

SAN JOSE TO MERCED



***City of San Jose
and California
High-Speed Rail:
Town Hall
Community Meeting***

November 4, 2010

AGENDA

- Welcome
- Project Update
- Frequently Asked Questions
- Cooperative Agreement
- Facilitated Q&A

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WHY WE NEED IT

Jobs

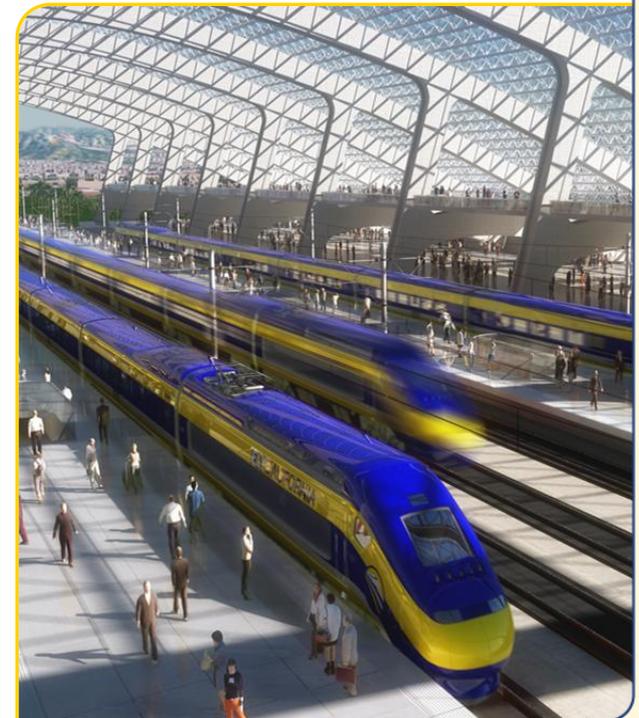
- 600,000 full-time, one-year, construction-related job-equivalents
- 5,000 permanent operations and maintenance jobs
- 450,000 economy-wide jobs by 2035

Mobility

- “Economic power is how fast you move people and goods around the state.” Gov. Arnold Schwarzenegger, January 15, 2008.

Environment

- Reduced greenhouse gases
- AB 32: California’s 2006 landmark legislation to reduce greenhouse gas emissions 25% by 2020



