



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

Thursday, May 28, 2015

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. EMU Procurement: Boarding Height Compatibility w/ HSR (Attachment A)
  - b. EMU Procurement: Seats / Standees / Bikes / Bathrooms Balance (Attachment B)
3. Public Comments
4. LMPG Member Comments/Requests
5. Next Meeting In-person: June 25, 2015 at 6:00pm



## Memorandum

**Date:** May 28, 2015

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

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

**Re: EMU Request for Proposal: Boarding Height Considerations**

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The EMU RFP is targeted for issuance in July 2015. The JPB will need to provide guidance on boarding height which will impact the design of the cars.

Staff will provide a presentation on different EMU boarding height strategies that will not preclude level boarding and shared platforms with high speed rail in the future.

While level boarding and high speed rail service is not part of the electrification project, decisions today about Caltrain's EMU car design will set the height at which Caltrain can achieve level boarding in the future and at which stations we could have shared platforms with high speed rail.

The presentation is attached. This information has been provided to the JPB and the JPB Citizen Advisory Committee. It is also being provided to other agencies as requested.

Staff recommendation will inform the draft RFP and JPB action on the final RFP at the July 2, 2015 meeting.



# Caltrain Modernization EMU Procurement Boarding Height

LPMG Meeting  
May 28, 2015

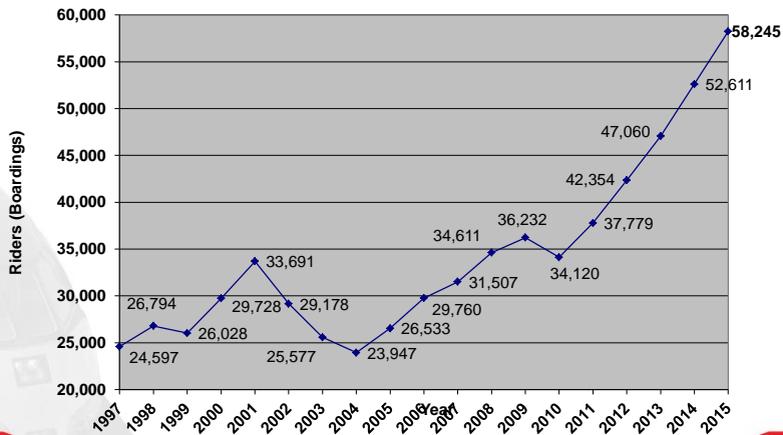


## Context



## Average Weekday Ridership

Since 2004 143% increase



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## Standees: 2015 Maximum Loads

Northbound		
Depart SJ	Percent of Seated Capacity (low season)	Percent of Seated Capacity (high season)
7:03 AM	135%	158%
7:45 AM	128%	150%
8:03 AM	127%	149%
5:23 PM	122%	143%
6:57 AM	122%	142%
7:50 AM	117%	137%
6:45 AM	108%	126%
6:50 AM	106%	124%
4:39 PM	106%	124%
7:55 AM	103%	121%
8:40 AM	102%	119%
4:23 PM	96%	113%

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## Exceeding Capacity Today



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## Rider Average Trip

- Caltrain
  - Average trip length 20-28 miles
  - Average trip time 30-50 minutes
- Other Bay Area Transit Systems
  - BART 14 miles / 24 minutes
  - Muni 2.8 miles / variable
  - VTA light rail 5.7 miles / 23 minutes
  - ACE 48 miles / 60+ minutes

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## Regional Transportation Needs

- US 101 and Interstate 280 Congested
- Corridor supports growing economy
  - 14% CA GDP; 52% CA patents; 25% CA tax revenue
- Caltrain Commuter Coalition (formed 2014)
  - 75% Caltrain rider's commute to work; 60% choice riders



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## Need to Maximize Capacity

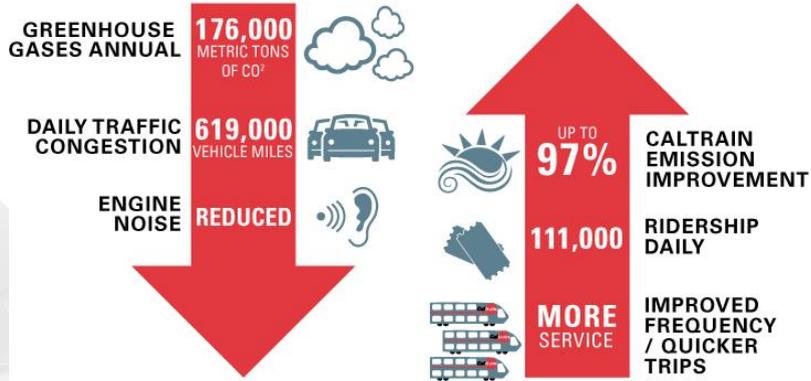
- Add cars to diesel trains now
- Caltrain Electrification (2020)
  - More trains / serve more riders
  - Increase station stops and/or reduced travel times
- Level boarding and longer trains



