

Caltrain Electrification Project Update

Peninsula Corridor Joint Powers Board

November 2, 2023

Agenda Item #12



Project Highlights

Project Highlights

- Schedule: No change to revenue service date - fall 2024
- Budget: No change to project budget - \$2.44B
 - \$253K September 2023 draw from “\$50M Shared Risk Pool”
 - No September 2023 draw from “\$40M Project Contingency”
- Construction
 - Overhead Contact System - Revised Path to Completion
 - December Short Circuit Tests Rescheduled
 - Original December Bus Bridges Rescheduled for Early 2024
- Electric Trains
 - First Electric Train Completes 1,000-Mile Test
 - Two Trainsets Arrived Early November 2023
 - Next Two Trainsets Expected Late November 2023

Safety and Security

Time Period	Reportable Injury Rate
January 1 to September 30, 2023	1.33
Since Project Start (2017)	1.52

Note: National Average Reportable Injury Rate is 2.50.

- **No reportable injury for September 2023 (5 total for 2023)**
- Project Safety Awareness trainings ongoing for Local Fire and Police Departments (**811** emergency responders trained to date)
- Completed 25kV training for all TASI and tenant railroad staff
- Development of emergency responder safety presentation for local first responders

Project Contingency and Shared Risk Pool

Item	Amount	Executed in September 2023	Executed To Date	Amount Remaining
BBII Shared Risk Pool	\$50.00M	\$0.25M ⁽¹⁾	\$11.01M	\$38.99M
Project Contingency	\$40.00M	\$0.00M	\$12.26M	\$27.74M
Total	\$90.00M	\$0.25M	\$23.27M	\$66.73M

- *Note (1)*
 - *For Reed Street signal cutover and track access delay*

Top Risks

- Contractor Overhead Contact System Productivity
- Contractor Quality Control and Quality Assurance
- Timely Completion of Integrated Testing and Live Runs
- Traction Power Energization and Short Circuit Testing (TPS-1)
- Theft of Impedance Bonds Cables

Service Changes and Customer Experience

Weekend Shutdowns

- Regular weekend service in November and December 2023
- Additional weekend shutdowns planned early 2024

Area (Phase)	Work Activity	Weekends	Number of Weekends
San Francisco to Millbrae (Phase 1)	OCS Construction	February 11-12 February 25-26 March 4-5 March 11-12	4
Millbrae to Hillsdale (Phase 2)	OCS Construction	March 25-26 April 1-2	2
Belmont to Menlo Park (Phase 3)	OCS Construction	April 8-9 April 15-16	2
Menlo Park to Santa Clara (Phase 4)	Signal Installation OCS Testing System Integration Testing	April 22-23 April 29-30 May 5-6 May 13-14	4
San Francisco to Millbrae (Phase 5)	OCS Construction Signal Installation	June 10-11 June 17-18	2
Hillsdale to Palo Alto (Phase 6)	OCS Construction	July 15-16 July 22-23	2
San Francisco to Millbrae (Phase 7)	Signal Installation	August 12-13 August 19-20 August 26-27	2
San Francisco to Millbrae (Phase 8)	OCS Testing	October 7-8 October 14-15	2
Millbrae to Menlo Park (Phase 9)	OCS Testing	October 21-22	2

Upcoming Board Items

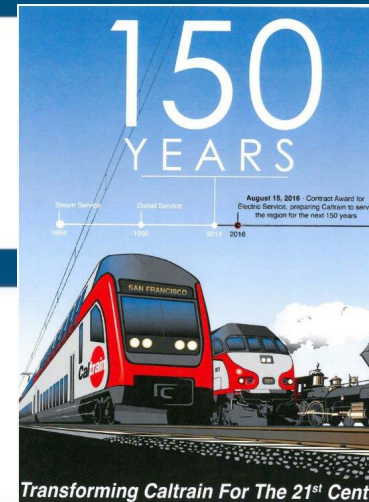
Upcoming Board Items

- Monthly Updates on Construction Progress and Service Changes
- Increase Contract Authority Within Existing Budget
 - Hatch LTK (December 2023)
 - Ambassador Contract (December 2023)

November 2, 2023

Caltrain Board of Directors Update

Balfour Beatty
Infrastructure Inc.