WHY WE NEED IT

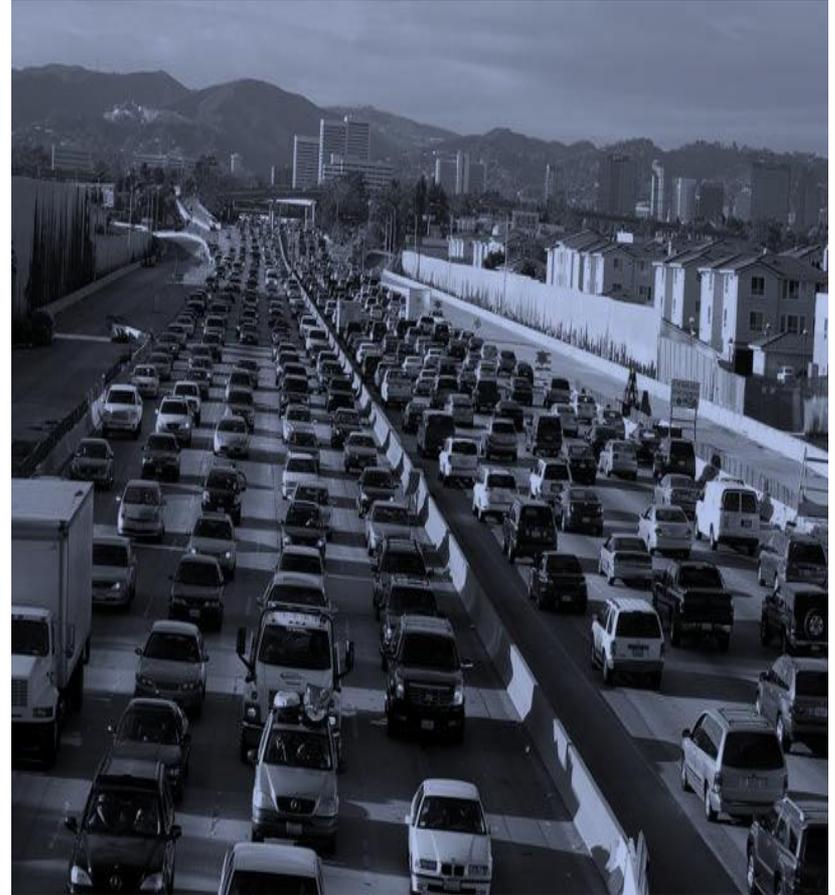
Status quo is not an option

Population Growth

