

Caltrain Electrification Project Update

Peninsula Corridor Joint Powers Board

April 7, 2022

Agenda Item #8f



Project Overview

Project Overview

- San Francisco to San Jose (Tamien Station)
- 51 miles
- Project Cost: \$2.44B
- Revenue Service: fall 2024



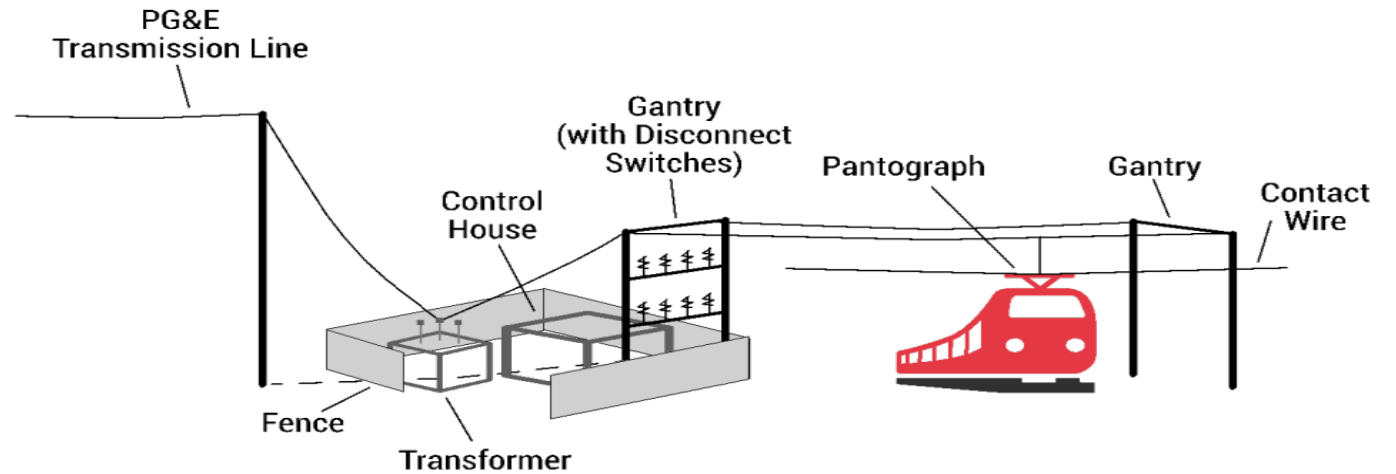
Project Elements

- Electrification
 - Overhead Contact System (OCS)
 - Traction Power Facilities
 - Signal System

- Electric Trains

- 19 7-car train sets (133 cars)
- 75% replacement diesel fleet

(Note: 96 cars funded by project; 37 cars funded by State TIRCP)



Project Benefits



Improved Train Performance,
Increased Service and Greater Capacity



Improved Regional Air Quality and
Reduced Greenhouse Gas Emissions



Job Creation Locally and
Across the Country



Reduced Engine Noise
Emanating from Trains



Project Highlights

Project Highlights

- No change to revenue service date – Fall 2024
- Construction progress
 - All foundation work complete
 - TPS-2 commissioning of 115kV #2 circuit breaker complete
- Segment 2 Signal work rescheduled to May
- Close monitoring of signal installation, testing and system risks
 - Close coordination with PG&E

Project Highlights, cont.

- No change to project budget - \$2.44B
 - No draw from project contingency, incentive pool
 - **Total \$195,000** drawn from shared risk pool (as of March 23, 2022)
 - ProVen claims resolution – **JPB Approval**
 - ICAP reevaluation / FTA and CHSRA review
- BBII/JPB additional resources in place and partnering efforts continue
- Finalizing FTA and CHSRA on Recovery/Remediation Plan
- State and federal funding advocacy continues

Key Milestones

Item	Date
Finalize Recovery / Remediation Plan	March 2022
Arrival of First Two Trainsets	March 20, 2022
Major Signal System Cutovers in Segment 2	May 2022
Energization of Segment 4	June 2022
Completion of Segment 4	June 2022

Arrival of First Two Trainsets

- Two seven-car trainsets arrived on JPB Property on March 20th via rail.



Safety and Security

Time Period	Reportable Injury Rate
January 1, 2022 to February 28, 2022	0
Since Project Start (2017)	1.71

Note: National Average Reportable Injury Rate is 2.50

Reportable Injury Rate as of February 28, 2022

- March 10, 2022 incident reported. Under investigation by National Transportation Safety Board.
Note: Project Team and the Contractor are currently performing time impact analysis to determine potential impact to Project Schedule due to the temporary suspension of work after the incident.

