



CALTRAIN ELECTRIFICATION UPDATE

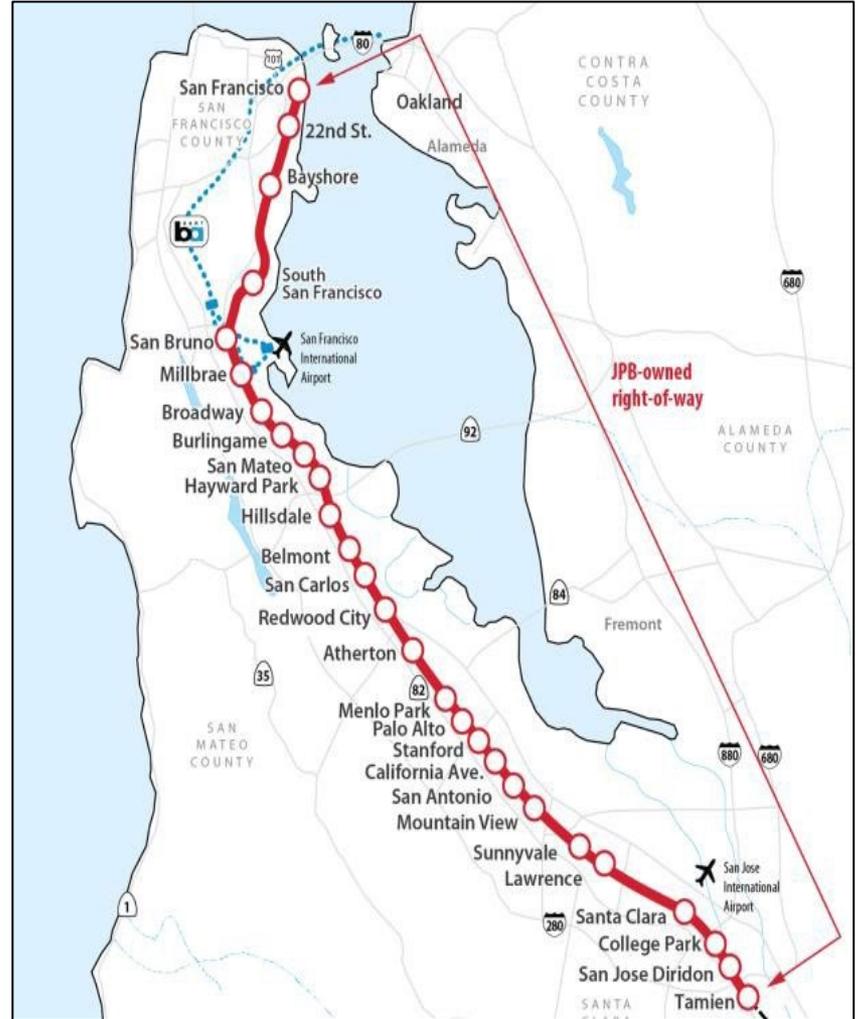
JPB WPLP Committee Meeting
August 25, 2021

