



# **The Role of Cities in Planning Transportation Megaprojects**

**SPUR Oakland, November 28, 2018**

**+ Elizabeth Deakin / UC Berkeley**

**+ Eric Eidlin / City of San Jose**

**+ Doug Johnson / City of San Francisco**



# The Role of Cities in Planning Transportation Megaprojects

- Elizabeth Deakin
  - What is a megaproject? What makes them so challenging?
  - Challenge of transportation governance in megaregions
- Eric Eidlin: San Jose Diridon Station
- Doug Johnson: Rail Alignment and Benefits (RAB) Study
- Q&A

# The Urban Century

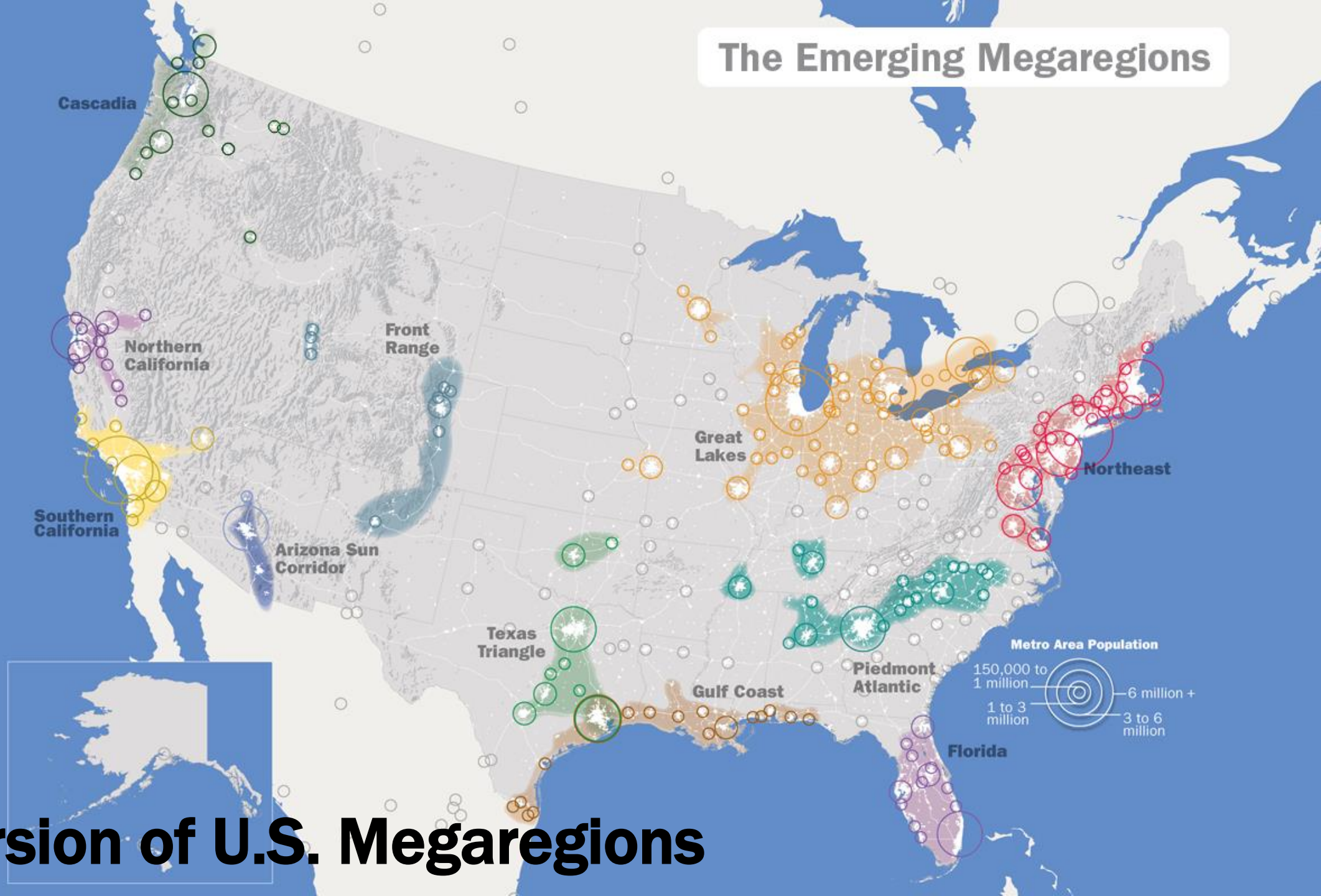


- Majority of world population is urban, but “urban” (includes many small places)
- Metropolitan regions are key drivers of economic growth- concentrate human and physical capital, resources, entrepreneurship
- Megaregions are leaders in innovation, opportunity
- “Going glocal” – integrating global and local knowledge
- Cities and regions as innovation testbeds

Credits: NASA



# The Emerging Megaregions



One Version of U.S. Megaregions

# Challenges

- Global warming
- Public safety
- Disparities in wealth, health, opportunity
- Environmental quality
- Diversity and inclusion
- Housing and infrastructure
- Governance, effective management

**Can we alleviate threats and capture opportunities?**



# Megaprojects: A Major Challenge

Projects that are exceptionally costly, controversial, context-specific, challenging to design, complex to construct

- Often strain institutional capacities
- Takes skill to keep them from becoming catastrophic, career-ending
- Examples: Channel Tunnel, Eastern Span - Bay Bridge, London congestion pricing, many urban rail projects





# Today

- Cases of big projects led by cities
- Urban setting poses challenges but also major opportunities for creating more livable, vibrant places
- Many elements means many stakeholders
  - need to be creative in managing the process



# Transportation Megaprojects

- Cities want them. But don't want the negative impacts.
- They have profound place-defining effects on the communities in which they are built. But their design often fails to account for this.
- Many fail to put the user first and are not developed to maximize integration.



# CONNECTING CALIFORNIA

CALIFORNIA	2015	2065	GROWTH
Population	39 M	52 M	+ 33%
Employees	16 m	28 m	+ 77%

Option:  
MAXIMIZE RAIL  
OR  
EXPAND AIRPORTS/HWYS



4,300 lane miles + 115 Airport gates would be needed to create equivalent capacity of high speed rail

545 Million TRIPS between regions In 2040. That is 50% more than 2010

California will grow 260,000 NEW RESIDENTS EVERY YEAR



# Diridon Integrated Station Concept Plan

An aerial photograph of San Jose, California, showing the city's urban landscape and surrounding mountains. Overlaid on the image is a concept plan for the Diridon Integrated Station. The plan features a large, modern building complex with a blue and white facade, situated near the existing Diridon Station. The plan also shows a new high-speed rail line running through the city, with several stations and a large parking lot. The background shows the city's skyline and the surrounding mountains.

