SFMTA | Municipal Transportation Agency

Transit Effectiveness Project (TEP)

SFMTA Board Update and Proposed Service Development Framework

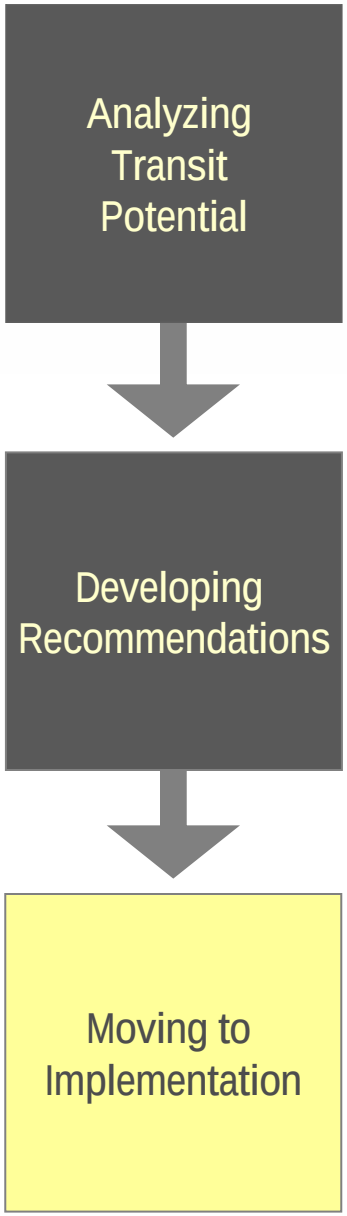
January 29 | 2008 | SAN FRANCISCO, CALIFORNIA

TEP Project Overview

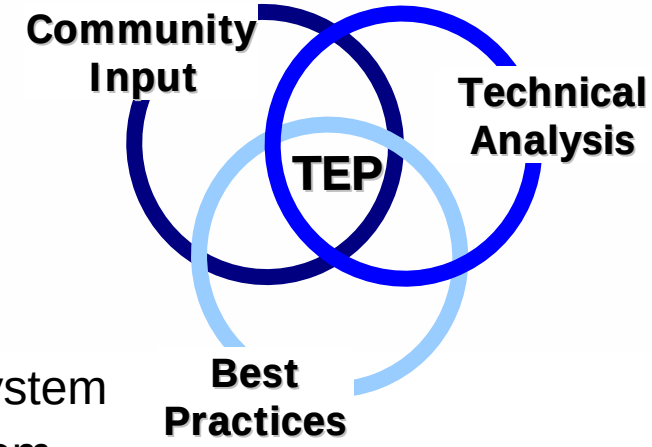
- First comprehensive study in over 25 years
- SFMTA & Controller's Office partnership
- Addressing issues of performance, operating costs, land use and changing travel patterns

Objectives

- Provide faster, more reliable transit reflective of current travel patterns
- Improve overall performance and promote long-term financial stability
- Develop 5- to 7-year action plan for SFMTA



Process To Date



Community Input

- Getting the word out about the TEP
- Collecting information about key needs in the system
- Confirming where people are traveling to and from
- Giving people an opportunity to vent frustrations

Technical Analysis

- Collecting and analyzing detailed transit route data
- Conducting consumer research of SF residents
- Modeling local and regional travel patterns
- Working with other City departments on future land use changes

Best Practices from Other Cities

- Understanding how SF transit service compares to other large cities
- Identify new and innovative ways to design/deliver transit service

Public Outreach Highlights

Citywide workshops
- 7 to date; 5 more planned for March

Surveys (on-line/hardcopy)
- General riders (3000)
- Seniors and people with disabilities (400)

SFMTA staff outreach (e.g., operator interviews and staff presentations)

Targeted outreach (e.g., youth/ parent forums, presentations to senior groups)

Information Campaign (e.g., multilingual materials, mailings, email announcements, website, advisory committees, briefings)

Your Concerns Are Our PRIORITIES

What we have heard?

Muni needs to be more RELIABLE, QUICKER and FREQUENT

TEP Priorities

RELIABILITY. Focus on reliability improvements before implementing route changes

SPEED. Prioritize small-and large-scale strategies to improve operating speed

SERVICE DESIGN. Develop service network categories and redesign routes to match travel patterns

Rebuild Confidence in the System

Good performance relies on:

- Accurate schedules
- 100% operator availability
- 100% reliable vehicles
- Full supervisor coverage
- Congestion management

Reliability Action Plan

- Brainstorming teams established around key reliability initiatives
- Priorities established for:
  - Staffing
  - Processes & procedures
  - Technology
  - Facilities & infrastructure
  - Training/mentoring
  - Equipment & supplies
- Define and monitor measures of success

Initial Progress in 2007

- Increased vehicle availability
- Decreased missed service
- Reduced vehicle failures in service
- Decreased operator absenteeism

What Have We Learned About Muni Ridership?

