



## **CalMod Local Policy Maker Group (LPMG)**

Thursday, March 27, 2014

6:00 PM – 7:30 PM

SamTrans Offices - Bacciocco Auditorium 2<sup>nd</sup> Floor  
1250 San Carlos Ave., San Carlos

### **Agenda**

1. JPB Staff Report
2. Information/Discussion
  - a. Peninsula Corridor Electrification Project (PCEP) Draft Environmental Impact Report – (Attachment A)
  - b. Advanced Signal System Project Update – (Attachment B)
3. Public Comments
4. LMPG Member Comments/Requests
5. Next Meeting - E-Update: April 24, 2014  
In-person: May 22, 2014 6PM, SamTrans Office Auditorium



## Memorandum

**Date:** March 20, 2014

**To:** CalMod Local Policy Maker Group (LPMG)

**From:** Marian Lee, CalMod Executive Officer

**Re:** **Peninsula Corridor Electrification Project Draft Environmental Impact Review**

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Over the last year, Caltrain staff and the environmental consultant team, ICF International, presented updates to the LPMG on the Peninsula Corridor Electrification Project (PCEP) environmental clearance process, approach, scope and schedule.

The state environmental clearance process was initiated on January 31, 2013. The Draft Environmental Impact Report (DEIR) was prepared over the last year and released on February 28, 2014 for a 60-day review and public comment period, which is longer than what is required by CEQA.

The DEIR Notice of Availability was distributed to:

- Property owners within 300' of ROW
- Libraries
- Elected Officials (Local, State and Federal)
- Transportation Boards and Agencies
- Community groups and key stakeholders
- City/County Staff

Four public meetings will be held during March and April to solicit input on the draft impacts of the proposed project. The dates and locations of the public meetings are:

- San Carlos - Caltrain Office, March 18, 2014, 6:00 – 8:00 p.m.
- Redwood City Library, April 2, 2014, 6:00 – 8:00 p.m.
- San Jose Main Library, April 7, 2014, 6:00 – 8:00 p.m.
- San Francisco UCSF Mission Bay, April 9, 2014, 6:00 – 8:00 p.m.

At the March 27 LPMG meeting, Rich Walter, consultant with ICF International, will provide an overview of the scope, information related to key areas of local concern, and venues for public input. The presentation is attached.



# Peninsula Corridor Electrification Project

## Draft Environmental Impact Report

LPMG  
March 27, 2014



## Context

## Caltrain Modernization Program

- ~\$1.5 Billion Early Investment Program
  - CBOSS PTC (2015)
  - Peninsula Corridor Electrification Project (2019)
- Caltrain/HSR Blended System



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## Project History

- JPB Strategic Plan (1999, 2004)
- Conceptual Design (2002)
- Draft EA/EIR (2004)
- 35% design complete (2008)
- Final EA/EIR & Finding of No Significant Impact (FONSI) (2009)
- State clearance postponed

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## Delivery Milestones\*

Activity	2013	2014	2015	2016	2017	2018	2019
Stakeholder Outreach	█	█	█	█	█	█	█
Establish Owner's Team	█						
Environmental Clearance	█	█					
Procure/Select Contractor Team		█	█				
Design/Manufacture/Build				█	█	█	█



\*Schedule subject to change

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## PCEP DEIR

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## CEQA Requirements

- Identify environmental baseline
- Analyze direct, indirect and cumulative impacts
- Compare impacts to significance criteria
- Identify feasible mitigation for significant impacts
- Consider alternatives
- “Reasonable worst-case” assumptions as conservative approach

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## Project Purpose and Need

- Improve Caltrain system performance
- Increase service & ridership
- Increase revenue & reduce cost
- Reduce environmental impacts
- HSR compatible electrical infrastructure