A Joint Effort of  
The City of San Jose, VTA, Caltrain,  
and the California High-Speed Rail Authority  
In collaboration with Arcadis & Bentham Crouwel



# Why is Diridon Station so Important?

Planned Major Regional Rail  
Services San Jose Diridon

 **High-Speed Rail**



 **BART**



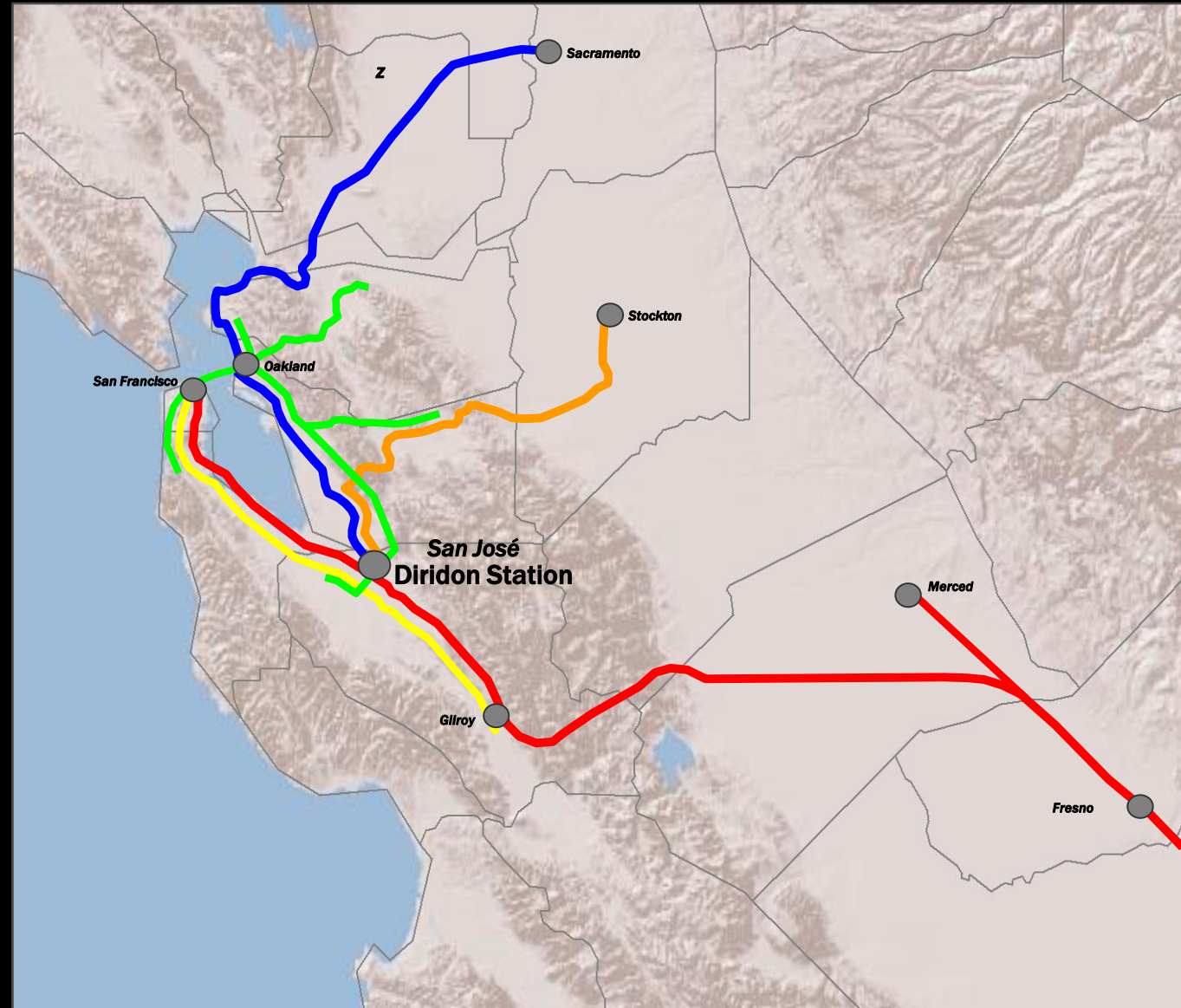
 **Caltrain**



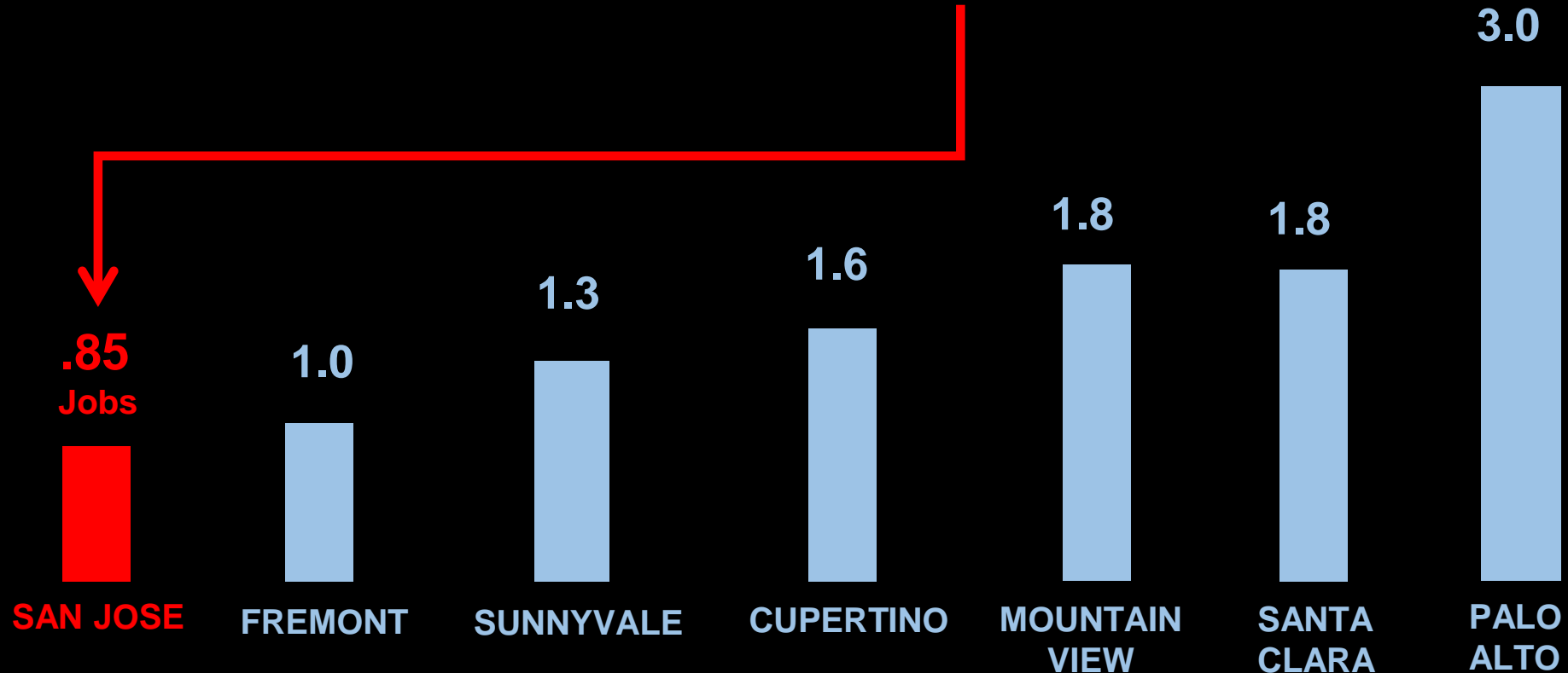
 **ACE**



 **Capitol**



FOR EVERY **1** EMPLOYED RESIDENT IN  
SAN JOSE, THERE ARE ONLY





# Envision

## San José 2040



### GENERAL PLAN

Adopted November 1, 2011  
As Amended on February 27, 2018

- Attract more activity, especially employment, to downtown and transit-rich locations
- Reduce driving



### DIRIDON STATION AREA PLAN

FINAL PLAN REPORT  
JUNE 2014

- Establish Diridon Area as major destination
- Foster a lively public realm that supports walking and bicycling

