Caltrain Modernization Program

TJPA Board
Feb. 13, 2014

About Caltrain

- Diesel commuter rail system
- San Francisco to San Jose/ Gilroy
- 77-mile corridor, 32 stations
- 92 weekday & 68 weekend trains
- Ridership: ~ 53,000 weekday

Peninsula Corridor Joint Powers Board

- 3 county representation
- 9 board members (3 from each county)

City/County San Francisco

San Mateo County Transit District

Santa Clara Valley Transportation Authority

Blended System Vision

Community-driven Approach
2-track System (Primarily)
Up to 110 mph
Partially Grade Separated
6 Caltrains / per peak hour per direction
Up to 4 HSR trains / per peak hour per direction*

*Based on LTK computer model simulation (March 2012)

Policy Commitments

- 2012 CHSRA Business Plan
- 2012 Regional 9-Party Funding MOU*

- MTC	*- CHSRA*
- JPB	*- VTA*
- SFCTA	*- SMCTA*
- City of San Jose	*- TJPA*
- City/County San Francisco	

- 2013 JPB/CHSRA New Agreement

* Monthly PCWG meetings with staff representatives

Peninsula Corridor
Early Investment

Caltrain Modernization

- $1.5 Billion Regional Funding Plan
- Projects
  - Advanced Signal System (2015)
  - Corridor Electrification and EMUs (2019)

Advanced Signal System

(2015)

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

Delivery Milestones

Description	Milestones
Project Planning and Procurement	2010 - 2011
Phase 1 - Critical Design	2012 – 2013
Phase 2 - Final Design, Data Communications Subsystem & Fiber Backbone Installation	2013 – 2014
Phase 3/4 - Installation, Testing, Commissioning	2014 – 2016 (Revenue service October 2015)

Corridor Electrification and

Electric Multiple Units

(2019)

Scope

- Area
  - 51+ miles
  - 4th & King to Tamien
- Service
  - Up to 79mph
  - 6 trains / hour / direction
  - Mixed-fleet service (interim period)
- 25KV AC Electric Service
  - Poles, OCS, Traction Power Facilities

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							

Design Build Delivery Method Approved by JPB September 2013

Peninsula Corridor

Blended System

Caltrain/HSR Blended System

- HSR Service to TTC by 2026/2029
- Additional Improvements
  - Caltrain extension to SF downtown
  - HSR stations
  - Grade separations
  - Passing tracks
  - Maintenance facility
  - Core system improvements (for higher speeds)
- Additional Funding

San Francisco Coordination

TJPA

- TTC Design Review & Approvals
- DTX Design and Environmental
- PPP Feasibility Study
- Blended System Concept of Operations

City/County of San Francisco

- Railyard Alternatives and I-280 Boulevard Feasibility Study (2014 RFP)
- Fourth and King Terminus/Yard Reduction/Removal Feasibility Study (2013)
- Fourth and King Street Railyards Opportunities and Constraints Report (2010)

Study (2013) Purpose

- SF Requested / Funded
- Assess Feasibility of Reducing / Removing SF Station / Yard
- Guiding Principles
  - Support TOD & integrate facility into rapidly developing urban neighborhood
  - Support development & create revenue-generating uses to support Caltrain operations
  - Enhance electrified Caltrain & blended system operations

Evaluation Assumptions

- Caltrain electrified service (by 2019)
- Projects after 2019
  - Downtown Extension Project
  - HSR service on peninsula
- Interim operations
  - All Caltrain trains terminate at 4th & King
  - Mixed diesel and electric fleet

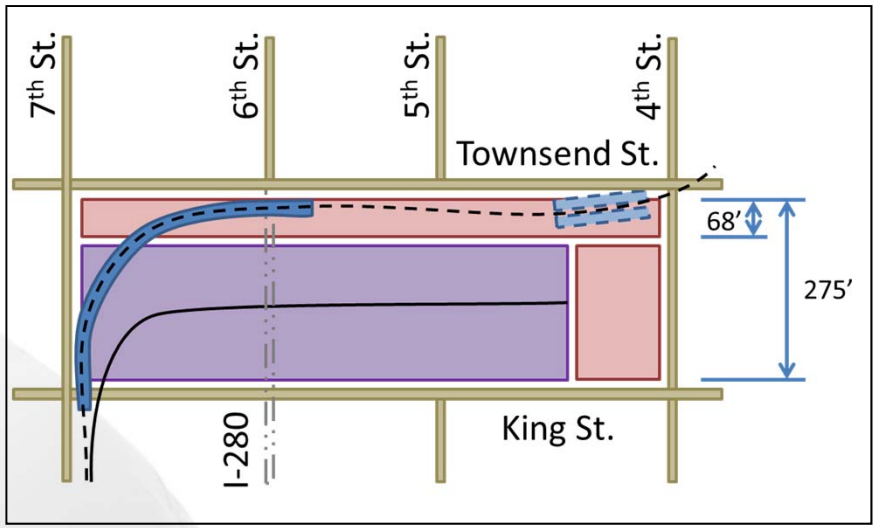
Needed Functions at Terminus

- Key Functions
  - Revenue service (6 trains / ph / pd)
  - Special events service
  - Storage: 10-11 trains
- Support Functions
  - Inspection / Light maintenance
  - Bike facility
  - Crew / Staff facilities
- Electrification Delivery Functions
  - EMU testing / commissioning
  - Construction staging

Preliminary Findings

- 2 Development/transit facility options
  - 1 supports all 2019 needed functions
  - 1 requires off-site facility
- Capital and O/M Costs
  - Yard reconfiguration
  - If needed, off-site facility and improvements
  - Deadheading
- Total yard removal concept
  - Significant effort
  - Requires separate study

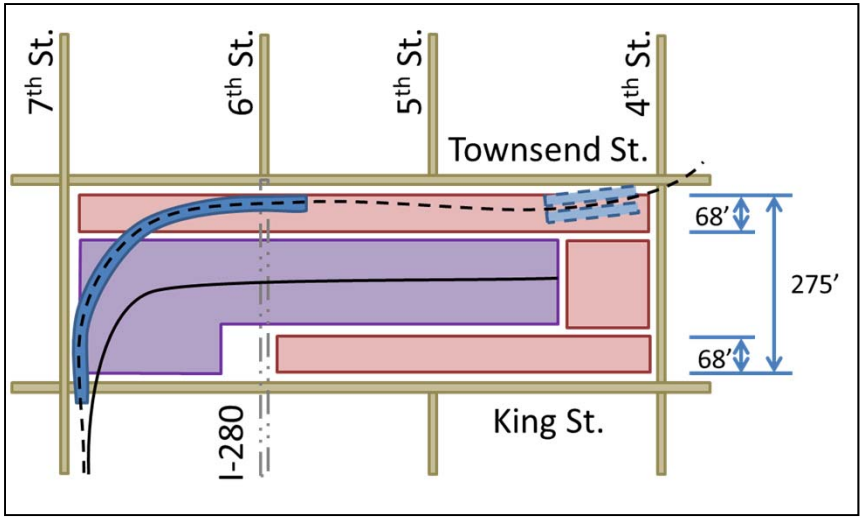
Development/Transit Facility Options



Development 2 Street Fronts
No Off-site Facility

Legend
DTX Alignment

Development 3 Street Fronts
Off-site Facility Needed (SF)



Questions