



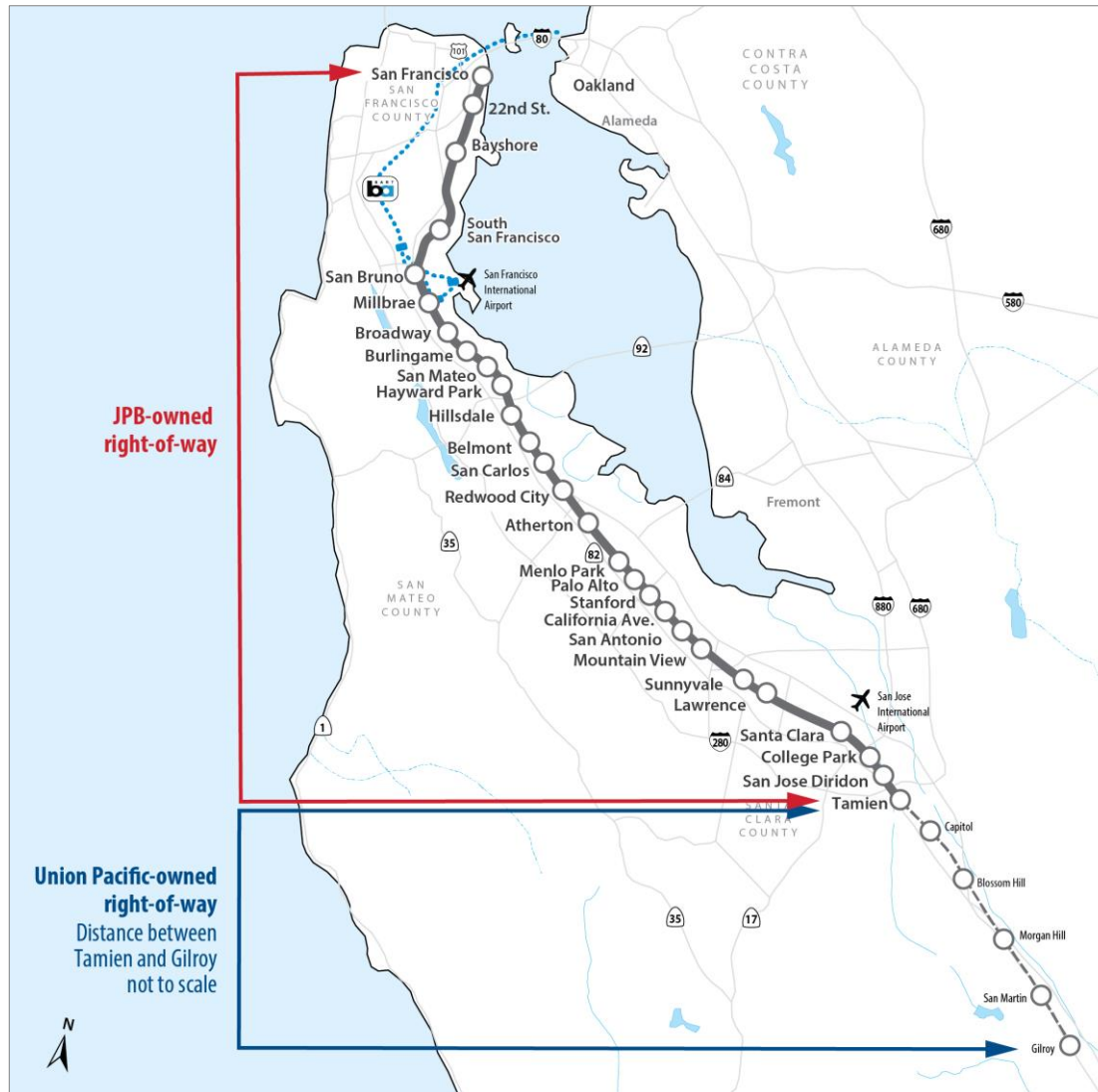
CALTRAIN ELECTRIFICATION UPDATE

Sunnyvale Community Meeting
October 10, 2019

AGENDA

- Caltrain System Overview
- Project Overview
- Sunnyvale Construction Activities
- Questions