**Diridon vs. Other  
CA Transportation  
Facilities  
Passengers/Day**

**DIRIDON TODAY**

**17k**

**DIRIDON 2040**

**140k**

Source  
VTA/AECOM

**L.A. UNION TODAY**

**110k**

**SF TRANSBAY FUTURE**

**110k**

Source  
TJPA

**SFO TODAY**

**145k**



**Netherlands' busiest train station, nestled in heart of historic mid-sized city**

**300,000 people per day in station**

**25,000 bike parking spaces**

**500 car parking spaces**

**Utrecht**





“A station is a public space with a roof on top”  
– Jan Benthem







**CAHSR Aerial  
Station Proposal**

# Diridon Integrated Station Concept Plan

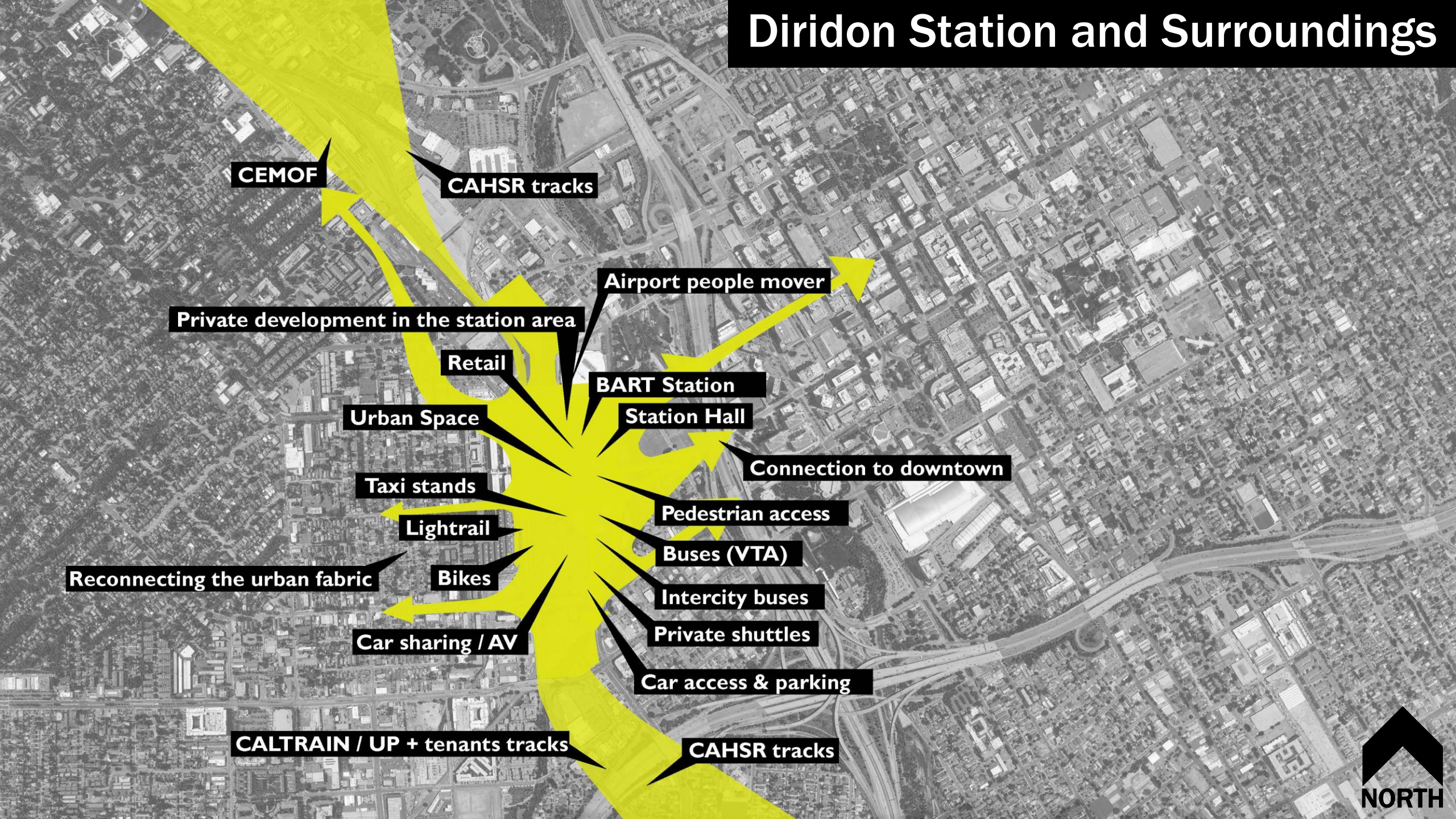


**The Concept Plan will establish:**

- **Seamless connections between transportation modes.**
- **A harmonious relationship between the station and surroundings.**
- **An effective organizational structure to deliver the vision.**



