



California High Speed Rail Environmental Impact Report

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Jay Yu

Engineering Manager

Department of Public Works

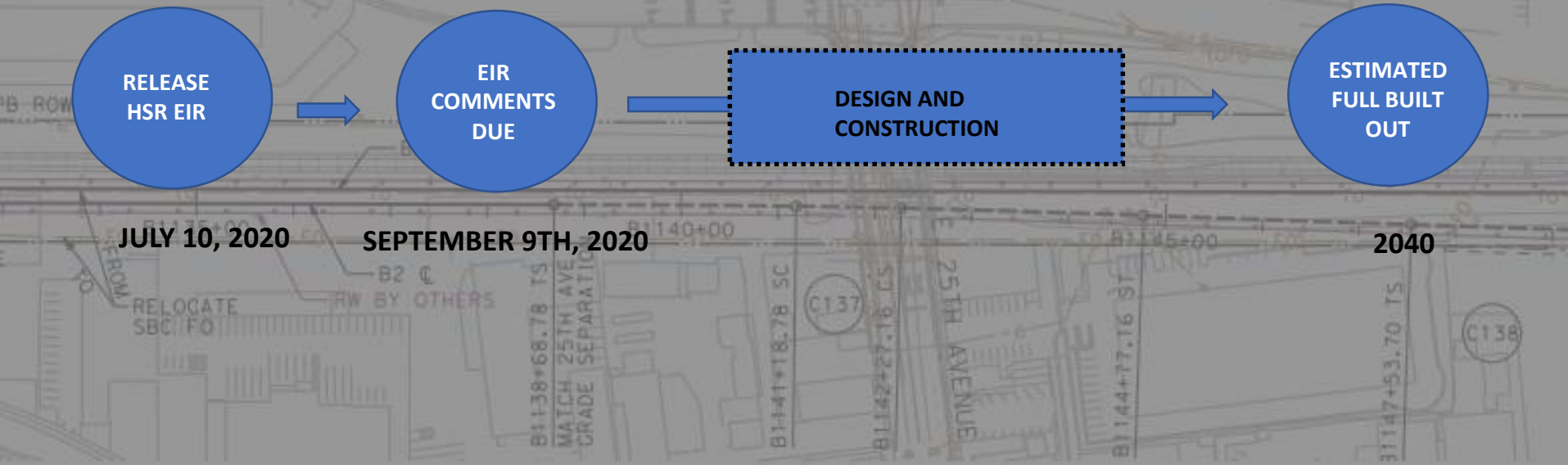
OVERVIEW

- Project Timeline
- HSR Project Alternatives
- Traffic Impacts
- Right of Way Impacts
- Safety Improvements and Noise

EIR CAN BE DOWNLOADED AT WWW.HSR.CA.GOV



TIMELINE OVERVIEW



Alternatives

• Alternative A

- Limits: San Jose to San Francisco
- 4 HSR trains per direction during peak hour
- No Passing Track
- Maximum Speed: 110 mph
- Fewer ROW Impact

• Alternative B

- Limits: San Jose to San Francisco
- 4 Trains Per Direction During Peak Hour
- 2.8 Miles of Passing Tracks in San Mateo
- Maximum Speed: 110 MPH
- Significant ROW Impacts



San Mateo Traffic Impacts

- 27 Intersections Studied
- 19 out of 27 intersections experience a delay
- 8 out of the 27 intersection experience delays upward of 20+ seconds



