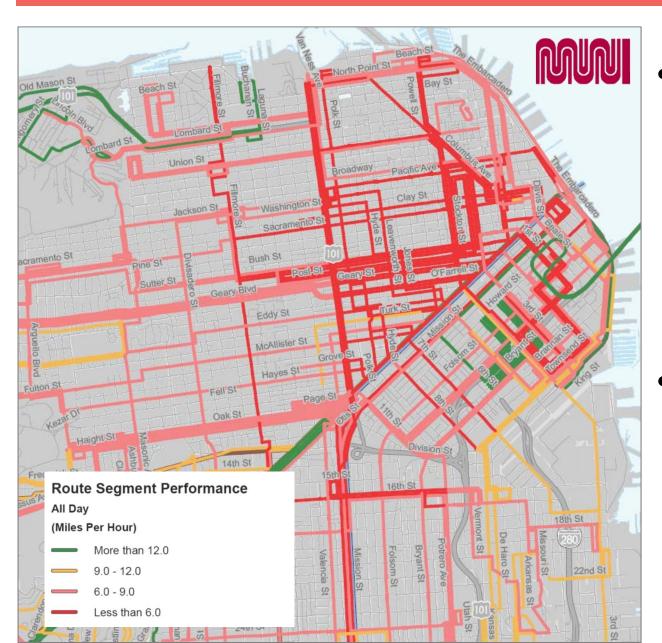




## Implementing the Transit Effectiveness Project 5/5L Pilot

08 | 07 | 2013 SAN FRANCISCO, CALIFORNIA





 Slow speeds and unreliable service shift some customers to driving, which increases congestion

 Existing transit network does not meet SF's evolving employment and housing needs



### Muni's Challenges





#### Systemwide Improvements

- All door boarding
- Vehicle replacement and rehabilitation
- Real-time supervision
- Route performance audits
- Scheduling
   efficiencies

#### Customer Amenities

- Clipper
- New shelters
- NextMuni
- Customer First
  grants

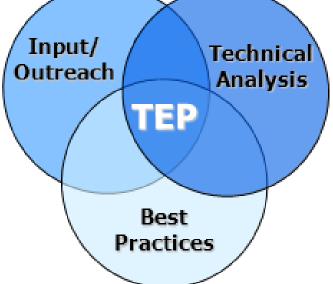
#### TEP Proposals

- Establish Rapid Network
- Route restructuring and increased service on crowded routes
- Travel time reduction proposals on Rapid Network



## **MNI** Transit Effectiveness Project

- First comprehensive review of Muni in a generation, aims to transform Muni service to better meet customer needs
- TEP objectives:
  - Improve service reliability
  - Reduce transit travel time
  - Improve customer experience
  - Deliver more efficient service



• Recommendations based on unprecedented data analysis and extensive community outreach



## **TEP Recommendations**

# Improve Customer Experience and Grow Ridership

- Establish a tiered service network to guide service delivery and capital investments
- Restructure service and increase service hours up to 10 percent
- Reduce travel time on key corridors by up to 20 percent

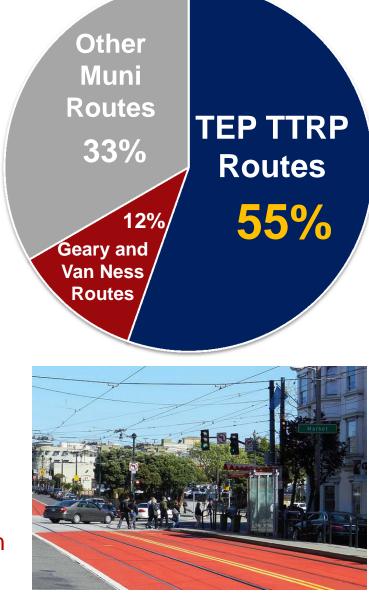


#### **Key TEP Anticipated Outcomes**

The Travel Time improvement proposals for 16 corridors (20 routes) will improve travel time by up to 20% for more than 50% of Muni Riders

Based on current pilots and analysis of existing corridor issues, reliability, safety and crowding would significantly improve along the corridors.