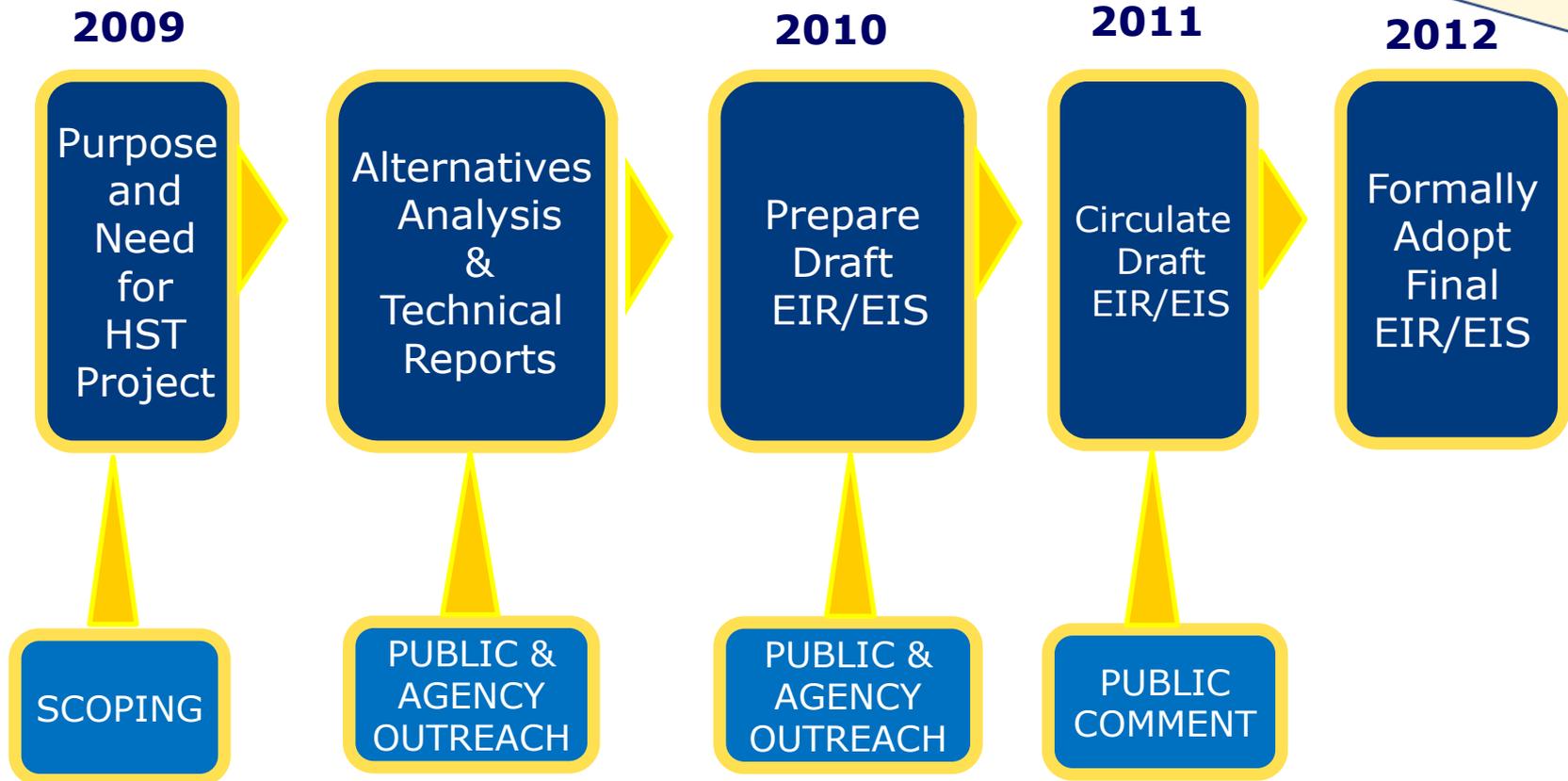
- California's population now: 38 million By 2035: 50 million

