

# Caltrain Electrification Project Update

Peninsula Corridor Joint Powers Board  
August 3, 2023  
Agenda Item #11



# Project Highlights

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- Schedule: No change to revenue service date - fall 2024
- Budget: No change to project budget - \$2.44B
  - \$0.83M draw from \$50M Shared Risk Pool in June 2023
  - No draw from \$40M Project Contingency in June 2023
- Construction
  - Sixteen weekend shutdowns complete
  - Weekly overhead contact system projections continue to improve
  - Live run testing started on Caltrain property
  - First public train tour on July 29<sup>th</sup>
- Electric Trains
  - Next two trainset expected Fall 2023

# Safety and Security

Time Period	Reportable Injury Rate
January 1 to June 30, 2023	1.55
Since Project Start (2017)	1.65

*Note: National Average Reportable Injury Rate is 2.50.*

- **No reportable injuries for June 2023**
- Project Safety Awareness trainings ongoing for Local Fire and Police Departments
- 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 June 2023	Executed To Date	Amount Remaining
BBII Shared Risk Pool	\$50.00M	\$0.83	\$8.06M	\$41.94M
Project Contingency	\$40.00M	\$0.00M	\$3.52M	\$36.48M
<b>Total</b>	<b>\$90.00M</b>	<b>\$0.83M</b>	<b>\$11.58M</b>	<b>\$78.42M</b>

# Top Risks

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

# **Service Changes and Customer Experience**

# February to August 2023 – Weekend Shutdowns

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	Signal Installation	August 12-13 August 19-20 August 26-27	2

- Temporary weekday service changes August 7-25
- Additional shutdowns planned for October - December



# Phase 7 – San Francisco to Millbrae

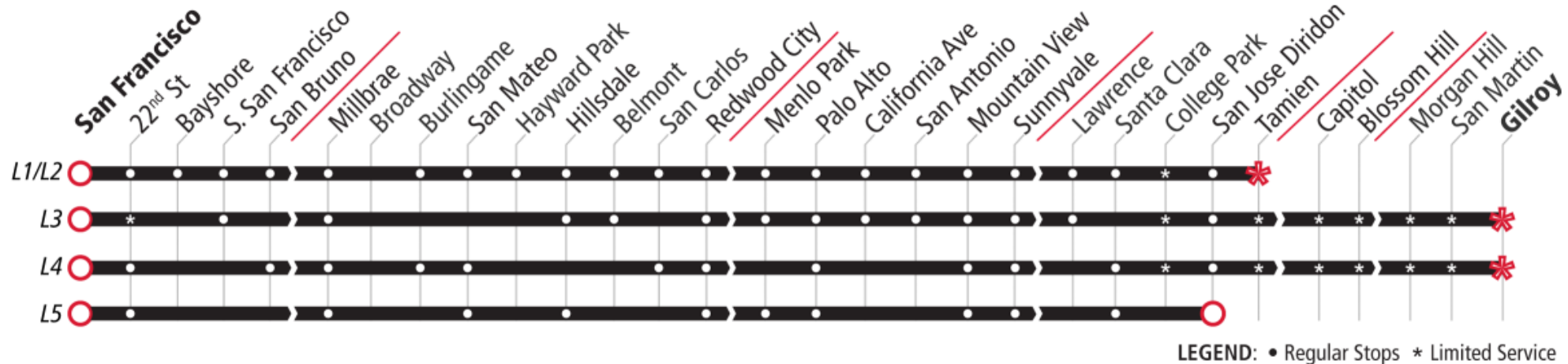
Weekends: August 12-13, 19-20, 26-27

- No weekend train service between San Francisco and Millbrae
- Weekend lifeline bus bridge
  - Overall people capacity limited; customers should use bike parking or bike share
  - ADA accessible vehicle provided for each connecting train during service
- Service ends early on weekends



# Temporary Weekday Service Changes

- **Temporary Weekday Changes: August 7-25**
  - Reduction from 104 trains to 90 trains per day
  - Peak hour service reduced to 3 trains per hour per direction
  - Baby Bullet service suspended
  - Span of service remains the same
- Minimal impact on midday and evening service
- Single-tracking between 4th & King and 22nd St. affecting boarding platform
- Supports final signal installation and testing cutover