**Church and Duboce Pilot:** Transit experienced a significant improvement on reliability.





## **TEP Service Improvements**

- Increase total transit service up to 10% to better meet existing and near-term demand
- Redesign routes to better match travel patterns
- Modify or discontinuing low ridership routes or segments of routes
- Increase service frequency on busy routes
- Expand limited-stop service
- Decrease service frequency on some routes with low passenger volumes



## Rapid Network TEP Improvements

- Lane modifications
- Traffic signal and stop sign changes
- Transit stop changes
- Parking and turn restrictions
- Pedestrian improvements





## **TEP Pilots: Building on Small Successes**





#### 5L Fulton Limited (planned)



Church Street Red Carpet (on-going)



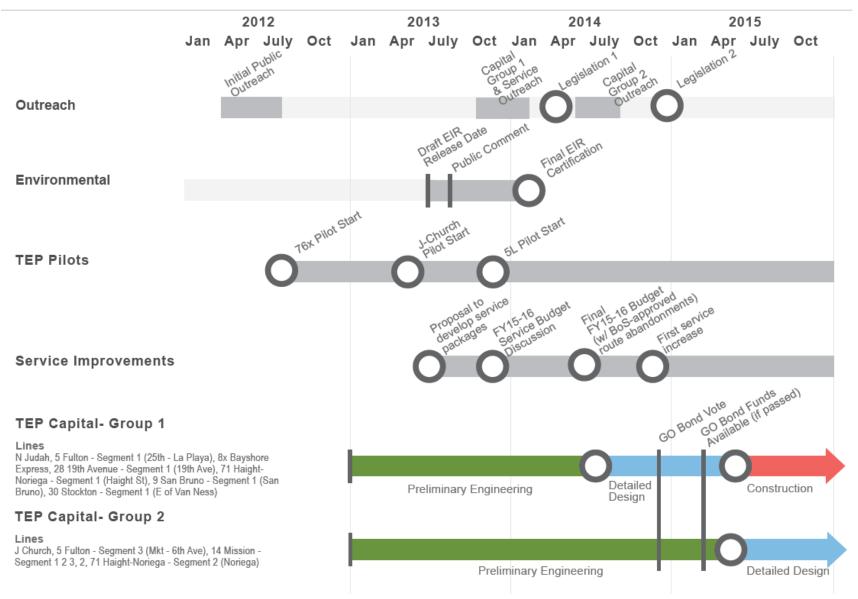


## **TEP CEQA Milestones**

- Initial Study published Jan 23, 2013
  - Discloses potential impacts across 18 environmental review categories
- DEIR Released July 10, 2013 (http://tepeir.sfplanning.org)
  - Reports **impacts** on air quality, noise and transportation (NOT a decision document)
  - No Significant and Unavoidable Impacts were found related to Air Quality and Noise.



#### **Planning & Implementation Timeline**







### **5 Fulton Existing Overview**

- Daily ridership ~ 19,500
- Average speed ~ 9 mph
- Average travel time ~ 50 minutes each way
- 48 stops in each direction









