

# San Francisco Freeway Corridor Management System Study Update

## Board Agenda Item 13



**SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY**

**April 10, 2018**

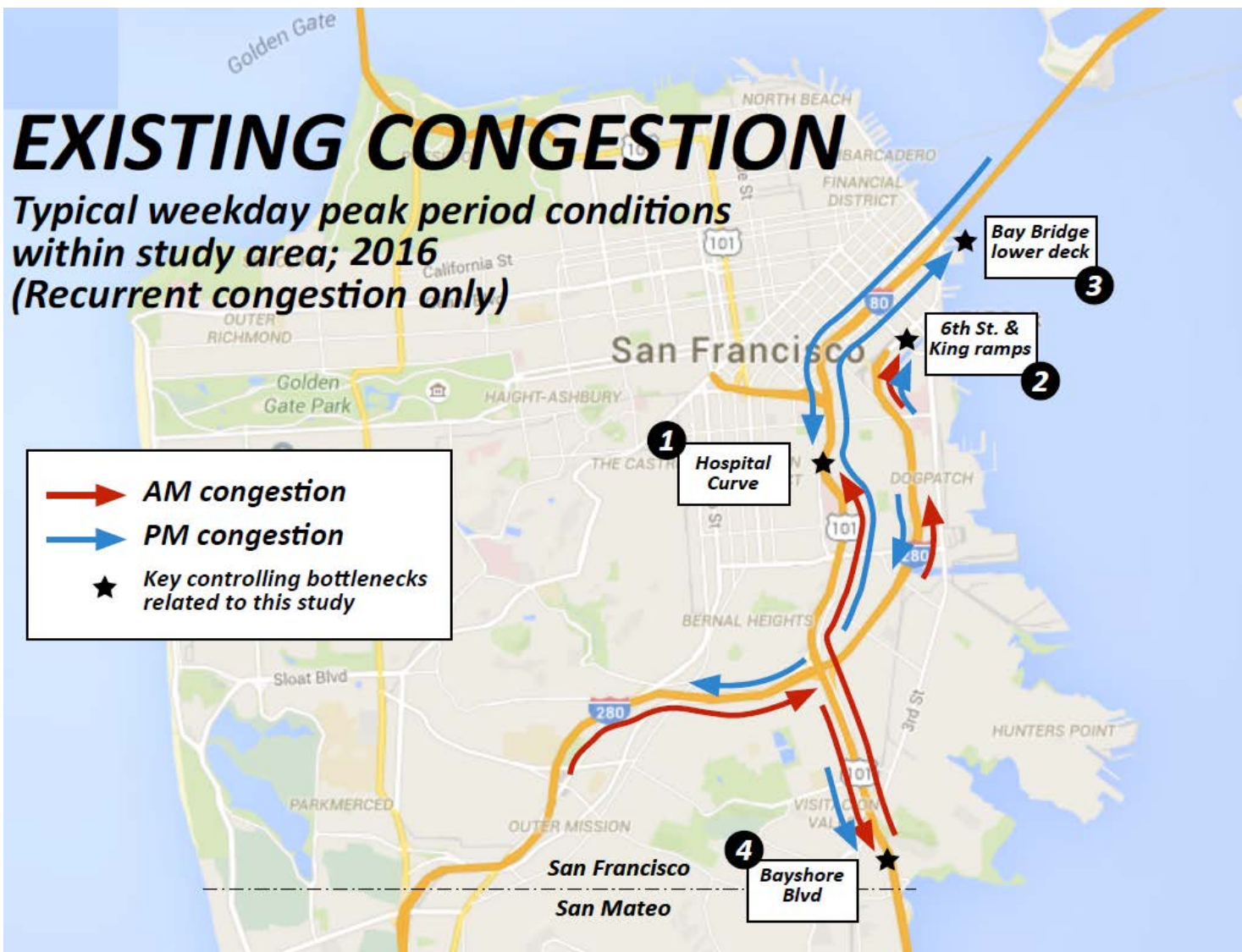


# Addressing Congestion on San Francisco's Freeways



Photo by Sergio Ruiz




