• Corridor requires phased improvements
• Solutions require consensus, other approvals
  – Rail bridge: FTA, Coast Guard, Union Pacific, etc.
  – Highway bridge: Caltrans, MTC/BATA
  – Approaches: Caltrans, cities
• Funding challenges/opportunities
  – Public funding, private sector, P3 financing
• Other challenges/value
  – Environmental, connecting to other rail lines
Comparative Analysis of Alternatives

• Enhance mobility
• Cost effectiveness
• Minimize environmental impacts, financial risk and maximize safety
• Protect local communities from adverse impacts
Alternatives Studied and Draft Recommendations
2020: Bus and Approach Improvements on Highway Bridge
2020: Bus and Approach Improvements (Recommended)

• **Short-term (2020)**
  - Expand Dumbarton Express bus on Highway Bridge
  - Approach improvements

• **Impact**
  - $51m capital, $12m O/M
  - 13,700 daily transbay riders (34% increase)
2020: Bike/Ped Path on Rail ROW

• Short-term (2020)
• Bike/ped multi-use path from Redwood City to East Palo Alto
  – Overpasses at Willow, Marsh, University, US-101
• Impact
  – $60m capital (includes overpasses at Willow, Marsh, University and US-101), ~$120m O/M
Recommendations 2020

• Expand Dumbarton Express bus including new routes to Menlo Park/Redwood City and Mountain View/Sunnyvale

• Approach improvements

• Impacts
  - $51m capital, $12m O/M
  - 34% increase in transit
  - Involved entities: AC Transit, ACTC, MTC, Caltrans, cities, etc.

• Not recommending bike/ped multi-use path due to rail right-of-way (ROW) limitations
2025-2030: Bus and Approach Improvements on Highway Bridge
2025-2030: Express Lanes on Highway Bridge

**Reversible express lanes 4/2**
- 3 GP Lanes + 1 Contraflow ML Westbound AM
- 2 GP Lanes Eastbound AM
- 2 GP Lanes Westbound PM
- 3 GP Lanes + 1 Contraflow ML Eastbound PM
- Bike/Ped Path

**One express lane per direction 3/3**
- 2 GP Lanes Westbound
- 1 ML Westbound
- 1 ML Eastbound
- 2 GP Lanes Eastbound
- Bike/Ped Path
2025-2030: Bus, Approach and Express Lanes (Recommended)

• **Mid-term (2025)**
  – Convert #1 lane to toll lane in each direction
  – More approach improvements east and west bay (flyovers, grade separations, etc.)
  – Connect rail ROW to US 101 via flyover

• **Long-term (2030)**
  – Further enhanced Dumbarton Express bus

• **Impact**
  – $849m capital, $20m O/M in mid-term
  – $82m capital, $14m O/M in long-term
  – ~21,300 daily transbay riders (147% increase)
2025-2030: Rail Shuttle on Rail Bridge
2025-2030: Rail Shuttle on Rail Bridge (Recommended)

- **Mid-term (2025)**
  - New double-tracked rail service from Redwood City (RWC) to Newark, not “interlined” at Caltrain

- **Long-term (2030)**
  - Further extend rail to Union City

- **Impact**
  - $975m capital, $23m O/M (for Rail Shuttle to Newark) in mid-term
  - Additional $295m capital, $32m O/M (to extend to Union City) in long-term
  - ~15,600 daily transbay riders (81% increase)
2025-2030: Busway on Rail Bridge

- Also looked at operating an exclusive busway on Rail Bridge
- Mid- to long-term (2025-2030)
  - No dedicated lanes in East Bay
- Impact
  - $615m capital, $14m O/M
  - ~18,600 daily transbay riders (116% increase)
- Not recommended if express lanes are constructed on Highway Bridge
Recommendations 2025

- **Improve the Highway Bridge and Approaches**
  - One express lane in each direction
  - More approach improvements east and west bay (flyovers, grade separations, etc.)
  - Buses use ROW to US-101 flyover

- **Rail service on the Rail Bridge**
  - Rail Shuttle to Newark (double-tracked bridge)

- **Impact**
  - $1.8b capital, $44m O/M
  - Involved entities: Caltrain, UP, ACTC, MTC, Caltrans, STB, cities, etc.
• Further enhanced Dumbarton Express bus service
• Extended rail service
  – Rail Shuttle from Newark to Union City
• Impact
  – $377m capital (in addition to $1.8b in 2025), $46m O/M
  – Involved entities: Caltrain, UP, ACTC, MTC, Caltrans, STB, cities, etc.
2035: Rail Commuter on Rail Bridge, Double-Track
2035: Rail Commuter on Rail Bridge, Double-Track (Recommended)

• Longer-term (2035 or beyond)
  – Interline with Caltrain
  – Better connect to ACE, Capitol Corridor

• Impact
  – $327m additional capital, $38m O/M
  – ~23,300 daily transbay riders (270% increase) paired with express lanes on Highway Bridge
  – Involved entities: AC Transit, Caltrain, UP, ACE, Capitol Corridor, MTC, etc.
Funding Challenges & Opportunities

- Use existing local funding: Measure A (San Mateo County), BB (Alameda County)
- Seek state, regional funding: SB1, RM3, etc.
- Solicit private contributions
- Pursue federal, state grants and financing
- Explore value capture
- Identify project elements attractive for P3
- Consider other alternative packages or phasing based on available funding
- Partnerships: ACE, State, Caltrans, etc.
Next Steps

- **August:**
  - SamTrans Board briefing
  - Stakeholder and public outreach

- **October:**
  - Finalize report
  - SamTrans Board consideration
Comments/Questions