

**Metropolitan Transportation Commission  
Programming and Allocations Committee**

September 14, 2016

Agenda Item 3b

**Caltrain Modernization Project Status Update**

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**Subject:** Caltrain staff will provide an update to the Committee on the status of the Caltrain Modernization project, which will electrify the rail line in the Peninsula corridor and implement positive train control.

**Background:** Committee members requested a presentation from Caltrain staff on the status and costs for the Caltrain Modernization project, when the Committee considered a revised Memorandum of Understanding and funding plan for the project at its June 8, 2016 meeting. A presentation prepared by Caltrain staff is attached.

**Issues:** None.

**Recommendation:** Informational item.

**Attachments:** Caltrain Modernization Program Update presentation.

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# Caltrain Modernization Program Update

MTC Programming and Allocations Committee  
September 14, 2016



# Caltrain System Map

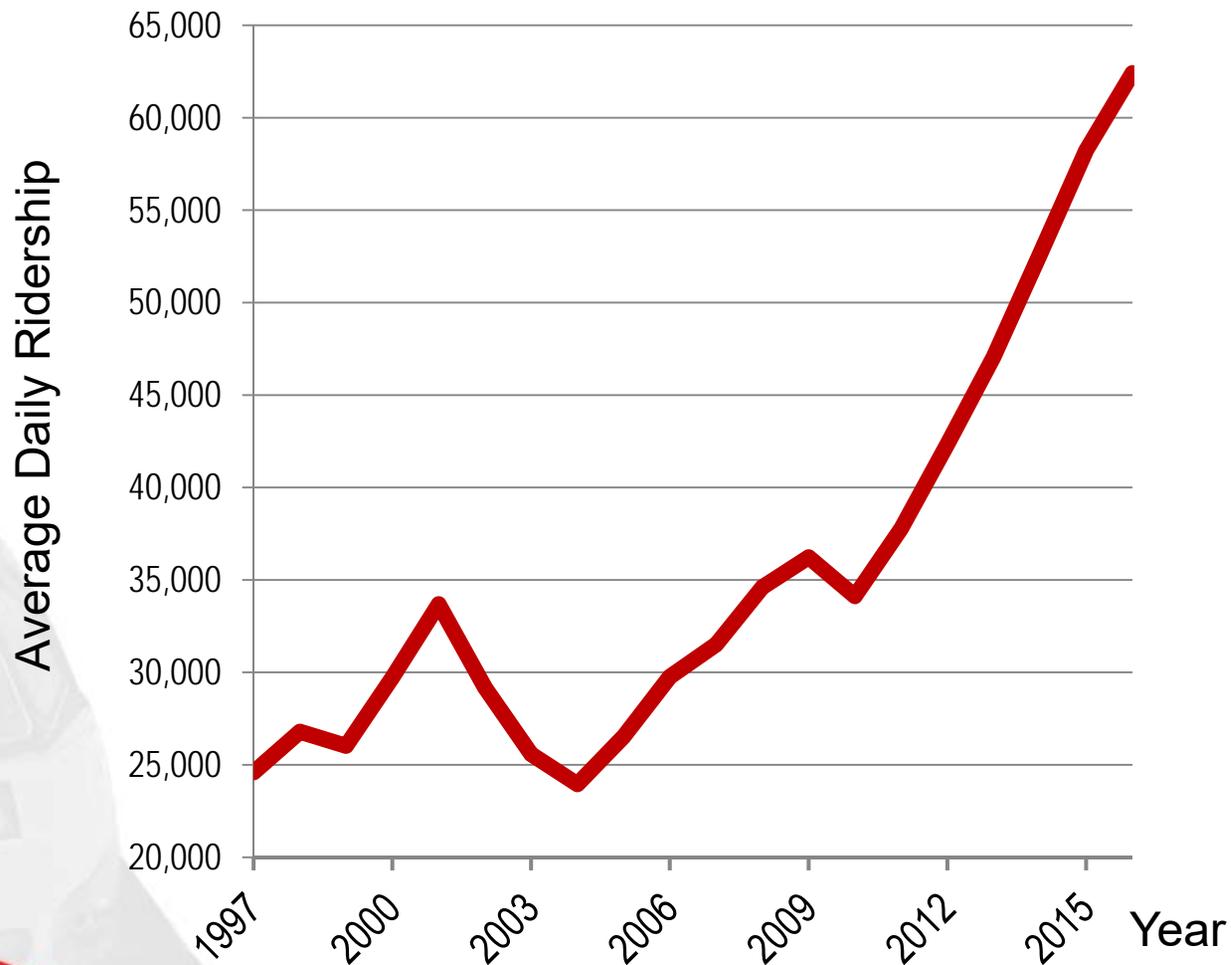
JBP owns right-of-way from SF to San Jose