# Existing Congestion



# Projected 2020 Congestion

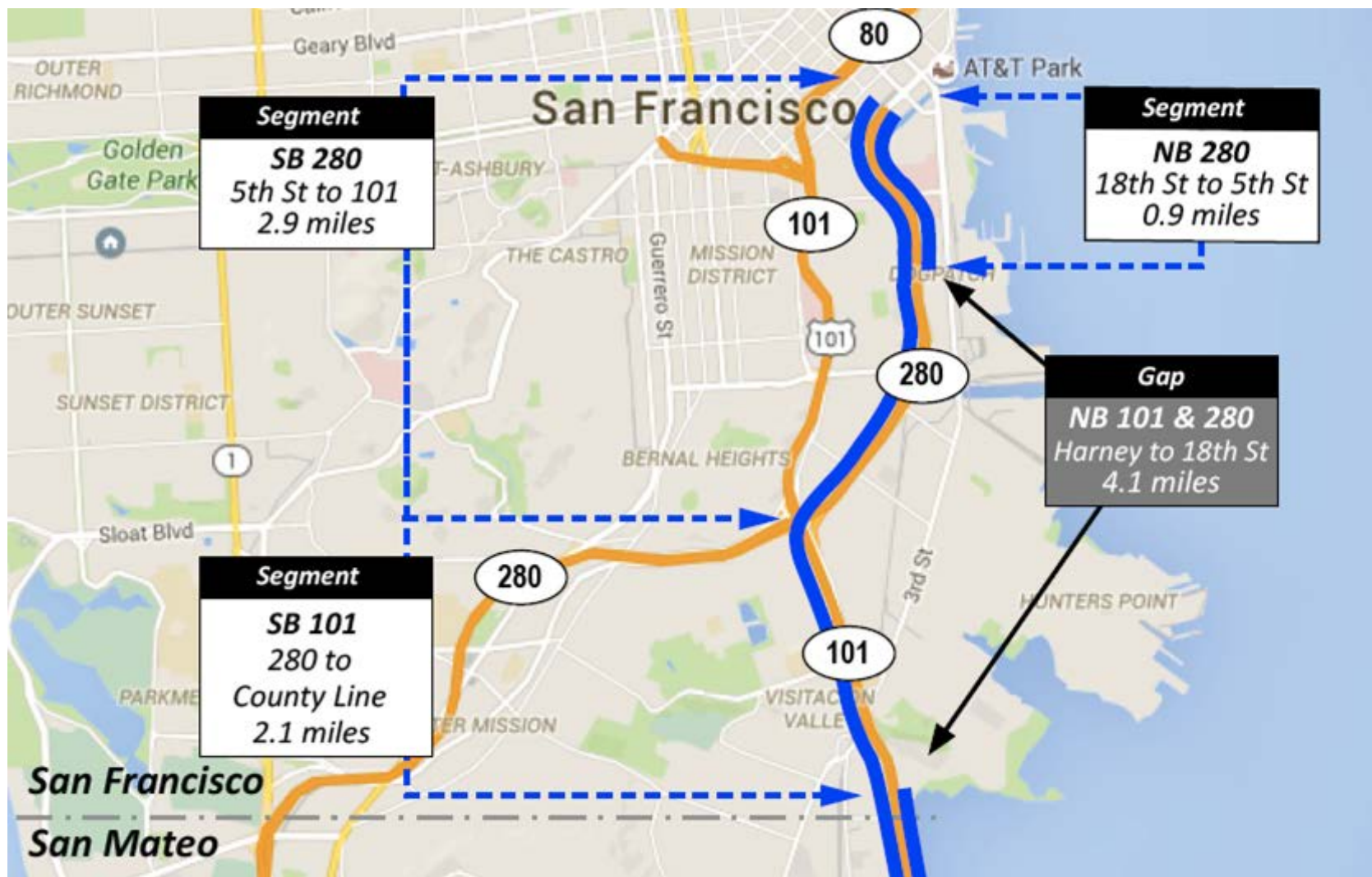
## No-Build Alternative Year 2020 Congestion Locations

Expected weekday peak period conditions within study area

-  AM congestion
-  PM congestion
-  Key controlling bottlenecks related to this study

