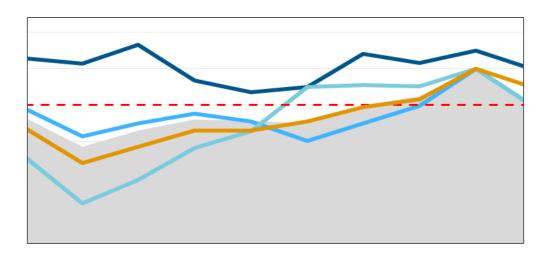


Transit Performance Update

Julie Kirschbaum, Director of Transit SFMTA Board of Directors January 21, 2020

Presentation Overview

- Performance
 Report
- Future Service / Equity Needs







90-Day Action Plan Initiatives

November 1, 2019 to January 31, 2020



Reduce preventable collisions and enhance passenger and operator security

Service Reliability

Improve reliability of transit service to ensure passengers are provided with the service they expect



Reduce delays in the subway and improve the customer experience during delays

Rail Maintenance



Ensure vehicle availability meets demand and that benefits of the new fleet are realized

Employee Generated Improvements



Improve employee engagement by implementing a series of employee generated service enhancement recommendations

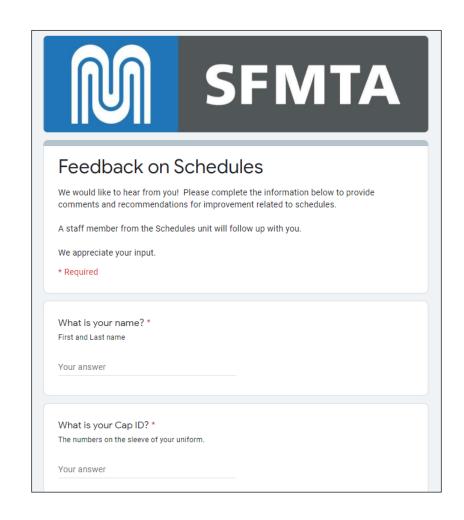
Recent Performance

Action	Target	December
Reduce preventable collisions	55/month or less	52*
Reduce early departures on routes with frequencies greater than 12 min	20% or below	17%
Improve Headway Adherence on frequent routes	90% or above	86%
Increase service delivery	96% or above	97%
Increase service delivery–Equity Routes	96% or above	97%
Reduce number of subway delays exceeding 20 minutes	4 or fewer per month	2
Improve LRV4 Availability	At least 48 cars per day	41

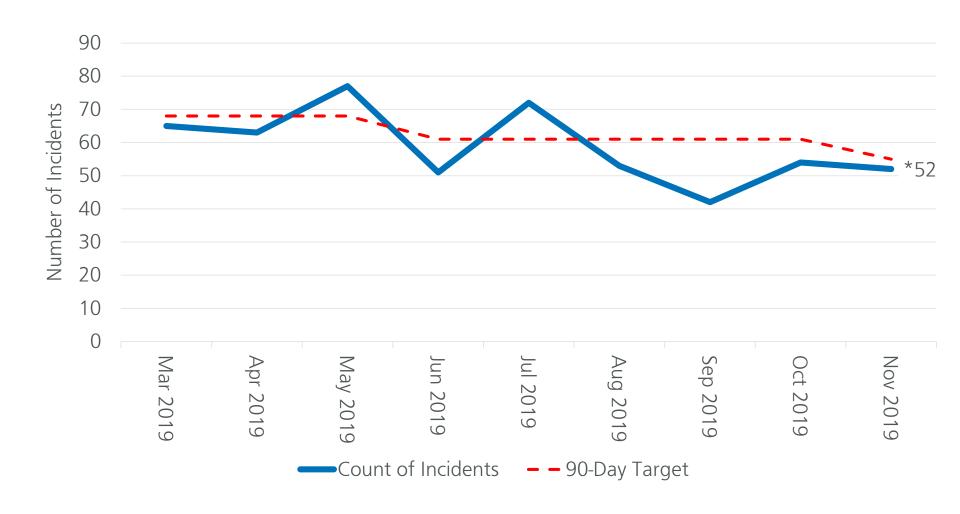
^{*}Note: Preventable collisions are for November. Figures for December still under review.

