




CalMod

Peninsula Corridor Electrification Update Meeting


Belmont City Council
April 10, 2018




CalMod


Agenda

- Caltrain System Overview
- Project Overview
- Electric Trains
- Infrastructure Construction
 - Belmont Activities








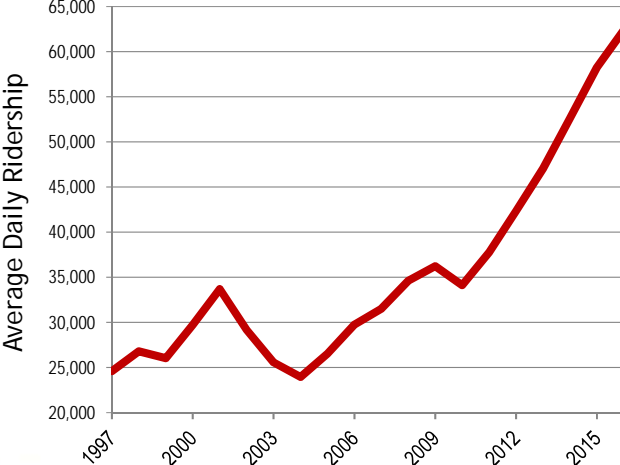
Caltrain System





- 32 Stations Gilroy to San Francisco
- 92 Weekday Trains
- At-Grade Crossings, viaducts, and bridges
- Intermodal Connections
- Bike Commuters

Ridership



Year	Average Daily Ridership
1997	25,000
1998	26,000
1999	27,000
2000	28,000
2001	34,000
2002	28,000
2003	25,000
2004	24,000
2005	26,000
2006	29,000
2007	31,000
2008	35,000
2009	36,000
2010	34,000
2011	38,000
2012	42,000
2013	48,000
2014	55,000
2015	62,000

CalMod

At Capacity Today



Bi-directional commute with riders standing on trains going southbound and northbound

**CalMod**

Regional Transportation Needs

- US 101 and Interstate 280 Congested
- Corridor supports growing economy
- 75% Caltrain riders commute to work
- 60% are choice riders



Genentech



facebook

SILICON VALLEY
LEADERSHIP GROUP

Google





Aging Fleet

Table 1.2: Caltrain Fleet Inventory

SERIES	QUANTITY	NUMBER OF SEATS	YEAR OF MANUFACTURE	MAKE	RETIRE DATE
Locomotives					
F40 PH-2	5	na	1985	GM - EMD	2015
F40PH-2-CAT	15	na	1985-1987	GM - EMD	2015-2017
F40 PH-2C	3	na	1998	Boise Locomotive	2026
MP36PH-3C	6	na	2003	Motive Power	2033
Passenger Cars					
Gallery Trailer	26	142	1985-1987	Nippon Sharyo	2015-2017
Gallery Trailer	16	148	1985-1987	Nippon Sharyo	2015-2017
Gallery Trailer	14	120	1999-2000	Nippon Sharyo	2030
Gallery Cab (Bike)	10	108	1985-1987	Nippon Sharyo	2015-2017
Gallery Cab (Bike)	6	78	1999-2000	Nippon Sharyo	2030
Gallery Cab (Bike)	21	97	1985	Nippon Sharyo	2015
Bi-Level Trailer*	16	149	1997	Bombardier	2027
Bi-Level Trailer	9	144	2002	Bombardier	2032
Bi-level Trailer (Bike)	2	114	2002	Bombardier	2032
Bi-level Trailer (Bike)	5	114	2001-2002	Bombardier	2031-2032
Bi-level Trailer (Bike)	2	114	2008	Bombardier	2038
Bi-level Trailer (Bike)	1	127	2002	Bombardier	2032
Bi-Level Trailer	6	140	2008	Bombardier	2038

*Trailers recently acquired from Metrolink with refurbishment ongoing.