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## Key Regional Benefits



Note: 2013 Bay Area Council Report, generates \$2.5 billion economic activity and 9,600 jobs

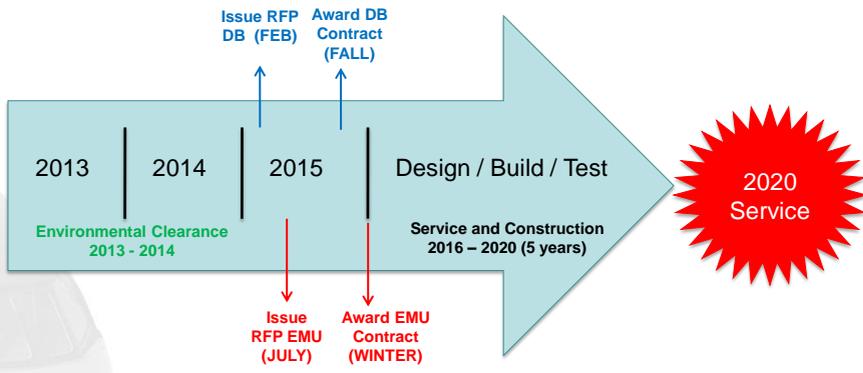


## PCEP Service Benefits

Metric	Today	PCEP
Trains / peak hour / direction	5	6
<b>Example Baby Bullet Train</b>		
Retain 5-6 stops	60 minutes	45 minutes
Retain SF to SJ 60 minutes	6 stops	13 stops
<b>Example Redwood City Station</b>		
Train stops / peak hour	3	5

# Electrification Project

# 2020 Revenue Service



Important milestones to meet 2020 service date

## 2 Key Contracts / Milestones

- Design Build Electrification Infrastructure
  - RFQ Issued / 6 Teams Pre Qualified
  - DB RFP Issued
  - Contract Award (Fall 2015)
- Electric Multiple Units (96 cars)
  - RFI Issued (2 – 4 builders interested)
  - **RFP to be issued July 2015**
  - Contract Award (Winter 2015/2016)

## EMU Original Plan / Modification Consideration



## Information to Car Builders

*Summer 2014*

- Growing Demand
  - Weekday ridership today: 60,000+
  - Weekday ridership future: 110,000+
- Today
  - 20+ mile trips
  - 96%-135% peak weekday (over capacity in low season)
  - 11% bikes on board
- Future
  - Share train slots (6 Caltrain / 4 HSR) per hour / direction

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## Request for Information

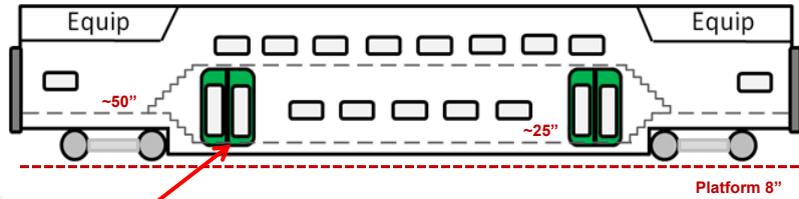
*Summer 2014*

Attributes	Industry Confirmation
Maximize Capacity	<ul style="list-style-type: none"><li>• Bi-level (versus single level)</li></ul>
Previously Made	<ul style="list-style-type: none"><li>• Service proven options</li><li>• Saves costs / time</li></ul>
US Regulation Compliance	<ul style="list-style-type: none"><li>• ADA</li><li>• Buy America</li><li>• FRA Waiver / Alternative Compliant Vehicles Criteria</li><li>• Meet Caltrain Technical / Quality Standards</li></ul>
Floor Threshold	<ul style="list-style-type: none"><li>• 2 double doors per car (low-level boarding)</li><li>• ~22" to ~25" most common</li></ul>

Note: Anticipate adequate competition for the RFP

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## Recommended EMU



1-2 steps onboard

- Bi-level car
- 2 double doors (located: ~25" floor)
- Passengers step (1-2) from platform
- ADA passengers and bikes located ~25" level
- ADA use mini highs and wayside lifts

## Similar to Today's Bombardier





## Future Level Boarding

(Beyond Electrification)

- Important to Caltrain
- Safety enhancements
- Operating efficiencies
- Passenger convenience
- ADA



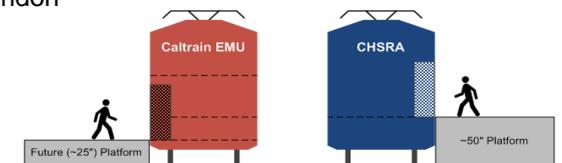
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## Future Level Boarding continued