CALTRAIN SYSTEM



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

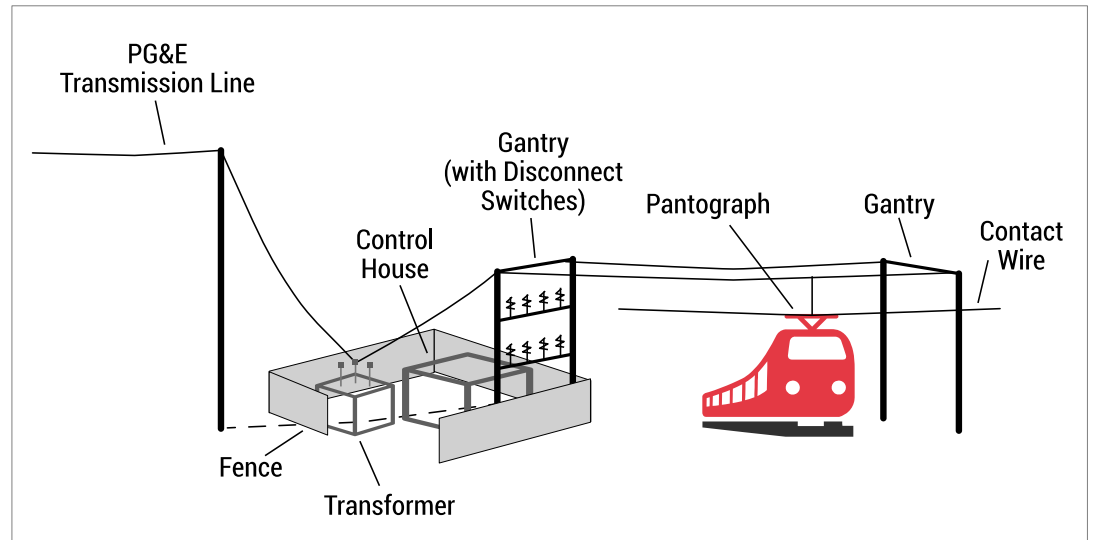
PROJECT DESCRIPTION

Project Area



- 51 miles
- San Francisco to San Jose (Tamien Station)

Project Elements



Electrification

- Overhead Contact System (OCS)
- Traction Power Facilities

Electric Trains*

- 19 7-car train sets
- 133 electric cars

*Includes 2018 State TIRCP Funding

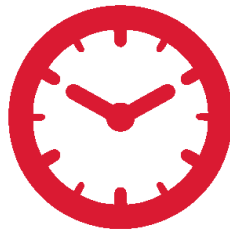
PROJECT DESCRIPTION

Service Elements



Speed

- Up to 79 mph



Service Increase

- 6 trains / hour / direction
- More station stops / reduced travel time
- Restore Atherton & Broadway service



Mixed-fleet Service (interim period)