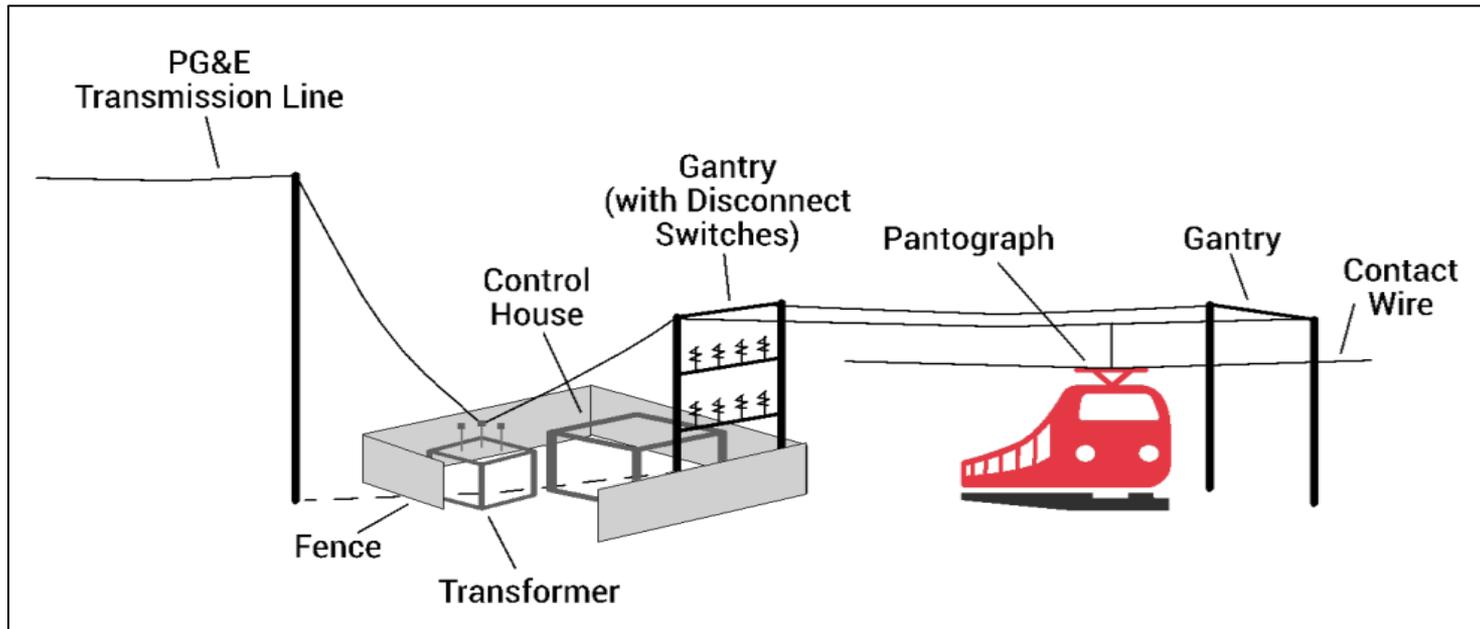


- PCEP Ad Hoc Committee dissolved
- PCEP monthly update at WPLP
- Presentation focus
 - Construction Update
 - Schedule
 - Cost
 - Risk
 - Funding
 - Priorities
- PCEP overview and monthly report available at JPB

PROJECT OVERVIEW

- Caltrain Electrification
- San Francisco to San Jose (Tamien Station)
- 51 miles
- Updated Project Cost: \$2.31B
- Update Revenue Service: Sept. 2024





Electrification

- Overhead Contact System (OCS)
- Traction Power Facilities

Electric Trains

- 19 7-car train sets (133 cars)

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



**Improved Train
Performance,
Increased Service
and Greater Capacity**



**Improved Regional
Air Quality and
Reduced Greenhouse
Gas Emissions**

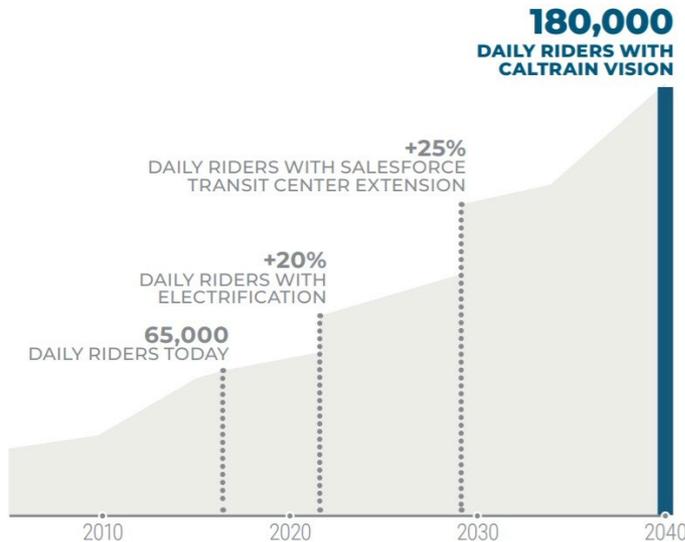
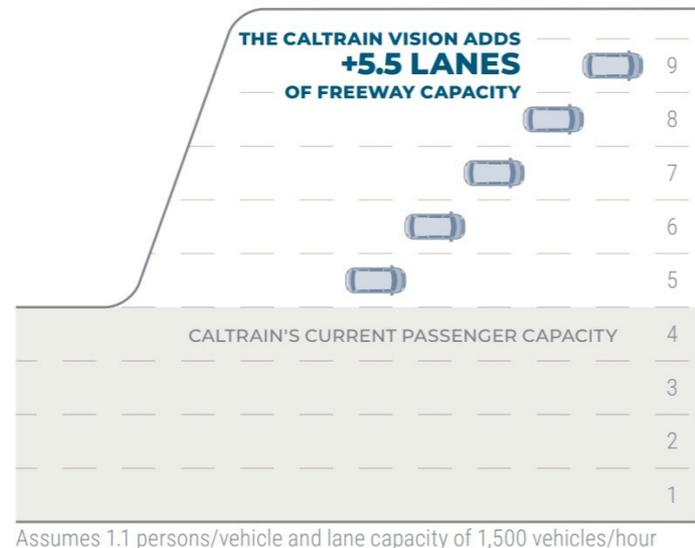


