



METROPOLITAN
TRANSPORTATION
COMMISSION

Agenda Item 3
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Regional Advisory Working Group

DATE: June 1, 2016

FR: Matt Maloney

RE: Core Capacity Transit Study

Background

The Core Capacity Transit Study (CCTS) is an ongoing, multi-agency effort to evaluate and prioritize short-, medium-, and long-term transit investments and strategies to address existing and forecasted capacity constraints serving the San Francisco central business district, or Core. The investment and policy priorities of the study will be advanced for further consideration in Plan Bay Area 2040. MTC is the lead agency on the study, working in close partnership with Alameda-Contra Costa Transit District (AC Transit), San Francisco Bay Area Rapid Transit District (BART), Caltrain, San Francisco County Transportation Authority, San Francisco Municipal Transportation Agency, and the San Francisco Bay Area Water Emergency Transportation Authority (WETA).

The CCTS Study Area includes two primary transit corridors: the Transbay Corridor and the San Francisco Metro Corridor. Today, staff will focus on CCTS progress in analyzing existing and future conditions for the Transbay Corridor.

Transbay Corridor Existing and Future Conditions

Over the past five years, travel through the Transbay Corridor has experienced significant growth, placing unprecedented demand on the transit network. Between 2010 and 2015, trips on the three main transit providers, AC Transit, BART, and WETA, have grown 42%, or about 8,600 new peak-hour transit riders. In 2015, transit travel in the corridor's AM peak hour reached 105% of its intended capacity.

Transit operators have a number of projects in development that will help to address capacity shortfalls over the next 5-10 years, and it is critical that these "prerequisite" projects be supported and advanced. The most prominent of them is BART's new train control system, which will enable it to run trains closer together through the Transbay Tube. Effective Bay Bridge management is also key to managing capacity, since without significant changes in bridge mode share or vehicle occupancy, nearly all future growth will need to be met by transit.

Today, passengers are experiencing crowding, diminished reliability, and limited travel flexibility in the corridor. The transportation system struggles to withstand service disruptions, both man-made and natural. Even with the implementation of the set of prerequisite projects, demand is significantly likely to outpace capacity in the corridor without additional short,

medium, and long term transit investments. To maintain corridor transportation capacity enough to meet demands in the future, the region must begin planning a coordinated path forward today.

Transbay Short and Medium - Term Packages

The CCTS has identified additional short and medium term transit investments and transportation policies that can address anticipated future growth beyond the capacity increases of the prerequisite projects. These packages include a set of common projects including fleet and service expansions as well as “package-specific” projects including a dynamic bridge toll increase, surface street transit priority, and dedicated lanes providing direct, dedicated access for Transbay buses. The study team is working now to flesh out specific project definitions and service characteristics, and will evaluate these packages with the goal of informing the Plan Bay Area 2040 investment strategy in September.

Long Term Strategies

The study is also working to define a set of long term strategies for 2030 and beyond. Upcoming work will focus on operator perspectives, market assessment findings for San Francisco and Oakland, and local, regional, and state policy considerations. Based on the short and medium term package evaluation, long-term investments could potentially incorporate ideas such as a potential second transit underwater crossing, the impact of emerging technologies such as autonomous vehicles, and other capital or operational improvements for the corridor.

Stakeholder Engagement Process

The study is seeking input from interested groups and individuals throughout the process. The study team has conducted a series of one-on-one meetings with business, environmental, and equity groups. The study will have a display at the Plan Bay Area 2040 workshops in San Francisco and Alameda counties. Starting in December 2016, the study will work to engage community stakeholders and members of the public on long-term strategies. The final report will be complete in March 2017.

