
Keeping up with Caltrain Ridership

Adina Levin - Friends of Caltrain
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Keeping up with Caltrain ridership

Underlying trends driving ridership growth

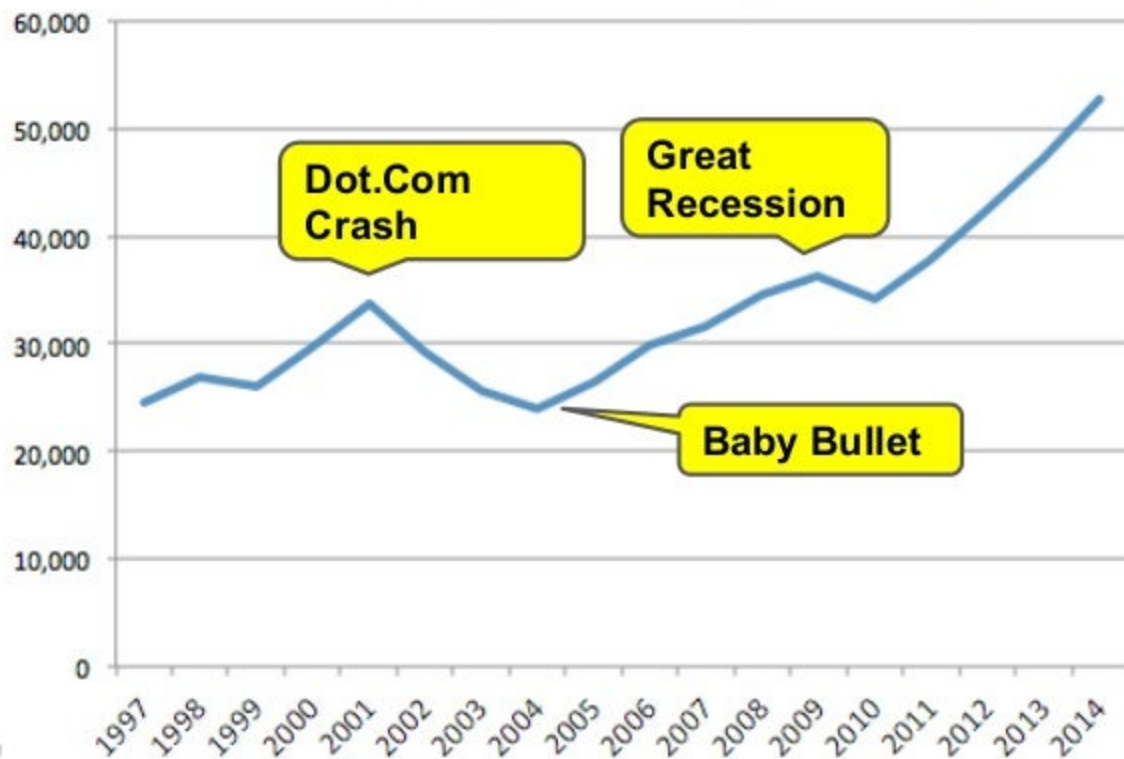
How Caltrain can keep up with growth

Grade separations

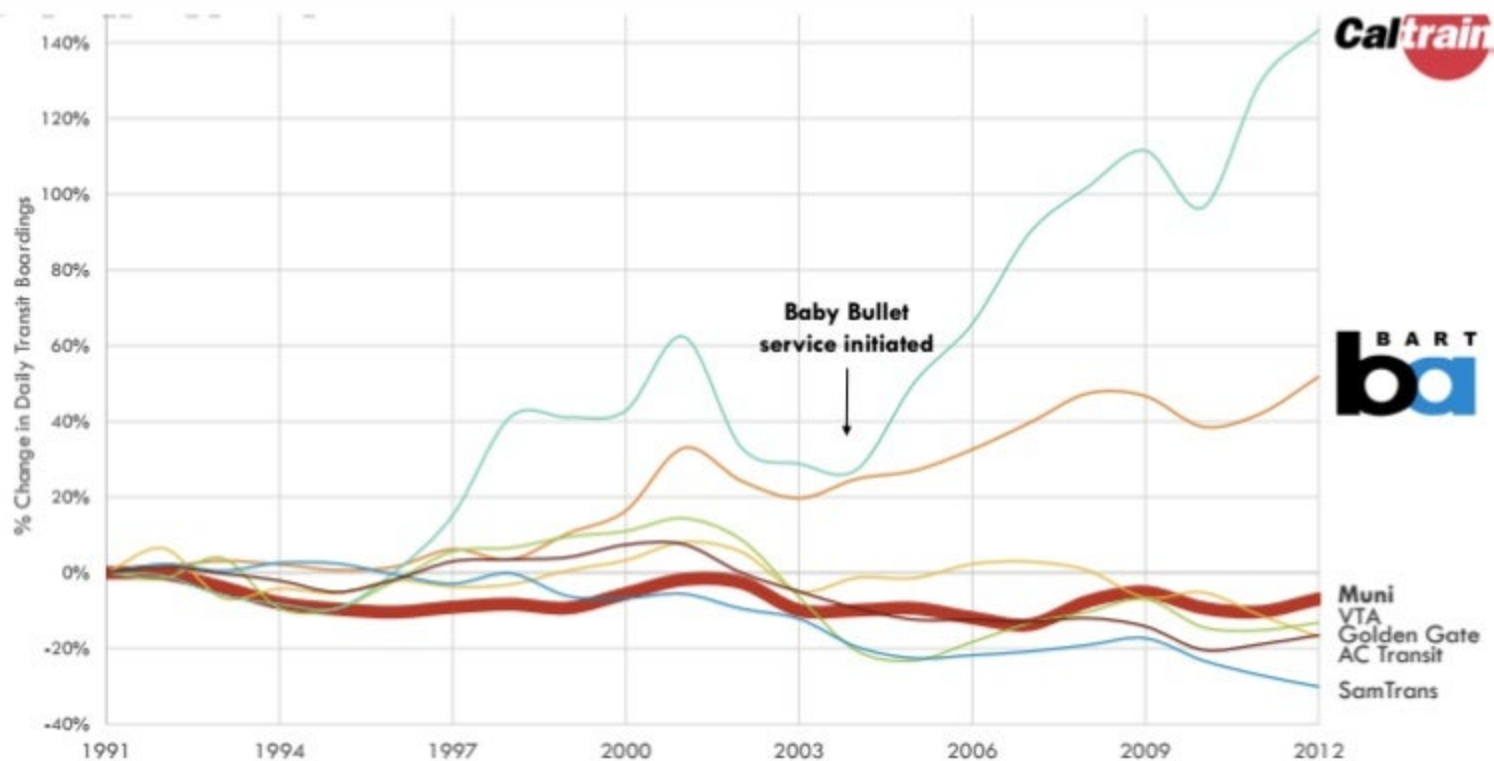
Funding and participation opportunities

Ridership doubled in last decade

Caltrain Average Weekday Ridership



Fastest-growing transit in Bay Area



Rapid growth in Mountain View, Palo Alto

Average weekday ridership growth

	Rank	2012	2013	2014	Change
Palo Alto University	2	4,461	5,469	6,156	38%
Mountain View	3	3,670	3,876	4,274	16%

Trains are crowded

Northbound					
Train Number	Depart SJ	Max Load	Percent of Seated Capacity	High Season Max Load	High Season Capacity
319	7:03 AM	878	135%	1028	158%
323	7:45 AM	834	128%	976	150%
329	8:03 AM	828	127%	969	149%
375	5:23 PM	794	122%	929	143%
217	6:57 AM	791	122%	925	142%
225	7:50 AM	761	117%	890	137%
313	6:45 AM	703	108%	822	126%
215	6:50 AM	691	106%	809	124%
269	4:39 PM	690	106%	807	124%
227	7:55 AM	671	103%	785	121%
233	8:40 AM	660	102%	772	119%
365	4:23 PM	626	96%	733	113%

Trains are crowded



Standing room only

Platforms 4th & King



Transit corridor growth



State policy to reduce greenhouse gas emissions, coordinate transportation & land use