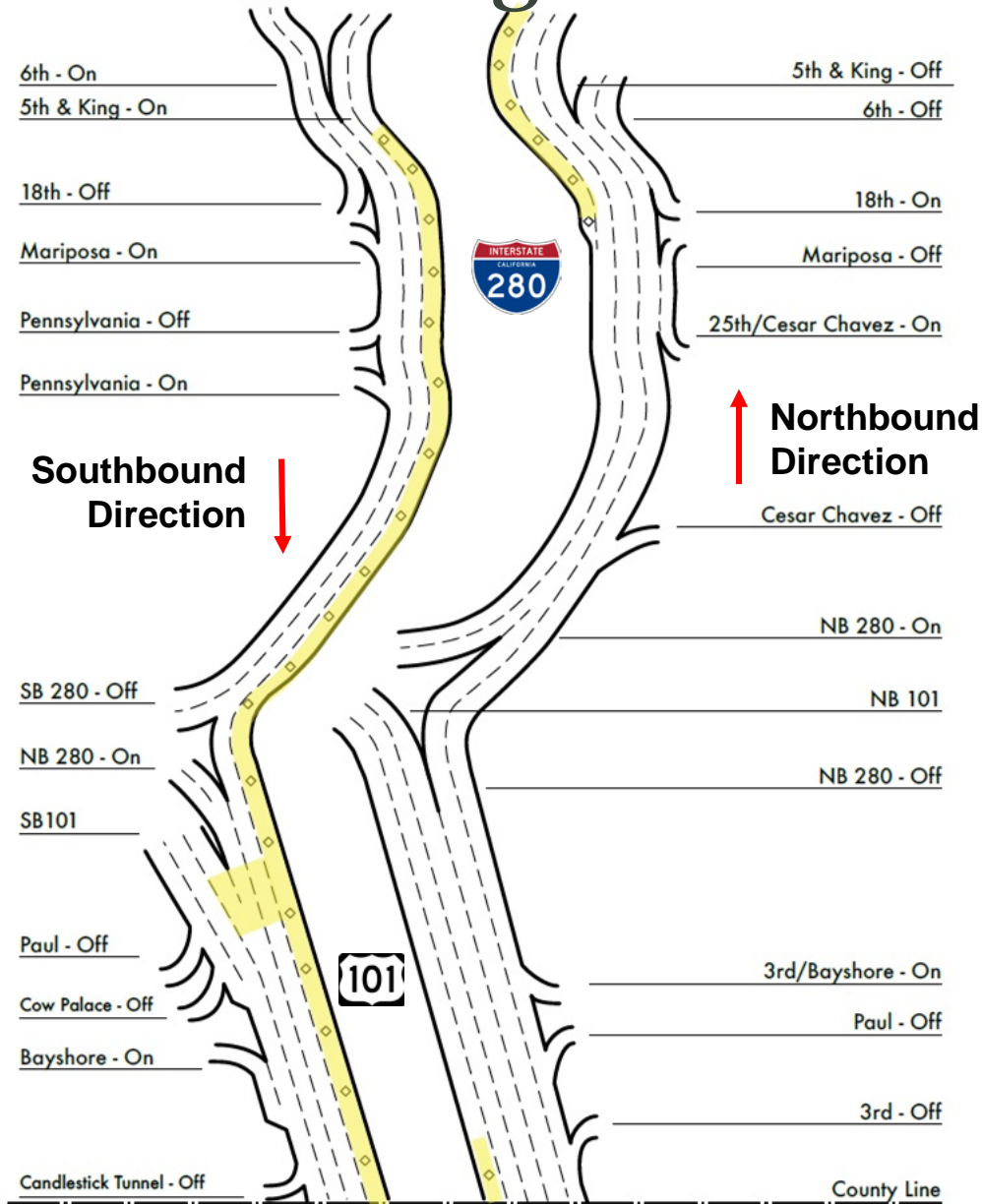


# Potential Project Configuration








# Potential Lane Configuration



# Performance Analysis

- Assessed three different operating policies
  -  HOV2+: Carpools of 2 or more people
  -  HOV3+: Carpools of 3 or more people
  -  Express Lane 3+ (EL3+): Carpools of 3 or more people, with option for others to buy in to the lane
- Key Assumptions
  - Transit service improvements
  - San Mateo County lanes



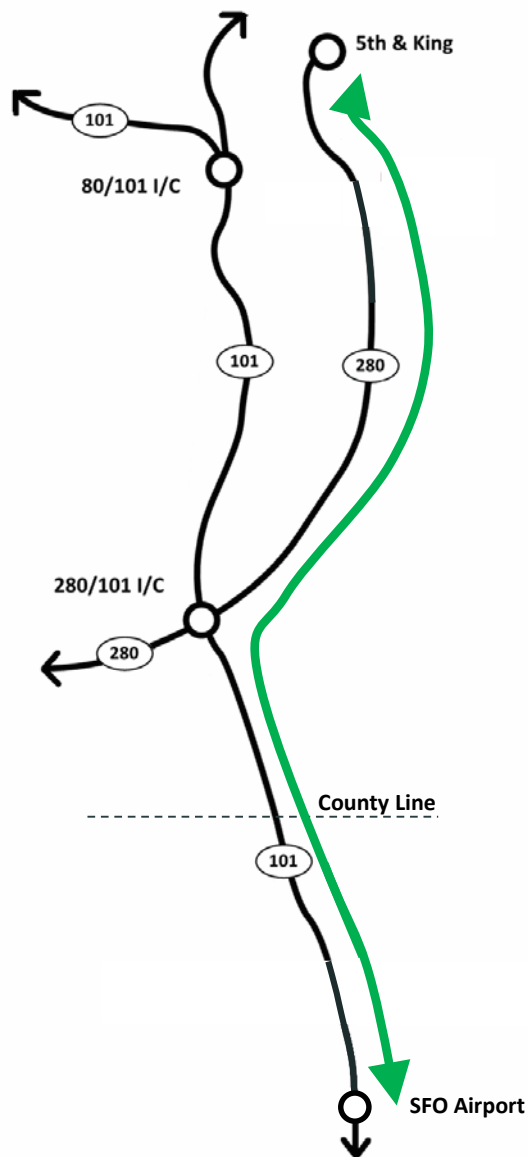
# Performance Analysis

- **Analysis Outcomes**
  - Travel demand by mode
  - Travel speeds and delays
  - Number of people moved within the corridor
- **Analysis Limitations**
  - Peak hours only
  - Limited knowledge of who makes what choices