Focus Areas

- Continue viewing everything thru the Zero Harm lens – Improving RIR – 1.10 YTD
- OCS Production – Regulation
- Traction Power Stations & WPC's – SCADA Testing, Test Report Dossiers
- Short Circuit Test
- Punchlist Execution
- Closeout Execution
- Training Schedule – November / December
- Preparing As-Built & O&M Manuals – 20 of 29 Completed/Approved
- Measuring what we do every day

Current Overall OCS

Balfour Beatty Infrastructure, Inc							
Caltrain Peninsula Corridor Electrification Project							
Construction Progress Tracker				Week Completed		43	
					Updated	10/30/2023	
Commodity	Total Quantity	Job to Date % Complete	Quantity Remaining Starting Week 41	Planned Work from Week 41	Actual Installed from Week 41	Remaining Quantity to Install	Remaining Quantity Planned
OCS Completion items & Regulation	5,815	87.05%	829	829	298	531	531
Panning	95	38.95%	95	95	37	58	58
Loop Testing	67	44.78%	67	58	24	37	37
High Pot testing	87	99.75%	87	87	24	63	63
Sectionalization Testing	4	99.75%	4	4	-	4	4
Feeder & Static Wire Assemblies	4,855	100.00%	12	12	12	-	-
Messenger Wire (Guadalupe Bridge)	771,077	99.67%	256,576	2,571	-	2,571	2,571
Contact Wire (Guadalupe Bridge)	782,985	99.67%	272,762	2,571	-	2,571	2,571
Feeder Wire (Guadalupe Bridge)	486,189	99.55%	122,047	2,192	-	2,192	2,192
Static Wire (Guadalupe Bridge)	604,799	99.67%	108,990	1,982	-	1,982	1,982
		86.88%					

Regulation Activities

- 531 Remain
- Average 88.50 Per Week

Regulation Completion Date

- Last Month Projected Date: November 11, 2023
- Revised Projection Date: January 22, 2024

*New dates currently being confirmed with full BBI and JPB teams

Current Traction Power Plan to Completion

SC Test	Track	Teams @ MP	Revised	Early Target Dates	Sub Station	Limits
Test 1	MT 2	45.24	February 2024	12/1/2023	TPS 1	1.1 to 45.24
Test 2	MT 1	26.2	February 2024	10/28/2023	TPS 1	TPS 1 to 26 Mp
Test 3	MT 2	1.1	February 2024	11/18/2023	TPS 2	TPS 2 to 1.1
Test 4	MT 2	26.2	February 2024	11/19/2023	TPS 2	TPS 2 to 26.2
Test 5	MT 2	38.61(PS 6)	February 2024	11/11/2023	TPS 2	TPS 2 to SWS(26.1)

*New dates currently being confirmed with full BBI and JPB teams

What does this mean to the Substantial Completion plan?

Early Target Substantial Completion 12/31/23 – Not Achievable

Contract Substantial Completion – 4/1/24 – In our line of sight

Current Challenges

- OCS
 - Regulation is currently running 6 weeks behind the early target completion plan
 - Root Cause:
 - Wire Tensioning/Deadheading result of the loss of the wire train earlier in the year
 - Damaged insulators having to be replaced installed 2 & 3 years ago
 - Category A & B punchlist items in preparation for testing
- Traction Power
 - Currently Running 4 to 6 weeks behind the early target completion plan
 - Root Cause:
 - OCS Regulation impact OCS readiness for Short Circuit
 - Sequencing of Paralleling Station as it relates to each of the 5 short-circuit test
 - SCADA communications testing
- Historical Quality Control Issues
 - Still addressing historical QC issues from the past, taking more time, but they are getting corrected

What are the action items to ensure Substantial Completion?

- Teams (BBII and Caltrain) is performing comprehensive reviews of project schedule for the remaining work including all interfaces, durations and to ensure it is comprehensive and achievable.
- Updating the program schedule 3 times a week to manage and measure the progress of construction, testing, system integration, and closeout, including documentation
- Continue to measure our daily quantity productions
- Leadership enhancements in Systems Integration to strengthen the team.
- Bringing over 2 new members from the UK to strengthen our TP needs.
- Strengthen the program schedule support and oversight from the UK team to help evaluate and monitor the updates to the program schedule
- Bringing on 15 additional support staff for closeout needs – As-builts, Documentation, Punchlist, Night-Time Supervision, etc.

FOR MORE INFORMATION

WWW.CALTRAIN.COM