Core Capacity Transit Study- Progress Update

CORE CAPACITY TRANSIT STUDY



Regional Advisory Working Group
June 7, 2016

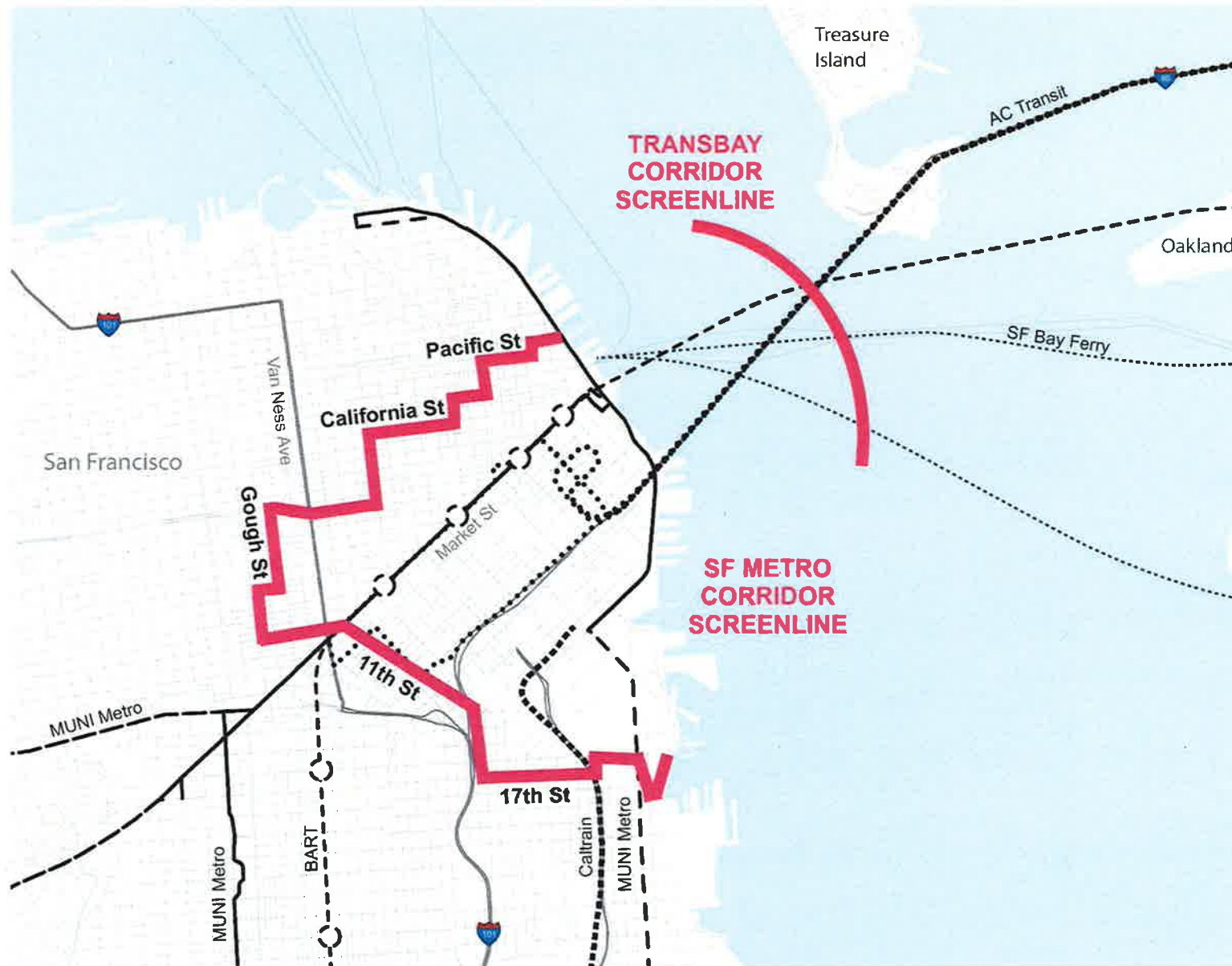
Study Purpose

- Multi-agency effort focused on increasing transit capacity to the San Francisco Core:



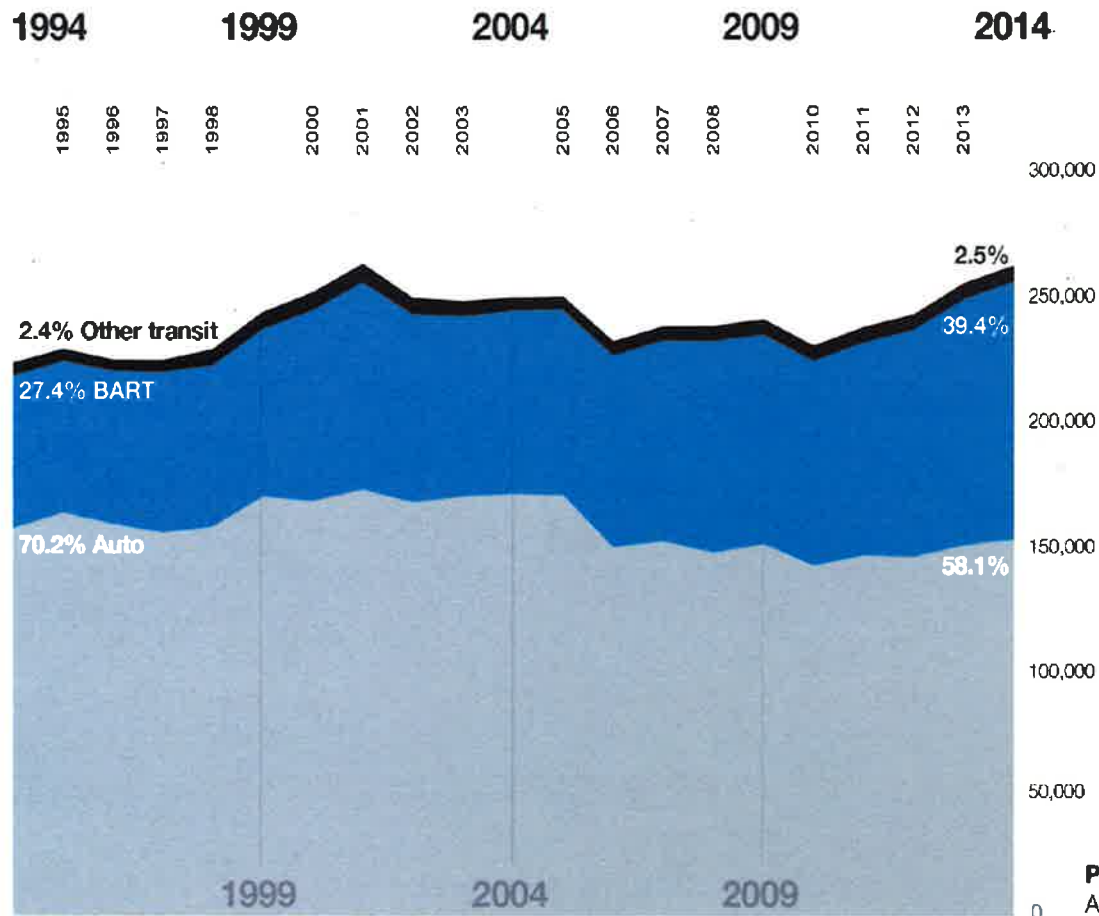
- Develop and recommend projects and strategies by timeframe
 - Short term: to 2020
 - Medium term: 2020-2030
 - Long term: 2030+
- Use short and medium term projects to inform, identify and consider potential long term strategies