Improving Operator Feedback

- Implemented new communications tool on the operator portal website
- Developing outreach process to get operator input on best communications practices
- Creating tracking system to close feedback loop for operator requests

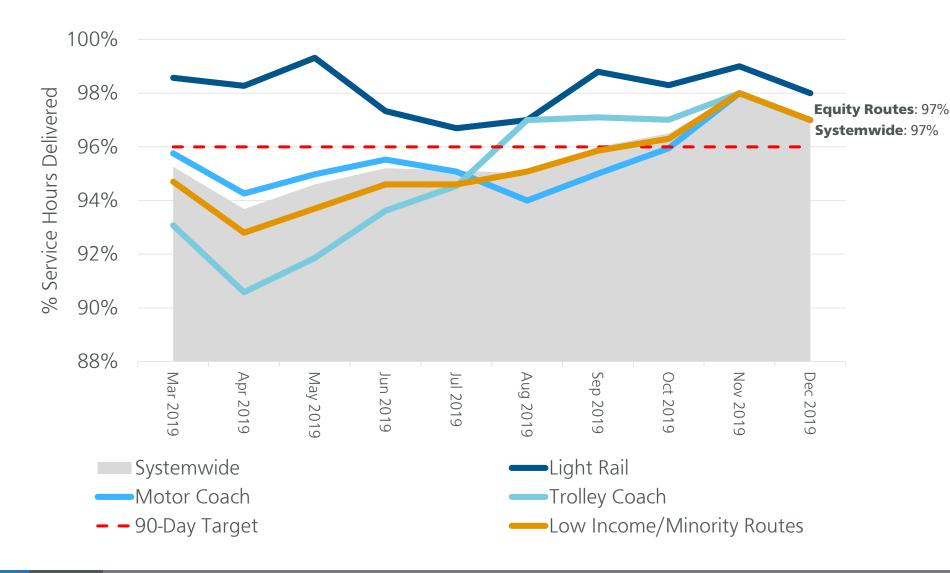


Preventable Collision Target



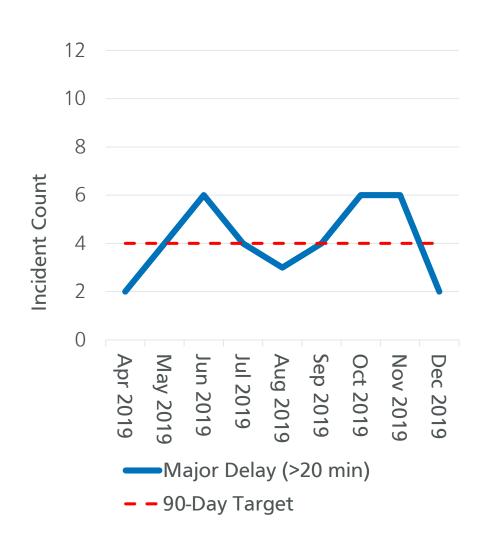
^{*}Note: Preventable collisions are for November. Figures for December still under review.

Service Delivery Equity Routes



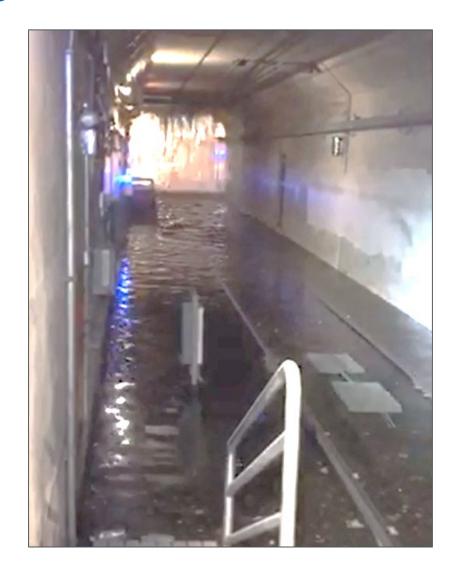
Major Subway Delays

- Nov 27 Breda failure (no brake release) at Embarcadero, 26-min delay
- Dec 1 LRV4 failure
 (propulsion) at Duboce
 Junction, 23-min delay
- Dec 7 Station flooding



