Transportation Study

• Initiated due to recent growth
• Study partners:
  − SMCTA
  − ACTC
  − AC Transit
  − Facebook
• Kicked off in March
  − 15-month schedule

Scope of Work

• Study mobility improvements on highway bridge, approach arterials and rail bridge
• Focus on short-term (2020) and long-term (2030) improvements and phasing
Outreach

• Outreach at major milestones:
  − May 2016: Existing conditions, goals and evaluation metrics, initial alternatives
  − September 2016: Initial screening, alternatives carried forward
  − April 2017: Evaluation of alternatives carried forward, funding plan

Goals, Evaluation Metrics

• Enhance mobility
  − Capacity (benefitting transit for highway alternatives)
  − Ability to serve regional travel markets (transit alternatives only)
  − Service frequency (transit alternatives only)

• Cost effective improvements with return on investment
  − Capital and operating costs
Goals, Evaluation Metrics

• Minimize environmental impacts, financial risk and maximize safety
  - Environmental impacts
  - Financial risk
  - Safety
• Ensure local communities are protected from adverse impacts
  - Disproportionate burden on low-income populations
  - Disparate impacts on minority populations

Initial Highway Bridge Alternatives

• Dumbarton Express enhancements
• Managed lanes (carpool, toll or bus-only) configurations that fall into three categories:
  - Utilize existing cross section
  - Convert existing bike/ped to vehicle lane with bike/ped replaced on rail bridge
  - Convert existing bike/ped to vehicle lane with bike/ped replaced on cantilevered deck
Initial Approach Alternatives

- Improvements to:
  - Speed tolling
  - Improve carpool connections
  - Manage and/or increase park-and-ride capacity
  - Provide additional capacity/improve flow on key arterials and at intersections
  - Improve connections to US 101

Initial Rail Bridge Alternatives

- Transit modes:
  - Bus Rapid Transit (BRT)
  - Commuter Rail
  - Bike/ped
  - Light Rail Transit (LRT)
  - Bay Area Rapid Transit (BART)
  - Personal and Group Rapid Transit
  - People Mover
  - Hyperloop
  - Tunnel (BRT, LRT, Commuter Rail)
  - Ferry
  - Gondola
Initial Screening Process

• Step 1:
  − Scored highway configurations for highway bridge
  − Identified approach improvement packages that prioritize transit in long-term
  − Scored transit modes for rail bridge

• Step 2:
  − Scored best performing transit modes with consideration for operating plans

• Carried forward all short-term options

Highway Bridge Alternatives Carried Forward

• Short-term: enhanced Dumbarton Express service
• Long-term: 3 managed lane options
• Contraflow managed lane in median with movable barrier

• Reversible managed lanes in median with fixed barriers
Highway Bridge Alternatives Carried Forward

- Managed lane in each direction

Approach Packages

- **Short-term:**
  - Bike/ped approach improvements
  - Manage/expand park-and-ride
  - Carpool/toll direct access ramp at Newark
  - Extension of FasTrak lane eastward
  - Open road tolling at FasTrak lanes
  - Transit signal priority or queue jump lanes on Decoto and at Bayfront/Willow, Bayfront/University
  - Bus lanes on Bayfront
Approach Packages

• Long-term:
  - All electronic tolling for cash lanes
  - Add eastbound carpool/toll from toll plaza to Decoto
  - Managed lanes on US 101
  - Carpool/toll direct access ramp at US 101/Marsh
  - Grade separations at Bayfront/Willow and Bayfront/University
  - Willow Express lanes
  - I 880/SR 84 direct connector ramps

Transit Alternatives Carried Forward

• Short-term:
  - Bike/ped on peninsula

• Long-term:
  - BRT from Union City BART to Redwood City Caltrain
  - Commuter Rail from Union City BART to Redwood City
Next Steps

- September – December: Further study alternatives carried forward
  - Conceptual engineering
  - Ridership modeling
  - Financial analysis including public-private partnerships
- January: Comparative alternatives analysis
- February: Recommend phasing and financial plan

Comments / Questions