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## Project Description

Area	Project	Service*
51+ miles San Francisco to San Jose (Tamien Station)	Electrification: <ul style="list-style-type: none"><li>• Overhead Contact System (OCS)</li><li>• Traction Power Facilities</li></ul> Electric Multiple Units (EMUs)	Up to 79 mph More service: <ul style="list-style-type: none"><li>• 6 trains/per peak hour/per direction (12 trains per hour)</li><li>• Restore Atherton &amp; Broadway service</li></ul> Mixed diesel / EMU fleet Cont. Caltrain diesel service to Gilroy Cont. tenant service

\* Based on prototypical schedule produced for DEIR

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## Visual Simulation



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## Right of Way Needs

- Most in Caltrain ROW
- Traction Power Facilities
  - 2 substations
  - Up to ~1.5 acres total
- OCS (Poles/Wires)
  - Based on 35% design
  - ~2 out of 102 miles of OCS alignment

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## Electric Safety Zone Need

- Easement for safety
  - No trees within 10 ft. of OCS
  - No structures within 6 ft. of OCS
- Guidance
  - 25kV properties
  - Industry standards
- Up to ~18 acres along 51+ mile corridor
  - ~22 miles out of 102 miles along both sides of ROW

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## DEIR Structure

DEIR	Environmental Clearance
Project Analysis (2020)	Yes
Cumulative Analysis (2040)	No

Note: 2013 JPB/CHSRA New Agreement identifies JPB as lead agency for environmental clearance of the PCEP and CHSRA as lead agency for environmental clearance of the HSR Blended System.

## Key Regional Benefits

Benefit	2020	2040 (all EMU + DTX)
Total Ridership (Daily)	69,000	111,000
Reduced Vehicle Miles Travelled (Daily)	235,000	619,000
Reduced Air Pollution (Daily)	56% to 84%	77% to 96%
Reduced Greenhouse Gases (Annual)	68,000 Metric Tons of CO <sub>2</sub> equivalent	177,000 Metric Tons of CO <sub>2</sub> equivalent

## Stakeholder Key Concerns

- Tree / Vegetation
- Overhead Contact System
- Noise
- Electromagnetic Fields/Interference
- Local Traffic
- Station Access
- Freight

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## Trees / Vegetation

- Along Caltrain route (SF to Gilroy): ~19,000
- Worst-Case Impact
  - Removal of 2,200 trees/vegetation
  - Pruning of 3,600 trees/vegetation
- Mitigation Strategies
  - Avoidance and Minimization (OCS Pole Options)
  - Replacement Plan
  - Significant after mitigation (aesthetics)

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## Overhead Contact System

- Poles and Wires
  - Poles ~200 feet apart along rail corridor
  - Poles 30 to 50 feet tall
  - Wires between poles
- Project Impact
  - Changes in visual aesthetics along tracks and at Caltrain stations
- Mitigation Strategies
  - OCS design & treatments
  - Less than significant after mitigation (aesthetics)

## Visual Simulation



## Noise

- Project Noise
  - EMUs quieter than diesel locomotives
  - More trains result in more horn soundings\*
  - TPF (Traction Power Facilities)
- Noise Study Results
  - 49 locations analyzed
  - Significant impact at one TPF in SSF (FTA thresholds)
- Mitigation Strategies
  - Design treatment
  - Less than significant after mitigation

\* Note: Train horns required by federal law

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## Electromagnetic Fields/ Electromagnetic Interference

- EMF: Electrical and magnetic fields
  - Generated from OCS, electric trains, and TPF
  - EMF levels less than health thresholds for General Public exposure along ROW
- EMI: Effect on equipment
  - Potential effects on sensitive electronic equipment
  - Design treatment mitigation
  - Less than significant after mitigation

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## Local Traffic

- Overall Traffic Congestion Reduction
- Project Impacts\*
  - More trains increase gate down time
  - EMUs decrease gate down time
  - More riders increase local traffic at stations
  - 82 intersections studied (21 impacted)
- Mitigation Strategies
  - Signal improvements
  - Local roadway improvements
  - Significant impact at 9 intersections after mitigation