**Positive Economic
Benefits for the
Region**



**Reduced Engine
Noise Emanating
from Trains**

- Electrification sets foundation for future growth of system
- Meet projected regional growth in jobs and housing in the Bay Area
- Triple ridership, increase peak and off-peak service
- Carry equivalent of 5.5 lanes of US 101 highway traffic

**CARRYING MORE PEOPLE****TRAINS VS LANES**

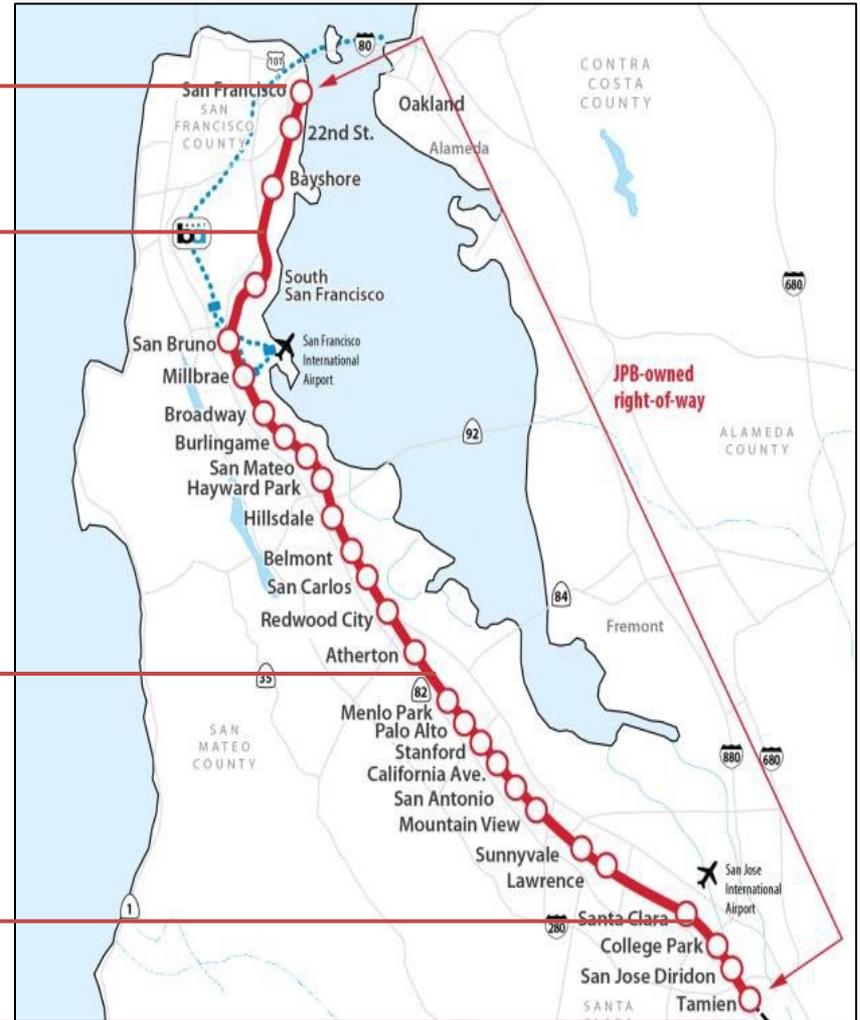
CONSTRUCTION UPDATE

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 (OCS)
 - Foundations 87% complete
 - Poles 65% complete
 - Segment 3 Wire 100% complete
- Traction Power Facilities
 - Transformer installed at 9 of 10 facilities
 - Traction Power Substations 1 & 2 96% complete
 - Switching Station 1 92% complete
- Electric Trains (133 cars total)
 - 82 shipped
 - 73 in Salt Lake City manufacturing facility
 - Trainset 1 in Pueblo for on-track testing

