to conduct final inspections of the completed work and review and oversee the transfer of custody of the required documentation and spare parts, may result in these efforts taking longer than expected to achieve the desired results.*
- The PMOC recommends that the JPB provide the Project Director with a highly qualified assistance and to assist with the remaining project activities.
- Pranaya Shrestha, the CalMod Chief Officer, is no longer assigned to the PCEP but is available to assist the Project on an as-needed basis.

## **2.15 Project Risk (*Unchanged*)**

The PCEP has been implementing its Risk Identification and Mitigation Plan (RIMP) since its development in 2014. The PCEP's Risk Management Lead conducts weekly updates of a sub-set of the Risk Register and the project's Risk Management Committee generally meets monthly to review those risks proposed for retirement, risks with a major change in severity, and proposed additions to the Risk Register. The Top Risks, with risk numbers, are shown in Attachment D.

**PMOC Note:** Risks graded 9 or higher are now considered Top Risks. Prior to the re-grading of the Risk Register, risks graded 18 or higher were considered Top Risks.

The JPB/PCEP leadership team conducted several risk workshops with BBII during the course of negotiating the global settlement. An internal PCEP risk refresh was conducted on September 28, 2021; the quantitative results of that effort have not been released. The Interim Chief Officer (ICO) also initiated an external peer review of project risk that was conducted on October 26-27, 2021. The

PMOC participated in both events. The JPB's most recent internal Risk Refresh Workshop was held on April 1, 2020.

### ***FTA Risk Refresh (2020)***

The PMOC conducted an FTA-led virtual Risk Refresh workshop on December 8, 10, 15, and 17, 2020. The objective of the Risk Refresh was to confirm the likelihood that the project could complete within its budget and in accordance with the FFGA schedule. As noted elsewhere in this report, the JPB accepted the PMOC's recommendations for a revised project budget and a new Recommended Completion Date for the project. The FTA, as a consequence of the results from the Risk Refresh and the project's history of schedule delays and cost overruns, designated the PCEP as an "At Risk" project. The FTA requested that the JPB prepare and submit a Recovery Plan for the PCEP by October 8, 2021. The JPB retained a new executive to lead the PCEP and conducted a comprehensive review of the project, including a risk refresh. The JPB requested additional time to prepare the Recovery Plan and the FTA agreed to defer receipt of the Recovery Plan. The JPB delivered its final Recovery Plan to the FTA on September 30, 2022. The FTA, as noted elsewhere in this report, accepted the JPB's Recovery Plan with a proposed RCD of December 31, 2024, in a letter dated November 28, 2023.

### ***Recent Risk Activities***

The PCEP's Risk lead re-ran the Monte Carlo Cost Risk model in May 2024 and reported that the direct cost of risk, to a probability of 65% (P65) was approximately \$6 million, a significant decrease from the \$21.7 million calculated in December 2023. No schedule risk results were reported.

The majority of the remaining open risks were retired by the Risk Management Committee at its September 16, 2024 meeting. The remaining risks will be handed back to the JPB for continued tracking and disposition by the appropriate departments. The top risk remains theft of copper impedance bonds.

- **PMOC Observation:** The start of electrified revenue service was a significant milestone and was accompanied by a further reduction in the PCEP's risk profile. The PMOC's opinion is that the risk management process used by the PCEP team was a significant addition to the overall management of the project. The PMOC recommends that the remaining risks be documented and systematically handed-off to those members of the Caltrain organization who are best in a position to address them.

## **2.16 Quality Assurance / Quality Control (QA/QC)**

The PCEP Quality team continued to work with its counterparts at BBII, and the PCEP technical leads, to resolve the remaining open items including Non-Conformance Reports (NCR) and Design Variance Requests (DVR) as part of the requirements for Final Acceptance. *Some of those items remained unresolved as of final acceptance on December 20, 2024 and are identified in the attachments to BBII's request for Final Acceptance discussed earlier.* The Quality team also assisted in providing documentation to the PMOC for preparation of its OP-54 Readiness for Service Review.

### **EMU Quality**

The PCEP continues to work with Stadler to improve their Salt Lake City based QC/QA processes. The focus is on workmanship issues and hold-point inspections. Quality and consistency have improved as the workforce has stabilized.

- **PMOC Observations and Recommendations:** *The PCEP's rail activation and systems integration teams merged following the start of revenue service and continued to meet weekly through December 2024. Those meetings have been discontinued and have been replaced by other formal and informal meetings of Caltrain's Rail Operations team and subject matter experts.*

## **2.17 Safety and Security (Unchanged)**

The JPB contracted for safety and security consulting services to support the PCEP. The PCEP safety team also provided support as needed to the JPB and its Director of Safety. The project safety professionals from the JPB, PCEP, TASI, and BBII collaborated on joint visits to the project work sites to demonstrate to the workers that the leadership of these organizations takes their safety seriously.

There was one (1) recordable injury (knee inflammation) in April 2024, one (1) recordable injury (finger injury) in July 2024, and one (1) recordable injury in August 2024. There were no additional accidents or incidents reported since the August 2024 accident. BBII's RIR for 2024 through November was 1.06; BBII's RIR from inception to date is 1.84 which is below the national average of 2.5.

The safety team completed training for first responders in the Caltrain corridor. Safety related information was shared with the public outreach team which continues to provide appropriate messaging to the general public now that electrified service has begun.

Theft of copper cables remains the top risk. The JPB has increased security and is working with local jurisdictions to prevent damage to its newly acquired EMUs and prevent theft of newly installed copper cables along the right-of-way. A number of portable light towers are being deployed at different locations accompanied by CCTV cameras. Additional security is also being installed at the 4<sup>th</sup> and King station. Caltrain engaged one of its bench contractors to design a more permanent solution to the cable theft problem, however, that effort has been discontinued and other methods are being employed.

## **2.18 Americans with Disabilities Act (ADA)**

Early in the development of the project, the PMOC raised a question regarding the need for the PCEP to demonstrate Equivalent Facilitation under the Americans with Disabilities Act (ADA) with respect to either the new EMU vehicles or the infrastructure. A conference call was held on November 6, 2015, between members of the PCEP team, FTA Region IX staff, the PMOC, and the FTA's Office of Civil Rights to discuss the issue. The representative of the Office of Civil Rights stated that based on information presented by PCEP's representatives, the project did not need to demonstrate Equivalent Facilitation because the current access to the vehicles would remain unchanged. This complies with the requirements of the ADA.

The new EMU vehicles are equipped with powered onboard lifts to aid passengers using mobility devices. The JPB requested the FTA's concurrence to reduce the number of onboard lifts from 32 per train set to 16 per train set and to phase the installation of the lifts. The JPB's proposal called for the initial installation of two (2) lifts per train set, one (1) each in the northernmost car and one (1) in the following car, which was equipped with an accessible restroom. The remaining four (4) lifts per train set will be installed prior to the start of blended service with the CHSRA trains.

The FTA, following its review of the JPB's proposal and further clarification provided by a conference call, concurred with the JPB's proposed reduction in the total number of passenger lifts

per train set. The phased installation of the lifts was also discussed along with associated grant timing considerations. Caltrain's Rail Operations Department requested the interim removal of the two (2) onboard lifts until the EMUs operate in blended service with the CHSRA trains. The justification for this request was that the space occupied by the onboard lifts would interfere with the movement of passengers using the stairs where the lifts are installed. Further, the accommodation of passengers using mobility devices and wishing to use the restroom can be accomplished by de-boarding the passenger and repositioning the train at any station, a procedure currently in use. The change was approved by the Change Management Board at its September 2019 meeting.

The new EMU vehicles were designed to comply with the FTA's current ADA requirements and the guidance in FTA Circular 4710.1.

The FRA conducted an on-site design review of EMU TS1 at Stadler's assembly facility in Salt Lake City, Utah in July 2020. During the review, the FRA expressed concerns related to possible interference between stored bicycles, passengers seated in the bike cars, and access to the emergency egress points in the bike cars. Stadler completed the design of the barrier, a Change Order was executed for the installation of the barriers, and the barriers have been installed on all trainsets. The FRA observed the new configuration of the bike cars during its Sample Car Inspection on February 16, 2022, and expressed no concerns or objections to the arrangement.

The JPB conducted a test on October 13, 2022 of the portable ADA ramp carried onboard each EMU trainset to facilitate the boarding of a passenger using a mobility device. The ramp exceeds current ADA load requirements and satisfied the test requirements.

The PCEP team discovered some locations where the gap between the station platform and the new EMU boarding threshold was longer than the portable ADA ramp. The PCEP team completed its survey of all of the station platforms and temporarily corrected the problem until new longer ramps were received from Stadler. *The prototype of the modified ramp was tested in December 2024 and new ramps are being produced and delivered to Caltrain.*

Work continues on the installation of additional mini-high block platforms at Caltrain stations to assist those passengers needing a level boarding condition. This work is more difficult than originally anticipated due to the presence of the OCS which interferes with the handling of construction materials. *The work is expected to be completed in January 2025.*

## **2.19 Buy America (Unchanged)**

The PMOC continues to review the JPB's compliance with Buy America (BA) requirements related to manufactured products and rolling-stock systems. The JPB provided documentation related to the compliance of its three (3) major contractors, and that material has been reviewed by the PMOC's Buy America experts.

The PMOC and its Buy America consultant met with the JPB/PCEP quality team and BBII representatives to discuss BBII's recent indented bill of materials beginning in April 2024. The PMOC's Buy America consultant provided guidance related to the appropriate classification of non-rolling stock systems materials compared to manufactured products, or items made of iron and steel. BBII continues to revise its classifications as appropriate and resubmit its documentation to the JPB for review. The JPB's Quality Manager is working with BBII to obtain copies of the required documentation before the contractor demobilizes.

The PMOC identified an issue with the fire alarm panels. BBII is claiming the panel is manufactured in the US, therefore, eliminating the requirement for 100% of the components/sub-components to be made in the US. BBII provided additional documentation to support this interpretation. The PMOC requested an informal review of this approach by the FTA, however, no response was received. *The*



*PMOC's Buy America consultant advised the JPB's quality team in December 2024 that additional documentation would be helpful to support the JPB's decision related to its Buy America compliance. No response has been provided as of January 30, 2025.*

The JPB's vehicle consultant conducted a Post-Delivery Buy America audit on June 28 and 29, 2022 and produced its audit report on July 11, 2022. The auditors found that the Stadler EMUs contain an average of 74.3% domestic content per seven-car trainset, which is more than the required 60% for this contract. The PMOC recommends that the JPB continue to monitor Stadler's Buy America performance through the completion of the order.

## **2.20 Start-Up, Commissioning, Testing (Completed)**

The JPB and PCEP team conducted several activities focused on the start-up and testing of both the infrastructure elements of the project as well as the EMU vehicles. Each of the three (3) primary contractors was responsible for developing and conducting tests and commissioning plans for its work elements. The PCEP team was responsible for the integration of the major elements and the overall start-up of electrified rail operations. The PCEP's Director of Systems Integration and Testing held weekly meetings with representatives of each discipline or technical leads from the various organizations. *The Systems Integration meeting was discontinued following the start of revenue service and the Director of Systems Integration participated in a weekly Post-Electrification meetings until they were discontinued in December 2024.*

*In summary, BBII achieved Substantial Completion on May 3, 2024. BBII completed power contingency tests on June 8 and 9, 2024 with eight (8) EMUs. The JPB successfully completed additional brake testing requested by the FRA on August 3, 2024, and Caltrain began a soft opening of revenue service on August 1, 2024.*

### **Electrification Contract (OCS, Traction Power, Signals and Communications)**

- *Final Acceptance of the Electrification contract between the JPB and BBII occurred on December 20, 2024. As noted earlier, there are a number of items that remain to be completed and a schedule for completion accompanied BBII's request for final acceptance.*
- The final inspection of the 51-mile corridor was completed in September 2024.
- Construction and testing of the OCS, Traction Power, Signals and Communications elements is complete with the exception of a small number of low-Voltage power cabinets.
- Training of operations and maintenance personnel in their specific disciplines has been completed.
- Operation and maintenance manuals, special tools and spare parts are being received, inventoried, and turned over to Caltrain Operations.
- A Safety and Security Certification Verification Report (SSCVR) was prepared and signed by the responsible parties and Caltrain's Executive Director Officer and was transmitted to the FTA on August 8, 2024. A revised final SSCVR will be issued when all remaining punch list/open items are mitigated or closed.
- Caltrain initiated fully-electrified service on a new Fall schedule with fourteen (14) EMUs on September 21, 2024, as required by its FFGA.

### **EMU Contract**

- Seventeen (17) EMUs have been delivered to the JPB and fourteen (14) are routinely in revenue service with the 15<sup>th</sup> and 16<sup>th</sup> trains in reserve.

- Installation of the Broadband Wi-Fi equipment is continuing in Salt Lake City and as necessary at the CEMOF.
- EMU trainset 311 was shipped to Stadler's assembly plant in Salt Lake City where Swiss structural engineers conducted inspections of the two (2) damaged coaches. The JPB recently decided that one damaged coach will be repaired and the other will be replaced due to the extent of the damage. *Stadler submitted an updated proposal and schedule for completing the repairs, and that document is being reviewed by the JPB. The repaired trainset is expected to return to Caltrain in early 2026.*
- Stadler also continues to conduct training of maintenance and operations personnel on the EMUs as different maintenance intervals are achieved.

### **SCADA Contract**

*Wabtec, which acquired ARINC in 2022, continues to support the Systems Integration and Rail Activation activities. Office SCADA is now operating in production mode. The SCADA contract was extended through December 2024 which allows the endurance and availability tests to be performed during Revenue Service before final acceptance of the field and office SCADA. Those tests were completed successfully and the final reports are being prepared.*

### **Readiness for Electrified Rail Operations)**

The JPB, following the start of fully-electrified rail operations on September 21, 2024, ended meetings of its Rail Activation Committee (RAC) following the Committee's meeting on September 26, 2024. *The activities of the RAC and the PCEP's Systems Integration team were combined and a new Post-Electrification meeting was held weekly until it was discontinued in December 2024.*

The Rail Activation Schedule developed by the RAC was integrated with the other project schedules such as Testing and Commissioning, Systems Integration, Electrification, EMU, and SCADA to provide a truly integrated project schedule. The RAC added details to the various activities required to ready Caltrain for electrified service as well as resolving any issues that required workarounds during the early days of revenue service. A generalized Rail Activation Schedule is shown in Attachment H-2.

The JPB conducted a rail activation risk assessment workshop on December 4, 2023. The PMOC encouraged this activity to take advantage of the prior experience of new personnel who have joined the project following the change in leadership in 2021. The PCEP's risk lead distributed questionnaires to the invitees and collected a considerable number of new potential risks, which were then discussed and elaborated on during the workshop. The designated risk owners reviewed and scored the assigned risks and developed mitigation strategies. The workshop focused on risks as viewed from the standpoint of Caltrain Rail Operations as opposed to the PCEP. Inter-related risks were identified and shared with PCEP, however, the two (2) risk registers remained independent. The RAC will complete the process of transitioning the remaining rail activation risks to Caltrain operations for continued monitoring or mitigation as appropriate.

## **2.21 Before-and-After Study Reporting**

The PMOC verified that the JPB prepared a Before and After (B&A) Study Plan during its evaluation of the PCEP's readiness to receive an FFGA. The B&A Plan was reviewed by FTA headquarters staff as part of the FFGA preparation process. The PMOC verified that the JPB has archived Before and After Documentation as of the Entry into Engineering (August 12, 2016). The materials were assembled according to the specifications in Appendix A of the Plan for the Before-and-After Study. The PMOC is in the process of verifying that the JPB has archived the required materials for

Milestone 2, FFGA award. *The JPB continues to assemble the documentation related to the completion of the construction of the project and start of electrified service including capital costs. The PMOC followed-up with the JPB to encourage early planning to address the “After” requirements of the plan.*

## **2.22 Lessons Learned**

The PMOC routinely encouraged the PCEP team to identify and document lessons learned during the course of the PCEP. The PMOC discovered, during a routine review using the PCEP document control system ACONEX, that a Draft Lessons Learned Log and two (2) examples of elaborated lessons learned had already been produced. Further inquiry produced the following information.

The PCEP Risk Manager conducted a series of interviews (not for attribution) with members of the PCEP team in 2018, with the objective of developing a list of Lessons Learned. The interviews produced a list of 35 issues which was distilled into two (2) issues for elaboration as an example of how the material could be further developed. The two topics that were further developed were Contractor Construction Work Windows and Land Acquisition Lesson Learned.

The Lessons Learned materials described above were reproduced as an attachment to the PMOC’s Final Monitoring Report under Task Order 005 which was submitted in June 2020.

The PCEP team, with encouragement from the PMOC, undertook a second round of lessons learned interviews. The interviews are complete, and the material has been compiled in the form of a summary table which was shared with the PMOC at QPRM #17 in July 2021. The JPB’s Risk Manager reports there is currently no plan to elaborate on the various Lessons.

The PCEP’s Director of Signal and Transmission Power reports that the signal team kept lessons learned for each signal cutover. Although many are site specific, it is likely that valuable trends will become apparent upon a comprehensive review.

The PCEP’s Program Director stated, in October 2024, that the JPB was committed to producing a substantive Lessons Learned report for the benefit of the JPB and the industry. That effort is underway. *The PMOC identified the following topics which, in the PMOC’s opinion, are worth analyzing for the final lessons learned report.*

### **General Planning of the PCEP**

- The JPB’s concurrent PTC contract had un-recognized implications for the Electrification contract and its grade crossing warning system. The end result was a large claim by BBII which likely could have been settled earlier if the PCEP had recognized the serious problems with the two-speed check solution and aggressively pursued alternate solutions.
- The SCADA requirements were overlooked during the planning of the project.
- The responsibility for systems integration of all project elements was not explicitly addressed during project planning. This resulted in the responsibility defaulting to the JPB which was not adequately equipped to respond and possibly inadequate contractual language in the construction contracts.
- The scope, cost and schedule for PG&E’s substation modifications was significantly underestimated. The JPB failed to understand the difficulty in working with PG&E and the impact of PG&E requirements for third-party work. The underestimation may have been caused by overly optimistic estimating process, misunderstanding of the scope of work, lack of communication with PG&E, or scheduling difficulties. The JPB should have engaged special

counsel prior to undertaking the project to advise on how best to work with PG&E and possible alternative options.

- The need for cooperation from the partner jurisdictions related to ROW acquisition should have been addressed in advance of undertaking the project. The refusal of the CCSF to provide eminent domain authority should have been identified in advance and might have resulted in a better outcome.
- Significant differing site conditions in old RR ROW and lack of appropriate contractor response to obstacles (prompt relocation of OCS locations). The differing site condition delays could have been avoided by appropriate preconstruction soil borings, adequate as built plans, and a better specification detailing responsibility for potholing and site investigation.
- The difficulty of constructing the PCEP while maintaining regular railroad operations was underestimated and despite an attempt to devise a segmented approach, the result was very significant track access delay claims throughout the life of the project.
- The Sponsor failed to adequately consider the changes needed for CEMOF to accommodate an electrified fleet, and a longer overall train length, and the budget was for CEMOF improvements was inadequate.

### **Management Capacity and Capability**

- The Sponsor lacked recent experience with the FTA's Capital Investment Grant process related to large complex projects.
- Leadership under-resourced project controls, especially schedule support, throughout the project. Lack of accepted schedules and failure to identify the controlling schedule operation allowed contractor to claim delay. The Sponsor also failed to consider the contractors' lack of adequate progress as a warning sign and respond with adequate direction.
- There was limited sponsor personnel assigned to the project throughout its life, and those personnel lacked experience on a project of this scope. Perhaps the sponsor believed that a design-build project transfers all risk to contractor, and therefore, minimal sponsor oversight is necessary.
- The lack of prompt decision making by the Sponsor was identified as a significant risk prior to the commencement of construction. This problem was apparent throughout the life of the project
- The PCEP's Funding Partners implemented an oversight protocol that consisted of regular monthly meetings with the PCEP's leadership. This meeting evolved into the Change Management Board (CMB) which had authority to review and vote on contract changes or other expenditures that exceeded a specific threshold. The composition of the CMB was initially contentious but those difficulties were resolved. The CMB played an important role in holding the PCEP's leadership accountable for its actions.
- The leadership of the PCEP changed several times during the course of the project, including a complete change in mid-2021. These changes had varied impacts on the project staff and also on the relationships with the major consultants and contractors.