Construction Update

Construction Segments

Segment 1
San Francisco to Brisbane

Segment 2
South San Francisco to Atherton

Segment 3
Menlo Park to Santa Clara

Segment 4
Santa Clara to Tamien



Overhead Contact System

Component	Segment	This month Progress	Last Month
Foundations (3,092 total)	Segments 4, 3, 2, 1	Complete	
Poles (2,587 total)	Segments 4 / 3	Complete	
	Segments 2 / 1	621 remaining	722 remaining
Wire (1.5M linear feet total)	Segments 4 / 3	Complete	
	Segments 2 / 1	571K remaining	571K remaining



Traction Power Facilities

Component	This Month Progress	Last Month
Traction Power Facilities (10 total)	85%	83%

- Work remaining energization, commissioning, testing
- Anticipated completion fall 2022



As of March 25, 2022

Signal System and Communication

- 2 Speed Check
 - Segment 4
 - Complete “punch list”
 - Segment 2
 - Major cutover reschedule to May (temporary service schedule: May 2 to May 20)
 - 17 grade crossings in Burlingame and San Mateo
 - Anticipated completion November 2022
 - Segments 1 and 3 work remaining
- Crossing Optimization Project work on-going

Temporary Service Schedule

- Temporary train schedule **May 2 to May 20**
- No change: Mid-day, evening, and weekend schedules
- Overall service reduction from 104 to 88 trains/weekday
 - Peak service reduction from 4 to 3 limited trains/hour/direction
 - No local service during peak hours
 - Suspended Baby Bullet service
- Trains single-track at Broadway, Burlingame, San Mateo, Hayward Park and Hillsdale stations

Customer Outreach

- Landing page
- Organic social
(Twitter, FB, IG, Nextdoor, Tiktok)
- Paid digital and print ads
- Station ambassadors
- Email blasts
- Mobile app alerts
- Visual messaging signage at stations
- Onboard and station announcements
- Press release
- Amplify message via elected officials, cities, counties
- Updates to key stakeholders, business groups
- 50% off fare promotion for month of April

50% off Fares in April

- April Monthly Pass
- Day Pass
- One-Way
- Zone Upgrades
- Good for Eligible Discounts on Youth and Seniors
- Significant marketing campaign
 - Featured on: CBS local, NBC Bay Area, ABC 7, KTSF, Telemundo, SM Daily Journal, Climate RWC
- Does not apply to the Go Pass
- More information: [Caltrain.com/50percentoff](https://www.caltrain.com/50percentoff)



Electric Trains

- First two trainsets arrived March 20, 2022
- Trainsets arrive every 2-3 months, 2 per shipment
- 14th trainset anticipated arrival fall 2023
- 19th trainset anticipated arrival fall 2024

