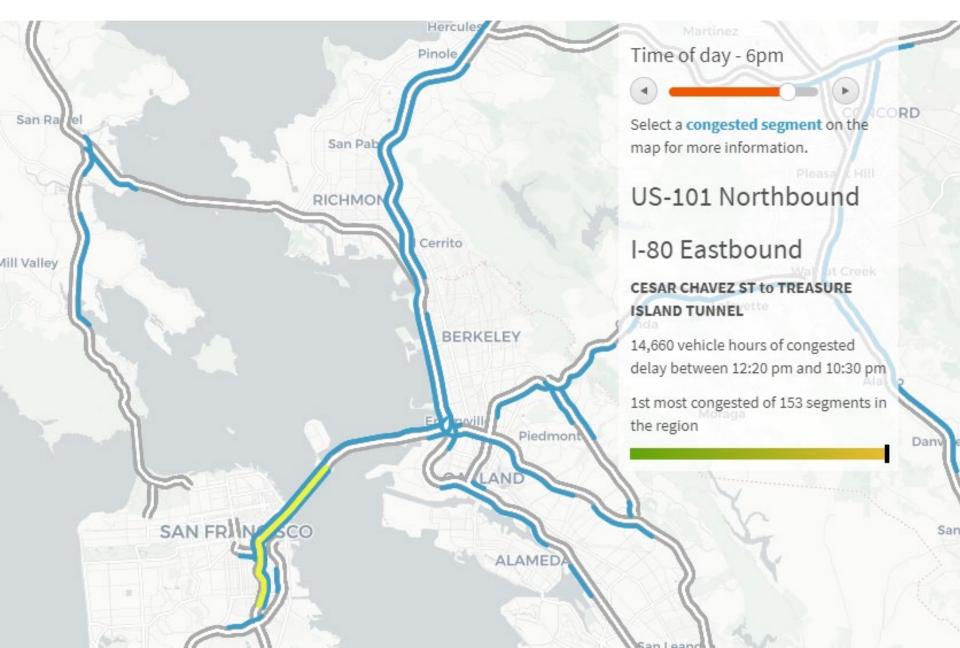


Vision

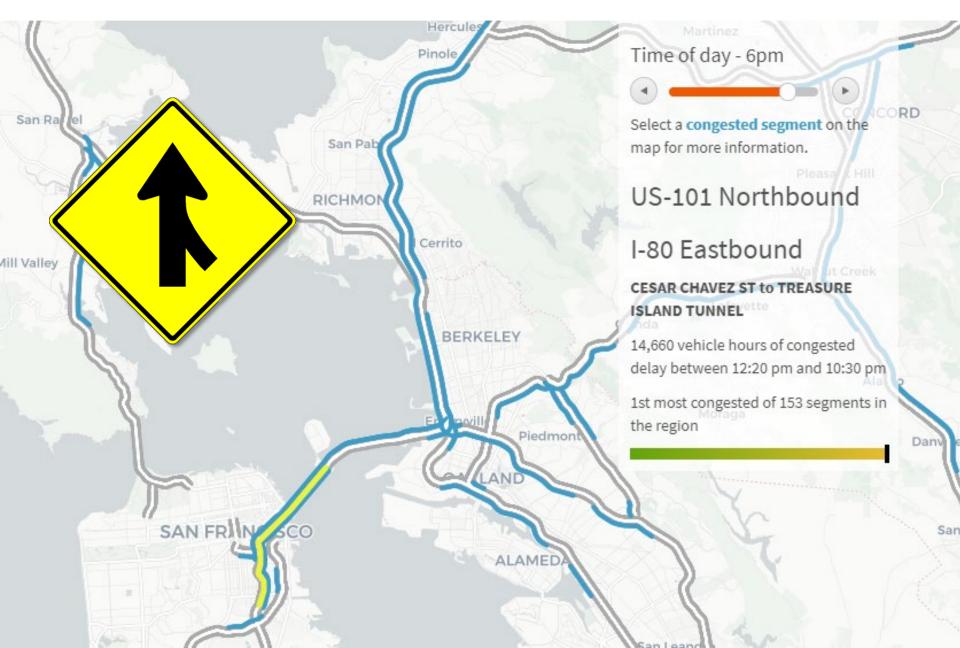
 A rightsized freeway network future-proofs the region for population growth, new mobility innovations, and climate change