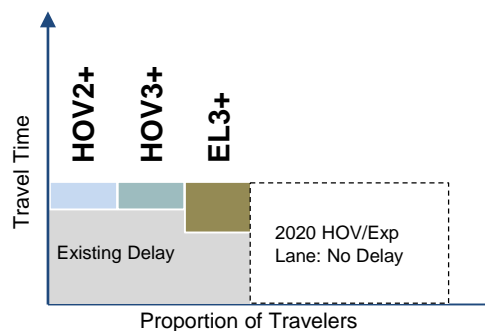




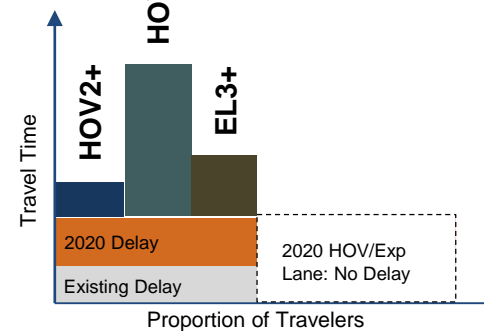
# Results: Travel Time Between I-380 Interchange and 5th/King Terminus



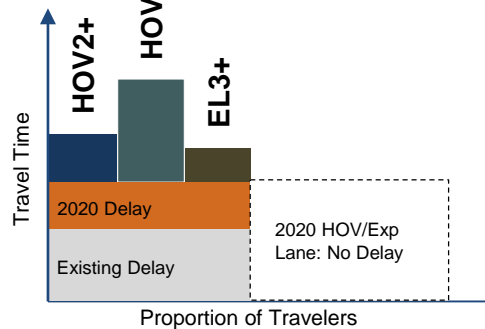
### Northbound AM Peak



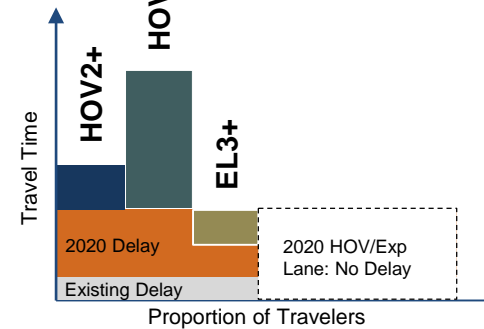
### Southbound AM Peak



### Northbound PM Peak

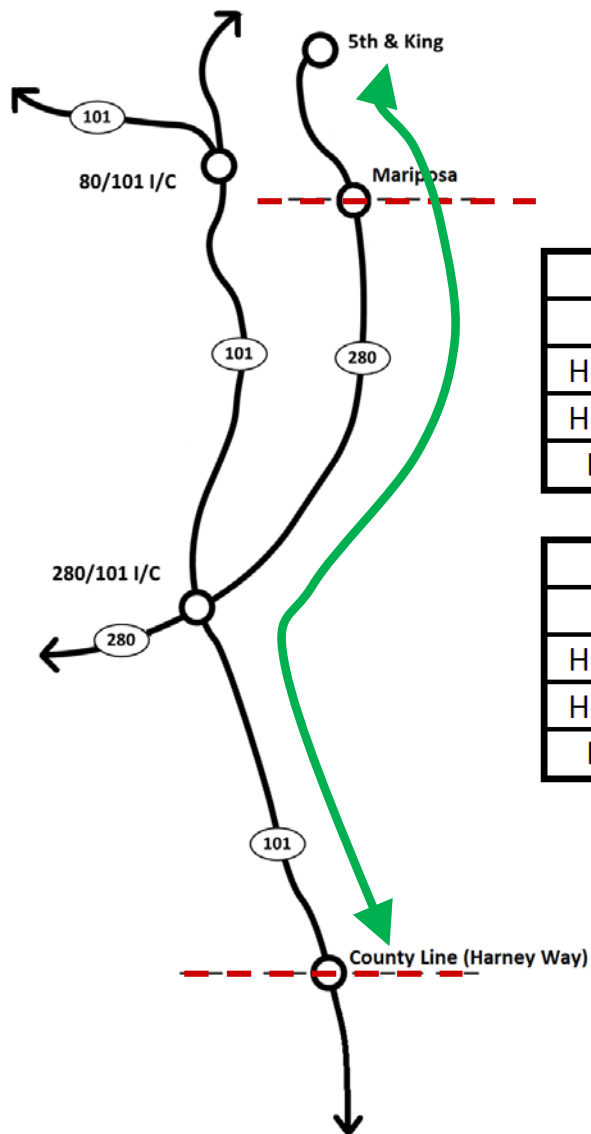


### Southbound PM Peak





# Results: Percentage Change in Person-throughput Relative to 2020 No-Build Scenario



Northbound AM Peak		
	County Line	Mariposa
HOV2+	14%	40%
HOV3+	-12%	33%
EL3+	7%	24%