### **D-B Contract Lessons**

- The PCEP team did not have a clear understanding of how to effectively manage a major design-build contract, including the proper role of the owner's quality team and how best to enforce quality specifications.

- The design-build contract did not effectively address the contractor's responsibility for timely delineation of additional ROW during the design process.
- The receipt of only two bids on the design-build contract coupled with significantly higher than expected pricing, resulted in a pre-award scope reduction with substantial consequences.

### **Problems Managing the Work**

- Early field work on potholing and OCS foundation construction was managed primarily by BBII's subcontractors with few and mostly inexperienced BBII field staff.
- Electrical union work rules prevented BBII's work in rainy conditions. This issue should have been identified in the contract and mitigated either through contract language or a separate agreement with the electrical union.
- BBII filed multiple notice of schedule-related claims which were not addressed quickly. The claims quickly grew into a complex dispute with unilateral cancellation of the Dispute Review Board by the JPB which then invoked mediation which was prolonged and unsuccessful. The serious schedule impacts were ultimately recognized and resulted in the FTA declaring the PCEP "At Risk," a wholesale change in the PCEP's leadership, and the negotiation of a \$347 million Global Settlement with BBII.
- An independent schedule review by Secretariat provided minimal help in BBII dispute
- A major partnering initiative following the global settlement and PCEP leadership change which included both BBII and JPB leaders helps improve the relationship with BBII.
- Equipment degradation occurred because of overall schedule delays and went unrecognized until startup and testing, e.g., substation battery failures prior to initial energization.
- BBII's efforts to improve OCS construction productivity was ineffective, due in part to the lack of experienced workers. This resulted in hiring a subcontractor to bring experienced crews to complete portions of the work.

## Attachment A List of Acronyms (*Unchanged*)

Acronyms	List of Terms
2SC	Two Speed Check Grade Crossing Approach Warning System
ADA	Americans with Disabilities Act
ARINC	Aeronautical Radio, Incorporated
ATP	Alternate Technical Proposal
BBII	Balfour-Beatty Infrastructure, Inc.
BCCF	Back-up Central Control Facility
BEMU	Battery Electric Multiple Unit
Cal/OSHA	California Office of Occupational Safety and Health
Caltrans	California Department of Transportation
CAR	Corrective Action Request
CC	FTA's Core Capacity Improvement Program
CCF	Central Control Facility
CCSF	City and County of San Francisco
CDR	Construction Discrepancy Report
CDRL	Contract Data Requirements List
CEMOF	Central Equipment Maintenance and Operations Facility
CHSRA	California High-Speed Rail Authority
CIG	FTA's Capital Investment Grant Process
CIL	Certifiable Items List
CMB	Change Management Board
CM/GC	Construction Manager/General Contractor
CNPA	Concurrent Non-Project Activity
CO	Change Order
CO	Chief Officer (CalMod)
COC	Certificate of Operational Conformance
CP	Control Point
CPUC	California Public Utilities Commission
D-B	Design-Build
DBB	Design-Bid-Build
DBE	Disadvantaged Business Enterprise
DQCP	Design Quality Control Process
DVR	Design Variance Request
EA	Environmental Assessment
EAC	Estimate at Completion
EE	Entry into Engineering
EEPS	Enhanced Employee Protection System
EOR	Engineer of Record
EOTP	Equivalent One Time Payment (PG&E)
EMI	Electromagnetic Interference
EMU	Electric Multiple Unit Rail Vehicle
EPREP	Emergency Preparedness Plan
ESZ	Electrical Safety Zone
FA	Final Acceptance
FAI	First Article Inspection
FD	Final Design
FFGA	Full Funding Grant Agreement
FLSC	Fire Life Safety Committee
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	Fiscal Year
IBOM	Indented Bill of Material

Acronyms	List of Terms
ICO	Interim Chief Officer
IMS	Integrated Master Schedule
IPS	Integrated Project Schedule
IRL	Issue Resolution Log
JPB or PCJPB	Peninsula Corridor Joint Powers Board
Jacobs	Jacobs Project Management Company
KKCS	Kal Krishnan Consulting Services, Inc.
LF	Linear Feet
MCC	Management Capacity and Capability
MCS	Modern Communications Systems
MOW	Maintenance of Way
<i>MP&amp;E</i>	<i>Motive Power and Equipment Division (FRA)</i>
MPS	Master Project Schedule
MRR	Material Receiving Report
NCR	Non-conformance Report
NEPA	National Environmental Policy Act
NTP	Notice to Proceed
NTSB	National Transportation Safety Board
OCS	Overhead Contact System/Overhead Catenary System
OHA	Operational Hazard Analysis
PCEP	Peninsula Corridor Electrification Program
PD	Project Development Phase
PG&E	Pacific Gas and Electric
PHA	Preliminary Hazard Assessment
PGHW	PGH Wong
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
PRO	Pre-Revenue Operations Plan
ProVen	ProVen Management, Inc.
PS	Paralleling Station for Traction Power Supply
PTC	Positive Train Control
PTCSP	Positive Train Control Safety Plan (FRA)
PTEPP	Passenger Train Emergency Preparedness Plan
QA	Quality Assurance
QAP	Quality Assurance Plan
QC	Quality Control
QMP	Quality Management Plan
QPRM	Quarterly Progress Review Meeting
RAC	Rail Activation Committee
RAMP	Real Estate Acquisition and Management Plan
RAP	Rail Activation Plan
RCD	FFGA Required Completion Date
RE	Resident Engineer
RFA	Request for Amendment
RFI	Request for Information
RFMP	Rail Fleet Management Plan
RFP	Request for Proposal
RIMP	Risk Identification and Mitigation Plan
RIR	Recordable Incident Rate (Safety)
ROW	Right of Way
RSD	Revenue Service Date or Revenue Service Demonstration
RWP	Roadway Worker Protection
SamTrans	San Mateo County Transit District
SCADA	Supervisory Control and Data Acquisition

Acronyms	List of Terms
SCC	Standard Cost Category
SCDT	Santa Clara Drill Track
SCVTA/VT A	Santa Clara Valley Transportation Authority
SF	City of San Francisco
SHPO	State Historic Preservation Office
SIT	System Integrating Testing
SLC	Salt Lake City
SONO	Statement of No Objection
SP	Southern Pacific Transportation Company
SSCP	Safety and Security Certification Plan
SSCVR	Safety and Security Certification Verification Report
SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSWP	Site Specific Work Plan
SWS	Switching Station
TASI	Transit America Services, Inc.
TIRCP	Transportation and Intercity Rail Capital Program
TLOA	Transmission Load Operating Agreement
TPS	Traction Power System
TPSS	Traction Power Substation
TrAMS	Transportation Award Management System
TUN/TUP	Temporary Use Notice/Temporary Use Permit
TVA	Threat and Vulnerability Analysis
UPRR	Union Pacific Railroad
UK	United Kingdom
VAT	Vehicle Acceptance Test
VE	Value Engineering
VECP	Value Engineering Change Proposal
VT A	Santa Clara Valley Transportation Authority
WPC	Wayside Power Cubicle
YOE	Year of Expenditure



## Attachment B Safety and Security Checklist (*Unchanged*)

Safety and Security Checklist			
<b>Project Overview</b>			
Project Mode	Commuter Rail		
Project Phase	FFGA – Revenue Service Operations		
Project Delivery Methods	Design-Build, Design-Bid-Build		
<b>Project Plans</b>	<b>Version</b>	<b>Review by FTA</b>	<b>Status</b>
Safety and Security Management Plan (SSMP)	Rev 8	Y	Rev. 8 was approved by PCEP on 6/5/2023 and provided to the PMOC for review.
Safety and Security Certification Plan (SSCP)	Rev 0 Rev 2 Rev F	N	SSCP, Rev. 0, dated October 21, 2015. Stadler Vehicle Safety and Security Certification Plan, Rev. F, dated April 5, 2019; BBI SSCP, Rev. 2, dated July 17, 2017
System Safety Program Plan (SSPP)	Rev 1	N	Rev. 1 was approved by PCEP on 3/4/2021 and submitted to FRA on June 6, 2024, for approval.
System Security Plan or Security and Emergency Preparedness Plan (SEPP)	Rev 0	N	SSP was audited by CPUC in March 2021 with no findings
Construction Safety and Security Plan (CSSP)	V3 Part C of SPs		In Contract Documents
Safety and Security Checklist			
<b>Area of Focus</b>		<b>Y/N</b>	<b>Notes/Status</b>
<b>Safety and Security Authority</b>			
Is the project sponsor subject to 49 CFR Part 659 state safety oversight requirements?		Y	
Has the state designated an oversight agency as per 49 CFR Part 659.9?		Y	California Public Utilities Commission is SSOA; the FTA certified California's SSOA program on October 23, 2018.
Has the oversight agency reviewed and approved the project sponsor's Security Plan or SSPP as per 49 CFR Part 659.17?		Y	CPUC audited the System Security Plan in March 2021; there were no findings.
Did the oversight agency participate in the last Quarterly Review Meeting?		N	QPRM No. 27 was held on July 16, 2024. The FTA determined that no more QPRM's are necessary.

### Safety and Security Checklist

Area of Focus	Y/N	Notes/Status
Has the project sponsor submitted its safety certification plan to the oversight agency?	Y	SSCP, Rev. 0, dated October 21, 2015. Stadler Vehicle Safety and Security Certification Plan, Rev. F, dated April 5, 2019; BBI SSCP, Rev. 2, dated July 17, 2017
Has the project sponsor implemented security directives issued by the Department of Homeland Security and/or Transportation Security Administration?	Y	No directives have been received at this time. Caltrain's Safety and Security Department is the direct contact for DHS. The JPB's Information Technology network administrators receive periodic updates on cyber-security risks from the Cybersecurity & Infrastructure Security Agency (CISA) and implement appropriate actions to respond to those risks.
<b>SSMP Monitoring</b>		
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this	Y	Rev. 8 was approved by PCEP on 6/5/2023 and provided to the PMOC for review.
Does the project sponsor review the SSMP and related project plans to determine if updates are necessary?	Y	
Does the project sponsor implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	Y	In the SSMP and Section 11.0 of the PMP.
Does the project sponsor maintain a regularly scheduled report on the status of safety and security activities?	Y	Safety & Security activities are reported in the monthly PCEP report.
Has the project sponsor established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y	Section 3.0 of SSMP
Does the project sponsor update the safety and security responsibility matrix/organizational chart as necessary?	Y	
Has the project sponsor allocated sufficient resources to oversee or carry out safety and security activities?	Y	
Has the project sponsor developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	Y	Updated PHA and OHA documents have been prepared and reviewed by PCEP. The PHA and OHA are finalized and included in the SSCVR.

## Safety and Security Checklist

Area of Focus	Y/N	Notes/Status
Does the project sponsor implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	Y	Yes, in Safety and Certification Committee meetings which started in December 2016 on a project level and through our “Capital Safety Committee” which meets quarterly. In addition, meetings are conducted with the contractor monthly to review project incidents, lessons learned, hazards, vulnerabilities, and mitigations. IndustrySafe is also being used to track safety activities.
Does the project sponsor monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Yes, through the Safety & Security Certification Committee and the Fire/Life Safety Committee which are ongoing committees throughout the life of the project.
Does the project sponsor ensure the conduct of preliminary hazard and vulnerability analyses? Please specify the analyses conducted.	Y	<i>Updated PHA and OHA documents were prepared and review by the D-B contractor and submitted to the JPB prior to initiation of revenue service.</i>
Has the project sponsor ensured the development of safety design criteria?	Y	
Has the project sponsor ensured the development of security design criteria?	Y	
Has the project sponsor ensured conformance with safety and security requirements in design?	Y	Design Criteria checklists have been developed and reviewed by the Safety & Security Certification Review Committee.
Has the project sponsor verified construction specifications conformance?	Y	All facets of the Electrification construction are completed, OCS, TPS, Signals, and Communication.
Has the project sponsor identified safety and security critical tests to be performed prior to passenger operations?	Y	All safety and security critical test are completed and documented in the SSCVR.
Has the project sponsor verified conformance with safety and security requirements during the testing, inspection, and start-up phases?	Y	Conformance was verified during the rail activation phase, and included testing, and inspections during the pre-revenue and the simulated revenue phases.
Has the project sponsor evaluated change orders, design waivers, or test variances for potential hazards and/or vulnerabilities?	Y	Through the Change Management Board.
Has the project sponsor ensured the performance of safety and security analyses for proposed workarounds?	Y	This is included in the Rail Activation Committee scope during testing/startup activities. BBII’s Safety & Security Certification flow chart identifies the process. All the safety and security analyses are completed and included in the SSCVR.

## Safety and Security Checklist

Area of Focus	Y/N	Notes/Status
<p>Has the project sponsor demonstrated through meetings or other methods the integration of safety and security in the following?</p> <ul style="list-style-type: none"> <li>• Activation Plan and Procedures</li> <li>• Integrated Test Plan and Procedures</li> <li>• Operations and Maintenance Plan</li> <li>• Emergency Operations Plan</li> </ul>	Y Y Y Y	A Rail Activation Plan has been prepared and has been revised to include more operational details. The Rail Activation Committee has been meeting regularly since May 2019 and a Rail Activation Schedule has been prepared and an Integrated Test Plan and Procedures developed. A Rail Activation Risk Workshop was held on December 5, 2023.
Has the project sponsor issued the final safety and security certification?	Y	The project is in the testing and commissioning phase. The required completion date has been revised to 12-31-2024. SSCVR: 08/06/2024 Update - The SSCVR has seven (7) open items documented with workarounds on the SOIL table.
Has the project sponsor issued the final safety and security verification report?	Y	SSCVR: 08/06/2024 Update - The SSCVR has seven (7) open items documented with workarounds on the SOIL table.
<b>Construction Safety</b>		
Does the project sponsor have a documented/implemented Contractor Safety Program with which it expects to comply?	Y	The Design/Build contractor's "Construction Safety Program" and "Health and Safety Plan" have been accepted.
Does the project sponsor's contractor(s) have a documented company-wide safety and security program plan?	Y	System Safety Plan submitted and Approved 2/1/2017. An update was provided on 6/28/21.
Does the project sponsor's contractor(s) have a site-specific safety and security program plan?	Y	Rev. 2 submitted and Approved 12/9/2016
How do the project sponsor's OSHA statistics compare to the national average for the same type of work?		There was one (1) recordable incident in August 2024 for a total of three (3) thus far in 2024. BBII's Recordable Incident Rate (RIR) for 2024 is 1.21. BBII's RIR from inception to date is 1.85 and remains below the national average of 2.5.
If the comparison is not favorable, what actions are being taken by the project sponsor to improve its safety record?		The D-B contractor reviews all incidents with its employees at its monthly safety meetings.
<b>Federal Railroad Administration</b>		
If a shared track, has the project sponsor submitted its waiver request application to FRA? (Please identify specific regulations for which waivers are being requested.)	Y	FTA approved, by letter dated 2-8-2024, the JPB's request to extend the existing waiver for the Stadler KISS units for the life of the equipment as discussed in Docket Number FRA-2018-0067.

### Safety and Security Checklist

Area of Focus	Y/N	Notes/Status
If a shared corridor, has the project sponsor specified specific measures to address safety concerns?	Y	<i>Caltrain submitted an updated Emergency Preparedness Plan (EPREP) to the FRA and the FRA conducted an on-site audit in January 2025. The FRA must conclude its review of the JPB's documents and conduct a 238-equipment inspection before the audit can be closed-out.</i>
Is the Collision Hazard Analysis underway?	Y	Car body testing and Collision Analysis have been completed and the report sent to FRA.
Other FRA required Hazard Analysis – Fencing, etc.?	TBD	This is an operating ROW, and no service change is expected. Additional right of way fencing has been installed.
Does the project have Quiet Zones?	TBD	This is an operating ROW, and no service change is expected.
Does FRA attend the Quarterly Review Meetings?	N	QPRM No. 27 was held on July 16, 2024. The FTA determined that no more QPRM's are necessary.

### Attachment C Action Items (*Unchanged*)

The following table presents the open Action Items as of the date this report was prepared. 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.	<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>	August 2024	Cocke	<p>All cutovers have been completed.</p> <p>The JPB decided to separate the RFA for the 2SC and Crossing Optimization Process from another pending RFA that requires FRA's approval to begin electrified revenue service. The RFA described in this Action Item was submitted in draft form to the FRA shortly after fully-electrified service started. The final will be submitted after the FRA responds to the draft.</p>

## Attachment D Top Project Risks (September 2024) (*Unchanged*)

The Risk Management Committee met for the final time on September 16, 2024. The Committee retired many of the remaining risks based on the system having achieved a soft-start of revenue service in August 2024. The descriptions for the remaining risks will be updated and the risks passed to the JPB for monitoring and response by the JPB. The top risks are all risks that have been on the register for some time but have risen to the top as others have been retired. The highest grade for the top four risks is 3. Changes from the prior report are indicated in italics.