- ### Continue Tenant Service
- ACE, Capitol Corridor, Amtrak, Freight

PROJECT BENEFITS



Improved Train Performance, Increased Service and Greater Capacity



Improved Regional Air Quality and Reduced Greenhouse Gas Emissions



Positive Economic Benefits for the Region

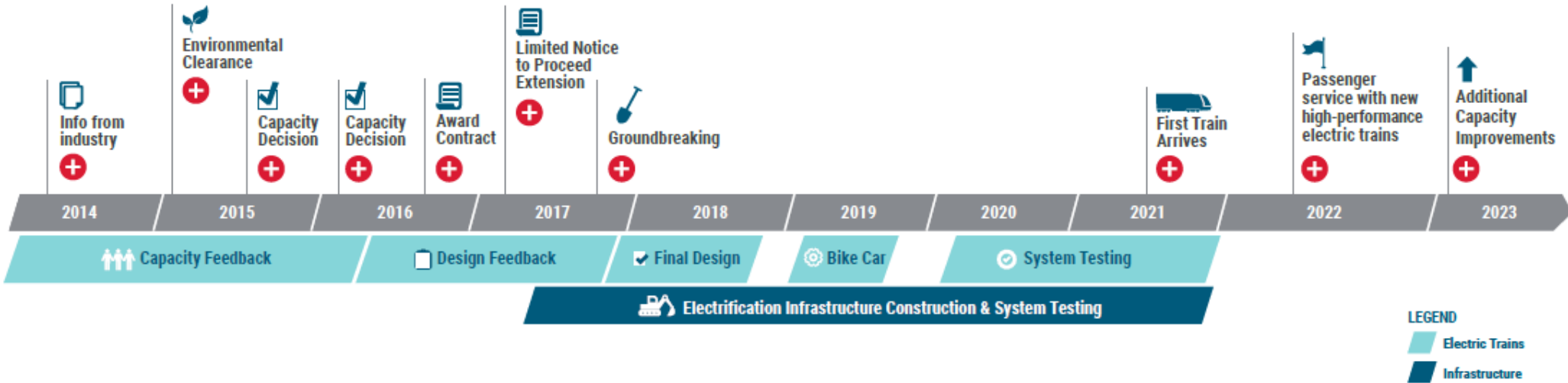


Reduced Engine Noise Emanating from Trains



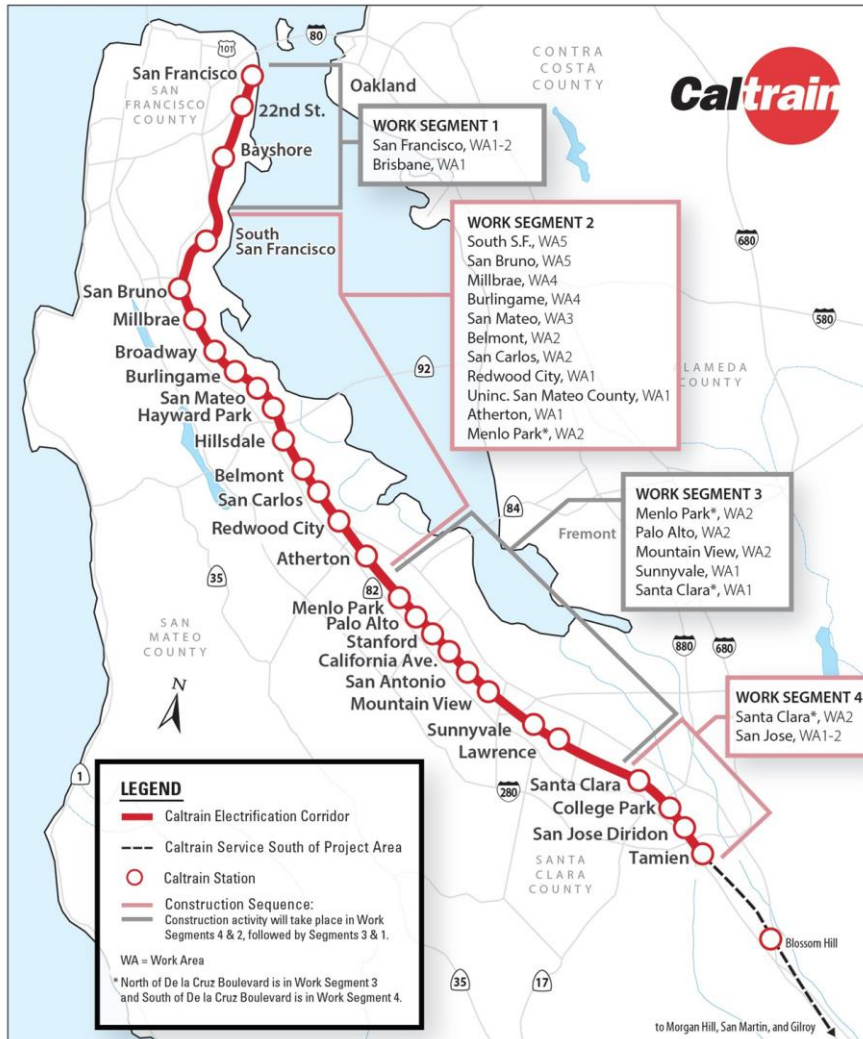
Increased Revenue and Reduced Fuel Cost

SCHEDULE

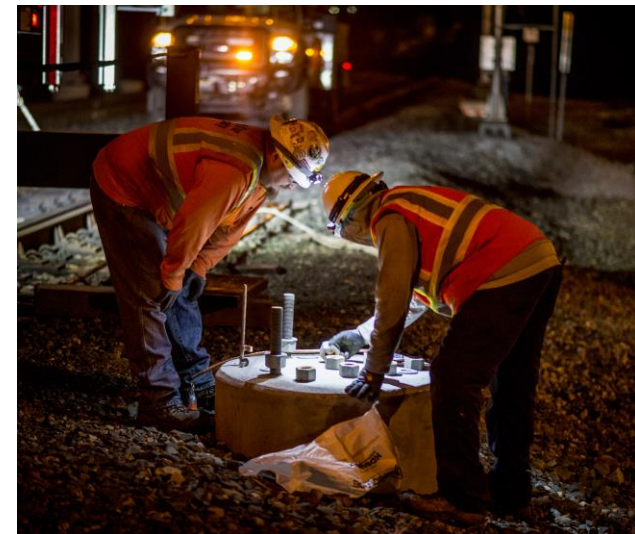


* Note: Schedule subject to change

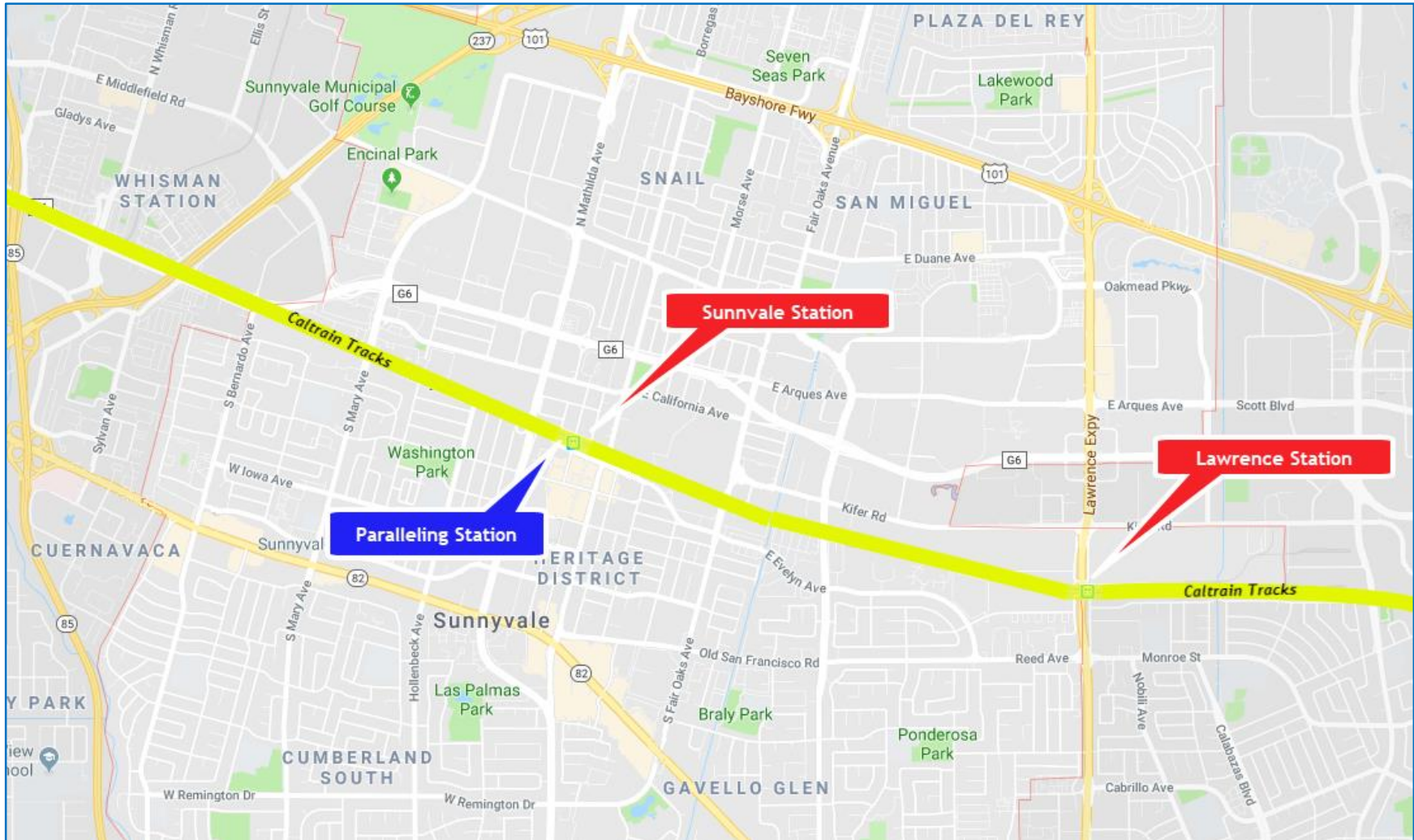
CONSTRUCTION PHASING