# Diridon Station and Surroundings



**CEMOF**

**CAHSR tracks**

**Airport people mover**

**Private development in the station area**

**Retail**

**BART Station**

**Urban Space**

**Station Hall**

**Connection to downtown**

**Taxi stands**

**Pedestrian access**

**Lightrail**

**Buses (VTA)**

**Reconnecting the urban fabric**

**Bikes**

**Intercity buses**

**Car sharing / AV**

**Private shuttles**

**Car access & parking**

**CALTRAIN / UP + tenants tracks**

**CAHSR tracks**





# San Francisco Rail Alignment And Benefits (RAB) Study



San Francisco  
**Planning**

November 2018



# CONNECTING neighborhoods



FIDI, Mission Bay,  
SOMA, So. Bayfront

2015

2065

GROWTH

Population

87,000

257,000

194%

Employees

304,000

554,000

82%

**20,000 new households** in southern bayfront are planned, from *Mission Creek* to *Executive Park*

**35,000 new jobs + 520 acres of open space** are also planned in the *Southern Bayfront*

**6 east-west roads** could be reconnected across *Caltrain tracks*

*Option:*  
**UNDERGROUND RAIL  
OR  
NEIGHBORHOOD  
ISOLATION**

# Why now? Major planned new infrastructure

Caltrain Electrification



High Speed Rail (HSR)



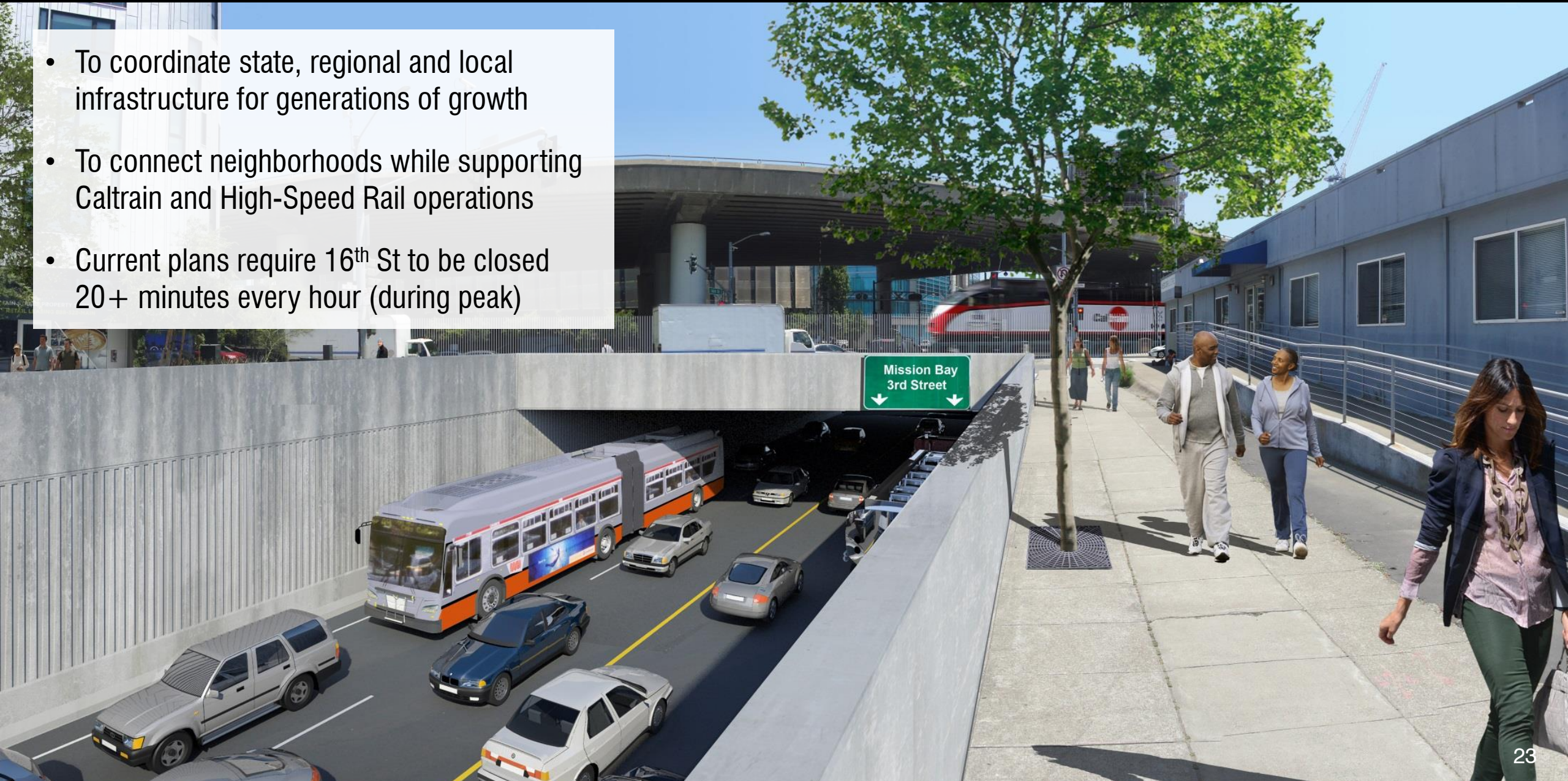
Salesforce Transit Center





# Why do we need this study?

- To coordinate state, regional and local infrastructure for generations of growth
- To connect neighborhoods while supporting Caltrain and High-Speed Rail operations
- Current plans require 16<sup>th</sup> St to be closed 20+ minutes every hour (during peak)