Level of Service Analysis

Intersection	Peak Hour	2040 No Project			Alternative A			Alternative B		
		Delay (seconds)	LOS		Delay (seconds)	LOS	Impact?	Delay (seconds)	LOS	Impact?
GX32	Transit Center Way/First Avenue	AM PM 48.5 (NB)* >180.0 (NB)*	E* F*		66.4 (NB)* >180.0 (NB)*	F* F*	Yes* No	66.4 (NB)* >180.0 (NB)*	F* F*	Yes* No
GX33	South Railroad Avenue/First Avenue	AM PM 114.3 (WB)* >180.0 (WB)*	F* F*		59.5 (WB)* >180.0 (WB)*	F* F*	No No	59.5 (WB)* >180.0 (WB)*	F* F*	No No
GX34	South B Street/Second Avenue	AM PM 68.8* 101.8*	E* F*		67.9* 89.3*	E* F*	No No	67.9* 89.3*	E* F*	No No
GX35	South B Street/Third Avenue	AM PM 63.3* 154.4*	E* F*		85.1* 167.1*	F* F*	Yes* Yes*	85.1* 167.1*	F* F*	Yes* Yes*
GX36	South Claremont Street/Third Avenue	AM PM 57.5* 167.7*	E* F*		81.3* 165.8*	F* F*	Yes* No	81.3* 165.8*	F* F*	Yes* No
GX37	South B Street/Fourth Avenue	AM PM 38.4 >180.0*	D F*		59.1* >180.0*	E* F*	Yes* Yes*	59.1* >180.0*	E* F*	Yes* Yes*
GX38	South Claremont Street/Fourth Avenue	AM PM 37.0 65.5*	D E*		37.3 60.7*	D E*	No No	37.3 60.7*	D E*	No No
GX39	South B Street/Fifth Avenue	AM PM 53.0 >180.0*	D F*		95.5* >180.0*	F* F*	Yes* Yes*	95.5* >180.0*	F* F*	Yes* Yes*
GX40	South Claremont Street/Fifth Avenue	AM PM 47.5* >180.0*	E* F*		49.0* >180.0*	E* F*	No No	49.0* >180.0*	E* F*	No No
GX41	South B Street/Ninth Avenue	AM PM 137.7* 156.7*	F* F*		148.0* >180.0*	F* F*	Yes* Yes*	148.0* >180.0*	F* F*	Yes* Yes*
GX42	South Railroad Avenue/Ninth Avenue	AM PM 72.6 (NB)* 138.0 (NB)*	F* F*		72.8 (NB)* 128.6 (NB)*	F* F*	No No	72.8 (NB)* 128.6 (NB)*	F* F*	No No
GX43	San Mateo Avenue/Scott Street	AM PM 58.5 (EB)* 61.9 (EB)*	F* F*		67.1 (EB)* 63.2 (EB)*	F* F*	Yes* No	67.1 (EB)* 63.2 (EB)*	F* F*	Yes* No
GX44	South Delaware Street/East Third Avenue	AM PM 128.7* >180.0*	F* F*		170.6* >180.0*	F* F*	Yes* Yes*	170.6* >180.0*	F* F*	Yes* Yes*
GX45	South Delaware Street/East Fourth Avenue	AM PM 27.4 37.2	C D		26.9 36.8	C D	No No	26.9 36.8	C D	No No