(Beyond Electrification)

- Caltrain ~25" Dedicated Level Boarding all stations
- HSR ~50" Dedicated Level Boarding 2 – 3 stations
  - Transbay Terminal Center
  - Millbrae
  - San Jose Diridon



Dedicated Platforms

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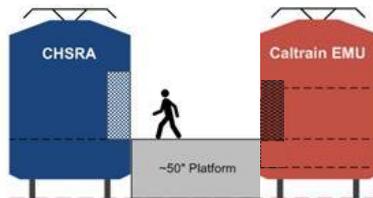
## Level Boarding Challenges

- Lengthy construction period with revenue service
- CPUC waiver needed for freight corridor
- Tenants with different boarding heights
  - Altamont Corridor Express
  - Capitol Corridor
  - Amtrak
- Station area impacts (e.g. ramps, circulation, etc.)

## Request for EMU Modification

## Request for EMU Modifications

- Stakeholder request for car modification
- Caltrain bi-level EMU ~25" boarding height
- HSR single level cars ~50" boarding height (different needs than Caltrain)
- **Can Caltrain modify EMUs to not preclude ~50" boarding in the future?**



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## Explore Modification Options

- 6-month effort (Dec 2014 to May 2015)
- Car builder interviews w/ HSR
- Technical analysis w/ HSR
- Caltrain operational assessment

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## Car Builder Interviews

- 7 Participated
- Proposed Modification Solutions
  - Option A Cars with more doors  
(Seat loss 60 - 100 per 6-car train)
  - Option B Cars with traps  
(No seat loss, operational challenge)
- Redesign existing vehicles (not starting from scratch)
- Vehicle delivery (2020 revenue service)
- Competition adequate

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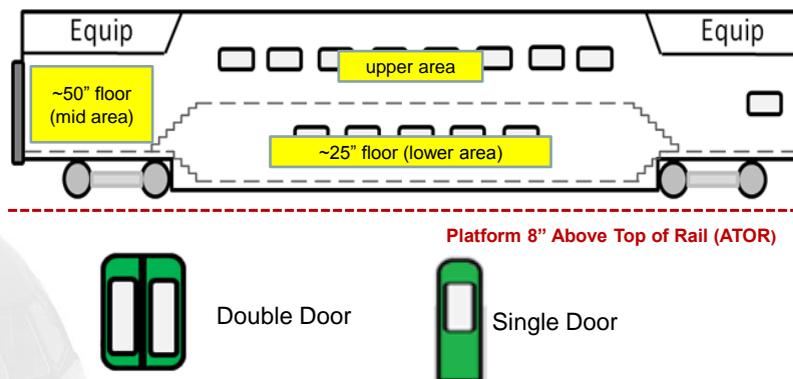
## Caltrain Operational Assessment

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## Analysis

- 2 Modification Options
- 2 Timeframes
  - 2020 electrified service without HSR
  - Future blended service with HSR
- Focus Areas
  - Boarding for passengers with and without bikes, ADA
  - Passenger circulation within the cars
  - Operational changes

## Terminology



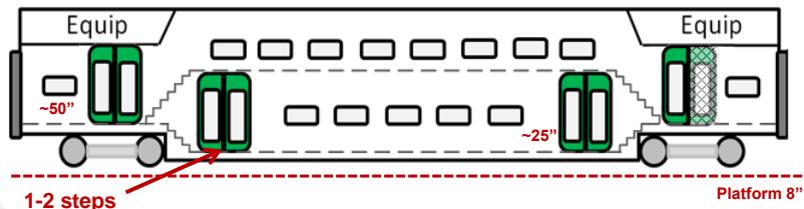
Notes: Caltrain EMU Floor ATOR: 22" - 25" (for this presentation ~25"); HSR Train Floor ATOR: 48" - 51" (for this presentation ~50")

# 2020 Evaluation Mixed EMU and Diesel Service

(Using Existing Stations)

## Modification A (2020)

*Cars with More Doors*



- 4 double doors (located: ~25" & ~50")
- ~50" double doors may not be feasible
- Passengers / bikes use ~25" doors (1-2 steps)
- ADA location TBD
  - Located at ~50" (use high doors: need high blocks / wayside lift)
  - Located at ~25" (use low doors: need mini high / wayside lift)