Subway Flooding Prevention

- Established "storm watch" protocol – identified and closely monitoring sensitive areas
- Strengthening subway defense of water intrusion – drains, covers, berms, pumps
- Developing remote monitoring strategy
- Planning effort for Subway Flooding Mitigation Plan and adding to Subway CIP
- Work collaboratively with PW and PUC on all program elements



Preparing for Extended Maintenance

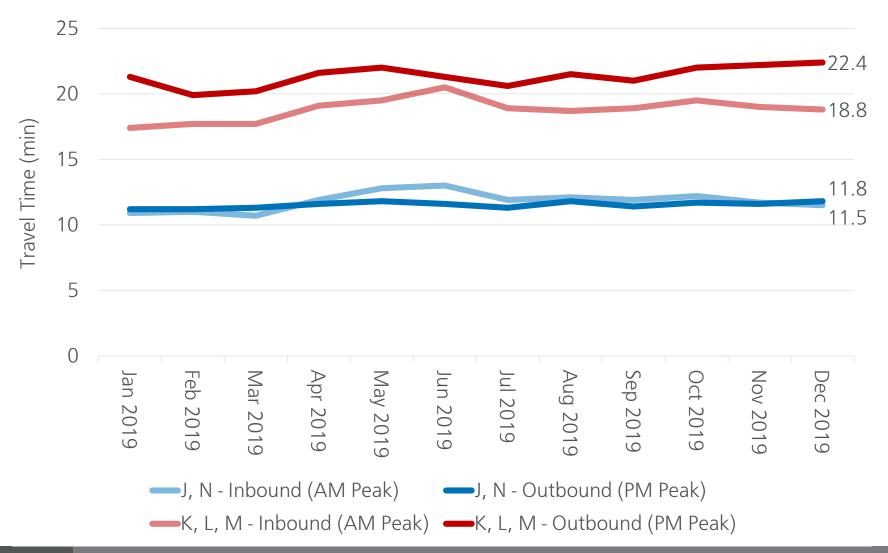
Schedule – Sunday, January 26 at 10pm each night and continue through Feb 2

Work Plan Highlights

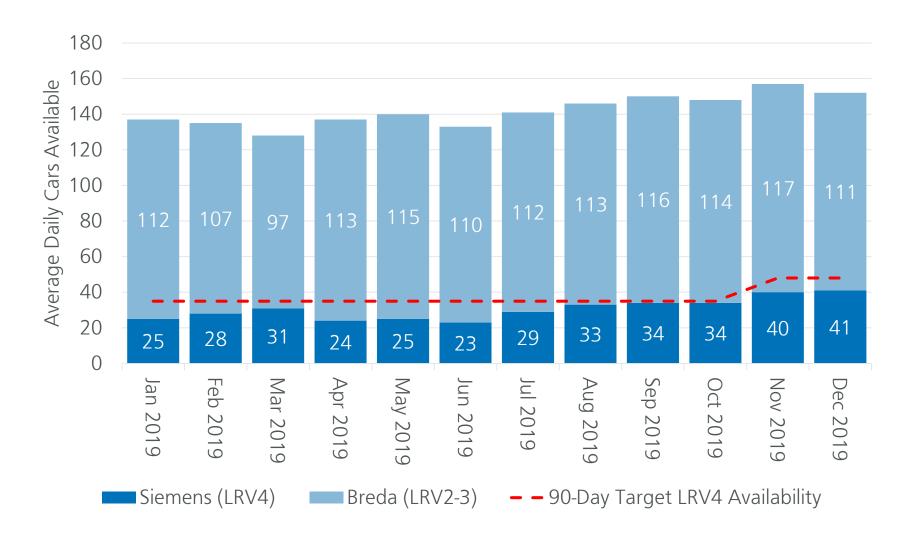
- <u>Track Maintenance</u>. Install new track fastener hardware in pilot segment to evaluate technology
- <u>Signal Maintenance</u>. Perform ATCS loop cable dielectric tests and inspections to identify deficiencies and future upgrades
- Overhead Lines. Replace worn overhead wire using extended runs to eliminate splices; Adjust system supports and tension to deliver optimum performance of pantographs and improve overhead wire life.
- <u>Custodial Services</u>. Deep clean stations
- <u>Station Maintenance</u>. Address overdue or restricted access maintenance and preventative maintenance priorities



