

# Metrics That Matter

– How long will it take me to get from A to B ?

- 1 Average Trip Time
- 2 Best Trip Time (e.g. express service)

– How long do I have to wait for the train?

- 3 Average Service Gap (inverse of trains per hour)
- 4 Maximum Service Gap (long gap = missed train risk)

All four metrics are measured in MINUTES

# Capital Investment Must Be Targeted

- That means: a project must ultimately lead to a measurable improvement in the metrics that matter. It must enable a BETTER TIMETABLE.
  - This is why the Baby Bullet is so successful
- Example: San Bruno Grade Separation
  - \$185 million (1/4 of the cost of electrification)
  - Improvement to service: ZERO

Caltrain's investments need BETTER FOCUS

# A two-track railroad boils down to this:



There is no free lunch.

How can we improve BOTH  
frequency AND speed?



**Step 1:** Optimize timetable within the existing system

**Step 2:** Speed up train performance (\$\$)

**Step 3:** Add a limited amount of new passing tracks to  
allow fast trains to overtake slow trains (\$\$\$)

USE METRICS for maximum bang for the buck

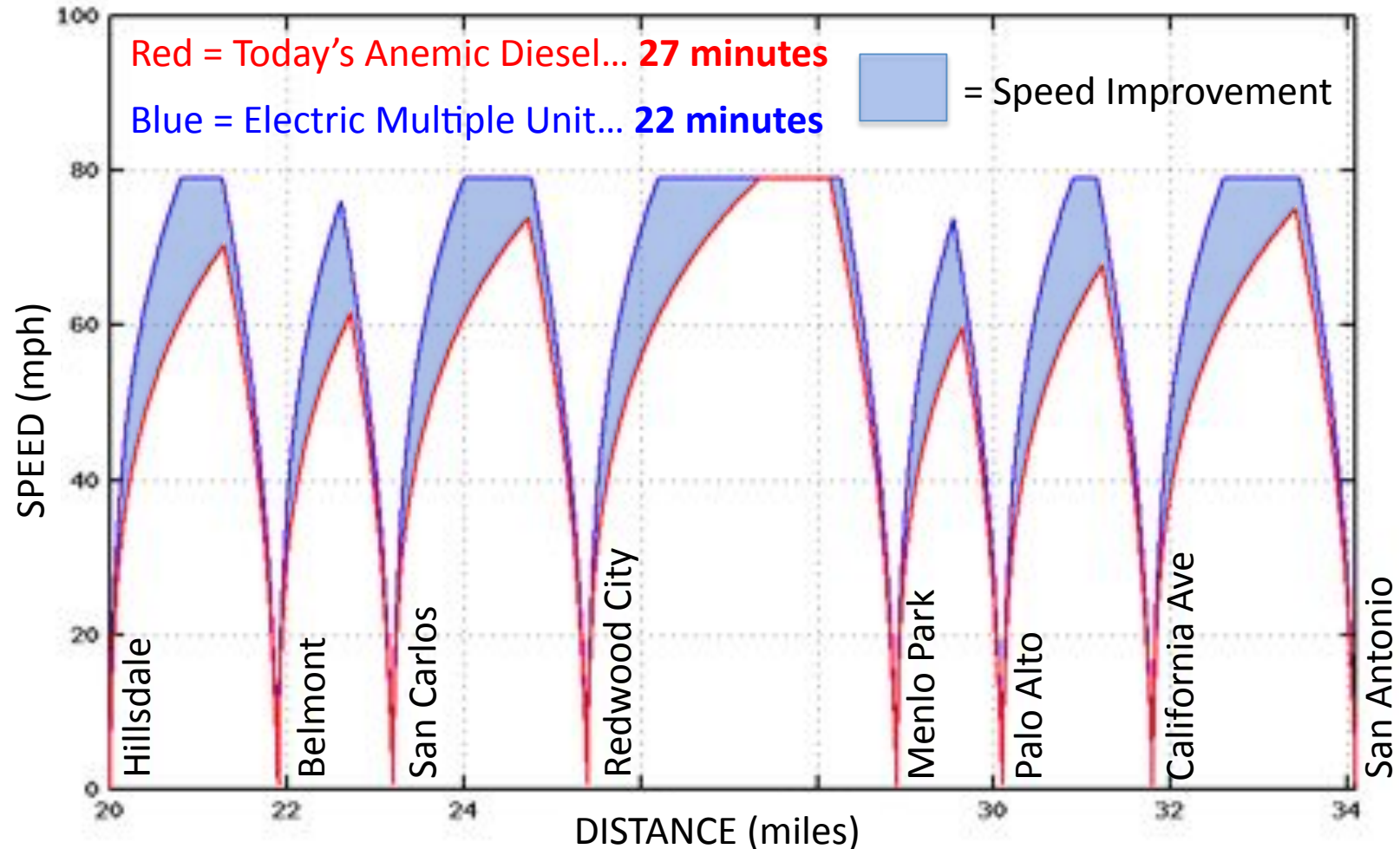
# Step 1: Optimize Schedule



Caltrain is at 100% rush hour capacity TODAY

# Step 2: Electrify

Example: Running Times from Hillsdale (San Mateo) to San Antonio (Mountain View)



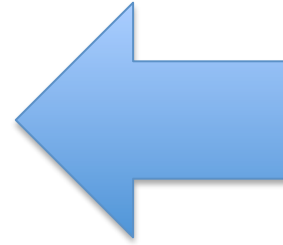
Electrification is a **STEP CHANGE** in performance

# What's in the electrification budget?

New Train Fleet  
**\$ 440 M**



100% Funded



**DUE VERY SOON**  
(Electrification or not!)

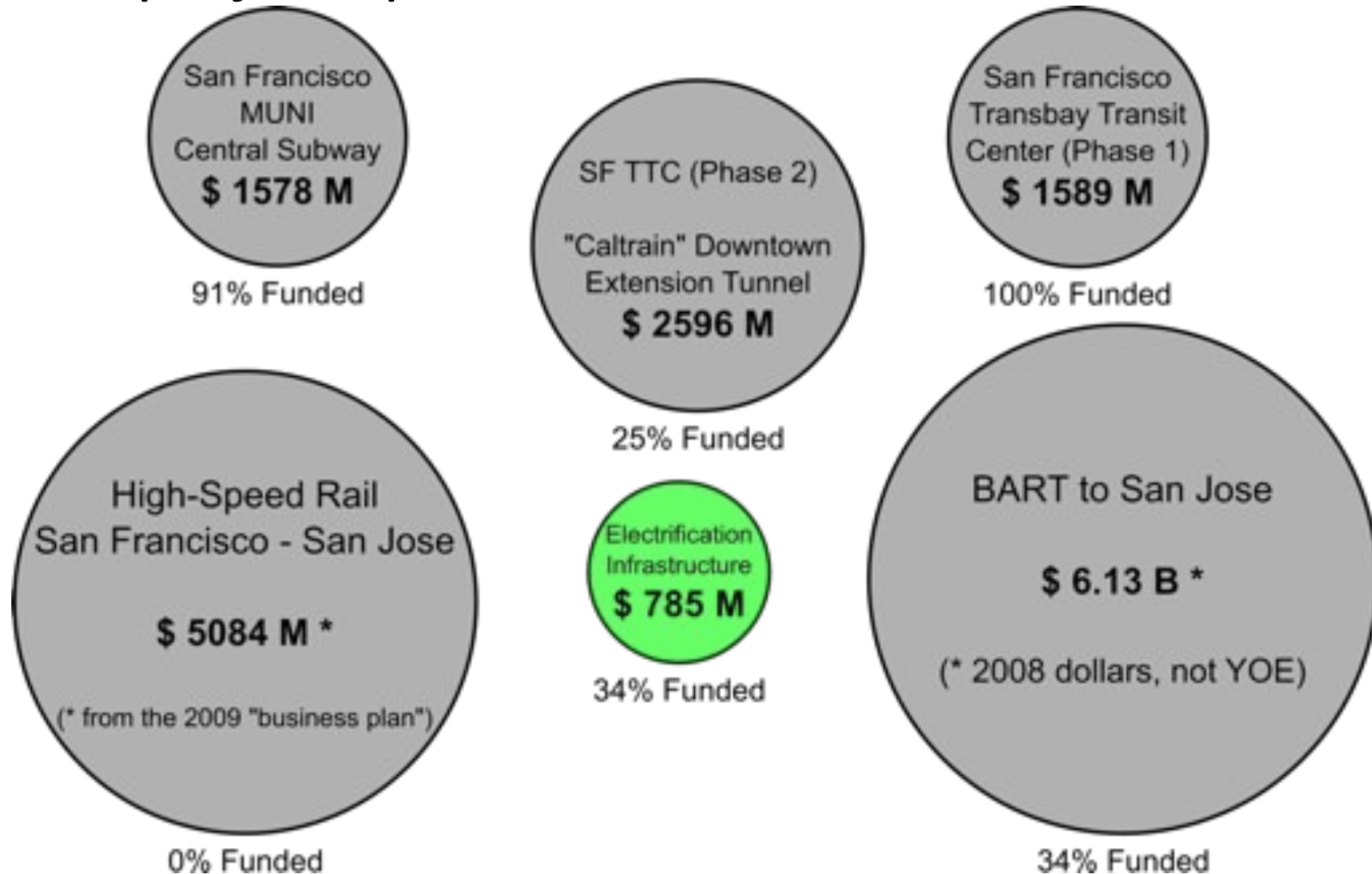
Electrification  
Infrastructure  
**\$ 785 M**