Southbound AM Peak		
	County Line	Mariposa
HOV2+	17%	16%
HOV3+	-5%	7%
EL3+	11%	2%

Northbound PM Peak		
	County Line	Mariposa
HOV2+	13%	18%
HOV3+	-9%	10%
EL3+	14%	8%

Southbound PM Peak		
	County Line	Mariposa
HOV2+	19%	43%
HOV3+	-8%	19%
EL3+	26%	43%



# Findings/Recommendation

- **Findings**
  - Lane conversion from general purpose to carpool or express lane is feasible in San Francisco
  - HOV2+ and EL3+ are potentially feasible operational policies for this configuration
  - HOV3+ is not a feasible policy with lane conversion
- **Recommendation**
  - Advance study of lane conversion alternative to Caltrans project development



# Outreach Update

- **Community Group meetings**
  - Focused on communities near freeways
  - 13 meetings over past three months
  - Introduce concepts and strategies
  - Ask what's important to consider
- **Advocacy Organization meetings**
  - 9 meetings in mid/late 2017



# Next Steps / Schedule

- **Report release/Board adoption:  
Mid-2018**
- **Caltrans scoping completion: late  
2018/ early 2019**
- **Ongoing community outreach**

Thank You.

Questions?

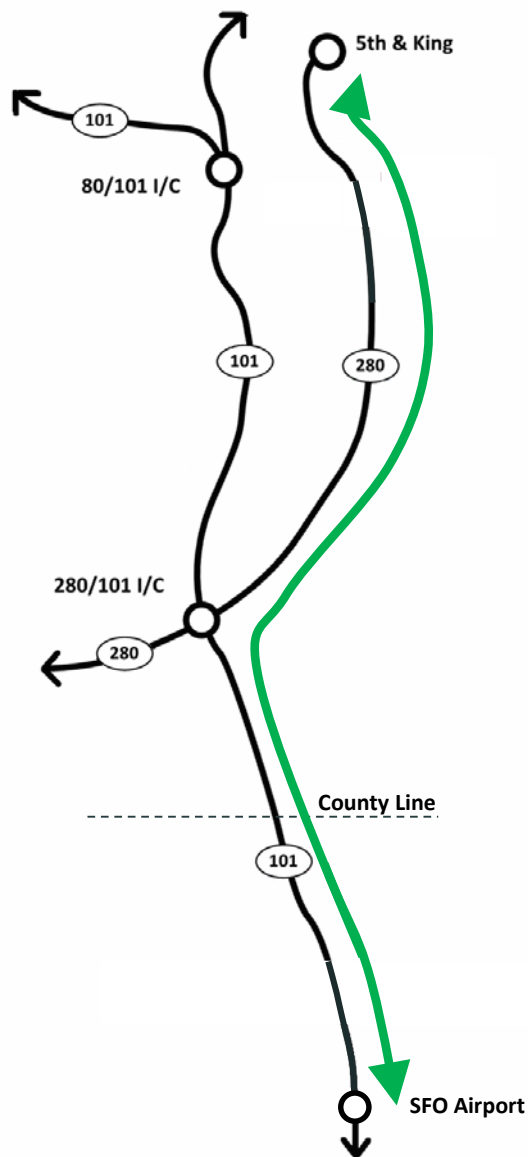
[sfcta.org/freeways](https://sfcta.org/freeways)



SAN FRANCISCO COUNTY TRANSPORTATION  
AUTHORITY



# Results: Travel Time



Northbound AM Peak		
	GP	ML
HOV2+	-2.2	-7.3
HOV3+	-2.3	-7.4
EL3+	-2.8	-7.0

Southbound AM Peak		
	GP	ML
HOV2+	2.6	-5.7
HOV3+	10.3	-5.7
EL3+	4.1	-5.7

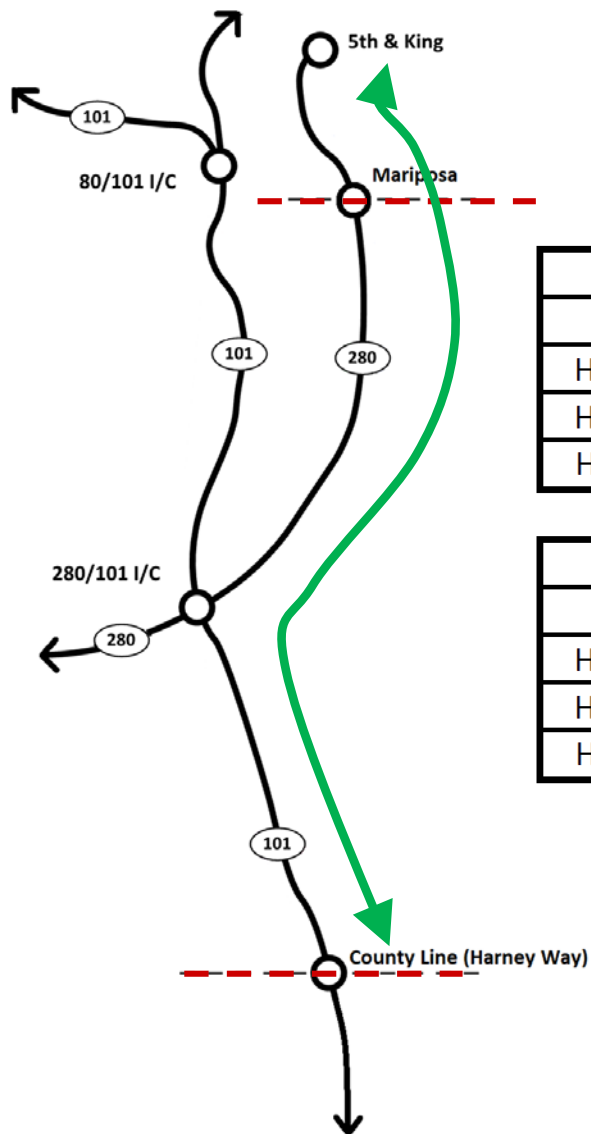
Northbound PM Peak		
	GP	ML
HOV2+	2.9	-8.7
HOV3+	5.6	-8.8
EL3+	1.6	-8.5