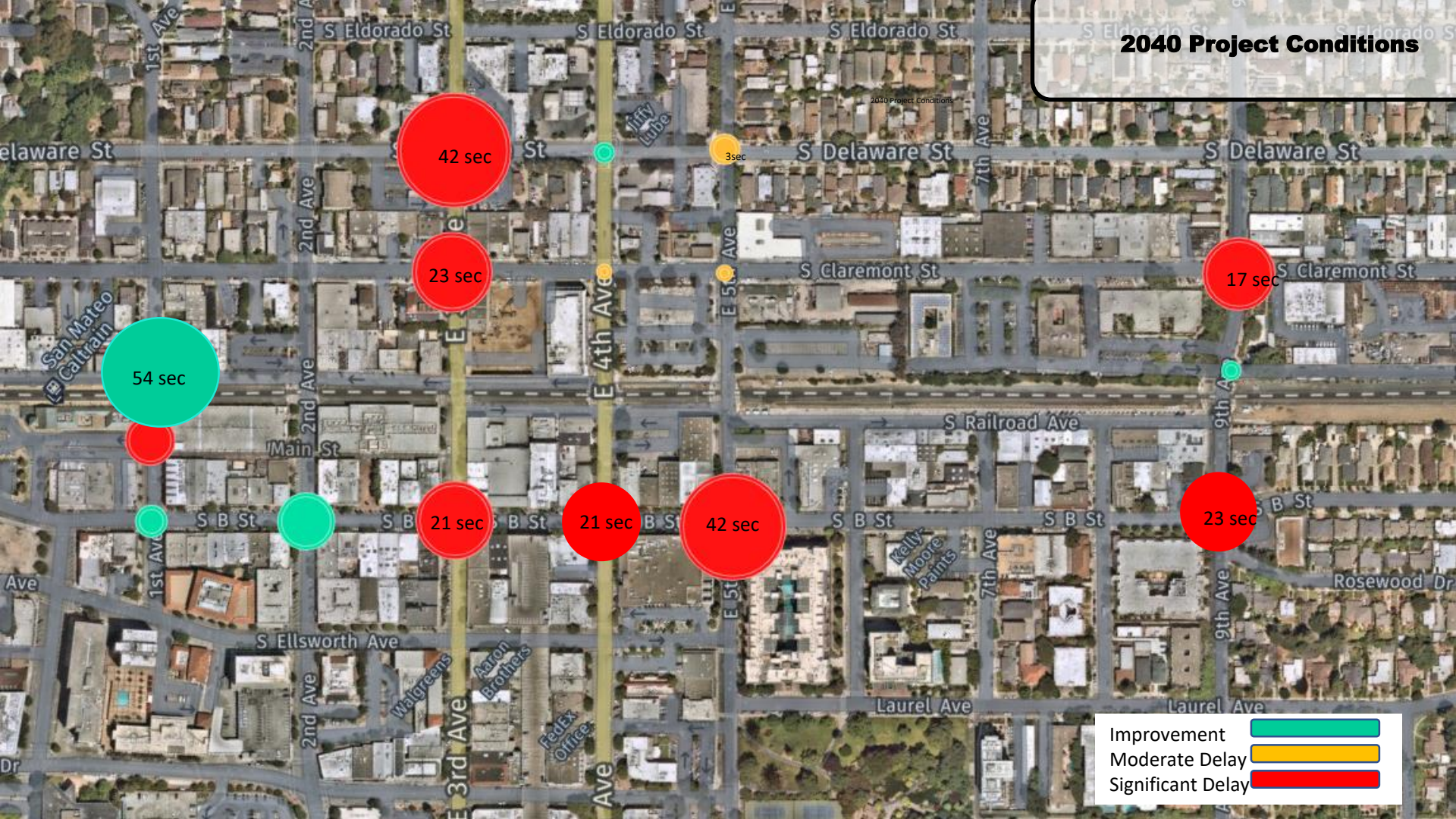
GX29	North Ellsworth Avenue/East Bellevue Avenue	AM PM 7.7 (NB) 5.9 (NB)	A A		6.1 (SB) 5.5 (NB)	A A	No No	6.1 (SB) 5.5 (NB)	A A	No No
	North Claremont Street/East Bellevue Avenue	AM PM 8.5 6.1	A A		9.8 6.3	A A	No No	9.8 6.3	A A	No No
	South B Street/First Avenue	AM PM 82.5* 98.9*	F* F*		75.5* 94.0*	E* F*	No No	75.5* 94.0*	E* F*	No No

