San Francisco-Oakland Bay Bridge
West Span Path

Public Meeting #2
November 19th, 2018 | 6:00 - 8:00 pm
Bay Area Metro Center | 375 Beale Street
Meeting Agenda

6:00pm  Arrivals and light refreshments
6:30pm  Welcome, introductions, background presentation
6:55pm  Q+A
7:05pm  Interactive workstations
  • SF touchdown
  • YBI pathway
  • Main span structural solution
  • Construction sequence
  • Timeline, cost, environmental studies
  • Virtual reality (VR)
7:50pm  Wrap-up and next steps
8:00pm  Adjourn
PAST | PRESENT | FUTURE

Brief History of the Bay Bridge
The West Bay Crossing

Cross-section through bridge decks. The upper deck has six lanes for automobiles; the lower deck accommodates three lines of trucks, and has two tracks for interurban electric cars.

Source: Archivist Rick Prelinger
Source: National Register of Historic Places in the United States of America
Project Context
Population Growth

Infrastructure Growth

Employment Growth

Traffic + Commuting
2040 Population Growth
2040 Employment Growth
24,000 Residents on Treasure Island by 2035

Source: SOM and Treasure Island Development Authority (TIDA)

Capacity and High Growth Demand:
- 2020: 42k Capacity, 105% Demand
- 2025: 46k Capacity, 107% Demand
- 2030: 46k Capacity, 120% Demand
- 2035: 46k Capacity, 135% Demand
- 2040: 46k Capacity, 152% Demand

Additional Transit Capacity:
- Prerequisites/Planned Projects:
  - AC Transit: 1,400 Fully funded, 900 Not funded
  - BART: 3,200 Fully funded
  - WETA: 0 Fully funded

Demand Growth Projections:
- 2020: 37k Capacity, 105% Demand
- 2025: 44k Demand
- 2030: 55k Demand
- 2035: 62k Demand
- 2040: 70k Demand

Person Trips Peak Hour:
- 2020: 40,000
- 2025: 44,000
- 2030: 54,000
- 2035: 70,000

Demand Growth Projections:
- Low Growth: 44,000
- Market Assessment Growth Projection: 54,000
- High Growth: 70,000
Closing the Bay Trail Gap
Usage and Impact
Travel Time to Touchdown for SF Employees who live in East Bay on Bike

Map showing travel time zones:
- 15 min
- 30 min
- 45 min
- 60 min

Areas shown:
- Berkeley
- Oakland
- Alameda
- Daly City
- San Francisco
- San Leandro
- Castro Valley
- Hayward

Locations:
- San Pablo
- Richmond
- Redwood City
- Belmont
- Menlo Park
- San Rafael
- Belvedere
- Tiburon
- Golden Gate
- SF Bay
Travel Time to Touchdown for SF Employees who live in East Bay on E-Bike
Travel Time to Touchdown for East Bay Employees who live in SF on Bike
Travel Time to Touchdown for East Bay Employees who live in SF on E-Bike

15 min 30 min 45 min
### Peak Hour Bike Ridership Forecasts

<table>
<thead>
<tr>
<th>Category</th>
<th>Bikes</th>
<th>Full Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Bay Cyclists who work in San Francisco</td>
<td>280</td>
<td>790</td>
</tr>
<tr>
<td>San Francisco Cyclists who work in East Bay</td>
<td>110</td>
<td>300</td>
</tr>
<tr>
<td>Recent Growth (2015-2018)</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>2040 Forecasted Growth</td>
<td>150</td>
<td>410</td>
</tr>
<tr>
<td>Tourism Bicycle Volumes</td>
<td>400</td>
<td>460</td>
</tr>
<tr>
<td>Treasure Island Bicycle Volumes</td>
<td>560</td>
<td>760</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,520</strong></td>
<td><strong>2,770</strong></td>
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</tbody>
</table>
10% of automobile trips can be served by bikes

- 3,825 SOV autos and 2,691 HOV to SF Core via automobile on SFOBB
- Vehicle occupancy = 1.15 mixed lanes, 2.54 for HOV
- For each comparison, 1,133 person trips by bike assumed

26% of AC Transit trips can be served by bikes

- 4,330 AC Transit Riders by 2040 based on improvements outlined in Plan Bay Area 2040
- Not-inclusive of Treasure Island trips

3% of all Transbay Corridor Trips can be served by bikes

- All bicycle counts used were from e-assist bike forecasts for Oakland to San Francisco commutes, recent, and 2040 forecasted growth
- Assumes ideal conditions - weekday with clear weather
Feasibility Study and Recommended Design
Receive public feedback on design alternatives

Goal of Public Meeting #1

Showcase recommended design

Goal of Public Meeting #2

- 2016
  - 6 options for SF touchdown
  - 6 options for YBI pathway
  - 6 options for main span

- 2018
  - 1 recommended design
Goal of Public Meeting #1

Receive **public feedback** on design alternatives

- 6 options for SF touchdown
- 6 options for YBI pathway
- 6 options for main span

Goal of Public Meeting #2

Showcase **recommended design**

- 1 recommended design
YBI Pathway Recommended Design: Below Hillcrest on North Side

Below Hillcrest (North or South landings)

Above Hillcrest (North or South landings)
SF Touchdown Recommended Design: Essex Street

- Paint Yard (North or South landings)
- Embarcadero (North or South landings)
- North Side at Essex Street
- South Side at Beale/Bryant
Main Span Alternatives

North Side and Outboard

South Side and Outboard

Outboard Deck

On-Deck
Main Span Alternatives

Outboard Using New Cables

Suspended Elevated Deck

Suspended Elevated Using New Cables

Suspended Elevated Deck
Main Span Alternatives

- Cantilever (Moment Connection)
- Short Propped Cantilever
- Recommended Design: Boomerang (Pinned Connection)
- Long Propped Cantilever
Recommended Structural Design: Boomerang
Study 1: Load Rating

Study 2: Deflection
Study 3: Wind Stability Studies
Funding and Next Steps
Phasing and Environmental

Current BPM Project

- 2015
- 2016 - 2018

Future Phases

- TBD Pending Funding Plan

Alternatives Screening

Conceptual Design

Preliminary Engineering

Environmental Studies

Final Design

Funding/Procurement

Construction

Project Phasing

Construction Phasing

Public Workshops

Phasing and Environmental

Main Span

YBI

SF
## Cost and Possible Funding Sources

<table>
<thead>
<tr>
<th>TBD Funding Sources</th>
<th>2018 Costs (USD)</th>
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</thead>
<tbody>
<tr>
<td>Total</td>
<td>$341M</td>
</tr>
</tbody>
</table>

### RM3
San Francisco Bike Trail / Safe Routes to Transit

### SB1
- Active Transportation Program (ATP)
- Solutions for Congested Corridors Program (SCCP)

### Agencies
Stakeholder and Partner Agencies (MTC/BATA, Caltrans, SFCTA, ACTC, TIDA, etc.)

### Other
Private/Corporate Sponsorship, Crowdsourcing, etc.
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Interactive Stations

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- YBI pathway
- Main span structural solution
- Bike ridership forecasts
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Acknowledgements

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Wrap-Up and Next Steps

- Feedback from Stations
  - SF touchdown
  - YBI pathway
  - Main span structural solution
  - Bike ridership forecasts
  - Cost, phasing, environmental

- Winterfest – December 2\textsuperscript{nd} 2019
Thank You