Risk No.	Risk Category		Risk Description	Status
	Cost	Sched.		
106		X	Contractor may not retain sufficient resources to complete remaining work (e.g., close-out and punch list work).	BBII adding additional OCS resources and equipment JW 9/14/22
209	X	X	TASI may not have sufficient field support resources (RWIC, watchmen, flaggers, signal maintainers) for testing.	1. Maintain ongoing dialogue with TASI regarding requirements of contractors. - In progress 2. Issue advance notice to TASI to enable them to adjust to changes in the construction schedule.
278	X	X	Failure of D/B contractor and subcontractors and suppliers to meet final Buy America audit.	
354		X	Improper installation and commissioning of breakers in control buildings may result in SF6 gas leaks at some TPF locations.	1. Bring vendor onsite to evaluate the situation. 2. Perform repairs based on vendors recommendation. 3. Equipment will not be energized unless the correct amount of SF6 gas is in the equipment.
<b>Top four (4) risks as listed on the Risk Register presented during the Change Management Board meeting on September 18, 2024.</b>				

## Attachment E Awarded Contracts

*The following tabulation of awarded contracts is through November 30, 2024.*

Contractor Name	Contract Value
4 IMPRINT	\$10,029.00
ACCOUNTING PRINCIPALS	\$82,337.77
ADMARK PROMOTIONAL MARKETING	\$37,175.54
AGC DATA CABLING	\$15,560.53
ALVES ALONGI PROPERTIES	\$5,000.00
AMERICAN REPROGRAPHICS COMPANY, LLC	\$2,868.29
AMTRAK	\$268,279.50
ARC DOCUMENT SOLUTIONS, LLC	\$1,363.00
A-RENT TEST EQUIPMENT LLC	\$5,409.90
ARES PROJECT MANAGEMENT LLC	\$227,070.12
ARINC	\$447,248.30
ARINC INCORPORATED	\$5,523,853.39
ASSOCIATED RIGHT OF WAY	\$1,525,389.50
ASSOCIATED SECURITY ALARM CO.	\$645.62
AT&T	\$17,361.32
AT&T DATACOMM	\$298.74
AT&T GLOBAL SERVICES, INC.	\$0.00
AURIGA CORPORATION	\$24,841.16
B & G TRANSPORTATION GROUP, LLC	\$13,800,833.84
B & H PHOTO & ELECTRONICS CORP	\$8,942.33
BAILEY SPECIALITY CRANES & AERIALS LLC	\$267,400.00
BALFOUR BEATTY INFRASTRUCTURE, INC	\$1,097,149,880.96
BAY ALARM COMPANY	\$13,385.34
BAY AREA AIR QUALITY MANAGEMENT DISTRICT	\$2,129.50
BAY AREA RAPID TRANSIT (BART)	\$77,056.50
BELMONT, CITY OF	\$25,000.00
BENDER ROSETHAL, INC.	\$1,887,976.74
BOYDEN GLOBAL EXECUTIVE SEARCH	\$69,353.00
BRISBANE, CITY OF	\$25,000.00
BURLINGAME PARKS & RECREATION	\$2,044.56
BURLINGAME WATER OFFICE	\$1,462.81
BURLINGAME, CITY OF	\$184,055.00
BURNS, MICHAEL	\$303,481.29
CALIFORNIA DEBT & INVESTMENT ADVISORY	\$3,000.00
CALIFORNIA DEPARTMENT OF FISH & WILDLIFE	\$421.00
CALIFORNIA STATE TREASURER'S OFFICE	\$624,050.00
CARAHISOFT TECHNOLOGY CORP	\$672,949.18
CDM SMITH, INC.	\$1,228,957.33
CDW GOVERNMENT	\$179,135.00
CDW GOVERNMENT, INC.	\$228,696.77
CELTIS	\$235,704.15



CHARIOT UNLIMITED, LLC	\$20,000.00
CHICAGO TITLE COMPANY	\$642,077.40
Christopher J. Marchese Jr.	\$100,000.00
CISCO WEBEX LLC	\$3,618.10
City and County of San Francisco- SFPUC	\$12,588.00
CITY AND COUNTY OF SF	\$1,983.15
CITY OF SAN MATEO	\$37,085.95
CITY PRINT & MAIL	\$2,578.36
CLARKE PROGRAM MANAGEMENT LLC	\$48,450.00
CMC TRAFF-001	\$5,168.50
COMCAST	\$2,371.93
COMPETITIVE POWER SOLUTIONS, INC	\$99,900.00
COMPUCOM SYSTEMS, INC.	\$1,627,504.82
COMPUTER EXTRA EXPRESS	\$963.16
CONSOLIDATED ENGINEERING LABORATORIES	\$29,824.96
Contruent LLC	\$30,607.33
COUNTY OF SAN MATEO	\$17,800.00
Dakota Press Inc	\$5,850.47
DAVIS WRIGHT TREMAINE LLP	\$295,837.50
DCONSULT, LLC.	\$2,471,349.92
DELL MARKETING L.P.	\$85,390.93
DESIGN-BUILD INSTITUTE OF AMERICA	\$21,850.00
DIAMOND DISCOVERY SOLUTIONS, LLC	\$17,033.30
DLT SOLUTIONS, LLC	\$1,241,700.75
Eastern Co	\$10,340.00
El Camino Aquiuision Co. LLC	\$957,827.08
ELITE PROMO	\$18,930.00
ESSENCE PRINTING, INC.	\$14,570.47
EYEKICK VISUAL, LLC	\$42,126.92
FABBRO, MOORE & ASSOCIATES, INC.	\$4,900.00
FAST SIGNS OF REDWOOD CITY	\$892.05
FEHR & PEERS	\$491,831.10
FIRST AMERICAN TITLE COMPANY	\$4,609,074.60
Fong Brothers Printing	\$7,407.86
GANNETT FLEMING TRANSIT & RAIL SYSTEMS	\$67,743,400.00
GANNETT FLEMING, INC.	\$285,840.84
GERALD THOMAS	\$1,250.00
GRANITE CONSTRUCTION COMPANY	\$367,028.00
HATCH ASSOCIATES CONSULTANTS	\$2,216,434.03
Hatch Associates Consultants, Inc	\$11,314,852.38
HATCH ASSOCIATES CONSULTANTS, INC.	\$357,572.54
HDR ENGINEERING, INC.	\$180,058.53
HEALTH EDUCATION SERVICES	\$4,781.75
HENRY SPOTO, JR.	\$16,125.00
HNTB CORPORATION	\$11,683,319.19

ICF JONES & STOKES, INC.	\$5,533,448.70
INTEGRATED COPY SOLUTIONS, INC.	\$1,322.18
INTELLIBRIDGE PARTNERS, LLC	\$56,644.01
INTERVISION SYSTEMS LLC	\$2,216.00
IQHQ, L.P.	\$299,462.25
J J & W, LLC	\$5,000.00
J KAEUPER & COMPANY	\$6,500.00
JACOBS ENGINEERING GROUP INC.	\$378,397.07
JACOBS PROJECT MANAGEMENT CO.	\$35,500,000.00
Jacobs Project Management Company	\$954,644.76
JBR PARTNERS, INC	\$899,095.63
JOSE MILLAN	\$38,397.50
JPMORGAN CHASE BANK, N.A.	\$7,466,394.00
KAREN ANTION CONSULTING, LLC	\$31,582.85
KARI BYRON PRODUCTIONS, INC	\$5,000.00
KARL NIELSEN	\$20,631.00
KONICA MINOLTA BUSINESS SOLUTIONS, USA	\$71,908.19
KTEK PRODUCTS & SYSTEMS, INC.	\$10,704.30
LOOP TRANSPORTATION, INC.	\$750,000.00
LTK CONSULTING SERVICES, INC.	\$29,177,672.96
LUA'S BUILDING SERVICES INC.	\$880.00
MATCHES INTERPRETING LLC	\$22,000.00
MCGUIRE WOODS LLP	\$77,029.50
MCKENNEY BUENROSTRO, MICHELLE	\$61,250.00
MEGA EVENT PRODUCTION	\$3,000.00
MENLO PARK, CITY OF	\$102,800.00
MILLBRAE, CITY OF	\$26,200.00
MILLER STARR REGALLIA	\$9,901.00
MILLERS VIINYL GRAPHICS	\$15,837.47
MILLERS VINYL GRAPHICS & EMBROIDERY	\$9,827.34
MITSUI & CO. (U.S.A.), INC.	\$270,000.00
MNS ENGINEERS, INC.	\$1,093,716.58
MODIS	\$198,165.00
MOUNTAIN VIEW, CITY OF	\$395,258.00
NANCY WHELAN CONSULTING, LLC.	\$352,181.85
NC 2121 SEC VENTURES LLC	\$4,393,327.47
NORMAN E. MATTEONI ATTORNEY BAR TRUST	\$2,016,000.00
NORTH AMERICAN TITLE	\$37,160.50
NOSSAMAN, LLP	\$245,877.22
NWC PARTNERS, INC.	\$36,683.56
OFFICE DEPOT	\$20,102.95
OFFICEMAX	\$37,590.82
OLSON REMCHO	\$290,000.00
ONECLICK MOVING SERVICES LLC	\$11,868.00
ORG METRICS	\$257,320.00

ORRICK, HERRINGTON & SUTCLIFFE LLP	\$565,701.25
PACIFIC GAS & ELECTRIC COMPANY	\$510,745.00
PACIFIC GAS & ELECTRIC COMPANY - SA scopes	\$124,106,400.00
PALO ALTO, CITY OF	\$78,220.80
PRICE FORBES & PARTNERS, LTD	\$2,804,082.05
PROVEN MANAGEMENT, INC. - Tunnel scope	\$47,059,351.90
PROVEN MANAGEMENT, INC. - SSF scope	\$1,866,575.18
PROVEN MANAGEMENT, INC. - CEMOF scope	\$9,476,816.16
PUBLIC FINANCIAL MANAGEMENT, INC.	\$198,782.42
QUENCH USA, INC.	\$7,938.08
RAIL SURVEYORS AND ENGINEERS, INC.	\$10,676,340.90
RAILPROS FIELD SERVICES, INC.	\$25,000.00
READY REFRESH	\$117.26
RECOLOGY GOLDEN GATE	\$3,450.67
REDWOOD CITY, CITY OF	\$44,600.00
REMY MOOSE MANLEY, LLP	\$15,307.93
RICHARD CLARK	\$9,652.50
RREF III-P TOWER PLAZA LLC	\$4,234,673.53
SAN BRUNO, CITY OF	\$25,000.00
SAN CARLOS, CITY OF	\$25,000.00
SAN FRANCISCO BAY REGIONAL WATER QUALITY	\$2,622.00
SAN FRANCISCO, CITY AND COUNTY OF	\$190,000.00
SAN JOSE, CITY OF	\$107,000.00
SAN LUCAR PROPERTIES LLC	\$5,000.00
SAN MATEO COUNTY SHERIFF	\$58,850.05
SAN MATEO COUNTY TRANSIT DISTRICT	\$4,004,339.48
SAN MATEO, CITY OF	\$34,000.00
SAN MATEO, COUNTY OF	\$25,755.07
SANTA CLARA VALLEY TRANSPORTATION	\$355,192.11
SANTA CLARA VALLEY WATER DISTRICT	\$250.00
SANTA CLARA, CITY OF	\$73,129.90
SANTA CLARA, COUNTY OF	\$34,000.00
SEARCHPROS STAFFING LLC	\$12,791.63
SFO AIRPORTER, INC.	\$878,507.03
SHAMROCK MOVING & STORAGE, INC.	\$15,033.65
SHI INTERNATIONAL CORP.	\$1,228.27
SHIMMICK/DISNEY JOINT VENTURE	\$2,394,254.42
Shred It USA	\$2,902.64
SHRED-IT USA	\$1,760.75
SIEMENS INDUSTRY INC	\$2,517.50
SIGNET TESTING LABS, INC.	\$20,957.25
SKBGS I, L.L.C.	\$352,288.00
SMITH ASSOCIATES	\$14,500.00
SOCIAL GOOD FUND, INC	\$3,000.00
SOUTH SAN FRANCISCO, CITY OF	\$34,000.00

SPOSETO ENGINEERING, INC	\$59,852.28
SPRINT	\$153,237.62
Sprint Communications	\$70,000.00
STADLER US INC	\$564,986,270.86
STANTEC CONSULTING SERVICES, INC.	\$975,910.89
STANTEC-SYSTRA JOINT VENTURE	\$132,750.21
STATE OF CALIFORNIA	\$3,629,200.00
STEPHENS & STEPHENS XV, LLC	\$5,000.00
SUNNYVALE, CITY OF	\$59,800.00
T&S MAINTENANCE CO., LLC	\$36,655.25
TARGET CORPORATION	\$45,600.00
Taylor Coleman Properties	\$15,840.42
TBC SAFETY-001	\$438.61
TCS	\$2,250.00
TELLUS SOLUTIONS, INC.	
TELLUS SOLUTIONS, INC.	\$58,656.00
TERMINIX INTERNATIONAL	\$6,534.90
THE LOUIS BERGER GROUP INC	\$59,628.43
THOMAS, GERALD D.	\$2,500.00
THOR AUDIO SOLUTIONS	\$27,700.00
TOWNSEND AND STYER MAINTENANCE CO	\$2,065.00
TRANSITAMERICA SERVICES, INC. - Other scopes	\$145,996,670.38
TRANSITAMERICA SERVICES, INC. - Santa clara drill track	\$301,341.00
TWIN RIVERS PROFESSIONAL TREE CARE INC.	\$2,625.00
U.S. BANK	\$14,465.78
Union Pacific Railroad Company	\$1,385,506.49
UNION PACIFIC RAILROAD CORP.	\$100,131.30
United Site Services of California	\$10,910.14
UNITED SITE SERVICES OF CALIFORNIA, INC.	\$0.00
URS CORPORATION	\$36,361,332.00
USI INSURANCE SERVICES NATIONAL, INC.	\$2,006,650.50
VALI COOPER & ASSOCIATES, INC.	\$429,739.74
Vasco eSignLive	\$4,788.00
VERIZON WIRELESS MESSAGING	\$23,017.17
VINH NGOC PHAN	\$9,035.00
WABTEC RAILWAY ELECTRONICS INC.	\$530,011.43
WABTEC TRANSPORTATION SYSTEMS LLC	\$1,023,099.27
Warm Springs Electric Company	\$2,280.00
WATER BOARDS	\$8,996.60
WELLS FARGO BANK. N.A.	\$400,000.00
WELLS FARGO INSURANCE SERVICES USA, INC	\$1,493,268.60
WOLLBORG/MICHELSON PERSONNEL SERVICE	\$38,972.57
WORLD COURIER GROUND INC.	\$0.00
WSP USA INC	\$1,893,572.33

XORAIL, INC.	\$408,050.62
YAU, JOEL	\$3,000.00
ZGLOBAL INC.	\$182,154.75
<b>Report Totals</b>	<b>\$2,296,845,887.03</b>

DRAFT

## Attachment F Rolling Stock Vehicle Status Report

- **Manufacturer/Model Year/Vehicle Model or Type/Propulsion:** Stadler Bi-level Electric Multiple Unit (EMU) Commuter Rail vehicles (a variant of Stadler’s “KISS” product line. The JPB plans to operate the vehicles initially in 7-car trainsets and later expand to 8-car trainsets.
- **Piggyback or Option:** The contract contains an option for up to 96 additional EMUs, with the price varying depending on the date the option is exercised. Option vehicles ordered prior to December 31, 2018, are purchased at the original price.
- **Number of Vehicles:** Initial Order of 96 EMUs to be delivered as 6-car trainsets; the current order is 133 EMUs delivered as 7-car trainsets. The JPB exercised some of its remaining options and purchased four (4) additional trainsets prior to the option expiration date of August 15, 2023; these options will not be funded by the PCEP. JPB also purchased one additional hybrid battery-electric multiple unit trainset to provide demonstration service between San Jose and Gilroy.
- **Contract Advertisement Date:** August 21, 2015
- **Contract Award Date:** August 15, 2016
- **Price per Vehicle (Initial Order):** \$26,408,000 per 6-car trainset
- **Planned Date of First Vehicle Delivery /Actual:** March 20, 2022 (Actual)
- **Conditional Acceptance of First Trainset (TS-3):** July 25, 2022
- **Initial Vehicle Order (Number of Vehicles and Configuration):** 96 EMUs delivered as 6-car trainsets.
- **Number of Option Vehicles Included in Contract:** 96
- **Buy America Domestic Content Percentage Required:** 60%
- **Domestic Content Percentage per Pre-award Audit:** 79.38%
- **Latest Domestic Content Percentage Reported and Date:** The Post-Delivery Buy America Audit Report states that the overall average domestic content of a seven (7) car trainset is 74.3%. The domestic content was reported to vary from 70% to 77% for the four (4) different car type variants.
- **Date of Pre-Award Audit:** May 25-26, 2016
- **Pre-award Audit Report Date:** June 21, 2016
- **Intermediate Buy America Audit Date:** An intermediate review was conducted March 19-21, 2018. Stadler provided a virtual Buy America status update to the JPB’s Buy America team on June 22, 2020. The JPB conducted an Intermediate Buy America Audit on October 25-27, 2021; however, the auditors were unable to verify the domestic content because the required information was not provided by Stadler.
- **Date of Post-Delivery Audit:** June 27-28, 2022
- **Post-Deliver Audit Report Date:** July 11, 2022

### EMU Delivery Status

<i><b>Trainset Number</b></i>	<i><b>Projected Delivery</b></i>
3 & 4	Delivered
2 & 5	Delivered
6 & 9	Delivered
1 & 11	Delivered
10 & 12	Delivered
13 & 14	Delivered
7 & 15	Delivered
8 & 16	Delivered
17	Delivered
18, 19	<i>April 2024, June 2024</i>

## Attachment G Project Milestones / Key Events

Milestone	Baseline	Date Completed
New Starts/Core Capacity Grant Agreement:	Not in MPS	05/2017 (A)
Design/Build Notice to Proceed:	12/2015	06/2017 (A)
Arrival of the first EMU in Pueblo, CO	N/A	2/27/2021 (A)
Arrival of First EMU at JPB	07/2019	4/20/2022(A)
Final Engineering (FE) Completion:	04/2018	9/6/2024 (P)
Systems Integration Testing Completed:	01/2019	6/1/2024 (P)
Segment 4 Complete to Begin EMU Testing:	11/2019	7/15/2023 (A)
Revised Milestone 1 (Segments 3 and 4) Complete	N/A	9/15/2023 (A)
Completion of Interconnection from PG&E to TPSS 2	N/A	1/29/2021 (A)
Design/Build Substantial Completion:	02/2019	5/3/2024 (A)
Conditional Acceptance of First EMU Trainset:		7/25/2022 (A)
PG&E Provides Permanent Power:	09/2021	8/27/2022(A)
Pre-Revenue Operation Completed:	05/2020	08/10/2024 (A)
Revenue Service Date (without Risk Contingency):	12/2021	08/11/2024 (A) <sup>1</sup>
Revenue Service Date (with Risk Contingency)	N/A	09/21/2024 (A) <sup>2</sup>
FFGA Required Completion Date (RCD):	05/2020	12/31/2024 (P)*
*The JPB's revised RCD was accepted by the FTA on November 28, 2023.		
<sup>1</sup> Initial soft-opening of revenue service occurred on August 11, 2024.		
<sup>2</sup> Fully-electrified revenue service with fourteen (14) trainsets occurred on September 21, 2024.		

## **Attachment H Roadmap to Electrified Rail Service (*Unchanged*)**

Caltrain began fully-electrified revenue service between San Francisco and San Jose on September 21, 2024. The following is the status of the roadmap as of August 2024 when preparations for the grand opening were underway.

The electrification contractor achieved substantial completion on May 3, 2024. The railroad in Segments 1 through 4, the CEMOF, and the Santa Clara Drill Track are electrified and are being used for testing and burn-in of the newly delivered EMUs. The JPB achieved the “soft-start” of electrified Revenue Service between the 4<sup>th</sup> and King station in San Francisco and the Tamien station in San Jose on Sunday, August 11, 2024. The term “soft-start” refers to the incremental introduction of EMU trainsets into the regular Caltrain operating schedule, replacing a like number of diesel trainsets, beginning with the first two (2) EMU trainsets on August 11, 2024. Two (2) more EMU trainsets were added on August 17, 24, and 31, 2024 for a total of eight (8) operational EMU trainsets as of August 31, 2024. Two (2) more trainsets will be added on September 7, 2024, to reach a total of ten (10) EMUs in revenue service. The ten (10) EMU schedule will be maintained until the new electrified schedule of fourteen (14) EMUs is initiated on September 21, 2024. Two (2) more EMUs were delivered on September 6, 2024, for a total of sixteen (16) delivered and fifteen 15 on-site. These last two (2) EMUs completed initial testing and burn-in prior to the September 21, 2024 grand opening.

Electrified operations on the Caltrain system will occur in stages. The first stage will be the electrification of Segment 4 of the PCEP, including a designated test track. For clarity, Segment 4 is the southerly most segment of the PCEP. Initial electrification will require completion of TPSS 2; completion of the interconnection between PG&E’s FMC substation in San Jose and TPSS 2; completion of the OCS system in Segment 4; completion of the signals, communications, and SCADA systems in Segment 4; and testing and commissioning of the above components as well as safety certification of the relevant components. Traction power substation #2 (TPSS-2) was electrified on August 27, 2022, and testing of the traction power components is underway. The contractor has encountered repeated problems in successfully completing short-circuit testing of the TPS and OCS in Segment 4. The schedule for live-wire testing in Segment 4 was placed on-hold while the test failure which occurred on May 20-21, 2023, was reviewed. Because the test demonstrated that the protection function operated as planned, JPB and BBII decided to proceed with initial testing of the EMUs on the Santa Clara Drill Track (SCDT), followed by OCS testing on Segment 4 main tracks and at the CEMOF. Milestone 1, Segments 3 and 4 available for EMU testing occurred on September 13, 2023, and the burn-in of the EMU vehicles has begun. The first four (4) EMU trainsets have completed dynamic testing on the SCDT and Segment 4 main tracks. The JPB negotiated a change with BBII, its Electrification contractor, to redefine Milestone 1 to include all work in Segments 3 and 4. This change has created a 21-mile stretch of electrified track which is allowing more efficient burn-in of the EMUs.

The OCS in the southerly most portion of Segment 4 was temporarily disconnected to allow replacement of the Guadalupe River bridge. The rail alignment was returned to the JPB as of October 21, 2023, and BBII began re-installing the OCS on November 27, 2023. The OCS has been reinstalled and regulation was completed on January 20, 2024.

