

High Speed Rail and Caltrain in San Francisco

Presentation to the Western High Speed Rail Alliance

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SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY

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Agenda

**California High-Speed
Rail Plan**

**San Francisco Peninsula
Segment**

**Transbay Transit Center
and Caltrain**

**Proposal for Blended
Operation**

**Funding and Financing
Considerations**



Vision for High Speed Rail

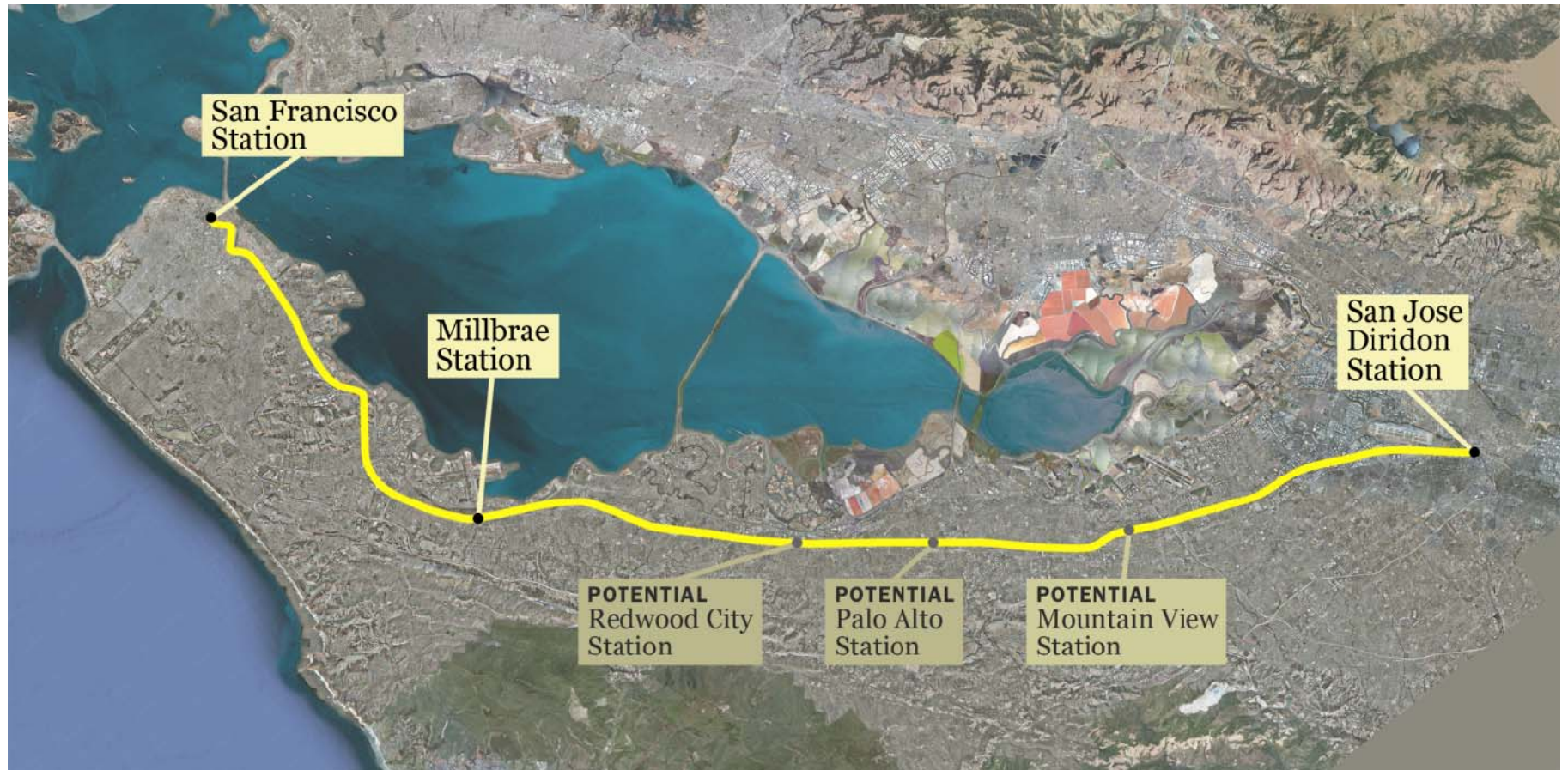
- **Major infrastructure can shift paradigms**
- **Today, Americans cannot imagine a High-Speed Rail experience**
- **Once they can, they will want it**
- **Need to stimulate imagination with a working segment so people can have the experience**