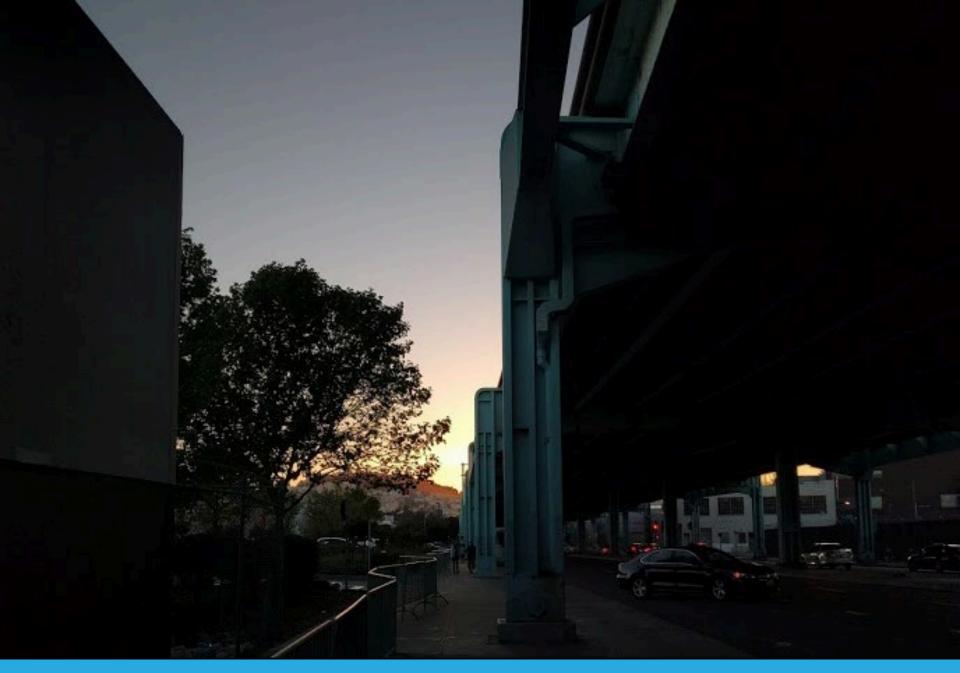
 Reconsidering the role of freeways creates a more contextsensitive, safe, efficient highway, while returning land to human use

Time spent in congestion (2017)



Time spent in congestion (2017)