Ridership concentrated on rail and major bus corridors

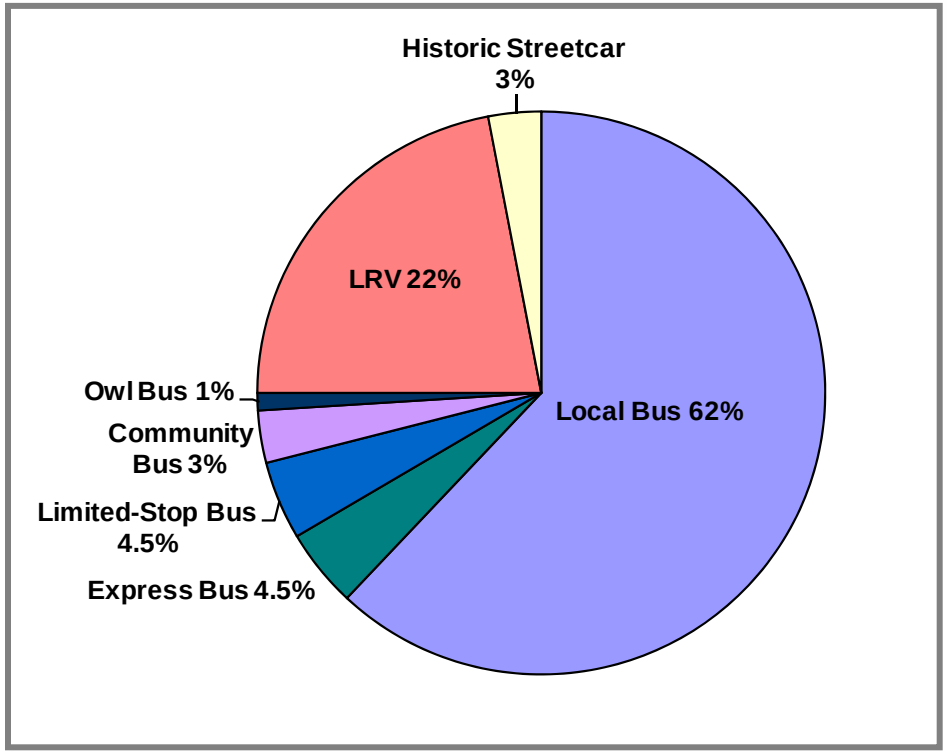
- 25% of boardings on rail
- 50% of boardings on busiest 10 bus corridors