At Retirement Age: 20/29 loco; 73/134 cars



Project Description

Area	Project	Service
51 miles San Francisco to San Jose (Tamien Station)	Electrification: <ul style="list-style-type: none"> Overhead Contact System (OCS) Traction Power Facilities Electric Trains (EMUs) <ul style="list-style-type: none"> 75 percent of fleet 	Up to 79 mph Service Increase <ul style="list-style-type: none"> 6 trains / hour / direction More station stops / reduced travel time Restore Atherton & Broadway service Mixed-fleet service (interim period) Continue tenant service <ul style="list-style-type: none"> ACE, Capital Corridor, Amtrak, Freight



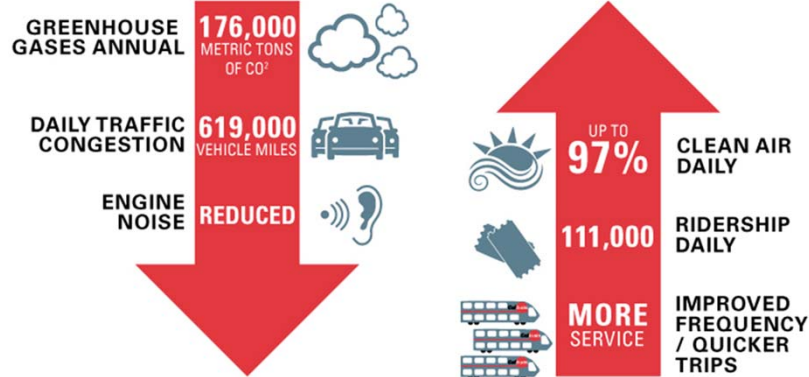


Service Benefits

Metric	Today	PCEP
Example Baby Bullet Train		
Retain 5-6 stops	60 minutes	45 minutes
Retain SF to SJ 60 minutes	6 stops	13 stops
Example RWC Station		
Train stops / peak hour	3	5



Key Regional Benefits (2040)



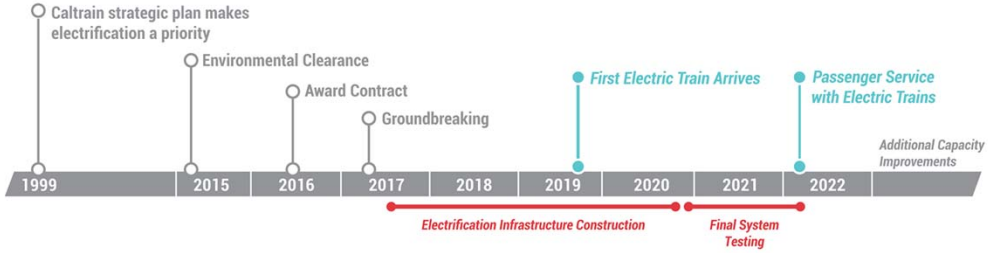
Note: 2013 BAC Report, generates \$2.5B economic activity and 9,600 jobs





Schedule

MILESTONES



*Please keep in mind that testing and construction will overlap as each Segment will be tested individually, prior to final system testing.



Note: Schedule Subject to Change



Electric Train



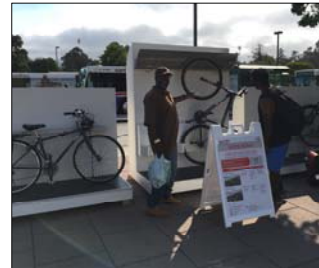
CalMod

Electric Train Input

- 2016 Capacity Board Decision (bike to seat ratio, onboard bathrooms, upper doors 'not precluded')
- 2017 Design Refinement (exterior design, seats, bike storage, ADA restroom)

SEAT POLL RESULTS

2549 TOTAL VOTES



Over 15,000 comments (online, in-person, surveys, station popups)

