Local Policy Maker Group (LPMG) Meeting

Thursday, June 27, 2019
5:30 p.m. – 7:30 p.m.
SamTrans Offices – Bacciocco Auditorium 2nd Floor
1250 San Carlos Ave., San Carlos, CA 94070

Members of the public are welcome to attend the teleconference location at:
San Francisco City Hall – Room 200
1 Dr Carlton B Goodlett Pl, San Francisco, CA 94102

Agenda

1. Call to Order
2. Staff Report
3. Caltrain Business Plan
4. Caltrain Electrification Project
5. California High-Speed Rail: Update (Presented by California High-Speed Rail Authority Staff)
6. Public Comments
7. LPMG Member Comments/Requests
    a. Grade Separation Toolkit
8. Next Meeting
    a. Thursday July 25, 2019 at 5:30pm
9. Adjourn

All items on this agenda are subject to action

Memorandum

Date: June 27, 2019

To: CalMod Local Policy Maker Group (LPMG)

From: Sebastian Petty, Senior Advisor

Re: Caltrain Business Plan

Project update

The following is one in a series of monthly project updates for the Caltrain Business Plan. These updates provide a high level summary of project activities and progress and are paired, when applicable, with a presentation that reflects project materials and messaging shared with stakeholder groups during the subject month. The following "June" update covers work completed in late May of 2019 and June of 2019.

ONGOING TECHNICAL WORK

Through spring of 2019 the Caltrain Business Plan team continued intensive technical work on the plan. During June a number of summary presentations of plan material were made to various stakeholder and public groups and significant technical work was completed. New technical material was discussed with the Project Partner Committee, the CSCG and LPMG and is highlighted in both the attached presentation as well as a summarized version that will be presented directly to the Board under agenda item 8c at their July meeting. This presentation covers topics related to ongoing service planning and network integration, community interface work and the organizational assessment. The presentation also describes the materials that will be presented at the larger Business Plan workshop planned for the August 1st JPB meeting.

The following additional technical analysis is ongoing in preparation for the Service Vision workshop on August 1st;

- Finalization of Business Case Analysis for all growth scenarios, including
  - Operating cost calculations
  - Calculation of economic benefits associated with growth scenarios
  - Development of cost/ benefit ratios
- Completion of initial organizational assessment work including the identification and analysis of options related to service delivery, organization and governance and the development of initial recommendations

- Completion of community interface documentation and development of comparison corridor case studies
- Development of a draft staff recommendation for a 2040 Service Vision, to be presented to the Board for initial review and discussion on August 1 with potential action contemplated in the Fall of 2019

MEETINGS AND OUTREACH

The following major stakeholder and public meetings occurred in late May and June;

- Data Visualization Challenge- YouTube Live (May 29)
- Burlingame City Council (June 3)
- San Mateo County Transportation Authority Citizen Advisory Committee (June 4)
- San Mateo County Transportation Authority Board of Directors (June 6)
- Presentation to the San Mateo County Leadership Class (June 7)
- Caltrain Business Plan Ad Hoc Committee (June 17)
- San Mateo City Council (June 17)
- Project Partner Committee (June 18)
- City and County Staff Group (June 19)
- SPUR Regional Planning and Transportation Policy Committee (June 19)
- Local Policy Maker Group (June 27)
- San Mateo County Transit District Board of Directors (July 3)

The Project Partner Committee (PPC) held its regular, full meeting on June 17.

NEXT STEPS

The first part of the Business Plan is focused on the development of a long-range service vision for the railroad accompanied by an assessment of the community-corridor interface and the Caltrain organization. **The Business Plan team intends to bring a full set of draft materials related to the selection of a long range vision to the Board on August 1 for their consideration. Based on feedback received at the meeting and from stakeholders and the public, staff will return to the Board to ask them to take action at a subsequent meeting.**

The remainder of the project will be focused on the creation of the implementation plan, including a detailed business plan and funding approach. The Business Plan team will continue to provide monthly updates throughout the Business Plan.

Caltrain Business Plan

JULY 2019

LPMG

6/27/2019

What is the Caltrain Business Plan?

What Addresses the future potential of the railroad over the next 20-30 years. It will assess the benefits, impacts, and costs of different service visions, building the case for investment and a plan for implementation.

Why Allows the community and stakeholders to engage in developing a more certain, achievable, financially feasible future for the railroad based on local, regional, and statewide needs.

What Will the Business Plan Cover?

Technical Tracks

Service
- Number of trains
- Frequency of service
- Number of people riding the trains
- Infrastructure needs to support different service levels

Business Case
- Value from investments (past, present, and future)
- Infrastructure and operating costs
- Potential sources of revenue

Community Interface
- Benefits and impacts to surrounding communities
- Corridor management strategies and consensus building
- Equity considerations

Organization
- Organizational structure of Caltrain including governance and delivery approaches
- Funding mechanisms to support future service

3

Where Are We in the Process?

4

Flexibility and Integration

5

Understanding the 2040 "Growth Scenarios" as illustrative frameworks

What Service planning work to date has been focused on the development of detailed, illustrative growth scenarios for the Caltrain corridor. The following analysis generalizes these detailed scenarios, emphasizing opportunities for both variation and larger regional integration within the service frameworks that have been developed.

Why The "2040 Service Vision" that will be recommended to the Board will set a generalized framework for growth. There are still many unknowns regarding exactly how both the Caltrian corridor and the regional rail network may evolve. This analysis helps frame some of those unknowns and opportunities

6

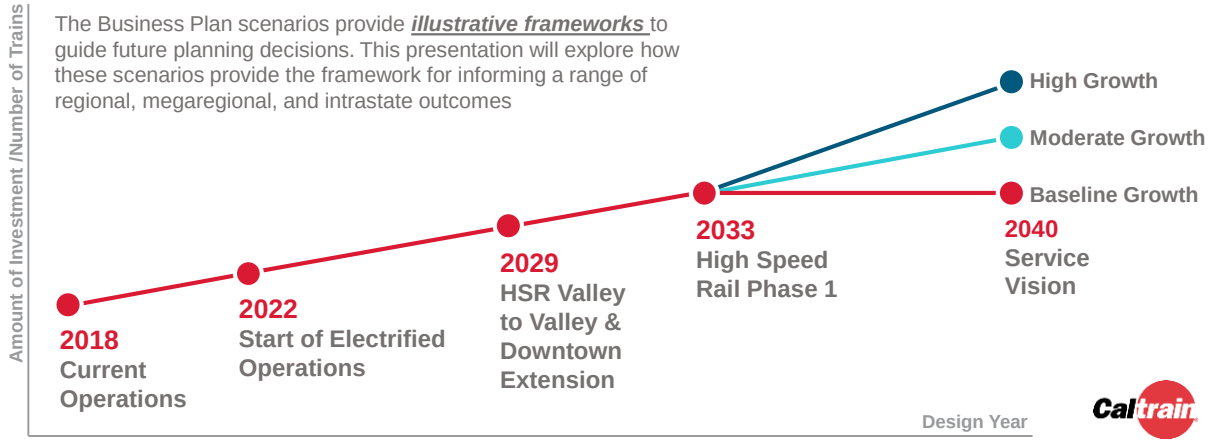
Caltrain Service Flexibility

Caltrain Service Flexibility — Simulation — Network Integration

7

2040 Service Scenarios: Different Ways to Grow

The Business Plan scenarios provide ***illustrative frameworks*** to guide future planning decisions. This presentation will explore how these scenarios provide the framework for informing a range of regional, megaregional, and intrastate outcomes



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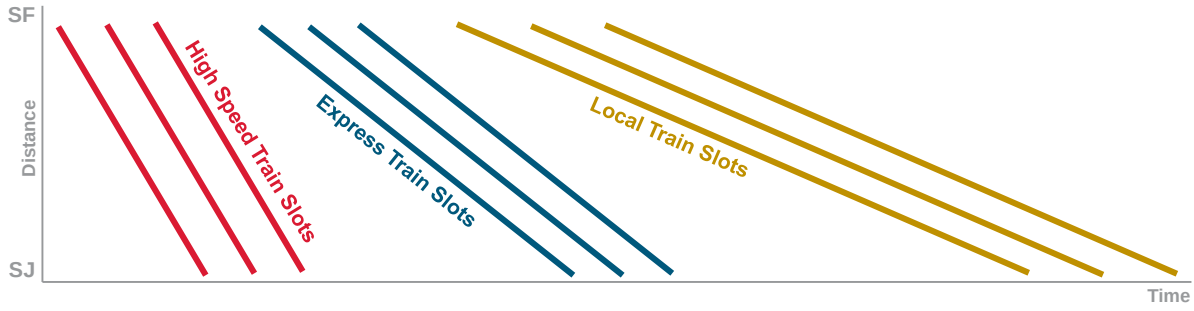
What is a Train Slot?

