



Caltrain Bike Parking Management Plan

Bicycle Advisory Committee

May 19th, 2016



Context



Capacity and Access Challenges

- Between 11% and 19% of customers make “bike-based” trips to and/or from system
- Majority (~90%) involve taking a bike on-board the train
- Peak load trains often over capacity for bikes and people
- Bike riders sometimes “bumped” or denied boarding due to capacity limits



Caltrain Electrification

- Increase in service levels, capacity and performance
- 6 peak hour trains
- 8:1 seats to bike ratio on new trains (vs existing 9:1)
- Future blended system with CAHSR and service to Transbay Terminal



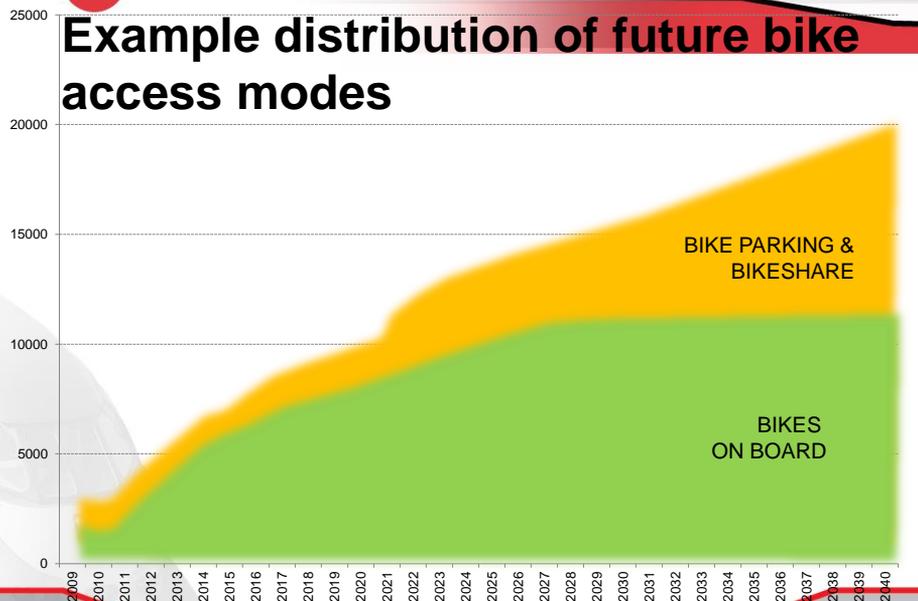


Growing bike-based trips on Caltrain

- Caltrain ridership projected to double by 2040
- Caltrain wants to grow both the number and share of bike-based trips to the system
- Expansion of on-board bike capacity included in electrification but must be balanced against overall capacity needs
- Long term growth in the number of bike-based trips to the system will also require increased utilization of wayside facilities (bike parking and bike share)



Example distribution of future bike access modes





Key Questions

- What is the market for bike parking at Caltrain?
 - What will the future demand for bike-based trips to Caltrain be?
 - What mix of bike parking will best serve Caltrain customers?
 - Which customers will always choose to bring their bike on board vs. which ones might choose to park a bike if better facilities were available?



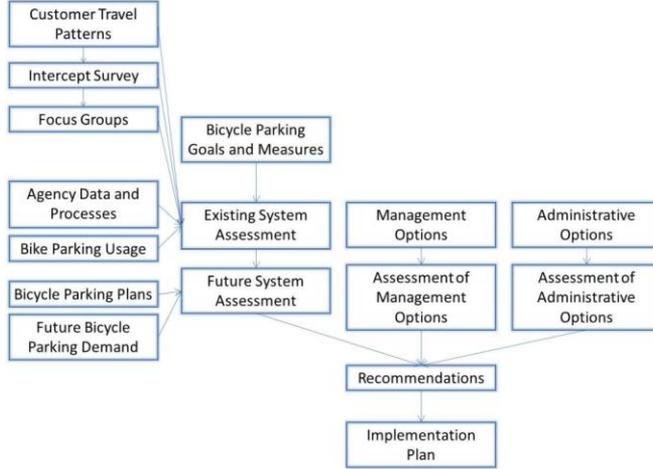
Key Questions Continued

- How can Caltrain deliver high-quality bike parking?
 - What goals and standards should apply to our bike parking system?
 - What is the best model for managing and operating a bike parking system? What resources may be needed?
 - How should we focus and phase investments in the bike parking system?