#### **5 Fulton Existing Ridership**









#### **5 Fulton Existing Speed**





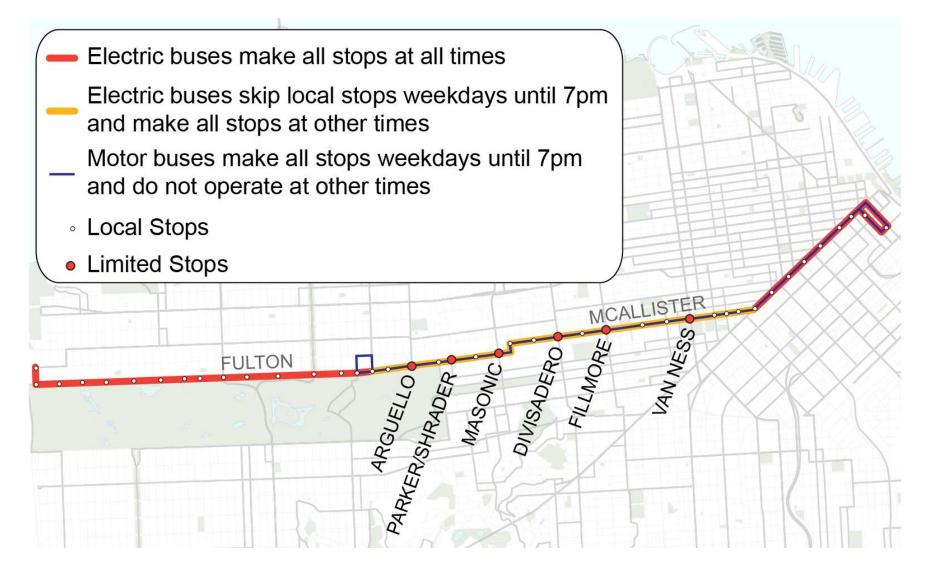


#### 5/5L Pilot Project Overview

- New limited-stop service to reduce travel time
- Increased frequency in the inner part of the route to reduce crowding
- Low-cost capital improvements to further reduce travel time and improve safety



#### 5/5L Pilot Service Proposal





#### 5/5L Pilot Service Increase – Headways

Beach to 6 <sup>th</sup> Avenue		
	Existing	Proposed
AM Peak	5-8 min	6 min
Midday	8 min	10 min
PM Peak	4.5-9 min	7.5 min

6 <sup>th</sup> Avenue to Downtown			
	Existing	Proposed	
AM Peak	4-5 min	3 min	
Midday	8 min	5 min	
PM Peak	4.5 min	4 min	





#### **5/5L Pilot Benefits**

- Reduced crowding east of 6<sup>th</sup> Avenue
- 7% time savings for 5 Local
- 11% time savings for 5L Limited

– 17% savings between 6<sup>th</sup> Avenue and Market Street

- Improved transit and pedestrian safety with longer bus zones
- Improved safety for all modes with road diet





#### 5/5L Pilot Tradeoffs

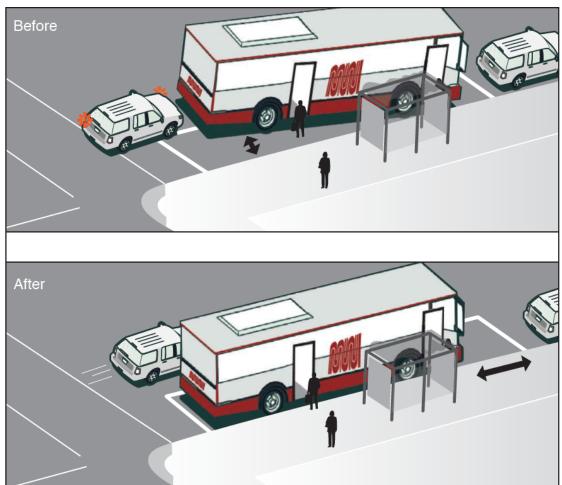
- Customers west of 6<sup>th</sup> Avenue need to transfer to access local stops east of 6<sup>th</sup> Avenue
- ~9% of customers would need to walk to a different bus stop
- Net parking removal ~30 spaces





#### **TOOLKIT - Bus Zone Extensions**

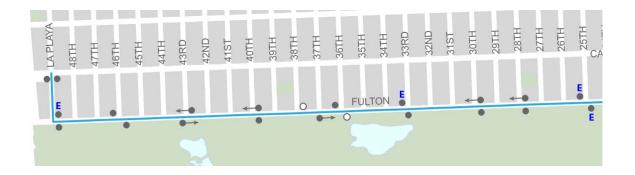
- Faster boarding when buses can pull to curb
- Allows both 5 and 5L to arrive at limited stops at same time
- Allows 5L to pass 5 at local stops