California High-Speed Rail Plan



San Francisco Peninsula Plan for High-Speed Rail



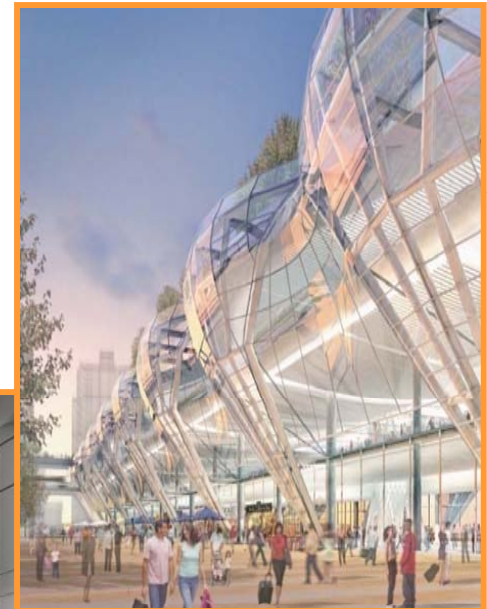
San Francisco Has Supported High Speed Rail with Local Funding

- **Regional Measure 2 increased bridge tolls to fund transportation improvements**
- **\$1.6 billion in predominantly local funding committed to Transbay Transit Center**
- **Transbay is the only element of high-speed rail under construction anywhere in the country**



Transbay Transit Center

- Construction to be completed in 2017



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Transbay Transit Center – Connections to Local and Regional Transit



Transbay Transit Center – Connection to Caltrain Commuter Rail



Caltrain Commuter Rail



- Operates in same Peninsula corridor proposed for High-Speed Rail
- To be converted from diesel to electric



High-Speed Rail Challenge – Feasibility and Funding

- **Total system spans some 800 miles**
- **Needs to be phased**
- **Authorizing legislation requires private investment**
- **Public support varies**
- **Total cost could approach \$75 billion**



High-Speed Rail Opportunity – Blended Operation

Merging of two currently planned projects:

- **Electrification of Caltrain from San Francisco to San Jose**
 - 2 traction power substation
 - 8 auto-transformer station
 - 52 miles of overhead contact system
- **Caltrain Downtown Extension to Transbay**
 - 1.3 mile track extension in tunnel
 - From 4th & King St to Transbay