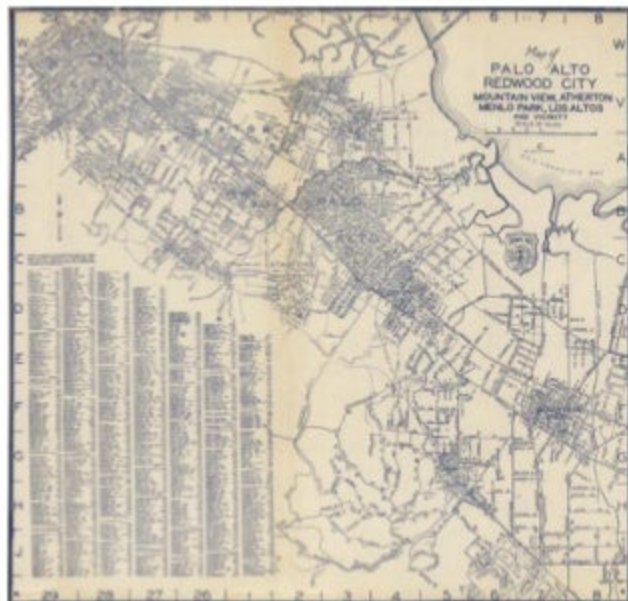
Accommodate 80% of housing, 60% of job growth in < 5% of land with transit access

Back to the Future

Caltrain corridor is original transit-oriented development

Cities grew
around train

RWC, PA, MV
1938



Cars off the freeway

If Caltrain were shut down, it would take 4-5 extra lanes on Highway 101 to carry the extra rush hour traffic.

1,500 cars/hour/lane

8,000 pax/peak hour trad peak

6,000 pax/peak hour rev. peak



City policies to reduce trips

Transportation Demand Management

- Accommodate more people with less cars, traffic, parking demand
- Transit passes, shuttles, carpool, carshare, education/marketing
- Transportation Management Association Nonprofit (typically)
- Funded by employers, developments, parking
- Data, reporting, accountability

● Established ● Developing



Goals to reduce drivealone

Mountain View North Bayshore

- 45% drivealone (55% today)

Downtown Palo Alto

- 30% reduction (55% today)
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Changing transportation preferences

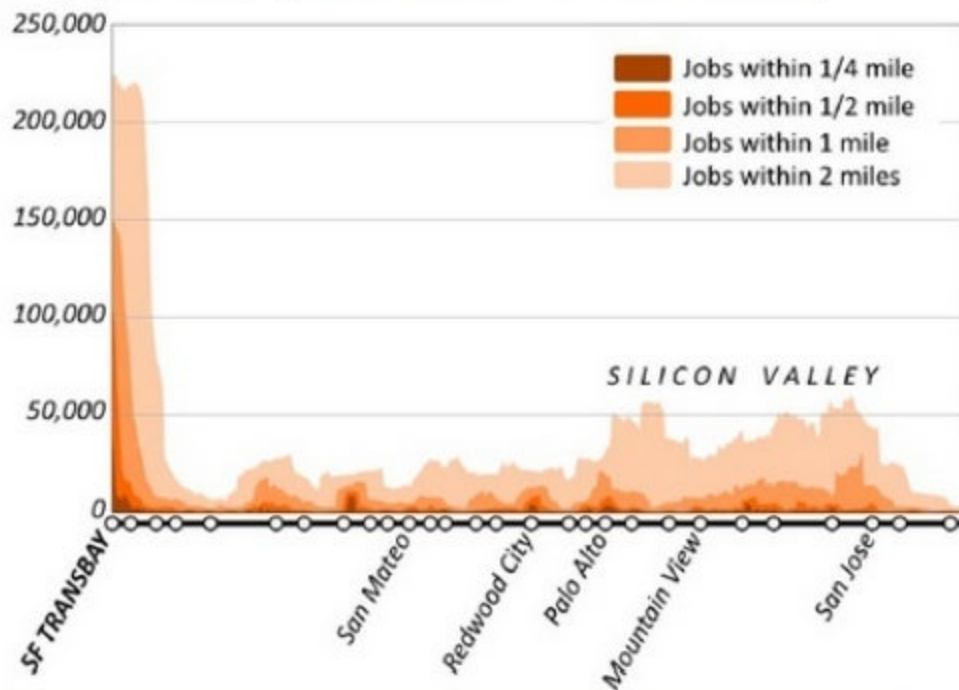
Younger people driving less...