Ridership concentrated in northeast quadrant

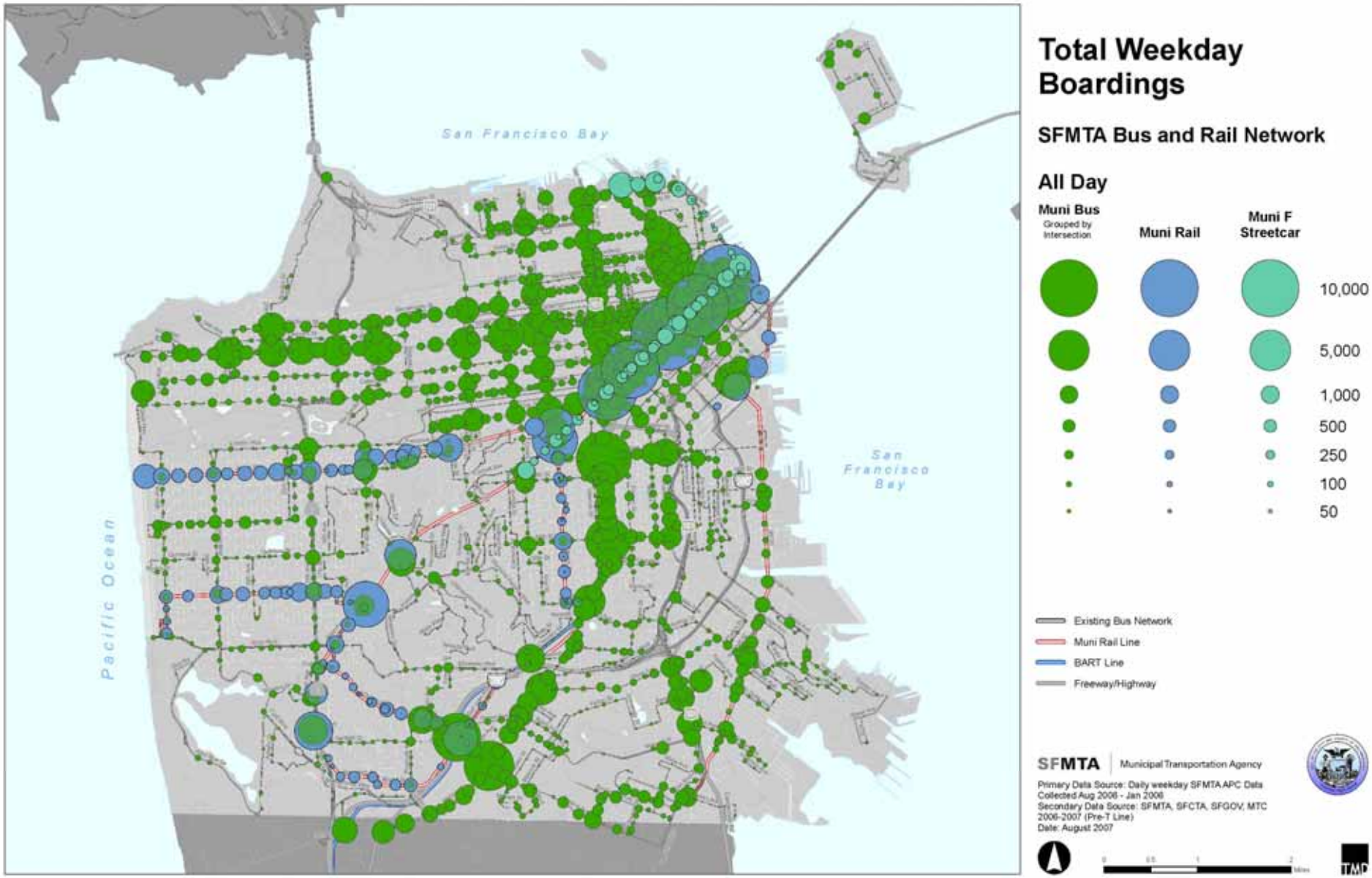
- 60% of boardings east of Divisadero/north of 24th St.

60% of riders do not transfer

- 30% transfer once
- 10% transfer two or more times



Muni system has almost 700,000 boardings per day



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Framework Principles

- To reflect current and projected travel patterns, while maintaining Muni's "1/4-mile coverage" and "one transfer" policies
- To build ridership by retaining existing customers, and attracting new or previous customers
- To improve system efficiency and service effectiveness through speed improvements and delay reductions

Service Network Categories

- **Rapid Service Network**
- **Local Service Network**

Core Muni Network

- **Community Connectors** — *Fills Service Gaps*
- **Special Market Services**
  - Peak Express Service Overlays
  - Regional Connectors

Augment Core Network

Rapid Network

- Backbone bus or rail streets with very high ridership
- Provides both longer distance and local travel
- Rapid transit options: LRV, BRT, BRT Lite
- Efficient movement of people by transit is top priority
  - Allows for spontaneous transit use at all hours
  - Highest level of transit preference, delay is minimized
  - High quality bus/rail stations with full amenities
  - Highest level of pedestrian investment and bicycle access
- **Transit Must Come First on Primary Corridors**

Local Network

- Major bus corridor serving both local and network riders
- Local bus service
- Efficient movement of people by transit is important
  - Allows for spontaneous transit use during most hours
  - Delay is minimized
  - Special investment at high volume bus/rail stops with standard stops at other locations
  - High level of pedestrian investment

Community Connectors

- Local and neighborhood streets
- Provide shorter distance community and neighborhood travel with connections into the transit network
- Transit service options could include:
  - Fixed route service such as small buses or vans
- Design features include:
  - Policy service frequencies except where demand warrants
  - Transit delay reduction investment only in special situations
  - Standard level of bus stop investment

Special Market Services

- Service Augmenting Core Network
- Peak Express Service Overlays
  - Overlays Rapid or Local service
  - Standard or high capacity buses
- Regional Connectors
  - Peak overlays connecting to regional portals
  - Destination based shuttles (PresidiGo, hospital shuttles, etc.)



