TAC Meeting #2
CCTS Project Update

October 20, 2015
Agenda

1. Guiding Principles
2. Project Status
3. Market Assessment findings
4. Transbay Corridor Capacity and Demand findings
5. SF Metro Corridor Capacity and Demand analysis
6. Second Transbay Crossing Landing findings
7. Package Development process
8. Next Steps: Tasks and Engagement
Guiding Principles
Guiding Principles

1. **Transit should be the preferred mode** to supply increased capacity for travel between the East Bay and the San Francisco core, and for intra-San Francisco trips.

2. Regional transit service will be **supportive and consistent with adopted regional land use policies**.

3. Transit operations and improvements will deliver:
   1. Safety
   2. Capacity – additional capacity to meet expected demand
   3. Reliability
   4. Accessibility – high frequency, robust span-of-service, attractive stops & stations
   5. Speed
   6. Quality service

4. Transit services into and within the core will be **designed to operate as a system**, regardless of agency or mode.

5. The transit infrastructure system will be planned, designed and constructed to reflect rider needs by providing **operational redundancy, flexibility and resilience** to respond to operational detours, routine and extraordinary maintenance, and emergencies resulting from natural disasters.

6. Infrastructure and other capital improvements will be **designed for a project or system’s maximum value** and **implemented at the most optimal time** for full economic benefit.

7. Existing highways and appropriate roadway facilities are suitable options for providing priority transit access for transit vehicles.
Project Status
Project Status

<table>
<thead>
<tr>
<th>Task</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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</thead>
<tbody>
<tr>
<td>Task 1: Community Engagement</td>
<td>ONGOING AS NEEDED</td>
<td></td>
<td></td>
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<tr>
<td>Task 2: Needs and Challenges</td>
<td>2 months</td>
<td>4 months</td>
<td></td>
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<tr>
<td>Task 3: Evaluation Criteria</td>
<td>4 months</td>
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<tr>
<td>Task 4: Initial Engineering Studies</td>
<td>3 months</td>
<td>4 months</td>
<td></td>
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<tr>
<td>Task 5: Preliminary List of Concepts</td>
<td>5 months</td>
<td>Initial input to Plan Bay Area</td>
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<td>Task 6: Service Package Development</td>
<td>5 months</td>
<td>Input to Plan Bay Area</td>
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<td>Task 7: Service Package Evaluation</td>
<td>3 months</td>
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<td>Task 8: Further Development of Service Package Projects</td>
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<tr>
<td>Task 9: Implementation and Funding Strategy</td>
<td>3 months</td>
<td></td>
<td>3 months</td>
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<td>Task 10: Draft and Final Report</td>
<td>3 months</td>
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Market Assessment: Preliminary Findings

Strategic Economics
Market Assessment Goals

- Provide a **range of employment growth projections** for key subareas within the San Francisco core
- Explore different **scenarios** and inform development of transit alternatives
## Market Assessment Key Factors

<table>
<thead>
<tr>
<th>Key Factor</th>
<th>Scenario 1: Continued Concentration</th>
<th>Scenario 2: Reduced Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capture of Regional Employment Growth in the SF Core</td>
<td>High 18%</td>
<td>Low 14%</td>
</tr>
<tr>
<td>2. Office Employment Densities Assumptions</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Traditional: 250 sq. ft./worker</td>
<td>Traditional: 265 sq. ft./worker</td>
</tr>
<tr>
<td></td>
<td>Creative: 170 sq. ft./worker</td>
<td>Creative: 195 sq. ft./worker</td>
</tr>
<tr>
<td>3. Development Capacity/Extent of Redevelopment</td>
<td>High 50% soft sites</td>
<td>Medium 30% soft sites</td>
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</table>
Employment Model Results

<table>
<thead>
<tr>
<th>Scenario</th>
<th>New Jobs, 2015-40</th>
<th>Net New Development, 2015-2040 (Millions of Sq. Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continued Concentration</td>
<td>143,184</td>
<td>71.9</td>
</tr>
<tr>
<td>Reduced Competitiveness</td>
<td>102,410</td>
<td>56.5</td>
</tr>
</tbody>
</table>