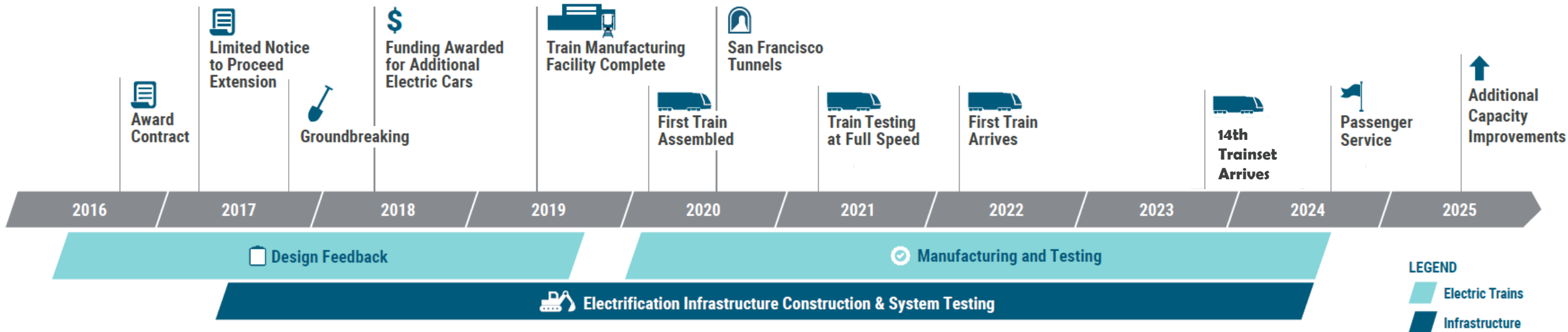


As of March 24, 2022

Program Management

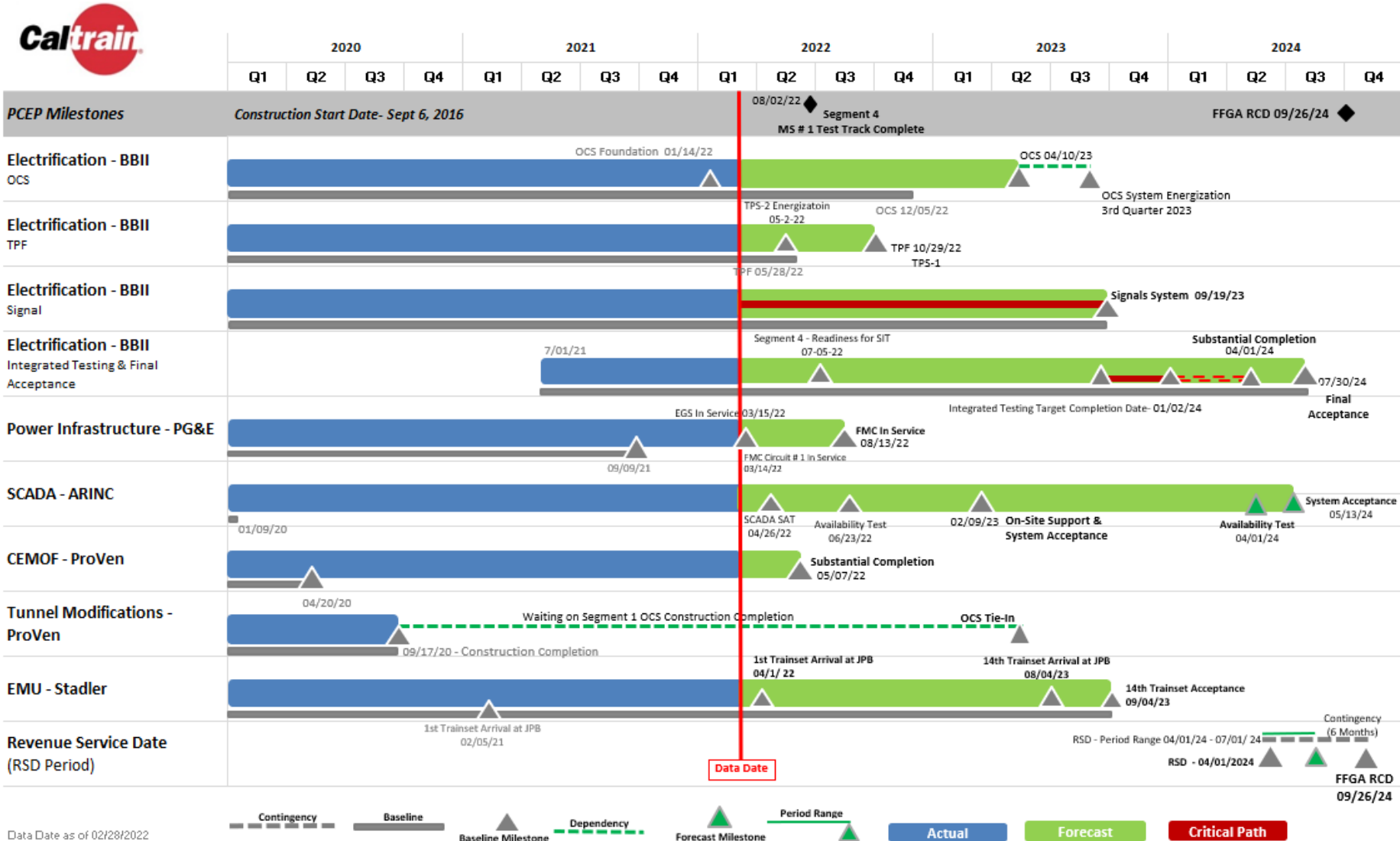
Program Master Schedule

Revenue Service Fall 2024



Program Master Schedule Detail

Revenue Service Fall 2024



Top Risks

Risk	Mitigation
Late completion of Signal Phase Study (SPS) for TPS 2 impact to Segment 4 OCS/TPS Commissioning and EMU testing	Technical team meetings with PG&E weekly to expedite modeling effort for SPS. Caltrain and PG&E Executives meetings weekly to monitor progress. Additional Resources added to expedite the effort, SPS to be completed by the end of April
Late execution of PG&E Transmission Operating Load Agreement impact to Segment 4 energization	Technical team and management to expedite documentation reviews.
Delay of Signal (2SC) cutovers	Segment 2 Signal (2SC) cutover moved to May. Developed and monitor each segment cutover dashboard including design submittal, site issues time.
\$410M state/federal funding plan	Funding team has identified federal and state grant opportunities to pursue. Targeted advocacy is on-going.
Contractor field resources and equipment availability	Schedule / resources workshop with contractor. Identifying areas of concern and solutions.
Caltrain resources for project acceptance, operations and maintenance	Organization and specialized staff plan development.