Segment	Foundations Required	Foundations Remaining	Installation Percent Complete	Completed Last Month	Anticipated Completion Date
Segment 1	567	371	35%	35	12/30/2021
Segment 2	1,179	26	98%	38	08/30/2021
Segment 3	901	Complete	100%	N/A	Complete
Segment 4	370	Complete	100%	N/A	Complete
CEMOF	85	Complete	100%	N/A	Complete

Segment	Required	Remaining	Installation Percent Complete	Completed Last Month	Anticipated Completion Date
Segment 1	442	442	0%	0	05/18/22
Segment 2	960	453	52%	21	11/30/21
Segment 3	755	Complete	100%	Complete	Complete
Segment 4	304	15	95%	0	10/15/2021
CEMOF	83	4	95%	0	10/08/2021

Segment	Installation Percent Complete	Completed Last Month (in feet)	Anticipated Installation Completion	Testing Percent Complete	Anticipated Testing Completion
Segment 1	0 %	0	06/23/22	0 %	07/20/22
Segment 2	20 %	0	12/15/2021	8 %	01/20/22
Segment 3	100 %	0	05/03/2021	100 %	05/15/2021
Segment 4	29 %	22, 130	11/15/21	0.0 %	11/21/21

Segment	95% Design Percent Complete	Anticipated 95% Design Complete	Installation Percent Complete	Anticipated Installation Complete	Testing Percent Complete	Anticipated Testing Complete
Segment 1	64%	03/31/2023	21%	08/31/2023	0%	09/30/2023
Segment 2	94%	07/17/2022	23%	08/01/2022	0%	12/31/2022
Segment 3	26%	12/11/2022	21%	02/28/2023	0%	03/31/2023
Segment 4	100%	Complete	92%	09/10/2021	76%	09/30/2021

Facility	Sitework	Substation Building	Low / High Voltage Equipment	Transformer	Gantry	Total Completion	Anticipated Completion
TPS-1 (SSF)	95%	89%	97%	100%	97%	96%	1/30/2022
TPS-2 (San Jose)	93%	98%	96%	100%	98%	97%	10/15/2021
SWS-1 (RWC)	93%	89%	88%	100%	89%	92%	12/31/2021
PS-1 (SF)	51%	70%	53%	100%	91%	73%	1/19/2022
PS-2 (SF/Brisbane)	66%	76%	80%	100%	77%	80%	12/22/2021
PS-3 (Burlingame)	16%	9%	0%	0%	15%	8%	4/18/2022
PS-4 (San Mateo)	82%	81%	90%	100%	82%	87%	11/21/2021
PS-5 (Palo Alto)	63%	82%	65%	100%	94%	81%	1/7/2022
PS-6 (Sunnyvale)	90%	83%	91%	100%	92%	91%	10/15/2021
PS-7 (San Jose)	96%	89%	95%	100%	97%	95%	10/31/2021