We can build...

- New freeways, airport runways and more departure gates to address our expected population growth
- or*
- 800-mile high-speed train system, powered by 100% renewable electricity generated by clean wind and solar energy

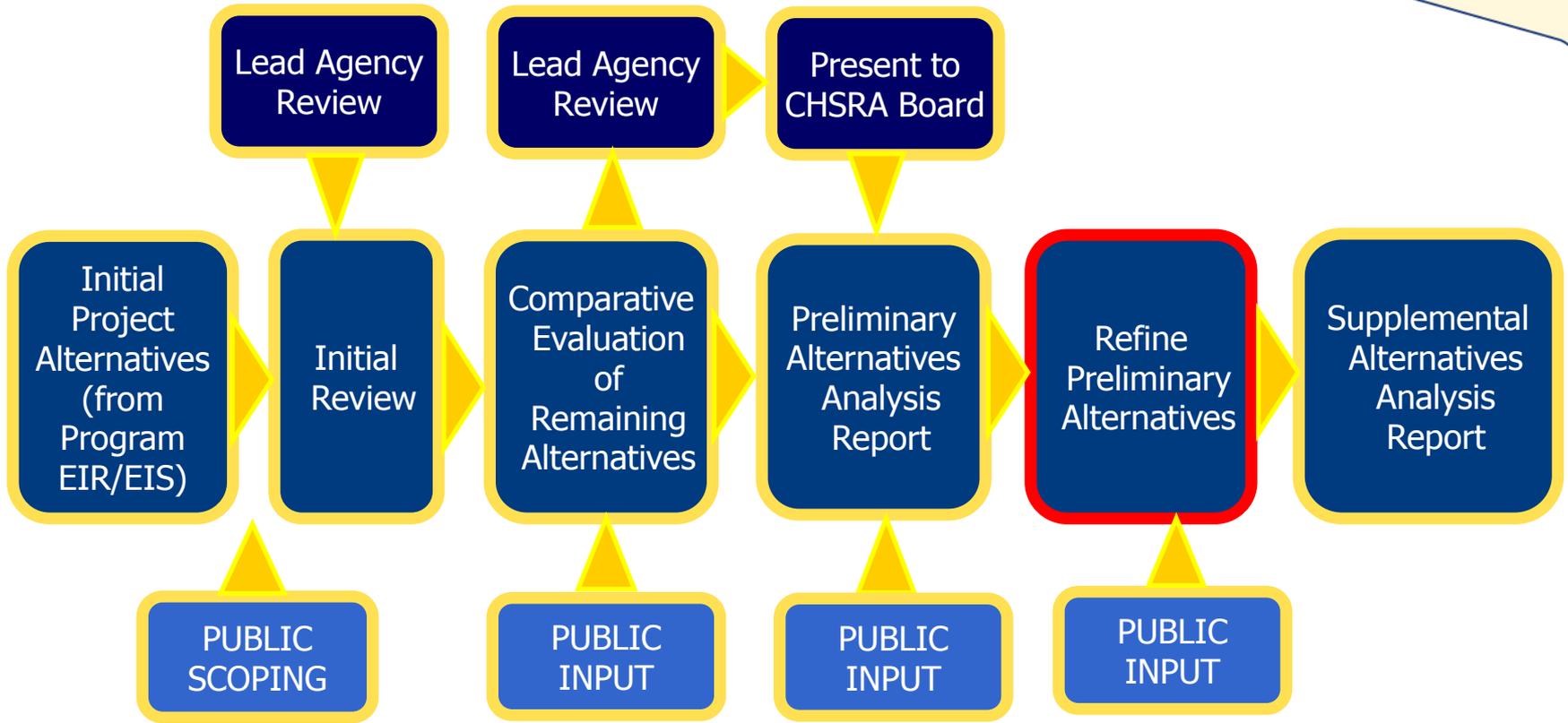


ENVIRONMENTAL REVIEW SCHEDULE



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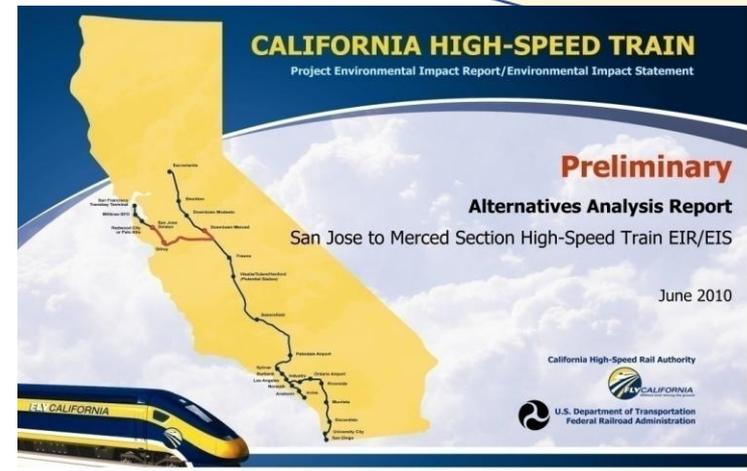
ALTERNATIVES ANALYSIS PROCESS



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PRELIMINARY ALTERNATIVES ANALYSIS

- Preliminary Alternatives Analysis presented to Board June 3, 2010 (www.cahighspeedrail.ca.gov)
- Evaluated alignment & stations from scoping (Spring 2009 – Fall 2009)
- Initial presentation to Board December 3, 2009
- Preliminary AA includes input since Fall 2009-Spring 2010
- Technical Studies – e.g., tunnel options in San Jose
- Extensive agency & public outreach