Intersection	Peak Hour	2040 No Project		Alternative A			Alternative B		
		Delay (seconds)	LOS	Delay (seconds)	LOS	Impact?	Delay (seconds)	LOS	Impact?
GX46	South Delaware Street/East Fifth Avenue	AM PM 116.7* >180.0*	F* F*	119.8* >180.0*	F* F*	No Yes*	119.8* >180.0*	F* F*	No Yes*
GX47	South Claremont Street/Ninth Avenue	AM PM 93.3* 97.8*	F* F*	109.8* 109.0*	F* F*	Yes* Yes*	109.8* 109.0*	F* F*	Yes* Yes*
San Mateo to Palo Alto Subsection									
Intersections Near At-Grade Crossings Along Track Alignment									
GX48	South Delaware Street/East 25th Avenue	AM PM 56.1* 12.7	E* B	45.2 12.7	D B	No No	45.2 12.7	D B	No No
GX49	Palm Avenue/East 25th Avenue	AM PM >180.0 (SB)* >180.0 (SB)*	F* F*	>180.0 (SB)* >180.0 (SB)*	F* F*	No No	>180.0 (SB)* >180.0 (SB)*	F* F*	No No
GX50	El Camino Real/East 25th Avenue	AM PM 179.7* >180.0*	F* F*	>180.0* >180.0*	F* F*	No No	>180.0* >180.0*	F* F*	No No
GX51	El Camino Real/31st Avenue	AM PM 78.2* >180.0*	E* F*	77.1* >180.0*	E* F*	No No	77.1* >180.0*	E* F*	No No
GX52	El Camino Real SB Ramps/Hillsdale Boulevard	AM PM 67.4* 93.7*	E* F*	70.2* 94.5*	E* F*	No No	70.2* 94.5*	E* F*	No No
GX53	El Camino Real NB Ramps/Hillsdale Boulevard	AM PM 23.7 49.8	C D	22.0 50.7	C D	No No	22.0 50.7	C D	No No
GX54	Curtiss Street/East Hillsdale Boulevard	AM PM 104.5* 173.3*	F* F*	103.3* 174.8*	F* F*	No No	103.3* 174.8*	F* F*	No No

Improvement
 Moderate Delay
 Significant Delay
 No Change



2040 Project Conditions



Staff Estimate of Gate Downtime Per Peak Hour

Average Gate Down Time	2040 Baseline (6 Caltrain + 4 HSR per direction)	Moderate Growth (8 Caltrain + 4 HSR per direction)	High Growth (12 Caltrain + 4 HSR per direction)
HSR EIR Citywide Average Estimate ⁽¹⁾	20 min	N/A	N/A
2040 Caltrain Business Plan Average ⁽²⁾	16.5 min	20.4 min	26.7 min
Range ⁽³⁾	(14 – 19 min)	(16 min – 25 min)	(22 – 32 min)

(1) More information can be found in HSR EIR Volume 1 – Chapter 3 – Table 3.2-7

(2) Information provided by the 2040 Caltrain Business Plan

(3) Includes 9 at grade crossings (Peninsula, Villa Terrace, E. Bellevue, 1st – 5th Avenue and 9th Avenue



CEQA Vehicle Miles Traveled (VMT) in San Mateo County

4.963 Million
Miles/YR

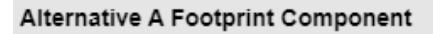


4.872 Million
Miles/YR

Even though there are operational level of service impact as a result of this project. Under CEQA, LOS is no longer an impact. Therefore the project does not provide any mitigations.