The severe storm that struck the region on February 3-4, 2024, caused damage to the OCS in two (2) areas which required immediate attention and repair. Repair of the damaged areas has been completed. The schedule for short-circuit testing was revised and a short-circuit test was conducted on the southerly portions of Segment 4 during the weekend of February 24-25, 2024. The test was partially successful, and live run testing of the remainder of Segment 4 was completed in March



2024. Four (4) of the remaining five (5) short-circuit re-tests were successfully completed in March 2024. The remaining short-circuit test was successfully completed on April 5, 2024.

The second stage of electrification includes the completion of the remaining Segments 1 and 2, and the individual elements of each, plus the integrated testing, commissioning, and safety certification of the entire project. Final Completion for purposes of the JPB's Core Capacity FFGA requires fourteen (14) seven-car trainsets in weekday revenue service. The revised FFGA Required Completion Date (RCD) accepted by the FTA is December 31, 2024. The JPB is currently proposing a soft opening of revenue service with a single vehicle in late July 2024, followed by the introduction of additional vehicles at weekly intervals. Full revenue service with fourteen (14) new EMUs is planned to start on September 23, 2024. The JPB has recently concluded that a fleet of sixteen (16) EMU trainsets should be available to reliably provide the fourteen (14) trainsets needed to satisfy the FFGA passenger capacity requirements. The JPB is having discussions with Stadler regarding the timing for delivery of the two (2) additional trainsets. The JPB, in a letter dated August 21, 2023, requested a waiver from the FTA related to the required level of service necessary to satisfy the core capacity requirements in its FFGA. The waiver was requested due to the dramatic drop in ridership as a result of the COVID-19 pandemic. The FTA approved the waiver request on November 27, 2023.

Meetings of the Rail Activation Committee were discontinued following the meeting on September 26, 2024. More information on the follow-on activities is found in Section 2.20 of the report body. The PCEP has an active Rail Activation Committee (RAC) to coordinate the various activities needed to successfully initiate electrified rail operations. The RAC is chaired by Mark Clendennen and includes representatives from JPB employees assigned to the PCEP, PCEP's technical consultants, the JPB's Rail Operations group, and more recently from BBII, the Electrification contractor. The RAC has refined its meetings which provide more detailed coordination between rail operations, systems integration, and testing and commissioning activities. The RAC meets weekly on Thursday mornings; the most recent meeting was held on August 29, 2024. The current focus remains on conducting Vehicle Acceptance Tests (VAT) for the EMUs, completing the 1,000-mile burn-in for each trainset, and assembling the required documentation for the completed PCEP. Training has been completed for all essential personnel.

The PCEP risk lead has completed incorporating the Rail Activation risks into a consolidated risk register for the PCEP. The PCEP risk lead conducted a Rail Activation Risk Workshop on December 5, 2023. This workshop differs from the earlier Rail Activation risk work because the focus of the risks is an impact on Caltrain's readiness to commence rail operations. A significant considerable number of risks were identified through the distribution of a pre-workshop questionnaire, and additional risks were elicited from the participants during the workshop. The risks have been assigned to various owners, and those individuals are currently providing additional details such as scoring the risks and describing mitigation measures and related timing. The final Rail Activation Risk Register was not integrated with the PCEP risk register but was provided to the PCEP team so that inter-related risks can be identified for the benefit of both teams.

The PCEP's leadership has determined that the effort necessary to integrate the RAC's Rail Activation Schedule with the schedules produced by BBII, Stadler, and ARINC is no longer justified, and that effort has been discontinued. Details of the most recent rail activation schedule (See Attachment H-2) continue to be refined by the RAC with the assistance of the PCEP scheduling team.

The RAC used a Live Run Testing Schedule to communicate when these important activities would occur. A copy of the latest Live Run Testing Schedule is shown in Figure H-1.

Figure H-1 Live Run Testing Schedule (January 30, 2025)

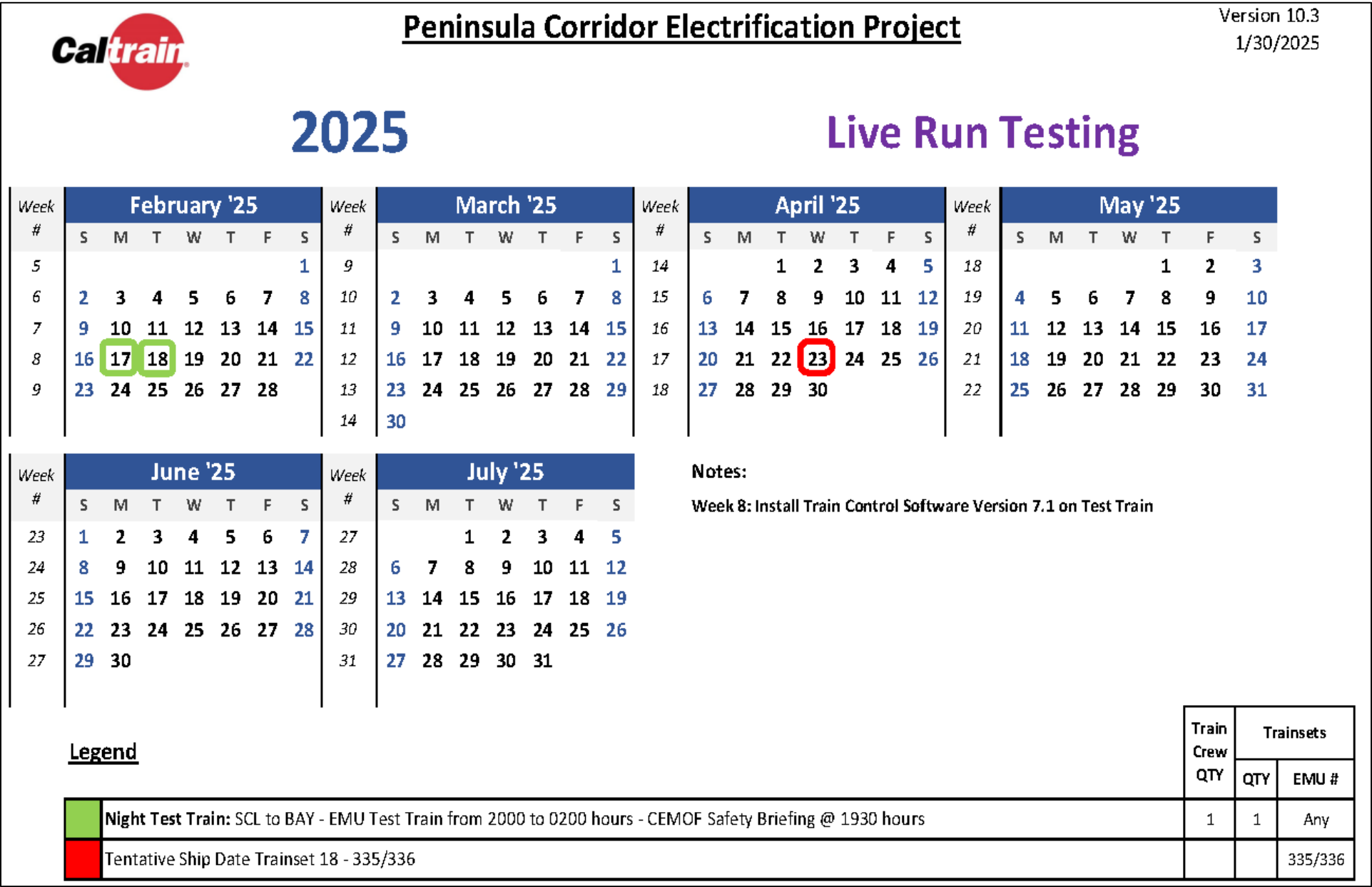


Figure H-2 Rail Activation Schedule (*Unchanged*)

**RAS0624A**


**(Data Date: 10/1/2024)**

## Anticipated Rail Activation Schedule Tasks and Completion Periods

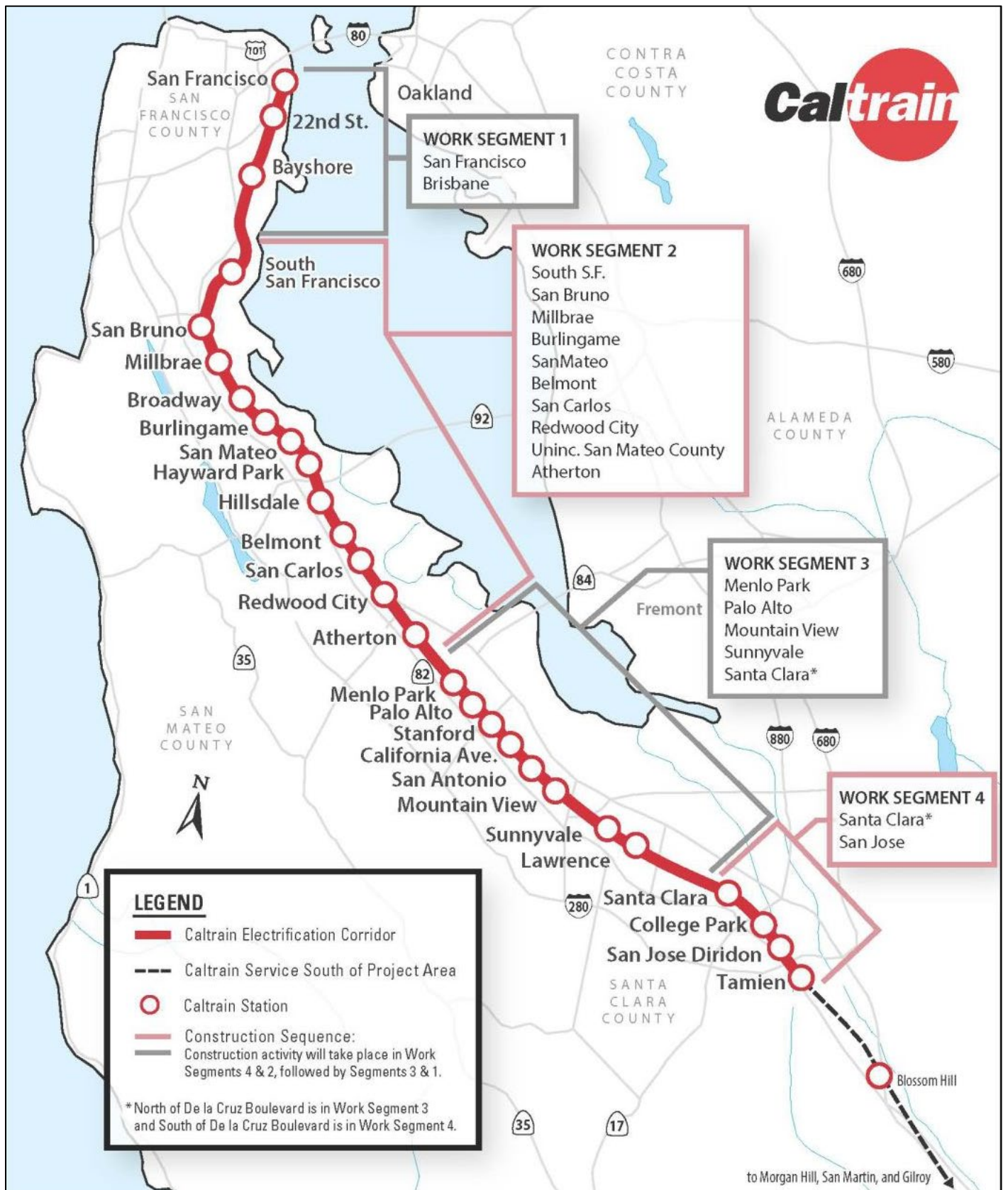
Anticipated Rail Activation Schedule Tasks and Completion Periods											
Activity Name	24-Mar	24-Apr	24-May	24-Jun	24-Jul	24-Aug	24-Sep	24-Oct	24-Nov	24-Dec	Descriptions
RAS System Integration Finish (1)				06/01/24 A							Testing leading up to Pre and Post Substantial Completion
RAS Operational Readiness Finish (2)					07/01/24 A						All activities that Operations must complete to operate trains
RAS Operational Drills Finish (3)					07/25/24 A						Training & Practicing for efficient Operations
RAS Soft Launch Finish (4)					08/10/24 A						Replacing Diesel Locomotives with EMU's (2 per week)
RAS Project Completion Celebration (5)							09/21/24 A				Project Outreach (VIP & Public Celebrations)
RAS Post Revenue Service Finish (6)										01/01/25	All activities leading up to Pre and Post FFGA

Expected Dates shown in red (above).

10/16/2024



## Attachment I Project Map

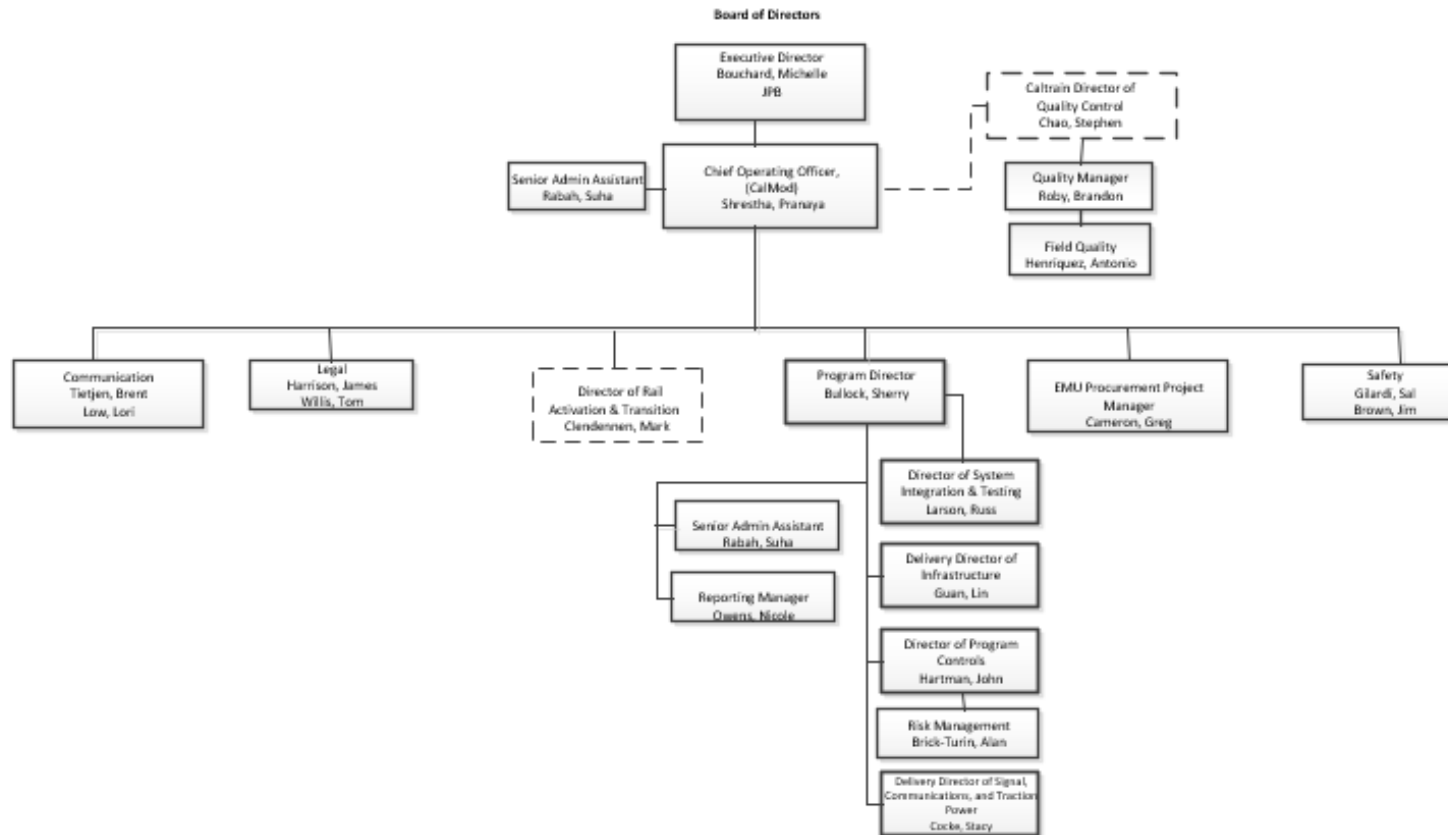


## Attachment J PCEP Executive Team Organization (*Unchanged*)

### Peninsula Corridor Electrification Project (PCEP) Organizational Chart July 01, 2024



### Executive Team



## Attachment K BBII Request for Final Acceptance



12/20/2024

Balfour Beatty US  
300 Galleria Parkway  
Suite 2050  
Atlanta, GA 30339

Final Acceptance Request

[www.balfourbeattyus.com](http://www.balfourbeattyus.com)

Sherry,

BBII-PCEPDB-LTR-000919  
BBII Letter # 1926

Balfour Beatty is submitting for Final Acceptance as of December 20, 2024.

The following is the final list jointly created by Balfour Beatty and JPB of items the teams are still working on to complete.

Description	Explanation/Detail	Date to be completed
Open Punchlist Items	Reference Exhibit "A" for the open items to be completed	01-Sep-25
Yard Reclamation	Reference Exhibit "B" for the 3 remaining yards	01-Sep-25
	- Mountainview - 12/31/2024	
	- San Bruno Yard - 12/31/2024	
	- Hillsdale Yard - 09/01/2025	
NCR's	Reference Exhibit "C" for open NCR's 114, 115, & 118	01-Apr-25
CAD Drawings	Reference Exhibit "D" CAD Drawings	01-Jul-25
Open Permits	Reference Exhibit "E" for the open items to be completed	31-Mar-25
Spare Parts Delivery	Reference Exhibit "F" for the open items to be completed	01-Sep-25
TP As-Built Schedule	Reference Exhibit "G" for the open items to be completed	01-Jun-25
Equipment Submittals Clean-Up	Reference Exhibit "H" for the open items to be completed	30-Apr-24
SOIL's List	Reference Exhibit "I" for the open items to be completed	06-Jan-25
Schedule Activities to Complete	Reference Exhibit J - Schedule Activities to Complete	01-Sep-25
Corrosion Mitigations	PS, TPS, SWS, & WPC Sign-Off Plan	31-Jan-25
	GIS Replacement at PS 2 - 06/01/2025 - 09/01/2025	01-Sep-25
	ATS Replacement - 04/01/2025 - 05/01/2025	01-May-25
	PT Replacement - 12/01/2024 - 11/01/2025	01-Nov-25
EMI Testing	EMI Testing - May 2025	03-May-25
Pfister Plug Test	Pfister Plug Test - Mid January 2025	28-Feb-25
Delivery of Anti-Theft Cables	On Back-Order	20-Dec-24

1. Claims Settled – No claims contingent upon the Hyper-Inflation request
2. Claim Release – Will be executed upon final account reconciliation with the Hyper-Inflation request