# Customer Communication

- [caltrain.com/status](https://caltrain.com/status)



A screenshot of the Caltrain website's homepage. At the top left is the Caltrain logo. To the right are search and language selection options. Below the logo are navigation links for Stations, Fares, Rider Information, Projects, and About Caltrain. A secondary row of buttons includes Trip Planner, Live Map, Service Alerts, and Schedules. A large banner with a teal and white background features the text "SERVICE CHANGES IN EFFECT!" in bold red letters. Below this, it says "Temporary Weekday Service Changes Starting April 17, 2023. Plan ahead at caltrain.com/status." and includes an icon of a train with a speech bubble containing an exclamation mark. At the bottom of the banner, a red bar contains the text: "ALERT: : Temp. Weekday Service Changes Starting April 17. Weekend Shutdowns in Effect. Plan ahead: Caltrain.com/Status."

**Public Train Tour**  
San Jose Diridon Station  
July 29, 2023  
4,200+ Attendees



# Upcoming Board Items

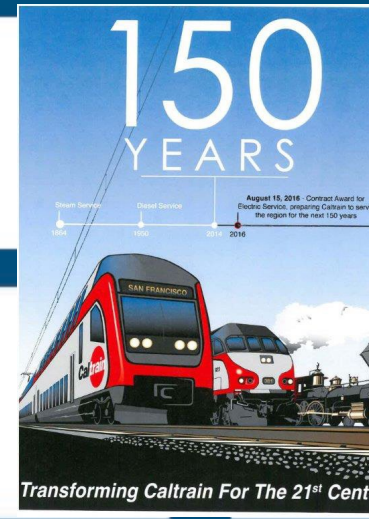
# Upcoming Board Items

- Monthly Updates on Construction Progress and Service Changes
- Increase Contract Authority Within Existing Budget for Consultant Services
  - Hatch LTK (October 2023)

# June 1, 2023

Caltrain Board of Directors Update

**Balfour Beatty**  
Infrastructure Inc.



# June/July Highlights

- Live Run Test started on Drill Track, CEMOF, Segments 4
- TPS1 is tracking for energization August 12-20, 2023
- Punchlist continues and is improving
- Closeout plan has been established and being tracked
- OCS Production – 106% Complete for June/July projections compared to plan
- Wire Train Back Up and Mobilized in Segment 2
- Maintaining our path to completion
- TPS Audit Complete



# August Targets

- Complete Live Run Test Segment 4
- Complete Live Run Tests & Energize CEMOF
- Complete Positive Track Control Testing
- Complete Wire Pulling in Segment 2
- TPS1 Energization
- Increase Regulation Production

# Focus Areas

- Continue viewing everything thru the Zero Harm lens – Improving Reportable Injury Rate – 1.08
- Milestone 1 Delivery – (CP Mayfield MP-33.5 to Diridon MP 47.53)
- OCS Production
- TPS1 Energization
- Punchlist Execution
- Closeout Execution
- Training Schedule
- Preparing As-Built & O&M Manuals
- Improve communication & collaboration at all levels
- Measuring what we do every day

# Overall OCS Production

Balfour Beatty Infrastructure, Inc								
Caltrain Peninsula Corridor Electrification Project								Week Completed
Construction Progress Tracker								Week Planning
								Updated
Commodity	Total Quantity	Job to Date % Complete	Total Quantity Remaining Starting Week 6	Planned Work from Week 6	Actual Installed form week 6	Delta	% Achieved against Bus Bridge Plan (week 6)	Remaining Quantity to Install
Pole	2,568	100%	73	62	66	4	106%	7
All Beams	958	100%	89	70	85	15	121%	4
Cantilevers & Drop Tubes	5,896	98%	1,078	859	974	115	113%	104
Feeder & Static Wire Assemblies	4,855	97%	1,242	1,107	1,114	7	101%	128
Messenger Wire	771,077	88%	256,576	153,678	163,792	10,113	107%	92,785
Contact Wire	782,985	88%	271,062	183,740	175,428	(8,312)	95%	95,634
Feeder Wire	486,189	92%	122,684	65,785	81,500	15,715	100%	41,184
Static Wire	604,799	94%	109,249	50,338	72,916	22,578	145%	36,333
Regulation	5,768	71%	3,063	1,351	1,395	44	103%	1,668
	2,645,050	88.6%	759,571	453,541	493,636	40,279	117.4%	265,935