Study Area and Corridors

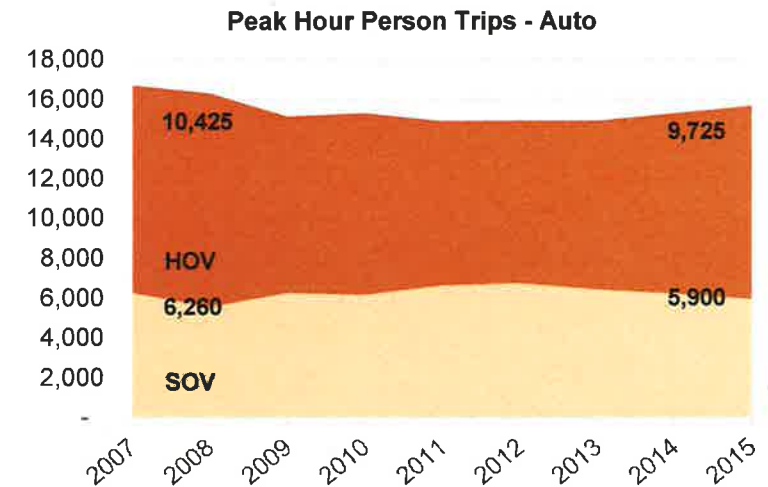


Historical Share of Demand

Daily Travel – Transbay Corridor
Westbound



Person Trips By Auto -
Westbound Peak Hour



Prerequisite Transbay Projects

Tier 1: Fully funded

Tier 2: Not Fully Funded

Tier	Timeframe	Sponsor	Project
1	Short Term	AC Transit	AC Transit Richmond Facility Reopening
1	Short Term	BART	BART Additional Cars – Fleet Transition
1	Short Term	WETA	WETA Maintenance Facilities Alameda, Vallejo
1	Short Term	WETA	WETA Richmond-SF Ferry Service
1	Short Term	WETA	WETA SF Ferry Terminal Expansion
1	Short Term	WETA	WETA SF Fleet Replacement & Expansion
1	Short Term	Caltrans	I-80 Integrated Corridor Mobility
1	Short Term	TJPA	Transbay Terminal (Phase 1)
1	Short Term	TJPA	AC Transit Bus Ramp to Transbay terminal
2	Short Term	AC Transit	AC Transit Fleet Expansion (40 buses)
2	Short Term	AC Transit	AC Transit West County Bus Facility (new)
2	Short Term	BART	BART Hayward Maintenance Complex, Phase 1
2	Medium Term	BART	BART Additional Railcars – Core Capacity
2	Medium Term	BART	BART Metro Program
2	Medium Term	BART	BART Traction Power System
2	Medium Term	BART	BART Train Control System
2	Medium Term	BART	BART Hayward Maintenance Complex, Phase 2