# RAB Study Components

*Each component:*

- Is independent of others
- Will affect San Francisco for 100+ years

**1** Rail Alignment  
to Salesforce  
Transit Center

**2** Railyard  
Reconfiguration/  
Relocation

**3** Urban Form  
and Land Use  
Considerations

**4** Transit Center  
(SFTC)  
Extension/Loop

**5** Boulevard I-280



1

# Rail Alignments to Salesforce Transit Center





## 2

# Railyard Reconfigurations / Relocation

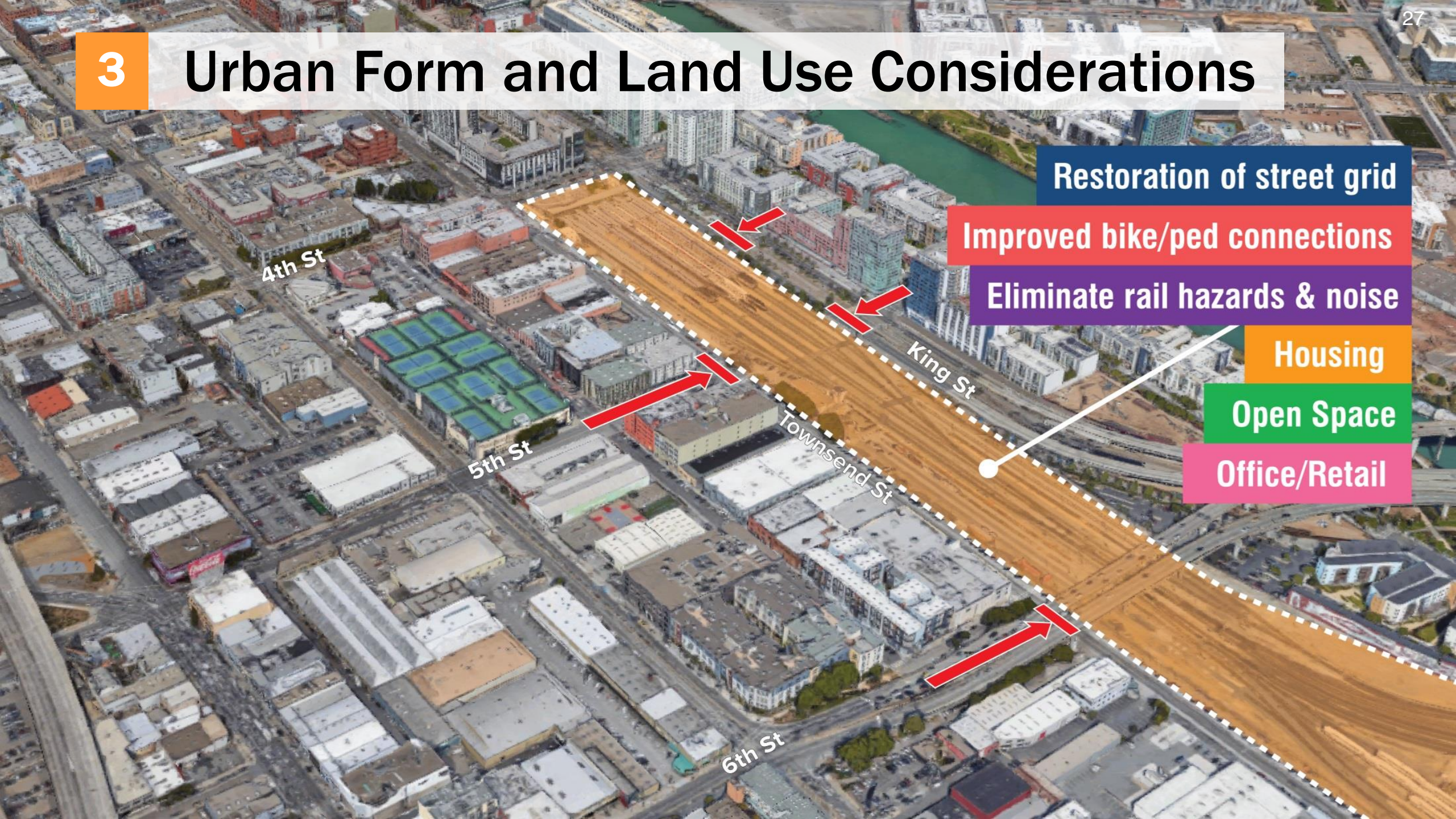
What if Caltrain SEPARATED operations from staging and storage/maintenance?