Green = Mitigations/actions identified and no impact to budget/schedule

Yellow = Mitigations/actions identified and potential impact to budget/schedule

Red = Impact to budget/schedule

Program Budget

Description of Work	Current Budget (1)	Cost for Month (2)	Cost to Date (3)	Estimate to Complete	Project Total
Electrification	\$1,749,139,438	\$96,222,702	\$1,268,777,686	\$480,361,752	\$1,749,139,438
EMU	\$693,551,258	\$5,721,249	\$339,358,475	\$354,192,783	\$693,551,258
Program Total	\$2,442,690,697	\$101,943,951	\$1,608,136,161	\$834,554,535	\$2,442,690,697

Notes:

1 "Current Budget" includes executed change orders and awarded contracts

2 "Cost This Month" represents cost of work performed February 2022

3 "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) as of February 2022

Program Budget Details

	(B)	(C)	(D)	(E)	(F) = (D) + (E)
Description of Work	Re-Baseline Budget	Cost This Month	Cost To Date	Estimate To Complete	Estimate At Completion
Electrification	\$1,097,149,881	\$81,536,273	\$731,661,742	\$365,488,139	\$1,097,149,881
EMU Procurement	\$556,072,601	\$4,753,440	\$268,148,445	\$287,924,156	\$556,072,601
Minor Construction Contracts (SSF, 25th Grade, Tunnel, CEMOF, SCADA, Non-BBI OCS)	\$67,055,072	\$162,835	\$56,623,455	\$10,431,617	\$67,055,072
Real Estate Acquisition & Support	\$34,914,177	\$44,475	\$23,578,527	\$11,335,650	\$34,914,177
PG&E, Utilities	\$132,088,995	\$8,300,773	\$191,226,398	-\$59,137,404	\$132,088,995
Management Oversight & Support	\$312,699,697	\$2,113,908	\$231,674,042	\$81,025,655	\$312,699,697
TASI Support	\$114,488,767	\$1,612,645	\$73,170,962	\$41,317,805	\$114,488,767
Finance Charges	\$9,898,638	\$17,550	\$7,850,977	\$2,047,661	\$9,898,638
Insurance	\$6,581,851	\$0	\$4,581,851	\$2,000,000	\$6,581,851
Other Required Projects & Services	\$9,084,176	\$0	\$2,454,860	\$6,629,316	\$9,084,176
Environmental Mitigation	\$14,438,866	\$25,427	\$1,140,580	\$13,298,286	\$14,438,866
Caltrain Capital Overhead (ICAP)	\$48,217,887	\$3,376,625	\$16,024,322	\$32,193,565	\$48,217,887
Contingency (allocated and unallocated)	\$40,000,089	\$0	\$0	\$40,000,089	\$40,000,089
Total	\$2,442,690,697	\$101,943,951	\$1,608,136,161	\$834,554,535	\$2,442,690,697

Notes:

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Contingency, Risk and Incentive Details

	Project Contingency	BBII Shared Risk Pool	BBII Incentive Pool*	Total
Baseline Amount <i>as of 12/6/21</i>	\$40.0M	\$50.0M	\$18.5M	\$108.5M
Usage / Add <i>through 3/25/22</i>	(\$0.0M)	(\$0.194M)	(\$0.0M)	(\$.194M)
Remaining Balance	\$40.0M	\$49.81M	\$18.5M	\$108.306M

Notes: *Total incentive includes carryover from original budget and \$15M from BBII global settlement

Funding Update

- \$410M State / Federal funding (\$200M needed by June 2023 for cashflow)
- Federal Targets
 - Advocate for infrastructure funding for FFGA projects (FTA)
 - Advocate for State Partnership for Intercity Rail grant program in partnership with HSR (FRA)
 - MTC adopted strategy that is consistent with these efforts
 - Seek “Community Project” funding opportunities
- State Targets
 - Advocate for “TIRCP Augmentation” funding through State budget process (MTC supportive)
 - AB 2197 (Mullin) for \$260M project funding effort directed to state budget process
 - Assess CTC Solutions for Congested Corridors Program for eligibility and competitiveness

Upcoming Board Actions

- No upcoming Board Actions

FOR MORE INFORMATION

WWW.CALTRAIN.COM