Fundamentally the Service Scenarios developed within the Business Plan illustrate how additional train "slots" or "paths" can be created on the Peninsula Corridor that accommodate different types and volumes of service

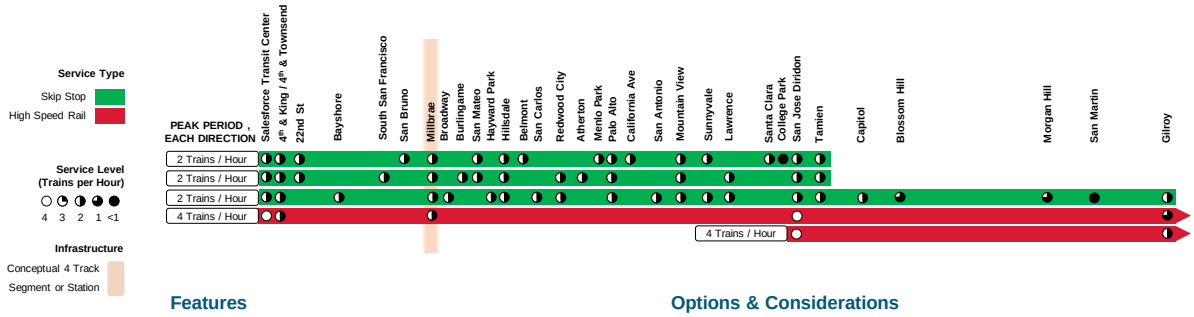
Train Slots
A train slot is an opportunity to operate a train between two endpoints over a defined path on the railroad with a specific stopping pattern and equipment performance

Service to Multiple Markets
Each service plan (Baseline, Moderate, High) defines a set of trains slots that operate without conflicts (i.e. using the same path at the same time) that together provide a specific level of service to markets. Each service plan differs in the quantity and type of service markets collectively receive

Train Slot Planning
The available infrastructure defines how many slots can be planned, and how much variation among the slots can be tolerated. In general, the greater the variability in stopping patterns and train speeds the fewer slots can coexist without conflicts on a railroad



2040 Baseline Growth Scenario (6 Caltrain + 4 HSR)

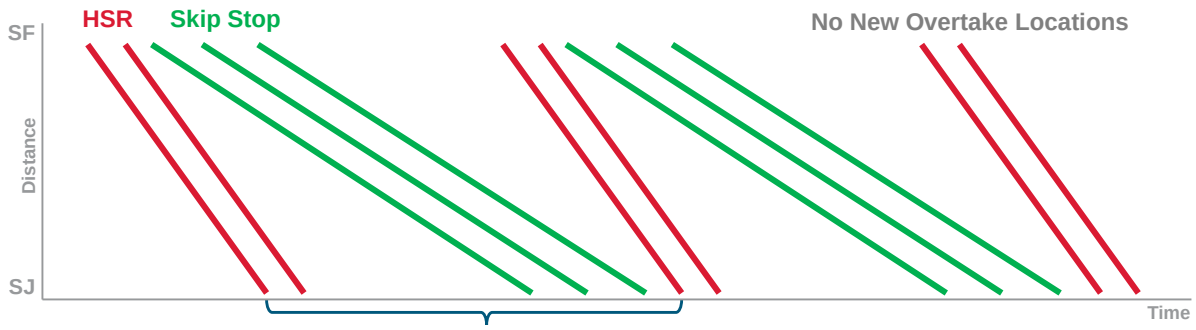


Features
- Blended service with up to 10 TPH north of Tamien (6 Caltrain + 4 HSR) and up to 10 TPH south of Tamien (2 Caltrain + 8 HSR)
- Three skip stop patterns with 2 TPH – most stations are served by 2 or 4 TPH, with a few receiving 6 TPH
- Some origin-destination pairs are not served at all

Passing Track Needs
- Less than 1 mile of new passing tracks at Millbrae associated with HSR station plus use of existing passing tracks at Bayshore and Lawrence

Options & Considerations
- Service approach is consistent with PCEP and HSR EIRs
- Opportunity to consider alternative service approaches later in Business Plan process

Baseline Growth Service Structure



30 minute repeating cycle with bundling/bunching of service types

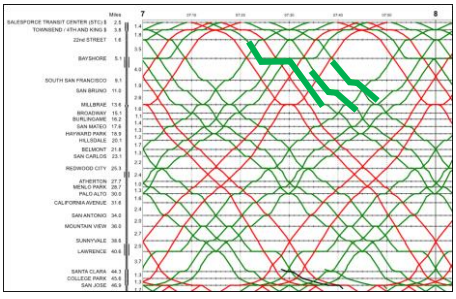
Baseline

Generalized Infrastructure:	New Signal System, overtakes limited to existing locations (Bayshore, Lawrence)
Service Concept Description:	Two Services – Caltrain Skip-Stop operate bunched service in between bunched HSR trains
Possible Variations within Framework:	Station service levels and stopping patterns

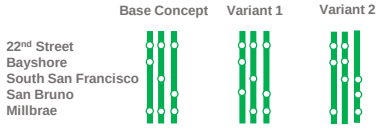
11

Service Flexibility within Baseline Growth

Baseline Scenario- Base Concept



Example Variations



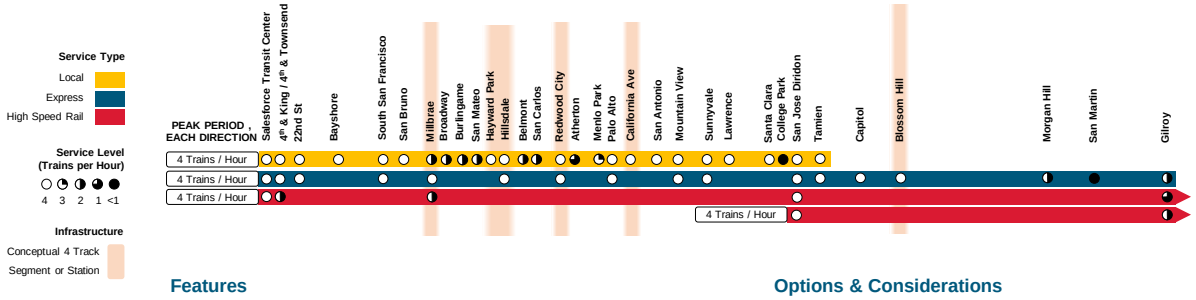
The Baseline Scenario has limited flexibility due to lack of passing tracks

Stops can be "moved" or reallocated between individual stations and patterns but the overall pattern needs to stay the same for all the trains to fit

For example, the Baseline Scenario serves fast-growing stations at Bayshore, South San Francisco, and San Bruno with only two trains per hour. Within the construct of the "baseline" framework, Caltrain would need to reduce service at nearby stations or lengthen travel times to increase service to these stations

12

Moderate Growth Scenario (8 Caltrain + 4 HSR)



Features

- A majority of stations served by 4 TPH local stop line, but Mid-Peninsula stations are serviced with 2 TPH skip stop pattern
- Express line serving major markets – some stations receive 8 TPH
- Timed local/express transfer at Redwood City

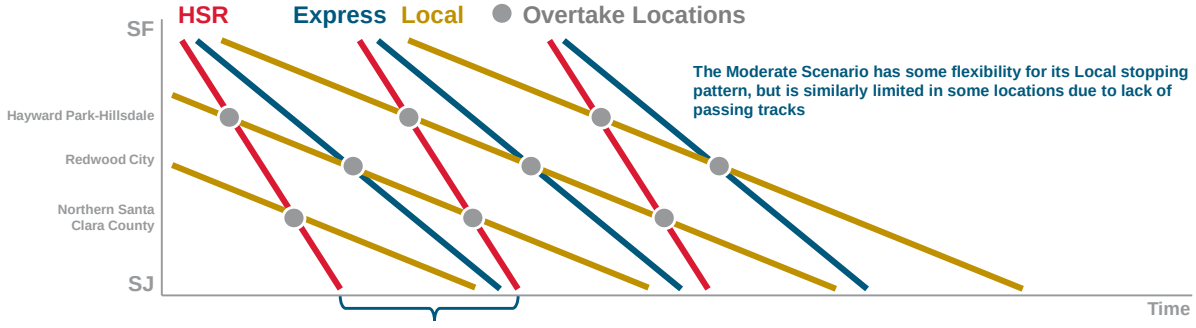
Passing Track Needs

- Up to 4 miles of new 4-track segments and stations: Hayward Park to Hillsdale, at Redwood City, and a 4-track station in northern Santa Clara county (Palo Alto, California Ave, San Antonio or Mountain View. California Ave Shown)

Options & Considerations

- To minimize passing track requirements, each local pattern can only stop twice between San Bruno and Hillsdale
- Each local pattern can only stop once between Hillsdale and Redwood City
- Atherton, College Park, and San Martin served on an hourly or exception basis

Moderate Growth Service Structure



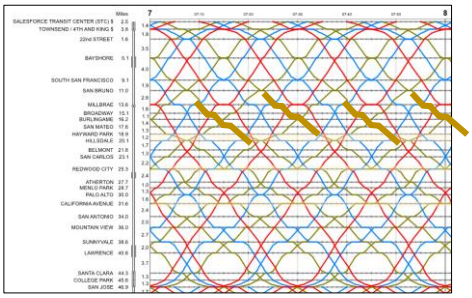
15 minute repeating cycle with even, clock-face spacing of service types

Moderate Growth

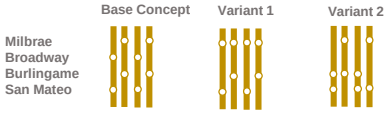
Generalized Infrastructure:	New Signal System, Infrastructure to support overtakes at Hayward Park-Hillsdale, Redwood City, and a station in northern Santa Clara county
Service Concept Description:	Three Services in spread 15 minute pattern – Four Caltrain Express and four Local – with connection in Redwood City with four HSR in even intervals
Possible Variations within Framework:	Local train stopping patterns