# Modification A (2020) continued

## Cars with More Doors



High Block



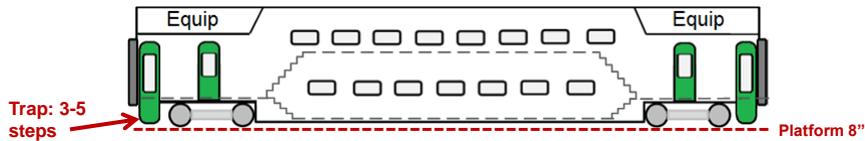
Wayside lift



Mini High

# Modification B (2020)

## Cars with Traps



Open Trap



Close Trap



Single Door w/  
Trap



## Modification B (2020) continued

### *Cars with Traps*

- 2 single doors w/ traps, 2 single doors no trap
  - All doors to ~50" floor
- Single door access (longer dwell)
- Passengers/bikes use doors w/ traps (3-5 steps)
  - Taller first step or step stool needed
  - Bikes located ~25" level (additional internal steps down)
- ADA location ~50" level
  - At stations high blocks / wayside lifts
- Automatic / manual traps

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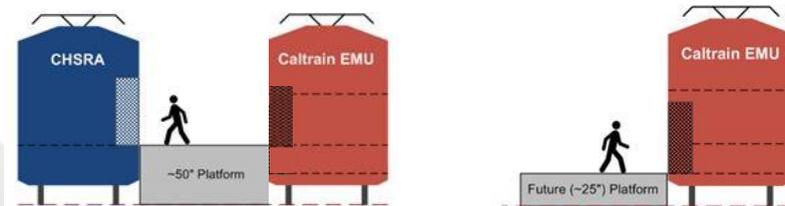
## Future Blended System Evaluation Full Fleet EMU Service

(HSR and Modified Level Boarding Stations)

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## Scenario 1: Shared Platform at HSR Stations Only



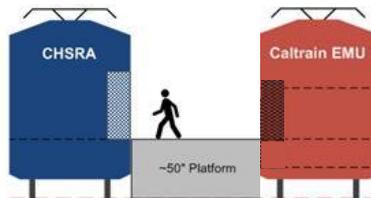
2-3 Stations: Caltrain / HSR  
Stations Common Platforms ~50"

25 Stations: Caltrain Level  
Boarding ~25"

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## Scenario 2: Shared Platforms at All Stations

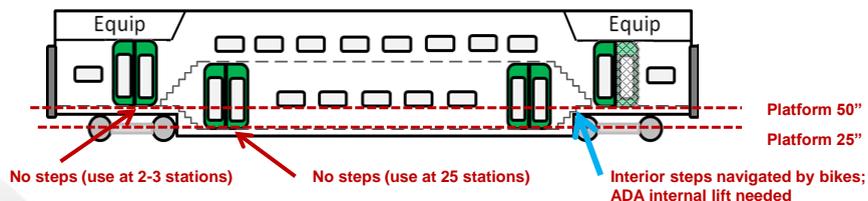


28 Stations: Caltrain / HSR Stations  
Common Platforms ~50"

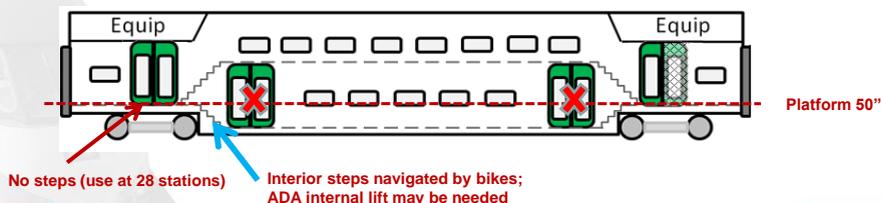
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## Modification A (Future)

### Scenario 1: Shared at 2 – 3 Stations



### Scenario 2: Shared at All Stations



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## Modification A (Future Scenarios)

- Scenario 1: Shared at 2 – 3 Stations
  - Continue using both doors
  - Seats cannot be restored
  - Interior lift needed
  - Interior circulation challenges
- Scenario 2: Shared at All Stations
  - Seal low doors and use high doors only
  - Interior reconfiguration / restore seats
  - Bike circulation and storage challenge
  - Interior lift needed if ADA ~25" level

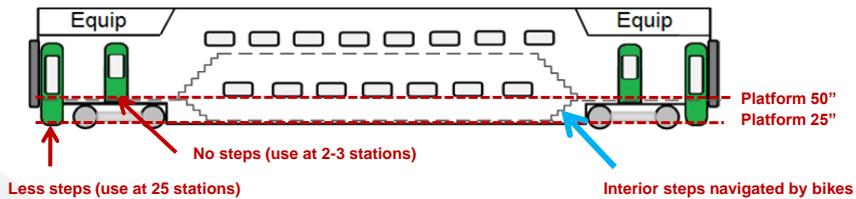


Interior lift

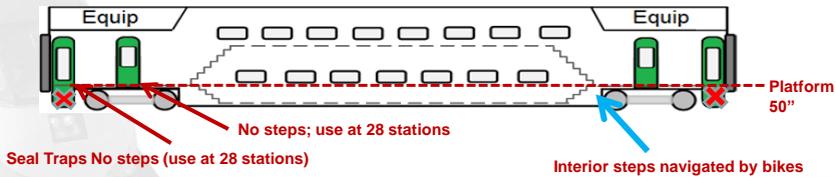
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## Modification B (Future)