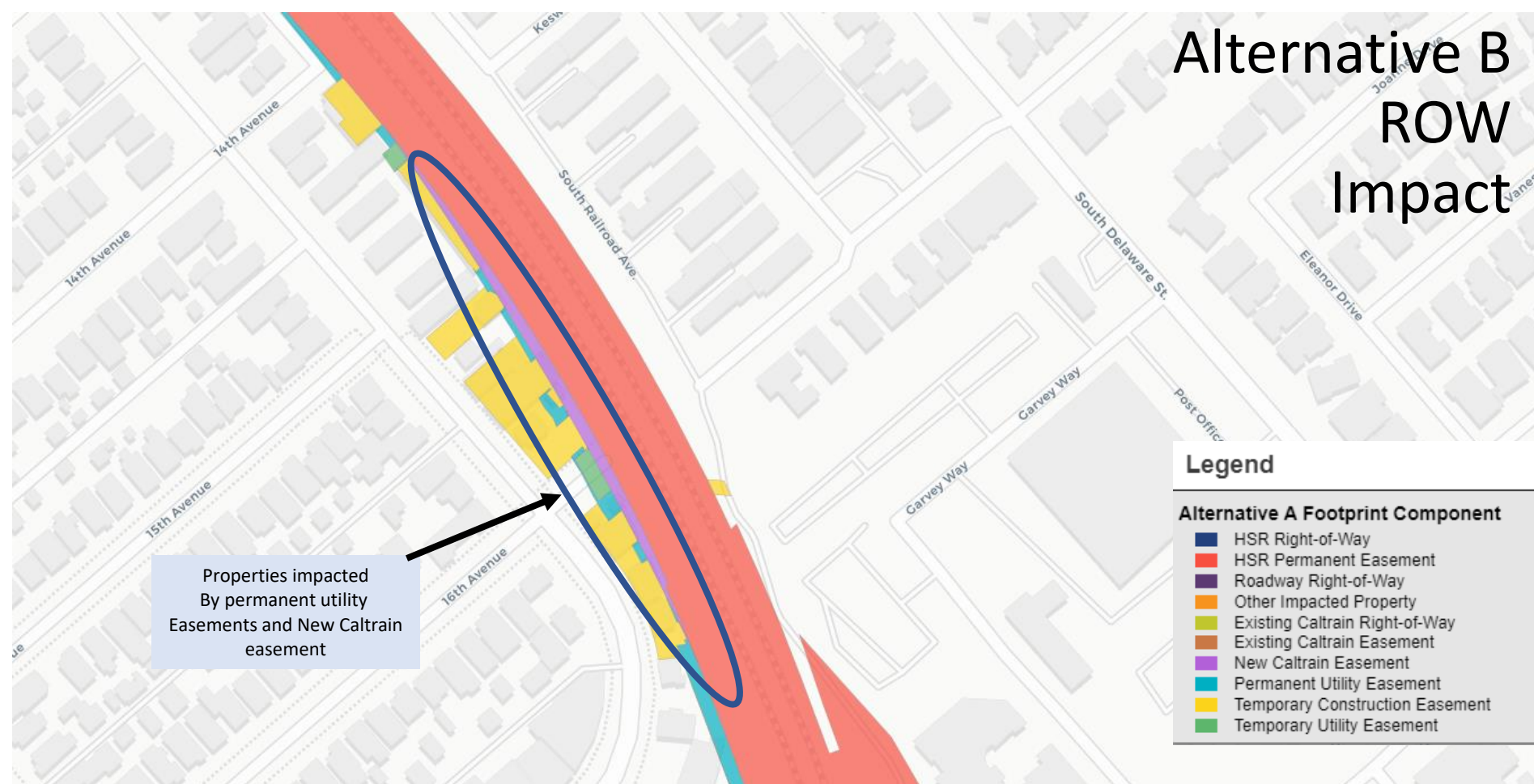


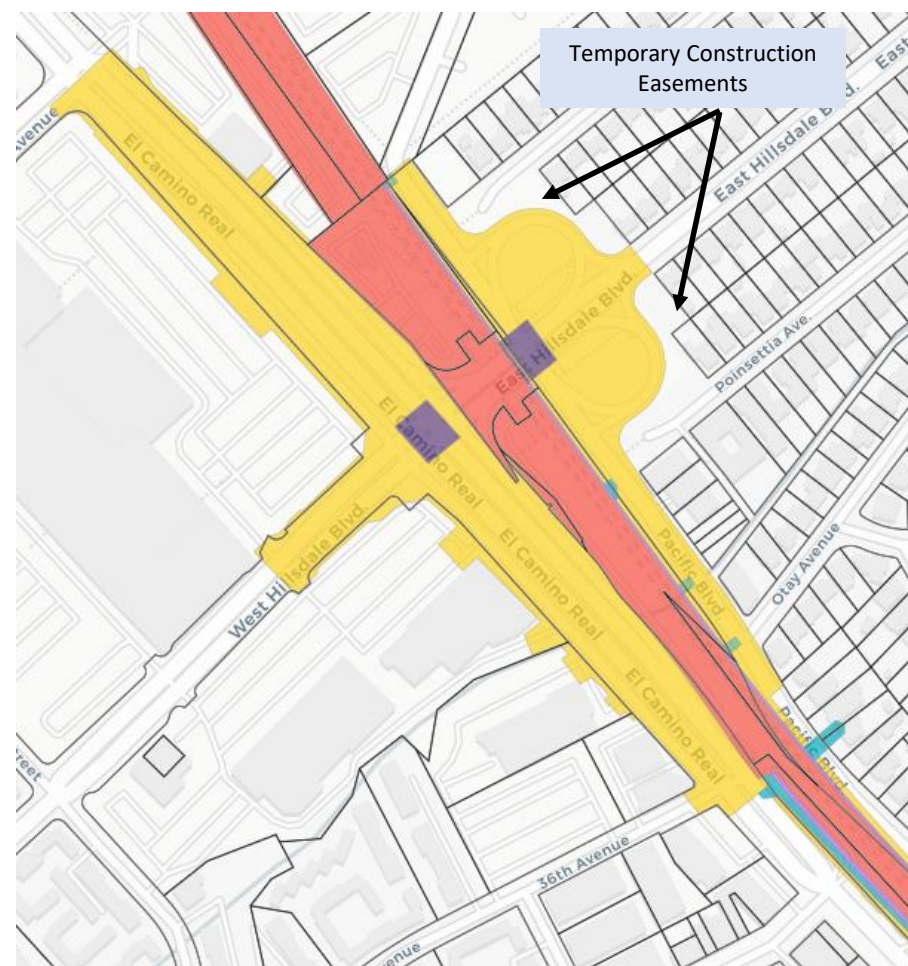