Service Flexibility within Moderate Growth

Moderate Scenario - Base Concept



Example Variations

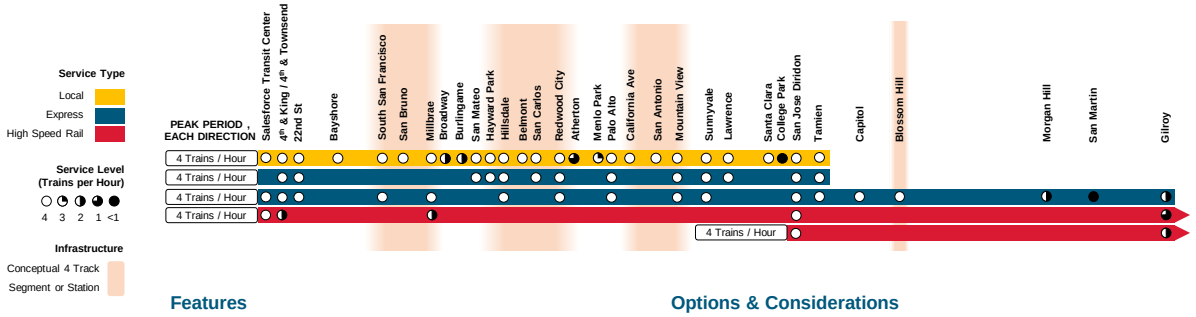


The Moderate Scenario has some flexibility for its Local stopping pattern, but is similarly limited in some locations due to lack of passing tracks and reintroduction of service to two stations

For example, the Moderate Scenario serves closely-spaced mid-Peninsula stations with a skip stop pattern, with Millbrae, Broadway, Burlingame, and San Mateo each receiving two trains per hour, per direction. If regular weekday service to Broadway was not reintroduced, service may be shifted to adjacent stations

15

High Growth Scenarios (12 Caltrain + 4 HSR)



Features

- Nearly complete local stop service – almost all stations receiving at least 4 TPH
- Two express lines serving major markets – many stations receive 8 or 12 TPH

Passing Track Needs

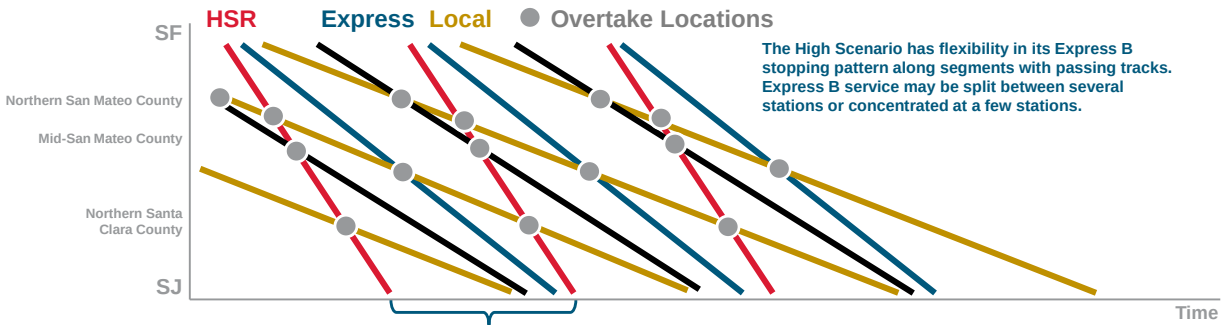
- Requires up to 15 miles of new 4 track segments: South San Francisco to Millbrae, Hayward Park to Redwood City, and northern Santa Clara County between Palo Alto and Mountain View stations (shown: California Avenue to north of Mountain View)

Options & Considerations

- SSF-Millbrae passing track enables second express line; this line cannot stop north of Burlingame
- Tradeoff between infrastructure and service along Mid-Peninsula - some flexibility in length of passing tracks versus number and location of stops
- Flexible 5 mile passing track segment somewhere between Palo Alto and Mountain View
- Atherton, College Park, and San Martin served on an hourly or exception basis

16

High Growth Service Structure



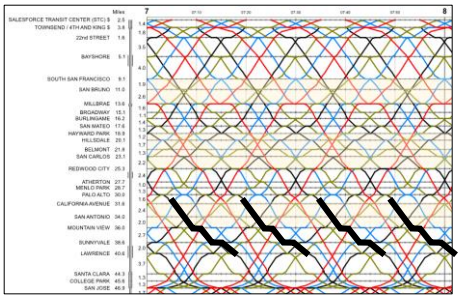
15 minute repeating cycle with even, clock-face spacing of service types

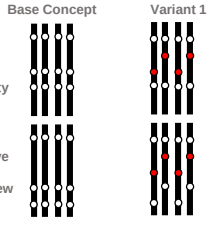
High Growth

Generalized Infrastructure:	New Signal System, Infrastructure to support between South San Francisco and Millbrae, Hayward Park and Redwood City, and a five mile segment in northern Santa Clara County
Service Concept Description:	Four Services in spread 15 minute pattern – Eight Caltrain Express (A and B) four Local –
with	connection in Redwood City with four HSR in even intervals
Possible Variations within Framework:	Local train skip stop pattern and Express B stopping pattern.

Service Flexiblity within High Growth

High Growth - Base Concept





Example Variations

The High Scenario has flexibility in its Express B stopping pattern along segments with passing tracks

Express B service may be split between several stations or concentrated at a few stations. There are also some opportunities to reduce passing track lengths but with potential impacts to service travel time and stopping patterns

Generalizing the 2040 Growth Scenarios

The different 2040 growth scenarios developed through the Business Plan can be generalized in the following way

	Baseline	Moderate	High
Total Train Slots	Up to 10 per hour per direction	Up to 12 per hour per direction	Up to 16 per hour per direction
Service Types	• Skip-stop (up to 6) • High speed (up to 4)	• Local (up to 4) • Express (up to 4) • High speed (up to 4)	• Local (up to 4) • Express (up to 8 in two patterns) • High speed (up to 4)
Scheduling	Irregular/ bunched	Regular, pulsed at major hubs	Regular, pulsed at major hubs
New Overtakes	None	Limited, station-based	Extensive 4 track segments
Operating Environment	Electrified corridor with use by high performance EMU and HSR equipment; modern high-density signaling system		

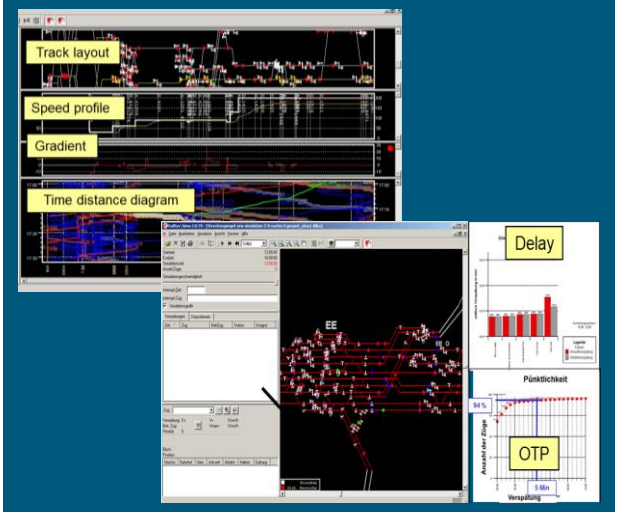
19

Simulation

Caltrain Service Flexibility — **Simulation** — Network Integration

20

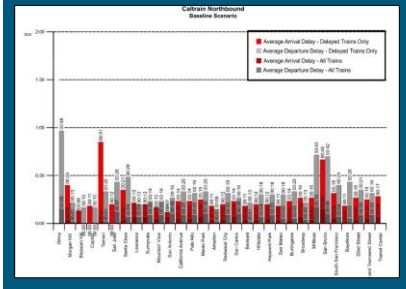
Simulation



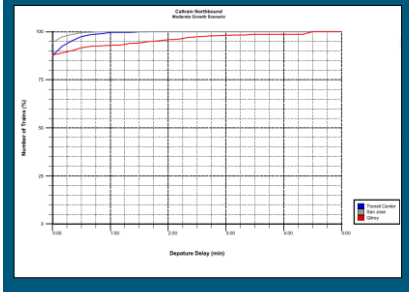
Initial Process

- The primary objective for the simulation analysis was to determine whether the simulation model indicates a stable rush-hour operation absent any major disruptions (e.g track outages or disabled trains) for the three growth scenarios subject to analysis.
- Of particular concern was the extent to which the variability of dwells at intermediate stations affected the ability to deliver the proposed timetables within reasonable on-time performance parameters.
- A baseline simulation was run with no perturbations to confirm the operational feasibility of the scheduled timetable as planned. Once confirmed, 100 simulations were run that introduce variability in dwell and other minor delay to test the robustness of the timetable. Summary statistics were then produced for all 100 cases that describe average delay at key locations along the corridor.

Example Results



Shows minimal delay for Northbound Caltrain service even under perturbed conditions in the ***Baseline Scenario***



Shows, on average, northbound Caltrain trains arriving with less delay at STC than introduced at Gilroy showing ability to make up time enroute. Nearly all trains arrive with one minute of schedule to STC despite variations in dwell and added delay in the ***Moderate Scenario***

Preliminary Results

- The simulated results show a stable rush hour for all three scenarios tested.
- The Moderate scenario shows the best simulated performance with the lowest cumulative delay across the range of perturbed model runs.
- Arrival times into STC for northbound Caltrain service showed average delays less than 10 seconds for all trains, and less than 30 seconds for delayed trains across all three scenarios tested.
- These results show the basic stability of the timetable for Caltrain, despite using pessimistic arrival times for HSR at Gilroy aimed at fully testing the resilience of the Caltrain schedules.

Network Integration

Caltrain Service Flexibility — Simulation — **Network Integration**

Integrating with a State and Regional Network

How Does the Caltrain Corridor and Service Vision Integrate with a Broader Rail and Transit Network?

The previous slides described the flexibility and constraints within each growth scenario. The following slides explore how the different ways that these growth scenarios could interface with and support a larger regional, megaregional and state rail system.

Connections vs. Interlining

From a service standpoint the Caltrain service and corridor can integrate with the network through both timed connections and transfers as well as direct "interlining" or shared use of rail infrastructure. Both options are equally important from a customer and mobility perspective- but the technical opportunities and challenges associated with each are significantly different.