### Scenario 1: Shared at 2 – 3 Stations



### Scenario 2: Shared at All Stations



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## Modification B (Future Scenarios)

- Scenario 1: Shared at 2 - 3 Stations
  - Continue using traps (longer dwell)
  - Interior circulation challenges
- Scenario 2: Shared at All Stations
  - Seal traps
  - Single door (dwell impacts)
  - Bike circulation and storage challenge

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## Potential Path Forward

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## Framework

- HSR / Caltrain blended system partnership
- Blended system not yet defined
  - Community planning
  - Environmental evaluation
- Early investment program (defined / environmentally cleared)
  - CBOSS PTC (2015)
  - Electrification Project (2020)
- Need to make EMU design decision now to not preclude common platforms w/ HSR in future

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## Cars with More Doors Option

- Challenges Associated with More Doors
  - Seat loss / Passenger circulation inside car
- Short-term Solution (2020)
  - Design car with 2 sets of doors
  - Keep high doors sealed / use low doors
  - Car configured similar to original EMUs (mitigate challenges)
  - Request HSR to fund modification costs
- Future Blended System (TBD)
  - Evaluate use of high doors (~50")
  - Associated car interior reconfiguration

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## Future Blended Service

- Additional Work Needed
- Community Planning / Environmental Review
- Blended System Definition
  - Service Plan
  - System Upgrades
  - Infrastructure (passing tracks, maintenance facility)
  - HSR Stations / Caltrain Station Modifications

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## Next Steps

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## May – July Activities

- Public Meetings
- Release Draft RFP to Car Builders
- June JPB
  - Update on proposed path forward
  - Seats/Standees/Bikes/Bathroom balance
- July JPB
  - Release EMU RFP
  - Regional funding plan update

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## Questions

website: [www.caltrain.com/emu](http://www.caltrain.com/emu)  
email: [calmod@caltrain.com](mailto:calmod@caltrain.com)



## Memorandum

**Date:** May 28, 2015

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

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

**Re: EMU Request for Proposal: Seats, Standees, Bikes, Bathrooms Balance**

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The EMU RFP is targeted for issuance in July 2015. The JPB will need to provide guidance on balancing seats and standee space, bikes on board and bathrooms in the new EMU cars.

Staff is updating a few slides on the presentation and the updated version will be available at the May 28, 2015 LPMG meeting. Staff received feedback on this topic from the JPB Bicycle Advisory Committee and here is a link to the presentation they received:

[http://www.caltrain.com/Assets/\\_Agendas+and+Minutes/BAC/Presentations/2015/2015-05-21+BAC+Seats-Standees-Bikes-Bathrooms.pdf](http://www.caltrain.com/Assets/_Agendas+and+Minutes/BAC/Presentations/2015/2015-05-21+BAC+Seats-Standees-Bikes-Bathrooms.pdf) This topic will be presented as an informational item at the June JPB meeting.

Staff recommendation will inform the draft RFP and JPB action on the final RFP at the July 2, 2015 meeting.



# EMU Procurement

## Seats/Standees/Bikes/Bathroom

LPMG  
May 28, 2015



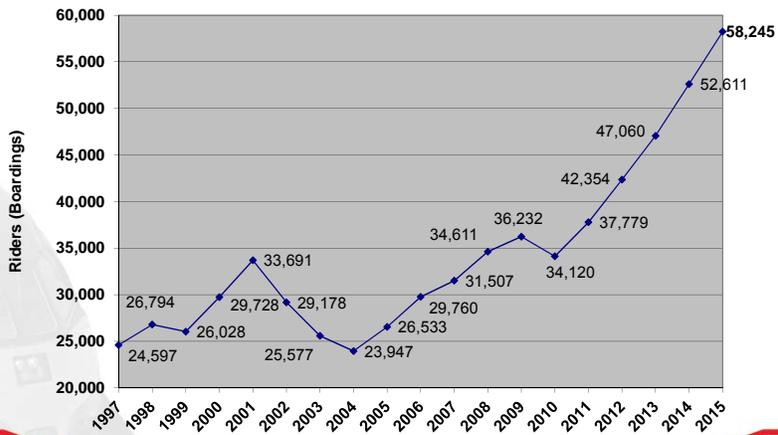
### Purpose

- Seats / standees / bikes / bathroom balance
- Develop framework for Draft EMU RFP
- Feedback on car configuration and "range" of increased seats and bikes on board

## Ridership Demand

## Average Weekday Ridership

Since 2004 143% increase



## Exceeding Capacity Today



Depart SJ	Northbound	
	Percent of Seated Capacity (low season)	Percent of Seated Capacity (high season)
7:03 AM	135%	158%
7:45 AM	128%	150%
8:03 AM	127%	149%
5:23 PM	122%	143%
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## Trains AM peak hour Capacity vs. Demand (“Spikiness”)