Median Subway Travel Time

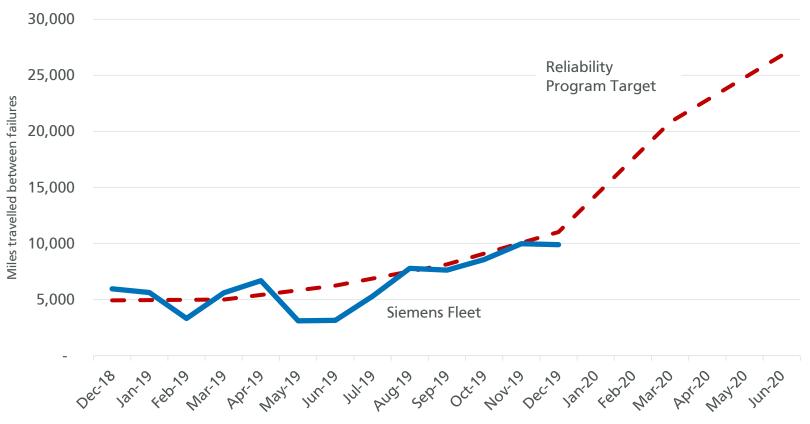


Rail Vehicle Availability



LRV4 Reliability Program

Reliability



November figures are preliminary and subject to change



In Service Breakdowns (Aug 2018 – Nov 2019)

Issue	Count	Status	Comment
Hydraulic Power Unit Failure (brake system)	58	\	All revenue cars modified
Cameras (water intrusion)	14	/	Cameras on all cars modified
Loose Wire Termination	14	/	Known issues fixed
CCTV Failure	11		Plan to address software due this week
Step Extension/ Gap Filler	10	/	Adjustments complete
Door Adjustment	9	·	Demonstration scheduled
Propulsion	8	/	Addressed with latest software
Auxiliary Power Supply (APS) Reliability	7	/	Modification complete
Pantograph	5	V	Inaccurate fault warning - software fix in process
Brakes Control Unit	5		Repeat units quarantined for analysis

Shear Pin Update

- Dec 11: Shear pins failed in service, two-car operations was restricted
- Dec 23: All shear pins replaced, two-car operations resumes without restrictions (pins will continue to be replaced every 90 days)
- Jan 2020: Data gathering
- Feb 2020: Data analysis to determine cause
- Timeline for long term solution pending February analysis
- All costs covered by Siemens under warranty

Next Steps

- Siemens working on long lead items for Breda replacement (e.g., seating)
- Data gathering and analysis for shear pin coupler issue
- Complete additional track brake installation (33 finished)
- Accept remaining 4 cars and fix
 7 with flat wheels
- Initiate Contract Mod 7 for Phase 2 vehicles and return to SFCTA for funding request



Track brake highlighted in purple.
Additional track brakes are being installed on the front and back of the train to reduce flat wheels and improve vehicle availability.



What Drives Service Demand



Equity Gaps

Crowding





Policy Goals

Growth



Congestion



Promoting Transportation Equity

- SFMTA programs focus resources and investments for communities that need them most
- Examples in Transit include:
 - Free and reduced transit fare programs
 - Muni Equity Strategy (linked to budget process)
- On-going work needed to close equity gaps





Common Customer Frustrations

- Long and unpredictable wait times
- Regular subway delays
- Crowding and pass-ups
- Lack of customer information updates
- Equity gaps
- Customer experience (security, civility, etc.)