\*Note: CBOSS, which minimizes gate down time, is assumed to be in place

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## Station Access / Egress

- Bicycle Access
  - Continuation of bikes on board program
  - Continuation of wayside facility improvements
- Pedestrian Access
  - All stations adequate except at the 4th and King Terminus
  - Access improvements in partnership with San Francisco
- Parking Demand
  - Demand exceeds supply at 7 stations
  - ~1,000 riders may not be realized due to parking deficit
- On-Going Improvements with Local Agencies
  - Caltrain Access Program Policy
  - Caltrain Bicycle Access and Parking Plan

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## Freight Rail

- Existing Tunnel and Bridge Constraints
- Project Evaluation
  - Vertical clearance impact from OCS
  - Constrained operating window from FRA waiver temporal separation requirement\*
- No Project-Level Impact
  - Tunnel notching /track lowering mitigation
  - Existing freight can be accommodated

\*Note: May not be needed if FRA rulemaking on Alternative Compliant Vehicle in place

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## Alternatives

- 51 Scoping Alternatives
- Screened Alternatives
  - Feasibility
  - Project purpose and need
  - Environmental effect
- Analyzed in DEIR
  - The No Project Alternative
  - Diesel Multiple Unit Alternative (*public interest*)
  - Dual-Mode Multiple Unit Alternative (*public interest*)
  - OCS Construction Alternative: Factory Train

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## Cumulative Analysis

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## Cumulative Analysis

- Project Contributions to Cumulative Impacts
- Cumulative Projects
  - Rail Projects in Caltrain Corridor
  - Other Transportation Projects
  - Local Development along Corridor
- Key Rail Projects
  - High Speed Rail (HSR) Blended Service
  - SF Downtown Extension and Transbay Transit Center
  - Tenant railroad service expansions

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## HSR Blended System

- Conceptual cumulative analysis only
- HSR service
  - 2 to 4 trains per peak hour/per direction
  - Up to 110 mph
- Improvements
  - Stations at SJ (Diridon), Millbrae, SF (Transbay Transit Center)
  - RWC Station TBD
  - System improvements, grade separations, passing tracks, maintenance yard

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## Key Cumulative Effects

- Beneficial Effects
  - Air Quality/Reduced GHG
  - Regional Traffic
- Potential Adverse Effects
  - Aesthetics/Land Use
  - Noise and Vibration
  - Local Traffic
  - Freight Rail
- Mitigation of Caltrain funding contribution on a fair-share basis / existing agreements

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## Next Steps

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## Key Milestones

- Notice of Preparation (1/31/13 – 3/18/13)
  - Circulated widely
  - 4 public meetings
- Develop DEIR (Mar 2013 – Feb 2014)
  - Reviewed comments
  - Surveys / technical analysis
  - Riders / community outreach
  - Agency coordination
  - Stakeholder/cities coordination

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## Key Milestones, Continued

- ➔ DEIR Comment Period (2/28/14 – 4/29/14)
- Notice of Availability, circulated widely
  - DEIR available website, libraries, clearinghouse
  - 4 public meetings
  - 60-day comment period (longer than required)
  - [www.caltrain.com/electrification](http://www.caltrain.com/electrification)
- Final EIR (Fall 2014)
  - JPB Certification /Adoption (Winter 2014)

## Public DEIR Meetings

<u>Caltrain Office</u> 1250 San Carlos Ave., San Carlos	<u>Redwood City Library</u> 1044 Middlefield Rd, Redwood City
<b>Tuesday, March 18, 2014</b> Public Meeting: 6pm-8pm	<b>Wednesday, April 2, 2014</b> Public Meeting: 6pm-8pm
<u>San Jose Main Library</u> 150 E San Fernando St, San Jose	<u>UCSF Mission Bay</u> Genentech Hall Room N114 600 16 <sup>th</sup> St, San Francisco
<b>Monday, April 7, 2014</b> Public Meeting: 6pm-8pm	<b>Wednesday, April 9, 2014</b> Public Meeting: 6pm-8pm



## Memorandum

**Date:** March 20, 2014

**To:** CalMod Local Policy Maker Group (LPMG)

**From:** Marian Lee, CalMod Executive Officer

**Re:** **Advanced Signal System Project Update**

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The Advanced Signal System project, also called Communications Based Overlay Signal System (CBOSS) Positive Train Control (PTC), is being installed along the Caltrain Corridor from the 4<sup>th</sup> and King Station in San Francisco to the approximately Tamien Station in San Jose.