Union Pacific owns



# Ridership (2016)





# At Capacity Today



Northbound Trains, Low Ridership Month

Train No.	Depart SJ	Max Load	Train Seating Capacity	Percent of Seated Capacity
319	7:03 AM	951	762	125%
323	7:45 AM	950	762	125%
329	8:03 AM	882	762	116%
375	5:23 PM	841	762	110%
217	6:57 AM	818	650	126%
225	7:50 AM	764	762	100%
269	4:39 PM	756	762	99%
313	6:45 AM	747	762	98%
233	8:40 AM	722	650	111%
215	6:50 AM	719	650	111%

Bi-directional commute with riders standing on trains going southbound and northbound



# Regional Transportation Needs

- US 101 and Interstate 280 Congested
- Corridor supports growing economy
  - 14% CA GDP; 52% CA patents; 20% CA tax revenue
- Caltrain Commuter Coalition (formed 2014)
  - 75% Caltrain rider's commute to work; 60% choice riders



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Genentech



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# Caltrain Modernization Program

- Advanced Signal System: CBOSS PTC (2016)
- ➔ Peninsula Corridor Electrification Project (2020/2021)



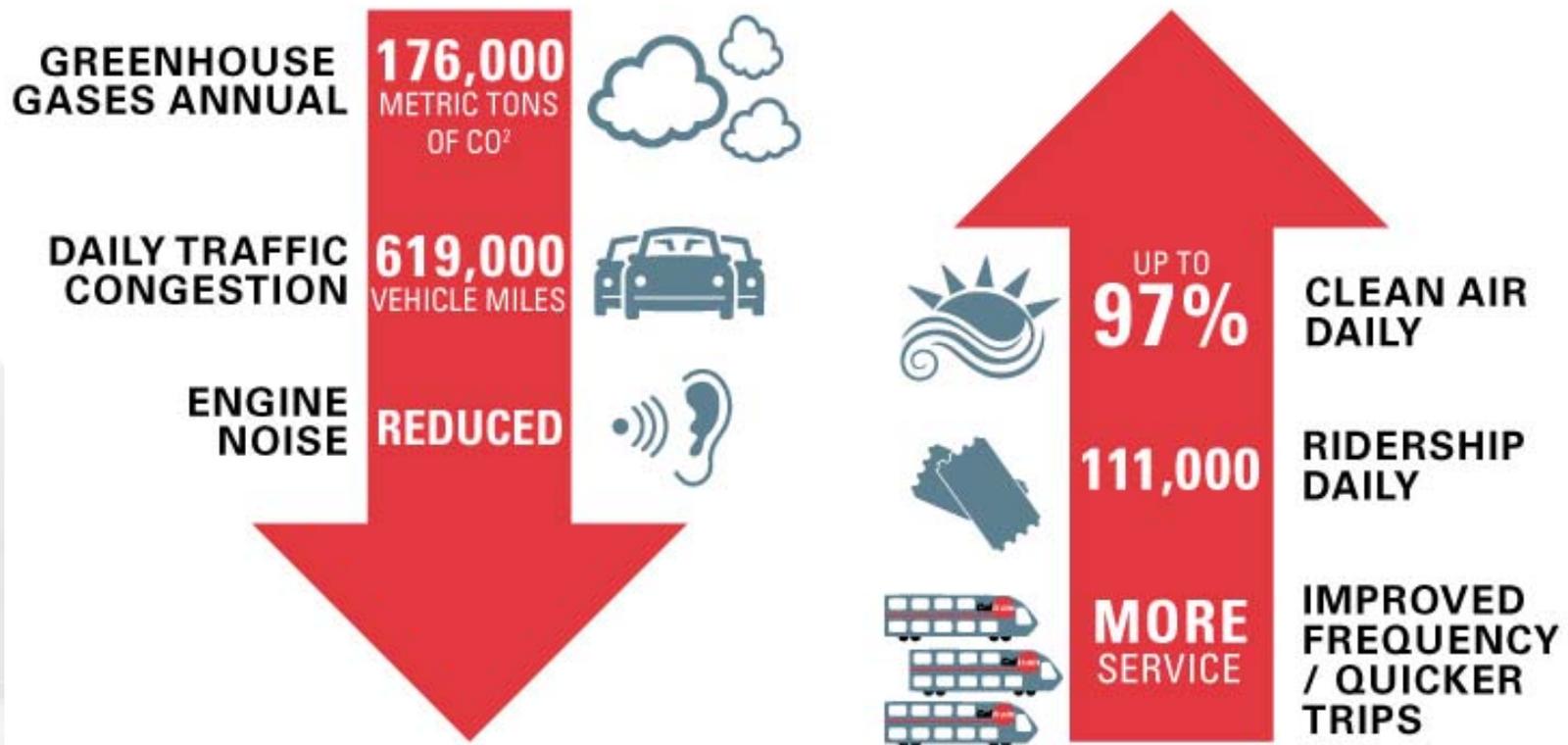


# Project Description

Area	Project	Service
51+ miles  San Francisco to San Jose (Tamien Station)	Electrification: <ul style="list-style-type: none"><li>• Overhead Contact System (OCS)</li><li>• Traction Power Facilities</li></ul> Electric Trains (EMUs) <ul style="list-style-type: none"><li>• 75 percent</li></ul>	Up to 79 mph  Service Increase <ul style="list-style-type: none"><li>• 6 trains / hour / direction</li><li>• More station stops / reduced travel time</li><li>• Restore Atherton &amp; Broadway service</li></ul> Mixed-fleet service (interim period)  Continue tenant service



# Key Regional Benefits (2040)



Note: 2013 BAC Report, CalMod Program generates \$2.5B economic activity and 9,600 jobs



# Service Benefits

Metric	Today	PCEP
Trains / peak hour / direction	5	6