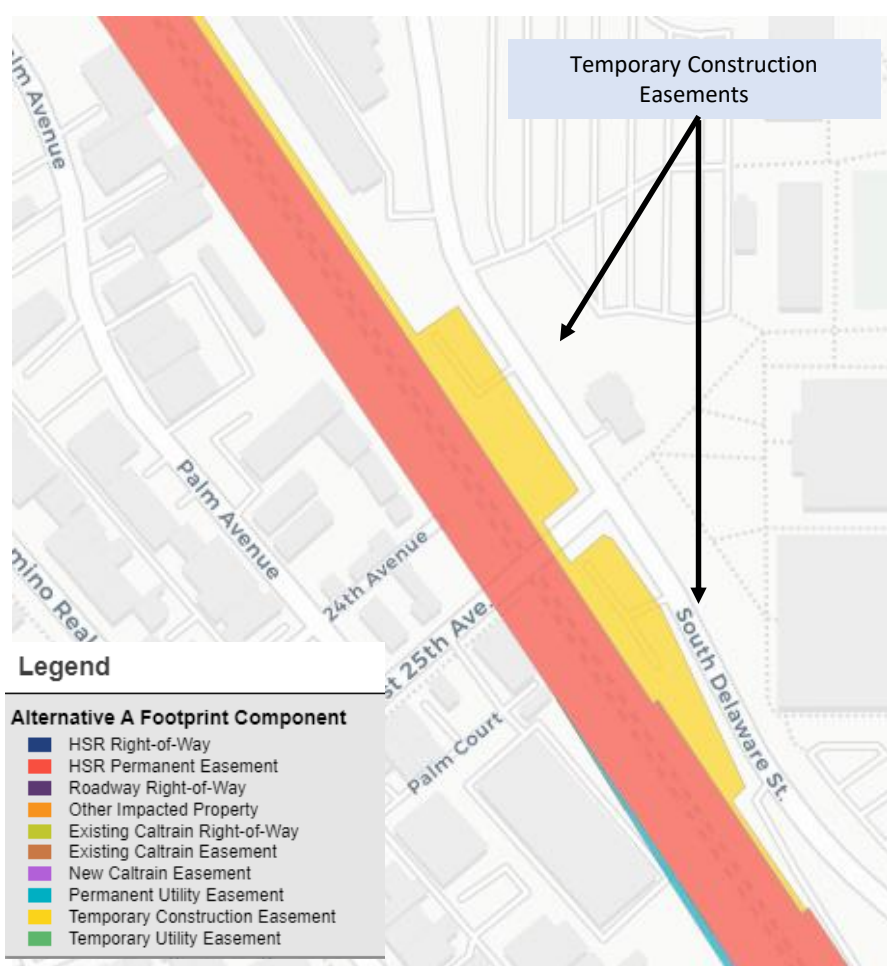
Legend