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



SUNNYVALE



FIELD WORK PROGRESSION

Work Completed	<ul style="list-style-type: none">• Utility Survey• Geotechnical Investigations• Disposal of Soil from Geotechnical Investigations• Soil Resistivity Testing• Site Surveys• Signal Cable Inspections
Work In Progress	<ul style="list-style-type: none">• Tree Pruning/Removal• Potholing• Paralleling Station
Future Work	<ul style="list-style-type: none">• Foundation Installation• Pole Installation• Wire Installation• Bridge Barrier Construction

FUTURE CONSTRUCTION

Sunnyvale

Date	Work Activity	Expected Completion*
In Progress	Tree Pruning/Removal	Early 2020
In Progress	Potholing	Late 2019
In Progress	Paralleling Station Construction	Early 2020
In Progress	Foundation Installation	Late 2019
Late 2019	Pole Installation	Summer 2020
Early 2020	Wire Installation	Summer 2020
Early 202	Bridge Barrier Installation	Summer 2020

FOUNDATION CONSTRUCTION

- Excavation
- Rebar and Anchor Installation
- Electrical Grounding
- Concrete Fill

FOUNDATION INSTALLATION



POLE INFORMATION

- 3,000 Installed throughout Corridor
 - Approx. 250 poles in Sunnyvale
- Pole Height: 30-50'
- Pole Spacing: ~180' apart