3

# Urban Form and Land Use Considerations



Restoration of street grid

Improved bike/ped connections

Eliminate rail hazards & noise

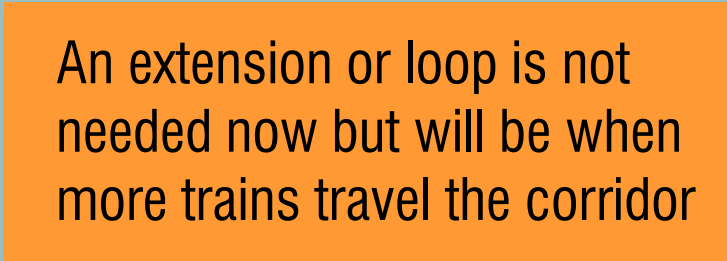
Housing

Open Space

Office/Retail



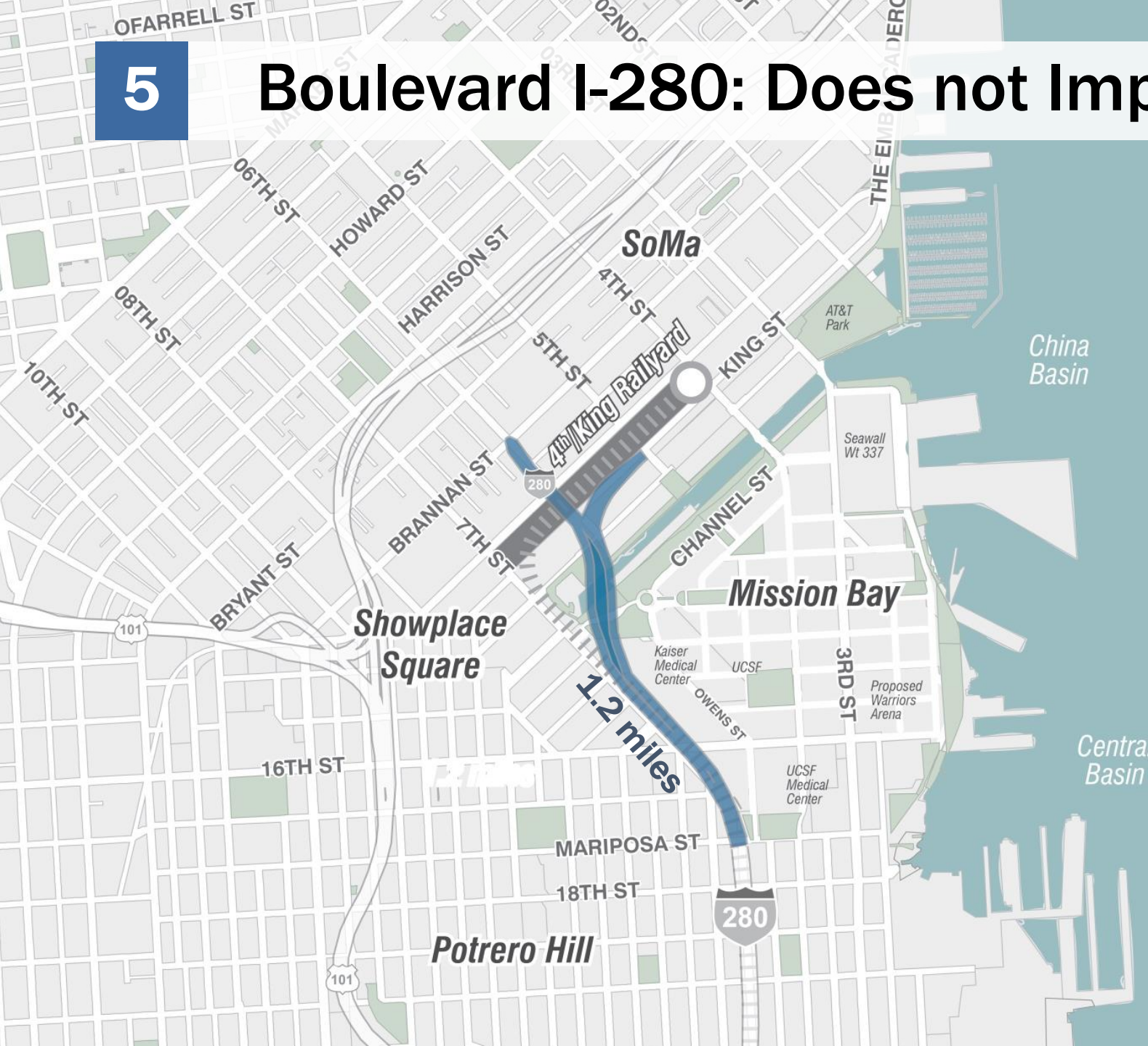
# Transit Center (SFTC) Extension/Loop





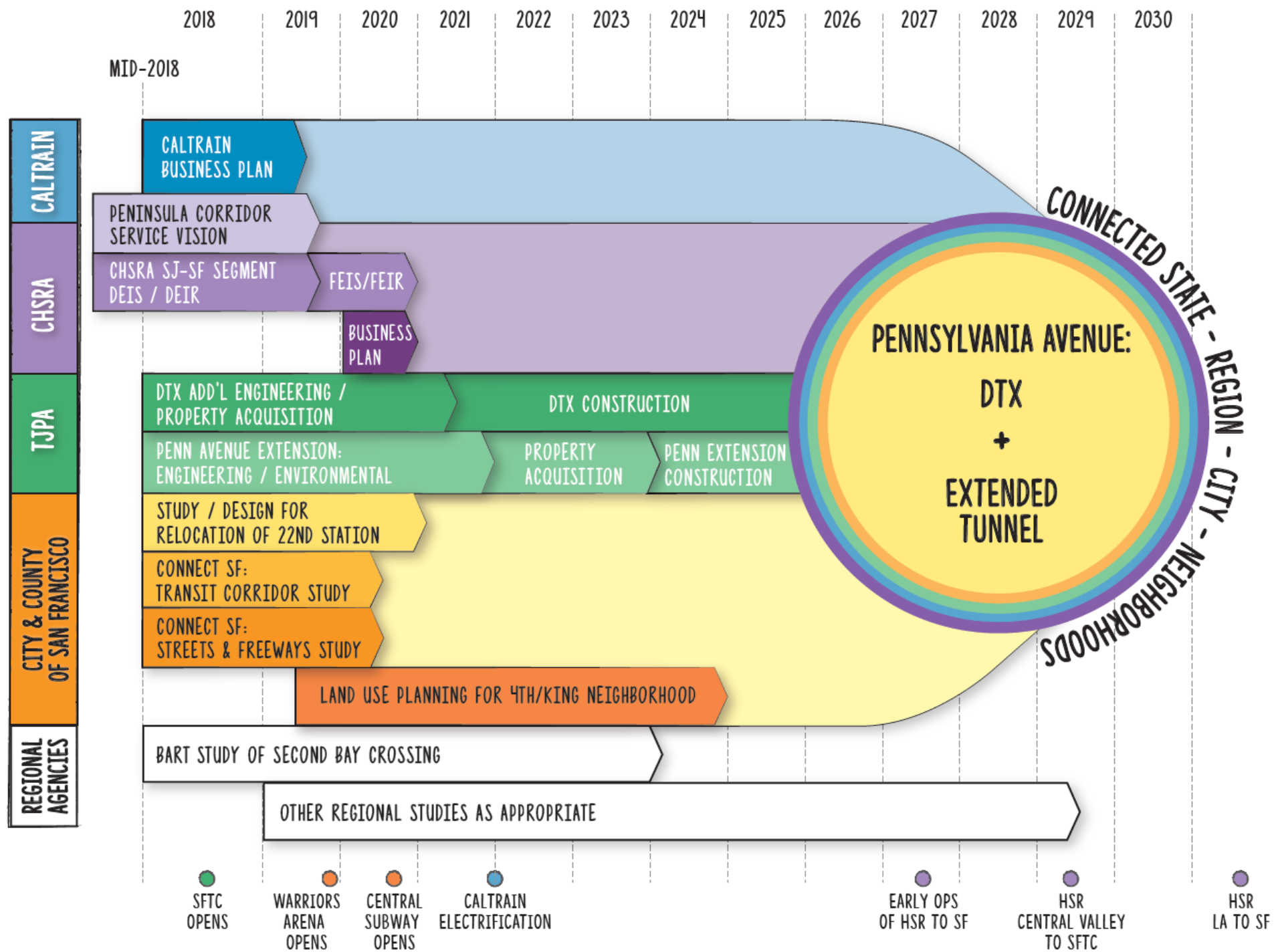
## 5

# Boulevard I-280: Does not Impact Rail Alignments



- Removing I-280 does not create new opportunities for rail
- No physical relationship to other components
- Removing I-280 requires much longer conversation with Caltrans





Approximate schedules,  
subject to change



# **Problem: Megaprojects that Fail to Offer the Full Range of Mobility, Economic Development, and Placemaking Benefits that they Could**

## **Possible solutions**

- **A bigger role for one or more of the following:**
  - **Cities**
  - **Regional government**
  - **State government**
- **Creation of project-specific entities that are set up to foster multimodal integration and maximize both transportation and city-building benefits**