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SUB-SECTIONS FOR EVALUATION

San Jose to Merced Section - Alignment Alternatives



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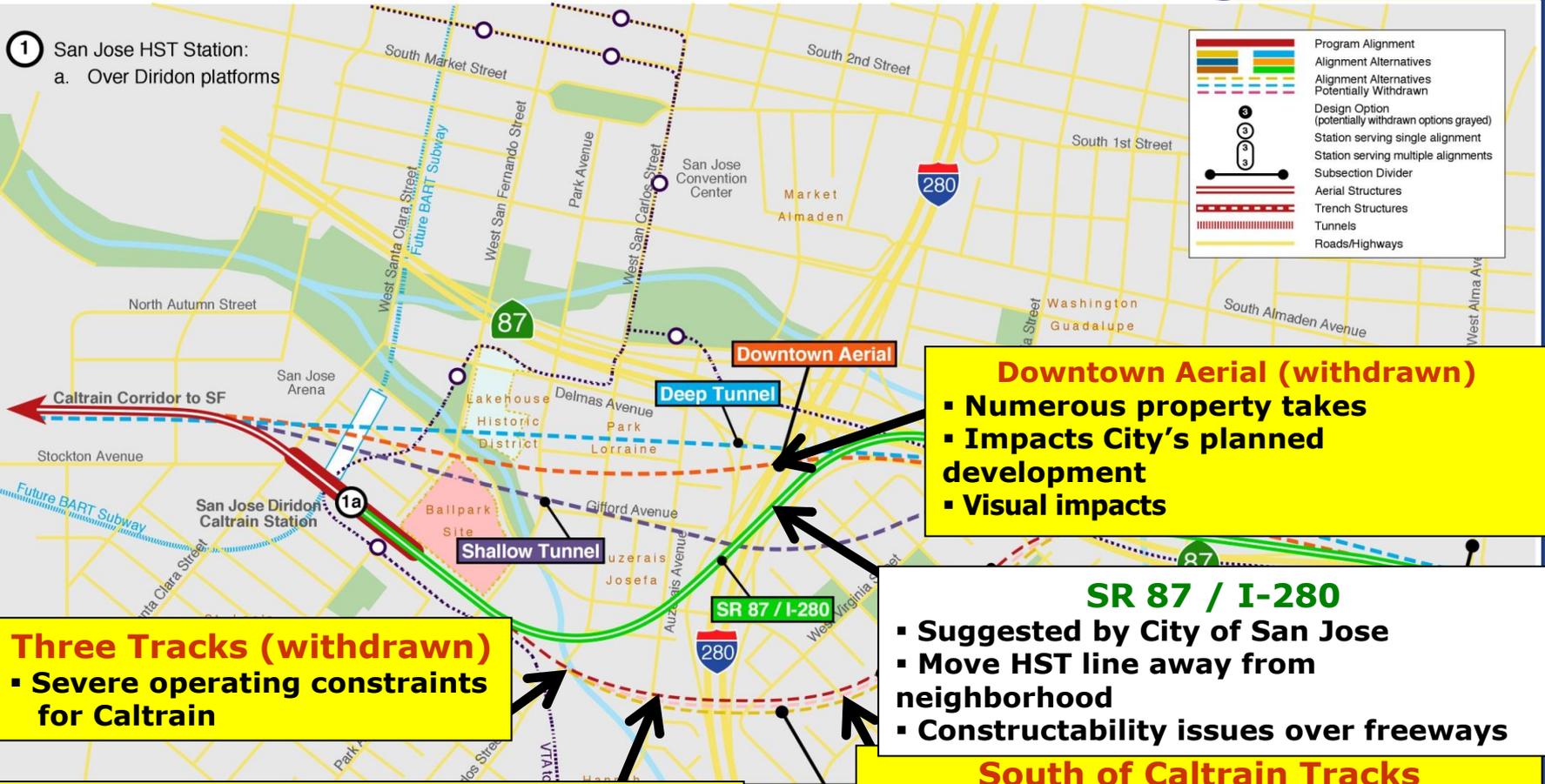
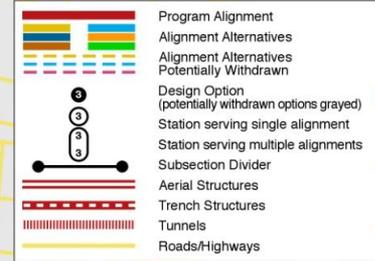
KEY SAN JOSE ALTERNATIVES ANALYSIS QUESTIONS

- How are alternatives selected for analysis in the EIR/EIS?
- How were the San Jose tunnel alignments defined?
- What are the property impacts of each alternative?
- Why can BART be built in a tunnel, but not HST?
- What was used in the cost comparison?
- Why were tunnel alternatives not selected for further study in the EIR/EIS?