- Average miles driven by 16 to 34 year-olds dropped by 23% between 2001 & 2009
 - 75% of millennials expect to live in a place where they do not need a car to get around
 - Caltrain rider average income \$117,000 (could drive if they wanted to)
 - 55% are under 35...
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Better access to jobs in San Francisco

Jobs, jobs, jobs at Transbay

There are more jobs within 1/2 mile of Transbay than within 1/2 mile of all Caltrain stations combined !



Central
Subway 2019

Downtown
extension to
Transbay 202x

Better access to jobs in San Francisco

Central Subway
2019

Connects to Powell
Street BART and
Muni Metro



Diridon and the BART Connection

Diridon Station Area Plan

- 20,000+ jobs
- 2600 housing units
- ~20,000 avg daily BART
- ~20,000 avg daily Caltrain
- Up from ~4,000 Caltrain
- 40% drivealone mode share



Double ridership in the next decade

“We need to double Caltrain ridership from 60,000 to 120,000 daily trips by the next decade”

Carl Guardino, Silicon Valley Leadership Group

Peak hour capacity

How many people can travel at peak hour

train cars

people per car (seated, standing, bikes)

trains per hour

Even distribution (are some cars less full)

How can Caltrain keep up?

Current peak - 5 car trains, 5 trains per hour = 25



1) Surplus cars from LA Metrolink

6 cars x 5 trains per hour = 30



2) Electrification

- Faster acceleration
More stops in same
end to end time
- Serve underserved
stations -
Lawrence, Santa
Clara
- But fewer seats per
car



6 trains per hour x 6 car trains

3) Longer platforms, level boarding

8-car trains

Level boarding

- faster service
- better for mobility-impaired, strollers, bikes
- more reliable

6 trains/hour x 8 cars = 48



4) Increase frequency

Blended system: Caltrain & HSR share tracks

Up to 2 HSR trains per hour without passing tracks

Up to 4 HSR trains per hour with passing tracks

Don't need to wait for HSR



8 trains per hour x 8 car trains = 64

Grade separations

- Frequency and reliability
- More frequent service leads to stress at intersections
- 40 at-grade crossings remaining ($\frac{2}{3}$ separated)
- San Mateo County has funding, Santa Clara County does not yet



How can Caltrain keep up?

Scenario	Peak service	Peak hour train cars
Today	5x5	25
Metrolink used cars	6x5	30
Electrification	6x6	36
Longer platforms	6x8	48
Increase frequency (w/HSR)	8x8	64

Napkin math - watch for peak hour capacity # from Caltrain

Grade separation options and costs

Mountain View

- Rengstorff/Central - \$120M
- Castro - separate? close to cars?



Exhibit 2—2004 Study—Rengstorff Avenue
Looking North at Central Expressway

Grade separation options and costs

Palo Alto

- Charleston, Meadow, Churchill
- Trench - \$500M to \$1B
- Development funds?
Local tax?



Cost for capacity improvements



Needs & Funding – Cal Mod Program (in millions)

Program	Program Need	Funding Available	Gap
CalMod Phase 1	\$1,762	\$1,456*	\$306
CalMod Phase 2	\$624	\$0	\$624
Total	\$2,386	\$1,456	\$930

*Includes \$145 million to be replaced with discretionary sources TBD

Funding sources

Transportation Ballot Measures

Santa Clara County (2016)

San Mateo County (??)

San Francisco (2016, 2018)

2018 - RM3 - renewed bridge tolls

High Speed Rail

State Cap and Trade funds



Santa Clara County Ballot Measure

2016 - Envision Silicon Valley

\$3.5 Billion or \$7 Billion

BART to Diridon (and Santa Clara?)

Caltrain

Expressways/Freeways

Road paving

Upcoming decisions

- 1) Santa Clara County VTA Call for Projects
 - 2) Transit Center / grade separation planning
 - 3) Planning with High Speed Rail
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