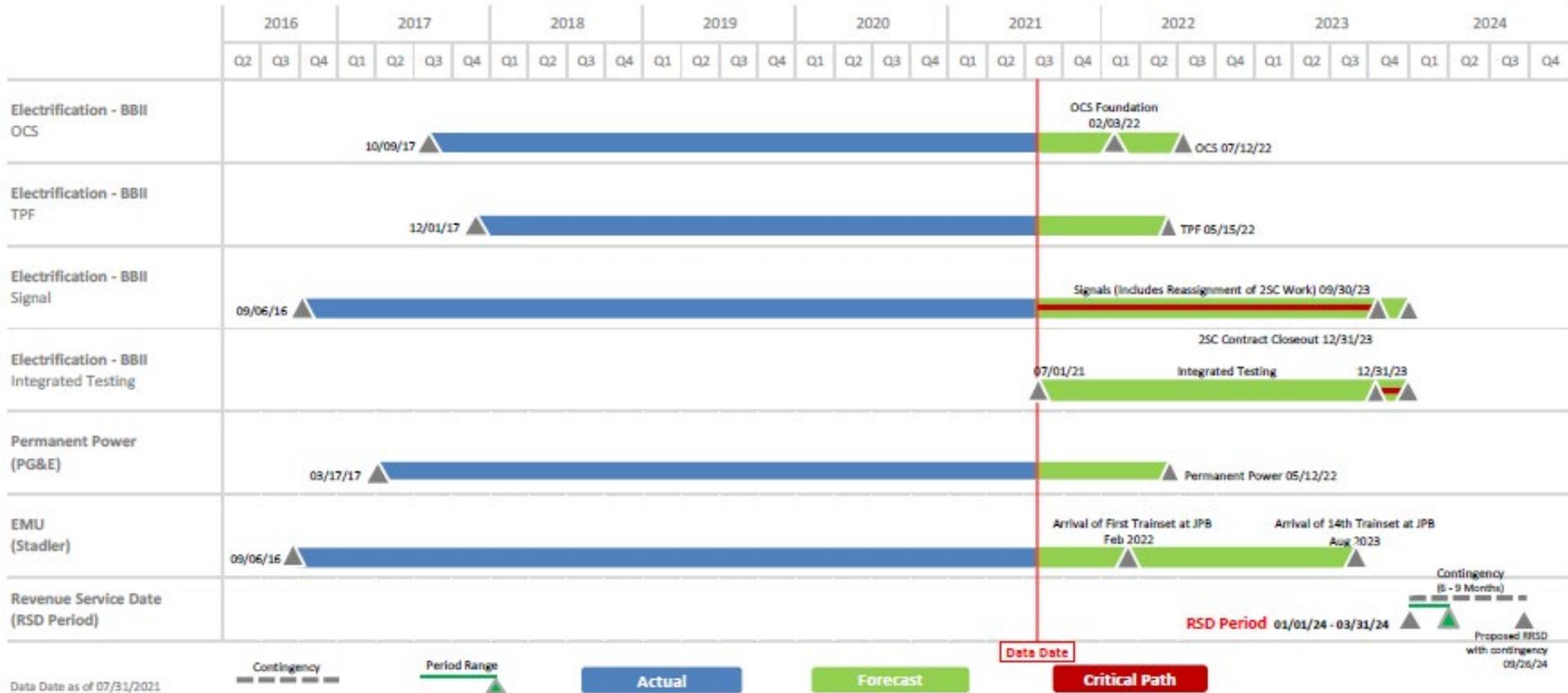
Wayside Power Cabinets

Required	Installed
27	20

- Production
 - COVID-19-related global safety measures have slowed production
 - Salt Lake City assembly delayed
 - Switzerland production paused for three months due to lack of space at SLC
 - Trainsets 3 to 19 various states of production
- Testing
 - Dynamic type testing on schedule in Pueblo on trainset 1
 - HVAC type testing trainset 2
 - Routine testing trainsets 3, 4 and 5 being performed in SLC
- Schedule
 - First trainset to Caltrain 1st Quarter 2022
 - Acceptance of 14 of 19 trainsets 3rd Quarter 2023

PROJECT UPDATE

Revenue Service September 2024



Total Project Cost	\$2.31B <i>(\$1.98B Previous Project Cost)</i>
Committed	\$1.85B
Carryover Contingency (Previous Budget)	\$129.8M
Additional Known (Allocated)*	\$161.0M
Additional Reserve*	\$172.0M

**Note: Total \$333M additional cost recommended by FTA*

1. BBII dispute on 2SC work
2. BBII requests for change orders / claims
3. Delays in parts supply chain affecting vehicle completion schedule
4. Continue to mitigate underground site conditions and assist BBII with redesign efforts

- Potential funding identified for \$333M additional project cost
- State funding to relieve local commitment
 - Pursue \$100M funding in budget (trailer bill September 10th)
 - Support letters from JPB General Managers
 - Engage sister agencies, local business groups, key city partners, state/federal delegation
- Federal funding opportunities
 - \$52M American Rescue Plan received
 - Infrastructure Investment in Jobs Act
 - Surface transportation reauthorization and appropriations bills

PROJECT PRIORITIES

- Resolve BBII contract commercial issues
- Keep construction moving forward, including 2sc work
- Staff request budget amendment to JPB
- Submit FTA Project Recovery Plan / FFGA Update
- Funding advocacy
 - \$100M ask State Trailer Bill (September 10th)
 - Continue to seek state / federal funding opportunities

QUESTIONS