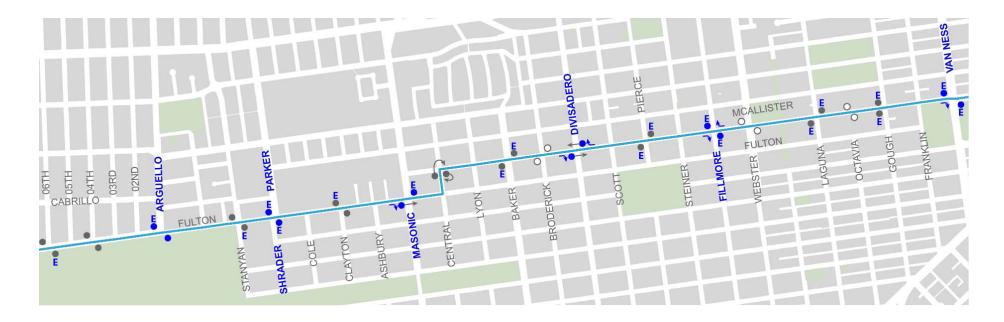






#### **23 Proposed Bus Zone Extensions**

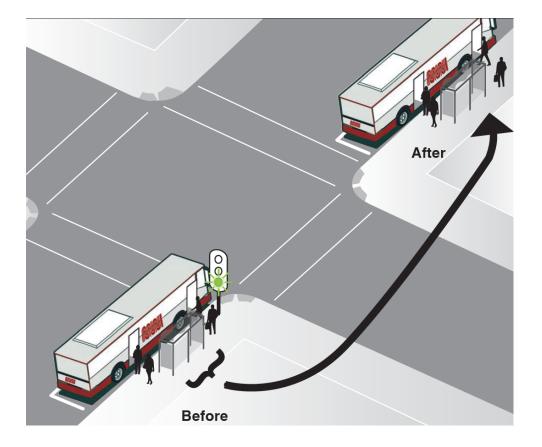






#### **TOOLKIT - Bus Stop Optimizations**

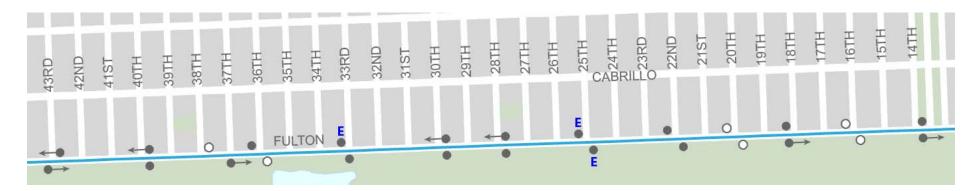
- Reduces the number of times a bus must stop
- Improves pedestrian safety at uncontrolled intersections