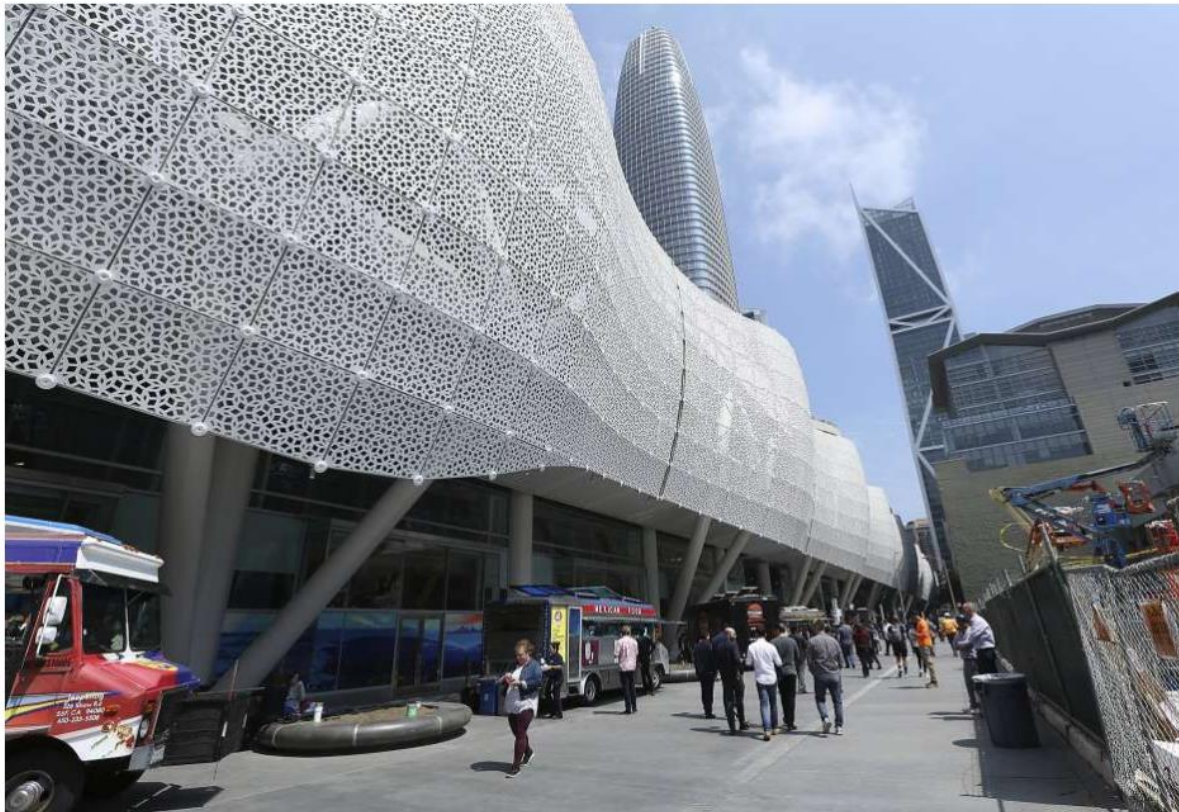


# San Francisco Chronicle

OPINION // OPEN FORUM

## Don't despair over Transbay Transit Center cracks: Fix how we do megaprojects

By Gabriel Metcalf and Ratna Amin | Oct. 4, 2018

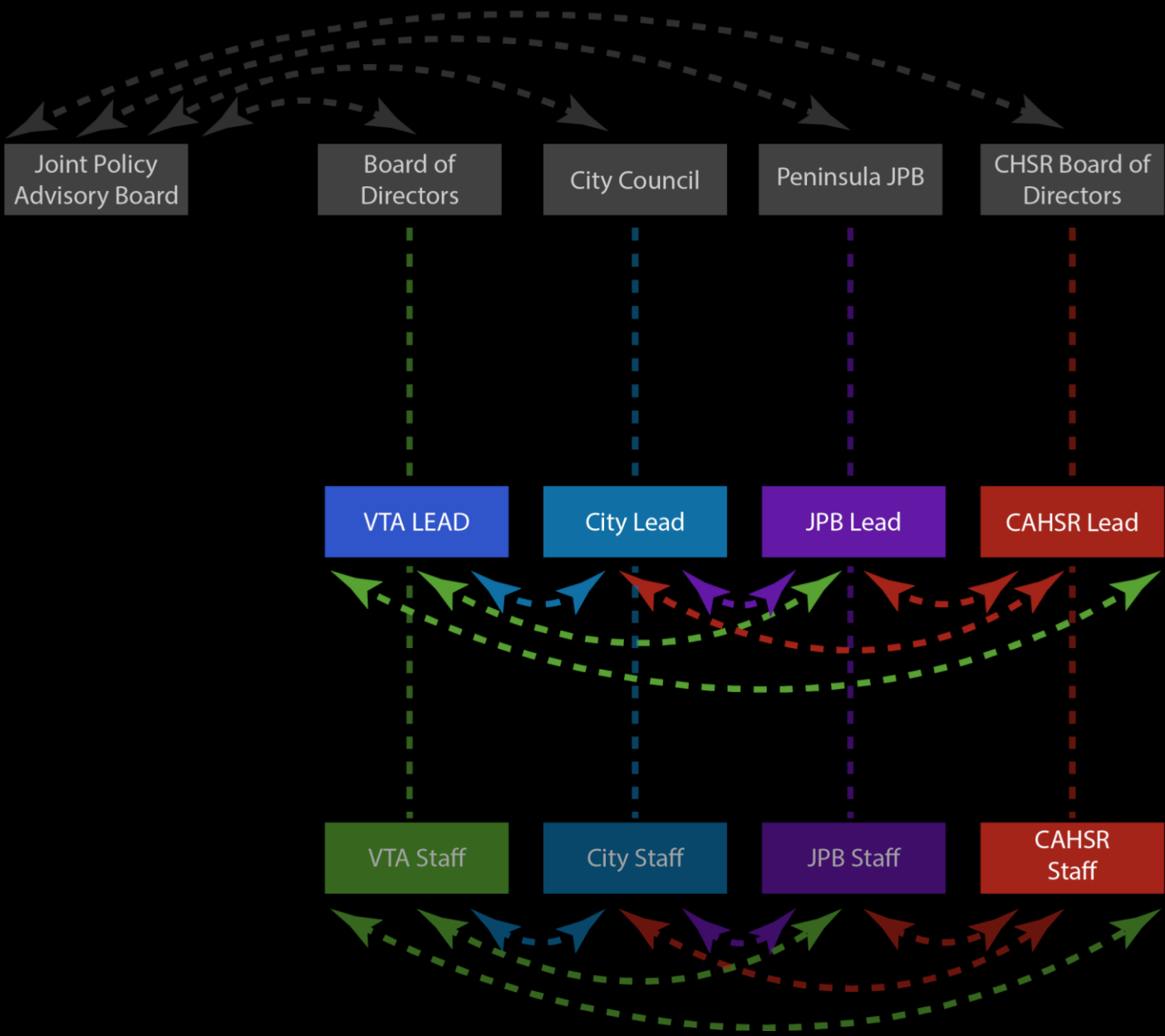


FILE - In this file photo taken Aug. 15, 2018, food trucks line up outside the new Transbay Transit Center in San Francisco. San Francisco officials shut down the city's \$2.2 billion transit terminal Tuesday, Sept. 25, 2018, after a crack was found in a steel beam. (AP Photo/Lorin Eleni Gill, File)