34% Funded

The clock is ticking... **DON'T MISS THE WINDOW**

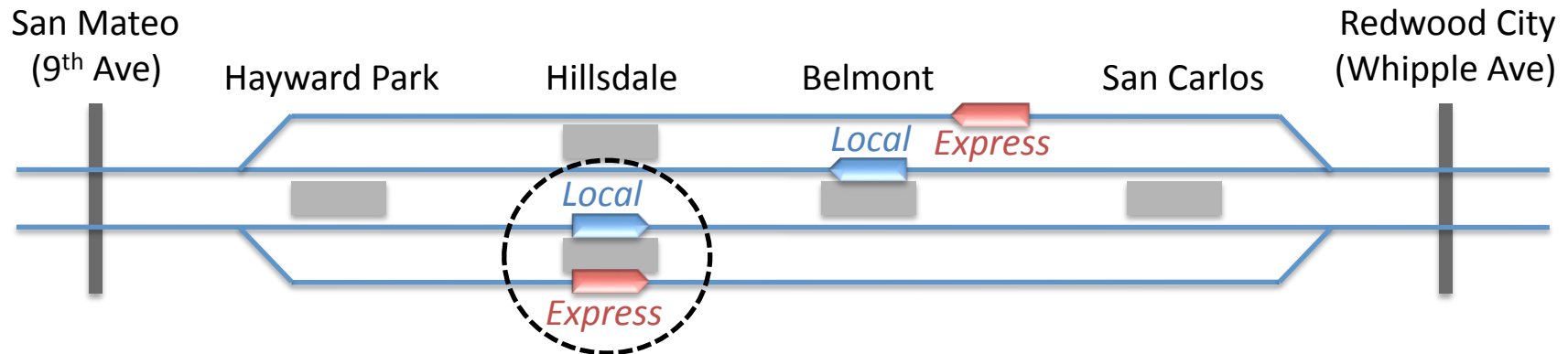
# Rail projects planned in the 3 Caltrain counties