Prerequisite Projects By Operator

Transbay Corridor

Existing Conditions

Westbound to SF Core
AM Peak Hour

10,000 People in Cars

29,000 Transit Trips

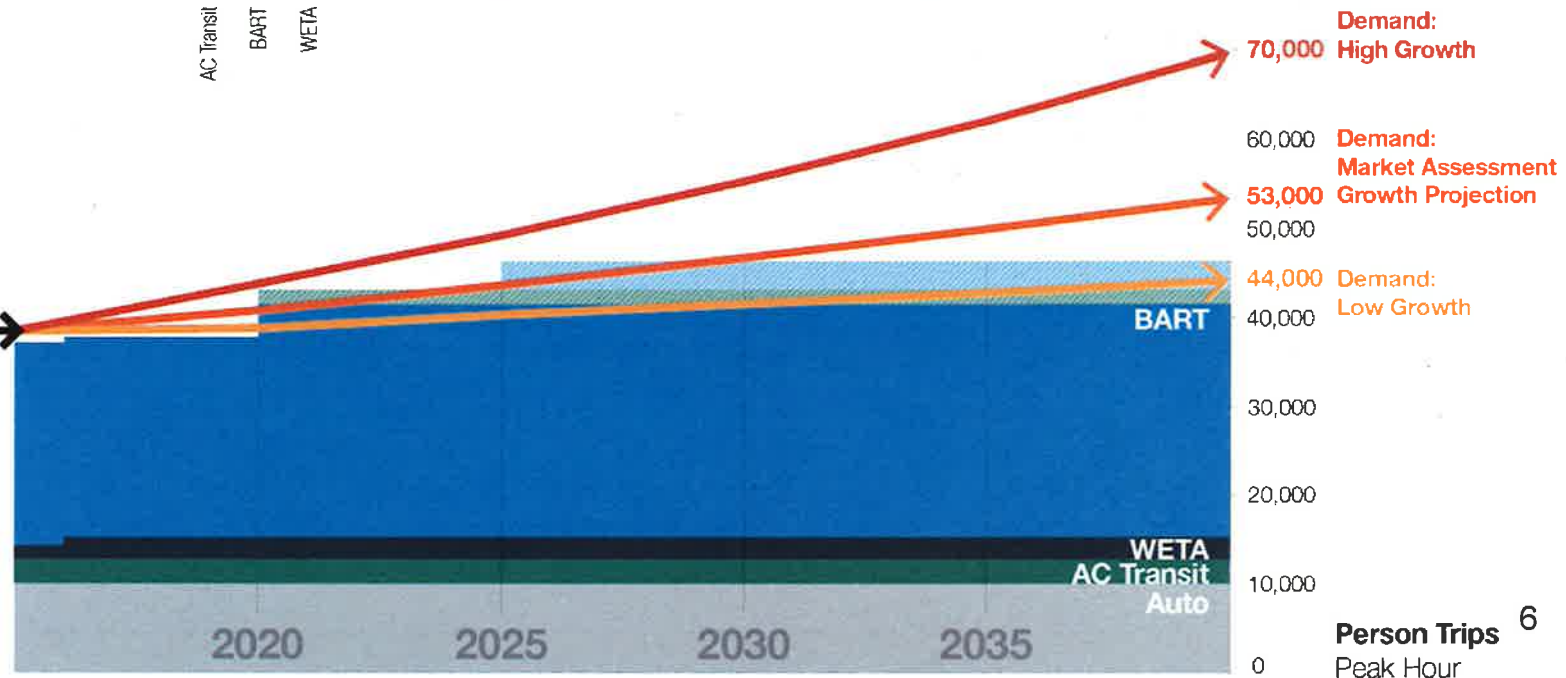
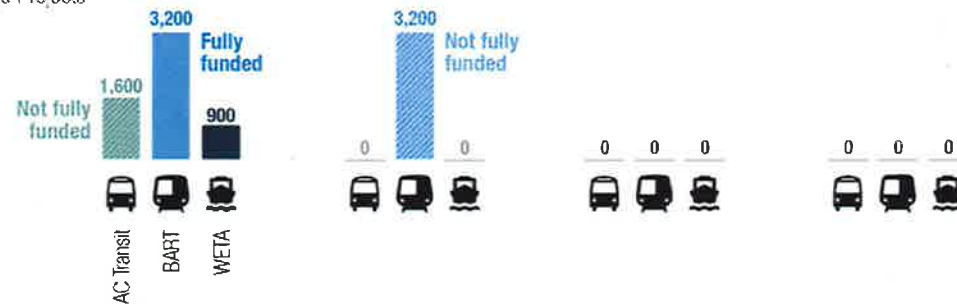
2,700 AC Transit & WestCAT bus