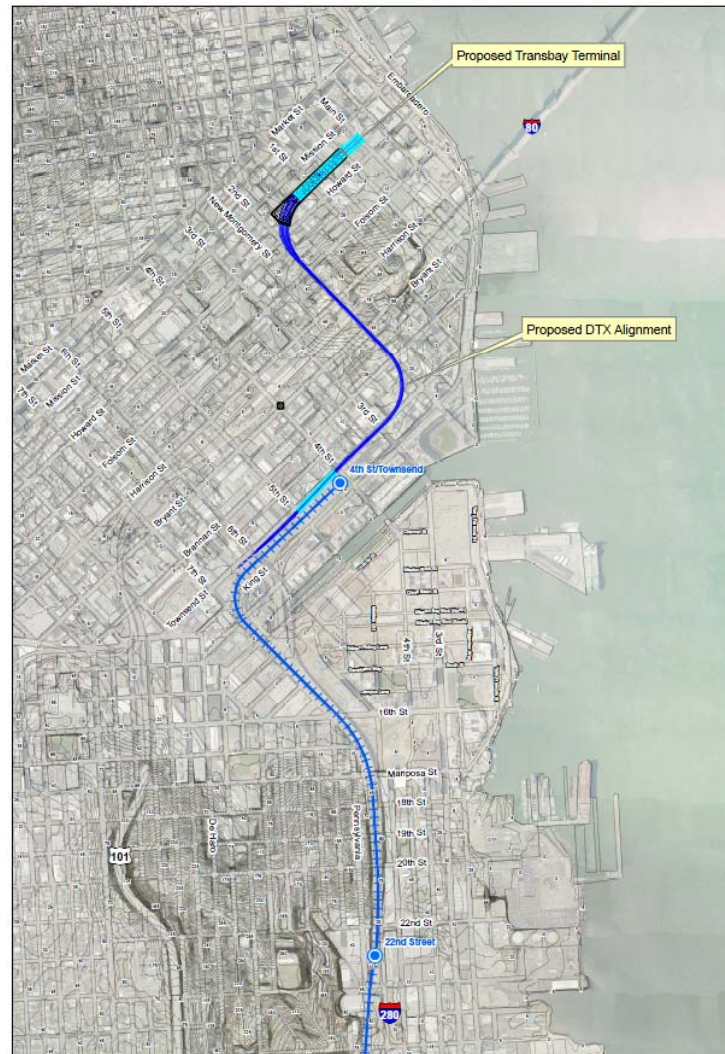


San Francisco Peninsula Blended Operation

- **San Francisco Transbay Transit Center to San Jose Diridon Station**
 - Uses existing infrastructure
 - Incorporates existing projects
 - Adds cost-effective improvements
 - Allows blended HSR/ Caltrain Operations



Downtown Extension (DTX)



Blended Operation Benefits

A key to phased implementation is to have a successful Initial Operating Phase (IOP) that:

- **Demonstrates the value of HSR**
- **Provides a model for system wide expansion**
- **Makes best use of available funds**
- **Capitalizes on existing infrastructure**
- **Provides early initial operation**
- **Has high ridership**



Full Build-Out versus Blended Operation Cost Comparison

	Full Build Out	Blended Operation
San Jose to 4 th & King	\$5.6	\$0.8
DTX	\$2.0	\$2.0
Facilities	<u>\$0.7</u>	<u>\$0.2</u>
TOTAL	\$8.3	\$3.0

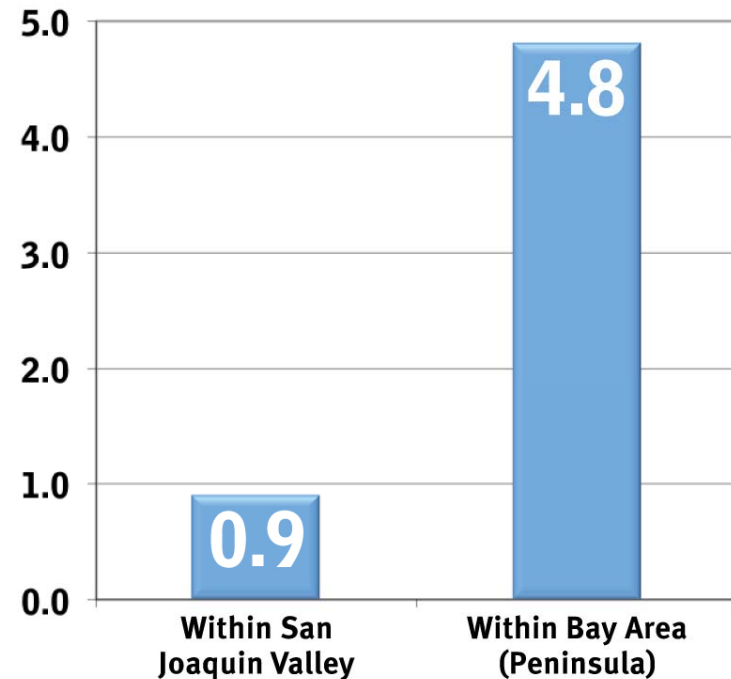


San Francisco Peninsula Blended Operation Ridership

Ridership Projections for 2030

- **High-Speed Rail – 4.8 million boardings**
- **Caltrain – 19.5 million boardings**

Project High-speed Rail Ridership, Year 2030
(in millions)



SOURCE: California High-Speed Rail Authority Business Plan (2008), Ridership and Revenue Forecasts (Parsons Brinckerhoff, Cambridge Systematics, and SYSTRA).