**CalMod**

Electric Train Design





Enhancements



PLENTIFUL POWER
SOURCES



BETTER LOCATION &
DESTINATION INFO



QUIETER, SMOOTHER
RIDES



INCREASED FREQUENCY &
REDUCED TRAVEL TIME

- 2018 Virtual Reality 360 Tour

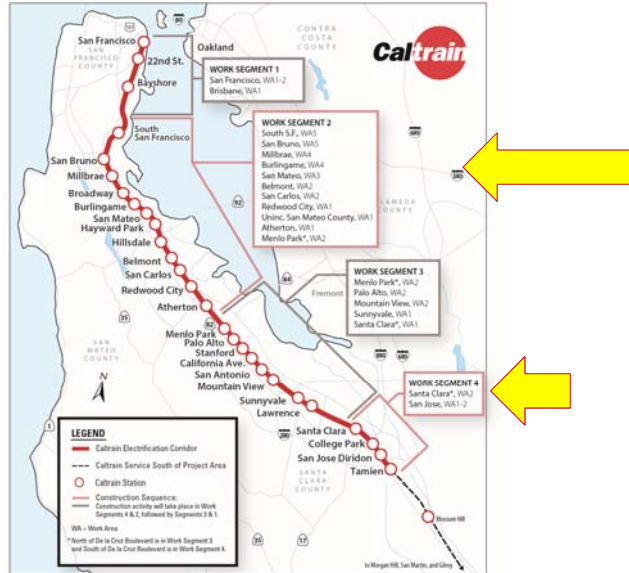


Construction



CalMod Construction Phasing

- 51 Miles Corridor
- 4 Work Segments
- 3,000 Poles
- 10 Traction Power Facilities



Segments 2 & 4 followed by 1 & 3



CalMod Belmont Field Work Status

Status	Activity
Complete	<ul style="list-style-type: none"> • Utility Survey • Geotech Investigations • Disposal of Soil from Geotech Work • Soil Testing • Site Surveys • Signal Cable Inspections • Potholing for Foundations and Signals* • Tree Pruning and Removal*
Upcoming Work	<ul style="list-style-type: none"> • Foundation Installation • Pole Installation • Wire Installation



*Site specific needs may require additional work





Belmont Upcoming Work

Date	Work Activity	Expected Duration
Summer 2018	Foundation Installation	3-4 months
Late 2018	Overhead Pole and Wire Installation	3-4 months



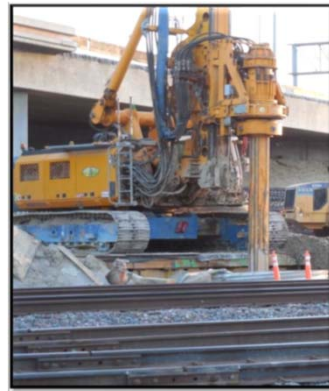
Expected duration indicates first and last day.
Number of actual work days will be fewer.



Pole Foundation Work



DrillTech on track foundation train



DrillTech off-track OCS Drill Rig



Will take place on and off track





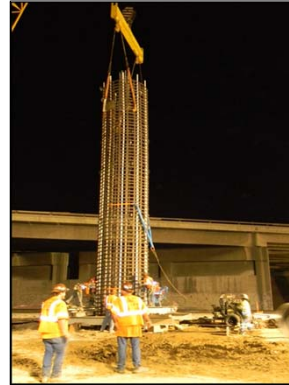
Pole Installation



On/off-track crane for installation



Wide flange & square poles



Foundation Rebar Cage



Approximately 180' pole spacing



Wire Installation



Will take place on-track





Construction Impacts


- Daytime & night work from 8pm- 6am
- Some 24 hour weekend work
- Crews will utilize acoustical barrier blankets and position lights away from homes
- Dedicated hotline for construction complaints



Public Outreach


- Subscribe to Weekly Updates
 - Visit calmod.org/construction/
- Project Email and Hotline
- Construction Outreach Office
- Community Meetings
 - October 2017 Belmont Meeting
 - Future meeting before pole and wire installation





Public Outreach

- Physical Notices



P.O. Box 3006
San Carlos, CA 94070-1506

Presented by
El Pueblo
PCEP
Alpham Inc.


