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
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.
California will grow 260,000 new residents every year.

Option:
MAXIMIZE RAIL
OR
EXPAND AIRPORTS/HWYS

- Population: 39 M to 52 M (+33%) in 2065
- Employees: 16 m to 28 m (+77%) in 2065

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.
Diridon Integrated Station Concept Plan

A Joint Effort of
The City of San Jose, VTA, Caltrain,
and the California High-Speed Rail Authority
In collaboration with Arcadis & Benthem Crouwel
Why is Diridon Station so Important?

Planned Major Regional Rail Services San Jose Diridon

- **High-Speed Rail**
- **BART**
- **Caltrain**
- **ACE**
- **Capitol**
|| Location     | Jobs |
|--------------|------|
| San Jose     | 0.85 |
| Fremont      | 1.0  |
| Sunnyvale    | 1.3  |
| Cupertino    | 1.6  |
| Mountain View| 1.8  |
| Santa Clara  | 1.8  |
| Palo Alto    | 3.0  |
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
Netherland’s 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
“A station is a public space with a roof on top”
– Jan Benthem
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.
FIDI, Mission Bay, SOMA, So. Bayfront

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2065</th>
<th>GROWTH</th>
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<tbody>
<tr>
<td>Population</td>
<td>87,000</td>
<td>257,000</td>
<td>194%</td>
</tr>
<tr>
<td>Employees</td>
<td>304,000</td>
<td>554,000</td>
<td>82%</td>
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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 16th St to be closed 20+ minutes every hour (during peak)
RAB Study Components

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

Each component:
- Is independent of others
- Will affect San Francisco for 100+ years
Rail Alignments to Salesforce Transit Center

- **OPTION 1:** FUTURE WITH SURFACE RAIL
  DTX + TRENCHED STREETS

- **OPTION 2:** PENNSYLVANIA AVE ALIGNMENT
  DTX + EXTENDED TUNNEL

- **OPTION 3:** MISSION BAY ALIGNMENT
  MODIFIED DTX + 3RD ST. TUNNEL
What if Caltrain SEPARATED operations from staging and storage/maintenance?
Urban Form and Land Use Considerations

- Restoration of street grid
- Improved bike/ped connections
- Eliminate rail hazards & noise
- Housing
- Open Space
- Office/Retail
An extension or loop is not needed now but will be when more trains travel the corridor.
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
ONGOING COORDINATION TO carry rail projects forward

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

By Gabriel Metcalf and Ratra 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)
The way in which we currently work together
The way in which we currently work together
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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