Category Definitions

Criteria	Demand Intensity	Corridor Type	Network Role	Key Markets
Rapid Network	Very high ridership per route mile	Major arterials	Network backbone; fastest, highest capacity services	High volume all-day multi-purpose; major destinations
Local Network	High to medium ridership per route mile	Secondary arterials	Completes core network	All-day multi-purpose
Community Connector	Medium to low ridership per route mile	Local and neighborhood streets	Community based network connector or local circulation	Neighborhoods
Special Market Services	Varies depending on service	Varies depending on service	Special services augmenting network	Varies depending on service

Transit Priority Guidelines

Criteria	Service Speed Target	Transit Preference	
		Signal Priority	Transit Lanes
Rapid Network	Rapid at least **20%** faster than local **15-20%** improvement over current	Full corridor	Transit lanes wherever feasible; bypass lanes on constrained right-of-way
Local Network	**10-15%** improvement over current	Full corridor	Bypass lanes at key bottlenecks; bus bulbs elsewhere
Community Connector	**5-10%** improvement over current	Key delay points only	No lanes, only bus bulbs at key locations
Special Market Services	Varies depending upon service	Only if part of background corridor	Only if part of background corridor

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Service Level Guidelines

Criteria	Vehicle Type	Service Frequency	Span of Service
Rapid Network	Standard or High Capacity bus; Rail LRV or Streetcar	5-10 min based on demand	Up to 24 Hours
Local Network	Standard or High Capacity Bus; Streetcar	10-15 min based on demand	6am – 1am; extended based on demand
Community Connector	Standard or Small Bus; Van	15-30 min based on demand	6am – 9pm; extended based on demand
Special Market Services	Standard or Small Bus; Van; Taxi	Varies depending upon service	Varies depending upon service

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Passenger Access/Facility Guidelines

Criteria	Stop Spacing[1] (adjusted for grade)	Passenger Facilities	Passenger/ Bicycle Access[2]
Rapid Network	Base service 800-1200 ft Limited-stop service varies based on ridership and key transfers	Full rapid transit stations; select major hubs	Level boarding (possible precision docking); Pedestrian investment full corridor; Bicycle lockers at high volume stations
Local Network	800 to 1200 ft	Enhanced major stops; local stops	Enhanced access around major stops; Pedestrian investment in key areas only
Community Connector	800 to 1200 ft	Local stops	Enhanced access around major stops
Special Market Services	Varies depending upon service	Varies depending upon service	Varies depending upon service

Note 1: The stop spacing guidelines are preliminary and are currently being evaluated.

Note 2: The pedestrian improvements should be guided by the Better Streets Plan currently under development.