POLE TYPES SUNNYVALE



Single Track Cantilever



Two Track Cantilever

POLE TYPES SUNNYVALE

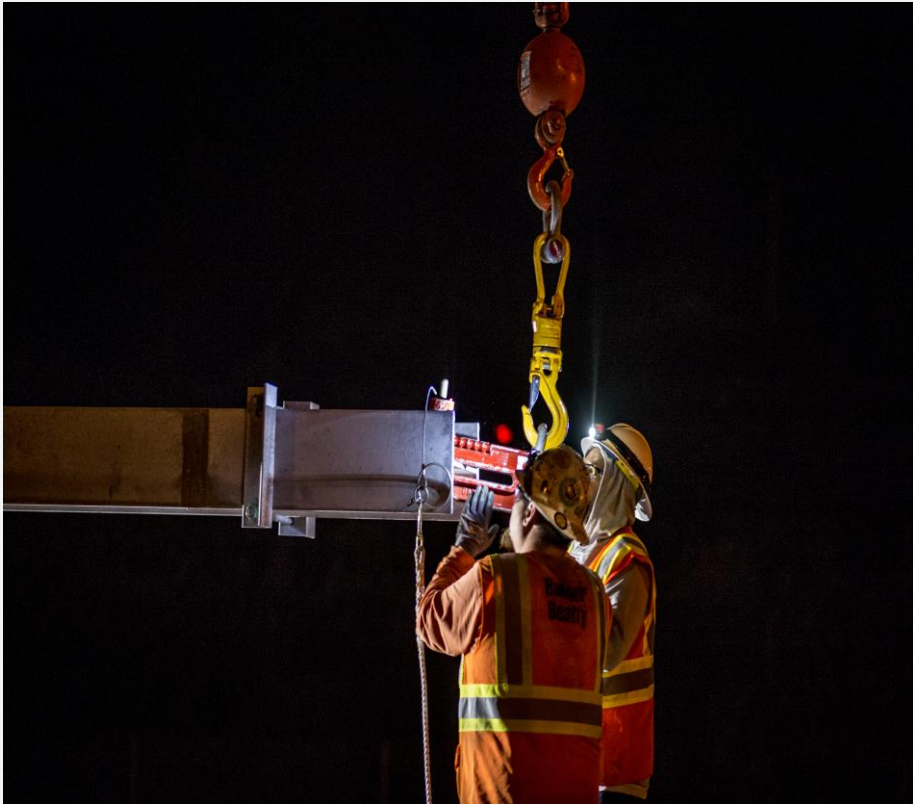


Center



Portals

POLE INSTALLATION



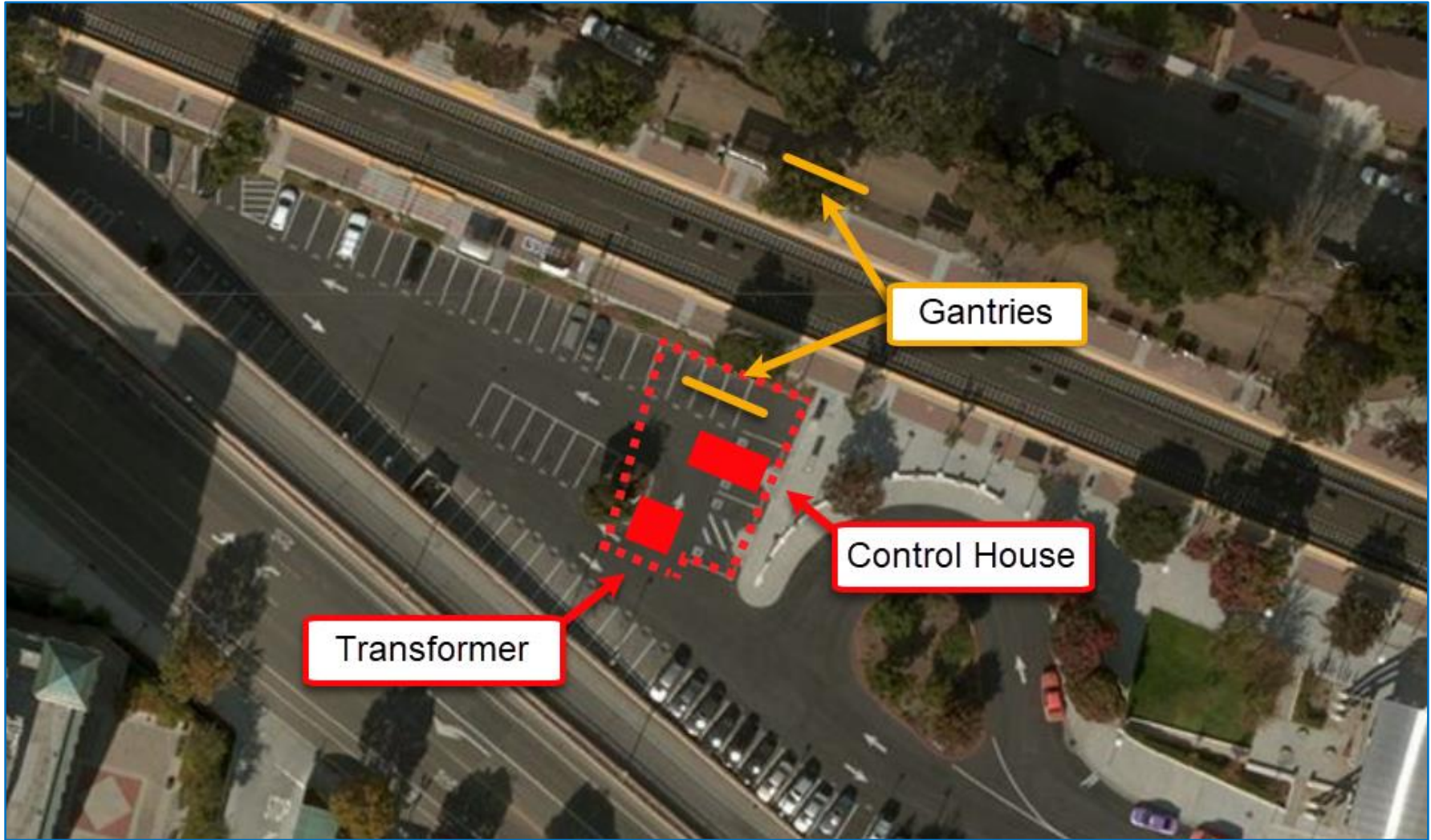
STRINGING WIRE



TRACTION POWER FACILITIES

- 10 Traction Power Facilities Installed throughout Corridor
 - 1 Paralleling Station installed in Sunnyvale
 - Gantry structures up to 50'