Types of Network Integration: Connections

Connections

Definition: Major designed *transfer* opportunities between different rail and transit systems at key stations. Interface should appear seamless to customers but major operating infrastructure and systems are not actually shared

Examples:

- Connections between BART, SamTrans, and Caltrain at Millbrae
- Future connections between Caltrain and BART at Diridon
- Future connections between Caltrain, BART, and Transbay buses at Salesforce Transit Center

Connections: Caltrain Considerations

The regular, clockface service plans in the Moderate and High Growth scenarios enable coordinated connections with other transit operators, while the Baseline Scenario's bunched schedule presents major challenges to coordination

Schedule Coordination

- Measures to improve connections across agencies (e.g. timed transfers)

Transfer Volumes

- Amount of people making connections

Other Key Considerations

- Factors outside of core service design (e.g. station design and fare integration)

Types of Network Integration: Interlining

Interlining
Definition: *Shared use of common rail infrastructure* by different train operators and services including any track, platforms and operating systems.

In this presentation interlining may refer to both the introduction of other passenger rail operators into the Caltrain corridor or the extension of Caltrain services onto corridors not owned by the JPB

Examples:

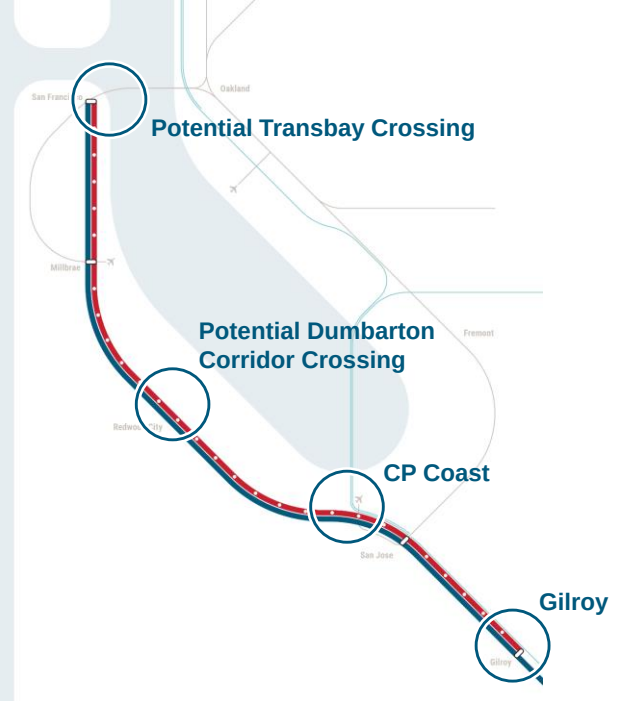
- CCJPA and ACE use of Caltrain corridor between Santa Clara and Diridon
- Future use of Caltrain corridor by High Speed Rail
- Potential Future use of UP corridor to Salinas by Caltrain

27

Interlining Opportunities

There are several existing or potential points where the Caltrain corridor interfaces (or could interface) with the regional and state rail network in a way that would support the interlining of services onto the Caltrain corridor (or the extension of services “off” the corridor)

More so than coordinated connections, interlining introduces a number of significant technical and policy considerations that must be addressed



28

Interlining: Caltrain Considerations

Balancing Limited Capacity Across Corridor and Regional Markets

Caltrain Corridor Market (8+ Slots)

- At least 8 TPHPD required to serve capacity and coverage needs
- Still may result in uncomfortable peak hour crowding along most of the corridor

HSR Market (4 Slots)

- Committed to 4 TPHPD to serve HSR needs between San Francisco and Los Angeles

Opportunities for 4 Additional Slots

- Additional Caltrain express service to help alleviate crowding conditions and realize full demand
- Additional regional service to provide connections to enhance connections to East Bay, Sacramento, and/or Central Valley

Interlining: Implications for Service Scenarios

- All Business Plan scenarios are interlined with HSR and include potential for expanded Caltrain interlining to Gilroy
- Beyond HSR major new interlining is generally not possible for Baseline and Moderate Growth Scenarios without slowing HSR and Caltrain travel times or *significantly* exacerbating Caltrain crowding by diverting slots
- **Additional major interlining is only possible with the type of additional passing track infrastructure and corridor upgrades identified in the High Growth Scenario**

2040 Network Interface

The 2040 regional transportation network includes several major new interfaces with the Caltrain corridor that are well defined and have been fully integrated into existing service planning and modeling:

- BART to San Jose **(connection)**
- DTX will offer new connections between Caltrain and the East Bay **(connection)**
- HSR service will be integrated with Caltrain via blended corridor operations **(interlining)**

A number of additional interfaces are being planned or considered that have significant implications for Caltrain:

1. Rail service to Central Coast/Monterey County
2. A Second Transbay Tube
3. Dumbarton Rail
4. ACE expansion & Capitol Corridor service expansions

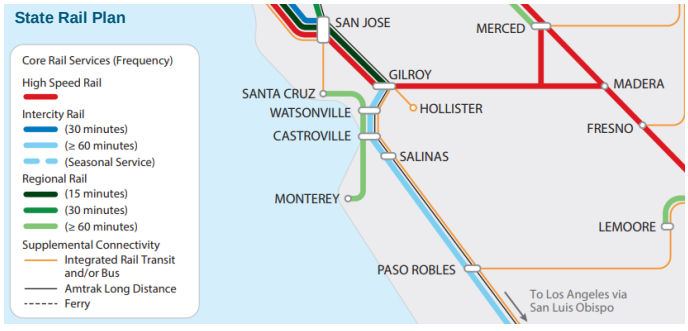
Options and opportunities around these interfaces *from the perspective of the Caltrain Corridor* are explored in the following slides

Rail Service to Central Coast / Monterey County

Description

The State Rail Plan calls for expanded intercity rail service to the Central Coast, terminating at Gilroy Station

The Transportation Agency for Monterey County (TAMC) has proposed extending passenger rail service from San Jose to Salinas, with stations in Pajaro/Watsonville, Castroville, and Salinas



Rail Service to Central Coast / Monterey County

Options/Considerations

- In order to interline or extend passenger rail service south of Gilroy, the Monterey/Central Coast corridor would need to be electrified.
- For all scenarios, there are no additional peak-period slots available between San Jose and Gilroy to interline non-Caltrain, non-HSR services without adding passing tracks
- A well-coordinated connection to a diesel service may be considered at Gilroy in lieu of extending electrified Caltrain service or adding passing tracks (this approach would be consistent with the State Rail Plan). Some interlining / extension options may be possible however in the near- and medium term

Second Transbay Tube

Description

BART is evaluating the feasibility of a Second Transbay Tube to serve BART-gauge rail and/or conventional rail. The State Rail Plan also considers Caltrain and intercity rail service spanning the Transbay corridor

The Second Transbay Tube may serve as a connection between BART and Caltrain at STC or 4th & King, or an extension of rail service from the Caltrain corridor to the East Bay and beyond

Second Transbay Tube

Options/Considerations

- A Second Tube is likely to exacerbate crowding challenges for the Baseline and Moderate Growth Scenarios, regardless of whether Caltrain extends to the East Bay or connects to a BART Tube in San Francisco
- There is no good option for turning westbound trains back in San Francisco - services need to be interlined
- The High Growth Scenario presents the most flexibility to interline a range of services, including from the East Bay and from Sacramento and San Jose as envisioned by the State Rail Plan
- An extension of Caltrain through the Second Tube presents operational challenges if it does not occur at STC

Dumbarton Rail

Description

SamTrans and Cross-Bay Transit Partners are currently analyzing several project alternatives to introduce passenger rail service between the Caltrain Corridor and East Bay. The State Rail Plan considers extending Dumbarton Rail service across the Altamont Pass to the Central Valley

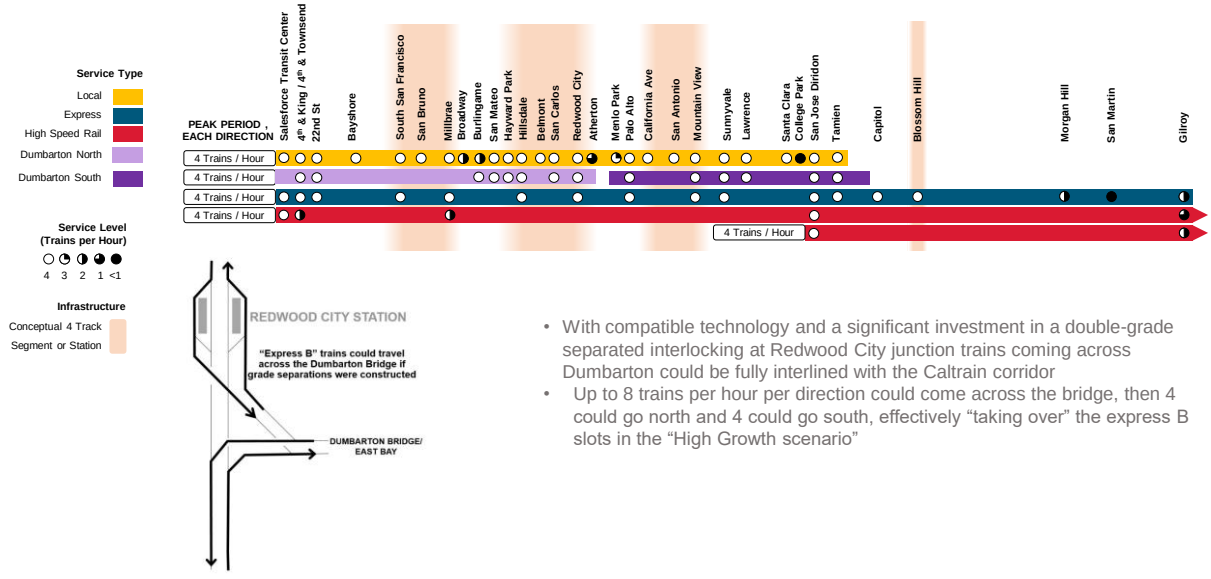
Previous ridership forecasts estimated demand around 15,000 daily riders for a Union City-Redwood City route, with about 2,000 transferring to or from Caltrain

Dumbarton Rail

Options/Considerations

- For the Baseline and Moderate Scenarios, Dumbarton Rail would **connect** at Redwood City. Connections could be timed for Moderate, but not Baseline. Large-scale interlining is not possible in either scenario.
- A significant investment in Redwood City Station is needed to accommodate an additional platform for a Dumbarton Rail connection in addition to a four track Caltrain station in the Moderate and High Scenarios.
- For the High Growth Scenario, Dumbarton Rail may either **connect or interline**, assuming compatible technology. However, interlining may result in overall lower ridership unless service is extended beyond a Union City terminus in the east bay.