- HSR Right-of-Way
- HSR Permanent Easement
- Roadway Right-of-Way
- Other Impacted Property
- Existing Caltrain Right-of-Way
- Existing Caltrain Easement
- New Caltrain Easement
- Permanent Utility Easement
- Temporary Construction Easement
- Temporary Utility Easement

Alternative B ROW Impact





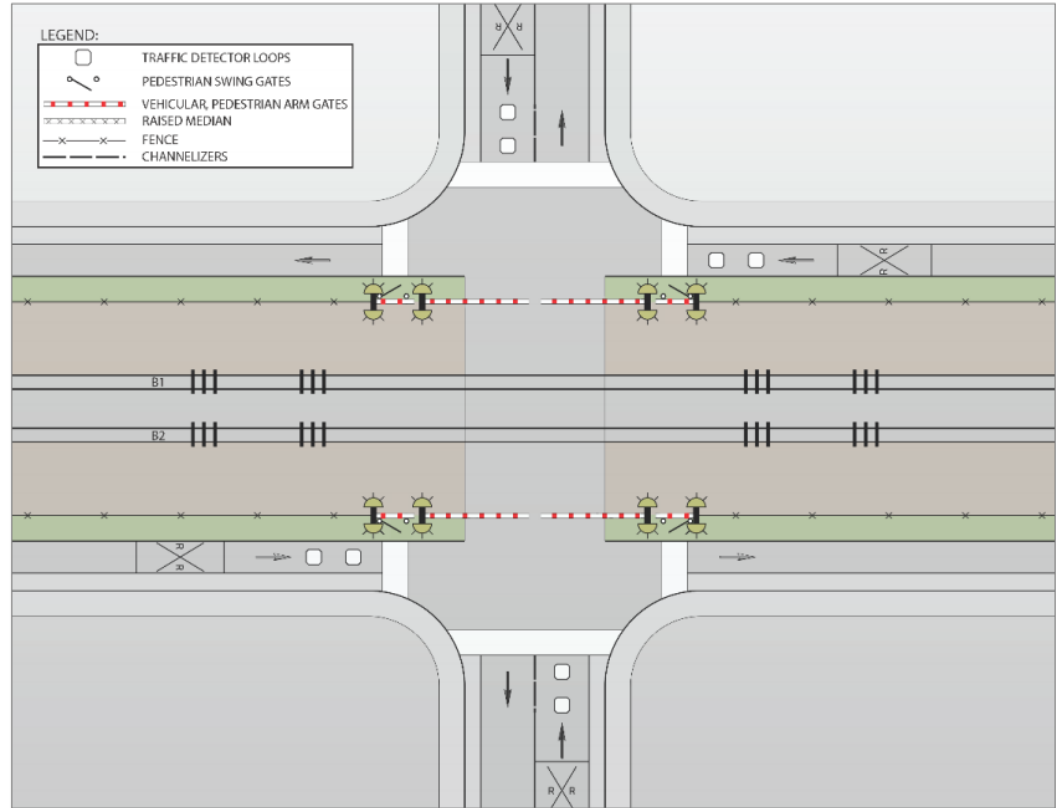
More Information about
right-of-way impacts at:

WWW.MAPHSRNORCAL.ORG/SANFRANCISCO-SANJOSE/

Safety Improvements and Noise

- Installation of quad gates at nine (9) existing at-grade crossings
- Installation of these modifications does not automatically make the crossings a quiet zone.
- City will still need to go through the quiet zone process with the Federal Rail Administration.
- Existing train horn 96db
- Future HSR trains 75db

Application A





Thank You

Jay Yu

Engineering Manager

jiyu@cityofsanmateo.org

650-522-7323

www.cityofsanmateo.org/publicworks