Electrification is a small fish in a BIG POND



# Step 3: The Mid-Line Overtake

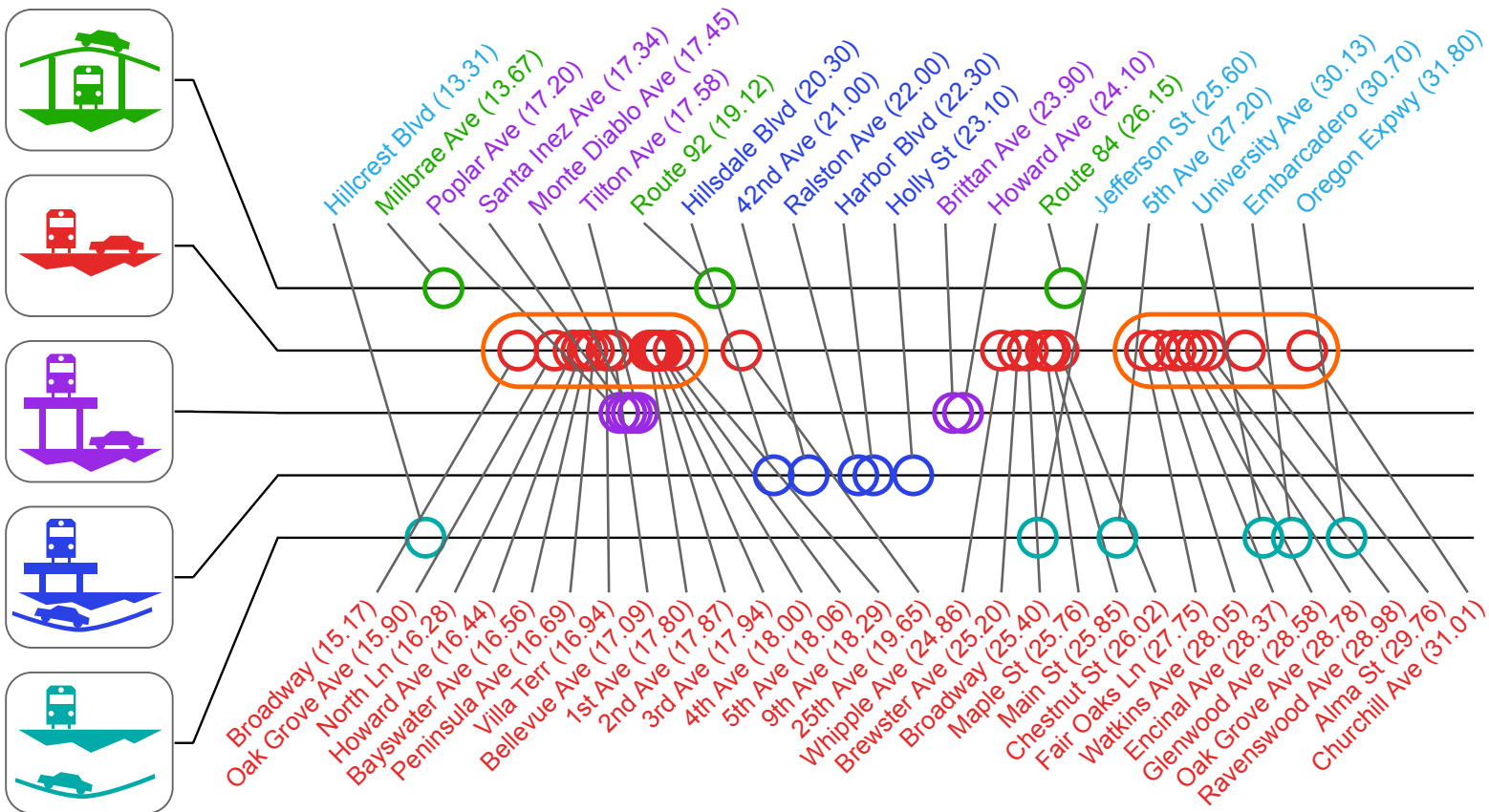


- Local every 0:15, Express every 0:30 (“Clockface”)
  - Enables coordinated transit connections (buses, shuttles)
- Cross-platform standing overtake at Hillsdale
  - Express and local show up at the same time on each side of the same platform.
  - Passengers are exchanged, spreading the time savings of rush hour express service to a wide variety of smaller stops (Belmont, Cal Ave, Burlingame, etc.) *while restoring rush hour local service.*

Express doesn't get stuck behind the local

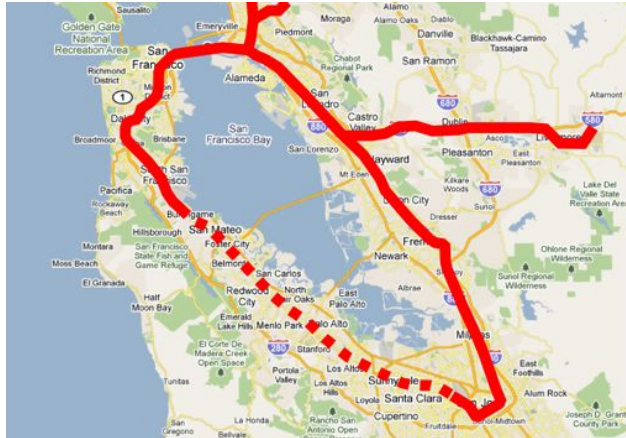
# Targeted Grade Separation

- Only 1 new grade separation is required at 25<sup>th</sup> Ave San Mateo; this is already in San Mateo's rail corridor plan



Minimizes Community Impacts

# Plan B(ART)



**NO. WRONG SOLUTION**



**MAYBE?**