Sincerely,

Keith McCoy

## Attachment K

## BBII Exhibit A - Punch List to Complete

Exhibit A								
Punchlist to Complete								
#	Title	Type	Description	Target Date	Value	Action Item	Location	Trade Status2
44	T-2 is now low. Ensure oil is up to mark for dehydrating breather (OLTC conservator) for transformer #2.	Owner- Punch	Oil must be refilled to the appropriate amount for the dehydrating breather for transformer 2	1/31/2025	\$ 500.00	Waiting on 4 gallons of transformer oil to arrive - Need to order - JM to issue PO - 200 Gall Deliver to KEMA - BB will need to dispose of KEMA Testing Oil - Arrange for pick-up at KEMA for pick-up - KJ to reach out to KEMA for contact.	0.0 SEG 4>WA 2>TPF>TPS 2	TPS Not Accepted
212	Name plate Siemens +JA07	Owner- Punch	Check spreadsheet 139-141	12/20/2024		Add labeling to the 2 transition cabinets at each site SWS 1 TPS1, & TPS2 - Provide pictures - Currently drafting the drawings- These have not been Re-ordered - ETA - ???	0.0 SEG 4>WA 2>TPF>TPS 2	TPS Not Accepted
3059	43.9-01 [DLC-33S]	Owner- Punch	Ground checks for MOD Switch 43.9-01 [DLC-33S] - Close Switch does not work - Grounding incorrect - Derating enclosure - Groundmat incorrect (dimensions need to be 6'x4') - Verify Heater	1/6/2025	\$ 350.00	Previous Note----The report is only verifying that the switch is operating remotely. The issue is that the stop button in the field/local when depressed doesn't stop the switch in mid operation. We had another MOD switch in S1 that had the same exact issue.	0.0 SEG 4>WA 2>TPF	TPS Not Accepted
3077	46.9-16 [BRD-T67]	Owner- Punch	Ground Inspection MOD Switch 46.9-16 BRD-T67: - Derating enclosure - verify heater - clean box (shavings) - non-metallic raceway - needs electrical tapes - terminate spares to block - verify ground mat - ground mat needs to be 6'x4' - MOD Box leaning - "Closed" arrows not aligned - Horizontal pipe touching vertical pipe, preventing from fully closing - Surge arrester grounding not to spec (need 6" from top of hand hole to tip of rod) - SA pipe needs 30 degree bend and duct seal - needs FRE 2" fiber conduit	12/6/2024		Surge arrester grounding not to spec (need 6" from top of hand hole to tip of rod) - SA pipe needs 30-degree bend and duct seal - needs FRE 2" fiber conduit. -clean box (shavings)	0.0 SEG 4>WA 1>SIGS & COMM	TPS Ready to Close
3078	46.9-14 [BRD-T4]	Owner- Punch	Ground Inspection MOD Switch 46.9-14 BRD-T4: - Derating enclosure - conduit pipe plug - verify heater - clean inside MOD Box - cable labels - mule tape - non-metallic raceway - need spare cables - needs electrical tapes - terminate spares to block - needs ground mat	1/6/2025	\$ 350.00	Based off Photo - Missing conduit plugs, tie off mule tape to conduit plugs, Missing spare cables (need confirmation). Need updated photo showing the work completed.	0.0 SEG 4>WA 1>SIGS & COMM	TPS Work Required
3080	46.7-06 [ALA-T23]	Owner- Punch	Ground Inspection MOD Switch 46.7-06 ALA-T23 - Derating enclosure - conduit pipe plug - verify heater - mule tape - non-metallic raceway - needs electrical tapes - terminate spares to block - verify ground mat - ground mat needs to be 6'x4'	1/6/2025	\$ 350.00	Adolfo to verify pics are uploaded to procore; Need to schedule site walk with Darren Goodbar	0.0 SEG 4>WA 2>TPF	TPS Work Required
3082	46.7-04 [ALA-T5]	Owner- Punch	Ground Inspection MOD Switch 46.7-04 ALA-T5 - Derating enclosure - conduit pipe plug - verify heater - mule tape - non-metallic raceway - needs electrical tapes - terminate spares to block - verify ground mat - ground mat needs to be 6'x4' - jumper need to be taken off	1/6/2025	\$ 350.00	Schedule Night Time	0.0 SEG 4>WA 2>TPF	TPS Work Required
3091	48.6-06 [MCH-2SD]	Owner- Punch	Ground Inspection MOD Switch 48.6-06 MCH-2SD - Derating enclosure - conduit pipe plug - verify heater - non-metallic raceway - needs electrical tapes - terminate spares to block - verify ground mat - cable labels - MOD Box label supposed to be "MCH-2SD" - Gear has rust - Mule Tape	1/6/2025	\$ 350.00	Adolfo to verify pics are uploaded to procore; Need to schedule site walk with Darren Goodbar	0.0 SEG 4>WA 1>SIGS & COMM	TPS Work Required
5899	Repair plastic coverings for the 11 and 12 panels	Owner- Punch	Plastic coverings are chipped or falling off	9/30/2025	\$ 5,000.00	BB to write a service order to Hitachi to perform the work. - DS to go back and re-visit cost - Furnish and Install - <b>40 Week Lead Time</b> - From 12/1/2024	0.0 SEG 2>WA 5>TPF>TPS 1	TPS Not Accepted
6791	WPC-27 Enclosure- The enclosure isn't touching (1 out of 4) concrete piers. This is causing the door not being able to open freely. This will cause additional issues.	Owner- Punch	WPC-27 Enclosure- The enclosure isn't touching (2 out of 4) concrete piers. This is causing the door not being able to open freely. This will cause additional issues.	12/31/2024	\$ 350.00	Install a wedge between pier & steel & Take Photos - Waiting on Plates - Keller - On Order - Need to follow-up - Jacob - Contact Scott	0.0 SEG 3>WA 1>TPF>PS 6	TPS Not Accepted
7047	Verify bolt lengths on gantry.	Owner- Punch/ Defect		12/15/2024		EOR to review - Write RFI	0.0 SEG 3>WA 1>TPF>PS 6	TPS Ready to Close
14603	anti pump circuit for 5206 breaker	Owner- Punch	Replace anti pump circuit for the 5206 breaker	2/28/2025	\$ 3,500.00	Need to re-schedule Siemens to come back - insertion plate for switch gear, include in their package to replace	0.0 SEG 4>WA 2>TPF>TPS 2	TPS Not Accepted
14604	breaker	Owner- Punch	Replace anti pump circuit for the 5203 breaker	2/28/2025	\$ 3,500.00	Looking for report from Siemens - January Visit / Check Matt Brassington's emis	0.0 SEG 4>WA 2>TPF>TPS 2	TPS Not Accepted
16899	Surge protective device have red light in AC panel	Owner- Punch/ Defect		2/28/2025	\$ 1,200.00	Material on Order - Follow-up on payment	0.0 SEG 1>WA 1>TPF>WPC 4	TPS Not Accepted
17936	PS-1 PS-3 and TPS-1 Missing pad for n	Owner- Incom	Build MTS Pad or platform at PS-1, PS-3 and TPS-1.	12/20/2024			TPS	Civils - Tr Ready to Close
18836	Civils	Owner- Incom	Public and Private Tree Planting	11/27/2024			0.0 SEG 1	Landsca Ready to Close



**Exhibit A  
Punchlist to Complete**

18839 Civilis	Owner- Incom: Staging and laydown yards	9/1/2025	\$ 5,000.00		0.0 SEG 1	Civil	Work Required
19709 PS-1 5201 USB Port	Owner- Punch/ Defect	1/31/2025	\$ 500.00	Verify Part is ordered	0.0 SEG 1>WA 1>TPF>PS 1	TPS	Work Required
20010 PS-1Aux fuse/cutout	Final Clean/Fi Action - Replace fuse if blow and close-in	5/1/2025	\$ 1,000.00	Need to replace ATS before this work will be complete	0.0 SEG 1>WA 1>TPF>PS 1	TPS	Work Required
20028 PS-1 Testing Discrepancy PS1-D005	Final Clean/Fi block directly next to the bolt that should be used for grounding.	12/9/2024		Soution found - Work is progressing	0.0 SEG 1>WA 1>TPF>PS 1	TPS	Ready to Close
20036 PS-2 Testing Discrepancy PS2-D010	Final Clean/Fi code violation.	12/10/2024		Soution found - Work is progressing	0.0 SEG 1>WA 1>TPF>PS 2	TPS	Ready to Close
20060 PS-4 Testing Discrepancy PS4-D010	Final Clean/Fi code violation.	12/11/2024		Soution found - Work is progressing	0.0 SEG 2>WA 3>TPF>PS 4	TPS	Ready to Close
SWS-1 Testing Discrepancy SWS1-20098 D008	Final Clean/Fi block directly next to the bolt that should be used for grounding.	11/22/2024		Soution found - Work is progressing	0.0 SEG 2>WA 1>TPF>SWS 1	TPS	Ready to Close
20175 XMFR	Final Clean/Fi Flash counter not working	1/31/2025	\$ 1,000.00	BB in process of replacing - Procured 10/8 - 12 Week Lead Time - 15 on	0.0 SEG 2>WA 3>TPF>PS 4	TPS	Work Required
20176 HVAC	Final Clean/Fi HVAC 2 dirty air filter alarm is active	1/31/2025	\$ 500	Schedule HVAC Repair	0.0 SEG 2>WA 3>TPF>PS 4	TPS	Work Required
20187 Aux	Final Clean/Fi Transformer base is cracked.	1/31/2025	\$ 750.00	Get welder Hitachi used - Chuck	0.0 SEG 3>WA 2>TPF>PS 5	TPS	Work Required
20188 Fence Grounding	Final Clean/Fi Fence ground conductors are still on the outside of the fence line.	12/13/2024			0.0 SEG 3>WA 1>TPF>PS 6	TPS	Ready to Close
20195 HVAC	Final Clean/Fi Shroud is missing from both units.	1/31/2025	\$ -	Schedule HVAC Repair/Write PO for Shourds	0.0 SEG 3>WA 1>TPF>PS 6	TPS	Ready to Close
20198 XMFR	Final Clean/Fi Flash counters not working	1/31/2025	\$ 1,000.00	BB in process of replacing - Procured 10/8 - 12 Week Lead Time - 15 on	0.0 SEG 4>WA 1>TPF>PS 7	TPS	Work Required
20203 GIS	Final Clean/Fi Missing panel	1/31/2025	\$ 1,000.00	Need to measure and order new panel	0.0 SEG 4>WA 1>TPF>PS 7	TPS	Work Required
20204 Accessories	Final Clean/Fi Missing siemens video cables	2/28/2025	\$ 1,000.00	Need to procure from Siemens - Parts numbers sent to TPG for procuring	0.0 SEG 4>WA 1>TPF>PS 7	TPS	Work Required
20208 HVAC	Final Clean/Fi Shroud is missing from the unit	1/31/2025	\$ -	Schedule HVAC Repair/Write PO for Shourds	0.0 SEG 4>WA 1>TPF>PS 7	TPS	Ready to Close
20213 GIS	Final Clean/Fi 5203 volt cap monitor not working	2/15/2025	\$ 3,500.00	Waiting on Siemens parts - Need siemens Quotte	0.0 SEG 2>WA 1>TPF>SWS 1	TPS	Work Required
20216 XMFR	Final Clean/Fi Counters not working	1/31/2025	\$ 1,000.00	BB in process of replacing - Procured 10/8 - 12 Week Lead Time - 15 on	0.0 SEG 2>WA 1>TPF>SWS 1	TPS	Work Required
20221 GIS	Final Clean/Fi Transition cabinet gas pressure continuing to go down.	2/28/2025	\$ 5,000.00	Report for Siemens - No Gas Leak - Ready to Close	0.0 SEG 2>WA 1>TPF>SWS 1	TPS	Work Required
20222 GIS	Final Clean/Fi 52T2 voltage cap monitor circuit LEDs are not functioning.	2/15/2025	\$ 3,500.00	Waiting on Siemens parts - Need siemens Quotte	0.0 SEG 2>WA 5>TPF>TPS 1	TPS	Work Required
20225 5201GS	Final Clean/Fi Dual indication	1/31/2025	\$ 500.00	Need to investigate wiring - Both lights on, open and closed same time - waiting for an outage to further investigate - Need to request isolation to field investigat	0.0 SEG 2>WA 5>TPF>TPS 1	TPS	Work Required
20230 Accessories	Final Clean/Fi Missing GIS camera cables	2/28/2025	\$ 1,000.00	Need to procure from Siemens - Parts numbers sent to TPG for procuring	0.0 SEG 2>WA 5>TPF>TPS 1	TPS	Work Required
20232 CT Labels	Final Clean/Fi Need proper terminal block name plates, stickers are not acceptable.	12/19/2024		Calpico to re-manufacture new cables - These have been Re-ordered - ETA - 11/22	0.0 SEG 2>WA 5>TPF>TPS 1	TPS	Work Required
20235 XMFR	Final Clean/Fi Surge counter not displaying values.	1/31/2025	\$ 1,000.00	BB in process of replacing - Procured 10/8 - 12 Week Lead Time - 15 on	0.0 SEG 2>WA 5>TPF>TPS 1	TPS	Work Required
20236 115kV breaker	Final Clean/Fi 52T1P is missing the correct hardware to secure the door, extra material in cabinet needs to be removed.	1/15/2025	\$ 1,000.00	Need hardware from Hitachi - In process - Need to get ordered - PO Issued 09/23/2024 - Shane	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Ready to Close
20237 115kV breaker	Final Clean/Fi 52T2P is missing the correct hardware to secure the door, extra material in cabinet needs to be removed.	1/17/2025	\$ 1,000.00	Need hardware from Hitachi - In process - Need to get ordered - PO Issued 09/23/2024 - Shane	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Ready to Close
20242 115kV breaker	Final Clean/Fi Door weather stripping is damaged again. This caused a water issue earlier on in the project.	1/31/2025	\$ 500.00	PO has been issued waiting for material - Estimated Delivery Date?	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Work Required
20244 PT Cabinet	Final Clean/Fi Heater does not have disconnect switch or a knob.	12/17/2024	\$ -	Need to re-do, 1 separate switch for each item - Wago Demrail - Need to Order	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Ready to Close
20248 Fire	Final Clean/Fi Missing bracing	12/18/2024	\$ -	Carrasco procuring materials	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Ready to Close
20255 HVAC	Final Clean/Fi Shroud is missing from HVAC	1/31/2025	\$ -	Schedule HVAC Repair/Write PO for Shourds	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Ready to Close
20257 Surge Counters	Final Clean/Fi Missing the "laser" for the equipment	1/31/2025	\$ -	BB in process of replacing - Procured 10/8 - 12 Week Lead Time - 15 on	0.0 SEG 2>WA 5>TPF>TPS 1	TPS	Work Required
20258 All programmed devices	Final Clean/Fi Need as built configuration files for relays, RTUs, AFS switches, gateways, and any other programmed equipment. JPB needs to be provided the original file for the Siemens relays and instructions on how to avoid the configuration miss match that BBI had experienced when performing updates on equipment.	1/15/2025	\$ 500.00	Order	0.0 SEG 2>WA 5>TPF>TPS 1	TPS	Work Required



**Exhibit A**  
**Punchlist to Complete**

		Need as built configuration files for relays, RTUs, AFS switches, gateways, and any other programmed equipment. JPB needs to be provided the original file for the Siemens relays and instructions on how to avoid the configuration miss match that BBI had experienced when performing updates on equipment.						
20261 All programmed devices	Final Clean/Fi	Reports for 25,50, and full scale testing for meter with new resistor showing that HMI and	1/15/2025	\$ 500.00	Need to send Relay Setting to JPB	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Work Required
20262 Meters	Final Clean/Fi	mimic panel meters are calibrated.	12/6/2024		Close this item, open up new item for SCADA issues - Hitachi SCADA Issue	0.0 SEG 4>WA 2>TPF>TPS 2	TPS	Ready to Close
20263 HMI	Final Clean/Fi	PS1-PS6 do not have the correct autotransformer symbol.	12/6/2024		- HMI, Auto Transformer Symbol, etc	0.0 SEG 1>WA 1>TPF>PS 1	TPS	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20687 23.6-03 MT1 Build walkway	Final Clean/Fi	Require small retaining walls	12/20/2024	\$ 6,667.00	Tracking On Schedule	0.0 SEG 2	Civil	Work Required
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20688 23.7-05 MT1 Build walkway	Final Clean/Fi	Require small retaining walls	1/6/2025	\$ 6,666.67	Tracking On Schedule	0.0 SEG 2	Civil	Work Required
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20689 24.0-03 MT1 Build walkway	Final Clean/Fi	Require small retaining walls	11/29/2024		Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20690 24.0-05 MT1 Build walkway	Final Clean/Fi	Require small retaining walls	11/29/2024		Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20691 24.1-01 MT1 Build walkway	Final Clean/Fi	Require small retaining walls	12/6/2024		Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20692 23.2-01 MT2 Build walkway	Final Clean/Fi	Require small retaining walls	12/9/2024		Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20693 23.2-02 MT2 Build walkway	Final Clean/Fi	Require small retaining walls	12/9/2024		Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20694 23.3-02 MT2 Build walkway	Final Clean/Fi	Require small retaining walls	12/20/2024	\$ -	Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20697 23.7-04 MT2 Build walkway	Final Clean/Fi	Require small retaining walls	1/3/2025	\$ -	Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20698 23.7-06 MT2 Build walkway	Final Clean/Fi	Require small retaining walls	12/20/2024	\$ -	Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Need to level the 2' Build walkway surface around the outside edge of the foundation.						
20699 23.8-06 MT2 Build walkway	Final Clean/Fi	Require small retaining walls	12/20/2024	\$ -	Tracking On Schedule	0.0 SEG 2	Civil	Ready to Close
		Pull oil samples for DGA and fluid quality analysis for the following sites so results can be compared to previous samples pulled: PS-6 AT, SWS1 - Line 2, TPS2 Line 1 & Line 2 Any follow up work will be determined by the analytics of the oil samples taken from each						
20751 Oil Sample at TP Facilities	Owner- Punch unit.		1/31/2025	\$ -		PS1, PS2, PS-3, PS-4, PS-5, PS-6, PS-7, SWS:TPS		Work Required
20754 MP 25.0 Brewster Ave Signal Resolution	Owner- Punch MP 25.0 Brewster Ave Signal Resolution		1/31/2025	\$ 5,000.00		0.0 SEG 2	Signal	Work Required
20755 Resolve Backfeed At PS 6	Owner- Punch Resolve Backfeed At PS 6		1/31/2025	\$ 2,500.00		0.0 SEG 3>WA 1>TPF>PS 6	TPS	Work Required
				<b>\$ 67,383.67</b>				
				20%	\$ 13,476.73			
				Subtotal	\$ 80,860.40			
				Equipment	\$ 15,000.00			
				15%	\$ 2,250.00			
				Subtotal	\$ 17,250.00			
				Total	<b>\$ 98,110.40</b>			

## Attachment K

## BBII Exhibit C – Open NCRs

**Exhibit C**  
**Open NCR's to Close**

NCR #	Title	Description	Issued Date	Status	Date Closed	JPB Concur Date	B.I.C.	Closing Requirements	12/4 Meeting Agreements
BBII-0114	Pfister terminators incorrectly rated and undersized	At switchgear for traction power sites Pfister terminators/plugs were installed that have incorrect rating per manufacturer data.	05/20/23	Open			BBII	1. Justification from EOR that KEMA testing will prove 2XL connectors are acceptable to use as is. 2. Passing KEMA testing results 3. Management sign-off due to SME not accepting.	1. FA exceptions list
BBII-0115	PS-2 Corrosion	Multiple enclosures at PS-2 are exhibiting corrosion on the inside and outside surfaces. Gantry cabinets also show signs of corrosion	07/07/23	Open			BBII	1. Include PS-2 switchgear replacement in mitigation plan. 2. Corrosion plan that was approved by EOR. 3. Daily reports demonstrating the mitigations/repairs were completed per approved plan. 4. See attached email from Jason McFarlnad for two additional items.	1. ATS will be done later, document in extended work list 2. Joint sign off on completion of mitigation 3. Send email to manufacturer for corrosion maintenance recommendations
BBII-0118	Resolution of SOO coments	There are still unresolved comments for traction power submittals.	07/12/24	Open			BBII	1. EOR justification for comments that have not been resolved or by responding to comments given to BBII.	1.BBII to submit TPS-1 Battery House FAT via ACONEX. 2.BBII to provide a ProSense TRM-10-D-120AD. Just one question, will there be any drawings associated with it?