Dumbarton Rail Interface – Full Interlining



- With compatible technology and a significant investment in a double-grade separated interlocking at Redwood City junction trains coming across Dumbarton could be fully interlined with the Caltrain corridor
- Up to 8 trains per hour per direction could come across the bridge, then 4 could go north and 4 could go south, effectively "taking over" the express B slots in the "High Growth scenario"

Visionary Service Levels for ACE and Capitol Corridor

A range of significantly increased service levels for ACE and Capitol Corridor are contemplated in both the 2018 State Rail Plan as well as the plans and visions of both agencies

The Business Plan team evaluated opportunities and challenges associated with accommodating combined service levels for between 4 and 8 tphpd

State Rail Plan (2018)
- 30-minute bidirectional service connecting to San Jose

Capitol Corridor Vision Plan (2016)
- 15 Trains per Day between San Jose and Sacramento (hourly frequencies)
- Long-Term: Discussion of electrification with 4 TPHPD terminating in San Jose

ACE Forward (2017)
- 10 daily roundtrips (+4 from existing)

Altamont Vision Plan (ongoing)
- Consideration of 4 TPHPD across Altamont corridor terminating at San Jose

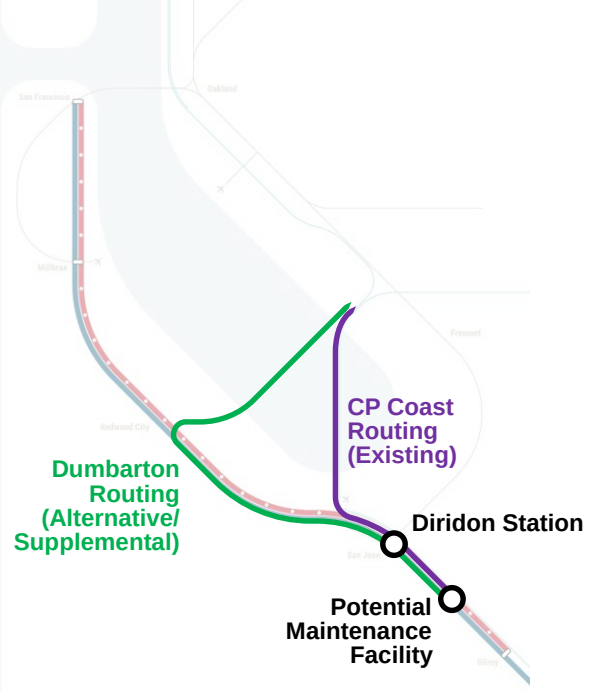
39

Options & Considerations

Routings
- Today, ACE and CCJPA services come on to the Caltrain Corridor at CP Coast
- An alternative future routing could have some or all services route across the Dumbarton Bridge. This option requires "high growth" infrastructure and the use of compatible rolling stock

Infrastructure at Diridon
- Infrastructure at and around the Diridon Station is constrained
- The different growth scenarios for Caltrain/ HSR all require the same set of platforms and tracks at Diridon.
- Significantly increasing ACE and/or CCJPA services to San Jose has the potential to drive an expanded infrastructure footprint

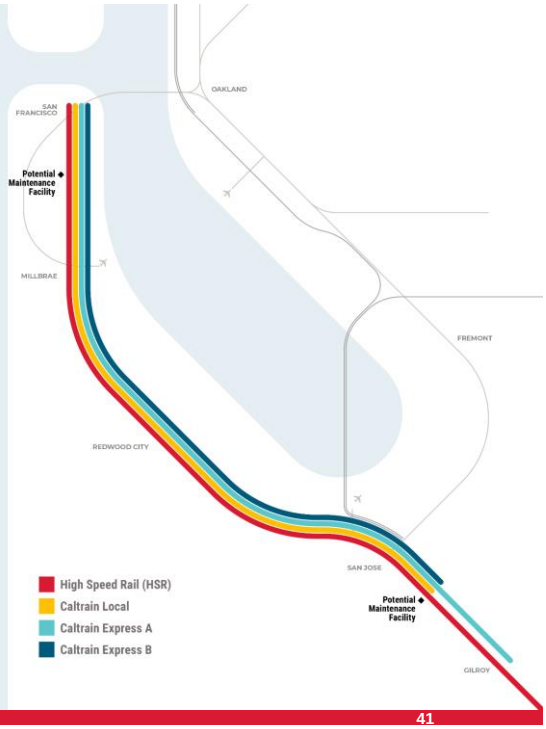
Turns and Storage
- Regardless of routing, accommodating "visionary" levels of ACE and CCJPA service (4 tphpd or more) will require that trains run through Diridon to a new storage and turn facility south of the station. This facility could be shared with a future Caltrain facility



40

Options for a Regionalized Rail System

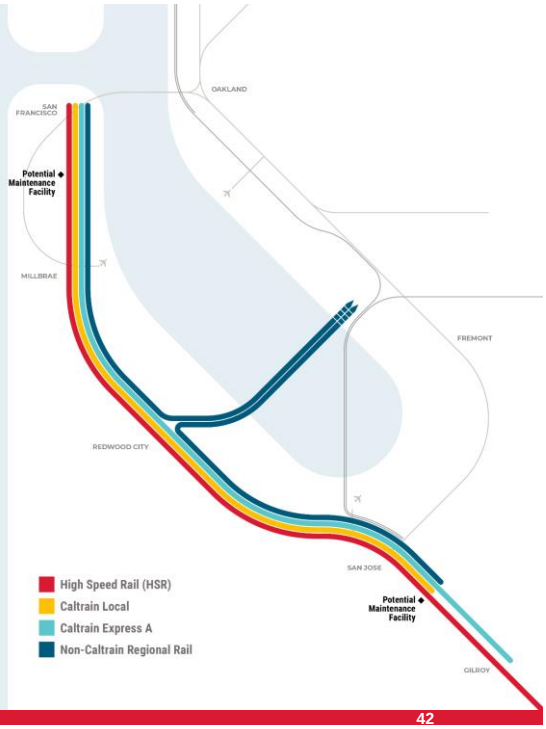
2040 High Growth Service



41

Options for a Regionalized Rail System

Dumbarton Bridge Interlining



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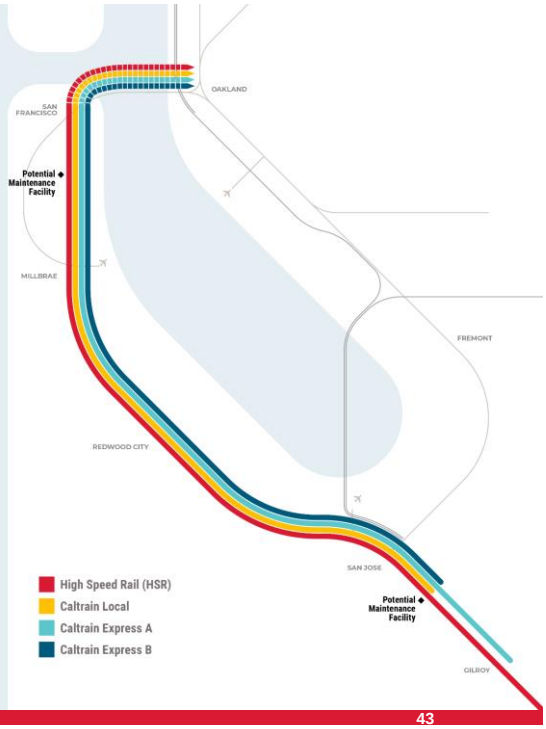
Options for a Regionalized Rail System