Installation of the communications subsystem started on September 4, 2013 in San Jose. The general installation progress is South to North. To date, the communications subsystem installation work has reached as far north as Redwood City.

Currently, there are a variety of installation activities occurring in several cities – Redwood City, Unincorporated San Mateo County, Menlo Park, Palo Alto, Mountain View, Santa Clara, Sunnyvale, and San Jose. CalMod staff continues to work closely with City and County staff to provide appropriate outreach and communications to community members, especially in areas where there are modifications to the installation schedule.

The attached will be presented by Caltrain staff providing an update on the Advanced Signal System project. The last presentation the LPMG received on the Advanced Signal System project was in September 2013.



# Advanced Signal System (CBOSS PTC)

## Updated Installation Work Plan

LPMG Meeting  
March 27, 2014



## Context



## Caltrain Modernization Program

- ~\$1.5 Billion
- Projects
  - Advanced Signal System (2015)
  - Corridor Electrification and Electric Multiple Units (2019)



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## Project Description

- Communications Based Overlay Signal System (CBOSS) Positive Train Control (PTC)
- Fiber Optic Network
- Project Requirements
  - Includes federal mandate (PTC)
  - Improves Caltrain performance
- Project Partners
  - FRA, UP, CHSRA, JPB
- Needed for Blended System

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## CBOSS PTC Requirements

- PTC
  - Prevent train to train collisions
  - Prevent over speed derailments
  - Prevent incursions into established work zones
  - Prevent movement through a misaligned switch
  - Interoperability
- Caltrain
  - Enhanced crossing safety / performance
  - Improved headways and operational flexibility
  - Enforcement of scheduled station stops
  - Schedule management
  - Employee In Charge

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## Project Total Cost and Milestones

Description	Cost (in millions)	Milestones
Project Planning and Procurement	\$5	2010 - 2011
Phase 1 - Critical Design	\$25	2012 – 2013
Phase 2 - Final Design, Data Communications Subsystem & Fiber Backbone Installation	\$51	2013 – 2014
Phase 3 - Installation, Testing, Commissioning	\$150	2014 – 2016 (Revenue service Oct. 2015)
<b>Total</b>	<b>\$231</b>	

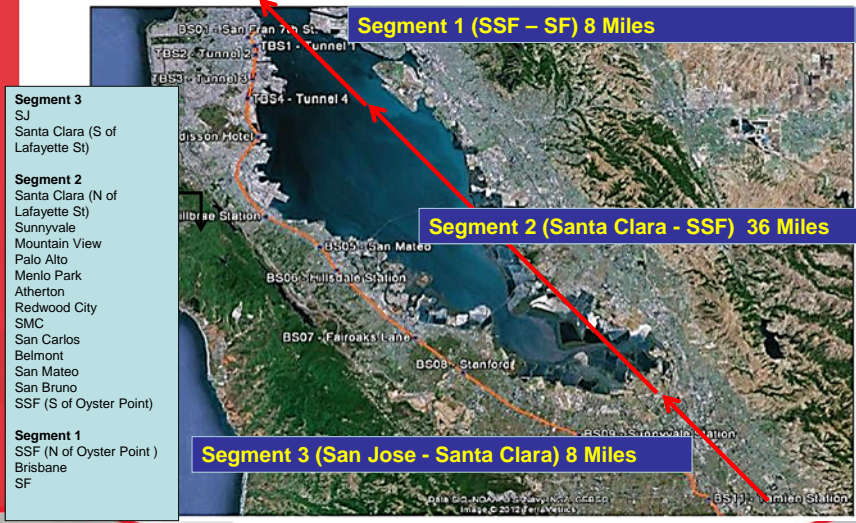
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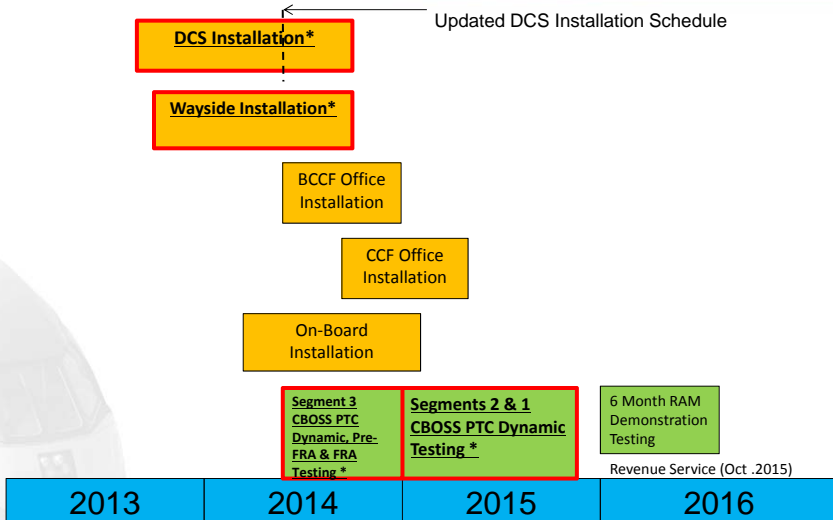
# Updated Work Plan