Scope Flow Chart



Data Collection and Customer Research and Outreach



Key Activities

- Data Collection
 - Analysis of MTC Survey Data
 - Parking occupancy and turnover data collection
- Customer Research
 - Intercept Survey of “Bikes on Board” users (Summer 2016)
 - Web-based Open Survey (Summer 2016)
 - Keyed Locker User Survey (Summer 2016)
 - Focus Groups (Fall 2016)
- Outreach
 - Caltrain BAC and CAC
 - Study Technical Advisory Committee
 - Project Website/Comment Form
 - Additional Public meetings as requested by stakeholders



Existing Bike Parking System

Parking Type	~Quantity	~ Occupancy Levels	Ownership / Management
Racks	660	Varies widely by station	Generally Caltrain, but variable by station
Mechanical	1025	80% system wide	Caltrain
Electronic Lockers	60	TBD – but generally well utilized	Cities, other Transit operators
Bike stations / shared facilities	380	TBD – but generally well utilized	Varies



MTC Data

- Survey period: October/November/December 2014
- Sample size: 5,704 trips on Caltrain, including 1,094 bike-based trips
- Data types: Trip Type (Home to Work, Home to College/University, etc), Trip Origin, Access Mode, Origin Station, Access Mode, Egress Mode, Exit Station, Trip Destination, Socioeconomic Information
- Detailed information about bicycle access, including type of bike parking used at the entrance station and whether bike was brought on board