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DOWNTOWN SAN JOSE SUB-SECTION

1 San Jose HST Station:
a. Over Diridon platforms



Downtown Aerial (withdrawn)

- Numerous property takes
- Impacts City's planned development
- Visual impacts

SR 87 / I-280

- Suggested by City of San Jose
- Move HST line away from neighborhood
- Constructability issues over freeways

South of Caltrain Tracks (withdrawn)

- Numerous property takes
- Park impacts

Three Tracks (withdrawn)

- Severe operating constraints for Caltrain

Refined Program Alignment (withdrawn)

- Impacts to Greater Gardiner Neighborhood

HOW WERE THE SAN JOSE TUNNEL ALIGNMENTS DEFINED



Deep Tunnel (withdrawn)

- Construction complexity/risks
 - Poor soils/potential settlement
 - Groundwater issues/infiltration
 - Soil improvement from surface
 - No HST mined station in world
 - 140 feet underground
 - 7-16 years to build
- National Register archeological site
- Reconstruction of Tamien Station & SR 87 northbound ramp
- Costs 7 times base case
- **Impractical**

HOW WERE THE SAN JOSE TUNNEL ALIGNMENTS DEFINED

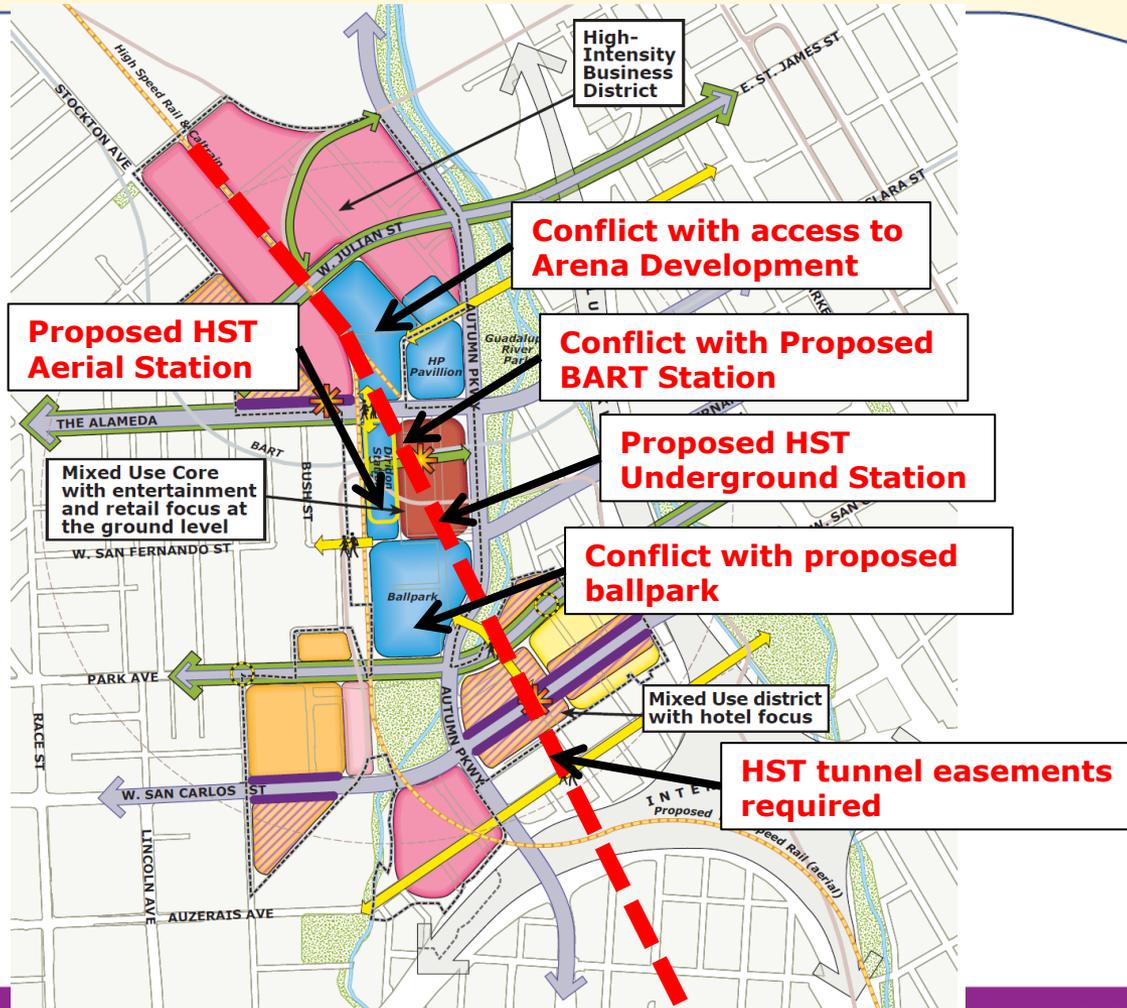


Shallow Tunnel (withdrawn)

- **Redesign / lowering of BART Station/tunnels**
 - Poor soils
 - Groundwater issues
 - Mined BART station 140' underground
- Impacts to new residential
- Need to support future development over HST
- Impacts to Los Gatos Creek
- National Register archeological site
- Reconstruction of Tamien Station & SR 87 northbound ramp
- Cost 5 times base case + additional BART costs
- + development support costs
- **IMPRACTICAL**

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WHAT ARE THE PROPERTY IMPACTS OF EACH ALTERNATIVE?



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WHY CAN BART BE BUILT IN A TUNNEL, BUT NOT HST?



- Poor ground conditions (unstable soil, high water table)
- Volume of HST = 6x bigger than BART
- Requires BART to relocate under HST
- Disruption to Vasona LRT tracks
- HST tunnel must go under Los Gatos Creek