Feb. 2015 - AM Peak Hour (NB) Max Load by Train



## Bikes Onboard Program

- Program began in mid-1990s
- Over time, removed seats and added bike space

Time period	Bike spaces added per train (by removing seats)	
	Gallery Train	Bombardier Train
Train Type		
2004	32	16
Today	80	48
Added Bombardiers	80	72

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## Bikes Onboard Today

- 11% Riders Bring Bike Onboard (~ 6,000)
- 1% Riders Park Bike Before Boarding (~600)
- Bike “Bumps” (2015 Annual Count)
  - 214 bikes bumped from 525 trains counted
  - 11 stations had bumps
  - 32,625 bikes carried on trains counted

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## Today Wayside Facilities

- 2,000+ wayside parking
  - Racks
  - Lockers
  - Dedicated facilities (San Francisco, Palo Alto, Mountain View)
  - Valet parking San Francisco
- Varies Station to Station, Can be Confusing
- Regional Bike Share Program

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## Challenge

- Past
  - Available capacity
  - Ability to add bike spaces and seat customers
- Today and Tomorrow
  - Over capacity at peak hour trains
  - More and more customers are standing
  - Bike bumping continues

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## Additional Considerations for Balancing Customer Needs

## JPB Policy

## Strategic Plan (Adopted 2014)

- Safety
- Maximize passenger capacity
- Address onboard accommodation of bikes, luggage and passenger facilities
- Maintain comfort
- Complement bikes onboard program with consistent capacity information and wayside improvements

## Title VI (Adopted 2013)

- Sufficient seating capacity to meet demand is a priority
- During peak not always possible to provide a seat for each passenger

Service Standards	
Peak Load Factor	Off-Peak Load Factor
1.2	1

## Customer Preference Survey (2014)

## About the Survey

- 4000+ Responses
- “Opt-in” Survey
  - *Not statistically valid*
  - Highlight interests
- Input Sept. 5 to Oct. 17
- Extensive Outreach
- Translated Spanish, Vietnamese, Chinese

 Casey Fromson (@CaseyFromson) · Sep 23  
At the hillsdale station - talking about electric trains. Stop by and say hi. @Caltrain\_News



## Survey Highlights

### Seats / Standees

Description	% of Survey Participants
Average Trip Time (in train)	28% from 31 – 45 min 26% from 46 – 60 min
Seat Availability (destination trip)	64% always 17% standing up to 10 min 7% standing more than 20 min
Seat Availability (return trip)	57% always 19% standing up to 10 min 8% standing up more than 20 min

## Survey Highlights continued

### Bikes

Description	% of Survey Participants
Brought bike onboard	44%
Bumped in last year	46% never 13% once 30% 2 – 12 times
Staffed bike facility as an alternative to bringing a bike onboard?	52% (yes)
Additional bike lockers as an alternative?	49% (yes)
Additional shuttles provide an alternative?	47% (yes)
Bike sharing as an alternative?	39% (yes)

## Survey Highlights continued

### Bathrooms

Description	% of Survey Participants
Use of bathroom	53%
How often utilized	2% never 23% once a year 60% twice – 12 times 13% multiple times per month 3% multiple times per week

## Survey Highlights continued

### Level of Importance

Rate on a sliding scale the importance of these features		
Feature	Very Important	Unimportant
Increase seating capacity	56%	2%
Increase onboard bike capacity	38%	10%
Increase standing capacity	22%	5%
Increase bike storage at stations	22%	13%
Include bathroom onboard	17%	14%
Increase bike sharing kiosks at stations	16%	17%
Increase luggage storage	3%	24%

## Survey Summary Results

Prioritize what is most important to your riding experience (weighted average from ranking scale of 1 to 5)	
Seating	4.5
Standing Room / Leaning Area	3.26
Bike Storage	3.11
Bathroom	2.18
Luggage Storage	1.95

## Other Properties

## Bay Area Systems

Service	Bathrooms (per train)	Bikes spaces on-board (per train)	Standeese (load standard)	Frequency peak hour, direction (7am - 8am)	Average Trip Length / Time
VTA	0	6-18	1.2	up to 6	5.7 miles / 23 min
MUNI	0	0	N/A	up to 9	2.8 miles / N/A
BART	0	6-20	up to 1.6	up to 9	14 miles / 24 min
Caltrain	2-5	72-80	up to 1.2	up to 5	24 miles / 40 min
Capitol Corridor	Every car	25-32	1	up to 2	68 miles / 60+ min
ACE	Every car	22-54	1	up to 2	N/A

\*Notes: VTA -- Frequency: At Snell Station, NB. MUNI-- Frequency: At Judah St / 19<sup>th</sup>, N line, inbound. BART-- Bikes: Number of bikes per space not limited, Bikes not allowed crowded cars, first car, or first 3 cars during rush hour. Standee: Title VI. Frequency: At Embarcadero Station, yellow line SB. Caltrain-- Bikes: with added Bombardiers cars. Standees: peak period. Average Trip: 20-28 miles / 30-50 mins CC-- no standee policy because rarely have standees. ACE -- no standee policy because rarely have standees.