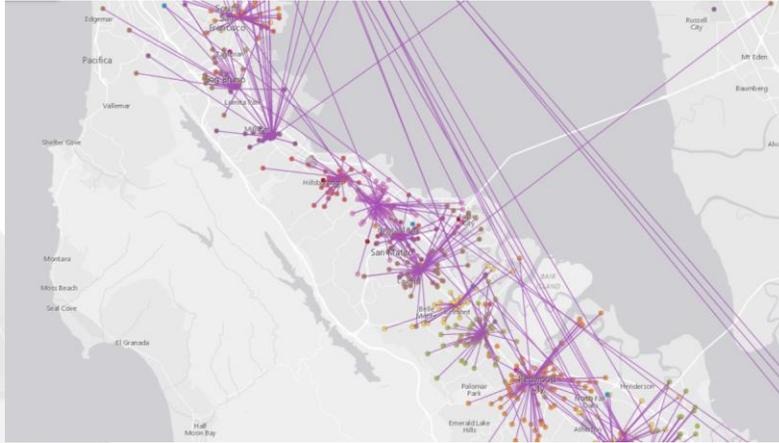


San Francisco

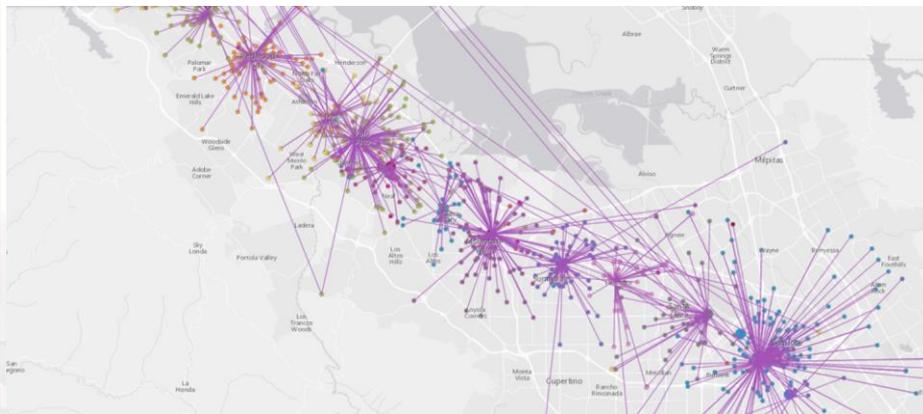




South San Francisco to Redwood City

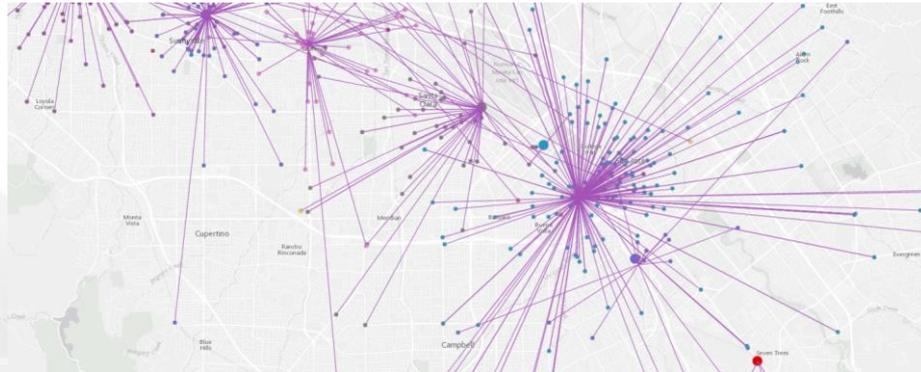


Redwood City to San Jose





San Jose



Additional Data Collection

- Observe midday bike rack usage at top stations
- Collect data on usage of keyed, eLocker and shared bike facilities
- Observe “efficiency” of keyed locker usage at top stations



Intercept Survey

- Collect 320+ completed surveys by interviewing passengers in the bike cars during July
- Focus will be customers who currently bring their bike on board
- Intercept methodology used to insure representative sample
- Questions explore trip patterns observed in the MTC data and examine customers' interest / ability to store bike at a Caltrain station rather than take it on board



Questionnaire – Keyed Locker Users

- Collect 20+ completed surveys from the users of keyed lockers though an email / mailback questionnaire
- Questions will aim to explain observed usage of these lockers and identify positives and shortcomings of current parking system



Web-Based Survey

- Open to everyone
- Will occur after onboard survey
- Will provide more general format for input
- Questions related to trip patterns, bike parking needs and options
- Not a representative sample



Focus Groups

- Three focus group meetings planned for early fall
- Will be held along the Caltrain corridor, likely in the afternoon / evening commute period
- Focus group participants will be selected through respondents to the intercept survey who provide their contact information
- Focus groups will be used to explore ideas and concepts for bike parking improvements



Imagining A Better Bike Parking System



Corrals / large-scale rack installations



San Francisco



UC Davis



Electronic Bike Lockers



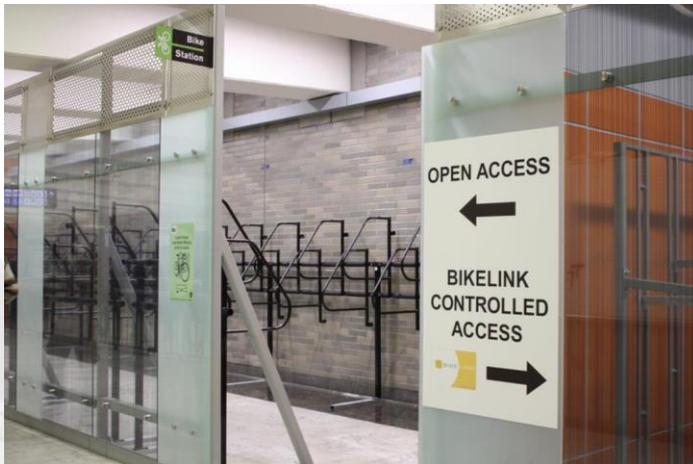
San Francisco



UK



Civic Center BART





Berkeley BART



Washington, DC





Dorchester, MA



<https://www.gavinsnet.org/project-gallery/gallery/mbta-park-and-pedal-facility>



Amsterdam





Czech Republic