- Provides electrical power to trains through the Overhead Contact System
- Unmanned station
- Day and weekend construction work
- Limited night work during construction

PARALLELING STATION LOCATION



EXAMPLE PARALLELING STATIONS



PARALLELING STATION CONSTRUCTION



BRIDGE BARRIERS

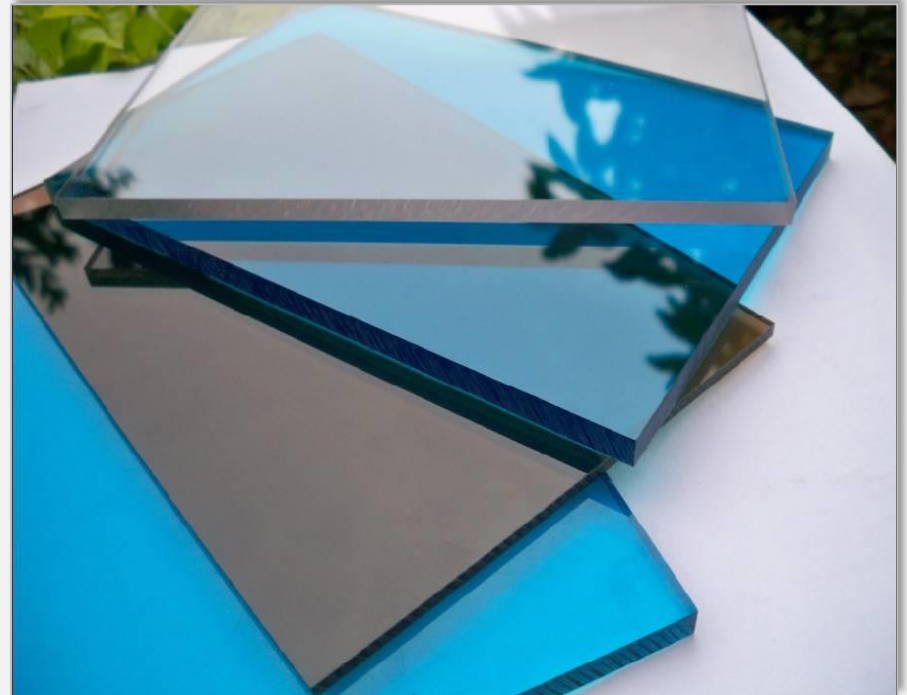
- Ensure the safety of pedestrians and electrical infrastructure
- Will be installed at:
 - Mathilda Avenue
 - Fair Oaks Avenue
 - Wolfe Road