# OCS Progress Since Last Caltrain Board Meeting

	Plan Since June Board Meeting	Actual Since June Board Meeting	Total % Complete
Pole	4	4	100%
All Beams	3	2	67%
Cantilevers & Drop Tubes	374	517	138%
Feeder & Static Wire Assemblies	366	265	72%
Messenger Wire	47,088	52,429	111%
Contact Wire	49,051	56,937	116%
Feeder Wire	40,629	42,487	105%
Static Wire	34,238	42,041	123%
Regulation	488	576	118%
<b>Total Wire Pull Plan vs. Actual</b>	<b>171,006</b>	<b>193,894</b>	<b>106%</b>
<b>Total Wire Pull % of Plan 6 Weeks</b>		<b>113.38%</b>	

# OCS Interim Milestone Management

OCS Segment Milestone Matrix				
Activity	Segment 1	Segment 2**	Segment 3	Segment 4 *
Poles	4/30***	7/31***	Done	Done
All Beams	4/30***	7/31***	Done	Done
Cantilevers & Drop Tubes	30-May	31-Aug	Done	Done
Feeder & Static Wire Assemblies	30-May	31-Aug	Done	Done
Messenger Wire	16-Jun	25-Sep	Done	Done
Contact Wire	16-Jun	25-Sep	Done	Done
Feeder Wire	16-Jun	18-Sep	Done	Done
Static Wire	16-Jun	18-Sep	Done	Done
Regulation	30-Sep	10-Oct	Done	Done
High Pot Testing	10/6 - 10/7	10/13 - 10/14	5/6 - 5/7	Done
Sectionalization Testing	10/7 - 10/8	10/13 - 10/14	5/13 - 5/14	Done
SC TPS Testing	10/21 - 10/29	10/21 - 10/29	5/19 - 5/21	5/19 - 5/21
(SIT)Live Run Test	11/4 - 11/5	11/18 - 11/19	6/26 - 7/9	6/5 - 6/19
Start BBII Pre-Punch List/Walks	8/31/2023	9/15/2023	3/20/2023	Done
Complete BBII Punch List Work	9/30/2023	10/15/2023	5/19/2023	Done
Start BBI/JPB Joint Punch List Walks	10/1/2023	10/16/2023	5/9/2023	Done
Complete BBI/JPB Punch List Work	12/31/2023	12/31/2023	7/31/2023	7/31/2023
Contractual Overall Substantial Completion	4/1/2024	4/1/2024	4/1/2024	4/1/2024
Contractual Final Acceptance	7/31/2024	7/31/2024	7/31/2024	7/31/2024

\* Excludes Guadalupe Bridge - End of September

\*\*\* Coordinating with PG&E OH Shutdowns

# TPS Interim Milestone Management

TPS1 Milestone Matrix	
Activity	TPS1
MRS Com Equipment & Testing	10-May
Set Final Battery House	28-Apr
Interlocking Test	15-Jul
EPS Testing	26-Apr
PG Energization 115 Kv transformers	20-Aug
TPS1 Lockdown Substation 115 Kv Transformer	21-Aug
Loadbank Pre-Test	9/7 - 9/14
Short Circuit Testing	10/21 - 10/29

TPS2 Milestone Matrix	
Activity	TPS2
Uplodad & Test New Relay Settings	21-Apr
3rd Party Wire Inspection - NETE	28-Apr
Load bank Pre-Test	5/3 - 5/5
Short Circuit Testing	5/19 - 5/22

FOR MORE INFORMATION

[WWW.CALTRAIN.COM](http://WWW.CALTRAIN.COM)