Passengers / peak hour / direction	5,100	6,300
Example Baby Bullet Train		
Retain 5-6 stops	60 minutes	45 minutes
Retain SF to SJ 60 minutes	6 stops	13 stops
Example Redwood City Station		
Train stops / peak hour	3	5

Note: Prototypical Train and Schedule

# Electric Vehicle Considerations

- Onboard Restroom
- Additional Doors
- Onboard Bicycle Space
  - Board commitment more station parking
- Public Feedback
  - Surveys 2014, 2015, 2016
  - Public meetings, email, website, social media
- Upcoming Outreach
  - Seating design, signage, amenities etc



# Major Contracts

	2014	2015	2016
Design Build Electrification Infrastructure	<p>June: <b>Pre-Qualification Process</b> (6 firms)</p>	<p>Feb: <b>RFP Issued</b></p> <p>Aug: Proposals Received (4 firms)</p> <p>Oct: Shortlisted (3 firms)</p> <p>Dec: <b>Best and Final Offer (BAFO) Issued</b></p>	<p>Feb: BAFO Proposals Received</p> <p>March: Apparent Best Value Proposal</p> <p>July: <b>Authority Limited Notice to Proceed (Balfour Beatty)</b></p>
Electric Trains (Electric Multiple Units)	<p>June: <b>Pre-Qualification Process</b> (6 firms)</p> <p>May: <b>Request for Information</b> (6 firms)</p>	<p>Jan – June: Compatible Boarding Heights Discussion (2-4 firms)</p> <p>July: <b>RFP Issued</b> based on JPB Direction</p>	<p>Feb: Proposal Received</p> <p>June: JPB Restroom Policy Decision</p> <p>July: <b>Authority Limited Notice to Proceed (Stadler)</b></p>

# Cost History

- Original Estimate 2008 (\$1.225B)
  - Used for 2012 9-Party MOU
- Updated Costs 2014 (\$1.76B)
  - Total re-evaluation of 2008 cost estimate
  - Quotes from manufacturers, productivity rates from projects in the NE Corridor
  - Labor adjustments: local rates / night work
  - 3% annual escalation
  - Work on active railroad, complicated
  - FTA Requested Contingency (30%)
  - *Replace \$125m SOGR funding source*