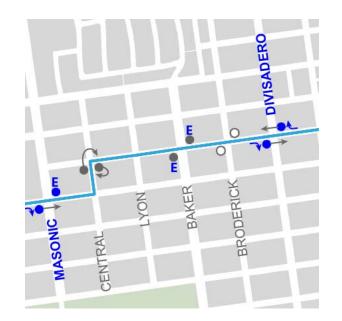






#### **13 Proposed Bus Zone Optimizations**



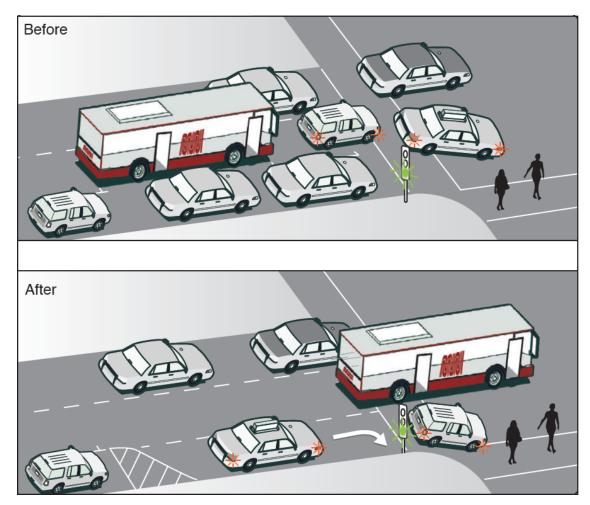






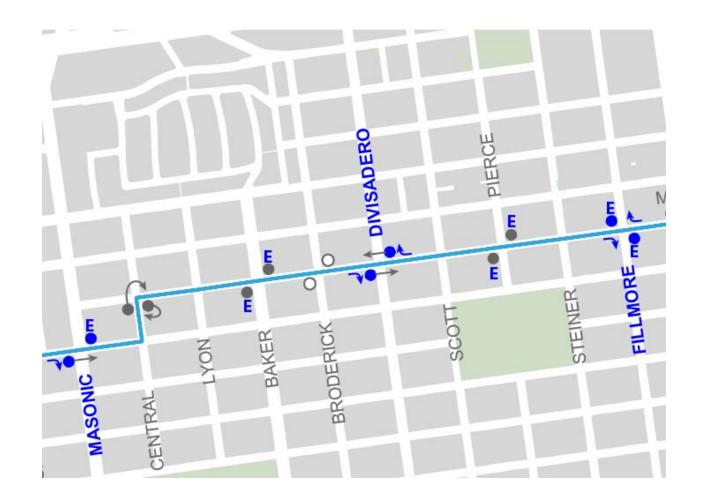
#### **TOOLKIT - Right-Turn Pockets**

• Helps buses bypass congestion





#### **5 Proposed Right-Turn Pockets**





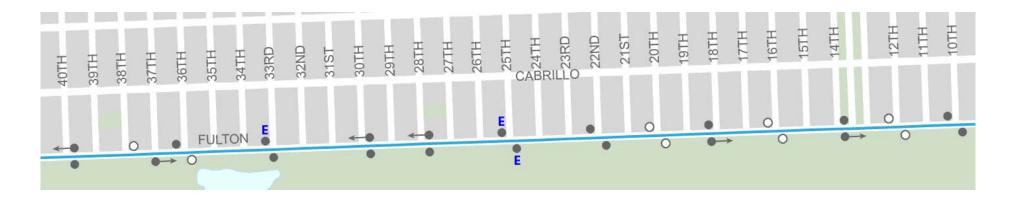
#### **TOOLKIT - Bus Stop Removals**

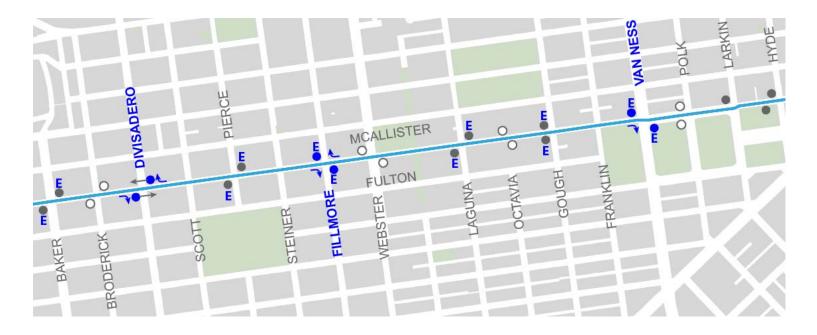
- Proposed removal of 8 stops in each direction
- Stop Spacing between La Playa and Arguello
  - Existing = 2.3 blocks (710')
  - Proposed = 3 blocks (930')
- Stop Spacing between Arguello and Market
  - Existing = 1.5 blocks (720')
  - Proposed = 2 blocks (960')
- ~9% of customers impacted by stop removals