Southbound PM Peak		
	GP	ML
HOV2+	1.8	-3.7
HOV3+	13.6	-3.7
EL3+	-3.0	-3.7

Above values are in minutes more or less than baseline 2020 travel times.



# Results: Person Throughput



Northbound AM Peak		
	County Line	Mariposa
HOV2	1300	1900
HOV3	-1100	1600
HOT3	600	1100

Southbound AM Peak		
	County Line	Mariposa
HOV2	1700	600
HOV3	-500	200
HOT3	1100	100

Northbound PM Peak		
	County Line	Mariposa
HOV2	1300	900
HOV3	-900	500
HOT3	1400	400

Southbound PM Peak		
	County Line	Mariposa
HOV2	1700	1700
HOV3	-700	700
HOT3	2200	1700

Above values are in minutes more or less than baseline 2020 person throughput






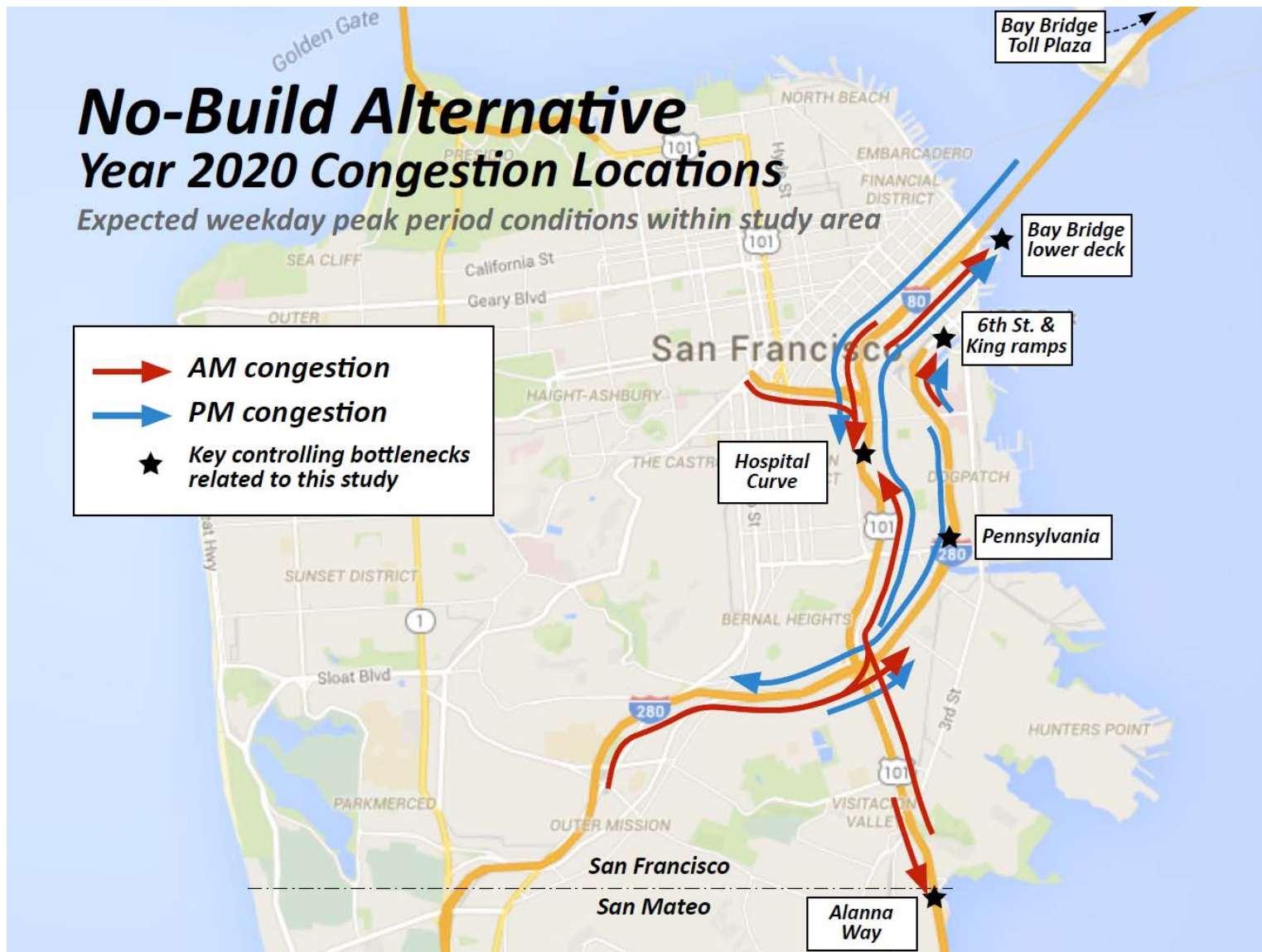
# Projected 2020 Congestion



## **No-Build Alternative** **Year 2020 Congestion Locations**

*Expected weekday peak period conditions within study area*

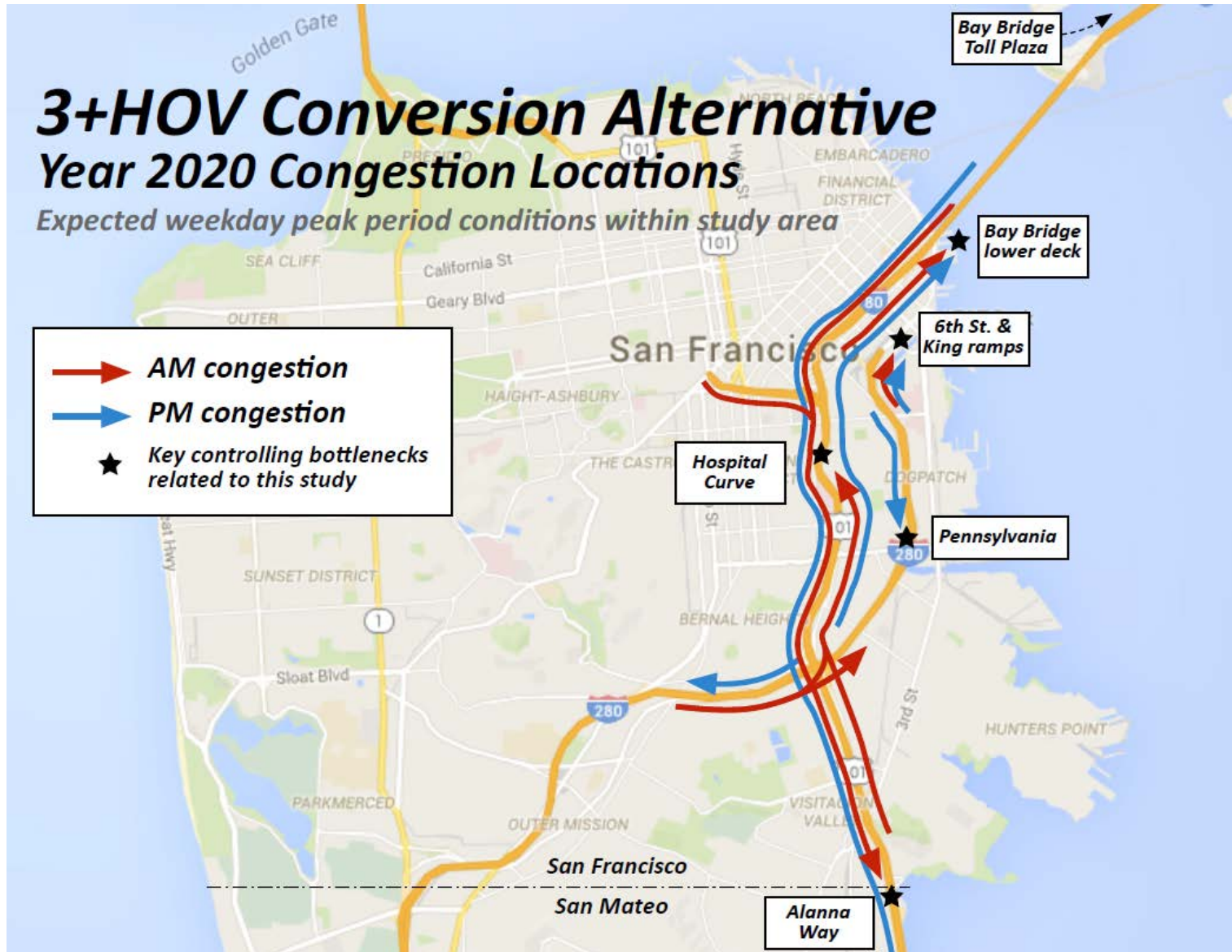
-  **AM congestion**
-  **PM congestion**
-  **Key controlling bottlenecks related to this study**