Frequent Concerns in Equity Neighborhoods

Travel Time and Reliability

- Long and unpredictable wait and travel times due to traffic congestion and construction
- Missed service due to operator shortage, even with Equity lines being prioritized

Crowding and Pass-ups

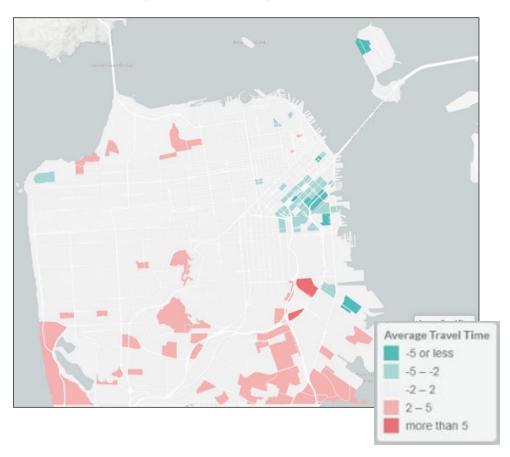
- Lines serving schools are very crowded and lead to pass ups (29, 44, 43 lines)
- Crowding in peak periods is also spilling over to other times (e.g., early afternoon)



Equity Gaps

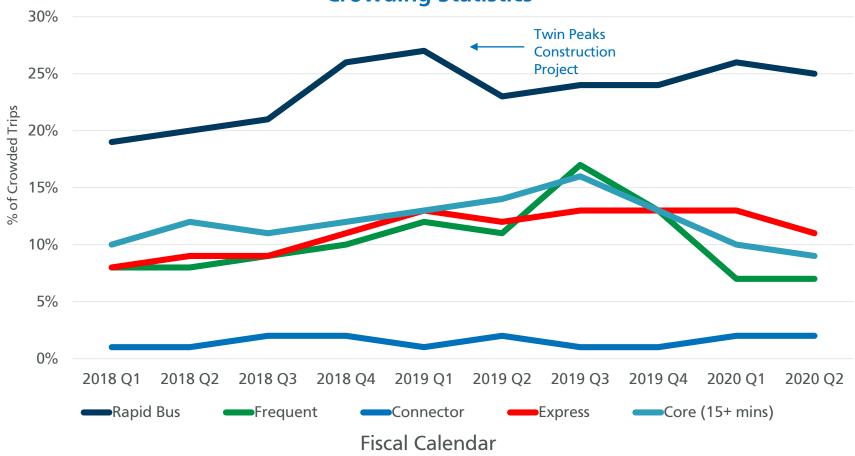
- Connectivity and travel time are key equity concerns today
- Connect SF data analysis predicts gaps will increase over time without intervention
- Combatting congestion with transit priority improvements and/or service increases will be critical to addressing equity gaps

2050 Change in Average Commute Time



Crowding Snapshot

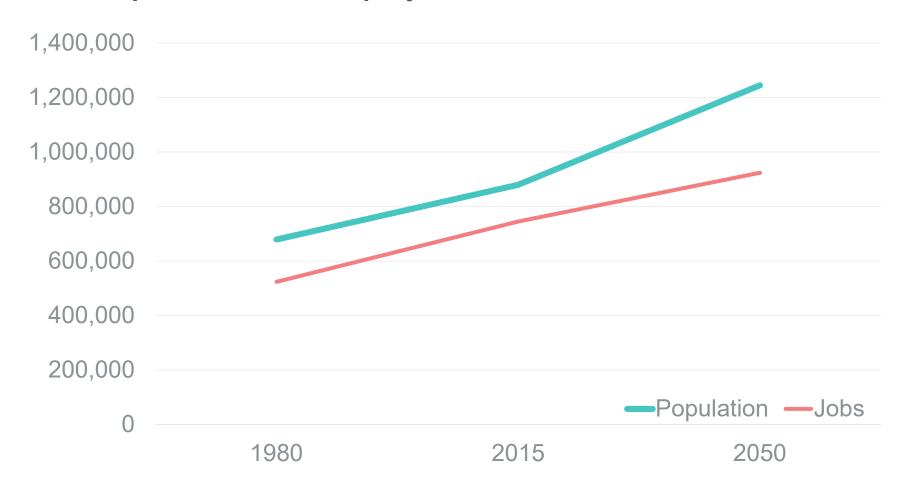




SFMTA

Population Growth

SF Population and Employment 1980 -2050



Increasing Downtown Congestion





Average Auto Speed (mph)