#### **16 Proposed Bus Stop Removals**









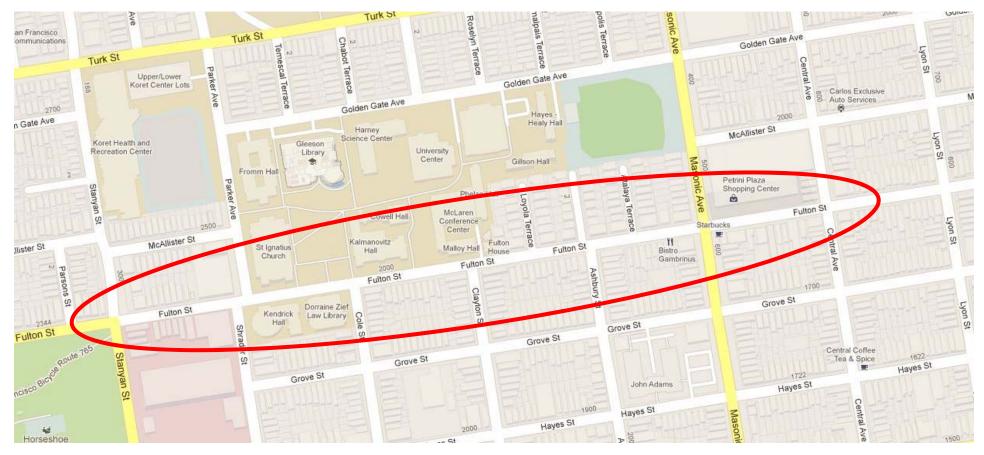
#### **Proposed Tow-Away on Central**





#### **Proposed Fulton Road Diet**

- Redesign roadway between Central and Stanyan
- Provide traffic calming adjacent to USF
- Address collision history for Muni and other modes







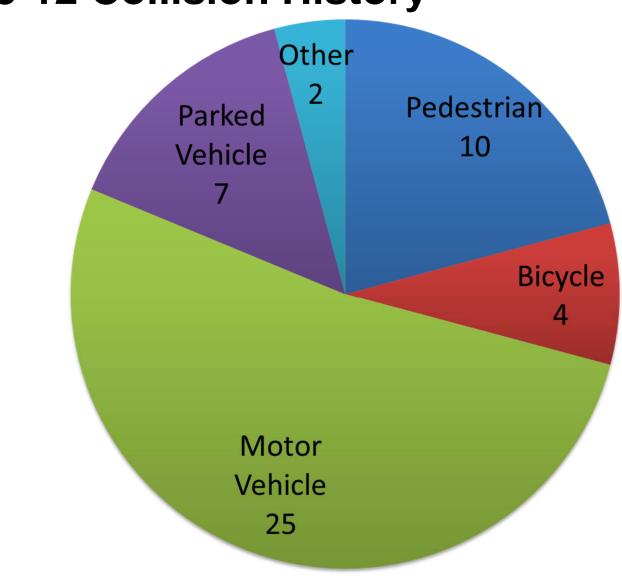
#### **Fulton Road Diet**





#### 2008-12 Collision History

 70% of 51 Muni collisions in past 5 years were sideswipes

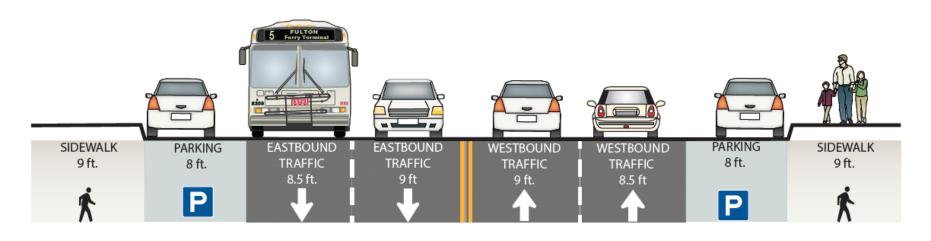




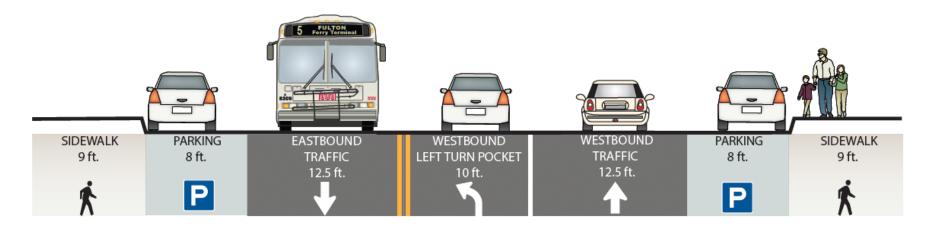


#### **Fulton Road Diet**

Existing, facing west



Proposed, facing west





#### **Proposed Bus Bulbs and Traffic Signals**

- Proposed with 2014 paving project west of 25<sup>th</sup> Avenue
- Bus bulbs proposed at 7 intersections
- Traffic signals proposed at 2 intersections with stop signs