## Attachment K

## BBII Exhibit E - Open Permits

Exhibit E  
Open Permits

Balfour Beatty

PERMIT STATUS as of 12/03/2024

Code	Description
A	No response
B	Pending Clarification / Approval
C	Inspector Required
D	Inspector walked and need repair work before sign-off
E	Fee required
F	Work in Progress
G	Preparing Closeout Documents
H	Turn over to JPB



Location / Jurisdiction	Permit #	File Title / Type	Acomex Document No	Scope of Work	Status	Code Cause/ Reason	DescriptionCode	Next Steps	Target Permit Closure Date	Fee Target Date	Work left to complete to close	BALL IN COURT
San Francisco	20S-00268	City and County of San Francisco Permit 20S-00268 Visitacion Ave to Recycle Road	BBII-PCEPDB-PMT-000080	New Side Sewer	Open	D	Inspector walked and need repair work before sign-off	-11/19 Norcal/ Sewer Inspector inspection @ 8am (401 Tunnel Ave, SF)	NOV 2024	2/1/2025	-10/16 Paid ext. Permit. -11/7 sewer inspector wants to be present w/ Norcal. -11/19 Norcal/ Sewer Inspector inspection @ 8am (401 Tunnel Ave, SF)	Titus Rodriguez/ Kenneth
San Francisco	24S-00139 (20S-00268)	24S00139 City and County of San Francisco Permit Visitacion Ave to Recycle Road	N/A	New Side Sewer	Open	D	Inspector walked and need repair work before sign-off	-11/19 Norcal/ Sewer Inspector inspection @ 8am (401 Tunnel Ave, SF)	NOV 2024	2/1/2025	- 10/30 email to sewerinspections@sfwater.org for inspection -10/16 Paid ext. Permit. -11/7 sewer inspector wants to be present w/ Norcal. Kenneth to arrange again	Titus Rodriguez/ Kenneth
San Mateo	DPW2021-00356	County of San Mateo Public Works Permit DPW2021-00356 Westmoreland Avenue	BBII-PCEPDB-PMT-000089	Utility Trench	Open	B	Pending Clarification / Approval	-pending Norcal CCTV video to BBII, drop off at Redwood City	NOV 2024	1/15/2025	10/24 -Kenneth to get CCTV. Norcal video 11/4. Then drop off CCTV to County SM Office	Kenneth/ Jane
Palo Alto	21ENC-00142	Encroachment 21ENC-00142_WGW COA's for Boring at E Meadow & Churchill crossings related to 21ENC-00142.pdf	BBII-PCEPDB-PMT-000104	Potholing/ Install Signals Ductbank & Conduits	Open	D	Inspector walked and need repair work before sign-off	pending all sites complete for closeout	NOV 2024	12/31/2024	-10/22 pending all work to be done before closing this permit (Churchillo, E.Meadow, Charleston)	Titus/ Muhammad/ Jane
Palo Alto	22ENC-00067	City of Palo Alto Encroachment Permit 22ENC-00067 Churchill Ave Grade Crossing	BBII-PCEPDB-PMT-000102	Potholing/ Install Signals Ductbank & Conduits	Open	D	Inspector walked and need repair work before sign-off	Titus to review regulation on Bike-2	NOV 2024	12/31/2024	-8/26 per inspector, repair work as discussed in Walk -10/28 Asphalt / strip Repair/ Bike-1 done. -11/8 Inspector OK with all work Potholes on Churchill + Bike-1 (no corners will be ding on BBII) -11/12 Titus to review regulation on Bike-2 and will speak with Inspector David Martinez @ 650-444-6342	Muhammad/ Lalith
Palo Alto	22ENC-00233	Encroachment 22ENC-00233 Caltrain Signal Modification TCP in CPA ROW at Caltrain crossings (Palo Alto Ave. and Churchill)	N/A	Signal Modification	Open	D	Inspector walked and need repair work before sign-off	Titus to review regulation on Bike-2	NOV 2024	12/31/2024	-8/26 per inspector, repair work as discussed in Walk -10/28 Asphalt / strip Repair/ Bike-1 done. -11/8 Inspector OK with all work Potholes on Churchill + Bike-1 (no corners will be ding on BBII) -11/12 Titus to review regulation on Bike-2 and will speak with Inspector David Martinez @ 650-444-6342	Muhammad/ Lalith
Palo Alto	24MSC-00252 (22ENC-00067)	24MSC-00252 City of Palo Alto Night NEP (Churchill & Alma)	N/A	Potholing/ Install Signals Ductbank & Conduits	Open	D	Inspector walked and need repair work before sign-off	Titus to review regulation on Bike-2	NOV 2024	12/31/2024	-8/26 per inspector, repair work as discussed in Walk -10/28 Asphalt / strip Repair/ Bike-1 done. -11/8 Inspector OK with all work Potholes on Churchill + Bike-1 (no corners will be ding on BBII) -11/12 Titus to review regulation on Bike-2 and will speak with Inspector David Martinez @ 650-444-6342	Muhammad/ Lalith
County of SC	160628 R12	160628R12 Missing Permit	N/A	OCS Foundation	Open	C	Inspector Required	-11/12 Walid/ Muhammad will email Inspector Gilbert if all MV permits is close-out	DEC 2024	1/31/2025	-8/12 MikeV/ Garcia, Gilbert <Gilbert.Garcia@rda.sccgov.org> in review. Verbally confirmed that he had inspected approx. 7 of the 16 work areas and so far has not identified any additional work that BB need to undertake. -8/21, 10/22 pending inspector's list of walked permit to close -11/12 Walid/ Muhammad will email Inspector Gilbert if all MV permits is close-out	Scott McDonald
County of SC	160628 R13	160628R13 County of Santa Clara Encroachment Permit (Central EX Polarid Ave)	N/A	OCS Foundation	Open	C	Inspector Required	-11/12 Walid/ Muhammad will email Inspector Gilbert if all MV permits is close-out	DEC 2024	1/31/2025	-8/12 MikeV/ Garcia, Gilbert <Gilbert.Garcia@rda.sccgov.org> in review. Verbally confirmed that he had inspected approx. 7 of the 16 work areas and so far has not identified any additional work that BB need to undertake.	Scott McDonald/ Walid AbiDaoud

**Exhibit E**  
**Open Permits**

PERMIT STATUS as of 12/03/2024

C	Inspector Required
D	Inspector walked and need repair work before sign-off
E	Fee required
F	Work in Progress
G	Preparing Closeout Documents
H	Turn over to JPB

Location / Jurisdiction	Permit #	File Title/ Type	Aconex Document No	Scope of Work	Status	Code	Cause/ Reason	DescriptionCode	Next Steps	Target Permit Closure Date	Est. Target Date	Work left to complete to close	BALL IN COURT
County of SC	160628 RI7	160628RI7_County of Santa Clara Encroachment Permit (100 Thompson Ave)	N/A	OCS Foundation	Open		F	Work in Progress	-11/12 Walid/ Muhammad will email Inspector Gilbert if all MV permits is close-out	DEC 2024	1/31/2025	-8/12 Mike V/ Garcia, Gilbert <Gilbert.Garcia@rda.sccgov.org> in review. Verbally confirmed that he had inspected approx. 7 of the 16 work areas and so far has not identified any additional work that BB need to undertake. -8/21, 10/22 pending inspector's list of walked permit to close --11/12 Walid/ Muhammad will email Inspector Gilbert if all MV permits is close-out	Scott McDonald/ Walid AbiDaoud
County of SC	ENC19-0837	ENC19-0837_County of Santa Clara Encroachment Permit (Central Expwy and Farley Street)	BBII-PCEPDB-PMT-000050	Expressway Other - Establish temporary site access for ingress S/O Farley Street and egress S/O Shoreline Blvd overpass.	Open		F	Work in Progress	-12/05 Jane email Inspector Gilbert if permits is close-out	DEC 2024	1/31/2025	-12/05 Jane email Inspector Gilbert if permits is close-out	Scott McDonald/ Walid AbiDaoud
County of SC	ENC24-0601	ENC24-0601_County of Santa Clara Encroachment Permit (Central Exp @ Farley St-Caltrain Access Point)	N/A	LV-Caltrain Access Point Temporary Site Access. Previous Permit #ENC19-0837	Open		F	Work in Progress	-12/05 Jane email Inspector Gilbert if permits is close-out	DEC 2024	1/31/2025	-12/05 Jane email Inspector Gilbert if permits is close-out	Scott McDonald/ Walid AbiDaoud
San Jose	2019-135633-SECI	2019-135633_City of San Jose Permt (Hedding & SanCarlos St OCS Bridge)		OCS Installatin Bridge Protection Barrier Screen/ Bridge attachment on the	Open		G	Preparing Closeout Documents	Escalate	DEC 2024	1/31/2025	-6/24 @ PS7. JPB Property. waiting JPB update before schedule for final inspection -9/20 Cecilia - pending update from City	JPB
San Jose	2020-144930-SECI	2020-144930_SECI_City of San Jose (Taylor St)		OCS Installatin Bridge Protection Barrier Screen/ Bridge attachment on the underside	Open		G	Preparing Closeout Documents	Escalate	DEC 2024	1/31/2025	-5/24 6/4 @ PS7. JPB Property. waiting JPB update before schedule for final inspection -9/20 Cecilia - pending update from City	JPB

TOTAL PERMIT  
OPEN = 14

Turn-over to JPB = 12

**Exhibit I**  
**SOIL's Report**



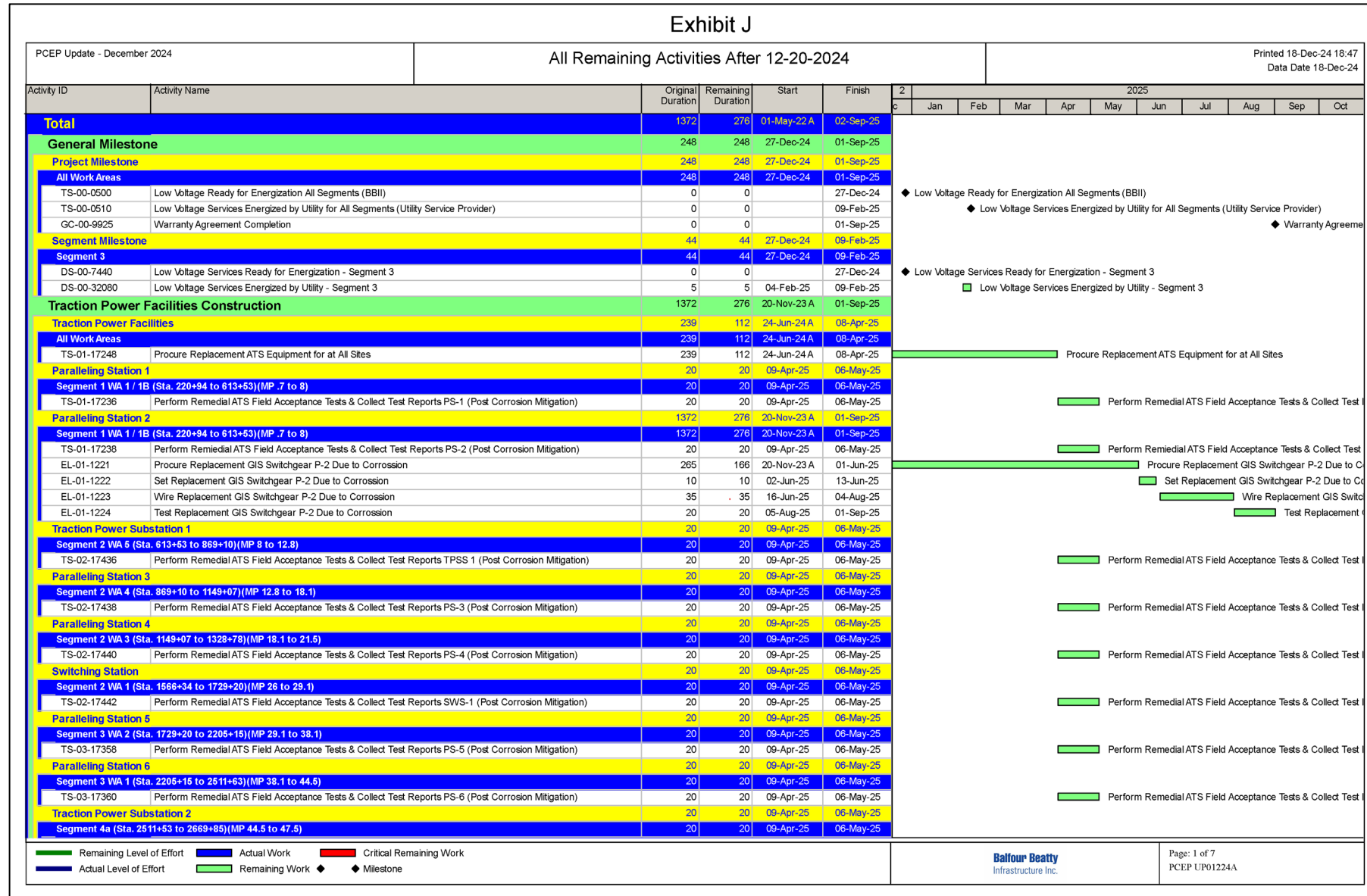
**Balfour Beatty**  
Infrastructure Inc.



**PCEP - SAFETY OPEN ITEMS LIST (SOIL) SEGMENTS 4, 3, 2, & 1 Rev. 6 06.20.2024**

	OWL #	Reference	Description of Hazard/Issue	Source	Status	Resolutions
SOIL-007	31	Incomplete Work List	Volt Meters at PS Station to be replaced	Incomplete Work List	CLOSED	Test replacement Volt meters are installed and performing, remaining volt meters are being shipped and will be installed systematically
SOIL-010	Complete	Incomplete Work List	Undervoltage relay testing/All PS and SWS	Incomplete Work List	CLOSED	Testing complete, waiting for paperwork to finalize
SOIL-013		BBII System Safety	Investigate misc. communications issues that JPB identified on their TP Data Network*	Misc. Correspondence	CLOSED	Find and fix issues to ensure functionality and redundancy are available.
SOIL-014		Incomplete Work List	Install ground water lids of both sides of Bayshore Station (Under Pedestrian Bridge).	Incomplete Work List	CLOSED	COMPLETED.
SOIL-017	38	Incomplete Work List	Continue Access Road: Add Platform or steps for gantry switch. Complete Southeast fence next to the tracks associated with LV Work.	Incomplete Work List	OPEN	PS 3 Completed 12/19/2024 - Waiting to be inspected by JPB
SOIL-022	96	Incomplete Work List	Millbrae Station 25KV Feeders crossing underneath Millbrae Ave. Concrete Work incomplete an PVC 90* exposed (96)	Incomplete Work List	CLOSED	BBII will install temporary Traffic Barrier until work is complete.
SOIL-023		Incomplete Work List	A number (46) locations OCS Walkways may not have achieved recommend OCS Pole to Field Track clearances.	Incomplete Work List	OPEN	Balfour has completed 45 of the 46 with one remaining.

