Caltrain Modernization
EMU Procurement
Boarding Height

(Select Slides from May 2015 JPB Workshop)

JPB BAC
May 21, 2015
## 2020 Revenue Service

### Important milestones to meet 2020 service date

- **2013:** Environmental Clearance (2013 - 2014)
- **2014:** Issue RFP EMU (JULY) → Award EMU Contract (WINTER)
- **2015:** Issue RFP DB (FEB) → Award DB Contract (FALL) → Design / Build / Test → Service and Construction (2016 – 2020 (5 years))

## Request for Information

### Summer 2014

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Industry Confirmation</th>
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<tbody>
<tr>
<td>Maximize Capacity</td>
<td>• Bi-level (versus single level)</td>
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<tr>
<td>Previously Made</td>
<td>• Service proven options</td>
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<td></td>
<td>• Saves costs / time</td>
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<td>US Regulation Compliance</td>
<td>• ADA</td>
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<td>• Buy America</td>
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<td>• FRA Waiver / Alternative Compliant Vehicles Criteria</td>
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<td>• Meet Caltrain Technical / Quality Standards</td>
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<td>Floor Threshold</td>
<td>• 2 double doors per car (low level boarding)</td>
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<td>• ~22” to ~25” most common</td>
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Note: Anticipate adequate competition for the RFP
Recommended EMU

- 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)

No steps, use at 27 stations

HSR / Caltrain Dedicated Platforms

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?

Modification A (2020)

Cars with More Doors
Modification B (2020)

**Cars with Traps**

- Trap: 3-5 steps
- Platform 8"

Future Blended System Evaluation

**Full Fleet EMU Service**

(HSR and Modified Level Boarding Stations)
Scenario 1: Shared Platform at HSR Stations Only

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

25 Stations: Caltrain Level Boarding ~25"

Scenario 2: Share Platforms at All Stations

27 Stations: Caltrain / HSR Stations Common Platforms ~50"
Modification A (Future)

**Scenario 1 Shared at 2 - 3**
- Platform 50"
- Platform 25"
- No steps (use at 2-3 stations)

**Scenario 2 Shared at All**
- Platform 50"
- No steps (use at 27 stations)
- Interior steps navigated by bikes

Modification B (Future)

**Scenario 1 Shared at 2 - 3**
- Platform 50"
- Platform 25"
- Less steps (use at 25 stations)

**Scenario 2 Shared at All**
- Platform 50"
- No steps; use at 27 stations
- Interior steps navigated by bikes

Seal Traps No steps (use at 27 stations)
Potential Path Forward

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
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)
  - Community planning / environmental review
  - Define blended service plan and capital improvements
  - Evaluate use of high doors / interior reconfiguration

Next Steps
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

Questions

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