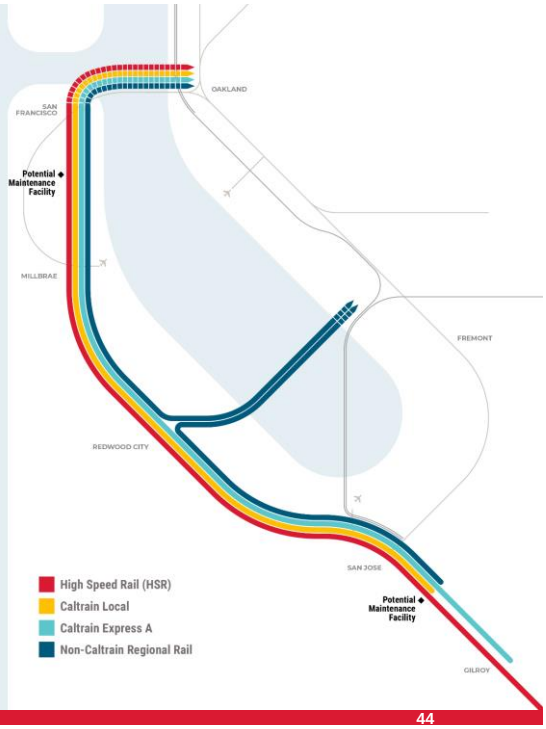
Second Transbay Tube Interlining



43

Options for a Regionalized Rail System

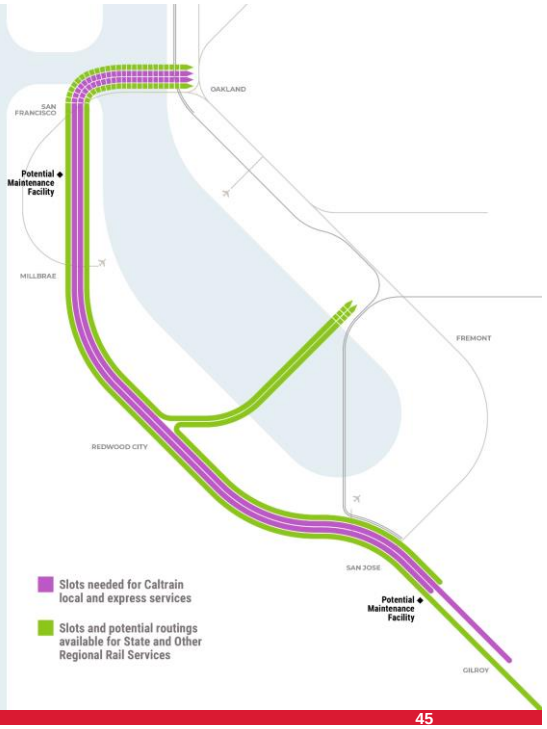
Dumbarton Bridge and Second Transbay Tube Interlining



44

Options for a Regionalized Rail System

Train Slot Allocation



45

Railroad-Community Interface Update

46

Why We Are Addressing the Railroad-Community Interface

As Caltrain plans for growth and transformation, careful and intentional management of the interface between the railroad and its surrounding communities is critical

Caltrain and the communities we serve are all part of a shared corridor. The railroad is a community asset

As the corridor grows and changes we have both the ability and responsibility to work together in a way that improves quality of life for both riders and residents

47

Key Themes

From Public, Stakeholder, and Community Interface Outreach

Service Frequency

Ensure service is increased along the corridor and at stations

Ridership and Growth Projections

Understand how much growth to expect and what the railroad can accommodate

Physical Infrastructure

Manage the balance between service increases and infrastructure impacts. Addresss at grade crossings

Station Area Planning

Consider land use and station access factors including TOD, first/last-mile connections, and transfers

48

Railroad Community Interface Meetings

Purpose

1. Update cities on work done to-date
2. Build awareness of the Business Plan schedule and the communication channels available to cities
3. Understand full breadth of the interface that affects communities
4. Collect input on growth scenarios

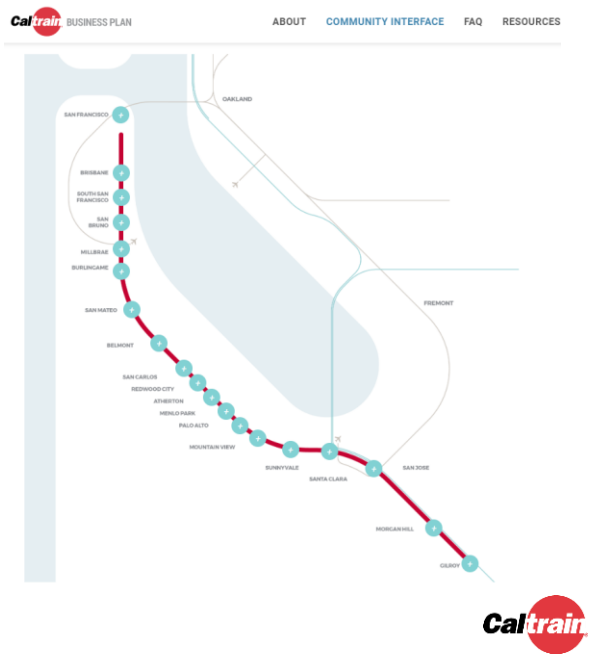
Attendees

City staff representing public works, planning, economic development, and city managers offices + City Council members + Caltrain Railroad Community Interface team

When

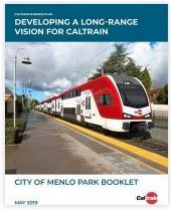
September - October 2018

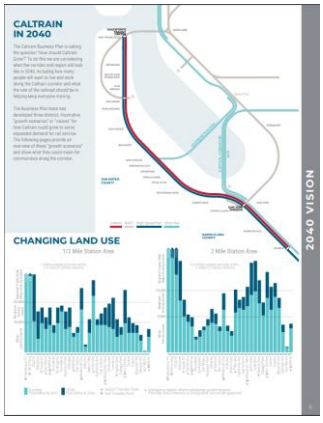
March – April 2019

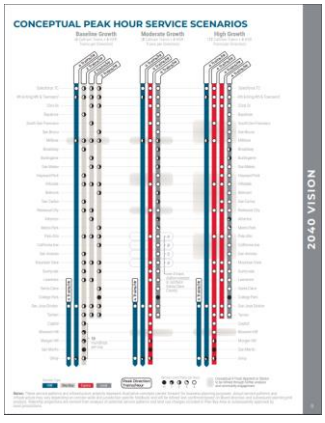


Work Products

City Booklets







View the booklets at: www.caltrain2040.org

Work Products

Defining the Railroad Community Interface

The railroad-community interface is complex and manifests differently in different communities. It includes physical interfaces as well as activities and outcomes

During the Spring of 2019 the Business Plan team developed a set of “definitions” that describe the railroad-community interface. These definitions have been developed through interviews with City staff as well as interviews with Caltrain personnel

What is the Railroad-Community Interface?

Physical

- Railroad ROW
- Structures
- Facilities, track, fleet, systems, & equipment
- Stations
- Station access facilities
- Crossings

Activities

- Rail service
- Station access & personal travel
- Maintenance
- Construction
- Land use & development

Outcomes

- Railroad performance
- Mobility, access, and congestion
- Economic development
- Environment
- Safety

51

Work Products

Community Interface Case Studies

During the Spring of 2019 the Business Plan team also began development on a series of brief “community interface” case studies based on key themes we heard from our meetings with City staff

These case studies are intended to showcase examples of the many different railroads and corridors around the country and the world where railroad-community interface issues have been addressed

Case Study Focus Areas	Sub-Focus Areas
Crossings	• Improved at-grade crossings • Coordinated grade separation programs • Integrated grade separation design
Land Use & Development	• Traditional “parking lot” TOD • Small-scale Station Activation • Intensive Station Development
Station Access & Personal Travel	• Multi-Modal Stations • Bicycle Access • Schedule Coordination • Public / Private Flexible Mobility
Noises & Nuisances	• Noise & Vibration Solutions • Maintenance & Construction Mitigation • Preventing Trespassing and Intrusions

52

Work Products

Definitions & Case Study Booklets

The team is working to create two, summary-level booklets that document the corridor-community interface and highlight the different community interface case-studies considered

- Two 30- 40-page booklets documenting 16 different “interfaces” and 35 different case studies and examples
- Written at a summary level for a general audience including local policymakers and interested members of the public
- Intended to be a resources that helps ground discussion and prompt further research and exchange of ideas
- Will be made available in Fall 2019

An at-grade crossing in Ontario, Canada

Grade Separations in Melbourne, Australia

Berlin Stadbahn, Germany

53

Organizational Assessment Update

54

Why We Are Undertaking an Organizational Assessment

The Caltrain organization is preparing for significant change across multiple timescales. To be successful the organization must simultaneously:

- Serve its current customers and maintain existing service
- Complete the Peninsula Corridor Electrification Program and successfully launch a transformed, electrified rail service
- Plan for a future of continued expansion including integration with significant local, regional and state projects such as terminal projects, HSR and grade separations as well as significant increases to its own service and ridership levels

55

Areas of Focus

The Caltrain "Organization" is a broad topic that spans many different, overlapping levels and subjects

The work within the organizational assessment is comprehensive and broad, addressing multiple types and levels of organizational considerations

Work has been supported by Stanford University and led by Howard Permut, former President of Metro-North Railroad

Service Delivery

- The manner in which Caltrain operates and delivers its services
- Focus on train service delivery and contracting mechanism

Internal Organization

- The manner in which Caltrain organizes itself
- Focus on resources, functionality, and supporting / shared services

Governance

- The manner in which Caltrain is overseen by a governing body
- Focus on options for self- directed change, regional integration and certain parallel considerations

56

Key Questions

For each focus area (service delivery, organization and governance) various potential options have been identified and analyzed. Recommendations will be framed around the following three questions:

- Is this the right time to have this discussion?
  What are the implications if no decisions are reached?
- Which of the options and alternatives identified should remain under active consideration? Which can be set aside?
- What additional work is needed to reach a decision as to a path forward and an implementation plan?