- Disruption to heart of redevelopment area

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WHAT WAS USED IN THE COST COMPARISON FOR EACH ALTERNATIVE?

	Construction (\$2009)	Program & Contingency (35%)	Total Capital Cost (\$2009)	Cost Factor
North of De La Cruz to Diridon				
Aerial	\$151	\$53	\$204	1.00
Tunnel	\$455	\$160	\$615	3.01
South of Diridon to Tamien				
Program Alignment	\$288	\$103	\$398	1.00
I280/SR87	\$359	\$126	\$485	1.22
Deep Tunnel	\$2,127	\$762	\$2,941	7.39
Shallow Tunnel	\$1,461	\$524	\$2,020	5.08
Combined Total Capital Cost				
Aerial North and I280/SR87 South			\$689	1.00
Tunnel North and Shallow Tunnel South			\$2,635	3.82

Costs in millions

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ALIGNMENTS CARRIED FORWARD INTO EIR/EIS

Evaluation Criteria		Aerial Option ¹	Deep Mined Option ²	Shallow Cut & Cover Option ³
Cost and Schedule	Operating Costs	L		H
	Capital Costs	L		H
	Schedule	L		H
Constructability	Constructability	L		H
	Surface Disruption		M	
	Disruption to Existing Railroads		M	
	Damage to Surface/Near Surface Structure	L		H
	Impact to Existing Foundations	L		H
	Disruption to and Relocation of Utilities		M	L
Geotechnical Constraints	Ground Type	L		H
	Settlement	L		M
	Flooding/Inrush of Water to the Excavation	L		H
	Groundwater	L		H
Disruption to Communities	Residential/Business Impact		M	L
	Local Traffic Maintenance & Detour Routing		M	L
	City Division		M	L
Environmental Impacts	Noise/ Vibration/ Dust		H	L
	Visual/Aesthetic Issues		H	L
Environmental Resources	Biological Resources		M	L
	Cultural Archaeological Resources	L		M
Others	Emergency Response	L		H
	Staging	L		M
	Future Development	L		M
	Right-of-way		M	M
Notes:	1. SR-87/I-280 Aerial Alternative and Refined Program Alignment 2. Deep Tunnel Option, 5100m Tunnel & Thread the Needle Tunnel 3. Shallow Tunnel Option Risk/Impact Rating Low Medium High			

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I-280/SR-87 ALIGNMENT SIMULATION



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