DRAFT

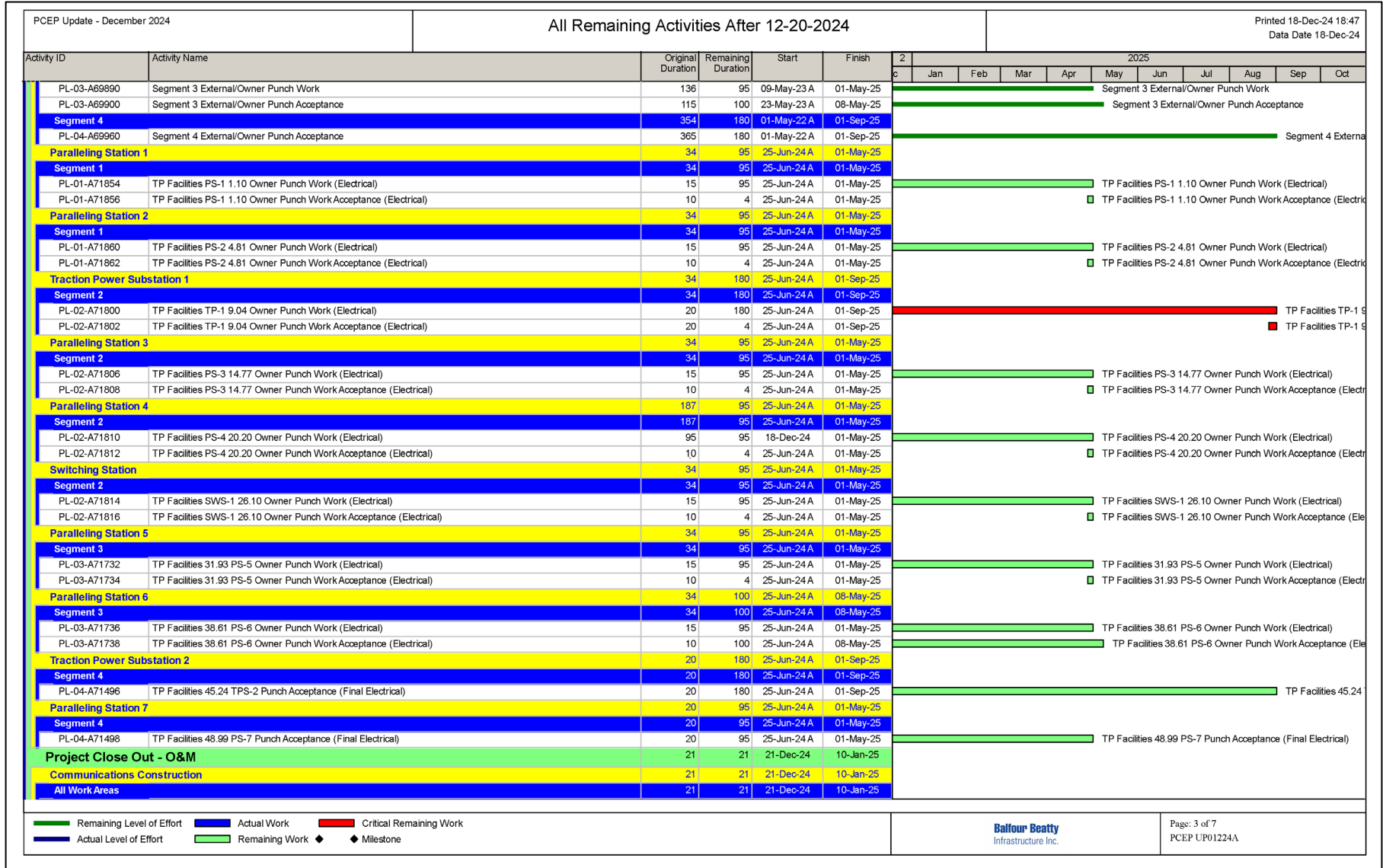


PCEP Update - December 2024			All Remaining Activities After 12-20-2024				Printed 18-Dec-24 18:47 Data Date 18-Dec-24											
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	2	2025											
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct		
TS-04-17360	Perform Remedial/ATS Field Acceptance Tests & Collect Test Reports TPSS 2 (Post Corrosion Mitigation)	20	20	09-Apr-25	06-May-25													
<b>Paralleling Station 7</b>		20	20	09-Apr-25	06-May-25													
Segment 4b (Sta. 2669+85 to 2801+79)(MP 47.6 to 51.1)		20	20	09-Apr-25	06-May-25													
TS-04-17362	Perform Remedial/ATS Field Acceptance Tests & Collect Test Reports PS-7 (Post Corrosion Mitigation)	20	20	09-Apr-25	06-May-25													
<b>Testing &amp; Commissioning (SIT)</b>		14	14	23-Dec-24	13-Jan-25													
<b>SIT Testing Plans / Procedures</b>		14	14	23-Dec-24	13-Jan-25													
Segment 1		14	14	23-Dec-24	13-Jan-25													
TS-01-17260	JPB Review Comment Response for Complied Short Circuit Test Reports (JPB)	14	14	23-Dec-24	13-Jan-25													
<b>Access Yards</b>		100	258	01-May-24 A	01-Sep-25													
<b>Access Yards</b>		100	258	01-May-24 A	01-Sep-25													
Segment 2 WA 5 (Sta. 613+63 to 869+10)(MP 8 to 12.8)		100	14	01-May-24 A	31-Dec-24													
CV-02-40448	Remove Temp Yard - San Bruno	100	14	01-May-24 A	31-Dec-24													
Segment 2 WA 3 (Sta. 1149+07 to 1328+78)(MP 18.1 to 21.5)		100	29	01-May-24 A	01-Sep-25													
CV-02-40444	Remove Temp Yard - Hillsdale	100	29	01-May-24 A	01-Sep-25													
Segment 3 WA 2 (Sta. 1729+20 to 2205+15)(MP 29.1 to 38.1)		100	45	01-May-24 A	31-Jan-25													
CV-03-30418	Remove Temp Yard - Mountain View	100	45	01-May-24 A	31-Jan-25													
<b>LV Power Drop Applications / Installations</b>		231	52	20-May-24 A	07-Feb-25													
<b>CT 34.37 AFTAC Case (CWT-2S)</b>		47	10	04-Nov-24 A	27-Dec-24													
Segment 3 WA 2 (Sta. 1729+20 to 2205+15)(MP 29.1 to 38.1)		47	10	04-Nov-24 A	27-Dec-24													
IMP-03-8046	Revise Location to Trench within the ROW -34.37 AFTAC Case (Temp to perm)	47	10	04-Nov-24 A	27-Dec-24													
<b>CT 35.40 / 35.37 AFTAC Case</b>		198	7	21-Jun-24 A	24-Dec-24													
Segment 3 WA 2 (Sta. 1729+20 to 2205+15)(MP 29.1 to 38.1)		198	7	21-Jun-24 A	24-Dec-24													
PD-03-1760	Request Meter from JPB - 35.40 HO SW Case (CWT-2S)	14	5	21-Jun-24 A	22-Dec-24													
SG-03-15785	Provide Power Drop - 35.40 AFTAC Case (PG&E Date 12/20/24)	63	7	08-Oct-24 A	24-Dec-24													
<b>CT 36.38 AFTAC Case (CWT-2S)</b>		209	52	20-May-24 A	07-Feb-25													
Segment 3 WA 2 (Sta. 1729+20 to 2205+15)(MP 29.1 to 38.1)		209	52	20-May-24 A	07-Feb-25													
IMP-03-40448	City of Mtn View Easement for Trench / Conduit Path -33.38 AFTAC Case	68	6	20-May-24 A	23-Dec-24													
SG-03-CWT-62172	Provide Power Drop - 36.38 AFTAC Case (CWT-2S) (PG&E Org. was Date 10/4)	46	46	24-Dec-24	07-Feb-25													
<b>Project Close Out</b>		484	256	01-Jan-24 A	01-Sep-25													
<b>Project Close Out</b>		484	256	01-Jan-24 A	01-Sep-25													
<b>All Work Areas</b>		484	256	01-Jan-24 A	01-Sep-25													
SM-00-20020	Final Punchlist Complete	60	1	01-Jan-24 A	08-May-25													
DUR-00-2010	Duration Between Final Acceptance / Final Acceptance Exceptions and Warranty Agreement Completion	256	256	20-Dec-24	01-Sep-25													
<b>Project Close Out - Punch List</b>		750	276	01-May-22 A	01-Sep-25													
<b>Project Close Out</b>		750	276	01-May-22 A	01-Sep-25													
<b>All Work Areas</b>		0	0	08-May-25	08-May-25													
PL-00-A70000	Punchlist Complete	0	0		08-May-25													
Segment 1		132	100	15-Nov-23 A	08-May-25													
PL-01-A69770	Segment 1 External/Owner Punch Work	46	95	15-Nov-23 A	01-May-25													
PL-01-A69780	Segment 1 External/Owner Punch Acceptance	64	100	18-Dec-23 A	08-May-25													
Segment 2		129	180	28-Aug-23 A	01-Sep-25													
PL-02-A69830	Segment 2 External/Owner Punch Work	53	180	28-Aug-23 A	01-Sep-25													
PL-02-A69840	Segment 2 External/Owner Punch Acceptance	77	180	18-Sep-23 A	01-Sep-25													
Segment 3		136	100	09-May-23 A	08-May-25													

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining Work  
■ Actual Level of Effort
 ■ Remaining Work
 ◆ Milestone

Balfour Beatty  
Infrastructure Inc.

Page: 2 of 7  
PCEP UP01224A





PCEP Update - December 2024				All Remaining Activities After 12-20-2024				Printed 18-Dec-24 18:47 Data Date 18-Dec-24											
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	2	2025												
						c	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct			
COMM.TOM.1360	Review Resubmittal & Approve O&M SCADA Training Materials (JPB)	21	21	21-Dec-24	10-Jan-25	<div></div>	Review Resubmittal & Approve O&M SCADA Training Materials (JPB)												
<b>Project Close Out - As-Built</b>		208	208	20-Dec-24	01-Jul-25														
<b>Paralleling Station 1</b>		35	35	26-Mar-25	13-May-25														
<b>Segment 1 WA 1 / 1B (Sta. 220+94 to 613+53)(MP .7 to 8)</b>		35	35	26-Mar-25	13-May-25														
AsB-ALL-2142	TP As-Built Plan Reconciliation PS-1 - Assemble Site Book Drawing Package	2	2	26-Mar-25	27-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - Assemble Site Book Drawing Package												
AsB-ALL-2162	TP As-Built Plan Reconciliation PS-2 - Joint JPB/BB Walk and Assimilate Comments	6	6	28-Mar-25	04-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Joint JPB/BB Walk and Assimilate Comments												
AsB-ALL-2000	TP As-Built Plan Reconciliation PS-1 - Evaluate Comments	8	8	07-Apr-25	16-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - Evaluate Comments												
AsB-ALL-2002	TP As-Built Plan Reconciliation PS-1 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	17-Apr-25	18-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - Meet with JPB to Address Comments												
AsB-ALL-2004	TP As-Built Plan Reconciliation PS-2 - Meet with PGH Wong/Hitachi/TPG to review Comments	2	2	21-Apr-25	22-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - Meet with PGH Wong/Hitachi												
AsB-ALL-2006	TP As-Built Plan Reconciliation PS-1 - Correct Comments - PGH Wong - Hitachi - TPG	9	9	23-Apr-25	05-May-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - Correct Comments - PGH Wong - Hitachi - TPG												
AsB-ALL-2008	TP As-Built Plan Reconciliation PS-1 - Collate Comments & Submit to JPB	2	2	06-May-25	07-May-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - Collate Comments & Submit to JPB												
AsB-ALL-2010	TP As-Built Plan Reconciliation PS-1 - Correct Comments - JPB Review & Provide Comments	3	3	08-May-25	12-May-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - Correct Comments - JPB Review & Provide Comments												
AsB-ALL-2012	TP As-Built Plan Reconciliation PS-1 - SONO As-Built	1	1	13-May-25	13-May-25	<div></div>	TP As-Built Plan Reconciliation PS-1 - SONO As-Built												
<b>Paralleling Station 2</b>		24	24	14-Mar-25	16-Apr-25														
<b>Segment 1 WA 1 / 1B (Sta. 220+94 to 613+53)(MP .7 to 8)</b>		24	24	14-Mar-25	16-Apr-25														
AsB-ALL-2160	TP As-Built Plan Reconciliation PS-2 - Assemble Site Book Drawing Package	2	2	14-Mar-25	17-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Assemble Site Book Drawing Package												
AsB-ALL-2041	TP As-Built Plan Reconciliation PS-2 - Joint JPB/BB Walk and Assimilate Comments	6	6	18-Mar-25	25-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Joint JPB/BB Walk and Assimilate Comments												
AsB-ALL-2042	TP As-Built Plan Reconciliation PS-2 - Evaluate Comments	2	2	26-Mar-25	27-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Evaluate Comments												
AsB-ALL-2044	TP As-Built Plan Reconciliation PS-2 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	28-Mar-25	31-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Meet with JPB to Address Comments												
AsB-ALL-2048	TP As-Built Plan Reconciliation PS-2 - Correct Comments - PGH Wong - Hitachi - TPG	6	6	01-Apr-25	08-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Correct Comments - PGH Wong - Hitachi - TPG												
AsB-ALL-2050	TP As-Built Plan Reconciliation PS-2 - Collate Comments & Submit to JPB	2	2	09-Apr-25	10-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Collate Comments & Submit to JPB												
AsB-ALL-2052	TP As-Built Plan Reconciliation PS-2 - Correct Comments - JPB Review & Provide Comments	3	3	11-Apr-25	15-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - Correct Comments - JPB Review & Provide Comments												
AsB-ALL-2054	TP As-Built Plan Reconciliation PS-2 - SONO As-Built	1	1	16-Apr-25	16-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-2 - SONO As-Built												
<b>Traction Power Substation 1</b>		35	35	03-Jan-25	24-Feb-25														
<b>Segment 2 WA 6 (Sta. 613+53 to 869+10)(MP 8 to 12.8)</b>		35	35	03-Jan-25	24-Feb-25														
AsB-ALL-2144	TP As-Built Plan Reconciliation TPS-1 - Assemble Site Book Drawing Package	2	2	03-Jan-25	06-Jan-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Assemble Site Book Drawing Package												
AsB-ALL-2148	TP As-Built Plan Reconciliation TPS-1 - Joint JPB/BB Walk and Assimilate Comments	6	6	07-Jan-25	14-Jan-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Joint JPB/BB Walk and Assimilate Comments												
AsB-ALL-2014	TP As-Built Plan Reconciliation TPS-1 - Evaluate Comments	8	8	15-Jan-25	27-Jan-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Evaluate Comments												
AsB-ALL-2016	TP As-Built Plan Reconciliation TPS-1 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	28-Jan-25	29-Jan-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG												
AsB-ALL-2018	TP As-Built Plan Reconciliation TPS-1 - Meet with PGH Wong/Hitachi/TPG to review Comments	2	2	30-Jan-25	31-Jan-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Meet with PGH Wong/Hitachi/TPG to review Comments												
AsB-ALL-2020	TP As-Built Plan Reconciliation TPS-1 - Correct Comments - PGH Wong - Hitachi - TPG	9	9	03-Feb-25	13-Feb-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Correct Comments - PGH Wong - Hitachi - TPG												
AsB-ALL-2022	TP As-Built Plan Reconciliation TPS-1 - Collate Comments & Submit to JPB	2	2	14-Feb-25	18-Feb-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Collate Comments & Submit to JPB												
AsB-ALL-2024	TP As-Built Plan Reconciliation TPS-1 - Correct Comments - JPB Review & Provide Comments	3	3	19-Feb-25	21-Feb-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - Correct Comments - JPB Review & Provide Comments												
AsB-ALL-2026	TP As-Built Plan Reconciliation TPS-1 - SONO As-Built	1	1	24-Feb-25	24-Feb-25	<div></div>	TP As-Built Plan Reconciliation TPS-1 - SONO As-Built												
<b>Paralleling Station 3</b>		24	24	04-Mar-25	04-Apr-25														
<b>Segment 2 WA 4 - Burlingame (MT 1 WR 2-2-16)</b>		24	24	04-Mar-25	04-Apr-25														
AsB-ALL-2158	TP As-Built Plan Reconciliation PS-3 - Assemble Site Book Drawing Package	2	2	04-Mar-25	05-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - Assemble Site Book Drawing Package												
AsB-ALL-2056	TP As-Built Plan Reconciliation PS-3 - Joint JPB/BB Walk and Assimilate Comments	6	6	06-Mar-25	13-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - Joint JPB/BB Walk and Assimilate Comments												
AsB-ALL-2058	TP As-Built Plan Reconciliation PS-3 - Evaluate Comments	2	2	14-Mar-25	17-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - Evaluate Comments												
AsB-ALL-2060	TP As-Built Plan Reconciliation PS-3 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	18-Mar-25	19-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG												
AsB-ALL-2062	TP As-Built Plan Reconciliation PS-3 - Correct Comments - PGH Wong - Hitachi - TPG	6	6	20-Mar-25	27-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - Correct Comments - PGH Wong - Hitachi - TPG												
AsB-ALL-2064	TP As-Built Plan Reconciliation PS-3 - Collate Comments & Submit to JPB	2	2	28-Mar-25	31-Mar-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - Collate Comments & Submit to JPB												
AsB-ALL-2066	TP As-Built Plan Reconciliation PS-3 - Correct Comments - JPB Review & Provide Comments	3	3	01-Apr-25	03-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - Correct Comments - JPB Review & Provide Comments												
AsB-ALL-2068	TP As-Built Plan Reconciliation PS-3 - SONO As-Built	1	1	04-Apr-25	04-Apr-25	<div></div>	TP As-Built Plan Reconciliation PS-3 - SONO As-Built												
<b>Paralleling Station 4</b>		29	29	20-Feb-25	01-Apr-25														
<div><div><div>Remaining Level of Effort</div><div>Actual Work</div><div>Critical Remaining Work</div></div><div><div>Actual Level of Effort</div><div>Remaining Work</div><div>Milestone</div></div></div>																			
Balfour Beatty Infrastructure Inc.										Page: 4 of 7 PCEP UPO1224A									

PCEP Update - December 2024		All Remaining Activities After 12-20-2024					Printed 18-Dec-24 18:47 Data Date 18-Dec-24											
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	2	2025											
							c	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
<b>Segment 2 WA 3 (Sta. 1149+07 to 1328+78)(MP 18.1 to 21.5)</b>		29	29	20-Feb-25	01-Apr-25													
AsB-ALL-2156	TP As-Built Plan Reconciliation PS-4 - Assemble Site Book Drawing Package	2	2	20-Feb-25	21-Feb-25													TP As-Built Plan Reconciliation PS-4 - Assemble Site Book Drawing Package
AsB-ALL-2070	TP As-Built Plan Reconciliation PS-4 - Joint JPB/BB Walk and Assimilate Comments	6	6	24-Feb-25	03-Mar-25													TP As-Built Plan Reconciliation PS-4 - Joint JPB/BB Walk and Assimilate Comments
AsB-ALL-2071	TP As-Built Plan Reconciliation PS-4 - Evaluate Comments	2	2	04-Mar-25	05-Mar-25													TP As-Built Plan Reconciliation PS-4 - Evaluate Comments
AsB-ALL-2072	TP As-Built Plan Reconciliation PS-4 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	06-Mar-25	07-Mar-25													TP As-Built Plan Reconciliation PS-4 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG
AsB-ALL-2074	TP As-Built Plan Reconciliation PS-4 - Correct Comments - PGH Wong - Hitachi - TPG	5	5	10-Mar-25	14-Mar-25													TP As-Built Plan Reconciliation PS-4 - Correct Comments - PGH Wong - Hitachi - TPG
AsB-ALL-2076	TP As-Built Plan Reconciliation PS-4 - Collate Comments & Submit to JPB	2	2	17-Mar-25	18-Mar-25													TP As-Built Plan Reconciliation PS-4 - Collate Comments & Submit to JPB
AsB-ALL-2078	TP As-Built Plan Reconciliation PS-4 - Correct Comments - JPB Review & Provide Comments	9	9	19-Mar-25	31-Mar-25													TP As-Built Plan Reconciliation PS-4 - Correct Comments - JPB Review & Provide Comments
AsB-ALL-2080	TP As-Built Plan Reconciliation PS-4 - SONO As-Built	1	1	01-Apr-25	01-Apr-25													TP As-Built Plan Reconciliation PS-4 - SONO As-Built
<b>Switching Station</b>		35	35	20-Dec-24	11-Feb-25													
<b>Segment 2 WA 1 (Sta. 1566+34 to 1729+20)(MP 26 to 29.1)</b>		35	35	20-Dec-24	11-Feb-25													
AsB-ALL-2140	TP As-Built Plan Reconciliation SWS - Assemble Site Book Drawing Package	2	2	20-Dec-24	23-Dec-24													TP As-Built Plan Reconciliation SWS - Assemble Site Book Drawing Package
AsB-ALL-2146	TP As-Built Plan Reconciliation SWS - Joint JPB/BB Walk and Assimilate Comments	6	6	24-Dec-24	02-Jan-25													TP As-Built Plan Reconciliation SWS - Joint JPB/BB Walk and Assimilate Comments
AsB-ALL-2028	TP As-Built Plan Reconciliation SWS - Evaluate Comments	8	8	03-Jan-25	14-Jan-25													TP As-Built Plan Reconciliation SWS - Evaluate Comments
AsB-ALL-2030	TP As-Built Plan Reconciliation SWS - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	15-Jan-25	16-Jan-25													TP As-Built Plan Reconciliation SWS - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG
AsB-ALL-2032	TP As-Built Plan Reconciliation SWS - Meet with PGH Wong/Hitachi/TPG to review Comments	2	2	17-Jan-25	21-Jan-25													TP As-Built Plan Reconciliation SWS - Meet with PGH Wong/Hitachi/TPG to review Comments
AsB-ALL-2034	TP As-Built Plan Reconciliation SWS - Correct Comments - PGH Wong - Hitachi - TPG	9	9	22-Jan-25	03-Feb-25													TP As-Built Plan Reconciliation SWS - Correct Comments - PGH Wong - Hitachi - TPG
AsB-ALL-2036	TP As-Built Plan Reconciliation SWS - Collate Comments & Submit to JPB	2	2	04-Feb-25	05-Feb-25													TP As-Built Plan Reconciliation SWS - Collate Comments & Submit to JPB
AsB-ALL-2038	TP As-Built Plan Reconciliation SWS - Correct Comments - JPB Review & Provide Comments	3	3	06-Feb-25	10-Feb-25													TP As-Built Plan Reconciliation SWS - Correct Comments - JPB Review & Provide Comments
AsB-ALL-2040	TP As-Built Plan Reconciliation SWS - SONO As-Built	1	1	11-Feb-25	11-Feb-25													TP As-Built Plan Reconciliation SWS - SONO As-Built
<b>Paralleling Station 5</b>		29	29	07-Feb-25	20-Mar-25													
<b>Segment 3 WA 2 (Sta. 1729+20 to 2205+15)(MP 29.1 to 38.1)</b>		29	29	07-Feb-25	20-Mar-25													
AsB-ALL-2154	TP As-Built Plan Reconciliation PS-5 - Assemble Site Book Drawing Package	2	2	07-Feb-25	10-Feb-25													TP As-Built Plan Reconciliation PS-5 - Assemble Site Book Drawing Package
AsB-ALL-2082	TP As-Built Plan Reconciliation PS-5 - Joint JPB/BB Walk and Assimilate Comments	6	6	11-Feb-25	19-Feb-25													TP As-Built Plan Reconciliation PS-5 - Joint JPB/BB Walk and Assimilate Comments
AsB-ALL-2084	TP As-Built Plan Reconciliation PS-5 - Evaluate Comments	2	2	20-Feb-25	21-Feb-25													TP As-Built Plan Reconciliation PS-5 - Evaluate Comments
AsB-ALL-2086	TP As-Built Plan Reconciliation PS-5 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	24-Feb-25	25-Feb-25													TP As-Built Plan Reconciliation PS-5 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG
AsB-ALL-2088	TP As-Built Plan Reconciliation PS-5 - Correct Comments - PGH Wong - Hitachi - TPG	5	5	26-Feb-25	04-Mar-25													TP As-Built Plan Reconciliation PS-5 - Correct Comments - PGH Wong - Hitachi - TPG
AsB-ALL-2090	TP As-Built Plan Reconciliation PS-5 - Collate Comments & Submit to JPB	2	2	05-Mar-25	06-Mar-25													TP As-Built Plan Reconciliation PS-5 - Collate Comments & Submit to JPB
AsB-ALL-2092	TP As-Built Plan Reconciliation PS-5 - Correct Comments - JPB Review & Provide Comments	9	9	07-Mar-25	19-Mar-25													TP As-Built Plan Reconciliation PS-5 - Correct Comments - JPB Review & Provide Comments
AsB-ALL-2094	TP As-Built Plan Reconciliation PS-5 - SONO As-Built	1	1	20-Mar-25	20-Mar-25													TP As-Built Plan Reconciliation PS-5 - SONO As-Built
<b>Paralleling Station 6</b>		40	40	28-Jan-25	25-Mar-25													
<b>Segment 3 WA 1 (Sta. 2205+15 to 2511+63)(MP 38.1 to 44.5)</b>		40	40	28-Jan-25	25-Mar-25													
AsB-ALL-2152	TP As-Built Plan Reconciliation PS-6 - Assemble Site Book Drawing Package	2	2	28-Jan-25	29-Jan-25													TP As-Built Plan Reconciliation PS-6 - Assemble Site Book Drawing Package
AsB-ALL-2096	TP As-Built Plan Reconciliation PS-6 - Joint JPB/BB Walk and Assimilate Comments	6	6	30-Jan-25	06-Feb-25													TP As-Built Plan Reconciliation PS-6 - Joint JPB/BB Walk and Assimilate Comments
AsB-ALL-2098	TP As-Built Plan Reconciliation PS-6 - Evaluate Comments	2	2	07-Feb-25	10-Feb-25													TP As-Built Plan Reconciliation PS-6 - Evaluate Comments
AsB-ALL-2100	TP As-Built Plan Reconciliation PS-6 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	11-Feb-25	12-Feb-25													TP As-Built Plan Reconciliation PS-6 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG
AsB-ALL-2102	TP As-Built Plan Reconciliation PS-6 - Correct Comments - PGH Wong - Hitachi - TPG	11	11	13-Feb-25	28-Feb-25													TP As-Built Plan Reconciliation PS-6 - Correct Comments - PGH Wong - Hitachi - TPG
AsB-ALL-2104	TP As-Built Plan Reconciliation PS-6 - Collate Comments & Submit to JPB	2	2	03-Mar-25	04-Mar-25													TP As-Built Plan Reconciliation PS-6 - Collate Comments & Submit to JPB
AsB-ALL-2106	TP As-Built Plan Reconciliation PS-6 - Correct Comments - JPB Review & Provide Comments	14	14	05-Mar-25	24-Mar-25													TP As-Built Plan Reconciliation PS-6 - Correct Comments - JPB Review & Provide Comments
AsB-ALL-2108	TP As-Built Plan Reconciliation PS-6 - SONO As-Built	1	1	25-Mar-25	25-Mar-25													TP As-Built Plan Reconciliation PS-6 - SONO As-Built
<b>Traction Power Substation 2</b>		30	30	20-Dec-24	04-Feb-25													
<b>Segment 4b (Sta. 2669+85 to 2801+79)(MP 47.6 to 51.1)</b>		30	30	20-Dec-24	04-Feb-25													
AsB-ALL-2126	TP As-Built Plan Reconciliation TP-2 - Evaluate Comments	2	2	20-Dec-24	23-Dec-24													TP As-Built Plan Reconciliation TP-2 - Evaluate Comments
AsB-ALL-2128	TP As-Built Plan Reconciliation TP-2 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG	2	2	27-Dec-24	30-Dec-24													TP As-Built Plan Reconciliation TP-2 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG
AsB-ALL-2130	TP As-Built Plan Reconciliation TP-2 - Correct Comments - PGH Wong - Hitachi - TPG	7	7	31-Dec-24	09-Jan-25													TP As-Built Plan Reconciliation TP-2 - Correct Comments - PGH Wong - Hitachi - TPG
AsB-ALL-2132	TP As-Built Plan Reconciliation TP-2 - Collate Comments & Submit to JPB	11	11	10-Jan-25	27-Jan-25													TP As-Built Plan Reconciliation TP-2 - Collate Comments & Submit to JPB
<div> <div>Remaining Level of Effort</div> <div>Actual Work</div> <div>Critical Remaining Work</div> <div>Actual Level of Effort</div> <div>Remaining Work</div> <div>Milestone</div> </div>		<div> <div>Balfour Beatty</div> <div>Infrastructure Inc.</div> </div>												<div>Page: 5 of 7</div> <div>PCEP UP01224A</div>				