BRIDGE BARRIERS



Screen Mesh

Polycarbonate Panel



CONSTRUCTION INFORMATION

- Work will occur during day and night
- Some 24 hour weekend work
- Crews will utilize acoustical barrier blankets and position lights away from homes
- Dedicated hotline for construction complaints

PUBLIC OUTREACH

CalMod
CALTRAIN MODERNIZATION PROGRAM
 Test Pile Construction Activities

DAY TIME WORK
08/28/17 - 09/1/17

ANTICIPATED WORK HOURS
 7:00 a.m. - 5:00 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 integrity 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 5 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 team 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/PCPEconstruction to sign-up for weekly construction updates.

We appreciate your patience during construction.

Doorhanger

CalMod
CALTRAIN ELECTRIFICATION PROJECT
 STATUS UPDATE | January 2018

MILESTONES

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

KEY REGIONAL BENEFITS 2040

- GREENHOUSE GASES (ANNUAL)** 176,000 METRIC TONS CO₂
- DIESEL TO ELECTRIC** LOWER FUEL COSTS
- TRAFFIC CONGESTION** 619,000 VEHICLE MILES
- 21% INCREASE** DAILY RIDERSHIP
- \$2.5 BILLION** ECONOMIC BENEFITS
- MORE SERVICE** MORE FREQUENT & FASTER TRIPS

FOR MORE INFORMATION

- www.calmod.org
- 650.399.9659
- Para traducción lláma al 1.800.660.4287
- 查詢詳情請電: 1.800.660.4287
- Cần dịch thuật, xin gọi 1.800.660.4287
- Project Outreach Office: 9:00a.m. to 5:00p.m., 2121 S. El Camino Real, Bldg A, Ste A-100, San Mateo, CA 94403

Factsheet

CALTRAIN MODERNIZATION

- IMPROVING CONVENIENCE**
An electrified system means the trains can run more frequently and more efficiently.
- BOOSTING ECONOMIES**
CalMod will also provide economic benefits, including creating nearly 10,000 jobs across the country.
- INCREASING CAPACITY**
CalMod upgrades give us room to grow, initially increasing capacity by over 30%.
- ADVANCING SUSTAINABILITY**
Replacing old diesel trains with new electric trains will reduce GHG and improve air quality.

These are just a few examples of how Caltrain and the CalMod program are innovating to better serve the Bay Area. Learn more at CalMod.org and stay in touch with us on social media!

Postcard



Public Meeting

PUBLIC OUTREACH

- Subscribe to Weekly Updates
 - Visit www.calmod.org/get-involved
- Social Media
- Construction Outreach Office


WHAT'S NEXT


- Caltrain Business Plan
 - Caltrain2040.org
- High-Speed Rail Blended System
 - hsr.ca.gov
- Caltrain Downtown Extension
 - sftca.org/transbay-transit-center
- Diridon Concept Plan
 - DiridonSJ.org

CALMOD CONTACT INFORMATION

WEEKLY UPDATES  CalMod.org/get-involved

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