Source: Strategic Economics, 2015.
Results by Subarea

Projected Net New Jobs by Subarea, 2015-2040

- **Financial District**: Continued Concentration
- **Mission Bay/Showplace Square**: Reduced Competitiveness
- **Civic Center/Mid-Market/Van Ness**: Continued Concentration
- **SOMA**: Reduced Competitiveness
Scenario Summary

- Scenarios project 100,000-140,000 new jobs in the Core
  - Greater office densities over time
  - Redevelopment of existing buildings
- Financial District captures most new jobs but accommodates least amount of new development
- Financial District reaches full capacity by 2040 in both scenarios
- Civic Center reaches capacity by 2040 in Scenario 1 (Continued Concentration)
Next Steps for Market Assessment

- Working with SF Planning to refine assessment
- Developing Oakland assessment to complement SF analysis
Transbay Corridor Capacity and Demand
2014 Auto Trips (to core)

<table>
<thead>
<tr>
<th></th>
<th>Non-HOV/Carpool</th>
<th>HOV/Carpool</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>% of auto trips</td>
<td>#</td>
</tr>
<tr>
<td>Vehicles</td>
<td>3,978</td>
<td>66%</td>
<td>2,004</td>
</tr>
<tr>
<td>Person Trips</td>
<td>4,575</td>
<td>46%</td>
<td>5,291</td>
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</table>

- Without a change in mode split or vehicle occupancy, under current conditions **there is no capacity to add new trips** on the Bay Bridge.
# Current Conditions: Transbay Transit Trips (Westbound AM Peak Hour)

## 2014 Transit Trips

<table>
<thead>
<tr>
<th></th>
<th>BART</th>
<th>AC Transit</th>
<th>WETA</th>
<th>Other Bus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>% of transit trips</td>
<td>#</td>
<td>% of transit trips</td>
<td>#</td>
</tr>
<tr>
<td>Person Trips</td>
<td>23,664</td>
<td>86%</td>
<td>2,546</td>
<td>9%</td>
<td>1,027</td>
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</table>

- Peak-hour transit demand grew by 35% from 2010-2014.
- There is **limited additional transit capacity** under current conditions—operating at 96% of overall capacity standard.
- **NOTE:** Modes and routes will be evaluated individually to optimize capacity increases.
Study Screenlines

[Map showing the study area with highlighted screenlines: TRANSBAY CORRIDOR SCREENLINE and SF METRO CORRIDOR SCREENLINE.]
Transbay Corridor Historical Growth: All Daily Travel

17.3% Total
0.9% Annual
Transbay Corridor Historical Growth: Daily Travel By Mode

WETA line not included due to insufficient data
2013 WETA ridership: ~2,300 daily westbound trips
Transbay Corridor Future Growth

Passenger Trips, AM Peak Hour

- Demand 63,000
- 2.35% T2035
- Demand 53,000
- 1.35% Core Capacity Market Assessment
- Demand 44,000
- 0.6% Plan Bay Area

Existing Conditions: Transit Person Trip Capacity and Bay Bridge Person Trips (2015)

2005 2010 2015 2020 2025 2030 2035 2040

0 10,000 20,000 30,000 40,000 50,000 60,000
Transbay Corridor Future Growth

- 2015 Corridor Demand: 38,000
- 4.3% Actual System Growth (2010-2015)

Existing Conditions:
- Transit Person Trip Capacity (2015)
- Bay Bridge Person Trips (2015)
Transbay Corridor Future Growth

- **Future System Capacity**: 51,000
- **+33%** increase

**2015 Corridor Demand**: 38,000

**4.3% Actual System Growth** (2010-2015)

**Planned Transit Capacity**

**Existing Conditions**:
- Transit Person Trip Capacity (2015)
- Bay Bridge Person Trips (2015)
Transbay Corridor Future Growth