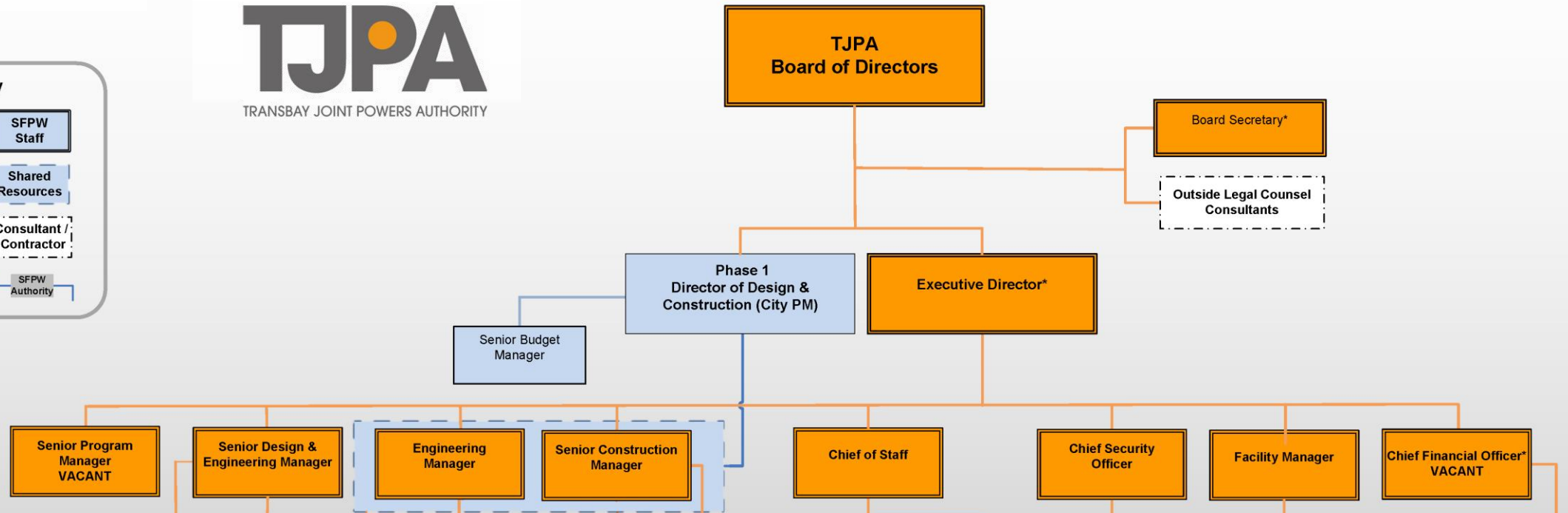
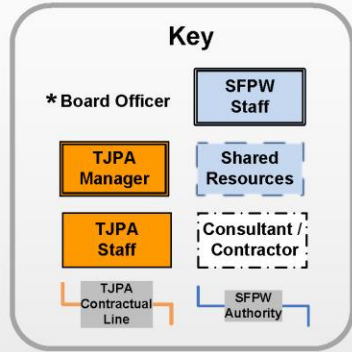
[... more](#)



The way in  
which we  
currently work  
together

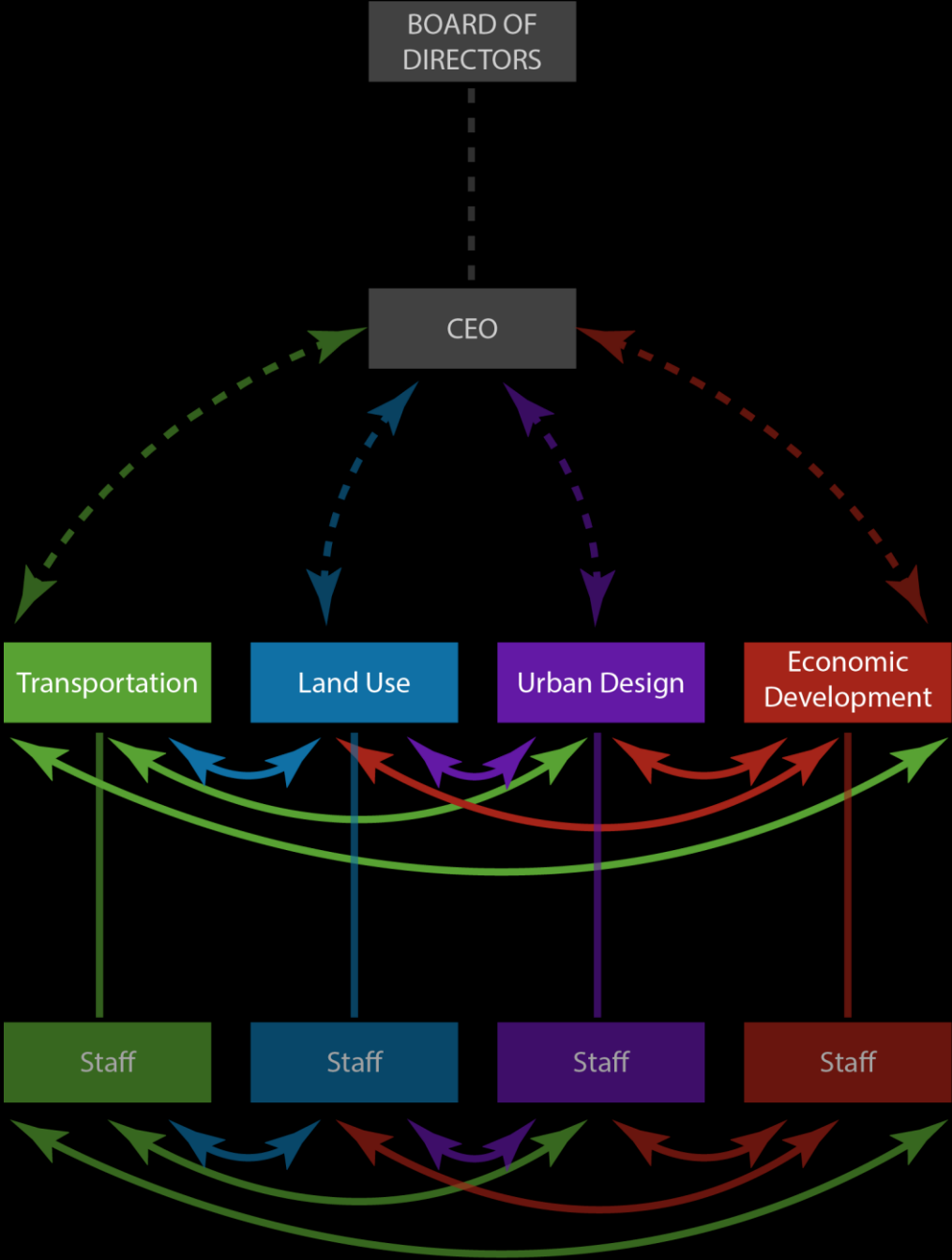








# French Station Area Governance Entities





# Questions

- How can cities focus both on the needs of global investors and local residents (i.e. have a ‘glocal’ focus)?
- How can projects serve the needs of broad geographies (i.e. region or state) while also furthering the place-making goals of cities?
- What would an ideal governance entity for urban megaprojects look like?
  - How would it attract the necessary talent and have the wide array of in-house skills that are necessary for building integrated “urban” projects?
  - What changes would need to be made to the model that has been employed until now for these types of projects in California, the JPA?





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