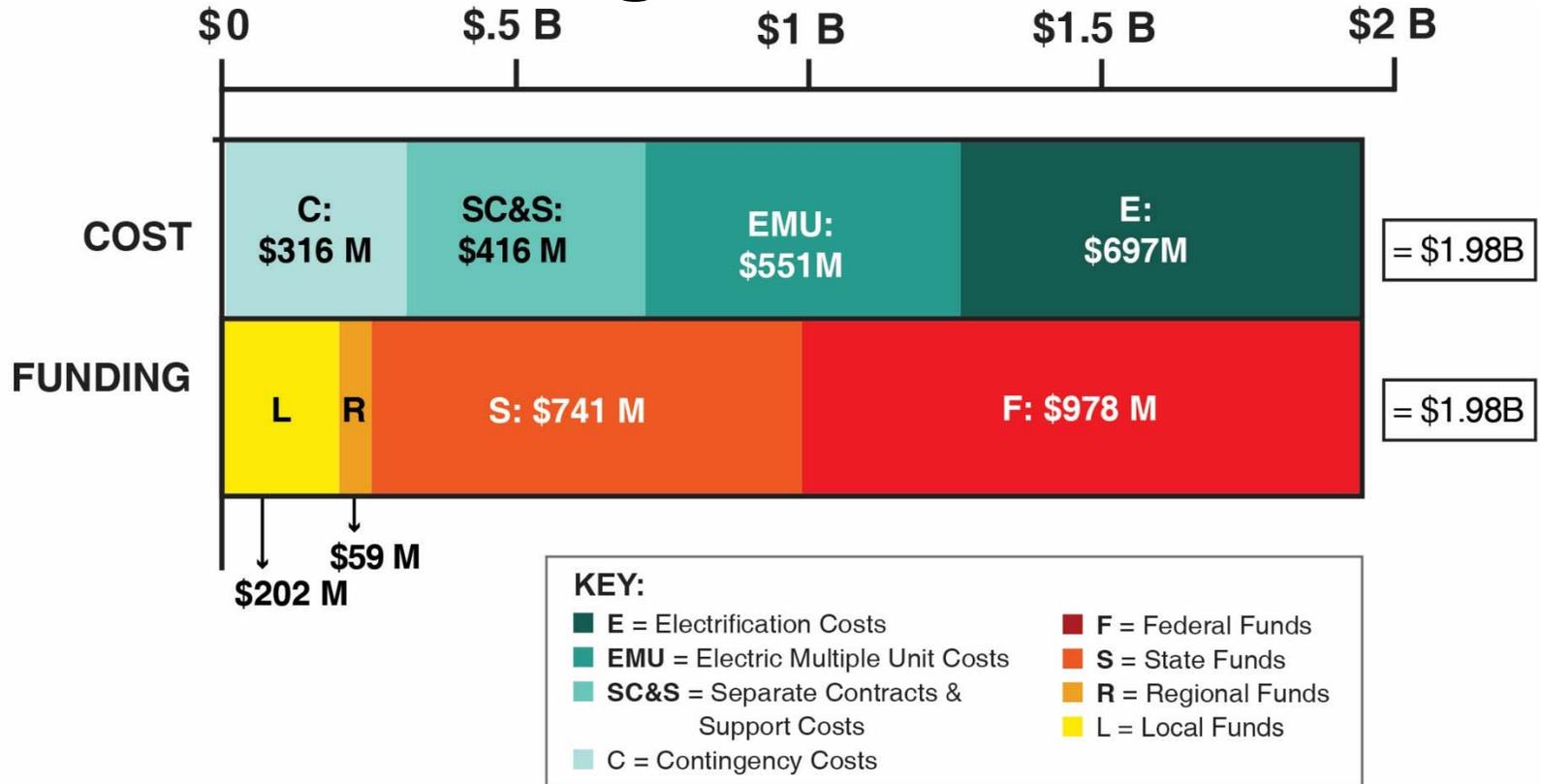


## Final Bids 2016 (\$1.98B)

- Electrification Infrastructure
  - Best and Final Offer Process: 3 shortlisted firms
    - Goal: Improve initial bids received
    - Modifications: adjusted work windows to allow more access, strategic weekend shutdowns in SF tunnels, utilization current signal houses w/ existing capacity
    - Result: 7 month schedule reduction, significant cost savings, best value proposal w/ highest technical score and lowest cost
  - After Final Negotiations, Contract Value: \$697M
- Electric Trains (EMU)
  - Singular Proposal
  - After Final Negotiations, Contract Value: \$551M