25,000 BART

1,300 WETA ferry

Additional Transit Capacity

Prerequisite/
Planned Projects



Transbay Corridor Demand Forecast

Transbay Corridor

Existing Conditions

Westbound to SF Core
AM Peak Hour

10,000 People in Cars

29,000 Transit Trips

2,700 AC Transit & WestCAT bus

25,000 BART

1,300 WETA ferry

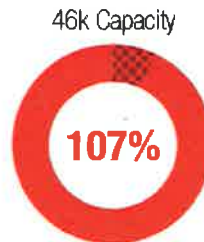
Capacity and High Growth Demand

2020



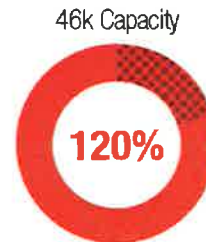
44k Demand

2025



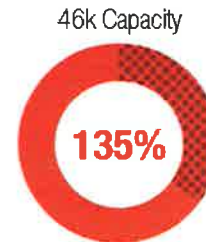
49k Demand

2030



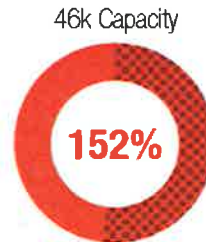
55k Demand

2035



62k Demand

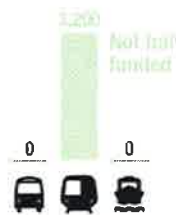
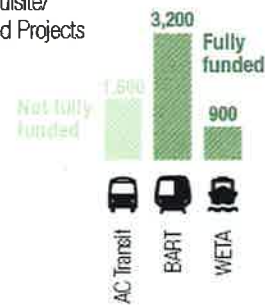
2040