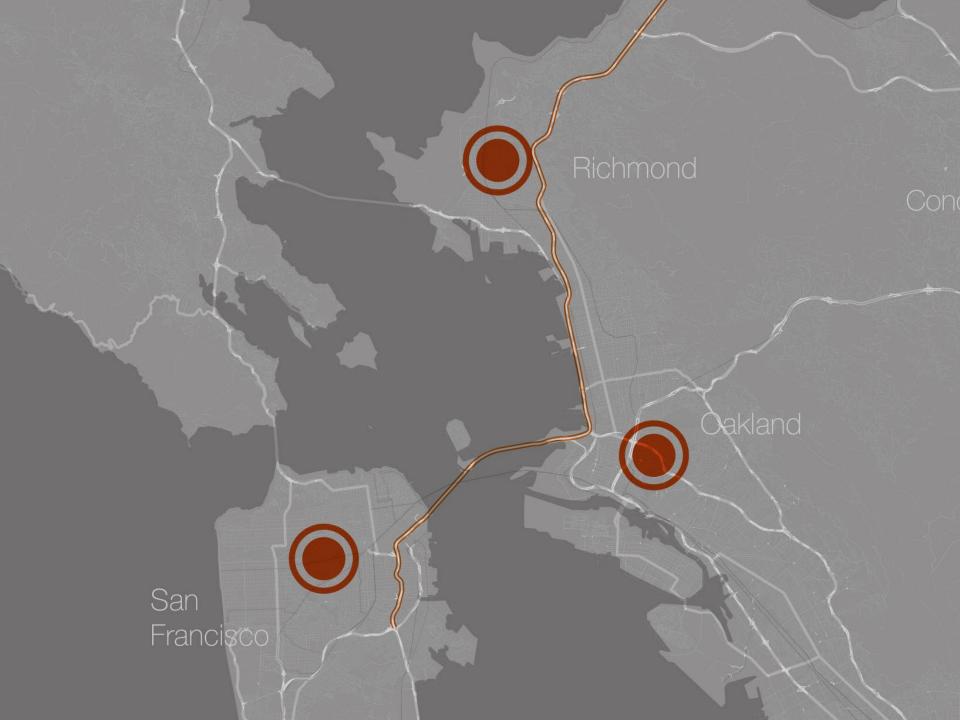


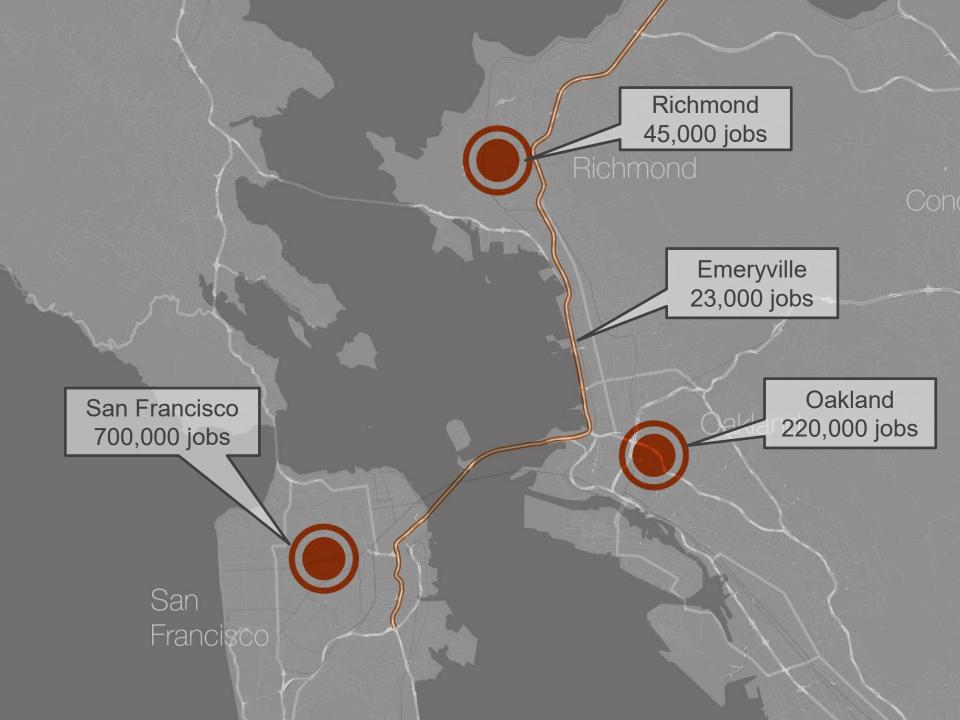


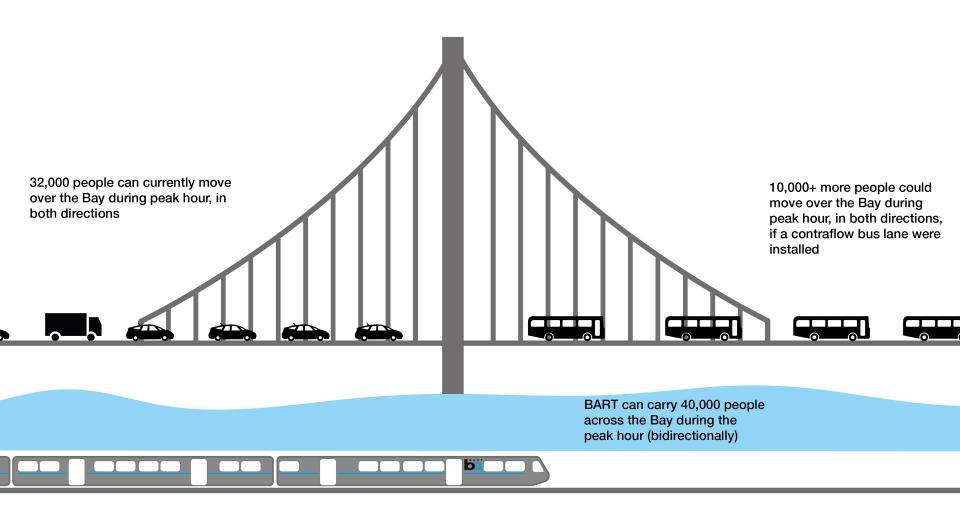




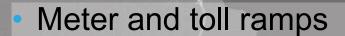






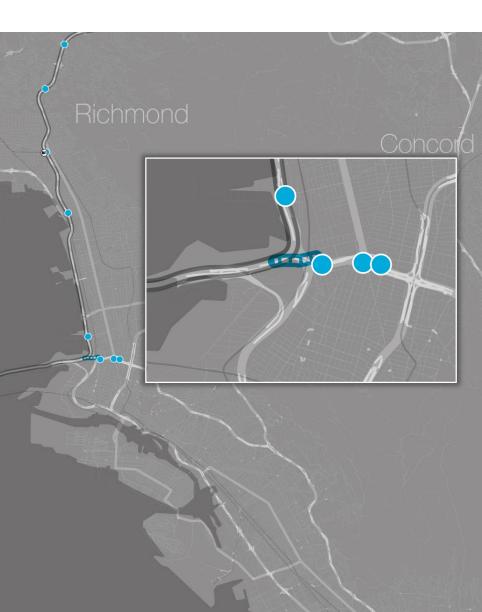


Phase I



- Transition ramps slated for removal to bus-only
- Reconnect Mandela Tunnel to Bay Bridge
- Add bus stations and Richmond BART station