# Cost / Funding



NOTE: 2016 Bids with 20% contingency

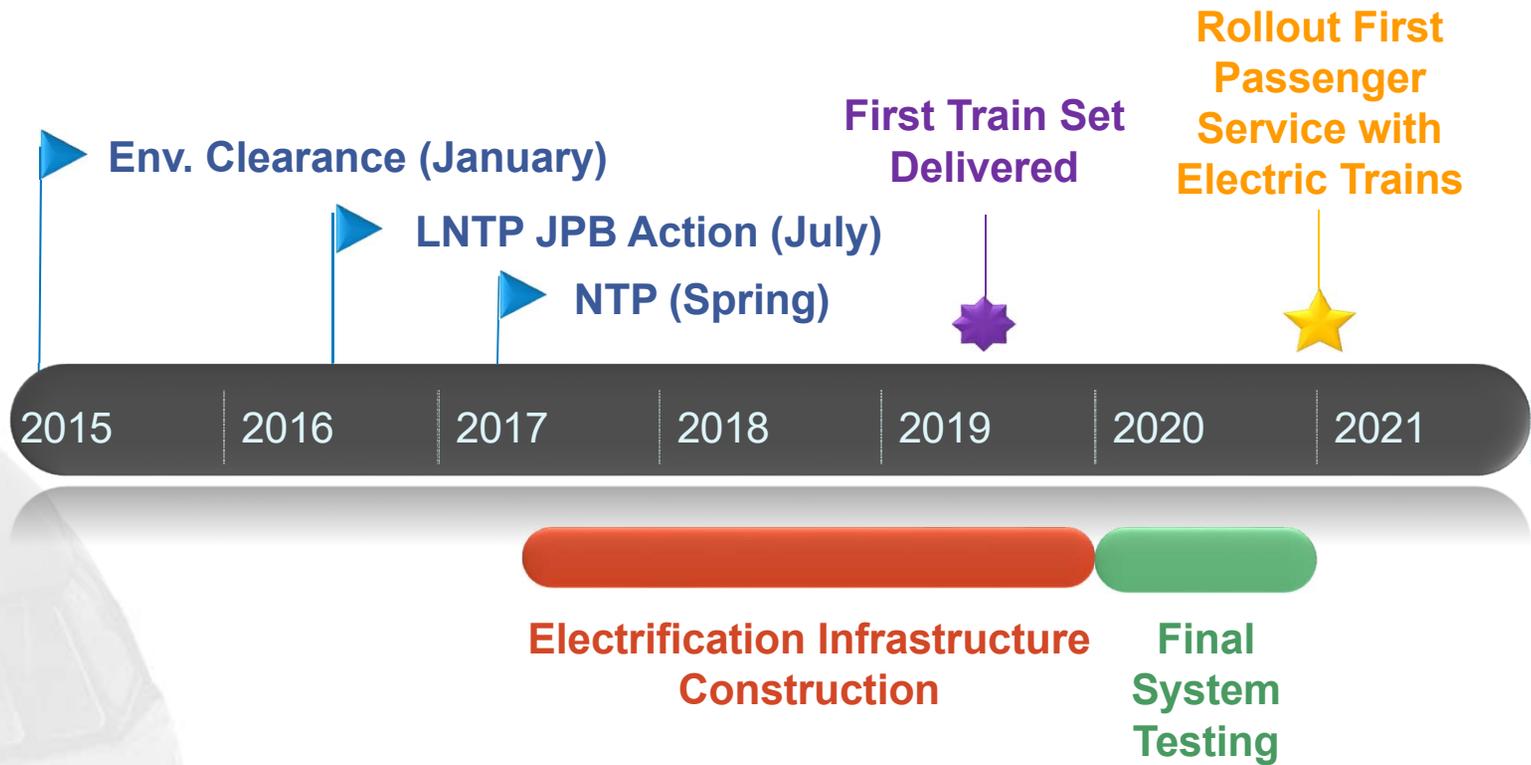


# Funding Status

- All Local / State Sources Secured
- Recent Action
  - 7-Party Supplemental MOU: Approved by CHSRA, MTC, JPB, SFCTA, CCSF, VTA, SMCTA
  - Awarded \$20m through State Transit and Intercity Rail Capital Program
  - Bi-Lateral Agreement CHSRA / JPB
- FTA Core Capacity Program (Total \$647M)
  - Approval into engineering phase, 2<sup>nd</sup> project in country
  - \$73m appropriated from FY16 Funds
  - \$125m included in FY17 President Budget
  - Working towards FFGA by end of year



# Schedule



Note: Schedule Subject to Change



## Next Phase of Modernization

- Service to Downtown San Francisco
- Improved Caltrain Service
  - Complete electric train conversion SJ to SF
  - Longer electric trains
  - Level Boarding
- HSR / Caltrain Blended Service
  - HSR stations
  - Infrastructure upgrades



# Questions

More information / leave comments:

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

email: [calmod@caltrain.com](mailto:calmod@caltrain.com)

phone: 650.508.6499