Caltrain Capacity Study

Preliminary Findings

- **Blended system concept has merit**
- **Potential for 10 trains/hour/direction**

	No Passing Tracks	With Passing Tracks
Caltrain	6	6
High-Speed Rail	2	4



Blended Operation Feasibility Study Now Underway

- **Reconnaissance level feasibility**
- **Evaluate alternative project delivery methods**
- **Analyze potential alternative funding sources including private investment**

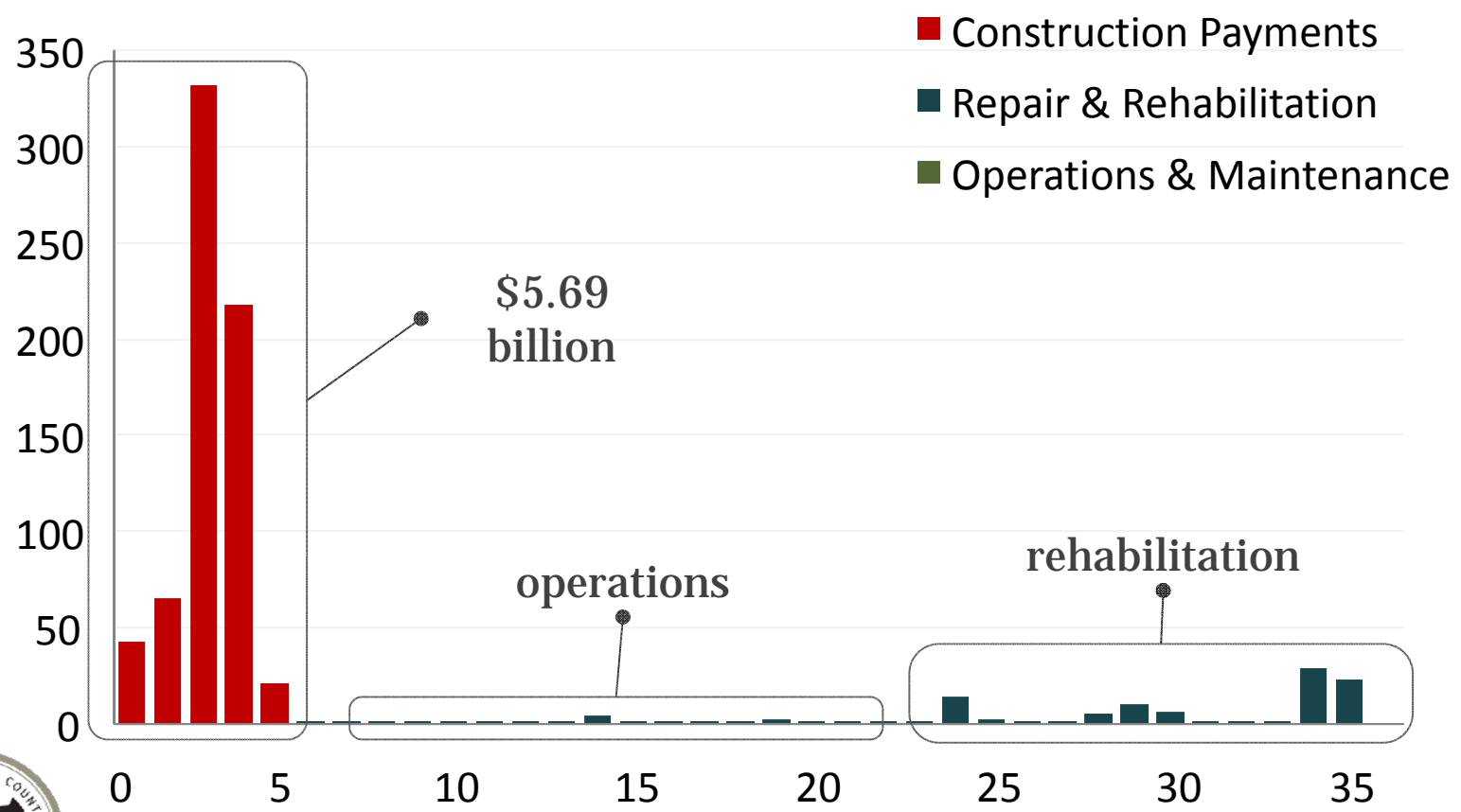


Funding Concepts

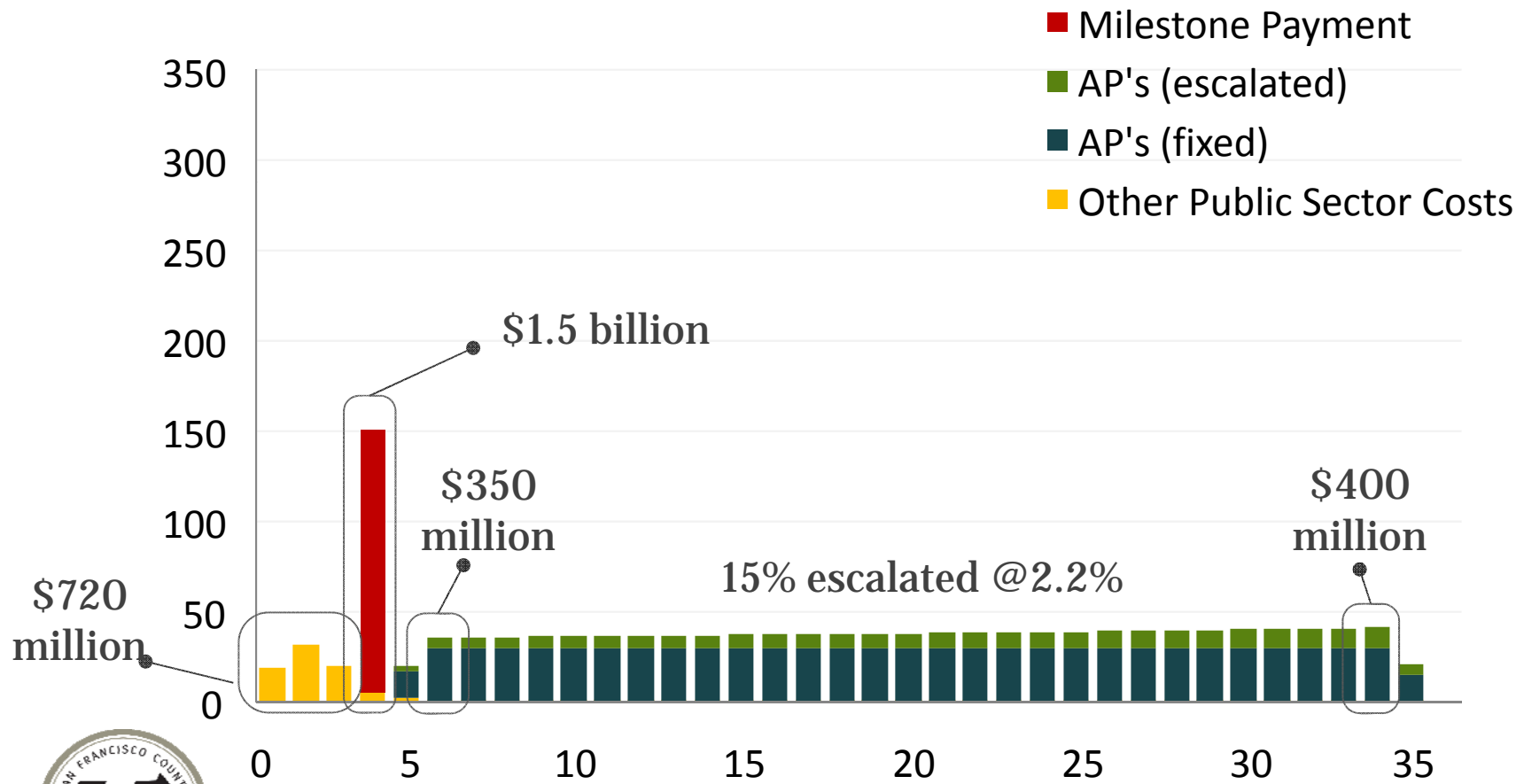
- **California Prop 1A - \$9.95 billion**
- **Federal Railroad Administration**
- **Real Estate sales and development**
- **Concessions**



Nominal Cash Flows – Notional DBB



Nominal Cash Flows – Notional DBFOM



Conclusion

- **San Francisco strongly supports High-Speed Rail**
- **Have already committed \$1 billion in local funding**
- **The blended operation makes sense for the San Francisco Peninsula**



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Thank you



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