**AC Transit:** Fleet replacement & expansion; Richmond yard replacement/rehabilitation

**BART:** Train control modernization; traction power upgrades; fleet replacement & expansion; Hayward Maint. Facility Ph 1 & 2

**WETA:** New service (Richmond, Berkeley, Treasure Island); more vessels

**Other:** Transbay Transit Center (to accommodate more buses)

Additional Capacity: +33%

- Future System Capacity 51,000
- 2015 Corridor Demand 38,000
- 4.3% Actual System Growth (2010-2015)

Existing Conditions: Bay Bridge Person Trips (2015)

[Graph showing passenger trips, AM peak hour with projected growth and additional capacity]
Transbay Corridor Future Growth

- **2015 Corridor Demand:** 38,000
- **Future System Capacity:** 51,000
- **Range of Future Demand:** 44,000 - 63,000
- **4.3% Actual System Growth (2010-2015)**
- **Existing Conditions:**
  - Transit Person Trip Capacity (2015)
  - Bay Bridge Person Trips (2015)

**Timeline:**
- **Existing**
- **Short-Term**
- **Mid-Term**
- **Long-Term**
# Transbay Corridor Future Growth

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Passenger Trip Capacity (Peak Hour)</th>
<th>Year When Demand Exceeds Capacity (Estimate)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>T2035 Growth Rate (2.35%/yr)</td>
</tr>
<tr>
<td>2015 Capacity</td>
<td>38,000</td>
<td>2015</td>
</tr>
<tr>
<td>2025 Capacity</td>
<td>51,000</td>
<td>2029</td>
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San Francisco Metro Corridor Capacity and Demand
SF Metro Capacity and Demand Analysis (In Progress)

- Assess trips to the Core from within San Francisco and the peninsula
- General methodology:
  - Divide city into sub-areas
  - Assign routes to sub-areas
  - Assess current and planned capacity and demand by sub-area
Second Transbay Crossing Landing Findings
Goals for Second Crossing Initial Engineering

- High level review of constraints and opportunities of plausible tunnel/immersed tube alignments
- Identifying “fatal flaws” and constraints associated with bay crossing landing corridors
- Review of:
  - Mined tunnels and immersed tube configurations
  - Technology and ROM costs
  - Qualitative risk assessment of permitting issues
- Reference for planning decisions going forward
Initial Engineering Methodology: Criteria

- Qualitative landing review
- Shoreline and adjacent constraints
  - Rail Geometry Constraints
  - Landing/Station Depth
  - ROW Width
  - Transition Structure/Staging Suitability
- Geotechnical Conditions
- Constructability Risks
- Major Utility Relocations/Interferences
- Environmental Risks
- Construction Impacts
Promising Landings

- San Francisco SF-3
- San Francisco SF-5
- San Francisco SF-8
- San Francisco SF-10
- Oakland OAK-2
- Alameda ALA-B
- Alameda ALA-C
Potential Corridors

- Mission Street to Oakland Outer or Middle Harbor
- Pier 30–32 to Alameda NAS
- Central Mission Bay to Alameda NAS
Package Development
Package Development Process

1. Create Themes
   - Pre-define themes for up to three packages

2. Package Workshops
   - Multiple workshops to develop, refine packages of projects

3. Deliver Packages
   - Deliver three refined packages to TAC, Executive Team
Next Steps
Upcoming Tasks

Oakland Market Assessment

Tasks 5 & 6: Preliminary Concepts and Service Package Development
- Screen candidate projects
- Create project packages

Tasks 7 & 8: Service Package Evaluation

Tasks 9: Implementation and Funding
Stakeholder Engagement

CCTS engaging with various stakeholders across the community:

- Advocacy organizations: Summer/Fall 2015 (ongoing)
- PMT (monthly)
- TAC: October 2015
- ET: December 2015
- Public: March-April 2016 (coincide with Plan Bay Area outreach)