## 3 Segments – South to North



## Updated Milestones (Entire Corridor)



## Work Complete to Date

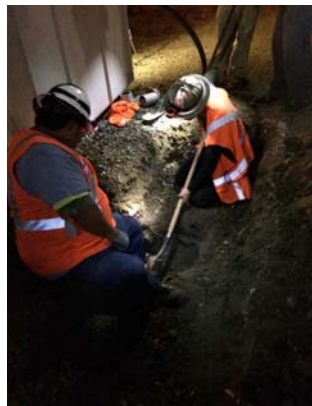
- Fiber Installation Activities
  - Boring, trenching (lateral), pull boxes, conduit
  - Segment 3: 50% complete
  - Segment 2: 10% complete
- Wayside Installation
  - Modules installed at key system points
  - Associated gate activity
  - Segment 3: 70% complete
  - Segment 2: 10% complete
- On-board Equipment Installation
  - Staging started Feb. 10



## Installation Pictures

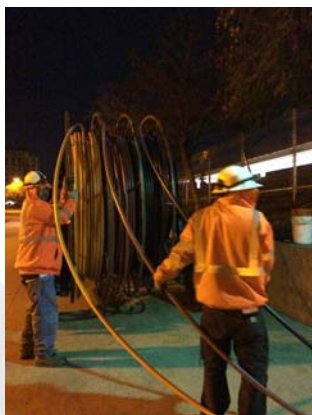


Directional Boring



Hand Trenching near a Signal House

## Installation Pictures



Unwinding inner-ducts off the wheel



Tie-in to Control Point Franklin

## Installation Pictures



Installing new wires at the rear of the entry rack



Performing end of work ground verification test

## Challenges

- Construction on an active railroad
- Customized local processes
- Maximizing productivity
  - Obstacles in boring path
  - Equipment damaged

## Outreach

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## Outreach To Date

- Activities
  - CSCG (4 meetings)
  - LPMG (4 meetings)
  - One-on-one (each of the 17 cities/3 counties)
  - Community Groups, as requested (8 meetings)
- Communication tailored to location
  - Direct mailers, flyers stations
  - Website, social media, email, phone
  - City/County Staff coordination

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## Complaint Status (Over 6 months)

- Noise
  - 2 people
- Installation activities
  - Disturbed foliage on Caltrain ROW (apologized)
  - Mud tracked on side street (cleaned)
  - Grass damaged (repaired)

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## Next Steps

- Activities
  - Community Groups Meetings (as requested)
- Communication
  - Addition direct mailer residents
  - Website, social media, email, phone
  - Separate installation and testing notices
- City/County Staff coordination

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# Questions