Estimado vecino de Caltrain:
Durante los próximos tres meses, Caltrain estará trabajando en el corredor del Ferrocarril en su área para mejorar el servicio de Caltrain como parte de la Península Corridor Electrificación Project. Las actividades previstas durante este tiempo incluyen instalación de instalaciones subterráneas, probando las condiciones de la tierra, reparación de herramientas de señalización, y construcción de líneas para conectar el corredor para la electrificación y operación del servicio de transporte modernizado. Después del electrificación de líneas, se espera comenzar a trabajar en las líneas que se electrifican áreas de tránsito.

Las labores tendrán a cabo durante el día y la noche. Actividades de noche se ocurren entre las 8:00 p.m. y las 6:00 a.m. Nos disculpamos por cualquier inconveniente que esto pueda causar. Para mitigar el ruido y otros impactos durante las actividades de noche, el equipo utilizará métodos de barrido acústico y colocará barreras acústicas de ciudades y áreas residenciales y de negocios.

El proyecto de electrificación permitirá que Caltrain opere más eléctrico, más silencioso, más rápido, y con servicios más rápidos de tren. Mayor capacidad y mejor servicio durante el día y la noche. Después de la electrificación de líneas, se espera comenzar a trabajar en las líneas que se electrifican áreas de tránsito.

No disculpamos por los molestias que pueden surgir mientras trabajamos para entregar estos servicios críticos a nuestra comunidad.

Por favor visite nuestro sitio web en www.caltrain.com/PCEP para actualizaciones de construcción. Gracias por su paciencia y comprensión.



Dear Caltrain Neighbor:







Over the next three months, Caltrain will be performing work on the railroad corridor in your area of the Peninsula Corridor Electrification Project. The anticipated activities during this time include testing soil conditions, inspecting signal/communication equipment, and tree trimming/removal for installation and operation of modernized transit service. After tree trimming/removal occurs, crews will be installing overhead contact system.


Work will take place during the day and at night. Night activities will occur between 8:00 p.m. and 6:00 a.m. We apologize for any inconvenience this may cause. To mitigate noise and other impacts during nighttime activities, we will use sound blankets, and will position lights away from residential, roadways, and business areas.

The electrification project will allow Caltrain to operate quieter, cleaner, more frequent and/or faster, and improved service will help Caltrain meet the increasing ridership demand a region. The new electric trains are scheduled to be operational in 2021.

We apologize for any inconvenience you might experience while we work to deliver these critical services to our community.

Please visit our website at www.caltrain.com/PCEP for weekly construction notice updates. Thank you.

 @Caltrain #CalModTrains
 Caltrain.com/PCEP
 650-399-9659
 www.facebook.com/caltrain
 calmod@caltrain.com
 Para traducción llame al 1-800-660-4287



CALTRAIN MODERNIZATION PROGRAM
Test Pile Construction Activities

DAY TIME WORK
08/28/17 - 09/11/17

ANTICIPATED WORK HOURS
7:00 a.m. - 6:00 p.m.

CREWS CONDUCTING WORK IN YOUR AREA TO INSTALL AND TEST FOUNDATION PILES

During the week of August 28, Caltrain electrification crews will be working in your area to construct one test pile foundation for existing testing. The piles will be installed within the Caltrain right-of-way.


Crews will be conducting the work over a two-day period between Monday, August 28 and Friday, September 1, between the hours of 7 a.m. and 6 p.m. Crews will return at a later date to test the integrity of the installed piles.



Main construction activities include:

- Survey and layout of proposed pile test location
- Trucks and equipment working near Caltrain right of way
- Drill holes for placement of test piles
- Pour concrete and install rebar
- Backfill holes to cover work areas

We apologize for any inconvenience this may cause. The field crews will work as quietly as possible. Thank you for your patience and understanding as we deliver these critical benefits to our communities.

Please visit our website at www.caltrain.com/PCEP/construction to sign-up for weekly construction updates.

We appreciate your patience during construction. 


Contact Information

- Website: calmod.org
- Phone: 650.399.9659
- Toll Free: 1.800.660.4287
- Email: calmod@caltrain.com
- Project Office: 2121 S. El Camino Real Suite A San Carlos, CA 94403
– Monday to Friday, 9am to 5pm