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Current Stop Guidelines

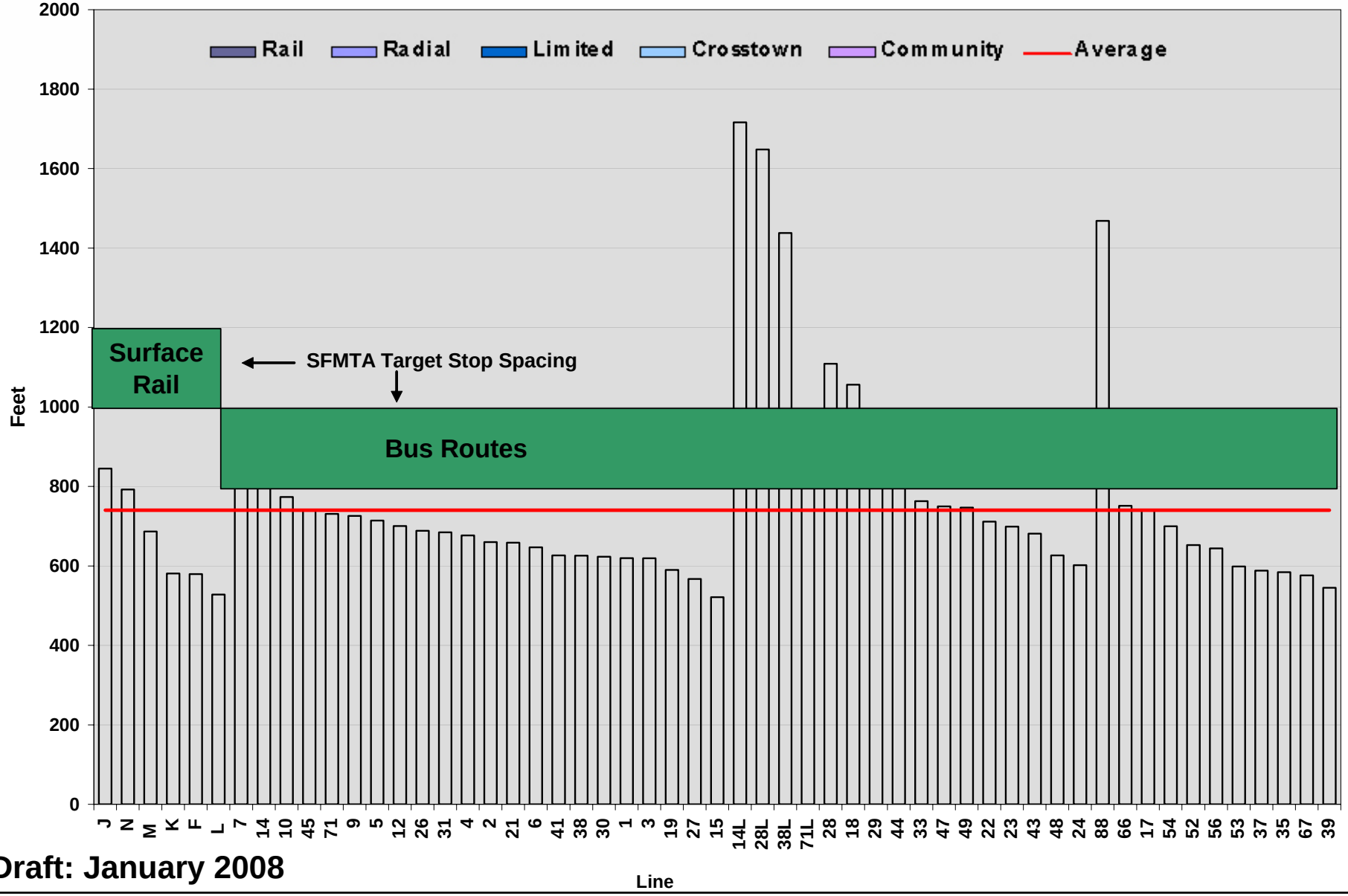
Stop Spacing

- 1000 to 1200 ft for rail
- 800 to 1000 ft for bus
- Closer spacing for steep grades

Challenges of Existing Guidelines

- Existing standard not implemented uniformly
- Block lengths vary by more than 200 ft
- Delay to on-board passengers not considered
- Stop usage not considered

Average Stop Spacing (Existing Routes)



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Stop Consolidation Pros and Cons

Advantages

- Reduced travel time saves resources and generates ridership
  - Boarding time per person reduced
  - Acceleration/deceleration time minimized
  - Less time spent merging back into traffic
- Reduced delay for passengers on bus/train

Disadvantages

- Increased walking distance for some passengers
- Some existing passengers with disabilities may shift or use paratransit more
- May require combining/ moving existing stops
  - Passengers resistant to moving “my stop”
  - Residents/businesses resistant to bus/rail stops in new locations

Consider Additional Performance Metrics

Create performance goals and route report cards to measure progress

Develop improvement programs for both the best and worst performers

Possible metrics:

- Cost Efficiency - Operating cost per revenue hour
- Service Productivity - Passenger boardings per revenue hour
- Cost Effectiveness - Farebox Recovery Ratio

Service Recommendations

Route Modifications:

- Redesigning routes to better match travel patterns
- Modifying or discontinuing poorly performing routes or segments of routes
- Increasing service frequency on busy routes
- Expanding limited-stop service
- Decreasing service frequency on some routes with low passenger volumes

Service Recommendations

Pedestrian Investments:

- Upgrading busy bus stops to “stations”
- Coordinating with Better Streets Plan (BSP) to improve pedestrian conditions on rapid network and at other key locations

Delay Reduction Strategies:

- Transit signal priority
- All-door and level boarding
- Exclusive bus lanes
- Targeted enforcement
- Transit stop consolidation - Likely to focus on rapid network (i.e., busiest bus and light rail routes)

Next Steps (Jan to Apr 2008)

- Develop Muni service recommendations *(underway)*
- Work with policymakers and advocacy community to maximize outreach *(Jan/Feb 2008)*
- Refine *Draft Service Development Framework* based on SFTMA Board feedback *(Feb 2008)*
- Share recommendations with advisory committees, policymakers, and public *(late Feb 2008)*
- Initiate public information drive with final round of citywide workshops *(Mar 2008)*
- Finalize service recommendations based on feedback and develop implementation plan *(Apr 2008)*

How To Participate

- Visit www.sftep.com and sign up for email updates
- Attend community briefings and upcoming public workshops
- E-mail comments and questions to info@sftep.com
- Record comments on voicemail
  - 415.701.4599 for English
  - 415.226.1313 for Spanish & Chinese
  - 415.701.2323 for TTY