57

Work Products

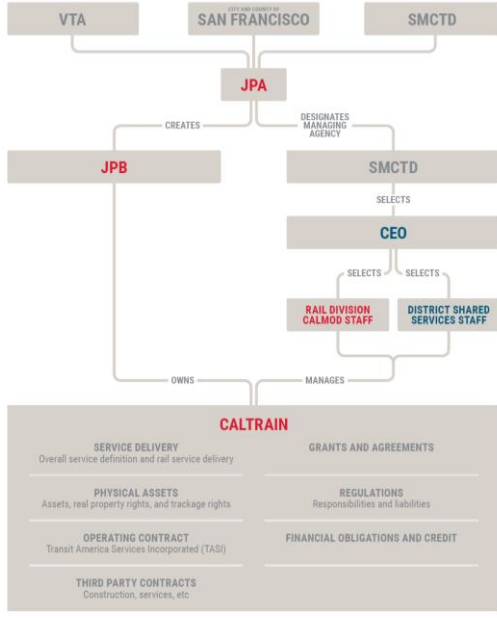
Data Gathering & Initial Assessment

Reviewed key agency documents and agreements and conducted in depth interviews with over 50 people including Board Members, Caltrain staff, partner agency staff and external experts and stakeholders

Defining & Mapping Railroad Functions

Defined and described standard outputs and functions of passenger railroads

Mapped these functions to the Caltrain Organization, documenting how the railroad is organized and how various functions are fulfilled today



58

Work Products

Comparison to Other Systems

Worked with Professor Michael Bennon and the Stanford Global Projects Center to conduct peer research on US railroads as well as select analysis of railroads around the world

Focus areas included varied by railroad and included alternative service delivery models, governance structure and organization of shared services

US Railroads Reviewed

- Capitol Corridor (CCJPA)
- Southern California Regional Rail Authority (Metrolink)
- San Joaquin Regional Rail Commission (ACE)
- Sonoma-Marin Area Rail Transit (SMART)
- Massachusetts Bay Transportation Authority (MBTA)
- Southeastern Pennsylvania Transportation Authority (SEPTA)

International Railroads Reviewed

- Bern-Lötschberg-Simplon (BLS) Railway (Switzerland)
- Kintetsu Rail Company (Japan)
- Chiltern Railroad (UK)

59

Work Products

Organizational & Governance Analysis

Analyzed key issues and choices related to service delivery, internal organization and governance

Developed a detailed set of options and alternatives for the Board and member agencies to consider

Recommendations and next steps under Development

A full, detailed report will be provided in late July. Howard Permut will provide an in depth presentation of his work as part of the August Workshop

Governance Options Analyzed and Discussed

Self-Directed Options

a) Retention of status-quo
b) Retention of JPA with modifications to management structure
c) Retention of JPA reorganized as rail authority
d) Retention of JPA reorganized as rail authority with shared services
e) Creation of Special District to govern Caltrain

Non-Self-Directed Options (Regional Options)

f) Enhanced regional coordination
g) Regionalization of key functions
h) Regional "umbrella" authority with subsidiary railroads
i) Consolidated regional rail authority

Parallel, Governance-Related Considerations

- Mega Project Delivery (including analysis of construction authorities and grade separation districts)
- Service expansion / integration with other rail operators
- Role of the private sector and market forces

60

Outreach Update and August Board Workshop

Outreach Activities to Date

July 2018 – June 2019 Timeline

	2018 July	Aug	Sept	Oct	Nov	Dec	2019 Jan	Feb	Mar	Apr	May	June
Local Policy Maker Group	●	●	●		●	●		●	●	●		●
City/County Staff Coordinating Group	●	●	●		●	●		●	●	●		●
Project Partner Committee	●	●	●	●	●	●	●	●	●	●	●	●
Railroad-Community Interface Meetings			●	●	●				●	●		
Stakeholder Advisory Group				●			●				●	
Partner General Manager				●			●				●	
Website & Survey Launch (over 1,000 survey responses)					●							
Community Meetings (SPUR, Friends of Caltrain, Reddit TownHall, Station Outreach, YouTube Live)					●		●	●	●		●	●
Sister Agency Presentations (SFCTA, SF Capital Planning, TJPA, SamTrans, SMCTA, CCAG, VTA, MTC, Diridon Station JPAB)					●	●	●	●	●	●	●	●

Individual Jurisdiction Outreach

	Atherton	Belmont	Brisbane	Burlingame	Gilroy	Menlo Park	Millbrae	Morgan Hill	Mountain View	Palo Alto	Redwood City	San Bruno	San Carlos	San Francisco	San Jose	San Mateo	Santa Clara	South San Francisco	Sunnyvale
Round 1: Fall 2018 Railroad-Community Interface Meeting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Round 2: Spring 2019 Railroad-Community Interface Meeting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City Council Meeting Completed or Scheduled		✓		✓			✓		✓	✓	✓			✓* *SFCTA		✓			

View individual jurisdiction booklets at: www.caltrain2040.org/community-interface

Outreach Activities to Date

July 2018 – June 2019 by the Numbers

Stakeholders Engaged

21 Jurisdictions

26 Public Agencies

142 Stakeholder Meetings

93 Organizations in Stakeholder Advisory Group

Public Outreach

45 Public Meetings and Presentations

1,000+ Survey Responses

300+ Video Presentation Views

260,000+ Social Media Impressions

Timeline

What to Expect in August

The primary purpose of the Board Workshop in August will be to present a draft, staff Recommendation for the 2040 Service Vision

The recommended Service Vision will be based on the analysis conducted to date and will be expressed as a high-level policy statement describing the type and quantity of service envisioned for the corridor

The August workshop is **informational only**. Based on comments received staff will return to the Board at a subsequent meeting with a final vision for adoption

The Service Vision will guide staff's completion of the Business Plan and will provide critical guidance to a number of long term planning efforts

Summary of Work Completed
- Summary of analysis completed over last year
- Focus on comparison between different growth scenarios

Full Business Case Analysis
- Comprehensive financial outputs for each service scenario
- Economic and cost/benefit analysis for each scenario

Organizational Assessment
- Detailed documentation of organizational assessment
- Presentation by Howard Permut
- Recommendations and next steps

Recommend Service Vision
- Presentation of draft recommended service vision
- Discussion of key steps to complete the Business Plan

Planned Outreach

The Caltrain Business Plan team will expand outreach activities during the months of July, August and September as the Board considers a draft recommendation for a long range service vision.

The Board will receive a summary of outreach undertaken and feedback received prior to any request to take action on the long range service vision.

Outreach dates and locations can be viewed here:
www.caltrain2040.org/get-involved/

Prior to August 1 Workshop

- July 22 – Online Public Meeting
- July 24- Inaugural Caltrain Planning Subcommittee Meeting
- Launch of "Online Open House"
- Briefings with partner agency General Managers / Executives

August and September (Prior to request for Board Action)

- 3 Dedicated Public Meetings
- Rider outreach
- Caltrain Citizen Advisory Committee and Bicycle Advisory Committee
- SB 797 Agency Group
- Sister Agency Boards (SFCTA, SamTrans, SMCTA, VTA and others)
- Boards of Supervisors
- Local Policy Maker Group and City/County Staff Group
- City Councils, as requested
- Stakeholder Advisory Group
- Federal and State delegation briefings
- Business Group briefings

FOR MORE INFORMATION

WWW.CALTRAIN2040.ORG

BUSINESSPLAN@CALTRAIN.COM

650-508-6499

Memorandum

Date: June 27, 2019

To: CalMod Local Policy Maker Group (LPMG)

From: John Funghi, CalMod Chief Officer; Casey Fromson, Gov. Affairs Director

Re: Caltrain Electrification Project E-Update

ELECTRIFICATION INFRASTRUCTURE UPDATE

Construction to make Caltrain a modern, electric commuter rail system continues! This month, crews continued installation of foundations as well as poles along the corridor from South San Francisco to San Jose. Work was also performed on six traction power facilities in San Jose, Redwood City, Sunnyvale, South San Francisco, and San Mateo.

To sign up for weekly construction updates or for more construction information, visit CalMod.org/Construction.

ELECTRIC VEHICLE UPDATE

In June, electric train production continued with three trainsets underway. In the above photo a state-of-the-art crane, affectionately nicknamed Big Bertha, effortlessly lifts one of Caltrain's new electric train cars at the new Salt Lake City facility. First article inspections and testing continue as the trains continue to take shape.

Image courtesy of Stadler

View more pictures at www.CalMod.org/Gallery.

MORE SYSTEM-WIDE BIKE CAPACITY & STATION AMENITIES

With one of the most extensive onboard bicycle programs among passenger railroads in the nation, Caltrain values cyclists and supports bikes as an excellent first and last mile solution. Caltrain Electrification will bring a 17% increase in onboard bike capacity over today which is achieved through increased train frequency. The electric train bike cars are also being reconfigured to add more seats in response to cyclists' concerns regarding bike security. In addition, the CalMod program will provide $3.5 million in bike amenity improvements at stations over the next three years.

You can learn more about the benefits of Caltrain electrification at CalMod.org/Resources.

PUBLIC MEETINGS

JPB Meeting – July 11, 2019 at 10:00 a.m.
LPMG Meeting – July 25, 2019 at 5:30 p.m.

For more details, and a full list of upcoming meetings, please visit CalMod.org/Events.

DETAILED PROGRESS REPORT

- April 2019 Monthly Progress Report presented to Caltrain Board on May 2, 2019

CALIFORNIA High-Speed Rail Authority

Memorandum

Date: June 27, 2019
To: Local Policy Maker Group (LPMG)
From: Boris Lipkin, Northern California Regional Director
Re: California High-Speed Rail Program Update

NORTHERN CALIFORNIA UPDATE

The California High-Speed Rail Authority (Authority) is continuing to advance planning and engagement activities in Northern California. With the next program milestones scheduled for September when the Authority Board of Directors will identify the State's Preferred Alternatives in Northern California, preparation is well under way for the release of the staff recommendations in July and a robust outreach process to gather feedback on those recommendations during the summer months. Below is a summary of recent and upcoming outreach activities.