San Francisco



Phasing

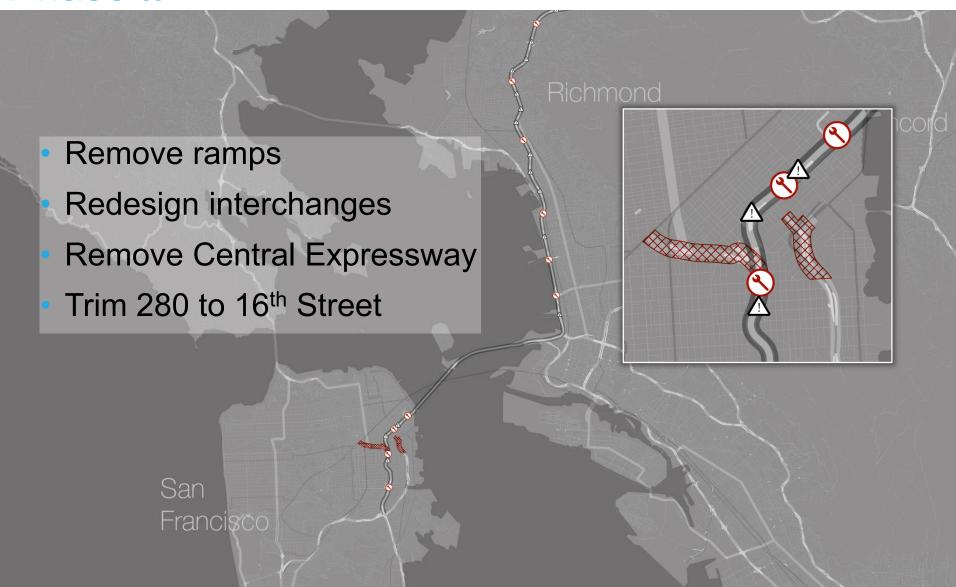
Phase I

- Meter all on-ramps throughout the corridor
- Toll entire corridor
- Introduce contraflow transit lane on the Transbay Bridge
- Build or enhance transit (primarily bus) stations throughout corridor
- Reduce number of ramps on the Transbay Bridge approach (San Francisco)
- Build bus tunnel from Grand Ave to the Transbay Bridge Toll Plaza (Oakland)

Estimated potential revenue

\$150,000,000/yr

Phase II



Phasing

Phase I

- Meter all on-ramps throughout the corridor
- Toll entire corridor
- Introduce contraflow transit lane on the Transbay Bridge
- Build or enhance transit (primarily bus) stations throughout corridor
- Reduce number of ramps on the Transbay Bridge approach (San Francisco)
- Build bus tunnel from Grand Ave to the Transbay Bridge Toll Plaza (Oakland)

Phase II

- Remove remainder of the Central Freeway (San Francisco)
- Trim 280 back to 16th Street (San Francisco)
- Rebuild Cesar Chavez interchange (San Francisco)
- Grade-separate the Union Pacific Railroad at Gilman Street to improve traffic flow (Berkeley)
- Add BART station at intersection of I-80 and BART tracks (Richmond)

Estimated potential revenue

\$150,000,000/yr

\$550,000,000

Phase III



Phasing

Phase I

- Meter all on-ramps throughout the corridor
- Toll entire corridor
- Introduce contraflow transit lane on the Transbay Bridge
- Build or enhance transit (primarily bus) stations throughout corridor
- Reduce number of ramps on the Transbay Bridge approach (San Francisco)
- Build bus tunnel from Grand Ave to the Transbay Bridge Toll Plaza (Oakland)

Phase II

- Remove remainder of the Central Freeway (San Francisco)
- Trim 280 back to 16th Street (San Francisco)
- Rebuild Cesar Chavez interchange (San Francisco)
- Grade-separate the Union
 Pacific Railroad at Gilman
 Street to improve traffic flow
 (Berkeley)
- Add BART station at intersection of I-80 and BART tracks (Richmond)

Phase III

- Remove ramps and realign I-80 throughout Alameda and Contra Costa counties
- Bring I-80 below grade between 4th and 16th Streets (San Francisco)

Estimated potential revenue

\$150,000,000/yr

\$550,000,000

\$725,000,000

Proving efficacy in the short term

- Benefits from metering should become apparent almost immediately at merge points throughout the corridor
- Revenue from tolling can be invested back into highcapacity vehicle mobility, and maintenance for ailing infrastructure
- Providing new in-line stops will increase incentive for investing in transit-supportive infrastructure
- Limiting access to a number of Bay Bridge approach ramps will reduce confusion, congestion, and the potential for conflicts on I-80 and the surface streets

Challenges

- Political resistance to tolling
- Community pushback against losing ramp access
- Potential need for land requisition
- Enormous, multi-jurisdictional construction coordination
- Bulk of benefits will amass over time, not immediately

Complementary submissions

- Optimized Express Lane Network + Regional Express Bus Network
- Bus Rapid Transit on All Bridges
- Integrated Transit Fare System
- Free Transit
- Higher-Occupancy HOV Lanes
- Demand-Based Tolls on All Highways
- Reversible Lanes on Congested Bridges and Freeways





ARUP