PCEP Update - December 2024		All Remaining Activities After 12-20-2024				Printed 18-Dec-24 18:47 Data Date 18-Dec-24														
Activity ID		Activity Name		Original Duration	Remaining Duration	Start	Finish	2	2025											
								c	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct		
AsB-ALL-2134		TP As-Built Plan Reconciliation TP-2 - Correct Comments - JPB Review & Provide Comments		5	5	28-Jan-25	03-Feb-25		TP As-Built Plan Reconciliation TP-2 - Correct Comments - JPB Review & Provide Comments											
AsB-ALL-2136		TP As-Built Plan Reconciliation TP-2 - SONO As-Built		1	1	04-Feb-25	04-Feb-25		TP As-Built Plan Reconciliation TP-2 - SONO As-Built											
Paralleling Station 7				40	40	15-Jan-25	13-Mar-25													
Segment 4b (Sta. 2669+85 to 2801+79)(MP 47.6 to 51.1)				40	40	15-Jan-25	13-Mar-25													
AsB-ALL-2150		TP As-Built Plan Reconciliation PS-7 - Assemble Site Book Drawing Package		2	2	15-Jan-25	16-Jan-25		TP As-Built Plan Reconciliation PS-7 - Assemble Site Book Drawing Package											
AsB-ALL-2110		TP As-Built Plan Reconciliation PS-7 - Joint JPB/BB Walk and Assimilate Comments		6	6	17-Jan-25	27-Jan-25		TP As-Built Plan Reconciliation PS-7 - Joint JPB/BB Walk and Assimilate Comments											
AsB-ALL-2112		TP As-Built Plan Reconciliation PS-7 - Evaluate Comments		2	2	28-Jan-25	29-Jan-25		TP As-Built Plan Reconciliation PS-7 - Evaluate Comments											
AsB-ALL-2114		TP As-Built Plan Reconciliation PS-7 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG		2	2	30-Jan-25	31-Jan-25		TP As-Built Plan Reconciliation PS-7 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/JM/EG											
AsB-ALL-2116		TP As-Built Plan Reconciliation PS-7 - Correct Comments - PGH Wong - Hitachi - TPG		11	11	03-Feb-25	18-Feb-25		TP As-Built Plan Reconciliation PS-7 - Correct Comments - PGH Wong - Hitachi - TPG											
AsB-ALL-2118		TP As-Built Plan Reconciliation PS-7 - Collate Comments & Submit to JPB		2	2	19-Feb-25	20-Feb-25		TP As-Built Plan Reconciliation PS-7 - Collate Comments & Submit to JPB											
AsB-ALL-2120		TP As-Built Plan Reconciliation PS-7 - Correct Comments - JPB Review & Provide Comments		14	14	21-Feb-25	12-Mar-25		TP As-Built Plan Reconciliation PS-7 - Correct Comments - JPB Review & Provide Comments											
AsB-ALL-2122		TP As-Built Plan Reconciliation PS-7 - SONO As-Built		1	1	13-Mar-25	13-Mar-25		TP As-Built Plan Reconciliation PS-7 - SONO As-Built											
WPC Seg 4				40	40	07-Apr-25	13-May-25													
Segment 4				40	40	07-Apr-25	13-May-25													
AsB-ALL-2164		TP As-Built Plan Reconciliation WPC Seg 4 - Assemble Site Book Drawing Package		5	5	07-Apr-25	11-Apr-25		TP As-Built Plan Reconciliation WPC Seg 4 - Assemble Site Book Drawing Package											
AsB-ALL-2166		TP As-Built Plan Reconciliation WPC Seg 4 - Joint JPB/BB Walk and Assimilate Comments		6	6	14-Apr-25	21-Apr-25		TP As-Built Plan Reconciliation WPC Seg 4 - Joint JPB/BB Walk and Assimilate Comments											
AsB-ALL-2168		TP As-Built Plan Reconciliation WPC Seg 4 - Evaluate Comments		2	2	22-Apr-25	23-Apr-25		TP As-Built Plan Reconciliation WPC Seg 4 - Evaluate Comments											
AsB-ALL-2170		TP As-Built Plan Reconciliation WPC Seg 4 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/J		2	2	24-Apr-25	25-Apr-25		TP As-Built Plan Reconciliation WPC Seg 4 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/J											
AsB-ALL-2172		TP As-Built Plan Reconciliation WPC Seg 4 - Correct Comments - PGH Wong - Hitachi - TPG		6	6	28-Apr-25	05-May-25		TP As-Built Plan Reconciliation WPC Seg 4 - Correct Comments - PGH Wong - Hitachi - TPG											
AsB-ALL-2174		TP As-Built Plan Reconciliation WPC Seg 4 - Collate Comments & Submit to JPB		2	2	06-May-25	07-May-25		TP As-Built Plan Reconciliation WPC Seg 4 - Collate Comments & Submit to JPB											
AsB-ALL-2176		TP As-Built Plan Reconciliation WPC Seg 4 - Correct Comments - JPB Review & Provide Comments		3	3	08-May-25	12-May-25		TP As-Built Plan Reconciliation WPC Seg 4 - Correct Comments - JPB Review & Provide Comments											
AsB-ALL-2178		TP As-Built Plan Reconciliation WPC Seg 4 - SONO As-Built		1	1	13-May-25	13-May-25		TP As-Built Plan Reconciliation WPC Seg 4 - SONO As-Built											
WPC Seg 3				25	25	22-Apr-25	27-May-25													
Segment 3				25	25	22-Apr-25	27-May-25													
AsB-ALL-2180		TP As-Built Plan Reconciliation WPC Seg 3 - Assemble Site Book Drawing Package		3	3	22-Apr-25	24-Apr-25		TP As-Built Plan Reconciliation WPC Seg 3 - Assemble Site Book Drawing Package											
AsB-ALL-2182		TP As-Built Plan Reconciliation WPC Seg 3 - Joint JPB/BB Walk and Assimilate Comments		6	6	25-Apr-25	02-May-25		TP As-Built Plan Reconciliation WPC Seg 3 - Joint JPB/BB Walk and Assimilate Comments											
AsB-ALL-2184		TP As-Built Plan Reconciliation WPC Seg 3 - Evaluate Comments		2	2	05-May-25	06-May-25		TP As-Built Plan Reconciliation WPC Seg 3 - Evaluate Comments											
AsB-ALL-2186		TP As-Built Plan Reconciliation WPC Seg 3 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/J		2	2	07-May-25	08-May-25		TP As-Built Plan Reconciliation WPC Seg 3 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/J											
AsB-ALL-2188		TP As-Built Plan Reconciliation WPC Seg 3 - Correct Comments - PGH Wong - Hitachi - TPG		6	6	09-May-25	16-May-25		TP As-Built Plan Reconciliation WPC Seg 3 - Correct Comments - PGH Wong - Hitachi - TPG											
AsB-ALL-2190		TP As-Built Plan Reconciliation WPC Seg 3 - Collate Comments & Submit to JPB		2	2	19-May-25	20-May-25		TP As-Built Plan Reconciliation WPC Seg 3 - Collate Comments & Submit to JPB											
AsB-ALL-2192		TP As-Built Plan Reconciliation WPC Seg 3 - Correct Comments - JPB Review & Provide Comments		3	3	21-May-25	23-May-25		TP As-Built Plan Reconciliation WPC Seg 3 - Correct Comments - JPB Review & Provide Comments											
AsB-ALL-2194		TP As-Built Plan Reconciliation WPC Seg 3 - SONO As-Built		1	1	27-May-25	27-May-25		TP As-Built Plan Reconciliation WPC Seg 3 - SONO As-Built											
WPC Seg 2				26	26	05-May-25	10-Jun-25													
Segment 2				26	26	05-May-25	10-Jun-25													
AsB-ALL-2196		TP As-Built Plan Reconciliation WPC Seg 2 - Assemble Site Book Drawing Package		4	4	05-May-25	08-May-25		TP As-Built Plan Reconciliation WPC Seg 2 - Assemble Site Book Drawing Package											
AsB-ALL-2198		TP As-Built Plan Reconciliation WPC Seg 2 - Joint JPB/BB Walk and Assimilate Comments		6	6	09-May-25	16-May-25		TP As-Built Plan Reconciliation WPC Seg 2 - Joint JPB/BB Walk and Assimilate Comments											
AsB-ALL-2200		TP As-Built Plan Reconciliation WPC Seg 2 - Evaluate Comments		2	2	19-May-25	20-May-25		TP As-Built Plan Reconciliation WPC Seg 2 - Evaluate Comments											
AsB-ALL-2202		TP As-Built Plan Reconciliation WPC Seg 2 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/J		2	2	21-May-25	22-May-25		TP As-Built Plan Reconciliation WPC Seg 2 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJ/J											
AsB-ALL-2204		TP As-Built Plan Reconciliation WPC Seg 2 - Correct Comments - PGH Wong - Hitachi - TPG		6	6	23-May-25	02-Jun-25		TP As-Built Plan Reconciliation WPC Seg 2 - Correct Comments - PGH Wong - Hitachi - TPG											
AsB-ALL-2206		TP As-Built Plan Reconciliation WPC Seg 2 - Collate Comments & Submit to JPB		2	2	03-Jun-25	04-Jun-25		TP As-Built Plan Reconciliation WPC Seg 2 - Collate Comments & Submit to JPB											
AsB-ALL-2208		TP As-Built Plan Reconciliation WPC Seg 2 - Correct Comments - JPB Review & Provide Comments		3	3	05-Jun-25	09-Jun-25		TP As-Built Plan Reconciliation WPC Seg 2 - Correct Comments - JPB Review & Provide Comments											
AsB-ALL-2210		TP As-Built Plan Reconciliation WPC Seg 2 - SONO As-Built		1	1	10-Jun-25	10-Jun-25		TP As-Built Plan Reconciliation WPC Seg 2 - SONO As-Built											
WPC Seg 1				30	30	19-May-25	01-Jul-25													
Segment 1				30	30	19-May-25	01-Jul-25													
AsB-ALL-2212		TP As-Built Plan Reconciliation WPC Seg 1 - Assemble Site Book Drawing Package		2	2	19-May-25	20-May-25		TP As-Built Plan Reconciliation WPC Seg 1 - Assemble Site Book Drawing Package											
AsB-ALL-2214		TP As-Built Plan Reconciliation WPC Seg 1 - Joint JPB/BB Walk and Assimilate Comments		6	6	21-May-25	29-May-25		TP As-Built Plan Reconciliation WPC Seg 1 - Joint JPB/BB Walk and Assimilate Comments											
Remaining Level of Effort		Actual Work		Critical Remaining Work																
Actual Level of Effort		Remaining Work		Milestone																
						Balfour Beatty Infrastructure Inc.														
						Page: 6 of 7 PCEP UP01224A														

## Exhibit J

PCEP Update - December 2024		All Remaining Activities After 12-20-2024					Printed 18-Dec-24 18:47 Data Date 18-Dec-24											
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	2	2025											
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct		
AsB-ALL-2216	TP As-Built Plan Reconciliation WPC Seg 1 - Evaluate Comments	2	2	30-May-25	02-Jun-25													TP As-Built Plan Reconciliation WPC Seg 1 - Evaluate Comments
AsB-ALL-2218	TP As-Built Plan Reconciliation WPC Seg 1 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJJU	2	2	03-Jun-25	04-Jun-25													TP As-Built Plan Reconciliation WPC Seg 1 - Meet with JPB to Address Comments Responding To - KM/SB/SC/KJJU
AsB-ALL-2220	TP As-Built Plan Reconciliation WPC Seg 1 - Correct Comments - PGH Wong - Hitachi - TPG	12	12	05-Jun-25	23-Jun-25													TP As-Built Plan Reconciliation WPC Seg 1 - Correct Comments - PGH Wong - Hitachi - TPG
AsB-ALL-2222	TP As-Built Plan Reconciliation WPC Seg 1 - Collate Comments & Submit to JPB	2	2	24-Jun-25	25-Jun-25													TP As-Built Plan Reconciliation WPC Seg 1 - Collate Comments & Submit to JPB
AsB-ALL-2224	TP As-Built Plan Reconciliation WPC Seg 1 - Correct Comments - JPB Review & Provide Comments	3	3	26-Jun-25	30-Jun-25													TP As-Built Plan Reconciliation WPC Seg 1 - Correct Comments - JPB Review & Provide Comments
AsB-ALL-2226	TP As-Built Plan Reconciliation WPC Seg 1 - SONO As-Built	1	1	01-Jul-25	01-Jul-25													TP As-Built Plan Reconciliation WPC Seg 1 - SONO As-Built
<b>Project Close Out - NCR</b>		21	5	24-Oct-24 A	22-Dec-24													
<b>BBII NCR-114</b>		21	5	24-Oct-24 A	22-Dec-24													
<b>All Work Areas</b>		21	5	24-Oct-24 A	22-Dec-24													
NCR-114-040	NCR-114: JPB Review Resubmittal for Installed Pfisterer Connectors (JPB)	21	5	24-Oct-24 A	22-Dec-24													NCR-114: JPB Review Resubmittal for Installed Pfisterer Connectors (JPB)
<b>Project Close Out - Final Acceptance</b>		501	276	09-May-24 A	02-Sep-25													
<b>Final Acceptance</b>		501	276	09-May-24 A	02-Sep-25													
<b>All Work Areas</b>		501	276	09-May-24 A	02-Sep-25													
FA-00-1077	Quality Control - NCR's Closed Final Acceptance	0	0		22-Dec-24													Quality Control - NCR's Closed Final Acceptance
FA-00-1040	City of San Jose Permits - Closed	20	15	09-May-24 A	09-Jan-25													City of San Jose Permits - Closed
FA-00-1078	All items in Aconex - SONO	0	0		13-Jan-25													All items in Aconex - SONO
FA-00-1016	City of San Francisco Permits - Closed	20	45	15-May-24 A	24-Feb-25													City of San Francisco Permits - Closed
FA-00-1050	TP Mandatory Spares - Delivered	0	0		01-Sep-25*													TP Mandatory Spares - Delivered
FA-00-1054	SCADA Mandatory Spares - Delivered	0	0		01-Sep-25*													SCADA Mandatory Spares - Delivered
FA-00-1064	TP Special Tools/Test Equipment Delivered	0	0		01-Sep-25*													TP Special Tools/Test Equipment Delivered
FA-00-1006	Final Clean Up - TP	10	1	12-Aug-24 A	02-Sep-25													Final Clean Up - TP
<b>Segment 3</b>		8	8	19-Dec-24	31-Dec-24													
FA-03-1208	City Schedule / Perform Final Inspection for Permit Closure in City of Mountain View	8	8	19-Dec-24	31-Dec-24													City Schedule / Perform Final Inspection for Permit Closure in City of Mountain View

■ Remaining Level of Effort   
 ■ Actual Work   
 ■ Critical Remaining Work  
■ Actual Level of Effort   
 ■ Remaining Work   
 ◆ Milestone   
 ◆ Milestone

**Balfour Beatty**  
 Infrastructure Inc.

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## Attachment L PMOC Team

The report was prepared by the Task Order Manager, **Mike Eidlin, J.D. (KKCS)**. Mike has more than 40 years of complex project management experience including over thirty (30) years in transit. Mr. Eidlin possesses a B.S. degree, a graduate Degree of Engineer, and a Juris Doctor degree. He is a licensed attorney in the State of Oregon. He has been working as a PMOC for 20 years.

**Brett L. Rekola, P.E. (KKCS)** contributed to the preparation of the report and provided the Quality Assurance of the report. Mr. Rekola is the Program Manager for the KKCS FTA PMOC prime contract. He is a California professional civil engineer with more than forty (40) years of experience managing railroad maintenance, planning, and design, construction, and rail operations. He has served as a program manager delivering port/rail/public works projects and programs.

**Nancy Voltura (KKCS)** assisted with the report. Ms. Voltura has over forty (40) years of Quality Assurance (QA) experience working as a QA Engineer, QA Auditor, and QA Manager on large design and construction projects. Ms. Voltura is a trained Apparent Cause Analyst evaluating heavy construction quality issues, is a trained professional QA Auditor and has been a certified Lead QA Auditor per ASME/NQA-1 and N45.2.23 standards.

**Kevin Byers, P.S.P. (KKCS)** assisted with the report. He is the KKCS Project Scheduling Manager, holds a B.S. degree in Construction Management, and has thirty-two (32) years of experience in scheduling and claims analysis for railroad and rail transit projects.

**Dan Holzman, P.E., (KKCS)** assisted with the report and is the KKCS Cost Estimation Manager. Mr. Holzman has a B.S. degree in Environmental Engineering and M.S. degree in Civil Engineering and holds a license as a Professional Engineer in Massachusetts. He has over forty-five (45) years of experience in construction and engineering and is a Certified Cost Professional.

The administrative Quality Control review of this report was done by **Chelsea Ellis, (KKCS)**. Ms. Ellis has a Bachelor of Science degree in Business Administration and more than ten (10) years of experience providing quality review checks on various technical documents.