55.0

Note: while average auto speeds have declined by more than 20% across the City, Transit speeds have remained relatively flat since 2013

Service Expansion Priorities

- Closing Service Equity gaps based on metrics
- Addressing crowding on existing high-ridership demand lines and expanding peak hours
- Targeted weekend frequency increases to address crowding
- Preparing for future ridership growth areas
- Protecting investments with transit priority



Draft Service Recommendations

Connectivity/Travel Time

- Central Subway and related rail changes
- Faster trip Bayview to Downtown
- Quicker, more reliable connections and more capacity on 29 Sunset
- 22 Fillmore to Mission Bay; new 55 Dogpatch
- 56 Rutland extension for better connectivity

School service and crowding

 Increase vehicles/ frequency on select lines to reduce crowding

Service Gaps

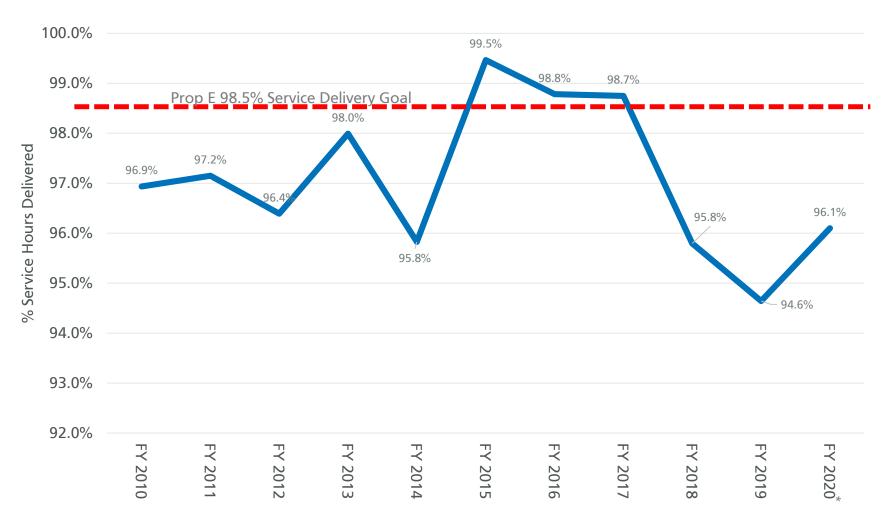
 Placeholder to address service gaps and crowding

Implementation

Target implementation fall 2021



Service Impacted by Operator Shortage

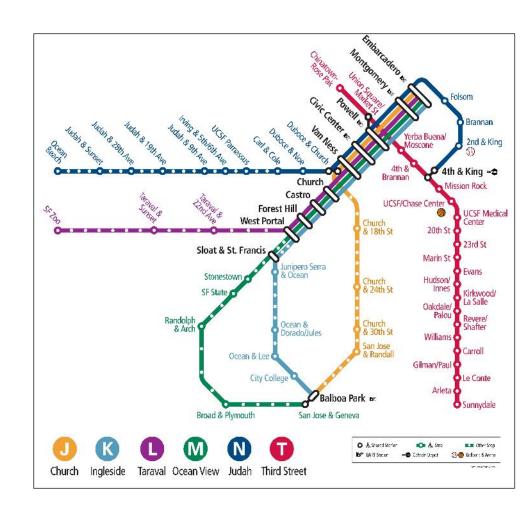


^{*} FY 20 Complete fiscal year not included. Service delivery calculated between 7/1/2019 and 12/20/2019