70k Demand

Additional Transit Capacity

Prerequisite/
Planned Projects

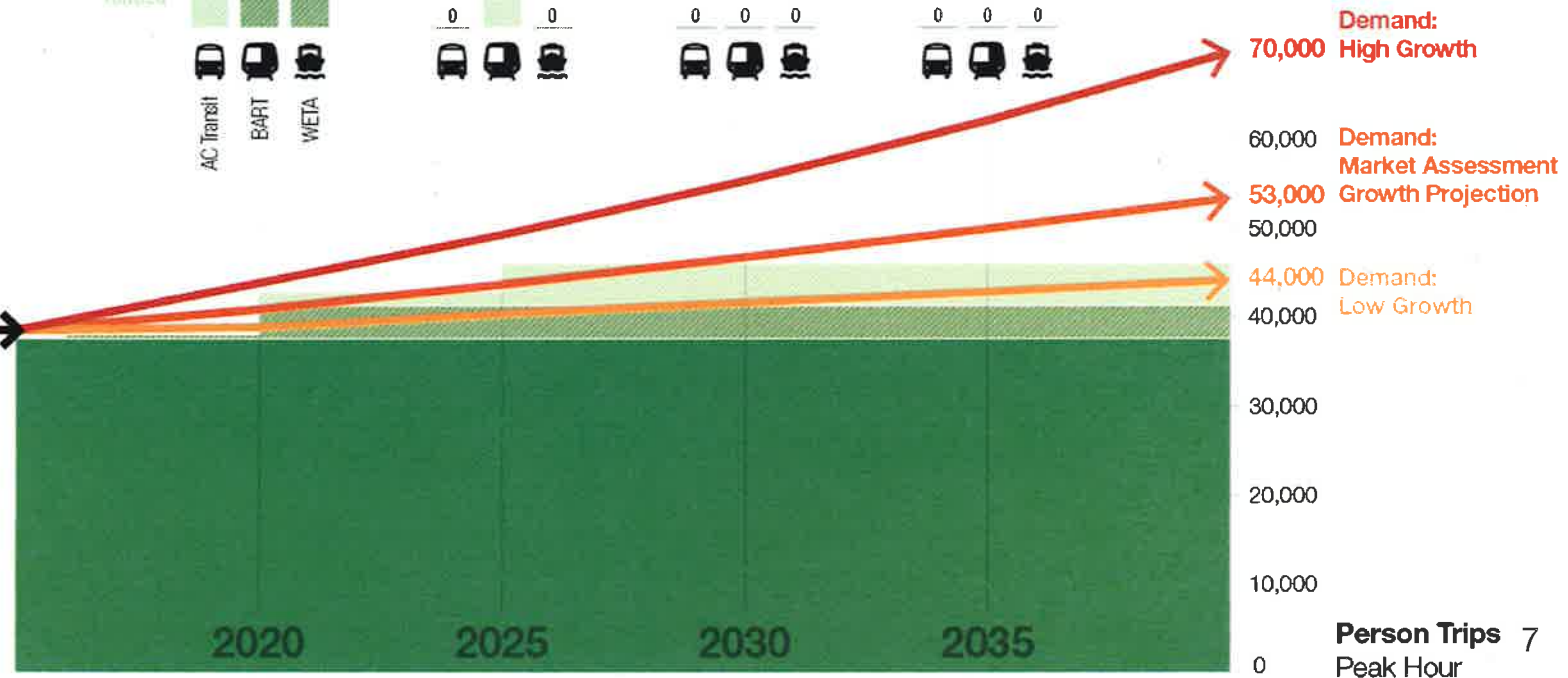


2015

37k Capacity



39k Demand



Transbay Problem Statement - Summary

- The need to fund and implement the Tier 1 and Tier 2 prerequisite projects under all growth scenarios
- An increasing possibility that growth in demand will outpace capacity
- The need for additional investments in projects, programs and policies to address increasingly significant shortfalls in capacity
- Without significant changes in vehicle occupancy, nearly all future growth would need to be met by transit

Transbay Packages (short & medium term)

PREREQUISITE PROJECTS

[PLUS]

**Projects
Common to
Packages
2, 3, 4a, 4b**

- Automated toll collection
- Fare Adjustment Policies
- Additional Transbay bus service and capital investments (50 buses)
- WETA 30-15 Plan
- BART station and system improvements (core-related)

Transbay Packages (short & medium term)

PREREQUISITE PROJECTS					
Package Specific Projects	PROJECTS COMMON TO PACKAGES (2, 3, 4a, 4b)				
	[PLUS]				
	1 Value Pricing	2 Value Pricing	3 Value Pricing, and Infrastructure	4a Value Pricing, infrastructure and Contraflow Lane	4b Value Pricing, infrastructure and HOV Lane
	<ul style="list-style-type: none"> Dynamic auto toll increase 	<ul style="list-style-type: none"> Dynamic auto toll increase 	<ul style="list-style-type: none"> Bus tunnel from Mandela to Bay Bridge Surface street transit priority connecting to I-80, I-580 Builds on Package 2 	<ul style="list-style-type: none"> Contraflow Lane, Westbound on Lower Deck Eastbound PM peak toll Builds on Package 2 and 3 	<ul style="list-style-type: none"> HOV Lane, Westbound with Flow Eastbound PM peak toll Builds on Package 2 and 3

RTP Investment Strategy

Potential “Core Capacity” Investment Strategy in PBA 2040

- Prerequisite Projects
- Placeholder for Short- and Mid-Term Package Projects
- Future Planning for Long-Term “Big Move” Projects

Next Steps

- Identify short- and mid-term projects
- Identify list of “big moves”
- Develop funding request for high-priority CCTS projects
- Fiscally constrain CCTS projects in a PBA40 investment package

MTC adopts the preferred RTP Investment Strategy in **September 2016**

MTC adopts Plan Bay Area 2040 in **June 2017**

Long Term Strategies – Study Activities

- Use short and medium term projects to inform, identify and consider potential **long term strategies**. Upcoming work will describe:
 - Operator perspectives and study assumptions
 - SF and Oakland market assessment findings & relationship to long term themes
 - Local, regional, and state policy considerations
 - Possibility of a second transit crossing
 - Impact of transportation trends, including impact of emerging technologies such as autonomous vehicles
- Conduct public outreach
 - Engage community stakeholders and members of the public on long term themes post November 2016

Project Schedule

2016

2017

Apr

May

Jun

Jul

Aug

Sept

Oct

Nov

Dec

Jan

Feb

Mar

PMT meetings / ET meetings / TAC meetings

Task 6 Package Development

Task 6a Short & Medium Term
Package Development

Task 6b Long Term
Alternatives Development

Task 8 Long Term
Alternatives Refinement

Task 7 Package Evaluation

Outreach

Outreach

Task 9 Implementation
Strategy

Task 10 Final Report