Spring Community Working Group Meetings
In April and May, the Authority hosted Community Working Group (CWG) meetings in both the San Francisco to San Jose and San Jose to Merced Project Sections. Discussion topics included (1) a presentation on the safety and security characteristics of high-speed rail and (2) an update on the engagement process the Authority is planning for the identification of the State's Preferred Alternative (PA) where CWG members were asked to share their comments on a proposal to solicit their feedback during the next round of meetings planned for this summer. Members expressed interest in the following:

- Ensuring that there will be enough time to review the staff-recommended State's Preferred Alternative and provide feedback
- Receiving supporting materials to inform their constituent communities about the PA
- Opportunities to provide feedback outside CWG meetings
- Having large- and small-group discussions at July CWG meetings
- How CWG feedback will be presented to the Authority Board of Directors

Meeting materials have been posted on the Authority's website as the following links under *Community Meetings* for the respective project sections.
San Francisco to San Jose Project Section
San Jose to Merced Project Section

(Note: The Authority will be launching a new website in early July. Many documents will be relocated to new URLs on the new website and will no longer be available at the links where they are housed today.)

Summer CWGs and Open Houses
Starting in July, the Authority will begin a round of outreach meetings to share and collect feedback on the staff-recommended State's Preferred Alternative for the two Northern California project sections (San Francisco to San Jose and San Jose to Merced). Meeting schedule as follows:

CWG Meetings (all scheduled for 6:00 – 8:00 pm)

Morgan Hill-Gilroy CWG
July 10
Morgan Hill Community & Cultural Center
Morgan Hill, CA

San Jose CWG
July 16
Leininger Center (Okayama Room)
San Jose, CA

San Francisco CWG
July 22
Bay Area Metro Center (Yerba Buena Room)
San Francisco, CA

San Mateo County CWG
July 24
Burlingame Library
Burlingame, CA

Open House Meetings (all scheduled for 5:00 – 8:00 pm)

South Peninsula Open House
August 6
Adrian Wilcox High School
Santa Clara, CA

Gilroy Open House
August 8
IFDES Lodge-Portuguese Hall
Gilroy, CA

San Francisco Open House
August 12
Bay Area Metro Center
San Francisco, CA

San Jose Open House
August 15
City Hall (Council Chambers)
San Jose, CA

San Mateo County Open House
August 19
Sequoia High School
Redwood City, CA

Los Banos Open House
August 21
Los Banos Community Center
Los Banos, CA

ENVIRONMENTAL JUSTICE OUTREACH

March – May Engagement
The Authority's Outreach Team participated in meetings with communities with higher concentrations of environmental justice (EJ) populations and service providers along the San Francisco to San Jose and San Jose to Merced Project Sections to generate neighborhood-specific, place-based insights. Below is a list of some of our recent engagement activities.

- **March-May – Homeless Outreach**
  (Redwood City, City of San Mateo, and South San Francisco)
- **4/25 – North Fair Oaks Community Council Meeting**
  (San Mateo County)
- **5/13 – Gardner Neighborhood Association**
  (San Jose)
- **5/28 – Gilroy Community Meeting at South Valley Middle School**
  (Gilroy)
- **5/30 – Visitacion Valley Community Leaders Meeting**
  (San Francisco)

UPCOMING OUTREACH ACTIVITIES

- June 28: LifeMoves Homeless Walk (South San Francisco)
- July 1: LifeMoves Homeless Walk (San Francisco)
- Staff-Recommended State's Preferred Alternative Engagement:
    - July 9: San Mateo County Board of Supervisors
    - July 17: Morgan Hill City Council
    - July 18: Brisbane City Council
    - July 23: San Francisco County Transit Authority Board
    - July 23: Millbrae City Council
    - August 5: Gilroy City Council
    - August 13: San Jose City Council
    - August 20: Santa Clara City Council

NORTHERN CALIFORNIA REGION

Local Policy Maker Group
Thursday, June 27, 2019
San Carlos, CA

NORTHERN CALIFORNIA REGION SPRING 2019 COMMUNITY WORKING GROUPS

MEETINGS	PARTICIPATION
Morgan Hill – Gilroy April 22 at 6:00 to 8:00 p.m.	6 CWG members 6 members of the public
San Jose May 2 at 6:00 to 8:00 p.m.	16 CWG members 9 members of the public
South Peninsula May 7 at 6:00 to 8:00 p.m.	Meeting canceled due to lack of attendance
San Mateo County May 20 at 6:00 to 8:00 p.m.	7 CWG members 2 members of the public
San Francisco May 28 at 6:00 to 8:00 p.m.	7 CWG members 1 member of the public

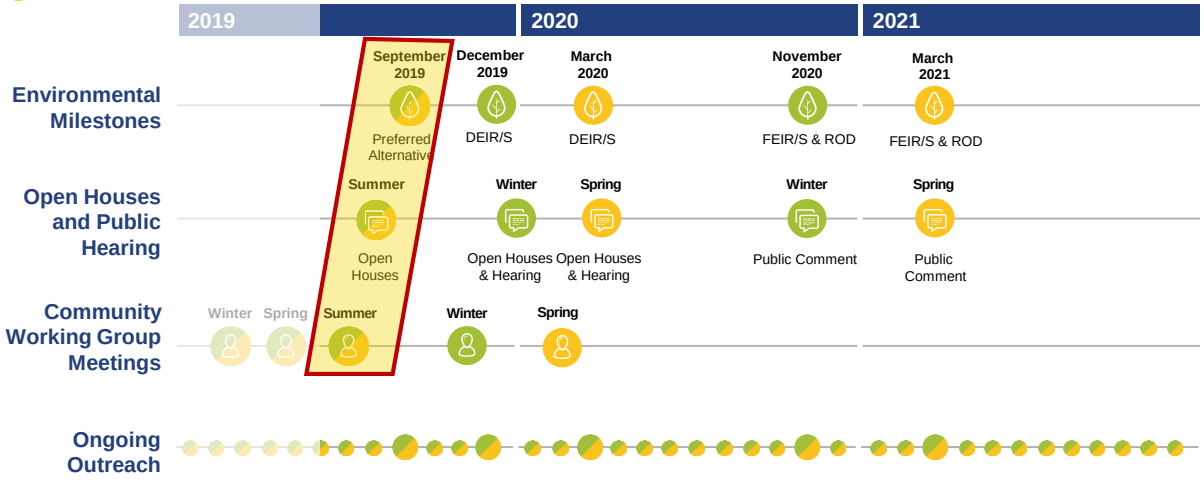
COMMUNITY WORKING GROUPS

MORGAN HILL-GILROY, SAN JOSE, SAN MATEO COUNTY, SAN FRANCISCO

- **Interest in:**
  - » Enough time to review the Staff-Recommended State's Preferred Alternative (PA) and provide feedback
  - » Receiving supporting materials to inform the communities about the PA
  - » Opportunities to provide feedback outside CWG meetings
  - » Having large- and small-group discussions at next CWG
  - » How CWG feedback will be presented to the Authority Board




NORTHERN CALIFORNIA MILESTONES AND DISC TIMELINE



DEIR/S = Draft Environmental Impact Report/Statement
FEIR/S & ROD = Final Environmental Impact Report/Statement & Record of Decision

San Francisco to San Jose Project Section
San Jose to Central Valley Wye Project Extent

COMMUNITY WORKING GROUP MEETINGS

Morgan Hill-Gilroy CWG
July 10, 6:00 – 8:00 pm
Morgan Hill Community and Cultural Center
Morgan Hill, CA

San Jose CWG
July 16, 6:00 – 8:00 pm
Leininger Center
San Jose, CA

San Francisco CWG
July 22, 6:00 – 8:00 pm
Bay Area Metro Center
San Francisco, CA

San Mateo County CWG
July 24, 6:00 – 8:00 pm
Burlingame Library
Burlingame, CA

One-on-one briefings will be scheduled by request with South Peninsula CWG members

OPEN HOUSES

South Peninsula Open House
August 6, 5:00 – 8:00 pm
Adrian Wilcox High School
Santa Clara, CA

Gilroy Open House
August 8, 5:00 – 8:00 pm
Portuguese Hall
Gilroy, CA

San Francisco Open House
August 12, 5:00 – 8:00 pm
Bay Area Metro Center
San Francisco, CA

San Jose Open House
August 15, 5:00 – 8:00 pm
San Jose City Hall
San Jose, CA

San Mateo County Open House
August 19, 5:00 – 8:00 pm
Sequoia High School
Redwood City, CA

Los Banos Open House
August 21, 5:00 – 8:00 pm
Los Banos Community Center
Los Banos, CA

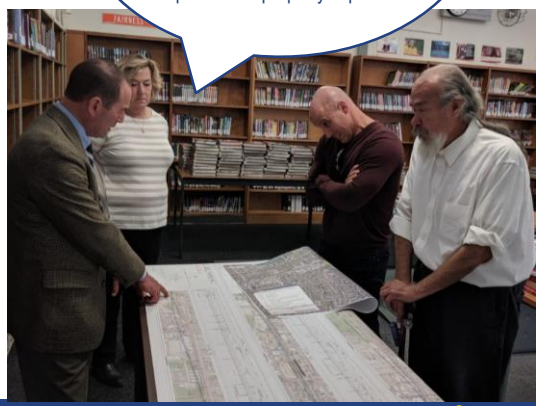
ENVIRONMENTAL JUSTICE OUTREACH

RECENT OUTREACH ACTIVITIES

- **March-May – Homeless Outreach**
  - Redwood City, City of San Mateo, and San Jose, South San Francisco
- **4/25 – North Fair Oaks Community Council Meeting**
  - San Mateo County
- **5/13 – Gardner Neighborhood Association**
  - San Jose
- **5/28 – Gilroy Community Meeting**
  - South Valley Middle School in Gilroy
- **5/30 – Visitacion Valley Community Leaders Meeting**
  - San Francisco

Key Themes

- General support of improved and increased transit, including high-speed rail
- Safety around tracks
- Job opportunities
- Displacement/property impacts



Headquarters
California High-Speed Rail Authority
770 L Street, Suite 620
Sacramento, CA 95814
www.hsr.ca.gov

Northern California Regional Office
California High-Speed Rail Authority
100 Paseo De San Antonio, Suite 300
San Jose, CA 95113