## DRAFT RFP Car Configuration Input

## Context / Approach

- Multiple EMU builders
- Range of car internal configurations
- Specific numbers difficult to establish
- Balance approach to maximize seats/standees and bike capacity

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## Bathroom Recommendation

- No Bathrooms in EMU Cars
  - 1 ADA bathroom = 8 seats / 16 standees
  - Saves capital and o/m costs
  - Low priority in survey
- Bathroom Availability
  - Diesel fleet\*
  - At 2 terminal stations
- Future: Consider with Station Improvements



\* Bombardier: 5 per train, all ADA accessible; Gallery: 2 per train, some ADA accessible

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## Context

- Today
  - 5 trains / peak hour / direction (5 car train)
- With Added Metrolink Cars
  - 5 trains / peak hour / direction (5 and 6 car trains)
- With EMUs + Diesel Fleet (2020 Service)
  - 6 trains / peak hour / direction (6 car trains)
  - 2 diesel trains and 4 EMU trains

## PCEP Service Benefits

Metric	Today	PCEP
Trains / peak hour / direction	5	6
<b>Example Baby Bullet Train</b>		
<i>Retain 5-6 stops</i>	<i>60 minutes</i>	<i>45 minutes</i>
<i>Retain SF to SJ 60 minutes</i>	<i>6 stops</i>	<i>13 stops</i>
<b>Example Redwood City Station</b>		
<i>Train stops / peak hour</i>	3	5

## Capacity Peak Hour / (NB) Direction

Metric	Seats	Bikes	Standees	Ratio Seats to Bikes
Today*	3,250	336	1,050	10:1
<i>(with turnover)</i>	<i>5,330</i>	<i>551</i>	<i>1,722</i>	
Add Bombardier Cars*	3,502	384	1,170	9:1
<i>(with turnover)</i>	<i>5,743</i>	<i>630</i>	<i>1,919</i>	
Example EMU	3,712	392	2,160	9:1
<i>(with turnover)</i>	<i>6,459</i>	<i>682</i>	<i>3,758</i>	Staff Rec.

**Notes:**

- \* Example peak hour (mix of vehicle types may vary in a given hour)
- Example EMU car capacity of 100 seats

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## Additional Bike Access Commitments

- System-wide Bike Parking Management Plan (\$130K)
- \$\$\$ Funding Commitment by July
  - Wayside investment
  - Bike staff
- Explore Ways to Increase Predictability On-board Program
  - Capacity monitoring and reporting
  - Explore on-board management strategies (e.g. reservations or permitting systems)

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## Next Steps

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## May – July Activities

- Public Meetings
- Release Draft RFP to Car Builders
- June JPB Updates
  - Proposed path forward common platforms
  - Seats/Standees/Bikes/Bathroom balance
- July JPB
  - Release EMU RFP
  - Update on regional funding plan amendment

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## Questions

website: [www.caltrain.com/calmod](http://www.caltrain.com/calmod)  
email: [calmod@caltrain.com](mailto:calmod@caltrain.com)

## CalMod Local Policy Maker Group (LPMG) Summary Meeting Notes for April 23, 2015

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### Summary Notes

The purpose of these notes is to capture key discussion items and actions identified for subsequent meetings.

**MEMBERS PRESENT:** C. Wiest (Atherton), C. Lentz (Brisbane), J. R. Ortiz (Burlingame), W. Lee (Millbrae), K. Keith (Menlo Park), Pat Burt (Palo Alto), Ron Collins (San Carlos), J. Matthews (San Mateo), G. Gillett (San Francisco), J. Davis (Sunnyvale)

**CHAIR – Acting:** K. Matsumoto (South San Francisco)

**MEMBERS ABSENT:** B. Pierce (Redwood City), A. Kalra (San Jose), K. Ibarra (San Bruno), J. Matthews (Santa Clara), C. Clark (Mountain View), C. Stone (Belmont), A. Tissier (JPB Representative)

**VACANT SEAT(S):** San Francisco County, San Mateo County, Santa Clara County

**CALMOD TEAM PRESENT:** D. Chung, D. Couch, C. Fromson, M. Lee

### **JPB Staff Report**

- Jim Harnett has been named the new CEO of Caltrain. He is looking forward to working with the cities in moving the CalMod Program forward.
- The CBOSS PTC project continues to make progress on both the installation and testing work. No new complaints since the last meeting.
- Caltrain has been conducting a detailed tree survey along the Caltrain corridor from San Francisco to Tamien station in San Jose. This tree survey WILL NOT identify which trees will be removed or pruned as part of the Peninsula Corridor Electrification Project (PCEP). The purpose of the survey is to create a detailed tree inventory on the corridor. The survey is expected to be complete by summer 2015. Following completion of the tree survey, Caltrain staff will work closely with each county and city, including local arborists, on the development of the tree avoidance, minimization and replacement plan.