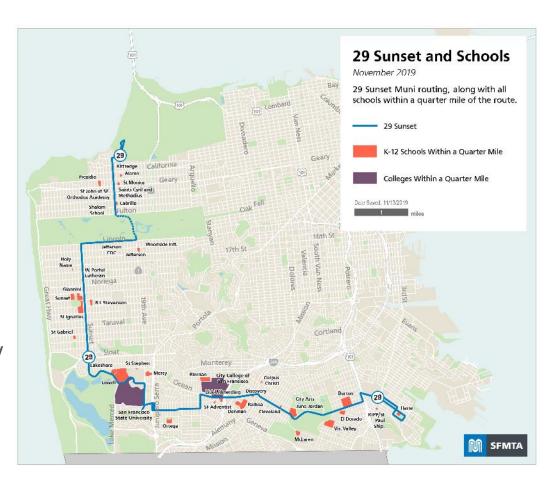
Central Subway

- Original service plan developed a decade ago
- Reviewing it through current service pattern and equity lens
- Looking for opportunities to concurrently improve Muni Metro subway service
- Service plan to be developed/ vetted over next 6-9 months



29 Sunset: Route Characteristics

- Longest bus route in Muni system
- Connects many educational institutions, from elementary schools to college
- Very efficient route –
 consistent loads and
 ridership throughout day
- Customers complain of crowding and slow service



29 Sunset: Next Steps

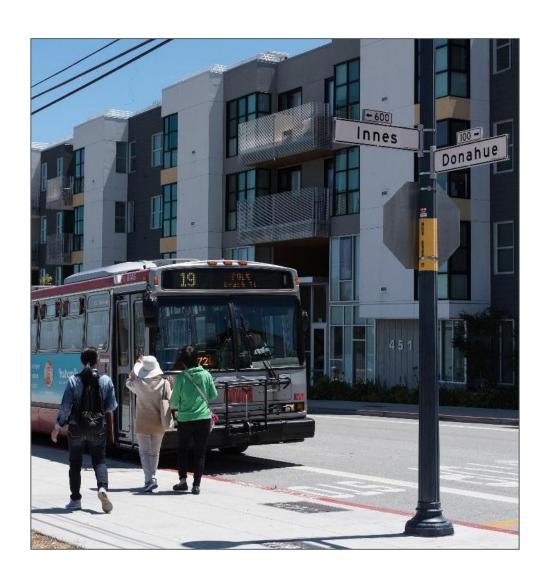
Planning began this fall for route improvements. Next steps include:

- Analyze trip patterns and identify opportunities to deliver reliable service and reduce travel times
- Conduct community outreach to understand and incorporate priorities
- Resources included in budget proposal
- Possible implementation in Fall 2021, contingent on new funding and Operator hiring



Bayview to Downtown Connection

- Bayview Community Based
 Transportation Planning
 stressed the need for T Third
 Improvements and new
 connections
- Transportation Authority initiating 15 Third bus study
- SFMTA planning communitybased design process to restructure southeast neighborhood service in Spring 2020
- Possible implementation in Fall 2021, contingent on new funding and Operator hiring



Examples of Recent Improvements



Improving reliability

- Installed red lanes, better bus stops and smarter traffic signals to improve bus reliability, safety and travel time for Routes 8 and 9/9R
- 27 Bryant reliability improvements

Reducing crowding and gaps

- Increased late night service on T Third
- Implemented bigger buses on 9R
- Added additional service on Route 29

Improving connectivity

- Extended owl to Fisherman's Wharf
- Eliminated switchbacks on T Third
- Extended 28R service to Balboa Park

April 2016

In Progress: Transit as a Vehicle for Equity

- Switch to 60ft buses on all 30 Stockton trips
- Fulton corridor improvements for 5/5R Fulton
- Capacity increase with bigger buses on 7 Haight-Noriega and Muni Forward project on Haight Street
- Continuing to incorporate Equity Metrics and an Equity Lens into regular service changes
- Frequency increases on the 29 Sunset and 44
 O'Shaughnessy when operator availability allows
- Continuing to improve on Muni Service Equity Strategy process for greater impact