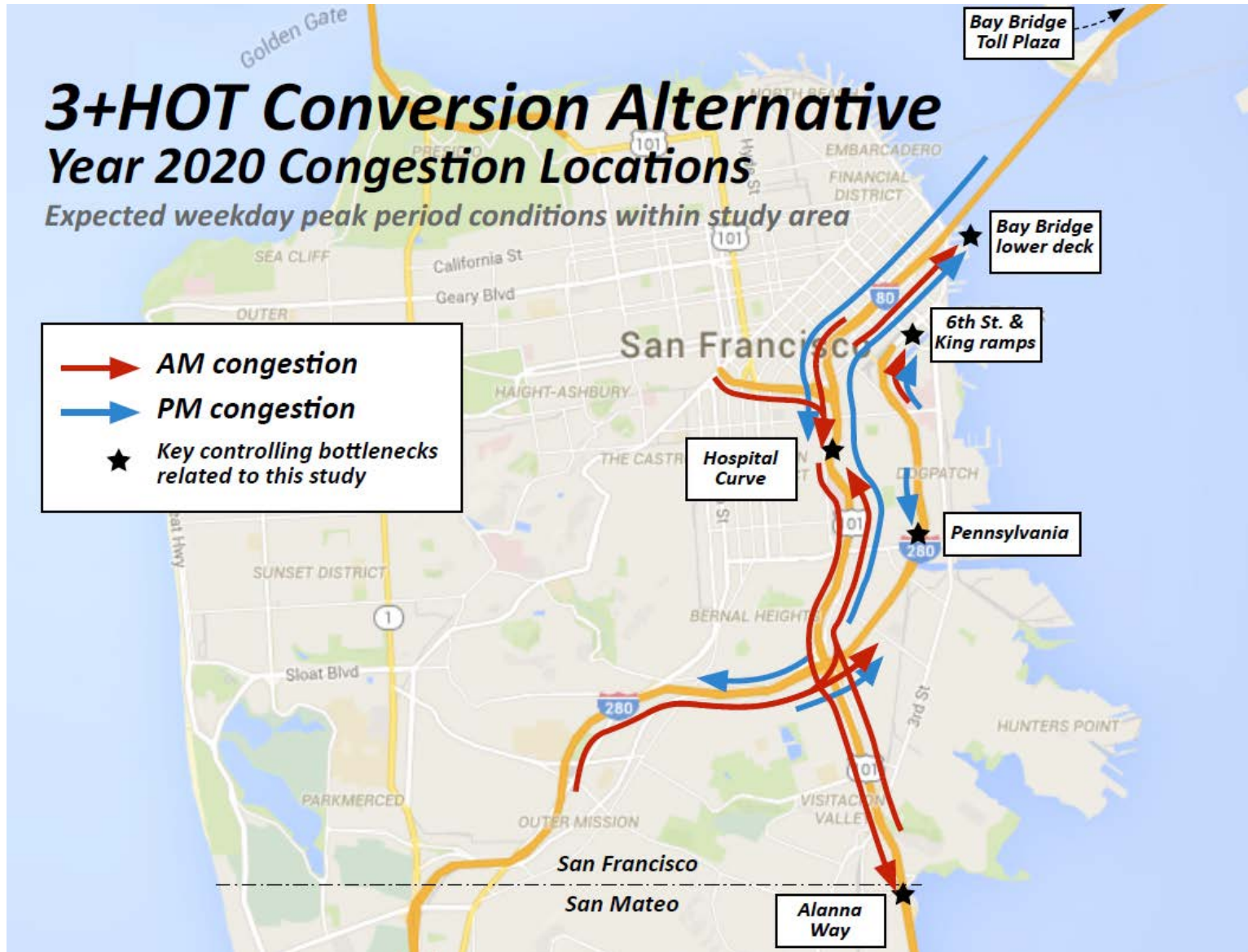
# HOV2+ Projected General Purpose Congestion



# HOV3+ Projected General Purpose Congestion



# EL3+ Projected General Purpose Congestion



# Outreach Contacts



<b><u>Community Contacts</u></b>
<b>Organization</b>
API Council
Bayview - Hunter's Point CAC (Full Meeting)
Bernal Heights Neighborhood Center
Chinatown Community Development Center
Chinatown TRIP
Mission Bay CAC
New Mission Terrace Association
Portola Neighborhood Association
Potrero Hill Boosters
Si Se Puede
South Beach, Rincon, Mission Bay Neighborhood Assoc (Full Meeting)
Southeast Community Facility
TJPA CAC
<b><u>Citywide Contacts &amp; Advocacy Groups</u></b>
<b>Organization</b>
SF BOMA
Bay Area Council
SF Chamber of Commerce
SF Bicycle Coalition
SF Transit Riders
SPUR
TransForm
Urban Habitat
WalkSF