## Information/Discussion Items

### Peninsula Corridor Electrification Project Quarterly Update

The LPMG received the quarterly report on project delivery activities. The update highlights procurement activities for both the Electrification and Vehicle contracts.

#### *Electrification Infrastructure*

The Request for Proposals (RFP) for the Design-Build contract was issued to the six pre-qualified teams and the public can view a copy of the Electrification RFP on the website: [www.caltrain.com/calmod](http://www.caltrain.com/calmod). Several amendments to the RFP will be issued over the next several weeks. JPB is scheduled to award the Design-Build contract in fall 2015.

#### *Electric Multiple Units (High-Performance Vehicles)*

Caltrain / HSR staff conducted analysis and met with car builders to discuss options to modify the design of Caltrain EMUs to support compatible platforms with HSR trains in the future. The presentation highlights the benefits and challenges of modifying the vehicles. Caltrain's operations department will review the options and their findings will be presented at the May JPB meeting and brought back to the LPMG in June.

The process to vet different vehicle modifications started in December 2014 and was initiated based on requests from stakeholders to support common platforms with HSR in the future. JPB policy action on the vehicle RFP is expected in summer 2015, after a public dialogue on the compatibility analysis and seats/standees/bike/bathroom balance discussion is complete.

*LPMG members' key comments include the following:*

- *Several members asked clarifying questions about how the alternative cars would function on the Caltrain corridor and how platform construction would be phased at different heights / lengths. (Staff noted that it could be beneficial do the platform construction for lengthening and level boarding at the same time and that no money is available at this time for that project. Staff also noted that retrofitting the platforms is a challenging construction program and will take multiple years.)*
- *Several members asked which platforms would be impacted and what the benefits of common platforms are. (Staff noted that HSR's current business plan calls for HSR*

*stations at the Transbay Terminal Center (TTC), Millbrae, and Diridon. The benefits of common platforms include system flexibility and faster recovery from incidents.)*

- *One member commented that raising platforms to 50” would be a significant impact.*
- *One member suggested a significant benefit of common platforms was funding from HSR for level boarding and reduced station footprints. The member also commented on the importance of level boarding for TTC which will be a future high ridership station.*
- *One member asked about how HSR was going to interface with Metrolink in LA and if they were facing a similar issue. (Staff responded that HSR has separate tracks for the majority of the route and in Southern California they don’t share the corridor the same way it does with Caltrain. Staff said they would check in with LA and see if there might be any helpful insights.)*
- *There was discussion about how common platforms would impact the design of the future HSR Millbrae Station. It was expressed that common platforms would reduce the station footprint. (Note: Staff is not aware of any analysis /documentation that show common platforms to result in a reduced footprint.)*
- *Several members discussed the importance of funding grade separations on the corridor. (Staff noted there are over 40 at-grade crossings on the corridor and each county has different funding mechanisms to support grade separation projects.)*

*Public Speakers:*

- *A public speaker expressed support for the LPMG reviewing this issue and asked that future presentations contain information about projected capacity and dwell time impacts to using internal stairs in the modified cars. The speaker also expressed support for any efforts to make the Transbay Terminal Center more efficient because it would be an important future high ridership station.*
- *A public speaker stated that HSR should look at different boarding heights, not Caltrain.*
- *A public speaker said the benefits of 50” platforms are unclear. Operations staff should explain how cars with extra doors could be difficult for ADA passengers and how passengers with bikes would have a difficult time using cars with traps. The speaker also stated that the problem is at the Transbay Terminal Center and the solution should be modification to the station design – not the vehicles. The speaker provided his website for more information: <http://www.transitunlimited.org/User:Andy>*



### **Public Comments**

- *A public speaker voiced support for grade separations and the benefits of the common platforms on schedule and TTC operations.*
- *A public speaker said there should be a HSR station that connects directly to the SFO airport and doesn't require multiple transfers.*

### **LPMG Member Comments/Requests**

- **Grade Separations:** Interest was expressed by the City/County of San Francisco to discuss coordinating grade separation efforts and projects in the Caltrain corridor.
- **LPMG Scope and Purpose:** Interest was expressed by the City of Palo Alto to expand the scope of the LPMG from the CalMod Program to Caltrain matters in general.